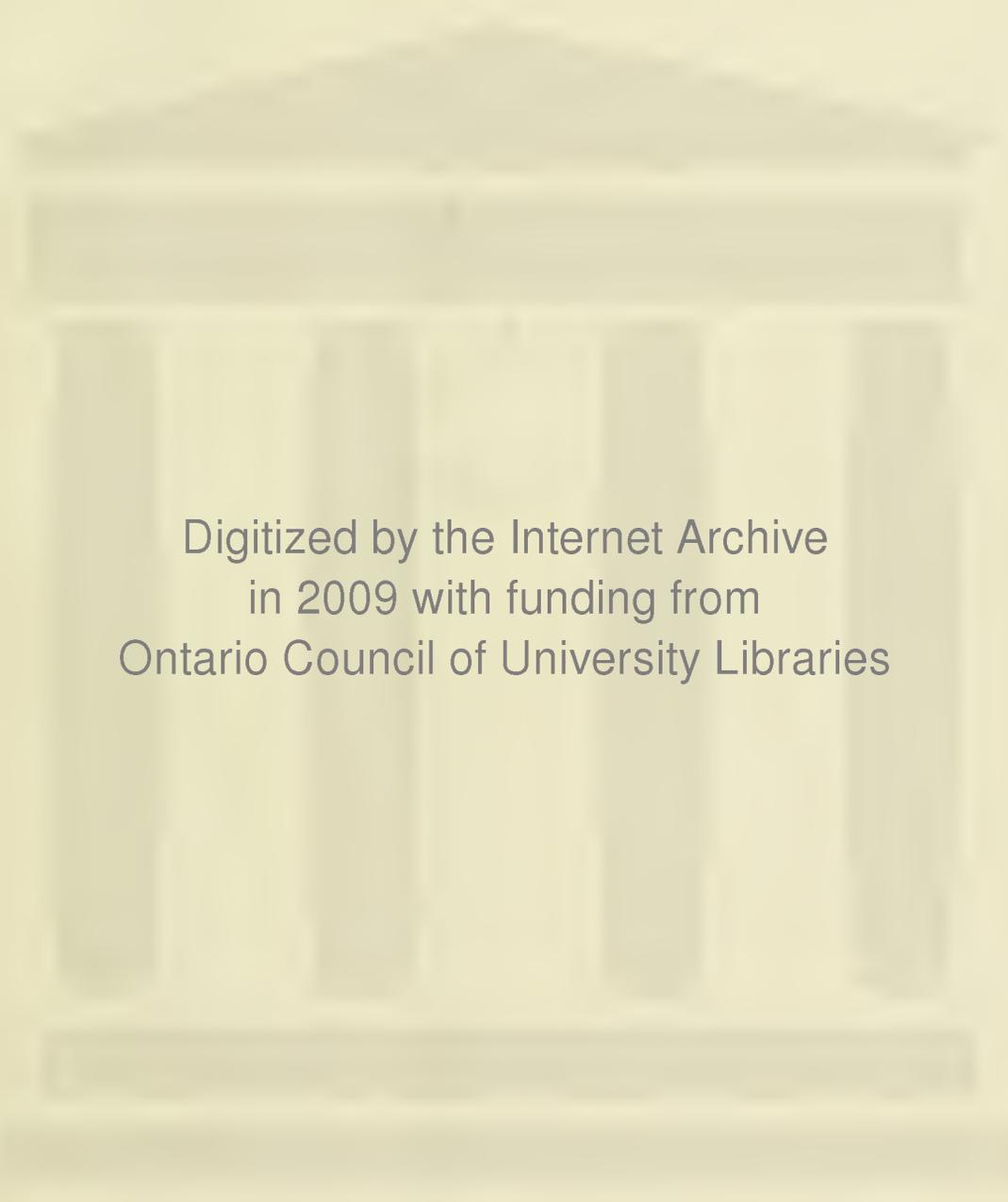


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A LECTURE

TUMOURS OF THE BLADDER.

Delivered at University College Hospital, November 21st, 1887.

By SIR HENRY THOMPSON, M.B., F.R.C.S.,

Consulting Surgeon and Professor of Clinical Surgery to the Hospital, etc.

PART I.

AFTER remarking on the extremely narrow limits which this subject occupied a few years ago, compared with that which it has at the present day, the lecturer continued:—With regard to the varieties of tumour which affect the bladder, they are to be classified as in other parts of the body, according to their histological characters, and also to their tendency to invade surrounding structures and reproduce themselves elsewhere.

Until recently, most vesical tumours were supposed to belong to that class of growths roughly indicated as "cancerous." And besides these, a single species was familiarly recognised under the term "villous," although by some this was also relegated to the preceding class, as "villous cancer," without any warrant, however, for doing so. It was well known to be a bleeding tumour, which sooner or later produced a fatal result by its single irrepresible function of continuous blood-letting. This so-called "villous growth" is, in fact, of all varieties that which most commonly affects the bladder, and it will form the most prominent in the series now presented, but under another name—that of papilloma.

First, however, I shall briefly mention as the least complex form of growth springing from the vesical mucous membrane, the simple mucous polypus, that formation of which the well known nasal polypus is the type. It is very rarely found in the bladder, and has at present been only met with in that of the young child. Nothing more will be said of it here.

Secondly, we come to the growth just referred to as papilloma; it is so called because its distinctive structure is that of an outgrowth from the mucous membrane in the form of papillæ, more or less covered with a well defined epithelium, spheroidal or more commonly cylindrical, each papilla being provided with a considerable blood-vessel. The structure, indeed, is normal in its elements, and the arrangement of these is normal also, inasmuch as the papilla is simply a very slender fold or extension of mucous membrane. A section of the mucous coat from an empty healthy bladder, made immediately after death, will furnish the same appearance in every respect. I show you here an admirable section taken from the monkey in the condition named, which, of course, is not attainable with a human subject. It is not distinguishable from papilloma. To return; when these papillæ are long, slender, and filamentous, floating in the urine, springing together in a group from a circumscribed base or stalk, they are termed "fimbriated papilloma." If the organ containing such a growth is examined in air instead of under water, the fimbriæ collapse, adhere, and form a soft, rounded, scarlet mass, which is quite characteristic. Unting the filaments, especially at the base, there are always some connective tissues interspersed, and mostly some non-stripped muscular fibres also. Then sometimes the outgrowth springing from a pedicle expands so as to form a small polypoid mass, much firmer than the nasal variety just alluded to. It may grow to a large size, and whether small or large there may be two or more springing from the same base.

When there is a larger proportion of the fibrous structures named, associated to form the growth, and it is denser in structure than those first described, I have employed the term "fibrous papilloma" to denote it.

Fibrous papilloma thus understood is, of course, related through in-

sensible gradations to the fimbriated variety, although the two are essentially distinct in their nature, since the fimbriated variety may continue, increasing in size for years while still retaining its simple structure, and it does not necessarily acquire density with age. A characteristic fibrous papilloma is a growth chiefly solid, and as such may form a considerable mass, with only a small proportion of fimbriated papillæ on its surface. And here let me tell you that these fimbriated papillæ may be found attached to the surface of any vesical tumour, even to some forms of malignant growth, apparently as accidental adjuncts, the true character of the tumour being unaltered thereby. And this is a matter of importance in relation to diagnosis, and obviously indicates the necessity for caution in forecasting the result of operation, since a specimen of papilloma in the urine, while it proves the presence of that growth in the bladder, does not absolutely bar the possibility that a more serious growth may be there also.

Next, occasionally we find a tumour springing generally from a wide base, rounded in form, firm in consistence, not large, although one or two such have been met with, doubtless after a considerable term of growth, the chief constituent of which is organic muscular fibre, such as that which constitutes the contractile coat of the bladder itself. This is termed myoma. It may be more or less intermixed with bands of connective tissue, and it may have fringes of papilloma on the surface, but the distinctive character found on examination determines its classification as a muscular growth.

In carefully examining the foregoing tumours under the microscope, a few examples are met with in which may be observed a large quantity of small nucleated cells interspersed, or grouped among the constituents of the fibrous stroma forming the denser portions of the tumour; and sometimes cells of irregular form, not apparently belonging to any normal type. And such a structure always arouses suspicion that the growth is not so innocent in its tendency as papilloma, and may not improbably be reproduced after removal. It suffices for the present to speak of these as forming an intermediate or transition class, and thus we approach the borders of the next group.

This is that important class of growths the structure of which is largely composed of epithelium in varied or modified forms; and their tendency is to invade and infiltrate by rapid increase, all adjacent structures. Among them, epithelioma may be first named, as it appears not infrequently to affect the bladder, and its course is probably not more rapid there than it is in other parts of the body. Scirrhus is somewhat more rare, and progresses more slowly than the preceding. The more rapidly developed and larger growths formerly grouped as encephaloid, and now defined as round-celled and spindle-celled sarcomata, are certainly rare in the adult; they occasionally affect the prostate and bladder of children who appear not to be subject to the other forms of malignant disease in those organs. Lastly, may be named, as the rarest of all, the dermoid tumour, which has been on two or three occasions met with in the bladder.

Now the symptoms of vesical tumour present nothing special at the outset; a little undue frequency of micturition is then commonly the only sign, and excites no suspicion as to the real cause. But early in the progress of papilloma there is an important sign, characteristic of it throughout its entire course, and common to most other tumours at a late period, namely, the appearance of blood in the urine. A single hæmorrhage occurs after exercise, thus resembling that from calculus, hence its presence is often suspected, but with certain differences which you may advantageously note. First, the hæmorrhage from papilloma is generally much more abundant than that of calculus; and secondly it is mostly unaccompanied by pain and irritation of the bladder. As the case advances, hæmorrhage becomes more frequent; pain, however, is still rarely complained of unless obstruction to the outflow of urine is occasioned by clots. Such a history should always arouse great suspicion. The symptoms described have very commonly, until recent time, been attributed to "congestion of the kidney," a rare, if not unknown occurrence, without the presence of other symptoms than those which have been named. And a careful inquiry should be made in order to determine the diagnosis. En-

deavour first to learn whether the patient has ever observed that the act of micturition sometimes commences by passing urine a natural appearance, but becoming stained or mixed with florid blood towards the close. If so, the source is vesical, possibly prostatic, at all events not renal, but is more probably the result of tumour. When blood comes from the kidney, it is almost invariably mixed with the urine, and unless it is very recent indeed, it is brownish, not florid in tint. Occasionally, although very rarely, florid blood may appear first and clear urine afterwards, but the reverse is the almost invariable rule.

Secondly, a microscopic examination of *débris*, passed in the urine must be diligently made, and before long the characteristic appearance of papillomatous structure will, if present, generally be discovered. The bladder may be washed out with plain water, especially after an examination by sounding, in order to obtain the evidence in question. For the nature of the structure sought, see Fig. 1; which

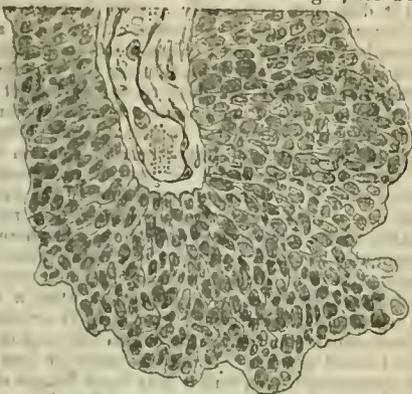


Fig. 1.

shows a typical specimen, such as may be often found, and a glance at which enables you to affirm without hesitation, the presence of a papillomatous growth in the passages, and its site may be safely assumed to be the bladder, where the symptoms described are present.¹

But, you may say: Why not sound the bladder, as we do for a stone, and determine the question thus? For this reason, that the question is not thus determinable. The soft, filmy tissues, even when springing from a thick base, cannot be felt floating in a fluid medium, and yield no evidence to the sound. Nor does rectal examination afford a sign unless the bladder is distended by the growth, when the organ feels rounded, but very soft, as if filled with fluid. On the other hand, when there is a cancerous growth involving the bladder to a notable extent, a well-defined mass of irregular outline and of hard, unyielding consistence, almost invariably presents itself to the finger in the bowel. Whenever this is met with, a condition so different from the rounded and yielding mass presented by senile enlargement of the prostate, there need be little doubt as to the very grave fact indicated, namely, the presence of scirrhous occupying the walls of the bladder itself, and therefore irremovable by art. If on this point you are in any doubt, you may with the short beaked sound obtain further evidence by examining the rectum with the finger at the same time when carcinoma in any form may usually be thus detected. Having verified its presence, we make no attempt at removal; nothing can be gained by dealing thus with any portion of such a tumour.

How we are to treat the non-malignant growths will be discussed next.

(To be concluded.)

¹ The portion from which the figure was drawn was, among others, shown under the microscope at the lecture; the epithelium is columnar, and very abundant.

TESTIMONIAL TO DR. BODINGTON.—Dr. Fowler Bodington, formerly President of the Birmingham Medical Institute, of the Midland Medical Society, and of the Birmingham and Midland Counties Branch of the British Medical Association, who is on the eve of leaving for British Columbia, where he intends to begin practice, has been presented with an address, largely signed by the members of the medical profession in Birmingham, expressive of the high regard and esteem in which he has been held for many years by all those who have had professional and social relations with him, of the credit and distinction with which he has filled the various offices, and heartily wishing him full success and prosperity in his new sphere of duty. Among the signatories we observe the names of Sir Walter Foster, M.P., Dr. Wade, Dr. Fournier, Dr. Jordan, Mr. Lawson Tait, and Dr. Alfred Carter.

LETTSONIAN LECTURES

SOME POINTS IN THE SURGERY OF THE URINARY ORGANS.

Delivered before the Medical Society of London, January, 1888.

By REGINALD HARRISON, F.R.C.S.,

Surgeon to the Liverpool Royal Infirmary; and Lecturer on Clinical Surgery in the Victoria University.

LECTURE I.

URINE FEVER AND TOXIC URINE.—THE FORMATION OF STRICTURE TISSUE IN REFERENCE SPECIALLY TO THE TREATMENT OF URETHRAL STRICTURE.

MR. PRESIDENT AND FELLOWS,—Let me, in the first place, thank you for permitting me to address your ancient and learned Society in the capacity of Lettsomanian Lecturer for the present session. At the same time, and with a full consciousness of my inability to approach you as I would desire, let me also ask your indulgence whilst I attempt to follow in the direction selected by many who, in preceding me in this chair, have so largely contributed to the practical advancement of medicine and surgery.

As I have already indicated, I propose making some observations relative to certain points arising out of the surgery of the urinary organs. It is now some years since my attention was directed to the circumstances under which fever was occasionally seen in connection with various lesions involving the urinary tract. It appeared to me that the subject had scarcely received the attention it deserved, and that a further knowledge of the etiology of what I would speak of as urine fever, as opposed to ordinary wound fever, might be of service to us as practical surgeons.

Let me, for the sake of clearness and comparison, briefly illustrate in a familiar way what I mean, and then I can the more easily deduce the points upon which I desire to lay stress this evening.

In surgical practice we have long been accustomed to recognise, after injuries and operations, a form of excitement which is generally known as wound or traumatic fever. It varies in degree according to circumstances, is generally attended with some elevation of temperature, and it usually declines without proving either serious or fatal. Since the due recognition of these principles upon which Listerism is based, the development of this kind of fever has been considerably restricted, if not entirely abolished.

In striking contrast with this we have a distinctive form of fever, not unlike ague in many important respects, which is also seen in lesions involving the urinary tract. Let us take, for example, the simple operation of internal urethrotomy. Here an incision, limited to a few lines in length, is made in the urethra, which the patient for some two or three hours is probably unconscious of. Then he is seized with a rigor, which terminates in fever and an elevation of temperature. As a rule, these symptoms decline in the course of a few hours, possibly to be repeated. More rarely the rigor and fever are followed by suppression of urine, convulsions, and speedy death; *post-mortem* examination failing to discover any reasonable or recognised explanation for these phenomena. The symptoms, though, as a rule, in only slight degree, more frequently follow internal urethrotomy, accidental wounds of the urethra, and the introduction of a catheter or a bougie. Even the last mentioned operation, simple as it usually is, has proved fatal in the course of a few hours, with little or nothing to show for an explanation. Here then, as I have said before, we have a train of symptoms resembling ague, which are only called into existence in connection with lesions involving the urinary tract. In order that I may be perfectly understood as to the phenomena referred to, let me briefly illustrate the kind of case alluded to by narratives from my own practice.

Some years ago, in a case of extremely tight stricture, I performed an internal urethrotomy on a young and otherwise healthy male; three hours afterwards he had a rigor, followed by high temperature, convulsions, and suppression of urine; and in forty-six hours he was dead. *Post-mortem* examination failed to prove anything except that the operation had been properly performed.

In the course of last year I saw a boy, aged 11 years, who, having ruptured his urethra by a fall, had retention of urine for thirty hours

before I visited him in consultation. A catheter was then passed with some difficulty along the lacerated canal and retained, the retention being in this way relieved. On the following morning he was visited, and found to have passed a restless night, with a temperature of 102° F. About four o'clock the same day his usual medical attendant, Dr. Davies, was summoned, and found the patient in severe convulsions, and absolutely unconscious. The temperature was then 105° F. He could not swallow; the fits recurred with much violence, attended with episthomonos, and he became comatose, and died at midnight, that is, to say, about twenty-four hours after I first saw him and the catheter was passed.

I could not help observing that so long as this patient had retention he was comparatively safe; when, however, an opportunity was afforded to the urine of coming and continuing in contact with the laceration in the urethra by means of the retained catheter, then a process of acute poisoning seemed to commence, which speedily terminated in death.

In 1874, a healthy middle-aged man was under my care for a tight urethral stricture, for which, in the course of treatment preliminary to dilatation, a metal instrument carefully passed was followed by some very slight bleeding. Four hours after this he had a rigor, and his temperature went up to 103° F.; this was followed by a succession of rigors, at intervals of from eight to twelve hours, with occasional vomitings. For over fifty hours the amount of urine excreted was only four ounces. During this period the pulse was quick and thready, the tongue dry and brown; there was a tendency to drowsiness, with occasional delirium, and death appeared to be imminent. After remaining in this serious condition for ten days, he ultimately completely recovered, though he complained of muscular pains and much prostration for some time afterwards.

Illustrations such as these, and others that I could quote, seemed to indicate that the presence of urine in a wound, under certain circumstances, was capable of generating an aguish form of pyrexia, which I shall speak of henceforth as urine fever. I am aware that some authorities are accustomed to speak of all the phenomena I have just illustrated under the one name of urethral fever. Such a term, I think, is misleading, inasmuch as it seems to connect the symptoms produced with the precise part, rather than with the process, for wherever throughout the urinary tract urine can be placed under certain conditions, there can all the phenomena usually associated with the term urethral fever be produced. With the view of endeavouring to throw some light on the causation of this, I determined some years ago to investigate (1) the relationship between urine and a wound which leads to the development of urine fever; and (2) the probable nature of the influence or material producing it. To the elucidation of these two important practical points I would now desire to direct your attention.

In the first place, it appeared to me that the development of urine fever might be traceable to the kind of contact that existed between a wound and the urine. I thought I would test it in the following way. Taking a number of cases of subpubic urethral stricture, which were unfitted for treatment by dilatation, I adopted the following procedure:

Internal urethrotomy having been performed, and all obstruction being removed, so that a full sized grooved staff could be passed into the bladder, the patient was placed in the lithotomy position; and a median cystotomy was performed, quite independent of the previous internal operation, so as to admit a full-sized drainage tube, such as I usually employ for this purpose, to be passed into the bladder. By this combination of internal and external urethrotomy I treated a considerable number of urethral strictures of the worst type with results which time has already shown have been eminently satisfactory, both so far as the immediate comfort of the patient was concerned and the permanency of the relief that was afforded.

After a number of trials of this kind, I soon found that as was my drainage, so was my freedom from fever; urine fever only occurred where the former was imperfect. When urine, even in very small quantities, was pent up in a recent wound, fever resembling ague invariably followed. When, on the other hand, urine was allowed to escape freely and continuously, as after a lateral lithotomy, no such symptoms were developed. But, further than this, in connection with the operative treatment of stricture, it was observed with much uniformity that, in cases where it was impossible to obtain perfect urine drainage, the urine might, so to speak, be sterilised by local or general measures. This tended considerably to prevent the urine undergoing changes and yielding products which were calculated by their absorption to produce this special kind of fever. For instance, I found that after an internal urethrotomy, certain antiseptic precautions, directed towards the wound as well as the bladder, for the

purpose of acting upon the contents of the latter, considerably reduced both the frequency of these attacks as well as their severity. This was chiefly noticeable in connection with the use of solutions of corrosive sublimate for irrigating the wound, as well as for retaining within the bladder. Further, it was impossible not to recognise the importance of certain drugs, which by their elimination in some degree through the urine, seemed to render the latter less capable of exciting a specific fever where it remained in contact with a recent wound. This was most marked in the case of quinine, which is so largely eliminated by the urinary apparatus. In some cases of internal urethrotomy that were observed, the production or not of urine fever could be largely influenced by the administration of quinine. As bearing upon the sterilisation of urine in connection with operative procedures on the urinary apparatus, I will refer to a passage from a recent writer who, in bearing testimony to the value of boracic acid as a prophylactic against urethral fever, states that in some forty urethrotomies, he had had but one case of urethral fever, and that occurred in an instance, where the precaution of sterilising the urine by the administration of boracic acid had been accidentally omitted. The consequence of this was a violent chill on the third day after the operation, with a high temperature. These observations, then, taken collectively, seemed to me clearly to indicate that the kind of contact between fresh urine and a recently made wound was in itself sufficient to determine the occurrence of urine fever as a consequence.

I will now pass on to notice, in the second place, the probable nature of the influence or material by which the fever is actually produced.

During the last few years some important investigations have been made relative to the development of animal alkaloids, both in the dead and living, by Messrs. Gautier, Peter, and Bouchar, in France; and by Drs. Lander Brunton and A. M. Brown, in this country. An address of much interest on this subject, in its relation to practical medicine, has also been recently delivered by Sir William Aitken. To all these gentlemen we are indebted for much valuable information. From these investigations I do not think there can be any doubt in coming to the conclusion that the secretions of living beings are capable of forming leucomaines, alkaloid bodies having poisonous properties, and that many phenomena connected both with health and disease may thus be accounted for. For, as Gautier remarks,¹ "Of all the extractive composite residua, the alkaloids of animal origin are worthy of the deepest interest. It is only now that they have become familiar to us. They claim our special study from the fact of their constant presence in normal secretions, and must be classed with the most active agents known." From my observations in connection with the surgery of these parts, it seems probable that the development of urine fever is really due to the absorption of some such poisonous compound as an alkaloid which is derived either from urine, or tissue, or wound decomposition, or from all combined, and I would base this conclusion not from any chemical discovery that, so far as I know, has hitherto been made, but from the following deductions which seem to be warrantable from what I have already stated:

1. That the presence of urine in relation with a recent wound is necessary for the production of what I have spoken of as urine fever.
2. That mere contact of urine with a wound is not sufficient for its production.
3. That the retention of fresh urine within the area of a recent wound is almost invariably followed by its development in a greater or lesser degree.
4. That where urine is placed under such circumstances as have been last mentioned, the liability to the development of urine fever is greatly diminished when it is sterilised by local or general means.
5. That the retention of fresh urine, blood, and the debris of damaged tissue in the confines of a recent wound for a certain time, at a temperature of somewhere about 100° F., could hardly be possible without chemical changes taking place in the constituents referred to.
6. That there is a common origin for urine fever is rendered probable by the uniformity of the symptoms attending it, which, though differing in degree, are identical, whether following a surgical operation or an accidental wound.

As some may not be prepared to accept from me, though fortified with the reasons I have urged, that urine or urethral fever is the product of a definite poison introduced into the system, let me occupy your time for a few moments, while I quote from the last essay² of

¹ Professor Armand Gautier's *Introduction to the Animal Alkaloids*, by Dr. A. M. Brown.

² *Medicine of the Future*: Address written for the Annual Meeting of the British Medical Association, 1886.

one of the most original thinkers the medical world ever produced, I refer to the late Dr. Austin Flint, of New York.

"Analytical chemistry," he observes, "carries investigation beyond the limits of microscopical observation. The latter, at the present moment, both in pathology and physiology, seems to promise most; but is it not a rational anticipation to look for future results from chemical analysis of the components of the body, in health and disease, which in brilliancy and practical utility may surpass those of the labours in this field of investigation during the past half century? The medical semi-centenarian can recall the enthusiasm aroused by the labours of Liebig. Histology is now in the ascendant, but is it safe to predict that before the lapse of another half century there will be another era in organic chemistry, and that light will penetrate dark recesses which histology cannot reach?.....The supreme objects of study in pathology at the present time are the discovery of micro-organisms and their natural history. But these agents it is probable are pathogenetic, not directly, but indirectly, by means of the toxic products of their activity. What are these products, and how do they give rise to the phenomena of disease? We may ask the same question of certain of the poisons introduced from without the body. How is it that fractional quantities of morphine, hyoscyamin, strychnine, aconitine, atropine, and other alkaloids, produce their lethal effects? It conveys no adequate information to say that they act upon the nervous system. This is merely the statement of a fact, not an explanation. For the latter we must look to the organic chemistry of the future."

But objection may be raised against the views I am advocating relative to the way in which urine or urethral fever is developed, by the fact that it sometimes arises under circumstances where it may be difficult to prove that any actual breach of surface in the urinary tract has been inflicted. For instance, as I have already said in illustration, some degree of urine fever frequently follows the passing of instruments along the urethra, as in the treatment of urethral stricture. It would not be difficult to illustrate every degree of this complication, from the most transient rigor with slight febrile excitement, to the severest form of septic intoxication, rapidly terminating in death. And this leads me to speak of the influence of the epithelial lining of the urethra making the canal water-tight, or, more correctly speaking, urine-tight. And out of this will necessarily arise some remarks on the pathology of urethral stricture and abscess with extravasation of urine. Let me take an illustration of what I mean by the protecting power of the epithelial lining. A patient with a stricture, I will say, has a catheter or bougie passed; this may be followed in the course of a short time with a rigor and some fever, and no further inconvenience is experienced. What has actually taken place is that the epithelial lining has been scraped off at one or more points, and this has permitted urine leakage and absorption to take place at the points injured. If further proof of this be required, take instances where prolonged attempts to pass catheters in cases of urethral stricture have been made, and proved futile. Then, in consequence of the degree of retention, and as an alternative, an aspirator needle is introduced above the pube, and the urine is drawn off in this way without coming in contact, or remaining so, with any portion of the urethra which may have been wounded by the attempts made to give relief by catheterism. I have never known rigors or fever follow the relief of retention by suprapubic aspiration, though the amount to which the urethra has been lacerated by attempts at catheterism has been considerable as well as sanguinary. There can be no other explanation for the absence of characteristic rigors and fever under these circumstances than the fact that urine has not been allowed to come and remain in contact with a freshly-made wound. And in connection with this point I cannot help remarking that in the protecting power which the epithelial lining of the urinary apparatus exercises we probably have an explanation of certain phenomena which have been observed but not accounted for. Some have concluded that the bladder is capable of absorbing some of its contents, whilst others, on the contrary, not only have denied the possibility of such an inference being drawn, but have pointed out how serious might be the consequences if there was any liability to such a contingency. It seems that both of these conclusions may be true, and the explanation I would offer is that, by injury to, or disease of, its epithelial coat, the bladder may be rendered capable of absorbing what it contains, to the detriment of the individual, as we see in those cases now often referred to by the name of catheter fever. In recognising the power of the epithelium to prevent or permit absorption, I am in agreement with other observers, amongst whom I may mention Dr. London, of Carlsbad, who has made some investigations upon this point.³ Further, it is important to notice that when a urine

³ Berlin. Klin. Wochen., No. 11, 1881.

fistula is transformed into a permanent urine channel, as after Cock's operation, we find the passage becomes lined like the urethra with epithelium, and thus it acquires the power of transmitting urine without leakage. We could not have more positive evidence than this in support of the view that the epithelial coat is a necessary part of any canal which has to perform the function of transmitting urine.

Applying, however, these remarks to the pathology of urethral stricture, let us see how this is brought about, and how the protecting influence of the urethral epithelium may thus be demonstrated.

A stricture of the urethra is generally considered to be due to more or less prolonged inflammation of the lining membrane of the canal, which ultimately leads to the deposition of organised lymph in the peri-urethral tissues. This ultimately is converted into a dense connective tissue, which subsequently shows a remarkable tendency to become contractile. Thus the escape of urine from the bladder is interfered with by the degree to which these contractile masses prevent the expansion of the canal to anything like its normal extent. Now all this may be very true on the whole, but it does not enter into details with which we should be acquainted for the prevention and treatment of the disorder.

It will be convenient to take an illustration for the purpose of tracing more gradually the process of stricture-making, as a consequence of a specific urethritis or gonorrhœa, which is generally admitted to be the common cause of the former affection. The acute form of the disorder, unless care be taken, is very apt to become merged into the condition commonly known as chronic granular urethritis. By the latter term we are to understand that at one or more spots within the urethra the epithelium has become so damaged, as a consequence of the prolonged inflammation, that it ceases to render the canal urine-tight, and a slow process of escape of some of the constituents of the urine into the tissues comprising the urethra and surrounding it, takes place. As a consequence of this, and to prevent urine further soaking into the tissues, inflammatory exudation is excited, and barriers of lymph, which ultimately become organised, are thrown out opposite the places where the leakages take place. Thus splints of plastic tissue are formed, corresponding with the spot or spots where the epithelium has been so damaged by persisting inflammation as to cease to discharge its normal function. In this strengthening of the urethra we recognise, in the first instance, a conservative action; eventually, however, as in other compensating processes, certain inconveniences follow which constitute, as it were, an independent disease. In addition to the careful observations which have been made relative to the pathology of gleet, and the changes that are induced by chronic inflammation in the epithelial lining of the urethra by Dr. Oberlander, of Dresden, there are other considerations which seem to indicate that an excessive form of plastic exudation in the tissues around the urethra is probably excited by the interstitial leakage or exosmosis of some of the constituents of the urine through the walls of the canal.

Amongst those I would mention are: (1) That though the mucous membrane is the tissue chiefly involved in the primary inflammation, it is, as a rule, only secondarily implicated in the stricture-forming process. In many instances it will be found after death that the dimensions of the mucous membrane are not permanently altered, and that it is possible to split a stricture without necessarily damaging the lining membrane of the canal. (2) That the plastic exudation which makes up a stricture differs from other exudations provoked in other parts of the body by inflammation in the degree of its density and tendency to contract. There is no tissue I am acquainted with in the human body, except, perhaps, that found after scalds and burns, where the original tissues are entirely destroyed, which is so tenacious and resisting as that constituting the usual form of urethral stricture, nor do I know of any other canal or duct which, either as a consequence of injury or disease, is liable to be involved in such changes as a strictured urethra represents. (3) The character of the cicatrix which is formed in connection with ruptures and lacerations of the urethra unmistakably shows the effect produced in the healing process of a recent wound, which is constantly submitted to the action of more or less pent-up urine. Here we have a cicatrix formed which of all strictures is the most resisting and contractile. At the present time, when we are so much occupied in devising means for the radical cure of hernia, one cannot help sometimes thinking and wishing that it were possible to transplant the process of tissue thickening and contraction, as observed in connection with the formation of traumatic urethral strictures, to the parts constituting the weak points we are desirous of consolidating in the abdominal parietes. Here it would be serviceable instead of being detrimental.

Further, the form in which stricture tissue is deposited, and ultimately

⁴ Vierteljahr. für Dermatologie und Syphilis. Wien, 1887.

exercises contractile pressure on the urethral passage, is strongly suggestive that in the first instance it served the purpose of strengthening the wall of the canal, and thus preventing further leakage of some of the constituents of the urine taking place at points where the epithelial coat had been more or less permanently damaged. Most strictures are the result of organised lymph which has been deposited in the submucous tissue in an irregular form. An annular stricture is comparatively rare, except when due to traumatic causes, such, for instance, as an injury to the whole calibre of the urethra.

It may, however, be urged that the view I am advocating is open to objection on the grounds that urine leakage is invariably followed by acute forms of inflammation, such as we see when extravasation has taken place. In reply to this, I would say that so far as I have been able to observe the process of urine transition through the mucous membrane of the urethra, which has been deprived of the protecting influence of its epithelial lining, is extremely gradual, so far as the process is concerned, and does not necessarily imply that all the constituents of the urine are distributed amongst parts which are not adapted to receive them. Where a pathological process is slow, time is permitted for that adaptation which the human tissues are proved to be so capable of. But the exudation which a damaged epithelium may permit of does not necessarily imply that all the constituents of the urine are thus brought into contact with the tissues under circumstances where the most active and destructive forms of inflammatory mischief must inevitably be aroused. Some years ago, I recorded the following case, which at the time seemed to me of much importance in reference to the subject now under consideration. It was as follows: The case was one of stricture, with extravasation of urine, occurring in a person suffering from Bright's disease of the kidneys. Though the extravasation had come on suddenly, and had existed for twenty-four hours unrelieved, there were no signs of acute inflammatory action and commencing gangrene, such as are usually expected. However, the tension being considerable, I incised the parts involved in the extravasation. As the fluid escaped from the incisions, I noticed that it had not that strong ammoniacal odour which is so perceptible in such cases. Subsequently I treated the stricture, which was exceedingly tight, and kept in abeyance the more threatening urinary symptoms. I was somewhat puzzled for an explanation, as I felt sure that the case was one of extravasation, and not acute scrotal oedema. How was it, then, that extravasation and confined urine failed to excite gangrene? I collected some of the urine as it trickled through the wounds, and compared it with some subsequently drawn off by the catheter. I found them identical, and in both there was an almost complete absence of urea. This, then, to my mind solved the mystery, and explained that as there was no urea to decompose, there was no source for the production of the ammonia by which the destruction of tissues in connection with extravasated urine is mainly effected. By the absence of urea the urine was rendered chemically harmless to the tissues with which it came in contact. In the same way, and by a process of leakage, I apprehend may be explained some of those rare cases which have been described as scrotal or perineal urinary cysts, where a urinous fluid, with little or no direct connection with the urethra is retained within a fairly well-developed envelope.

In illustration of the formation of stricture by urine leakage, due to epithelial desquamation or abrasion, I would point especially to those cases of multiple stricture caused by spots of induration in various parts of the canal. In a patient who was recently under my care, almost the whole length of the urethra was strictured by a series of nodular deposits, chiefly in relation with the floor of the canal. These could only be explained on the supposition that the urethra had almost entirely lost its normal power of conducting urine in the course of a long gleet, and that these numerous centres of induration and contraction marked the spots where leakage of some of the constituents of the urine had been permitted to take place. It will not be necessary for me to extend these views for the purpose of explaining certain facts observed in connection with peri-urethral abscess and extravasation of urine, which in practice we are all familiar with. What applies to the plastic form of exudation applies equally to the suppurative. In this way, however, is explained the fact that in these cases, when suppuration occurs, and the matter is evacuated by incision from the perineum, the urethra is found passing through the abscess cavity, completely isolated, and without showing any direct connection with the suppurating focus. It is under these circumstances that the unsupported canal occasionally gives way under the expulsive powers of micturition, and the urine is first forced into the abscess cavity prepared to receive it, and subsequently amongst those tissues, where it may be the more easily extravasated.

There are one or two practical points relative to the treatment of

stricture and injuries of the urethra arising out of what I have thus ventured to bring under your notice, to which I should like to refer before concluding. In the first place, the knowledge that certain relations between a wound and the urine may cause and keep up urine fever will prove of service to us in practice, as I will illustrate in the following way. Not long ago I treated a case of urethral stricture by Holt's method of rapid division. Contrary to my usual experience of the operation, the patient had a severe rigor three hours afterwards, and a temperature of 105° F. On the following day this was repeated with, in addition, almost complete suppression of urine. As it appeared to me that the patient would die if he absorbed any more toxic material from the wound, I had him placed in the lithotomy position, and passing a grooved staff, I performed a free median cystotomy, and put a drainage tube into the bladder. I should add that there was nothing to indicate that suppuration had occurred; the time was too short for its development, the symptoms being clearly due to urine poisoning. After this was done there was neither rigor nor fever, and urine was again rapidly excreted. By thus suddenly altering the relations of the wound with the urine, the whole complexion of the case was immediately changed for the better, and the patient made a good recovery.

In the next place, a due recognition of the function of the epithelial lining of the urethra shows that there is a right and a wrong way in making use of dilatation in the treatment of strictures. I am sure that more good follows the daily introduction of a bougie which passes quite easily, than where a larger size is less frequently used, but where, in fact, the principle of the mechanical wedge is aimed at by the process. In this way rigors and other inconveniences associated with the treatment of stricture by bougies is avoided. I have made a large number of observations bearing upon this subject.

Thirdly, when a stricture has become or is so contractile and dense as to render dilatation out of the question, if not impossible, then, I believe, the open method of treatment is the safest and affords the best permanent results. In fact, excepting the earlier forms of stricture, which are satisfactorily treated by dilatation, the open method has furnished the largest proportion of permanent cures that have come under my observation in the collecting and noting of many hundred cases of stricture taken indiscriminately. And in reference to this point, I must take exception to a statement which is frequently made, to the purport, "once stricture, always stricture." I could furnish many examples following the open treatment which are quite at variance with such a conclusion. In order that I may not be misunderstood in using the word "cure," I mean that a contractile stricture necessitating the constant use of the bougie has been so influenced by what has been done as to render any further use of this instrument unnecessary, and that, after a lapse of time of some years duration, the urethra can be proved both to be structurally and functionally normal. The majority of these cases have occurred where the perineum has been opened for stricture complicated with abscess and extravasation of urine. Here it by no means unfrequently happens, if the artificial drainage made by the surgeon is free and direct, that a healthy scar, such as we see after lithotomy, takes the place of the dense contractile stricture which has sloughed by the acuteness of the inflammation that has been aroused. I should meet with no difficulty in fully illustrating this point. By the open treatment of stricture, of course I mean the perineal section of Syme, or a modification of it, to meet some special circumstances, such as the double operation of external and internal urethrotomy combined, as I have already described. It must, however, be borne in mind that a perineal section is seldom resorted to until the urethra is largely impregnated, so to speak, with old cicatricial tissue of a contractile nature. Hence, although you may put into the urethra by your operation a longitudinal splice of good sound tissue, such as fills up the wound made in lithotomy, and so bring up the canal to its normal dimensions, you do not succeed in removing the tissue, which you have merely divided; this still remains behind, to contract and to mar to some extent results which, under other conditions, would be obtained. Still, in spite of the impossibility of removing the cicatricial tissue by a mere section of it, the results of perineal section, so far as I have observed them in cases where dilatation was insufficient, have proved both safe and satisfactory. The conditions, however, which the operation must necessarily fulfil are complete division of the stricture and thorough urine drainage. The difference between the wound of a lateral lithotomy and a perineal section is only this, that in one case you operate upon sound textures, whilst in the other they have been rendered permanently and almost hopelessly contractile. Still, on the other hand, when the conditions I have mentioned are fulfilled, the cicatricial splice of sound tissue which perineal sec-

tion introduces into a bad stricture often proves of the greatest and most permanent advantage in cases suited for this proceeding.

Fourthly, that in wounds of the urethra—made either accidentally or in the course of surgical operations, which, by the nature of circumstances, have to be treated without due regard for urine drainage—means should be more systematically taken to prevent the development of urine fever, as well as the formation of a dense contractile cicatrix. I found, after repeated trials, in the case of internal urethrotomies, that much might be done by irrigation, locally and through the agency of drugs, which were largely eliminated by the urine in promoting these objects.

Lastly, we must remember that the prevention of stricture is within our scope. If, as I have urged, the dense cicatricial material which constitutes a stricture is the result of urine leakage occurring in the process of a chronic inflammatory affection in the interior of the canal in one instance, whilst in another it is brought about by the constant contact of the excretion with an internal wound, as in accidental rupture of the urethra, then the importance in one case of irrigation as a part of the treatment, and free urine drainage in the other, is at once evident.

It is, however, in connection with ruptures of the urethra, such as are caused by blows and falls on the perineum, where the canal is more or less lacerated, that we see exemplified the most disastrous effects of permitting a wound to heal subject to the irritation that constant contact with pent-up urine is capable of exercising. Fortunately, as a rule in these cases, retention of urine for a time averts the liability to acute septic intoxication, such as I have already illustrated in an earlier part of this lecture. Though the future of these cases relative to the kind and degree of stricture that follows is in some measure determined by the character of the injury inflicted upon the urethra—whether, for instance, the canal is entirely torn across, or partially, either obliquely, longitudinally, or transversely—I have not the least doubt, from a careful observation of a considerable number of these cases, that those do best which are treated by perineal section and drainage without reference to the question of extravasation. When a catheter can be passed under these circumstances, and there is no evidence of urinary extravasation, it is often, I admit, very tempting to be content with this procedure, and to wait until there are further indications as to the necessity for incision. Such a course is almost invariably followed by the formation of a stricture of the most dense and contractile nature. Where incision is practised, as in those instances where there is evidence of extravasation and the laceration proves to be only of a partial nature, the wound heals with a scar which shows but little tendency to subsequent contraction. In these cases we have remarkable illustrations of the damage that the presence of urine under certain circumstances is capable of exerting whilst the process of repair in a wound is going on. And what applies to the healing of wounds inflicted accidentally upon the urethra internally applies equally to others similarly inflicted on the canal for surgical purposes. I have elsewhere stated that for many years past I have taken some pains in collecting and noting cases of urethral strictures, with the view of estimating the permanency or otherwise of the treatment to which the patient may have been previously submitted by various surgeons. The testimony that I have thus gathered from the examination of many hundred cases is certainly not favourable either to the permanency or the character of the relief that internal urethrotomy usually affords. Amongst the worst cases of stricture that I have thus met with have been those which have been treated by an internal section. If there is any force in the observations I have brought before the Society this evening, I do not think there should be any difficulty in explaining how this happens, and of recognising the importance of applying to the treatment of wounds of all kinds involving the urethra those principles which are the basis of Listerism, namely, drainage and cleanliness. There is no part of the human body to which disregard of these conditions is more likely to be attended with disastrous consequences, whether we have regard to the present or to the future. In conclusion, gentlemen. Most speakers commence their discourse with a text, I prefer concluding with one. Urine can spoil tissue as well as blood.

SEAMEN'S HOSPITAL SOCIETY.—Lord Charles Beresford has consented to take the chair at the annual court of governors of this corporation on a day to be fixed in February next. Owing to the increasing area over which the shipping of the port of London now extends, this charity has established dispensaries for seamen at the Docks and at Gravesend. The maintenance of the 258 beds at Greenwich, as well as the dispensaries, necessitate an expenditure of £12,000 per annum.

HARVEIAN LECTURES ON LUPUS.

Delivered before the Harveian Society, December, 1887.

By JONATHAN HUTCHINSON, F.R.C.S., F.R.S., LL.D.,
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LECTURE I.—COMMON LUPUS—THE HEAD OF A FAMILY, AND NOT A SOLITARY DISEASE.

Characteristics of the Lupus Process.—Its Power of Infection by Continuity, by Contiguity, and through Vascular Channels to distant parts.—Importance of the Subject in reference to General Pathology.—Satellites and their Meaning.—Different forms of Lupus on different parts of the Body.—Differences in relation to Age and State of Health.—Relations of Lupus to Tuberculosis, to Scrofula, to Chilblains, and to Cancer.—Justification of the term Scrofula as distinct from Tuberculosis.—Morbid Anatomy of Lupus.—The Bacillus.—Description of the different Varieties of Common Lupus, and Definitions of the Terms proposed to be Used.

EVERYONE knows lupus. In student-life, we all early learnt to recognise lupus; for its frequency, its conspicuousness, and its very definite features, rendered its diagnosis both easy and attractive. Nor, for many of us, have the questions as to its nature and affinities failed in interest as we have advanced in life. Lupus has been well and ably studied by many competent observers, and no atlas of portraits has been published which has failed to portray it in at least two or three of its principal forms. Our clinical knowledge respecting it is now well advanced, and I purpose in the present lecture to endeavour to place before you a summary of it, not without the hope of being able to gain therefrom some little further insight as regards the disease itself, and the valuable illustrations which it affords of the general laws of pathogenesis.

We shall find, I believe, as we proceed with the examination of the facts as to common lupus, that not only does it present some important varieties, but that there are a number of other maladies, some of them already named and others as yet undescribed, which stand in close relationship with it, and partake, indeed, of its nature. Before proceeding in this direction, it is needful, however, that we should recapitulate the chief clinical facts as to the type form of the malady. This type form we find in "common lupus."

All observers are agreed that lupus is a disease which usually begins in early life, and which, although it may affect mucous membranes, almost always has its first development in the skin. It prefers exposed parts, and attacks the face out of all proportion to other regions. It is insidious in commencement and very slow in progress. Its characteristic feature is the formation in the corium of a peculiar effusion, or cell growth, which is visible to the naked eye through the transparent cuticle. This growth is of a brownish-yellow tint, and semi-transparent, being aptly compared to apple-jelly. It is present in greater or less abundance in all cases of common lupus, but may easily be obscured by the products of inflammation. The recognition of this apple-jelly growth, in however small a quantity, denotes the disease conclusively as lupus, for nothing exactly like it is ever seen in any other disease. It often happens that we succeed in finding it at only one part of a large lupus patch, or in only one patch, where there are several which do not show it; but I may repeat that, whenever it is thus sparingly present, it is yet sufficient to justify the diagnosis as regards the whole of the diseased processes which it attends. Whether this growth is present in the very earliest stage of the disease, or whether that be not rather simply one of inflammation, is not yet known, but it is certainly the condition which first justifies the application of the name "lupus," and it is often recognised while the disease is as yet on an exceedingly small scale. Many facts as to the causes of lupus—such, for instance, as its frequently beginning after slight injuries to the part—would suggest the belief that a stage of congestion and cell effusion, undistinguished from common inflammation, usually precedes for a short period the characteristic growth. There are, further, no facts whatever which would support a belief that lupus ever takes its origin from contagion. Whether or not it begins by inflammation, there is no doubt that it is very apt in all its stages to be complicated by it. Although a few cases are seen in which the growth, through a long course of years, pursues its quiet course of gradual extension, without

ulceration, and almost without inflammatory redness or swelling, they are exceptional; and in a large majority, at one or other period, the tissues break down and ulcers form, attended usually by the formation of papillary granulation masses, covered by crusts of pus and epidermic scales. Most of the distinctive terms employed in reference to lupus by the older surgeons have reference simply to the presence or absence of inflammation. We may disuse with advantage the old terms exedens and non-exedens, exulcerans, hypertrophicus, serpiginosus, exfoliatus, and the like, and speak simply of inflamed lupus and non-inflamed lupus, for all the epithets alluded to generally refer to peculiarities produced by more or less active inflammation. The same case may vary in respect to them in different parts at the same time, and at different times in the same part. They have, too, been used by different authorities with very varying meanings. I much fear that, before I have done, you will accuse me of introducing new names whilst I disuse the old; but I hope to be able to convince you that those which I shall propose are based upon real and permanent clinical distinctions. If a man has a large family, he must, for convenience sake, give to each child a distinctive name. It is so with lupus. The diseases to be grouped under that name are related—closely related, but they are yet different—and it is necessary that we should distinguish them.

It will be convenient that I should here introduce to your notice a schedule of the various forms of lupus which we meet with in practice. I shall not now discuss its details, but it may be well to state that where I have joined two substantives together as a name for a sub-species of the malady, it is with the intention of asserting that the disease so named partakes of the characters of both. Thus acne-lupus is not a lupus resembling acne, nor an acne looking like lupus, but is acne and lupus in combination. It occurs at the age at which acne is common, and in the subjects of common acne, differing from it only in that some of the pustules become the site of lupus-processes. So with eczema-lupus: the disease begins as eczema, and throughout looks like it, but it has these peculiarities, that it is well nigh incurable, slowly advances at its edges, and heals in the centre, leaving a scar. It is an eczema which produces the results of lupus, and therefore clearly partakes of its nature. I cannot but think that this plan of joining substantives, each one having already a well known meaning, conveys what it is intended to imply with far less trouble to others than can possibly be attained by coming uncouth adjectives, which are at the best more or less inappropriate.

The Lupus Family.

General Definition.—Serpiginous, infective, scar-leaving inflammations of skin and mucous membrane.

Principal Forms.

Struma-lupus (with subcutaneous abscesses and gland disease).

LUPUS VULGARIS.

Distinctive Features.

- a. Apple-jelly-growth usually present and characteristic
- b. Non-symmetry the rule
- c. Tendency to ulcerate
- d. Common in children
- e. Affects the two sexes almost equally
- f. Not closely allied to chilblains
- g. Very seldom fatal

Clinical Groups.

- 1. Single patch.
- 2. Multiple.
- 3. Of hands and feet.
- 4. Necrogenic lupus.
- 5. Of mucous membranes.
- 6. Of septum nasi.
- 7. Lupus mutilans.
- 8. Lupus with elephantiasis.

Common lupus (its typical forms)

- Acne-lupus (very rare).
- Eczema-lupus (very rare).
- Psoriasis-lupus (very rare).
- Nevus-lupus (very rare).
- Lupus lymphaticus (very rare).

Hyposis and the Rhino-scleroma of Hebra are probably allied diseases.

The term lupus hypertrophicus or the adjective hypertrophicus, in connection with lupus, has been used in such different senses by different authors, that I think it would be much safer to discard it. The older writers, I think, generally employed it in cases in which there was an unusually solid oedema or elephantoid hypertrophy. Hebra and Kaposi have used it for cases in which the papillary outgrowth was well marked and large; and, lastly, I find that Dr. Sangster has availed himself of it for a case in which the scar is very thick and fibrous. It is quite clear that there is no variety of lupus by which this adjective can, with any clinical usefulness, be applied. Overgrowth of papillae, hypertrophic induration of scar, and elephantoid oedema are conditions which may be present in certain parts of any given case of lupus and wholly absent in others, and they certainly do not differentiate any special variety of the disease.

Principal Forms.

Seborrhea-lupus (=lupus sebaceus)

LUPUS ERYTHEMATOSUS.

Distinctive Features.

- a. Little or no apple-jelly growth
- b. Symmetry the rule
- c. Non-tendency to ulcerate
- d. Not seen in childhood
- e. Far more common in women than in men
- f. Closely allied to chilblains
- g. Sometimes fatal

Clinical Groups.

- 1. Restricted to face.
- 2. Face and extremities.
- 3. General diffusion
- 4. With recurring erythema.

Erythema lupus (its typical forms)

- Chilblain-lupus.
- Sunblain-lupus.
- Acne rosacea-lupus (very rare).
- Psoriasis-lupus (very rare).

Kaposi's disease is probably a "family form" of lupus erythematosus. In dividing lupus into two great groups, as vulgaris and erythematosus; I yet wish it to be clearly understood that they are closely allied. There are numerous connecting links, and cases often occur which it is impossible to assign exclusively to either.

Amongst the qualifying adjectives which have been used for lupus, we can well spare that of "serpiginosus." It is of the very essence of all lupus to be serpiginosus, and if any form of new growth or inflammatory action were shown to be not so, it would certainly *de facto* lose all claim to rank with the lupus family. In all its varieties, and in all stages of its development, the lupus patch gradually spreads at its edges. It is necessary to consider this tendency to creep on into all adjacent parts in a little detail, for it is a most important feature. It proves that lupus action is attended by the production, in the part affected, of elements which are infective to those with which they are in contact. In this power of infection by continuity of tissue, we have one of its most characteristic features, and we have also an important guide to its treatment. Not only, however, do we witness the gradual extension of lupus patches by growth into continuous parts, but we observe almost invariably another phenomenon of a slightly different order. This is the production of other foci of diseased action not continuous with the original patch. To these when they are, as is usual, very near to the first, we may suitably give the name satellites, and may imply by it that we believe that they originate, as the moon from the earth, from materies directly detached from the larger mass near to which they are seen. We have in them an example of infection by contiguity, and the infective material has no doubt spread either in the perivascular spaces, or along the lymphatic channels. The phenomenon is exactly parallel to what we witness in the case of cancer of the skin, in which the production of satellite nodules of smaller size near to the parent one is very common. Their nearness proves their relationship. It is not a matter of chance where they are formed, nor are they arranged with anything like symmetry in the two halves of the body. No, they come as a rule near to the patch of which they are the product. In many instances the satellites and their parent, by gradual extension at their borders, tend to coalesce. The term disseminate lupus has been employed for cases in which the crop of satellites is very abundant, but as they are present to some extent in almost all cases, it is scarcely necessary. Although, as first asserted, it is the rule for secondary lupus growths to occur near to the border of the original patch, yet this position is not invariable, and we sometimes observe them at considerable distances from it. Thus a patient may have primary lupus on the nose, and may have secondary patches on the arm or leg. Must we, when that occurs, seek some other explanation of their production, and assume that they are developed independently of the original patch? Such a step is not necessary, for we encounter precisely the same occurrence in the case of cancer. No one doubts that when a growth develops itself in the femur after scirrhus of the breast, that such growth is due to the transference of germinative material from the mammary gland to the bone. Nor is there any reason to doubt that such distant transference is possible also in the case of lupus. Both in cancer and lupus proximity of infection is the rule, but distant infection is possible, and not very rare, and the two are to be explained in the same way. Let me here in passing remark that neither in common lupus nor in cancer does the distant infection show any tendency to arrange its products in a symmetrical pattern in the two halves of the body. In other words, the distant tissues show little or no preference or selective power as regards the germ elements which are afloat. It is almost a matter of chance

where these may develop. I shall have to ask attention in another lecture to the fact that this rule is to some extent reversed in the case of lupus erythematosus.

Permit me to pause here to remark that, although I have been obliged to mention cancer as the most instructive parallel to lupus in respect to infection by continuity, the production of satellites, and of scattered secondary growths at a great distance, yet these features are by no means the exclusive property of new growths. They do not prove, although to some extent they may seem to imply, an association between lupus and malignant neoplasms. Infection of the individual, in all of the three methods mentioned, is probably a possibility in all types of inflammatory action, though it is seen with much greater energy in some than in others. Near to a boil other boils occur; one patch of eczema, if neglected, tends to produce others; indeed, the facts as to multiplicity of lesions following local ones which are constantly under our observation in so many diseases are probably all of them to be explained in the same way. Those which we witness in the rare cases in which cicatricial keloid becomes multiple are of especial interest, because amounting almost to a demonstration of the law. We witness in them excellent illustrations of blood infection by a morbid growth not usually supposed to be malignant, and at the same time the preferential selection by certain predisposed sites. If a patient who has old and perfectly healthy scars becomes the subject of a new wound the scars of which take on keloid growth, his old scars may become infected and grow on a like pattern. This I have myself observed more than once, and an instance of it is recorded by Mr. Clutton. It is not easy to suggest any other explanation of the phenomenon than that the keloid growth sheds into the blood certain elements which find their proper nidus for development only in scar-tissue. I suspect that this is the only way by which keloid becomes multiple; but, in citing it as I have now done as evidence in support of my theory, I am bound to admit that it is not the ordinary rule for old scars to become thus infected. Even when it does happen we usually observe many of the old scars to escape. The case which I first published as illustrating the fact was, however, a very definite one. A man who had been frequently cupped, and whose cupping scars were perfectly soft and healthy, was long afterwards very severely scalded over his shoulder, and the scald became the site of an enormous keloid growth. At this stage many of his cupping scars developed little buttons of keloid.

We have, then, described common lupus as a slow process of cell growth in the true skin with infection by continuity, by contiguity, and in some instances to distant parts through the vascular channels. We have said that it is to be recognised by these qualities as regards its mode of advance, and above all by the visible presence of a new material, like apple-jelly, which is easily appreciated by the unassisted eye, and which is absolutely pathognomonic. I wish to make the distinct claims for all affections of the skin, which show these features that they belong to the lupus family, and in so doing, I by no means insist upon the last named. There are a great many cases of common lupus in which the apple-jelly cannot be seen and many more cognate affections in which it is never visibly present. In order, however, that we may increase the means at our disposal for deciding as to what should and what should not be admitted to be either true lupus or nearly cognate with it, it may be well to mention a few other common features of lupus-disease. None of them approach in importance those already stated, but some are still of considerable value.

The lupus process, although very slow, yet always tends to come to an end after a time, and it always, when it does thus end, leaves the structures disorganised and in a state of scar. The kind of scar is often peculiar. It is thick and firm and is seamed with white, so as to have suggested a comparison to veal. These peculiarities are probably due to the fact that the scarring has taken place without complete removal of the lupoid cell-material. By degrees this removal will become complete, and then the scar will become supple and thin. In many instances it is supple and thin from the first. It is by no means necessary to the production of scar after lupus that there shall have been ulceration. The scar may be wholly subcuticular, and is so in many instances, the disease having disorganised the corium, but left the cuticle almost uninjured. A tendency to the production of scars is invariable in lupus, but there are many slight cases in which the recognition of scar is difficult. An absence of tendency to infect lymphatic glands must be noted in all forms of lupus, and with it an absence of tendency to travel deeply or to involve parts other than the skin. It is essentially a disease of skin and mucous membrane, and does not, with the rarest exceptions, attack other tissues. When ulceration has occurred there is usually a remarkable proclivity to the formation of granulations which assume papillary forms and over which scar-tissue readily develops. The removal of lupus-crusts is almost always at-

tended by bleeding, for these papillary outgrowths are united to the partly organised crust, and are very easily torn.

Lupus-disease in all excepting its most quiet and absolutely non-inflammatory forms is very liable to be attacked by erysipelas. Some patients have many such attacks, and although not infrequently they are excited by the use of caustics, yet they are often spontaneous. As a rule, but by no means invariably, the erysipelas is mild. It may, I think, be added to the minor characteristics of lupus that its processes, although slowly retrograde in the structures first attacked, always spread so much in the adjacent ones that nothing of the nature of a complete spontaneous cure ever results. This statement may possibly have a few exceptions, but they are very few.

Having thus endeavoured to trace the characteristic features of the lupus process in general, it may next be convenient to enumerate some of the modifications which it assumes in different regions of the body, and parts of the surface. As will be conjectured from what I have already advanced, these differences have chiefly reference to different degrees of inflammatory action. In some parts lupus almost invariably inflames and ulcerates. It is rare indeed to find a patch of non-ulcerated lupus on the nose; and, should such be encountered, we may feel quite sure that the condition is only temporary. The same remark applies to the extremities. On the hands and feet lupus is always inflamed more or less, the degree varying with the season and weather. Often, indeed, it is difficult to diagnose lupus on the feet, so great is the excess of inflammatory material by which it is concealed. I have not in many instances, indeed, recognised the apple-jelly stage, and when it is shown it is never present long, being soon superseded by a mass of fungating granulations. It is, in fact, a clinical fact that lupus-ulcers on the feet very often escape diagnosis, so wide is their difference in appearance from the typical form of the disease. Often, however, the diagnosis is set at rest by the discovery, on other parts of the body, of patches which show the characteristic conditions.

The part in which it is most common to see lupus without any inflammation and absolutely quiet is, I think, the cheek. Here we sometimes see what I have called single-patch-lupus, slowly progressive at its edge, but without satellites, and without any trace of crust or even of congestion. The subjects of such conditions are almost always near middle life and in tolerably good health. If the patient be young, or the strength feeble, lupus is almost certain sooner or later to inflame and ulcerate.

There are certain regions of the body which are almost exempt from the attacks of lupus. It is in the main a disease of exposed parts, particularly of parts exposed to cold and wind. The face and the extremities are its most frequent sites. Excepting when it has passed by extension from the limbs or neck, it is very seldom seen on the trunk, and it scarcely ever originates there. The more protected the part as regards warmth, the less is it likely to be the seat of lupus. The genitals in both sexes, the cleft of the nates, and the armpits are almost wholly exempt. This is by no means true of the syphilitic imitations of lupus, which not infrequently display themselves in these regions.

When lupus attacks the lips, and extends to the prolabium, it is almost always attended by much swelling and ulcerative destruction of parts. The explanation of this is, no doubt, that the disease affects the skin surface on the one side, and the mucous on the other, and hence much loss of tissue. The same is observed when the *ala nasi* are affected, destruction of the parts being then almost certain. It will easily be realised that the conditions are very different from those which obtain on a flat surface, as the cheek.

Thus, I think, it may be with justice held that many and very important differences which are observed in the lupus process are due not to essential difference in the nature of the disease, but simply to the peculiarities of the part attacked. Anyone who will inspect a considerable series of cases side by side, or examine a collection of portraits, will easily satisfy himself of this, and will observe that the disease may in one and the same patient earn for itself different names, according to the part affected. It is almost always "exedens" when it attacks the nose, often "hypertrophic" on the lower part of the face, and always "serpiginous" on the neck.

I do not wish, however, for one moment to attempt to explain all the varying features of lupus by reference to the part affected. Many of them have reference rather to the peculiarities of the individual, to his age, and to the state of his general health. Without venturing in much detail upon this topic, I may repeat a statement already made, that the younger the patient the greater is the probability that lupus will inflame and ulcerate, and the greater by very far the risk that its infective material will become diffused, and its manifestations multiple and distant. It is rare in those of middle age to see lupus show itself in more than one place, and the disease at this period of life is

almost always very slow in its advance. As old age approaches, we sometimes witness a sort of return to the liabilities of youth, and lupus originating then may prove very troublesome. It is so, however, only in that it may rather rapidly spread and resist treatment, not, I think, in the way of general infection.

Before quite leaving this part of my subject, I will venture to ask your attention to some statistics as to the parts most usually affected. They confirm in a very definite manner the statements which I have made as to local exposure constituting an extremely important predisposing cause.

From the analysis of 56 cases in which I find the parts affected specified in my notes, it is shown to have occurred on the face in 41, and on the extremities in 15. In 5 of those in which the face suffered, there were one or more patches on the limbs also. In 15 the disease was on the nose only, and in 9 on the cheek only. My notes do not state with sufficient precision on what part the disease commenced, but only the parts affected when the patient came under my observation. We may probably assume that in all cases in which the nose is mentioned it began there, for it is almost unknown for the nose to suffer secondarily, whereas it often causes the infection of other parts. In the table which I have displayed I have given more detailed statement.

Nose and cheeks ...	8	} 41
Cheek alone ...	9	
Nose alone ...	15	
Nose and lips ...	1	
Chin ...	2	
Face and limbs ...	4	
Cheek and neck ...	1	} 15
Nose and foot ...	1	
Leg ...	2	
Fingers and hand...	6	
Forearm... ..	3	
Each hand and arm	1	
Arm	3	

As a good example of the influence of local conditions in modifying the disease, I may mention that lupus assumes somewhat peculiar features when it occurs on the buttock. Its cause in this position is frequently the irritation of riding. I well remember, when a student at St. Bartholomew's, the case of a young man (I think a groom) who had a patch the size of the palm of a hand on one buttock. Mr. Stanley amused himself by making his friends write their diagnosis of this sore on a paper which hung at the head of the man's bed, and I think there were at least half a dozen different opinions there recorded. For some it was simply a "saddle sore," others regarded it as syphilis, others as impetigo, and, lastly, some, who I have no doubt were quite correct, called it lupus. I have seen several such sores since then, and they are all of the same characters. Their peculiarities are—extremely slow advance at the margin, and a very thick, almost brawny, cicatrix in the centre. These peculiarities are no doubt due to peculiar conditions as regards pressure and friction to which these sores are exposed.

An example of this form of lupus has been admirably studied by Dr. Sangster, who has recorded his results in the twenty-ninth volume of the *Pathological Transactions*. His patient was an engine fitter, aged 24, but as the disease had begun when he was 10 years old, it had, in its origin at least, nothing to do with his occupation. The patient was in excellent health, but a paternal aunt was said to have died of consumption. Although the disease had been fourteen years in progress, the patch did not measure more than four inches across. It was hard and cicatricial in the centre, like "bacon rind," but had a somewhat inflamed and crusted edge. Its complete excision as a measure of treatment gave Dr. Sangster an opportunity for a microscopic examination of it in its various parts, and of this he availed himself with zeal. The paper is illustrated by some excellent drawings. I will quote the summary of the microscopic appearances in Dr. Sangster's own words.

"1. Changes (cell-germination proliferation) are observable in the epidermal structures before the lupus cell-growth can be made out in the corium.

"2. The lupus cell-growth in the corium appears first in clusters round the blood-vessels.

"3. When the clusters occur in the neighbourhood of epidermal cells they are accompanied by what appears to be an irritative germination of the latter.

"4. Where the cell infiltration is great it replaces all superficial structures below the rete Malpighii; the hair follicles, sweat glands, etc., disappearing as a result of degenerative change.

"5. The rete Malpighii covering extensive cell infiltration is in a state of extreme activity, simulating appearances seen in epithelioma.

"6. In the cicatricial stage there are seen only lupus "nests" lying in meshes of fibrous tissue, covered by an irregular Malpighian layer, with flattened cells representing a stratum corneum."

Some differences are to be observed as regards the parts affected at different ages. Thus I think that the mucous surfaces are never attacked in very early life."

A discussion as to the relations of differences in lupus to different states of health brings us at once to the all-important question as to its relationships to tuberculosis. All who have observed the disease have been struck by its frequent association with feeble health and with what, until lately, we have known as scrofula. On the other hand all have acknowledged that there are startling exceptions, in which the disease shows itself in those who appear to enjoy great vigour of constitution. The names given by authors, however, sufficiently attest the general assertion that almost all observers have regarded lupus as frequently of a scrofulous type. I am desirous for the moment to avoid reference to histological questions, and to discuss the subject solely on its clinical evidence. It is certainly not common for lupus patients to have definite evidences of tuberculosis of the viscera. I have in the course of many years' experience known two or three who were the subjects of lupus become affected by aggressive phthisis, but they have been very exceptional. The same may be said, but with more numerous exceptions, as to the occurrence of gland disease or other forms of struma. The lupus patient does not, as a rule, suffer from any other form of disease. More than thirty years ago I collected and tabulated with considerable care a long series of cases of lupus, with the hope of showing by statistics its relation to struma as well in the patient's family as himself. Nearly all my patients were at that time of the hospital class. My statistics did not prove much, and I have not felt encouraged to continue their collation during later years. Nothing is easier than by statistics to show, in reference to any given disease occurring amongst the English poor, either the frequent history of tuberculosis or the reverse. All depends upon the patience and perseverance of the investigator. Most patients begin by denying that any relatives have died of consumption, and most will, if time be allowed, succeed in remembering that such has been the case. More definite facts may be obtained if we restrict ourselves to the causes of death in the patient's parents and amongst his brothers and sisters; but here still are numberless fallacies, and, after all, we know well that such tendencies often overpass a generation. Briefly, I may say that my statistics did not prove the history of scrofula nearly so frequently as the impressions formed by memory would have led me to expect. Out of nearly seventy cases I found the occurrence of other evidences of scrofula in the patient is only 28 per cent., and the history of such disease in any near relative in only 35 per cent. No fewer than 50 per cent. appeared, so far as I could ascertain, to be themselves in good health, and to come of families against which nothing could be established. It is to be remembered also that the impressions formed by casual observations

² The following statistics are compiled from a series of hospital cases, which I tabulated more than thirty years ago, and do not include my more recent experience. They are sufficient for the present purpose. Of 141 cases, 59 were males and 83 females. Of 67 cases in which the age at which the disease began is noted. In one case at the age of 1, at 2 in 3, at 3 in 3, at 5 in 2, at 6 in 2, at 7 in 2, at 8 in 3, at 9 in 1, at 10 in 4. Thus in the first decade we have 30, or nearly half.

At 11, 2; 12, 5; 13, 3; 15, 1; 16, 3; 17, 1; 18, 1; 19, 1; 20, 1; 23, 8; 24, 2; 26, 2; 30, 1; 32, 1; 33, 1; 35, 1; 40, 3; 42, 1; 44, 1; 48, 1; 49, 1; 52, 1; 56, 1; between 10 and 20, 18; between 20 and 30, 8; after 30, 4. Thus after the first decade we have a total of 37.

In reference to the proportion of lupus cases to other forms of skin disease, I may quote the following statement from Sir Erasmus Wilson, who found in 10,000 cases of skin diseases occurring among the wealthier classes—

Lupus "strumousus" (= vulgaris)	.. .. .	77
Lupus erythematosus	.. .. .	78
The misleading character of statistical statements is well illustrated by the fact that Sir Erasmus found lupus erythematosus rather more frequent than lupus vulgaris. No one believes that it really is so, and the subjoined statement will show how the facts on this point stand in Vienna:		
Kaposi, in 6 years' hospital experience—		
Lupus erythematosus,	29	7 males
		15 females
Lupus vulgaris,	279	132 males,
		147 females.

The startling difference in the proportionate frequency of the two diseases in Wilson's experience and in that of Kaposi, I believe, to be explained by the circumstances that one drew his conclusions from private practice and the other that of a hospital. Lupus erythematosus being an almost incurable disease, it follows that it is likely to be sent to private consultants, whilst cases of lupus vulgaris more usually remain under the care of the family surgeon. My own experience during recent years has, I believe, been very similar to that of Sir Erasmus, and would show lupus erythematosus apparently as common as lupus vulgaris.

are liable to some error, inasmuch as lupus produces deformities of the visage, and scars in the neck which are precisely of the kind to suggest the offhand suspicion of scrofula. This may easily happen in cases in which, excepting the lupus itself, there may be an entire absence of all evidence of such taint.²

In spite of my own statistics, however, I cannot avoid the belief that lupus is, in very many instances, a scrofulous disease; but at the same time I am inclined to the belief that, in most instances, the tendency to disease of this type having begun in the skin, restricts itself to it, and shows little or no tendency to attack internal organs. I well remember a family of three sisters, whom I know intimately in youth, and whose history may illustrate my meaning. The eldest of these had her neck dreadfully scarred by strumous abscesses in childhood, but she subsequently enjoyed excellent health through a long and vigorous life. The second, always delicate, died of phthisis at 50; and the third, who had never ailed anything else, lost her nose from lupus at about 45. There was a history of tuberculosis in the mother's family.

The more definite the exemption from tuberculous antecedents or concomitants, the more likely it is, I think, that any individual case of lupus will prove non-inflammatory; but there are exceptions on all hands, and I dare not assert anything in this matter with confidence. If the mucous membranes suffer, there is, I think, almost invariably a tuberculous family history. On the other hand, I must admit that the evidences as to family history of phthisis is as strong, or even stronger in the case of lupus erythematosus, as it is in common lupus.

There is another peculiarity of personal health, which is of much importance, in predisposing to certain forms of lupus. I refer to the proclivity to chilblains. The tendency on the part of the tissues to inflame and become irritable, under the intermittent influence of cold and damp, which constitutes the chilblain proclivity, is so marked in many cases of lupus, that this disease might almost be regarded as being a modified chilblain. This statement concerns the erythematosus form more frequently than it does the common lupus, but it is not without its importance as regards the latter.

In what I have been saying I have been speaking of scrofula and tuberculosis as if they were interchangeable terms, or, if not so, as if scrofula still enjoyed an existence, and had not been wholly merged by modern discoveries. It is desirable to explain a little on this point. Those who hold with the greatest firmness the modern doctrine that a bacillus is the one and the only cause of true tuberculosis yet admit that peculiarities in the state of health of the recipient are of very great importance in favouring the development of the parasite. For them tuberculosis is a disease of infection from without, and can never be self-produced; but still only those of certain idiosyncrasy or diathesis are capable of readily receiving the contagion. We have then two things—contagion and proclivity. It follows, I think, that it is quite possible that the state of system which constitutes proclivity may in itself and without tuberculous infection originate some forms of disease. Nothing is more probable than that persons vulnerable in the direction of easily affording a nidus for the tubercle bacillus may also be liable to peculiar forms of common inflammation. That such is the case I would submit we know well by experience. In such patients wounds, bruises, and chilled parts repair badly and are very apt to inflame. If exposed to cold, chronic catarrhs or states of local inflammation may readily follow. Thus ophthalmic surgeons recognise a scrofulous ophthalmia which they do not regard as tuberculous, but which occurs in patients who have tuberculous susceptibilities. I would venture to suggest that the terms struma and scrofula are very suitable for the designation of all such specialised types of common inflammation as we encounter in those who would easily become tuberculous if exposed to contagion, but who have not as yet had the

¹ I have, since this lecture was given, collated for statistical purposes some more recent notes which I had by me. The following statements will, I believe, convey a truthful impression of them. In rather more than half my cases the notes expressly state that the patient appeared to be in very good health, and had at no time suffered from any debilitating diseases.

² In nearly half special inquiries on this head failed to disclose any particular delicacy or ill-health on the part of the brothers and sisters, or of the parents.

³ In only 9 per cent. was there reason to suspect phthisis in the individual, and in several of these the evidence was but slight. In nearly 30 per cent. there were enlarged lymphatic glands, but in some of these clearly the gland disease was secondary to the lupus. I am well aware that results of statistical inquiry have been published which differ considerably from mine.

⁴ Lelour (*Annales de Dermatologie et Syphilis*, vol. vii) brings considerable clinical evidence to prove that the two diseases are practically identical. Of 17 hospital cases treated by him in 1855, 10 showed unmistakable signs of lung tuberculosis, another suffered from white swelling of the knee. In two of them he proved the presence of tubercle bacilli in the lupus tissues, though inoculation experiments on the peritoneum of dogs failed. In one case lupus of the hand was attended by scrofulous lymphangitis (and formation of "tubercular gummata" along the lymphatics of the arm), followed by tuberculosis of the lung on the affected side. In four cases lymphatic oedema ("white erysipelas") accompanied lupus of the skin, and constitutional disturbance and phthisis resulted.

bacillus implanted. Whatever results from the implantation of the bacillus we may name tuberculosis, whatever results from the constitutional state alone we may denominate scrofula.

It would be of great value if we could obtain any trustworthy evidence as to the frequency of the association of lupus with cancerous tendencies. As yet, however, none such are forthcoming. Many observers have noticed that there is in persons of middle age, who have suffered from lupus, a definite tendency for the scars to become attacked by cancer. I have myself witnessed this repeatedly. I have also, in several cases, seen cancer and lupus existing in different regions and independently in the same patient. The number of such facts is, however, not as yet sufficient to justify us in feeling confident that they are more than coincidences, however strong may, nevertheless, be our suspicions. The observation of histologists (Sangster and others) that, in lupus scars, there is often a definite tendency to down-growth of processes from the Malpighian layer, much after the pattern of epithelioma, is not without its interest in this connection.

A METHOD OF GRAPHICALLY RECORDING THE EXACT TIME-RELATIONS OF CARDIAC SOUNDS AND MURMURS.¹

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INTRODUCTORY STATEMENT BY DR. BYROM BRAMWELL.

In common with the great majority of physicians, I have been in the habit of thinking that the so-called presystolic mitral murmur is produced by a blood current flowing from the auricle to the ventricle through the stenosed mitral orifice; and I have repeatedly—both by (1) simple palpation with the flat hand; (2) combined auscultation and palpation; (3) combined binaural auscultation and inspection of the apex beat and movements of the cup of the stethoscope; and (4) combined binaural auscultation and inspection of the movement of the lever of a Galebin's cardiograph—investigated the relationship of the murmur to the cardiac impulse, with the result that, in the great majority of cases of presystolic murmur, which I have carefully and critically examined, I have satisfied myself (or, at all events, I have thought that I had satisfied myself) that the murmur does precede the first sound of the heart and the maximum impulse of the apex beat.

The publication of Dr. Dickinson's paper, in which he stated that, according to his observations, the murmur and impulse of the apex beat are synchronous, and in which he gave theoretical reasons² for believing that the murmur is ventricular systolic, and not auricular-systolic, seemed to show the hopelessness of getting all observers to agree even as to facts—to say nothing of the theoretical conclusions to be based on them—by means of our present methods of investigation, and to call for some new method by which the matter can be graphically demonstrated and finally and conclusively settled.

Some years ago, when the phonograph was first invented, the possibility of recording, on the same revolving drum, a tracing of the cardiac impulse (by means of a cardiograph) and a tracing of the cardiac sounds and murmurs (by means of a modified phonograph) had occurred to me.

The publication in the daily journals (just about the time when Dr. Dickinson's paper appeared) of the extraordinary results which Mr. Edison has obtained by means of his new modification of the phonograph, redirected my attention to the subject; and, with the object of bringing the matter to a practical conclusion, I explained exactly what I thought was wanted to my friend Dr. Milne Murray. Dr. Murray did not think that the phonograph or microphone, so far as their mechanism is at present known, could be made to record a tracing in the manner I desired; but he stated that he did not know the capabilities of Mr. Edison's new instrument, and he advised me to write to Mr. Edison himself.

¹ Communicated to the Royal Society of Edinburgh, on December 19th, 1887.

² It would be foreign to my present purpose to discuss the arguments which can be advanced both for and against the presystolic origin of the murmur of mitral stenosis. On some future occasion I may have to enter into some parts of the subject in detail. Suffice it for the present to say that the balance of evidence has seemed to me to be strongly in favour of the generally accepted or presystolic view.

This I have accordingly done. I have pointed out to Mr. Edison the immense practical advantages which would result if cardiac sounds and murmurs (and, indeed, all other stethoscopic phenomena) could be permanently recorded and phonographically stored up; and have begged him to direct his attention to the subject. I have told him that we physicians and clinical teachers desire two modifications of his instrument, namely:—

1. A phonograph (or phonographic stethoscope, as it might be termed) capable of receiving, recording, and reproducing cardiac sounds and murmurs. I trust that if Mr. Edison will direct his genius to the matter, he may be able to give us such an instrument. If the receiving portion could be adjusted to a limited area of the chest, and if the discharging portion could be made to reproduce its sound into the cup of a binaural stethoscope, the instrument would be exactly what is required. Its introduction would mark a new era in clinical medicine and in clinical teaching. By means of such an instrument, phonograms of all important and interesting cases could be stored up in our case books, and murmurs and other sound phenomena could be kept for any length of time, and reproduced whenever they were required. The teaching of auscultation would be materially simplified. And by means of a modification of the instrument it might perhaps be possible to magnify the sounds produced by such a phonograph, so as to make them audible to a large clinical class. In fact, the possibilities of such an ideal instrument are immense.

2. A phonograph capable of receiving cardiac sounds and murmurs, and of discharging its vibrations, not in the form of sounds, but in the form of movements, capable of being recorded on a revolving cylinder of smoked paper. Such an instrument would enable us absolutely and definitely to settle the systolic or presystolic rhythm of the murmur of mitral stenosis, and many other important questions connected with the physiology and pathology of the heart; for, by recording on the same drum a tracing of the apex impulse (by means of a cardiograph) and, immediately below it, a tracing of the sound phenomena (by means of such a modification of the phonograph), the exact relationship of sound to impulse, and to the different phases of the cardiac cycle, could be settled with certainty; in fact, with absolute mathematical precision.

Although much disappointed with Dr. Murray's opinion as to the possibility of graphically recording cardiac sounds and murmurs by means of the phonograph, I could not get rid of the idea; for some such instrument seemed so exactly what is required for determining the exact rhythm of the presystolic murmur on which my thoughts were at that time intent.

On further consideration the following modification of my original plan suggested itself to me: (1) To record on a revolving drum the cardiographic trace by means of a Marey's cardiograph. (2) To listen (the eyes being closed), by means of a flexible binaural stethoscope, to the cardiac sound or murmur the time of which it was desired to mark and ascertain. 3. To strike with the forefinger of the right hand the button of a second Marey's tambour (chest piece) at the moment when the murmur or sound was heard, and so to record it (by means of a second Marey's cardiograph) on the same revolving drum, immediately below the tracing of the impulse of the heart. In this way the impulse of the forefinger—in other words, the exact time occurrence of the murmur, less the "psychical loss" occupied by the passage, so to speak, of the murmur from the ear to the tip of the forefinger of the auscultator—could be exactly marked in relationship to the different parts of the heart's cycle, as traced on the drum by the cardiograph. If the levers of the two cardiographs (one worked by the apex beat, the other by the forefinger of the auscultator) were so adapted as to move in exactly the same vertical plane, the exact time relationship of the sound or murmur to the ventricular systole (or other phase of the cardiographic trace) could be determined, provided that the "psychical loss," previously alluded to, were accurately measured and deducted. (4) In order that the "psychical loss" might be accurately measured and deducted, time markings would have to be made on the revolving drum immediately below the tracings produced by the cardiographic levers; and (5) the exact time which elapses between a sound being made and its being signalled and inscribed on the revolving cylinder by the auscultator, would have to be accurately measured.

Dr. Milne Murray at once saw the feasibility of this modification, and very kindly promised not only to fit up the necessary apparatus, and to place the resources of his laboratory at my disposal, but, what was even more important, to share in the research and to aid me with his knowledge and advice. It is unnecessary to say that I eagerly availed myself of Dr. Murray's offer. My crude idea has in this manner been transformed into an actual working mechanism; and the research being supervised by Dr. Murray, who, in experimental tion of this description, has few, if any, equals, the reliability of any

results which are obtained is guaranteed, so far as it is possible to guarantee them.

Dr. Murray suggested that instead of the auscultator signalling the time of the murmur by touching the button of a second Marey's cardiograph, he should do so by means of a Morse's key and electric circuit.

To estimate the "psychical loss," a point about which I had no satisfactory notions, he at once suggested a most ingenious contrivance, which is in every way suited for its purpose. A lever is made to move and record its movement on a revolving drum, and a sound is produced in a telephone at one and the same moment by "making" or "breaking" the same electric circuit; in other words, by touching a Morse's key a sound in the telephone can be produced at will, and the exact time occurrence of that sound is at the same time automatically and, as it were, electrically recorded on a revolving cylinder.

By means of this contrivance the estimation of the exact "psychical loss" is a matter of the greatest simplicity. The individual whose "psychical loss" it is required to measure (the auscultator in the previous experiment), places the telephone to his left ear, and as soon as he hears the telephonic sound produced by a second individual, who is taking the observation, signals to the revolving drum by means of a Morse's key and electric circuit; in this way the auscultator inscribes, as it were, on the revolving cylinder of smoked paper the exact time when he hears the sound; and since the period at which the telephonic sound was actually produced has been already inscribed on the drum by the automatic arrangement previously described, the distance at which the auscultator's signal follows the telephonic signal of course equals the "psychical loss"—that is, the delay which occurs in the sound vibrations passing, as it were, through his psychomotor apparatus to the signal key.

By recording time markings on the drum below the tracings produced by the two signals, the exact duration of the "psychical loss" in fractions of a second can be exactly measured; and the necessary correction in the position of the signal representing the occurrence of the cardiac sound as measured in its relationship to the cardiographic tracing and cardiac cycle (for, in the previous observation, the same time markings were, it will be remembered, taken) can of course be at once made.

The more accurate account of the apparatus is given below by Dr. Milne Murray himself.

DESCRIPTION BY DR. MILNE MURRAY OF APPARATUS USED IN GRAPHICALLY RECORDING THE TIME OF CARDIAC SOUNDS AND MURMURS.

1. *Arrangement for Recording the Cardiac Movements and the Occurrence of the Murmur.*—The binaural stethoscope S., Fig. 1, is retained in position over the region of most audible sound, in the manner described, and attached to the ears of the auscultator, who sits with his back to the observer and the recording apparatus. The cardiograph C., is held in position over the apex beat, either by the patient or by an assistant. The movements of the cardiograph are conveyed to the recording tambour T., through the tube V., and are recorded by the uppermost pen (1). The right hand X., of the auscultator, is placed so as to close at will a properly adjusted Morse key, K., placed conveniently on a table by his side. This key completes the circuit of the battery, I., shown beside it, and actuates the signal magnet, M. The upstrokes of this pen (2) will therefore indicate the movement of the occurrence of the murmur listened to, as indicated by the signals of the auscultator. The magnet marked B. (tracing the third line) is in direct connection with a clock beating seconds, and that marked A. is in connection with a timing-spring beating fractions of seconds (in this case 1-15th).

2. *Arrangement for Determining the Time Intervening between the Reception of an Auditory Impression and the Transmission of a Signal by the Auscultator, that is, the "Psychical Loss" in the Observations.*—The pendulum F., makes contact with the platinum points at each swing, and closes the circuit of the cell E. This circuit includes the primary coil of the induction apparatus G., and the magnet C., acting on the pen 2. At each swing of the pendulum a current will pass through the coil G., and the moment of its passage will be recorded on the drum by the pen 2. This current will, moreover, induce a current in the secondary coil of G., with which the telephone H. is connected. This telephone is held to the ear, O., of the auscultator, who will thus listen to the clicks of the telephone produced by the induction currents in the secondary coil of G. The right hand X., of the auscultator, is conveniently placed on the key K., and with this he signals the moment when he hears the clicks in the telephone. These signals are marked on the drum by the magnet D. and the

pen 1, which are in the same circuit as the key. The loss of time between the reception of the auditory impression from the telephone and the transmission of a signal (in other words, the length of time required for the sensory impression at O., to be transformed, so to speak, into a muscular contraction at X.) will be measured by the distance between the up-stroke of 1 and 2. The pens 3 and 4 mark seconds and fractions of seconds in the same way as in the previous arrangement.

STATEMENT BY DRs. BYROM BRAMWELL AND MILNE MURRAY
OF THE RESULTS OBTAINED IN THEIR FIRST SERIES OF
EXPERIMENTS.

Our first observations were made on November 14th, in a case of typical presystolic murmur. In this and the subsequent experiments in this series Dr. Bramwell listened to the murmur and signalled it, while Dr. Murray superintended and worked the recording apparatus. For the purposes of description, and to avoid the needless repetition of names, we will term the former the auscultator and the latter the observer. The receiving tambour of the Marcy's cardiograph was

held in position over the apex beat by an assistant. The method of working was as follows:—

The patient was conveniently placed (seated or lying) at a distance of about four feet from, and facing, the recording drum. The cardiograph was then adjusted, so that a sufficiently satisfactory movement of the lever connected with the recording tambour was obtained. The assistant then took charge of the cardiograph, and kept it in accurate contact with the apex beat. The auscultator then seated himself in front of the patient, with his back to the recording drum, and by means of a binaural stethoscope determined the part of the chest where the murmur could be most distinctly heard.

In the case of presystolic murmurs, the area of which is often very limited, it is not usually possible to place the cup of the stethoscope over the exact point of maximum intensity of the murmur, for the receiving tambour of the cardiograph covers this spot; but in the two cases we have so far investigated, a position was easily obtained where the murmur was distinctly heard.

During the observation, the cup of the stethoscope may be held in position either by the patient, an assistant, or the auscultator him-

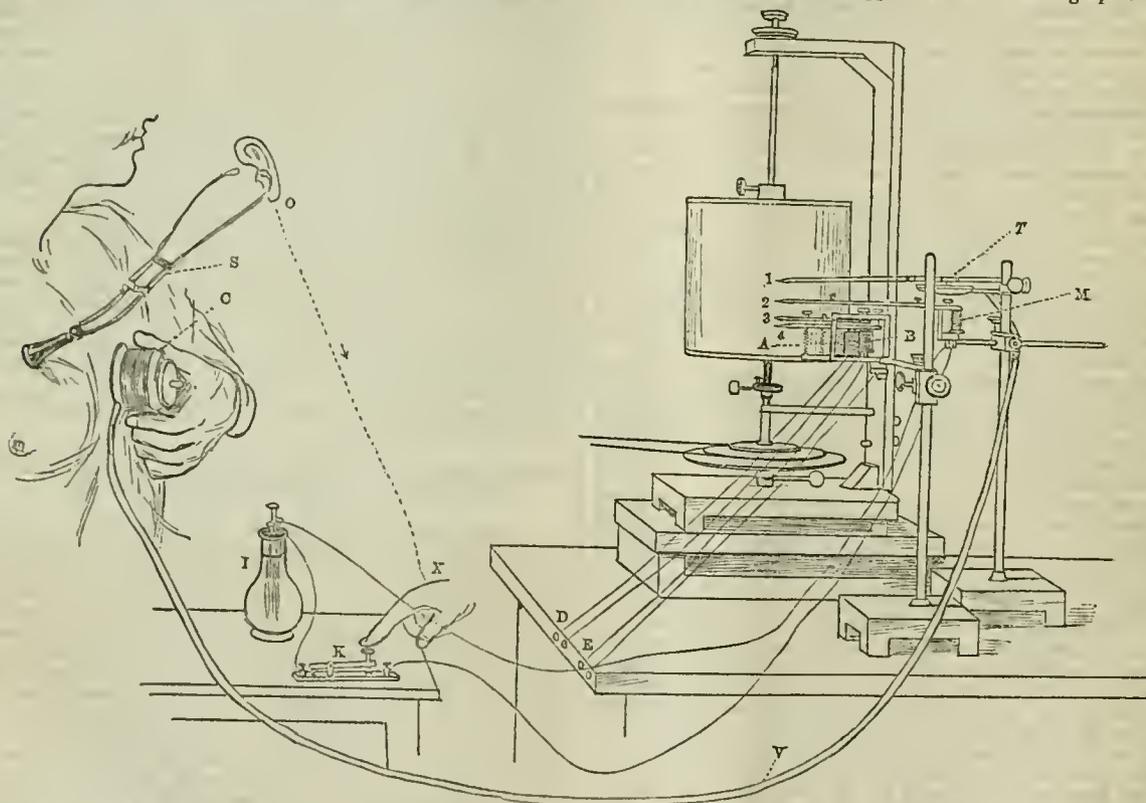


Fig. 1.—The apparatus used by Drs. Byrom Bramwell and Milne Murray, for graphically recording the exact time relations of cardiac sounds and murmurs. (For detailed description of the figure, see text.)

self. The advantage of having the end of the stethoscope held in position by an assistant or by the patient is that the auscultator is then altogether disconnected with the patient, except through the flexible tube of the binaural stethoscope, and there is, consequently, no possibility of his receiving any information with regard to the rhythm, systolic or otherwise, of the murmur by means of the tactile sense. The auscultator then closes his eyes, and concentrates his whole attention on the cardiac sound or murmur the time of which he desires to record, and proceeds to mark the time of the murmur by depressing with the forefinger the Morse's key, conveniently placed at his right hand.

After the auscultator has for some time signalled the murmur in this way (in other words, as soon as he proceeds to discharge and signal the time of the murmur in a regular and rhythmical manner,) and when the levers connected with the cardiograph and the auscultator are both working to the observer's satisfaction, the drum is started, allowed to make its circuit, and stopped. The observation is then completed. By this means four tracings are recorded on the smoked paper; the first or uppermost is the cardiographic trace; the

second shows the signals of the auscultator; the third the time in seconds, and the fourth or lowest trace, the time in fractions of seconds.

It must be understood that as yet we have made no attempt to time the duration of the sounds or murmurs which we have recorded. Whether this can be at all accurately done we do not at present know, but hope to determine in the course of our investigation. The duration, then, of the auscultator's signal may, so far as our present results go, be left entirely out of account. The commencement of the signal (the point at which the letter c is placed in Fig. 5) is the point to which importance is to be attached.

In this, our first experiment, several observations were made. The preliminary tracings were more or less imperfect, for the necessary adjustments, and the rate of revolution of the drum best fitted for all the requirements of the experiment, had to be ascertained by practice; but we finally obtained a satisfactory tracing, in which the auscultator's signal bore a definite and constant position to the ventricular systole, as traced by the cardiograph in successive cardiac cycles.

The "psychical loss" was then estimated in the following manner. The apparatus having been re-adjusted, the auscultator held the telephone to his left ear, and by means of his right forefinger (the eyes being closed) signalled to the recording apparatus the time when the telephonic sound was heard. The telephonic sounds were produced by the observer "making" or "breaking," by means of a Morse's key, an electric circuit at irregular intervals the exact time at which the telephonic sound occurred being, as previously mentioned, automatically inscribed on the revolving cylinder.

In this way, four tracings were again obtained on the smoked paper. The first or uppermost represented the auscultator's signal; the second the exact time of production of the telephone sound; the third, the time in seconds; and the fourth, the time in fractions of seconds. The psychical loss, estimated in this manner, was found on this occasion to be, roughly, about a fifth of a second. The auscultator was conscious of the very long psychical delay which occurred in signalling the intermittent telephonic sounds, produced at irregular intervals in this manner. The conditions were obviously quite different from the rhythmically and quickly recurring sounds produced in the human heart. It was, therefore, decided that, in future observations, the telephonic sounds should be produced in a rhythmic and regular manner.

The next observations were made on November 25th. On this occasion, two cases were examined. The first was another absolutely typical case of mitral stenosis (presystolic murmur). Several tracings were obtained, in which the murmur (as signalled by the auscultator) occupied a definite position in successive cardiac cycles (as traced by the cardiograph); and the position of the murmur corresponded exactly to the position of the murmur in the previous case of mitral stenosis.

In the present communication, we do not propose to make any further statement with regard to the position of the murmur in these two cases of mitral stenosis. The exact time relations of the murmur being in dispute, we intend to hold our judgment in suspense, until we have satisfied ourselves by repeated observations of numerous cases, that we have sufficient grounds for coming to a reliable conclusion on the point.

In the second case which was examined on this occasion (November 25th), there could be no possible doubt as to the nature of the clinical phenomena; and the tracings obtained, both of the aortic second sound, and of the telephonic sound which was artificially produced, in estimating the psychical loss, were so definite, so unexpected, and yet so mutually corroborative the one of the other; and the final result, as to the position of the second sound in the cardiac cycle was so absolutely in accord with all that is known of the physiology and pathology of the heart, that the reliability of the method, as a practical means of demonstrating the time relations of cardiac sounds and murmurs to the different parts of the cardiographic tracings is, we think, to a large extent established by this single series of observations alone.

The second case which we observed on November 25th, and to which

we now wish to refer in detail, was that of an intelligent man (W. K.), aged 41, a gentleman's servant, formerly a soldier, who consulted Dr. Byrom Bramwell at the out-patient department of the Edinburgh Royal Infirmary on November 5th, 1887.

The clinical details of the case are as follows. Four days previously, when playing at dominoes with his brother, he was suddenly seized with a localised epileptiform convulsion (attack of Jacksonian epilepsy), in which the head and eyes were twisted to the right side, and then affected with clonic spasms. Consciousness was retained during the attack, which lasted about a minute and a half. He was unable to see during the attack, in consequence, he thinks, of the eyes being turned so far upwards and to the right. The arm and leg were not affected.

On inquiry, it was ascertained that the patient had, previous to this attack, enjoyed excellent health; in fact, he stated that, with the exception of being occasionally laid up with the effects of drink, he had never known what it was to be ill. Some years ago, he used to drink and smoke very heavily; but, for the past eight or nine years, he has been perfectly steady in both respects. In particular, the patient stated that he never had syphilis, and that he had not suffered from

headache or vomiting. During the three weeks preceding the convulsive seizure, he had occasionally felt giddy. Four months ago, he "saw double" on three or four different occasions, but this double vision only lasted for a few minutes at a time. He had also, two or three times, seen bright flashes of light before both eyes. He stated that he had never had rheumatism; that he was not short of breath; and that he had neither pain nor uneasiness in the region of the heart; in short, he had no suspicion whatever that there was anything wrong with that organ.

On examination the optic discs were found to be normal, and there were ab-

solutely no physical signs of central nerve disease. On examining the heart, the apex beat was found to be ill-defined, in the erect position, beating behind the sixth rib, in the line of the nipple, or perhaps a little to the left of it. When the patient was lying on his back, the cardiac pulsation was abnormally forcible and heaving. The area of precordial dulness was distinctly increased, and there seemed to be a decided increase of the deep dulness over the ascending thoracic aorta. A well-marked double aortic murmur was audible up and down the sternum. At the second right interspace, the commencement of this murmur was accurately marked by a sharp, short, but loud and ringing, second sound, from which it (the murmur) tailed off. The heart's action was perfectly regular, and its frequency 72 per minute. The diastolic murmur was prolonged far into the diastole, which did not seem to be materially shortened, as it is in free aortic regurgitation. The radial pulse was moderately jerking, visible, and tortuous, but was not suggestive of free aortic regurgitation—an observation which was confirmed by the character of the sphygmographic tracing taken a few days subsequently. (See Fig. 3.) The cardiographic tracing shown in Fig. 4 was taken by Galabin's

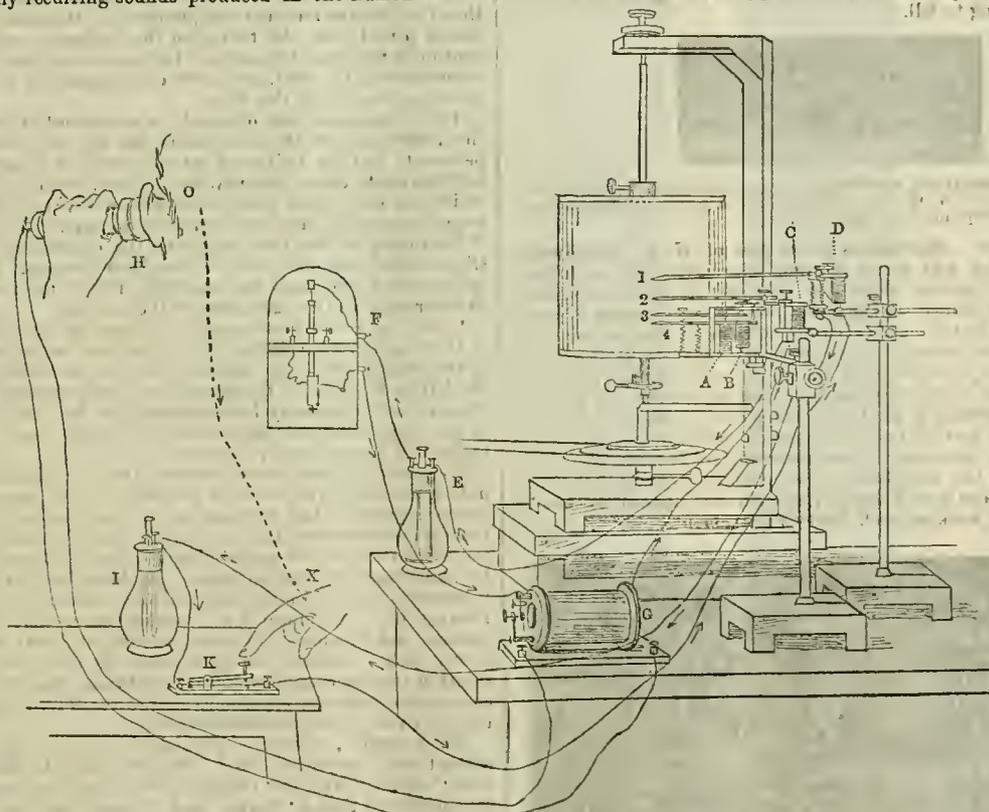


Fig. 2.—The apparatus used by Drs. Byrom Bramwell and Milne Murray, for estimating the "psychical loss." (For detailed description of the figure, see text.)

instrument on the same occasion as the sphygmogram, the heart's action at the time of the observation being somewhat accelerated and excited.

The diagnosis was dilatation (perhaps aneurysmal) of the ascending thoracic aorta, with some, though not free, aortic regurgitation. The cause of the attack of Jacksonian epilepsy need not be discussed here; but it was probably due to a small embolism, though the possibility of a commencing localised "coarse" cortical lesion cannot be absolutely excluded.)

Now this case seemed singularly well fitted for testing the capabilities of the method of timing cardiac sounds and murmurs which we are now describing, the apex beat being sufficiently well defined to give a decided systolic up-stroke corresponding to the ventricular systole, and the exact commencement of the diastolic murmur being most accurately and sharply defined by the short accentuated aortic sound, which occurs, as everyone admits, either immediately, or very shortly, after the termination of the ventricular systole—that is, when the lever of the cardiograph, which has been raised during the ventricular systole, is beginning to fall.



Fig. 3.—Sphygmogram (taken with Mahomed's modification of Marey's instrument) in the case of W. K. The tidal and diastolic waves are well-marked, and the pulse frequency is not increased.

The results of our observations in the case of W. K. (accentuated aortic second sound and aortic diastolic murmur) were as follow. The cardiographic tracing which was obtained by Marey's tambour apparatus, though amply sufficient for our present purpose (since it clearly shows the systolic and diastolic portions of the cardiac cycle and the point where systole commences and ends), is by no means equal to that which is obtained by Galabin's cardiograph. (The difference in the result is probably due to several circumstances, namely, (1) the inherent qualities of the two instruments; (2) the fact that the apex impulse was less distinct, the heart's action being much less forcible, when the laboratory observation was made; and (3) to the circumstance that the auscultator is accustomed to work with Galabin's cardiograph, and is well acquainted with its capabilities, but is not in the habit of working with Marey's instrument.)

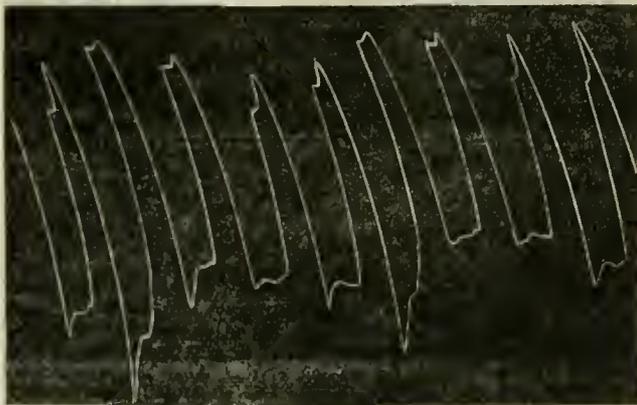


Fig. 4.—Cardiogram (taken with Galabin's cardiograph) in the case of W. K. When the tracing was taken the heart's action was somewhat excited and accelerated. The tracing shows powerful and well sustained ventricular contraction, some impediment to the passage of the blood from the ventricle into the aorta, and no marked rise of blood-pressure on the ventricle during its diastole.

A sufficiently satisfactory movement of the lever connected with the cardiograph having been obtained, the murmur was timed, signalled, and recorded with all the precautions previously described, the auscultator's attention being concentrated on the sharp accentuated second sound which marked the commencement of the murmur. The signal of the auscultator therefore represents the commencement of the aortic diastolic murmur, or the occurrence of the second (aortic) sound of the heart.

The timing in this case was very easy and very satisfactory, owing

to the sharpness and loudness of the sound to be observed, and the slowness (72 per minute) and regularity of the cardiac action.

The duration of the observation seemed to the auscultator inordinately long, and he was conscious towards its termination of a feeling of strain, and of cerebral surprise at the duration of the experiment, and of anxiety as to its result. The long duration of the experiment was due to the fact that the observer, being so pleased with the result, had not contented himself, as in former observations, with taking one tracing, but had three times raised and readjusted the drum, and had taken four successive tracings before giving the auscultator the signal to cease the auscultation by nudging him in the back. Exact reproductions of portions of these four tracings are shown in Fig. 5. The full length of each tracing was 19 inches; more than half (11½ inches) has consequently been cut off, so as to adapt the the woodcut to the size of the JOURNAL (8½ inches).

The total number of pulsations (cardiac cycles) recorded in the four tracings was twenty-eight, representing a period of nearly twenty-three seconds. The length of the observation was, however, very much longer than this, for the repeated readjustment of the drum occupied a much longer period than the taking of the tracings; and the auscultator continued to signal the murmur for some time both before the commencement of the first, and after the termination of the final, cardiac pulsation marked on the drum.

This experiment was obviously a severe test of the capabilities of the method and of the mechanism, for the long duration of the experiment, and the feeling of fatigue, cerebral surprise, and anxiety for the result, and expectancy for the termination of the observation, which the auscultator experienced towards the end of the experiment, might reasonably have been expected to interfere with the accuracy of his timing in the later stages of the observation; and to a very slight extent this does seem to have been the case. In the last three cycles traced, which are not shown in Fig. 5, the timing is not quite so accurate as in the other parts of the tracings.

It will be seen by reference to the tracing (Fig. 5) that the result in this case is very definite. The up strokes indicating the occurrence of the second sound, as signalled by the auscultator, and to which the letters C. point in the figure, practically occupy exactly the same place in each cardiac cycle throughout the four tracings. (The cause of the slight differences in position seen in successive cardiac beats or cycles will be explained presently.)

We observed with much surprise that the second sound, as signalled, exactly corresponds to the point of the cardiographic tracing which represents the termination of the systole; in other words, exactly corresponds to that part of the cycle in which we know that the second sound does actually take place. This result was difficult to understand, for no allowance or correction had been made for "psychical loss." In our previous observations we had roughly estimated the "psychical loss," which occurs in signalling intermittent and irregularly recurring sounds, at a fifth of a second; and if any such deduction had to be made in the present instance, the result of the observation would be an obvious absurdity, for it would cause us to place the occurrence of the second sound back, quite in the early part of the ventricular systole.

We proceeded, therefore, with much interest and anxiety to re-estimate the "psychical loss." With this object, Dr. Murray placed into "circuit," with the telephone and recording apparatus, a clock, so constructed that a "make" and "break" of the electric current, were effected every two seconds, the rhythm, however, being interrupted every tenth beat. In this way a "make" and "break" sound, separated by a short interval, were produced in the telephone, every two seconds, but interrupting every tenth beat, so to speak, and the exact period of occurrence of these "make" and "break" sounds was automatically recorded on the drum, as in previous experiments. The auscultator found that the signalling of the sounds produced in this way did not materially differ from the signalling of the intermittent and irregular sounds produced on the previous occasion; the sounds did not occur sufficiently rapidly to enable him to time them rhythmically, more especially since the interruption every tenth beat entirely disorganised the rhythm. In timing the sounds produced in this way, he had, he found, to watch for every separate sound, and to time it separately and individually, as if it had been produced in an altogether irregular and arrhythmical manner. As a matter of fact the "psychical loss," estimated in this way, was found to be exactly 3-15ths of a second.

We then determined to make the conditions, so far as possible, identical with those in the case of diastolic aortic murmur previously examined; in other words, to time a well defined sound, that is produced regularly, at the interval of a second. To effect this the clock, which in previous experiments had been used to mark the time in

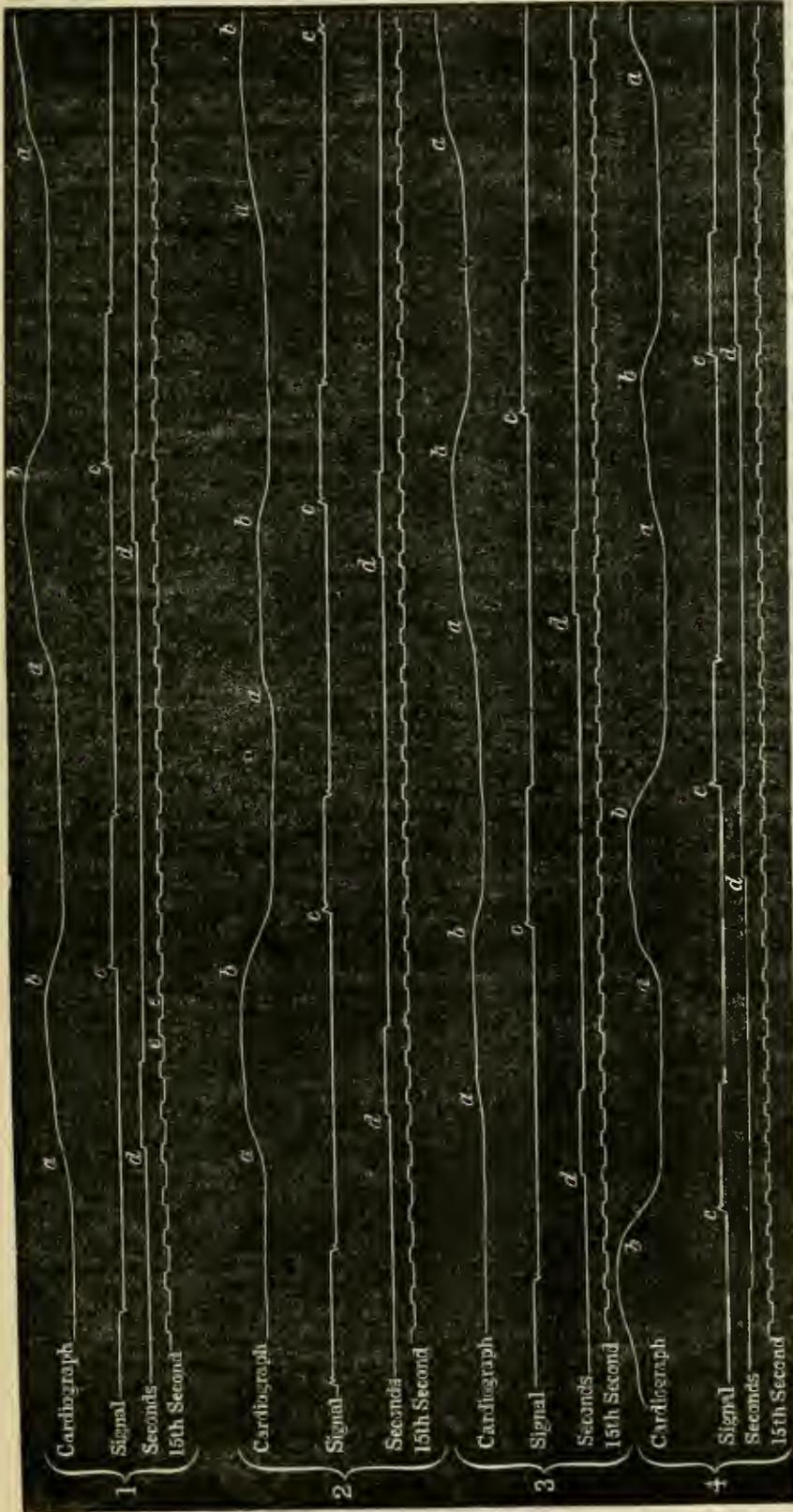


Fig. 5.—Facsimile of portions of four consecutive tracings in the case of W. K. The letters a, a point to the commencement, and b, b to the termination of the ventricular systole, as seen in the cardiographic tracing; c, c to the occurrence of the second aortic sound, as signalled by the auscultator; the spaces between the letters d, d, and e, e, in the third and fourth tracing indicate periods of a second and a fifteenth of a second, respectively.



Fig. 6.—Facsimile of a portion of the tracing obtained in the estimation of the "psychical loss," as described in the text. The letters a, a point to the time at which the telephonic sound was signalled by the auscultator; and the letters b, b to the time at which it actually occurred. The two arcs, it will be observed, are practically synchronous. The distance between c and e, in the third line, represents a period of two seconds.

seconds on the tracings, was put into circuit with the telephone and its recording lever; and the two seconds clock (that is, the clock which makes and breaks contact every two seconds, intermitting every tenth beat) was used as a time marker, though, with the telephone signal already marking seconds, this was not, of course, necessary. The result of this arrangement was the production in the telephone every second of a "make" sound and a "break" sound, separated by so short an interval that the sound vibrations appeared almost to run one into the other; the result produced very closely resembled a short, sharp cardiac murmur, occurring in a heart beating with absolute regularity sixty times a minute.

The auscultator, as soon as he listened to the sounds produced in this way, and before any tracing had been taken, expressed absolute satisfaction with the conditions. He stated that any "psychical loss," which was observed in timing these sounds would, he felt confident, apply to the observations made in the case of W. K. Further, it was obvious that the conditions exactly resembled the timing of a short, sharp systolic cardiac murmur, for the up stroke of the telephonic signal (which marked the occurrence of the telephonic sound) might be regarded as the systolic up stroke of the cardiographic lever, which marks the commencement of the ventricular systole, and therefore the commencement of a systolic murmur in a cardiographic tracing.

After careful adjustment of the telephonic lever and the signal lever of the auscultator, a tracing was taken with all the precautions previously described (the eyes of the auscultator being closed). The result (see fig. 5) was again a surprise, and an interesting physiological observation—which, so far as we know, has not been previously made—for it showed that, under the conditions of the experiment, there is absolutely no "psychical loss." The absence of any "psychical loss" under such conditions is a most important practical fact for the purposes of our present research; for it shows that in recording, by means of the apparatus which we have described, the sounds of a rhythmically contracting and slowly acting heart, the personal equation (as regards "psychical loss," but not, of course, as regards the auscultator's capability of perceiving cardiac sounds or murmurs) may be left out of account. Within what limits, as regards frequency of action (in other words, frequency of sound), this statement applies we do not at present know; but we hope in the course of a short time to be able to determine.

There are also several other interesting questions connected with this result (not, however, bearing directly upon our present research) which suggest themselves for solution, and which, if time permits, we hope to investigate:

The fact that there is no "psychical loss," under the conditions we have mentioned, confirms, in the most striking and absolute manner the reliability of the previous experiment, which had located the occurrence of the second sound just at the end of the ventricular systole. In fact, the two experiments are mutually confirmatory the one of the other; for the fact that the second sound does occur immediately, or almost immediately, after the ventricular contraction ceases, is, of course, one of the absolutely certain and fixed events in cardiac physiology.

These experiments seem to show that the method is a practical and satisfactory method, and well fitted to serve the purposes for which it is intended.

The explanation of the absence of any "psychical loss" in this experiment is not far to seek. It is obvious that the discharge of the motor centre concerned in the movement of the forefinger, which depresses the signal key, becomes rhythmical; and this rhythmical discharge of the "signal centre," as it may be termed, takes place synchronously with, or even rather tends, as some of our observations show (unless the attention of the auscultator be very closely concentrated on the sound) to anticipate the recurring sensory sensation (telephonic sound), with which it corresponds in time. It is quite obvious, therefore, that any given sensory impression or telephonic sound cannot regulate the motor discharge, with which it corresponds in time (and on the drum); but that the preceding sensory impression or telephonic sound guides the succeeding motor discharge; or, at all events, that the rhythmical recurrence of the motor discharges is regulated and guided by the rhythmically recurring sensory impressions which precede them.

Such a view explains the fact that the signal marking the occurrence of the second aortic sound, in the case of W. K. (the points at which the letter C. is placed) is not absolutely the same in each succeeding cardiac cycle. It will be seen that in some cycles it slightly precedes, while in others it slightly follows, the termination of the ventricular systole, as indicated by the cardiographic lever. The reason is, that (in consequence, no doubt, of the influence of respiration), the heart does not beat with the regularity of clockwork; that in a normal and apparently perfectly regularly beating heart, some cardiac cycles are longer, while some are shorter than others. We may, therefore, expect that if a short cardiac cycle, or a short ventricular systole, follows a long cycle, that the signal representing the second sound, since its time is regulated not by the second sound, with which it corresponds in time and on the drum, but by the preceding, or several preceding, second sounds (regulating the rhythmical contraction of what we may term the "signal centre"), will slightly succeed; while, in a long cardiac cycle, it will slightly precede the point in the cardiographic tracing at which it ought actually to be placed. Whether this is so or not we have not yet determined by actual exact measurement.

It will nevertheless be noted, that although successive cardiac cycles vary considerably in their duration, the relative position of the second sound, as signalled by the auscultator, to the termination of the ventricular systole, as recorded by the cardiograph, is practically maintained throughout the whole four tracings; in other words, the

² This fact was demonstrated by the authors of the paper to the members of the Edinburgh Pathological Club, on November 30th. Although the demonstration was made at 12 p.m., when the auscultator was exhausted by a hard day's work, and at the end of a meeting of four hours' duration, in which a good deal of tobacco was going the whole time, the result was perfectly satisfactory, the "psychical loss," under the same conditions, being again nil.

slight error in one cycle is not magnified in the next cycle, and that the relative position of these two points (second sound as signalled, and termination of systole as traced) is practically the same, both in the first and in the last cycles of the series; an argument, we think, in favour of the view that the preceding sensory impression (sound) regulates the occurrence of the succeeding motor discharge (signal).

The practical outcome of this, we fear, somewhat long explanation is, that the exact position—point of commencement—of a cardiac sound, or murmur, even granting that it is signalled with absolute precision, cannot by this method be absolutely and accurately determined from the observation of any single cardiac cycle alone; but that, by taking the average, so to speak, of a sufficiently long series of cycles, such location can be determined with very great exactitude, always, of course, granting that the auscultator signals correctly the exact commencement of the sound or murmur. Further, the error which, under such circumstances occurs in any individual cycle, in consequence of the diminished or increased length of that cycle as compared with the previous cycle, is so slight, that for practical purposes, for determining, whether a murmur is systolic, diastolic, or presystolic, it may be left out of account.

It must be remembered that these statements only apply, so far as our present observations enable us to judge, to a regular and rhythmically acting heart. To speak with absolute accuracy, we have only proved that they held good in timing a sound produced with exact regularity every second; but no one, we presume, will for a single moment be inclined to doubt that this limit, sixty times a minute, may be considerably extended in each direction. By future observation we hope to determine this point.

Further, we hope that by this method we may be able to demonstrate the exact rhythm of the murmur of mitral stenosis, presystolic murmur; and perhaps, after we have perfected our cardiographic apparatus and succeeded in recording on the drum a more simple and satisfactory tracing of the impulse of the heart, that we may be able to indicate the exact points, in the up and down strokes of the tracings, which mark the occurrence of the first and second sounds of the heart.

The apparatus seems also fitted to record other clinical phenomena, as, for example, the exact duration of the delayed sensation which occurs in some cases of nerve disease.

In conclusion, it is perhaps hardly necessary to state that this method of graphically recording the exact time relations of cardiac sounds and murmurs is not intended, nor indeed fitted, for ordinary every day clinical use. The apparatus is far too complicated and delicate for that. But, indeed, the ordinary method of auscultation, aided, if necessary, by the administration of digitalis or strophanthus, with the object of slowing, steadying, and strengthening the cardiac contractions, and so, of making the intensity and rhythm of the murmur more distinct, is, for practical purposes, all that the experienced observer requires. We hope, however, that the method which we have described may enable us to decide some of the questions which are at present in dispute.

Note.—Since this paper was written, Mr. Edison has kindly promised to direct his attention to this subject.

AN ADDRESS

ON

THE THERAPEUTICS OF THE URIC ACID DIATHESIS.

Delivered at the Opening of a Discussion on the Subject in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association, held in Dublin, August, 1887.

By I. BURNEY YEO, M.D., F.R.C.P.,

Professor of Clinical Therapeutics in King's College, London; and Physician to King's College Hospital.

I HAVE, in the first place, Mr. President, to thank you for the compliment you have paid me in inviting me to open this discussion.

The therapeutics of the uric acid diathesis is a very wide subject, and one surrounded by conflicting theories and divergent opinions; but it is within our power to limit this discussion to the consideration of certain definite questions of practical interest, in the examination of which we may hope to elicit, from the ripe experience and trained observation of the many distinguished physicians who are present here to-day, facts and suggestions of much value.

Organs of Sense:

Ophthalmia
 Conjunctivitis ("hot eye")
 Iritis, etc.
 Otitis (deafness).

Cutaneous Affections:

Eczema
 Psoriasis
 Prurigo (anal and vulvar)
 Acne.

PRINCIPAL PROPOSED REMEDIES FOR AFFECTIONS CONNECTED
 WITH THE URIC ACID DIATHESIS.

*Diet and Regimen:**Drugs.*

Colchicum
 Salicylates
 Benzoates
 Guaiacum
 Iodide of potassium.
 Arsenic
 Sulphur.

Alkalies and Alkaline Earths:

Salts of potassium, sodium, lithium, ammonium, calcium,
 and magnesium

Various Local Applications to Affected Joints:

- (a. Alkaline (bicarb. of soda), for example,
 Vichy
 b. Alkaline and aperient (carb. and sul-
 phate of soda), Carlsbad
 c. Chloride of sodium, Wiesbaden, Homburg
 d. Lime (earthy) waters, Contrexéville,
 Bath
 e. Indifferent (thermal), Buxton, Gastein
 f. Sulphur, Harrogate, Aix.

Water hot (and cold)

The treatment of the diathesis, rather than of its several morbid manifestations, must, in this discussion, chiefly occupy our attention.

In this, as in all other therapeutic questions, I would point out that we should always bear in mind that we have to deal with three elements or factors:—1, the pathogenic element; 2, the constitutional element; and, 3, the remedial element; and I would beg you to notice that the third is the only possible constant element.

The pathogenic factor may be present in all degrees of varying intensity; the constitutional element is, I need not say, extremely variable. The reactions of these two on one another may also vary greatly, leading frequently to the development of morbid conditions as different from one another as, for example, primary uratic nephritis and primary uratic arthritis.

The reactions of the third element, on the other two must also, of necessity, vary enormously.

Now, these considerations, although elementary, are frequently overlooked. Since these are the conditions of nearly every therapeutic problem, why should we look for constant uniformity in results? and why should we be discontented, or sceptical with regard to remedies because they do not always produce the same desired effect?

It is absolutely impossible, from the necessary conditions of the therapeutic problem, that they should do so. For example, in certain constitutions, a peculiar quality of the tissues may cause the uric acid deposit to cling to them with peculiar tenacity, while in others, for a like reason, they may part with it with unusual readiness. This obvious consideration must tend necessarily to disturb all experimental inquiries into the action of the various remedies proposed as eliminators of uric acid.

And now, without further preface, I will pass to the consideration of our remedies.

Diet and Regimen.—It is universally admitted that the treatment of the uric acid diathesis must take largely into account questions of diet and mode of life. Apart from the influence of heredity, which is the chief etiological factor in this diathesis, no other cause is so influential in its production as habitual excesses or errors in eating and drinking; and even when the hereditary tendency to this diathesis is strongly pronounced, very much may be accomplished by careful attention to dietetic rules, so as to keep in abeyance its more serious manifestations. It would, however, be a grave error to conclude that

all the victims of this diathesis merit the reproach of intemperance, or that they should all be submitted to the routine of a rigid abstinence. One of the greatest differences of opinion at present existing with regard to the most appropriate food for the gouty is that which has arisen in connection with Ebbstein's views on this subject. He maintains that one of the most compromising conditions that can affect a person predisposed to gout is obesity. He says: "The gouty who have grown old in spite of their disease are almost always those who have been able to keep obesity at arm's length;" and he considers the treatment of obesity an essential element in the treatment of gout. His method consists in allowing sufficient albuminous food for the physiological wants of the body—from seven to nine ounces of roast or boiled meat per diem. But, instead of avoiding fat, he encourages his gouty patients to take it, for he contends that the addition of a suitable amount of fat to the food is the best means of combating obesity. So far, he says, from increasing their fat, under this regimen they become thin, while their physical and intellectual faculties are improved. He explains this by the rapid manner in which fats allay the appetite or craving for food, and so prevents its excessive consumption. It also diminishes thirst and lessens the tendency to drink large quantities of fluid (which in German, means, beer!). Good fresh butter he considers the best form of fat. He allows from two to three and a half ounces a day. He forbids starchy matters, or limits their consumption to two and a half to three and a half ounces a day. He forbids sugar, farinaceous foods, and potatoes. He allows a moderate quantity of fruit and vegetables—peas, lentils, and beans in the form of *purées* (passed through a sieve), spinach, cauliflower, red cabbage, but forbids turnips.

It has been clearly established that in the uric acid diathesis no good results from abstinence from a moderate amount of animal food, and harm has no doubt occasionally been done by too severe a limitation in this respect, in the case of feeble persons. In opposition to this view, many object to a diet in which there is much fat or saccharine and starchy substances, on the grounds that, by affording the system material for combustion, these substances tend to check the metabolism of nitrogenous compounds and prevent their complete elimination. Senator says there should be a minimum of fat. He objects also particularly to yolk of egg, on account of the amount of fat and *lecithin* (an abundant source of phosphoric acid) it contains. Tea and coffee he forbids.

In these matters it has seemed to me that each patient requires a separate study, especially with regard to digestive peculiarities; and that our object should be, in accordance with and in subordination to certain generally admitted truths, to construct a diet which shall be readily digested, and which does not tend to excite acidity and undue fermentation in the alimentary tract; and that diet will differ with different persons. Whatever may have been the case with our predecessors who originated the gouty constitution, I am quite satisfied that in the present day, especially in the neurotic manifestations of this diathesis, we often encounter them in persons who are delicate feeders with small appetites, and who consume a minimum rather than a maximum amount of food.

A most important question in connection with the management of the gouty diathesis is the use of alcoholic drinks; in some persons, and especially in women, I am satisfied it is best to avoid them altogether; in others I have not found their moderate and discriminating use injurious. Of all alcoholic beverages, malt liquors are, I consider, most prejudicial in this diathesis, and bad quality wines. With regard to wines, I have had occasion to form a very decided opinion that it is not the name but the quality of the wine which is important. And no greater error has ever crept into medical practice than that exceedingly common one of advising everybody to drink light claret. A more injurious beverage than bad claret, or imperfectly matured claret—and speaking generally, all but the more expensive or most carefully selected clarets are bad—was never drunk. Cheap clarets consist of admixtures of the worst and most valueless wines that are grown on the surface of the globe. I repeat, it is the quality, not the name or even the quantity, of the wine taken, which is of chief importance to the subjects of this diathesis. Half a glass of bad sherry or claret or other wine will produce a decided disturbance of health, when considerable quantities of fine quality wines will pass through the system without injury.

I have made an observation, of the value of which I am more and more convinced: it is that the wines which act freely as diuretics are the wines which agree best with all persons. In some this will be champagne, in others claret, in others hock, and so on; but they are always, or nearly always, wines of good and often very fine quality. A very eminent physician of New York told me only a few weeks ago that he found champagne and port—carefully selected, I need not say

—the best remedies for his gout. I have certainly known many gouty persons who find champagne the wine that suits them best. For those who find a certain amount of wine a necessity, it is advisable that they should add to the wine they drink a small quantity of an alkaline water.

Some years ago I took to recommending *still* Moselle mixed with Apollinaris water for thirsty persons who required a "big drink." I find from the German wine merchants that these *still* wines, of the Moselle have been so largely recommended of late years to gouty persons that their price has advanced more than 25 per cent.

A great deal has been said about the importance of exercise for gouty persons, and no doubt a sufficiency of exercise is important to all persons. But gout is a disease which prevails amongst a class of persons who take a vast amount of physical exercise. Lord Beaconsfield's definition of the aristocracy as "People who live much in the open air and don't read," is, so far as the first point is concerned, a true one, and the comparatively slight incidence of gout in women as compared with men, who lead much more active lives, points in the same direction—viz, that want of exercise is not such an important feature in the etiology of gout as has been imagined.

As to climate, I am convinced that a climate that is warm, dry, and equable is most advantageous to the subjects of this diathesis, and that climatic conditions which interfere with the free action of the skin are most prejudicial. It is a matter of common observation with patients themselves that if the action of the skin gets disturbed by the onset of a cold east wind they soon begin to feel "gouty."

Water.—I am also convinced that no remedy is more valuable and important in the treatment of this diathesis than the regular consumption of a considerable quantity of pure water, and preferably hot water.

As a diluent and solvent of renal excrementitious substances, it is most important, while in its rapid passage through the system, it must tend to dissolve and carry away waste matters from the blood and tissues. When drunk at a higher temperature than that of the blood the effect of this hot water flowing through the hepatic portal circulation must be to stimulate the functions of the liver cells and promote biliary excretion.

(To be continued.)

CLINICAL MEMORANDA.

HORN ON THE HEAD OF A WOMAN.

THERE is (or was) a horn, similar to that described by Dr. V. Bejan as occurring on the head of a Roumanian woman, in the Pathological Museum of St. George's Hospital, which I removed from the face of an old woman in Yorkshire some years ago. I forget its dimensions, but I think it was somewhat smaller than the one referred to in your note, and its shape was twisted in the form of an antelope's horn. It appeared to be developed from a mole, and there were two or three rudimentary horns on other parts of the face of similar origin. The wound healed well, and the patient lived several years after the operation, but I do not know whether the smaller growths increased in size.

C. ROBERTS, F.R.C.S.

Curzon Street, W.

NATAL SORE.

I HAVE recently seen cases of "Natal sore" from Maritzburg, and I have no hesitation in stating that their appearances and histories correspond with the disease known in India as "Delhi boil." The "Natal sore" has been long ago mentioned by African travellers, including Livingstone, as very common amongst the native tribes; and, quite recently, the medical officer of one of the Castle mail packets, trading between Mauritius, Natal, and the Cape, informed me that he is often called on to treat passengers suffering from this troublesome skin disease.

The late Dr. Tilbury Fox proposed that the name "Oriental sore" should be applied to this disease, as it was then thought to be confined to the East; but it is now known to have a very wide distribution. I saw, many years ago, a case from Jamaica.

J. FLEMING, M.D., F.R.C.S.E., Surgeon-Major M.S.

Mauritius.

UNUSUAL CAUSE OF URETHRAL HÆMORRHAGE.

A., aged 34, sent for me complaining of somewhat severe hæmorrhage from the urethra. On examination the entire left half of the scrotum and penis, and the whole of the perineum to within two inches of the anus were seen to present one mass of varicose veins. There was an enormously dilated venous pouch where the vein passed out of sight

near the anus. The condition was congenital, and had remained apparently unchanged ever since he could remember. There was no other vessel lesion to be made out. The hæmorrhage was arrested by passing a catheter into the bladder, and bandaging the penis on to it, the hæmorrhage coming apparently from a ruptured vein about three inches up the penile urethra.

F. R. HUMPHREYS, M.R.C.S.E., L.R.C.P. Lond., etc.
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THERAPEUTIC MEMORANDA.

OLEATE OF ZINC AND IODOFORM IN GYNÆCOLOGY.

I SHOULD be glad to record my experience of the value of iodoform and oleate of zinc when mixed together, either in equal portions or with two parts of iodoform to one of the oleate, according to the effect desired.

The dry treatment in gynecology having attained such success, I particularly wish to notify the beneficial effect of this powder on ulcerated surfaces of the uterus, or to aid granulation after the application of strong caustics. It may be applied by insufflation, or on the tampon, according to the nature of the case. It is especially useful in cancerous ulceration, in which the pain and discharge may be greatly reduced by its use, the fœtor corrected, and a clean granulating surface often left. It diminishes hyperæmia and exudation, and may be used with advantage to the inflamed endometrium as a dusting powder; it will heal up most ulcerations with great rapidity.

The oleate of zinc seems to me to be preferable to bismuth alum of the oxide of zinc, and when used in combination with iodoform, it will be found to be soothing, astringent, antiseptic, and healing.

W. D. HASLAM, M.D., M.R.C.S.

19, Mecklenburg Square.

A PLEASANT ANÆSTHETIC MIXTURE.

MUCH discussion has lately appeared in the JOURNAL on the subject of anæsthetics. The A.C.E. mixture appears to hold great favour with many practitioners, and undoubtedly very justly so, it being apparently a much safer anæsthetic than either chloroform or ether.

I should like to place before your readers another mixture, which I think will be found to give even greater satisfaction, especially for all minor operations—namely, a mixture of equal parts of alcohol and chloroform. Its anæsthetic effects do not come on quite so rapidly, but it is much less unpleasant to the patient, and I believe even safer than the usual mixture of A.C.E. I have administered it (using a Skinner's inhaler) in minor surgical operations and in dental cases, and have found no unpleasant after-effects whatever, except in one case in which there was slight excitement, which very soon passed off.

A more pleasant mixture can be made with equal parts of the best eau de Cologne and chloroform, and in addition the inhaler should first be sprinkled with a few drops of pure eau de Cologne, so as to render the first two or three inhalations still more pleasant and comforting to the patient. In dental operations I have found this plan most satisfactory for nervous ladies, who are prejudiced against any form of anæsthetic other than gas.

WILLIAM J. STEPHENS,

Anæsthetist to the Brighton Dental Hospital.

OPHTHALMOLOGICAL MEMORANDA.

SPASMODIC ENTROPION TREATED BY STRETCHING THE ORBICULARIS.

Mrs. W., aged 69, consulted me at the Bolton Eye Hospital, on November 9th, last. She had been ill nearly three months; there was mucopurulent conjunctivitis of both eyes, ulceration of both corneæ, very extensive in one eye, double iritis with numerous posterior synechiæ, and spasmodic entropion of the lower lids. Here I am concerned merely with the entropion, for which I stretched the orbicularis by an extreme separation (maintained for about a minute of the eyelids, using for this purpose the eyelid retractor. This single manipulation accomplished its object. When the lids were, before its performance, placed in their normal, they immediately resumed their morbid position, notwithstanding the utmost efforts of the patient. She reports that at no time since the stretching (now six weeks ago) have the lids been turned in except momentarily at the time of making local applications.

The treatment by suture, to which I called attention in the JOURNAL of May 28th last, and of the efficacy of which I have since had additional evidence was contra-indicated by the discharge.

DAVID McKEOWN, M.D.
Manchester.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF GREAT
BRITAIN, IRELAND, AND THE COLONIES.

HOSPITAL FOR WOMEN, SOHO SQUARE.

ENUCLEATION BY ELECTROLYSIS OF A LARGE UTERINE FIBROID.

(Under the care of E. HOLLAND, M.D., M.R.C.P., F.R.C.S.)

Mrs. C. aged 38, having seven children, was admitted on July 4th, severely blanched and flooding. The uterus was involved in a hard, multiform, fibroid enlargement, whose measurements were as follows: upper limit level with the middle of umbilicus; right lateral limit, 5 inches to right of middle line; left limit, $3\frac{1}{2}$ inches from middle line; transit of sound, 6 $\frac{1}{2}$ to 7 inches. The hæmorrhage resisted all ordinary resources; and, as there was no cervix available for a stump, electrolysis was considered a legitimate procedure, and was accordingly begun on July 22nd, as follows. The negative electrode, insulated to $4\frac{1}{2}$ inches from its extremity, was placed in the uterine cavity; whilst the positive electrode was connected with the zinc and potter's clay distributor of Apostoli, and applied externally over the tumour. A current of 50 milliamperes was gradually induced and allowed to play for ten minutes. On the 25th the application was intensified to 80 milliamperes; on the 29th, to 150 milliamperes. After this there was pain for an hour, and the tumour was perceptibly diminished in area. On August 2nd there was again free hæmorrhage, and clots passed for several days. On August 9th, the hæmorrhage still continuing, positive galvano-cauterisation to 250 milliamperes was maintained for twelve minutes, with the result that the hæmorrhage was arrested and never recurred. August 12th. Electrolysis to 250 milliamperes, the negative electrode being in the uterus.

On this and subsequent occasions the patient appeared less tolerant. August 15th, to 250 milliamperes. August 18th, to 300 milliamperes. August 22nd, to 235 milliamperes. After the application on the 22nd, the patient suffered from chilly feelings, thought she had taken cold, and had raised temperature, and vaginal discharge which became more and more fetid. August 27th, much pelvic pain was noted. August 29th, fever increasing; cavity of uterus well douched, after which the temperature shot up to 103°. Between the last date and September 4th, a large sloughing mass was bloodlessly enucleated and extruded into the vagina. September 5th. Mass removed by two applications of the *érascur*, and other small enucleations by fingers and scissors, from a base which was found to be the left lateral wall of the uterus inverted. After the operation the inverted left lateral wall was manually replaced. Between the date of this operation and the 8th, a second bloodless enucleation and extrusion was accomplished, and of a much larger mass, which tightly distended the vagina, and was removed by three applications of the *érascur*, and one or two twisting processes. On the second evening after this operation the temperature rose to 104°, but this was quickly subdued by quinine, judiciously administered by the watchful and accomplished house-physician, Dr. Burford. The douches were most thoroughly used every three or four hours, chlorine water being the usual one, whilst quinine was freely given at each rise of temperature.

On September 15th the patient was quite convalescent, the discharges scanty and without fetor, the sound passing 2 $\frac{1}{2}$ inches, and no tumour being perceptible. From the commencement of the electrolysis to the date of convalescence there were exactly 55 days. It is also well to observe that the tetanoid condition into which the uterus was thrown by the electrical excitement on each occasion led us to anticipate necrosis and enucleation as possible and probable contingencies, and, in doing so, to draw attention to the extreme importance of the galvanic current as a diagnostic agent in all solid tumours of uterine constitution.

ACTION OF HYDROQUINONE.—The action of hydroquinone is prompt and efficacious, and is very marked in typhoid fever, rheumatism, erysipelas. It lowers the temperature, acts upon the pulse, on the respiratory functions, stimulates the elimination of urea, excites diaphoresis, and regulates arterial pressure. Its action is more marked in patients suffering from fever than in healthy persons. It should be given to adults in doses of 30 to 50 centigrammes every hour. Hydroquinone is rapidly eliminated in the urine in the form of quinhydrone, which turns the urine to a dark olive green hue.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

ANNUAL GENERAL MEETING.

TUESDAY, JANUARY 3RD, 1888.

Sir JAMES PAGET, Bart., F.R.S., F.R.C.S., President, in the Chair.

Election of Officers and Council.—The following gentlemen were elected to form the Council and to act as officers of the Society during 1888:—*President:* Sir James Paget, Bart., D.C.L., LL.D., F.R.S. *Vice-Presidents:* Thomas Henry Green, M.D.; *J. Hughlings Jackson, M.D., F.R.S.; *Joseph Frank Payne, M.D.; Richard Douglas Powell, M.D.; William Morratt Baker; *Marcus Beck, M.S.; Sir Joseph Lister, Bart., D.C.L., LL.D., F.R.S.; *Henry Morris, M.B. *Treasurer:* William Cayley, M.D. *Honorary Secretaries:* Sidney Coupland, M.D.; Rickman John Godlee, M.S. *Council:* *Charles Edward Beever, M.D.; Henry Radcliffe Crocker, M.D.; David White Finlay, M.D.; James Kingston Fowler, M.D.; James Frederic Goodhart, M.D.; Walter Baugh Hadden, M.D.; *Edward Emanuel Klein, M.D., F.R.S.; *Stephen Mackenzie, M.D.; Joseph Arderne Ormerod, M.D.; *William Hale White, M.D.; *William Anderson; Anthony Alfred Bowlby; Henry Trentham Butlin; *Victor Horsley, B.S., F.R.S.; John Hammond Morgan; *Bernard Pitts, M.B.; *A. Quarry Silcock, M.D.; John Bland Sutton; Charters James Symonds, M.S.; Frederick Treves. (The gentlemen whose names are marked with an asterisk (*) were not on the Council or did not hold the same office during the preceding year.)

Angiomata of the Mouth and Tongue.—Mr. F. TREVES made some remarks on three cases; two affecting the tongue were arterial angioma, an extremely rare condition. The first patient was a strong, temperate man, aged 57, who belonged to a family of bleeders; he was liable to epistaxis about ten times a year until four years before he came under observation, when the tongue began to bleed; it bled fifty times in the four years. The tongue presented several small, elevated, red growths, two as large as the half of a pea, others mere specks. The largest tumour was quite clearly an arterial angioma. The growths disappeared under the local application of chromic acid; the liability to epistaxis was then again noticed; Baumgarten had noted small, red elevations on the mucous membrane of the nose in cases of recurrent epistaxis. In the second and third cases the bleeding from the mouth relieved an intolerable headache. The second case was a married woman, aged 31; the tumour was first noticed in about the fifth month of pregnancy. Near the edge of the tongue, opposite the molar teeth, was a red, arterial angioma; on several occasions she had bled freely from this tumour, and it was thought advisable to remove it. Hæmorrhage in the wound was arrested by the actual cautery. The third patient was also a woman. The angioma lay behind the two right incisor teeth, and was the size of a cherry; it had appeared in the fourth month of pregnancy; it pulsated freely. Hæmorrhage, at first only on eating, had become considerable. The tumour was easily removed along with the right lateral incisor, the tumour being attached to the dental periosteum. Such cases were not very uncommon.

Congenital Fatty Tumour.—Mr. EVE showed a specimen of congenital fatty tumour in a young child, aged 13. It lay between the layers of the abdominal muscles in the left hypochondrium; it probably sprang from the fascia transversalis. Few cases of tumours between muscular planes had been recorded.—Mr. RICKMAN GODLEE was surprised to hear it said that lipomata between muscular planes were very uncommon. He gave particulars of two, one beneath the gluteus maximus, and the other beneath the deltoid.

Subperitoneal Lipoma.—Mr. J. HUTCHINSON, jun., showed a specimen of double fatty hernia in the linea alba. One tumour was the size of a small apple, and lay in the subcutaneous fat, from which it was perfectly distinct, both in origin and appearance; the aperture in the aponeurosis through which it had passed was quite small. The other tumour was seated at the umbilicus; both had sprung from the subperitoneal fat, and in passing forwards had stretched the peritoneum, and in each case had drawn a process of the latter membrane with them. By a series of specimens shown at the Pathological Society three years ago, Mr. Hutchinson had demonstrated the same tendency of fatty hernia in the femoral and inguinal canals to draw down peritoneal tubes, and hence to lead to the formation of true hernia. Commonly these fatty hernie (derived from the subperitoneal fat, and having no true sac) were mistaken for ommental hernie; as a rule they were irreducible, and they were curiously accompanied in some cases by abdominal pain, nausea, etc. Instances in which the operative removal of the fatty outgrowths had been followed by complete

relief of the symptoms had been recorded by König and Lücke. It was probable that traction on and nipping of small nerves in the peritoneum produced these symptoms.

Bone and Joint Disease.—Mr. BLAND SUTTON exhibited some specimens of bone and joint disease. The first was the tibia and fibula of a horse which, three months before its death, was kicked by a horse on the inner side of the leg over the tibia. There was a skin-wound as the result of the kick, which healed quickly and with trifling suppuration. As soon as the wound was healed the tibia began to enlarge, and continued to do so for three months. The horse suffered considerable pain, and, as the case seemed hopeless, it was killed. The tibia was three times larger than natural, and its exterior was roughened by small bony outgrowths. On section the outline of the original shaft could be defined, and outside this a large mass of new bone had been deposited, and surrounded the slender fibula, though the new formation of bone was strictly limited to the tibia. The second specimen was a greatly enlarged and softened femur of a monkey. In the centre of a longitudinal section, which was easily made with a knife, was the true shaft of the femur, apparently necrosed, but embedded and closely adherent to new bone which surrounded it evenly on all sides. The adventitious bone exceeded the shaft in size three times. The new bone was roughly limited above and below by the epiphysal line; hence, though the shaft was so thick, the condyles and head of the bone preserved their proper proportions. Both femora were affected, and one humerus; the remainder of the skeleton seemed normal. The tibia of the horse and the femur of the monkey were shown, because it seemed possible that they represented early stages of a rare condition, described in man as necrosis without suppuration—quiet necrosis. The third specimen was the elbow-joint of a lion twelve years old, affected with osteo-arthritis. The cartilage had in a great measure disappeared from the articular surfaces of the bone, whilst at the edges of the joint the cartilage was distinctly "lipped." The synovial membrane presented villous fringes of great length, and lodged in the recesses of the joint were those curious cartilaginous bodies so common in this affection in man. All the joints of the fore limbs of this lion were similarly affected. The fourth specimen was a typical example of the condition to which the apt and expressive term "lipoma arborescens" was applied. The specimen came from the shoulder-joint of an old man affected with osteo-arthritis, and all stages, from simple villous processes of the synovial membrane to pedunculated masses of fat, could be clearly recognised.—Dr. NORMAN MOORE said that the separate lemon-seed masses and fringes were the only morbid changes present in rheumatism, but absent in joints containing uric acid.—Mr. RICKMAN GODLEE asked if the epiphysal line in the monkey's bone was healthy.—Mr. W. ADAMS had never seen the fringes in true gout, but he had seen them in the mixed form of rheumatic gout.—Mr. R. W. PARKER had observed a similar condition of the tibia to that shown by Mr. Sutton in children; in all the cases there was central necrosis; the condition was a general chronic osteitis of very long duration.—The PRESIDENT mentioned a case of osteitis following eight years after a severe blow on the tibia; the limb resembled the condition produced by osteitis deformans, but no other bones were affected. The bone bent, indicating that there was a general osteitis. The condition was not uncommon in many animals.—Mr. EVE thought that in animals it was generally due to periostitis, or was associated with arthritis. Mr. Sutton's case was, he considered, an example of dry caries.—Mr. SUTTON said that the epiphysal line was certainly enlarged, but there was no ricketty change in any other bone of the body. The epiphysal line at the head of the bone was not enlarged.

Carcinoma of the Obliterated Hypogastric Arteries and Umbilical Vein.—Dr. HALE WHITE showed specimens from a patient who was in Guy's Hospital for wasting, abdominal pain, vomiting, and constipation, and in whom some nodules could during life be felt in the rectus muscle. The patient gradually sank and died. The necropsy showed primary carcinoma of the pancreas, with numbers of secondary hard masses just under the peritoneum, some of which were the nodules which had been felt during life. But the point of chief interest was that the two obliterated hypogastric arteries and the obliterated hypogastric vein were both converted into cords of hard secondary growth. This was not due to spreading from neighbouring nodules. Dr. Hale White considered that this was a very interesting and rare example of secondary growths particularly affecting degenerate structures.

Tuberculosis of Sheath of Tendon.—Mr. CHARTERS SYMONDS related the case of a young girl who came under treatment with a small growth of the sheath of the flexor tendon of the index finger resembling a ganglion. The tumour was incised, and the girl completely recovered. Similar growths occurred in the palms. He mentioned

two other cases. He showed a microscopical specimen of the growth in the first case which presented a typical tubercular structure.—Mr. F. TREVES referred to the literature of the subject, and said that it would seem that few cases terminated so favourably as Mr. Symonds's.

Syringo-Myelia.—Mr. QUARRY SILCOCK showed a specimen of syringo-myelia, and expressed the opinion that the formation of a tube-like cavity occupying the posterior columns of the cord, and extending through a considerable length, might arise by the formation of a cavity in newly-formed connective tissue, which had developed in that region as a consequence of traumatism. The specimen came from a guardsman aged 23, who had broken his neck by diving into the Thames. The body of the fifth cervical vertebra had been crushed and somewhat displaced backwards, giving rise to a projection in the spinal canal, where the cord was much flattened. Sections of the cord at the level of the second cervical vertebra showed, even to the naked eye, an elongated slit-shaped cavity, lying immediately inside and parallel to the right posterior root. There was a general sclerosis of the cord; the disorganisation was most marked in the right posterior column, that is to say, in the neighbourhood of the cavity. The walls of the cavity were formed of finely reticulate connective tissue with abundant nucleation; there was no lining membrane, and the inner surface was ragged. The central canal had no connection with the cavity; from the connective tissue round the latter, fibrous strands stretched into the posterior root of the central grey matter, and the neighbouring portion of the posterior column. At the level of the sixth vertebra the cavity was considerably smaller in size, but the structure of its walls was essentially the same. The cavity ended below in a mass of felted sclerotic tissue. Mr. Silcock said that a cavity of the nature and in the situation of this had been ascribed to the persistence of a portion of the cavity which in the embryo extended as a fissure between the posterior columns to the periphery of the cord. He thought, however, that this specimen illustrated a different class of cases in which a cavity was formed in sclerotic tissue as a secondary phenomenon.

Pneumothorax in a Child.—Dr. ORMEROD related a case of phthisical cavity leading to pneumothorax in a child six months old. The patient was admitted into St. Bartholomew's Hospital on account of its marasmic condition. Dyspnoea came on suddenly, and the child died. The pneumothorax was connected with a cavity in the middle lobe of the right lobe, the size of a marble. The lung was solidified by grey tubercle; the bronchial glands were enlarged, and contained tubercle bacilli. Dr. Douglas Powell had recorded a case of cavity in the lung in a child aged seven months.—Dr. DOUGLAS POWELL asked whether there was a very well defined tubercular family history, as in his case; the patient in that case died of hæmoptysis. This case was reported to the Society (vol. xxv).—Dr. NORMAN MOORE said that he had reported a case of phthisical cavity in a child, aged 11 months.—Dr. ANGEL MONEY had seen a cavity in the left apex, the size of a walnut, in a child aged three months; the child died of hæmoptysis. This was the only case in five hundred necropsies of children under 10 years.—Dr. ORMEROD said that the mother was said to be phthisical, but there was no other phthisical history.

Living Specimens.—Dr. PENROSE (for Mr. EDMUND OWEN): Lumbar Hernia in the Track of a Lumbar Abscess due to Spinal Caries.—Mr. W. K. SIBLEY: Symmetrical Lipomata.

Card Specimens.—Dr. HALE WHITE: (1) Tubercular Ulceration of Tongue; (2) (for Dr. BEAVAN RAKE, of Trinidad): Intestine and Parasite from a Patient Affected with Ankylostomum Duodenale.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

OBSTETRICAL SECTION.

JOHN RUTHERFORD KIRKPATRICK, F.R.C.S.P., President, in the Chair.

Suppurating Ovarian Cyst.—Dr. ATTHILL showed a specimen of a suppurating ovarian cyst taken from a lady, aged 35, who enjoyed excellent health till about two months previously, when she got cold, and had a sharp attack of peritonitis. During this her medical attendant detected a tumour in her abdomen. The tumour was found to be multilocular; and on the largest of the cysts being tapped, the tumour was pressed out without difficulty through a small opening in the abdomen. He was then surprised to find that it was attached to the uterus by a rather short and thick pedicle. A secondary cyst—the one exhibited—was then discovered, which, on being tapped, was found to contain pus. One interesting point about this cyst was its shape, which was quite different from anything that he had seen. A second remarkable circumstance about the case was that, notwithstand-

ing this suppurating cyst, the lady had apparently nothing whatever wrong with her, having perfectly recovered from the peritonitis.

Placental Cyst.—Dr. A. J. HORNE exhibited a placental cyst from a patient, aged 28, who was in the ninth month of her fourth pregnancy. She complained of intense pain in the abdomen. On external examination he was struck with the irregular appearance of the abdomen, particularly at the left hypochondriac region, where there was a distinct bulging of the uterus. On palpation it was impossible to discover the small parts of the fetus, the uterus felt so tense and firm. On making a vaginal examination he found that he could only reach the presenting head by laying the patient on her back. The membranes were tightly stretched over the head, and there was no appearance of liquor amnii. Thinking that there was internal hæmorrhage, he was very cautious about rupturing membranes; and as the sero-sanguineous discharge was very slight, though it caused her some anxiety, he stopped it by a small antiseptic plug in the vagina. She had no labour pains until the next morning at eleven o'clock, when they came on, and she was delivered of a still-born child. Immediately after the expulsion of the placenta, huge clots the size of the placenta were expelled. She remained in a very anxious state for a couple of hours in consequence of extreme loss of blood, although previous to her labour the loss of blood had been very slight. On examining the placenta he found in the centre of it, close to the insertion of the cord, the huge cyst now exhibited, the weight of which, acting downwards like a suction pump, might, he thought, have been the cause of the hæmorrhage.—Dr. MACAN and Dr. ATHILL took part in the discussion.

Uterine Hæmorrhage of Five Years' Standing, caused by an enlarged and Cystic Ovary: Removal of Ovary: Recovery.—Dr. M'MORDIE exhibited the following case of an enlarged and cystic ovary. L. S., aged twenty-six, single, was admitted to the Samaritan Hospital for Women, Belfast, on July 27th, 1887. A careful examination of the uterus revealed nothing to account for the constant oozing of blood from the os uteri. The right ovary felt enlarged, and there was tenderness upon pressure. Removal of one or both ovaries was recommended as the only means of effecting a cure. The nature of the operation having been fully explained to the girl and her mother, they gave their consent. On August 2nd the right ovary was removed. The hæmorrhage ceased in about ten days after the operation, and the patient was now in the enjoyment of perfect health.—Dr. MACAN said the present case made him more willing to remove such ovaries than he would otherwise have been. The difficulty was to connect pains or hæmorrhage absolutely with an enlarged ovary.—Dr. ATHILL said that, according to his experience, enlarged ovaries and ovarian cysts were not the cause of profuse menstruation, but rather the reverse. Why an ovary in such a condition as that now shown should have given rise to such profuse hæmorrhage was to him a mystery.—Dr. W. J. SMYLY said that, in the majority of cases ovarian tumours did not lead to hæmorrhage. The occurrence of hæmorrhage depended partly on the nature of the tumour and partly on its site. If it developed between the layers of the broad ligament it would give rise to hæmorrhage from congestion. The present tumour was, he thought, an example of dropsy of the Graafian follicles.—The PRESIDENT remarked that if the ovaries in their normal state excited menstruation he did not see why, when diseased and enlarged, they should not set up menorrhagia. The removal of a diseased ovary would divert the menstruation to the healthy ovary, and cause it to become normal.—Dr. M'MORDIE replied.

Pudendal Hæmatocele.—Dr. HORNE read a paper by Dr. PUREFOY (who was unavailably absent) on pudendal hæmatocele, which was cured by the application of cold.—The PRESIDENT, Dr. MASON, Dr. MACAN, Dr. LANE, and Dr. ATHILL, took part in the discussion.

SURGICAL SECTION.

A. H. CORLEY, M.D., President, in the Chair.

The President's Address.—The PRESIDENT delivered an inaugural address outlining the history of surgery for the past fifty years.

Trephining in Brain Disease.—Mr. J. DALLAS PRATT read a paper on a case of mastoid disease with discharge of pus from the middle ear, in which he had successfully trephined. The patient made a good recovery. The discharge from the ear ceased, and the membrane healed up; the deafness also disappeared. Mr. Pratt drew attention to the statistics, 13 cases having been operated on in this manner with only two deaths, or 84 per cent. of recoveries; whereas the operation of gouging, drilling, or otherwise opening the mastoid cells produced a mortality of about 27 per cent. Of eight cases of which he knew, in which no operation was done, not one had recovered. He advocated the performance of this operation in cases of

prolonged otorrhœa, where milder measures had failed, even when no bone disease was present.

Serious Brain Symptoms following Pyæmia.—Mr. MAYNE, of Longford, read a paper on serious brain symptoms following pyæmia. A lady, aged 27, had been dressing a wound; a few days after her finger got sore, the glands in the axilla became inflamed. These symptoms passed off, but after some days the throat got sore and an abscess formed in the tonsil, which was opened, when a quantity of pus escaped. Soon after this the parotid gland inflamed, suppurated, and burst into the external ear, through which pus freely escaped. After sitting at an open window in a draught, paralysis of the left side of the face set in, which was cured by counter-irritation and galvanism. She complained, after some days, of severe pain in the right side of head, and was very irritable. The vision of the right eye became impaired; the pupil was contracted. She had a severe rigor, and paralysis of the right side of the face came on; there was tingling of the left arm, and she dragged the left leg; the right pupil was dilated; she misapplied words. For some days the symptoms became more marked. Mr. Fitzgibbon trephined the left mastoid, but on removal of bone there was no sign of pus. For several days all the bad symptoms appeared aggravated; the paralysis was well marked; the sphincters were paralysed. After some days the paralysis passed away, but was succeeded by noisy delirium, which continued for several weeks. Eventually health was restored. He was unfavourable to the trephining of the mastoid, although the patient had had in early life otorrhœa after scarlatina, but the discharge had not been present for years, and as during that time she had not been troubled with any brain symptoms, he saw no grounds for believing that trephining the left mastoid would benefit the case. All the symptoms pointed to brain trouble on the right side, probably about the fissure of Rolando.—Mr. HENRY FITZGIBBON regretted the want of notice of Mr. Mayne's paper, or he would have consulted his notes of the case, as it was the subject of a paper which he himself read before the Academy last session; but speaking from memory as to the condition of the patient at the time of the operation, he was satisfied the disease had originated from inflammatory action extending from the left mastoid region. It seemed to him that the lady had had otorrhœa more recently than Mr. Mayne mentioned. At any rate, her state appeared to Mr. Wheeler and himself to be perfectly hopeless, except, as the only chance of recovery, by giving relief to some pent-up intracranial matter. Although immediately after the operation her condition became worse, yet within four days he saw matter welling up between the bone and the dura mater. Consequent on the discharge from the wound having ceased, and the patient becoming worse, he went down again, and having scraped away granulations, a fresh gush of matter came from between the dura mater and the bone, with the result that the patient got relief and ultimately recovered.—Mr. BENNETT submitted that diagnosis should be carried forward to a greater degree of certainty than was at present attained before adopting Mr. Pratt's rule, that the trephine should be applied in almost all cases of otorrhœa where the discharge was maintained a considerable time, and did not yield to other means. The cases that could be relieved were those of intracranial suppuration, but these occurred much more rarely than the implication of the sinuses. He had investigated two or three cases in which the path of fatal inflammation proved to be along the auditory nerve to the base of the brain.—Mr. MYLES produced a skull upon which he had marked the points Mr. Wheeler had laid down for trephining the mastoid, with the result that the trephine must hit the anterior edge of the lateral sinus, and if the pus were located, not in the mastoid cells, but in the inner ear, it was beyond the bounds of anatomical possibility that the trephine could reach it.—Mr. ARTHUR BENSON observed that, as regards Mr. Pratt's treatment by injections, all aural specialists had given up the use of injections or washes in chronic otorrhœa, and the dry method was almost entirely adopted—namely, insufflation or the use of dry powders.—Mr. THOMSON said Mr. Mayne's case raised some interesting points. The lady seemed to be suffering from left hemiplegia, and the trephining took place on the left mastoid process, or in that region. He wished to know from Mr. Wheeler, who consented to the operation, why, having regard to the localisation of functions, that particular position was selected; and whether he considered that the removal of a piece of bone from the left mastoid region was calculated to improve hemiplegia occurring on the same side? It appeared from Mr. Henry Fitzgibbon's statement that no pus appeared until the fourth day, when it was manifest. There was nothing remarkable in that. If a piece of bone was removed and the case allowed to go on for four days, unless the wound was strictly a-septic, it was not an unlikely condition that there should be pus. The symptoms produced by pressure were explained by the pus pent up in the wound

for a certain time.—Mr. WHEELER remembered having examined the patient's left ear, and there was an aperture in the upper part of her membrana tympani. Within a short time there had been a discharge from this ear which suddenly ceased, and after this serious symptom supervened. The lady had facial paralysis on the right side, which he attributed to the irritation of the centres of the seventh nerve, carried from the left side, as the centre of both nerves lay close together. He agreed that trephining should not be used indiscriminately for the cure of otorrhœa. There were cases which could be satisfactorily treated by other means. But in cases of prolonged discharge pressing through an opening in the membrane, the operation was indicated; as also in cases associated with bone disease, and where cerebral symptoms supervened from continued or suppressed discharge. In reply to Mr. Myles's criticism he had a skull containing the brain, which he produced, illustrating the operation of trephining on each side. On one side he had pierced the sphenoidal lobe with a probe. On both sides the tympanum and mastoid cells were open. He had made a vertical section through the skull and brain, removing on one side the cerebellum, showing the lateral sinus intact.—Mr. FRANKS said trephining in otorrhœa, unless there were well marked intracranial symptoms, was unsurgical. He had a skull himself which would show that, operating in the same place, the trephine would go into the middle of the lateral sinus.—Mr. PRATT, in reply, said he would undertake to trephine by Mr. Wheeler's method the skulls referred to by Mr. Myles and Mr. Franks without going into the lateral sinus at all. It should be remembered that the lateral sinus was not opened in any of the cases in which that method was adopted.—Mr. MAYNE also replied.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, DECEMBER 16TH, 1887.

ALFRED HILL, M.D., President, in the Chair.

Contagion of Cancer.—Mr. WYNTER BLYTH read a paper, in which he stated that he had held the belief of the possibility of cancer contagion for many years. The experiments of Langenbeck and Söllin on dogs were detailed, and some remarkable instances of infection of the human subject by accidental inoculation. The author argued that the infection of healthy parts by disease was a proof of contagion, so far, at least, as concerned the grafting of disease from part to part on the same body. The cancerous infection, often started from wounds. In a number of cases the close contact of healthy and cancerous persons had apparently spread the malady. A house, the history of which he was well acquainted with, had three cancerous tenants in succession. A stranger visiting frequently the last tenant contracted cancer, and the niece of this person also developed cancer. The cases of family infection were too numerous to be mere coincidences, whence the necessity of flying to some mysterious and remote influence descending through the generations, remaining latent through the best years of life, transforming the cellular elements into corrosive cankers, when the doctrine of contagion gave a simple and intelligible explanation.—In the discussion which followed, the PRESIDENT, Surgeon-Major BLACK, Mr. MACKAY, Drs. SAUNDERS, SMEE, COLLINS, and SYKES took part, and the further discussion of the paper was adjourned to the next meeting.

Bacteriological-Water Test.—Mr. GUSTAV BISCHOF read a paper on extension of time of culture in Dr. R. Koch's bacteriological water test by partial sterilisation, with special reference to the metropolitan water supply. The following conclusions were drawn: 1. No bacteriological water test can satisfy the demands of hygiene unless it is qualitative, distinguishing between harmless and pathogenic microphytes. No such test is at present known. 2. Merely numerical results without such distinction are entirely unintelligible, unless the time and other conditions of culture of each test be specified. 3. A small portion only of the colonies capable of growing in gelatine peptone is indicated by three days' culture. 4. The ratio of colonies thus indicated by three days' culture to that of the total present appears to differ so widely in different samples that the numbers of colonies obtained from them cannot be compared with each other. 5. Instead of any such comparison, the changes taking place from time to time should be followed up in each sample separately. 6. Extension of culture beyond three days increases the reliability of the results. How far this holds good, and how far culture should be extended, we have at present not sufficient evidence to show. 7. The usefulness of results is probably still further increased by combination of extension of culture with storage in sterilised flasks for a certain time. 8. As regards the control of the working of sand filtration at waterworks, any bacteriological test to be of practical utility should be repeated at intervals certainly not exceeding a fortnight. 9. It is

desirable for the purpose of such control to test the water entering and leaving each filter.—The discussion was opened by the PRESIDENT, who was followed by Dr. PERCY FRANKLAND, and will be continued at the next meeting.

SUNDERLAND AND NORTH DURHAM MEDICAL SOCIETY

FRIDAY, DECEMBER 16TH, 1887.

G. B. MORGAN, L.R.C.S.I., President, in the Chair.

New Member.—Dr. J. Norie, Sunderland, was unanimously elected.

Amputation of Thigh.—Dr. SQUANCE showed this case as interesting from the fact that he had not used the spray at the operation, contenting himself with thoroughly syringing the stump with solution of corrosive sublimate after the completion of the operation. The stump was completely healed on the nineteenth day, having only been dressed twice.

Tracheotomy.—Dr. DRINKWATER exhibited an old woman on whom he had performed this operation nine years ago for obstruction in the larynx. On laryngoscopic examination no obstruction was seen in the glottis, but the moment the woman tried to inspire through the natural air-passages, the glottis closed. She had worn a tube ever since the operation. There was a history of syphilis.—Messrs. WHITEHOUSE and ROBINSON, Dr. BRADY, and the PRESIDENT, made some remarks on this case.

Carcinoma Uteri.—Dr. WELFORD showed a specimen of this disease, in which the morbid process had commenced in the body of the uterus.

Sarcoma of Kidney: Nephrectomy.—The PRESIDENT read notes on this case, and exhibited the specimen. A man, aged 46, was admitted into Sunderland Infirmary on December 6th, 1887. He stated that he had suffered from great pain in the epigastric region for nine weeks, and that eighteen months ago he had, on one occasion, noticed blood in the urine. A large tumour, of the size of a cocoa-nut, could be felt in the right lumbar region, globular, movable, of semi-solid feel, and painful on pressure. The urine was alkaline, and faintly albuminous, specific gravity 1008. Microscopical examination showed blood discs, a few pus corpuscles, and two or three multi-nucleated round cells, with renal epithelium. The tumour was removed by median abdominal section. The patient never rallied from the operation. A section of the growth examined under the microscope showed it to be a lympho-sarcoma. A small nodule of similar structure was found in the left kidney after death.

The Recent Additions to the Materia Medica.—Dr. DRINKWATER read a paper in which he described the action and uses of those drugs introduced within the last five or six years.—A discussion followed, in which the PRESIDENT, Messrs. HOPGOOD and WHITEHOUSE, and Drs. BRADY, LOW, and SQUANCE took part.

Eye Diseases.—Dr. LOW read a paper on the importance of diagnosis in relation to treatment of certain eye diseases, namely, keratitis, iritis, and glaucoma.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

FRIDAY, NOVEMBER 25TH, 1887.

A. S. UNDERHILL, M.D., in the Chair.

Tubercular Nodules on Iris.—Dr. YOUNG showed, for Mr. EALES, a lad, aged 14 years, in whom, on the iris of each eye, there were several round, yellowish, vascular nodules projecting from the anterior surface, some on the body of the iris and others at the angle of the anterior chamber. They had existed for eight or nine weeks, were unaccompanied by pain, and attended with little or no inflammation, and did not yield to treatment. Mr. Eales considered them to be tubercular in nature.

Cephalic Bruit.—Dr. SIMON showed a girl aged 10 years, who presented a typical example of the cephalic bruit. This was best heard over the mastoid and occipital protuberances, but was audible over the whole cranium. She was in excellent health, neither anæmic nor evidencing chronic hydrocephalus. The bruit was of several years' standing, was systolic in rhythm, and only slightly modified by pressure on the carotid artery.

Embolism of Retinal Artery.—Dr. SUCKLING showed a case of embolism of the central artery of the retina, occurring in a man suffering from mitral stenosis. The sight of the right eye was completely lost, and the usual ophthalmoscopic appearances were present.

Lateral Curvature.—Mr. MORRISON showed a girl, aged 13 years, with extreme rotary-lateral curvature. The case illustrated a fact well known to hospital surgeons in that district, that lateral curvature

was not uncommon in the lower grades of society.—Mr. E. L. FEEER remarked on the frequency with which he met lateral curvature amongst the working classes.—Mr. BARLING also agreed as to the frequency of this condition among the poor.—Mr. MAY and Mr. CLAY also made some remarks.

Suture of Patella.—Mr. HASLAM showed a man, aged 30, whose patella he had sutured for a compound fracture last Christmas. The patient was able to resume his occupation as a porter early in July, since which time he had done from twelve to fourteen hours' work every day.

Tubercular Tumour of Breast.—Dr. HOGGEN exhibited microscopical sections of a tumour removed from the breast of a middle-aged woman. In structure it was found to be distinctly tubercular. The patient otherwise enjoyed good health. The case was admitted as scirrhus, and considered as such at the time of operation.

Preparations of Extra-uterine Pregnancies.—Mr. LAWSON TAIT exhibited a series of specimens of extra-uterine pregnancy in all stages of its development from the earliest known case of tubal rupture, which apparently had occurred between the third and fourth week, up to a section of a cadaver at full term. The interest of these cases lay chiefly in the fact that they completely established the view as to the pathology of extra-uterine pregnancy which Mr. Tait had first published in 1873; that all extra-uterine pregnancies were due to the impregnation of the fertilised ovum on the denuded wall of the Fallopian tube; that the tube was distended up to its bursting point, which generally was from the tenth to the thirteenth week. The condition of the subsequent pregnancy depended entirely upon the point at which that rupture took place. If the rupture was into the peritoneal cavity then death took place from hæmorrhage, and twelve of the specimens shown were illustrations of this. If, on the contrary, the hæmorrhage took place into the cavity of the broad ligament, the hæmorrhage was slight, and the pregnancy might go on to full term. Many of these cases, however, did not go to the full term; the fœtus died, and was thrown off by suppuration through the bladder, rectum, or into the vagina, or ended in the formation of a lithopædion. A few well recognised examples of these were found in almost any museum. The minority of cases went on with the child living to full term, and could be operated upon. Mr. Tait had operated seven times under such circumstances. That the danger of rupture into the peritoneum was great was shown by the case of early rupture alluded to, where the patient was well at two o'clock in the afternoon, and was dead from hæmorrhage from a small point of rupture in the tube at nine o'clock at night. In occasional instances, if rupture took place into the abdominal cavity, the placenta was separated from the tube and obtained new attachments. As one example he showed a preparation from a patient in Nottingham—to which town Mr. Tait was suddenly summoned to perform abdominal section on account of the condition of ruptured tubal pregnancy previously recognised by Drs. Hunter, Mackie, and Brookhouse. He opened the abdomen, removed the fœtus, the placenta, and stump of the tube, and tied the latter. As soon as this was done the brisk hæmorrhage ceased, and a part of the placenta which had become implanted on intestine at the back of the uterus was removed, and the sites of it smeared over with solid perchloride of iron. The patient had made a perfect recovery.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, DECEMBER 8TH, 1887.

M. M. DE BARTOLOMÉ, M.D., President, in the Chair.

Spreading Cancer of the Breast.—Mr. COOMBE showed a specimen of extra-uterine fibroid, and read notes of the case. The patient, a woman, aged 43, was admitted, under the care of Mr. Jackson, to the infirmary on October 11th, suffering from diffused cancer of both breasts, together with the chest wall and part of the back. The total duration of the case was about eleven weeks, and death took place from exhaustion and embarrassed breathing, due to the hardened and hypertrophied condition of the chest walls. The *post-mortem* showed no impaction of any of the internal organs; but a large pedunculated tumour was found attached to the fundus of the uterus, which, had caused no symptoms during life, and was not diagnosed.

Dislocation of the Head of the Femur on to the Pubes.—Mr. PYE-SMITH related this case. The patient was a man, aged 56. Reduction was effected, twenty-two hours after the accident, by traction in the axis of the limb in a slightly over-extended position, combined with rotation inwards.

THURSDAY, DECEMBER 22ND, 1887.

Thoracic Aneurysm.—Dr. DYSON showed a railway spring mak r

aged 33, with thoracic aneurysm. The treatment was absolute rest in bed, and iodide of potassium in increasing doses; he was now taking fifteen grains three times a day. The diet was the ordinary liberal diet of the infirmary, with no special restrictions; great improvement in the size of the tumour had taken place.

Paralysis of the Musculo-Spiral Nerve from Pressure during Sleep.—Dr. SIDNEY ROBERTS introduced this patient, a gardener, aged 30. He went to bed on December 5th in his usual health, but awoke the next morning with paralysis of the extensors of the wrist, the long extensors of the fingers and thumb, and the supinators, and a feeling of "pins and needles" in his left hand; the extensors of the elbow were not paralysed. The paralysis and numbness had continued, and the thickest part of the left forearm was now half an inch less in circumference than the right. Dr. Roberts stated that it was evident lead poisoning was not the cause, and referred to the absence of symptoms of such a condition. There was no history or sign of any traumatic lesion or violent contraction. There was some doubt as to its being rheumatic.

Miners' Nystagmus.—Dr. S. ROBERTS also introduced a patient, aged 25, who had worked in a coal-pit for seventeen years, but only for the last eighteen months had done "holeing," working on his side. He complained of his eyes first about a month ago, but continued to work up to a fortnight ago, when he was compelled to desist. The oscillations were particularly marked in the left eye, and were vertical in direction; in the right the globe rotated round its antero-posterior axis. The fundus of both eyes appeared healthy, except for the presence of a myopic crescent in the left eye, which was also amblyopic.—Remarks were made by Mr. SNELL, Mr. JONES, and Dr. JOHNSON.

Pneumonia occurring in Children.—Dr. GWYNNE read this paper, in which he said that pneumonia at the apex was by no means so common as some writers had asserted. He drew attention to the prominence of head symptoms in these cases, sometimes at an early stage, puzzling the medical man as to whether he had to deal with a case of meningitis or not; cough being by no means a prominent symptom, and often being quite absent for days. He referred to the danger of collapse of lobules due to whooping-cough and measles, and related the history of one of these cases of chronic pneumonia, the result of an attack of whooping-cough a year before.—The following joined in the discussion: Mr. JEFFREYS, Dr. DYSON, Mr. JACKSON, Mr. RECKLESS, Dr. MARTIN, Mr. BANHAM, Dr. S. ROBERTS, and the PRESIDENT.

PLYMOUTH AND DEVONPORT MEDICAL SOCIETY.

MONDAY, DECEMBER 12TH, 1887.

WILLIAM HENRY PEARSE, M.D., in the Chair.

Radical Cure of Hernia.—Mr. C. BULTEEL read a report on seven successful cases of Spanton's operation for the radical cure of hernia, performed at the Royal Albert Hospital. He compared the operation favourably with Wood's, both as to simplicity and results.

Diagnosis of Tabes Mesenterica from Starvation.—Dr. E. MEERES read a paper on a case of medico-legal interest, involving the differential diagnosis between tabes mesenterica and starvation from neglect.

Abdominal Section in Tubercular Peritonitis.—Mr. W. J. SQUARE referred to a case of tubercular peritonitis that had been benefited by abdominal section, performed through error in diagnosis.—Dr. BAMP- TON related a similar case with equally happy result.

Herpes.—Mr. W. J. SQUARE read a paper on herpes, believing the eruption to occur frequently in persons of the gouty diathesis.—The PRESIDENT had noticed in India that herpes and ague alternated, the ague disappearing as the herpetic eruption developed.—Mr. C. BULTEEL instanced a case of abortive herpes on the forearm, followed by pain, œdema of wrist, and symptoms of peripheral neuritis.

Postponement of Paper.—A paper on alcoholic and rheumatic neuritis, by Dr. BAMP- TON, was postponed for lack of time.

Pseudo-glioma.—Mr. J. E. SQUARE showed a case of pseudo-glioma.

RESORCIN IN CANCER.—Resorcin has been used with excellent results in the treatment of cancerous growths on the face, in the form of an ointment containing equal quantities of resorcin and vaseline. This mixture is applied first; an ointment containing 20 grammes of resorcin and 30 grammes of vaseline is then applied. The ointment forms eschars on the surface of the growth. These eschars fall off when pure or iodoform vaseline is applied; fleshy granulations subsequently appear, and healthy cicatrization rapidly follows.

REVIEWS AND NOTICES.

A SYSTEM OF GYNÆCOLOGY BY AMERICAN AUTHORS. Edited by MATTHEW D. MANN, A.M., M.D., Professor of Obstetrics and Gynæcology in the Medical Department of the University of Buffalo, New York. Volume 1. Illustrated with 3 Coloured Plates and 201 Engravings on Wood. Edinburgh: Young J. Pentland.

(SECOND NOTICE.)

A GENERAL review of the first volume of the *System* will be found in the JOURNAL of December 3rd, page 1219, together with some notice of the anatomical and teratological articles which it contains. A brief criticism will now be given of the remaining papers in the volume.

Dr. Egbert Grandin writes on "Gynæcological Diagnosis," in an article of value to the specialist, but of little service to general surgeons or practitioners, and useless to the student. The copious illustrations of instruments are a commendable feature in this article, for what is mentioned in the text ought to be represented by art, even at the risk of causing a book to assume the appearance of a dealer's catalogue. The advisability of describing a multitude of specula and rensula is quite another question. Dr. E. C. Dudley, of Chicago, contributes "General Considerations of Gynæcological Surgery." His advocacy at pages 328 to 332 of "not aesthetic, but surgical cleanliness," is praiseworthy; we fear that few specialists live up to his idea. The observations on the cleanliness of lubricating substances used in the consulting room and operating theatre may profitably be read by every hospital physician and general practitioner. In the paragraph on materials for sutures, no mention is made of silk-worm gut, now so largely employed. Dr. Alexander Skene's "General Therapeutics" will prove useful to the practitioner. We should have liked to have found more about ergot, especially some discussion of its action in combination with iron, as distinguished from its effects when taken alone: That some iron salts may destroy or neutralise ergotin in solutions, there can be little, if any, doubt.

"Electricity in Gynæcology" is the name of a paper by Dr. Rockwell, who is known as the author, conjointly with Dr. Beard, of a work on *Medical and Surgical Electricity*. He writes temperately on his subject. His summary of the experience of Apostoli and Englemann is honestly expressed; these specialists, Dr. Rockwell states, "have treated a large number of cases, and claim most excellent results. Although the tumour is not made to disappear, in every case growth has been arrested, and, in many instances, the size of the tumour markedly diminished." Dr. Gill Wylie writes on "Menstruation and its Disorders." The paragraphs on amenorrhœa are satisfactory; we are glad to see that no operation for its cure is mentioned. The important subject of vicarious menstruation is insufficiently discussed, without any notice of the sources of fallacy in diagnosis indicated by Dr. Matthews Duncan and others. Dr. Wylie, in speaking of dysmenorrhœa, gives a clear demonstration of his own treatment by dilatation with Sims's instrument, and the application of pure carbolic acid and iodoform to the uterine cavity, the cervix being guarded by a special "protector." Dr. Reeves Jackson's "Sterility" is an excellent article, highly valuable for reference at least; but we deplore his open defence of artificial impregnation, and his quotation of Dr. Eustache's sophisms, expressed in language recalling the worst type of ethical pedantry in vogue ninety years ago. The "morality and religion" which, according to Dr. Eustache, do not condemn the practice in question are the homologues of the religion which advocated inquisitions, and the morality which considered the judicial murder of political enemies as consistent with abstract declarations of liberty.

The editor, Dr. MANN, contributes a sound and readable treatise on "Diseases of the Vulva." Under "lupus," Dr. Matthews Duncan's and Mr. Hutchinson's opinions are duly considered. The term "kraurosis vulvæ," now frequent in gynæcological literature, should have been noted and explained. Dr. Mann carefully distinguishes between abscess of Cowper's duct and abscess of Cowper's gland, and speaks of the gonococcus. He might have further mentioned the researches of Dr. Bumm and others, which seem to show that, when the gonococcus alone invades Cowper's gland, its epithelium is destroyed, and the gland undergoes cystic degeneration; whilst, when a septic germ follows the specific germ, suppuration rapidly occurs. Dr. Thaddeus Reamy writes on "Subinvolution of the Uterus and Vagina." He summarises the opinions of authorities very clearly. The subinvolution of the vagina is, in reality, the same condition described by Hart and Barbour where the increased mobility of the anterior pelvic

viscera, natural during pregnancy, is said to continue after childbirth through well-known reasons, and favours every form of prolapse.

In preparing the three monographs on Inflammation in and around the Uterus and on Pelvic Hæmatocele, the authors have had to contend with great difficulties. Dr. Chauncey Palmer writes on "The Inflammatory Affections of the Uterus." We are glad to find that at page 543, in describing acute endometritis, he does not speak of the cervix being tender. There are very few conditions in which that part of the uterus is highly sensitive to touch. Endometritis remains far too much a literary rather than a clinical or pathological disease. The headaches and hysteria, given by Dr. Palmer as symptoms of chronic general endometritis, would be attributed, by other writers, to tubal disease, and by others to perimetritis. When Dr. Palmer discusses more tangible questions, he writes well, as in his paragraphs on erosion of the cervix.

Dr. Richard Maury, in writing on "Peri-uterine Inflammation," has had to deal with questions a little less vague than those included in Dr. Chauncey Palmer's task. Dr. Maury begins well with general pathological and anatomical observations. Further on, however, we do not find good and distinct summaries of the important doctrines of Courty, Bernutz, Gaillard Thomas, Matthews Duncan, and Guérin. The intricate details of their several doctrines are mixed up in the text, and clinical facts are blended too much with pathology. Guérin's *adéno-phlegmon juncto-pubien* is frequently mentioned in medical literature, yet it is only indirectly indicated, and not named, at page 709—an oversight in a book of reference. Dr. Maury takes care to note the important differences of opinion as to the spreading of parenchymatous inflammation to the peritoneum, and the reverse condition. The concluding paper, "Pelvic Hæmatocele and Hæmatoma," by Dr. Van de Warker, is written well up to date, especially the passages on surgical interference.

The index is so complete that the value of the *System* is thereby greatly increased; and, on the other hand, the critic is enabled to find out omissions in the text.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

LANOLIN ANHYDRICUM (LIEBREICH): LANOLIN PURISSIMUM (LIEBREICH).

We have received from Messrs. Burroughs, Wellcome and Co., Snow Hill Buildings, two specimens of Liebreich's lanolin, anhydrous, and pure lanolin, which are such an improvement of this basis as first brought out that they are well worthy of report. The lanolin anhydricum (Liebreich) is, we believe, now preferred by dermatologists in the treatment of cutaneous affections, especially for moist surfaces, and is perfectly adapted for the application of medicaments to mucous surfaces, such as those of the nares, mouth, uterus, vagina, or anus. It has also special and unequalled advantages for the purpose of employing liquids in the form of ointments. The anhydrous and pure lanolins of Liebreich now forwarded to us are of a light creamy tint, odourless, and very slightly adhesive, so that certain objections which belonged to the earlier forms of this new and valuable therapeutic agent no longer apply.

In the making of ointments, lanolin should be used with a diluent, and the great miscibility of this keratine fat with all medicaments and the great miscibility of this keratine fat with all medicaments and the great miscibility of this keratine fat with all medicaments and the great miscibility of this keratine fat with all medicaments gives it a unique place as an unguent base. Its peculiar features are its purity, antiseptic quality, and the fact that it does not become rancid or harbour germs. In this new form lanolin comes very near to perfection in those qualities of an unguent basis that are claimed for it.

THE INVALID BED ATTACHMENT (GOODWIN'S PATENT).

THE invalid bed attachment invented by Mr. Goodwin is a contrivance for contributing to the comfort and facilitating the nursing of cases of severe or chronic illness. The patient rests upon a canvas sheet attached to an oblong iron frame, the length and breadth of an ordinary single bedstead. When it is desired to move the patient, this iron frame is attached to ropes depending from a stout horizontal beam which projects across the bed; the beam is attached to a strong vertical support, which rests on a heavy foot placed under the bed at one side. By turning one of four cranks the patient may be placed in any desired position, his head or feet can be raised or

lowered, he can be turned on one side, he can be lifted off the bed in the canvas sheet, which then can be adapted to serve either as a "lounging chair" or a hammock; all these movements the nurse can effect with the greatest ease to herself and without putting the patient to any exertion; all the movements also may be performed so slowly and gradually as to be almost imperceptible. When the patient has been raised from the bed, the apparatus can be rotated so that he can be swung off the bed while it is being made and aired, and can be brought to a window if one be near at hand. When not in use the beam can be removed, and the upright unstopped so that only the foot remains, and as it is mostly under the bed, it does not obtrude upon the eye either of the patient or his attendants. The contrivance is simple in use, and can be worked without difficulty after a few minutes' practice; it is stated that the mechanism is not liable to get out of order. The apparatus, which is sold at a moderate price, may be seen and tested at 66, Ludgate Hill, E.C.¹

MULES'S "ARTIFICIAL VITREOUS INSERTER."

This instrument is used in conjunction with Dr. Mules's evisceration scoop, for the operation of introducing an artificial vitreous; it is designed to facilitate the operation of introducing glass globes into

the cavity of the eviscerated sclerotic. Hitherto the insertion of these globes has been a troublesome feature in the operation, necessitating the use of four pairs of forceps by three people, to hold open the flaccid sclera and introduce the globe. One hand of the operator now suffices, as the end of the instrument passed into the cavity is opened by the downward push of the piston acting on the glass globe, the right-angled points catch and hold the edges, whilst the globe itself dilates the opening *ad maximum*, and drops in; should the aperture be insufficient to admit the globe, it should be enlarged under pressure by nicking its edge. The appearance of the instrument so obviously speaks for itself, that further explanation is unnecessary, except that to introduce the sphere within the cage, the pusher is pressed down until the curved ends of the springs are sufficiently wide apart; they are then placed over the globe, and with a little pressure the sphere jumps into the cage. The instrument is made by Armstrong Brothers, Feansgate, Manchester.



pressure the sphere jumps into the cage. The instrument is made by Armstrong Brothers, Feansgate, Manchester.

PINOL (BURROUGHS).

"PINOL" is the name adopted by Messrs. Burroughs, Wellcome, and Co., of Snow Hill Buildings, for the pure essence or volatile oil obtained by distillation of the needles of *Pinus Pumilio*. The medicinal properties of this oil have been shown to depend in large measure upon the altitude at which the trees containing it grow. The oil derived from trees above the line of perpetual snow in the Alps is much superior to that derived from trees growing at lower altitudes. Messrs. Burroughs and Wellcome certify that their pinol is derived solely from trees growing above the snow line.

Pinol has not as yet been extensively employed in England, but the value of "pine treatment" (that is, the treatment by the products of the *Pinus Pumilio* in some form or other) has long been recognised

¹ The statement in the prospectus that "there are at least 105,000 doctors practising in the United Kingdom" is, fortunately, utterly erroneous; the conclusions drawn from the statement must, therefore, be incorrect.

on the Continent. It is there employed, and with considerable success, in a variety of diseases of the respiratory organs, as well as in rheumatism and gout.

The Ext. *Pinus Pumilio* (Burroughs) consists of the filtered residuum left in the still after the distillation of pinol. This is for external application only. A warm bath containing this extract is stated to be very beneficial in thoroughly cleansing the skin, and greatly to facilitate the absorption of pinol subsequently applied. It may also be made into ointment, liniment, or plaster, directions for making which Messrs. Burroughs and Wellcome send with each package.

GALE'S OBSTETRIC CONES.

SINCE the local anæsthetic properties of cocaine have been discovered, among the many purposes for which it has been applied is that of relieving the earlier labour pains by painting with it the os uteri in primiparæ, or when the os is rigid; but in order to do this adequately the use of a speculum is necessary. The obstetric cones made by Gale and Co., 15, Bouverie Street, do away with this difficulty. They are hollow, made to fit the index finger, and can thus be very readily applied to the part desired. They are made with one, two, or three grains of cocaine, the excipient being oil of theobroma, and they also contain three grains of boric acid. The excipient itself acts as a lubricator to the parts. Therapeutically they fulfil their purpose very well, and from a pharmaceutical point of view they seem to be incapable of further improvement.

"THE LEICESTER" ADHESIVE PLASTER.

This is made by A. de St. Dalmas, of Leicester, and is a strapping of a very serviceable kind. The plaster is spread upon stout holland in rolls of six yards in length, and of the very convenient breadth of about nine inches. If kept in a fairly cool place the layers of the roll do not adhere together. It has great adhesive power, but in spite of this it can be easily removed when required. It contains no resin, and altogether it fulfils all the requirements needed in "strapping" either for hospital or general use.

SACCHARIN.

DR. LESLIE PHILLIPS writes: A sample of this supplied me by a firm of chemists has a strong smell of chlorine, while an alkaline solution of the same sample has a distinct odour of essential oil of almonds, the artificial variety of which flavouring substance is, like saccharin, a coal tar product. A patient for whom I ordered an elixir of saccharin with sodium bicarbonate to sweeten tea invariably vomited after taking tea so sweetened, and she stated that it was the after taste, of an iron-like nature, which seemed to excite the nausea and vomiting.

* * A sample of saccharin now before us has certainly no odour of chlorine. It has an odour suggestive of essential oil of bitter almonds, which practically disappears on the addition of an alkaline solution (for example, of bicarbonate of sodium). A solution of it leaves a persistent after-taste, but this does not resemble iron. We may point out that M. Maumené, in the *Chemical Reporter*, January 23rd, 1887, pointed out that a sample examined by him was not homogeneous. Recent chemical experiments with various specimens have led to somewhat discordant results, and seem to point to variation in the composition of the specimens of saccharin examined. It seems very probable that saccharin as now in the market may vary considerably; but it is to be hoped that this variation may speedily cease, as it should in the case of a substance stated to be of a definite chemical nature.

FÆCAL LODGMENTS.

DR. WARD COUSINS (Senior Surgeon to the Royal Portsmouth Hospital) writes: In the *Journal* of December 24th, Dr. Alexander Duke describes a novel contrivance which he has designed for the treatment of impacted feces in the lower bowel. By the aid of this ingenious instrument the operator can boldly penetrate the hardened mass, and then inject into the rectum above it a continuous stream of fluid, so that, after a soaking and softening process, the accumulation can be readily broken up and finally washed away.

I quite agree with Dr. Alexander Duke that any operation of this kind must always prove a very unpleasant surgical necessity, but I cannot see how any method of tunnelling the fecal plug can save the patient a "vast amount of pain," or render the removal of the lodgment less disagreeable to the surgeon.

In any case of fecal accumulation—after the failure of the usual oil injections and large enemata—it is my practice to administer an anæsthetic to the patient, and, with the fingers well protected with soap, to dilate the anal orifice just as in ordinary rectal operations. The manipulation soon stimulates contraction, and leads to the expulsion of the impacted mass. Sometimes the escape of the lodgment may be hastened by the use of a spoon. In this way I removed not long since a three-ounce glass bottle from the lower bowel.

NEW VAGINAL SPECULUM.

MESSRS. EVANS and WORMMULL, with reference to Messrs. Arnold's statement in the *Journal* of December 24th, deny that the speculum described by Dr. Floyer in the *Journal* of November 19th in any way resembles Messrs. Arnold's. Dr. Floyer designed his speculum with a view to its being easily and quickly taken apart, so that it can be thoroughly cleaned; and his idea is well carried out, the speculum only consists of two blades worked by a side screw, on the removal of which the whole falls apart; while the one referred to is regulated by a screw at the bottom, and is so constructed that only a mechanic can take it apart or put it together again.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches [are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 7th, 1888.

TREATMENT OF PSORIASIS BY IODIDE OF POTASSIUM.

THE Norwegian physicians, Dr. Greve and Dr. C. Boeck, have recommended large doses of iodide of potassium for the cure of psoriasis. Dr. Haslund has given this treatment an exhaustive trial in the Commune Hospital in Copenhagen, and in an article in the *Viertelj. f. Derm. u. Syphilis*, 1887, 3 Heft, confirms the statements of these physicians. A very remarkable fact established by Dr. Haslund's experiments is that iodide of potassium can be tolerated in much larger doses than had been previously imagined. He gave the drug in many cases in doses that must be considered enormous. In the case of one man he went so far as to give 50 grammes in a day, and in a number of cases he gave 30 and even 40 grammes a day.

It would appear from a tabulated statement in the paper that in forty cases a complete cure of the psoriasis was attained, whilst in four others there was considerable improvement. In six cases no benefit followed. No reason could be detected for failure in these six cases. Of the forty cases which were cured, twenty-four were men, three women, and thirteen children under 15. Most of the cases were chronic, but five of them were acute and recent. The duration of treatment varied from seventeen days to eleven weeks. In the cases of the men the average time was five weeks; in the cases of the three women six, ten, and eleven weeks respectively. In the cases of the children the time was from five weeks to fifteen, the average being nine to ten weeks. Taking no account of six cases in which the average of treatment was only seventeen to twenty-five days, the average of all the other cured cases was slightly over seven weeks. In all the six cases in which a cure was so quickly attained, the eruption was chronic and almost universal.

The disease began to subside in some patients when the daily dose had reached from 7 to 8 grammes, in some 10 grammes, but in most of them in larger doses; in others, only when 20 or 30 grammes daily were given, and in one patient a cure did not begin to show itself until the daily dose was 35 grammes. The total quantity required for a cure varied in men from 160 to 1,390 grammes, in women from 520 to 1,328 grammes; and in the children from 277 to 1,520 grammes. In most of the cases, after the disease once began to disappear, only a short time elapsed until the skin became quite smooth.

Dr. Haslund begins treatment with comparatively moderate doses, but rapidly increases them. It is remarkable that in all the cases slight signs of iodism were observed only in ten, but in none of these was it necessary to suspend the cure, although the doses were in consequence increased more slowly. With the larger doses there was, in seven cases, disturbance of the digestion, which ceased on the dose

being diminished to one-half for a few days, it being very seldom necessary to suspend the iodide altogether. In two cases patients suffered from headache and giddiness; in one patient the pulse was for one day irregular; in two cases there was slight albuminuria, which continued eight days in one, and in the other only for a single day, but it was not found necessary to suspend the iodide.

In one case the symptoms of iodism were severe, indications of paralysis of the heart having become threatening without being actually dangerous. In most of the cases there was not a trace of iodism observed, in spite of the extraordinary doses which were given. Extraordinary indeed the dose must be considered when a girl of 14 years of age took 40 grammes a day, and a girl of 9 years of age had 35 grammes. In two cases it was impossible to continue the iodide on account of idiosyncrasy. A woman, 30 years of age, after one dose presented an appearance resembling that of erysipelas of the whole face, and in her case toleration could not be established. One man, even with very small doses, was so violently affected with headache, sickness, salivation, lachrymation, angina, sinking, and diarrhoea, that the treatment had to be given up.

In three cases the blood was examined during the treatment, and it was found that the number, size, and form of the blood corpuscles were not altered.

Dr. Haslund considers himself justified, after these experiments, in considering that we possess in iodide of potassium, given in large doses, a remedy which can with considerable certainty be relied on to cure an attack of psoriasis, and further that at the present time we know of no remedy which, taken inwardly, can cure it in so short a time. He does not believe that it will prevent relapses, but recommends that iodide should be given for some time after a cure has been obtained.

The most striking apparent effect of the large doses was the quickening of the pulse, which, after ten to fourteen days of treatment, usually reached 100, and then went slowly up to 130 per minute.

The urine was systematically examined in the cases of four persons in order to determine whether the iodide of potassium increased or diminished the quantity of urea. From these examinations it appears that iodide of potassium, even when given in very large doses, has no effect on the excretion of urea. The amount of urine quickly increased or diminished in proportion as the dose was raised or lessened.

The alleged power of iodide of potassium to diminish fat and lead to shrinking of the glandular tissues was not confirmed. In those persons who suffered, not only from psoriasis, but from chronic swellings of the glands, the glandular swellings remained at the end of the cure unchanged. With reference to the supposed atrophic effect which the drug is thought to have on the testes, ovaries, and mammae, Dr. Haslund states that in the female patients to whom large doses were given no diminution in the size of the mammae was observed; on the contrary, in those of them who increased in weight during the cure the mammae became larger. In regard to the ovaries, no examination was made, but he assured himself that in the male patients the testes underwent no change.

Cases of catarrh of the respiratory organs and of the conjunctivæ were few, and in these so slight that no regard was paid to them; when they were present it was usually at the beginning of the cure. Bronchitis was never produced. The perspiration was either not increased, or so little that the increase was not observed. In only a

few patients was the saliva increased, and that only temporarily. In one, however, there was decided salivation.

Those members of the profession whose studies and duties lead them to be specially interested in the action of drugs, will do well to give careful attention to Dr. Haslund's paper. Perhaps it is not out of place to remind those who might be led to repeat Dr. Haslund's experiments that his patients were under close observation in hospital during the whole period of treatment, and that it is only where constant watchfulness and care can be secured that it can be desirable in the meanwhile to imitate Dr. Haslund's treatment by these heroic doses.

CREMATION.

SIR HENRY THOMPSON may be justly regarded as the pioneer of the movement in this country in favour of cremation as a means of disposing of the dead without subsequent injury to the living. The famous paper in which he discussed the subject in 1874 in the *Contemporary Review* awoke active discussion, and created a considerable force of public opinion in favour of urn-burial. This ancient procedure, old enough to be a novelty in our civilisation, has had to encounter many prejudices, and all that opposition which arose from centuries of habitual use of inhumation. The controversy which arose out of Sir Henry Thompson's paper did not, however, end in mere words. Simultaneously with the practical efforts to bring cremation to experimental test in other countries, a small Society was established here, of which Sir Henry Thompson, Sir T. Spencer Wells, and Mr. Ernest Hart, were the medical members of Council. This Society, known as the Cremation Society of England, took the necessary steps for erecting a crematorium at Woking, under the direction of Mr. Eassie, C.E. It has its offices at 11, Argyll Street, W. It has ever since quietly pursued its way without attempting to force the growth of public opinion, and contents itself with offering to those who desire it the means of cremation, conducted under strict precautions and in an effective and innoxious manner. Writing in the *Nineteenth Century*, which is now edited by the gentleman who originally conducted the *Contemporary Review*, Sir Henry Thompson reviews the progress made, and combats some of the objections which have been urged to cremation, while urging anew the arguments in its favour. He explains the state of the law, which, as laid down by Sir Fitzjames Stephen, permits cremation, and contrasts it with the earlier dicta of Sir Richard Cross when Secretary of State, who formally announced to the Cremation Society that he would oppose their proceedings. Sir Henry Thompson points out that the existing state of the law in respect to cremation does not sufficiently provide for the public safety, and he describes the careful provisions by which his Society fences round the performance of urn-burial with a view to obviate the medico-legal objections which have more than once been urged against cremation as a possible means of concealing crime.

Sir Spencer Wells and Mr. Frederic Harrison have so recently preceded Sir Henry Thompson in their reiteration of the arguments in favour of cremation from the point of view of public health and social convenience, that we need not here recapitulate Sir Henry Thompson's logical, vigorous, and effective pleading under these heads. His paper should be read from beginning to end by everyone who wishes to know all that can be said in favour of cremation and how the objections sometimes urged against it can be adequately met.

The crematorium at Woking is in effective operation, and during the past year sixteen cremations have taken place there. Cremation

is effected at a small cost, and under rigorous restrictions as to certificates and *post-mortem* examinations, far more effective than those which are at present applied to ordinary interment. It would be premature to attempt to predict what the future of this mode of disposal of the dead may be in this country; but it is certain that the theological and juridical objections which have been urged against it have to a large extent melted away in face of the practical and carefully measured proceedings of the Cremation Society.

It has, within a short space of time, established itself as a reasonable, practical, and healthy method of disposal of the dead which is compatible with the deepest religious sentiment, and which is capable of being brought within all the requirements of public safety. It is a great thing to have effected so much in so brief a space of time in favour of a procedure which at the outset was met by a violent storm of opposition, and which was alleged to outrage public sentiment. Bishops and archbishops, statesmen, philosophers, and sanitarians representative of most influential bodies, have pronounced in favour of it. The energy and public spirit of a small number of persons have placed at the disposal of the public the means of giving effect to any opinion which exists in favour of cremation, and there can be no doubt that the present essay by Sir Henry Thompson will do much to forward the further growth of a movement which has already made great progress.

THE REGISTRATION OF PLUMBERS.

THE Plumbers' Company has done and continues to do most excellent service to the public, to the cause of public health and sanitary science, as well as to the trade which they represent, by the judicious and well-conceived liberality of spirit in which they have made provision for the education, examination, and registration of qualified plumbers. The scheme which they have adopted has been thought out at the instance of a great conference with the leading members of the plumbing trade, held at the International Health Exhibition, South Kensington, over which Mr. Shaw, the then Master of the Plumbers' Company, ably presided. This scheme in its main features is based on the well-known precedents by which medical men, pharmaceutical chemists, dentists, and veterinary surgeons have organised their respective bodies; so as, on the one hand, to exclude incompetence and false pretence; and, on the other, to provide for a reasonable system of examination and registration, with scientific assistance, guided and controlled by a full representation of all interests. The scheme of the Plumbers' Company, after being thoroughly discussed in the trade itself, and in a number of great towns, and after being submitted to the leading medical and sanitary authorities, has met with what may be fairly described as unanimous approval; and, in the interests of public health, we are pleased to see that, in the large towns where it has been submitted to criticism, it has been heartily accepted.

One of its great merits is that it allows of a remarkable freedom of local development. Its system of local boards and local examinations, acting in unison with the central body, permits local activity, while it provides an adequate uniform method. It excludes those elements of confusion, deception, and jobbery, to which any merely local effort may easily lead; the standing of the company, its representative character, and the sanction given by the presence of men of the highest scientific standing and integrity, furnish the element of security and confidence which the public, the medical profession, and the trade alike, know to be essential to success.

We see, with some regret, that a distinct society has been started in Edinburgh which, while adopting many forms and regulations of the Plumbers' Company, appears altogether to have missed the spirit in which these regulations are devised, and to have been framed under conditions which not only do not afford the necessary guarantees of success to the trade, but which contain many elements having a very undesirable suggestion. It is obvious that any self-appointed council limiting its nominees by its own will, unconnected with the central body, which has the sanction of great public authorities, and of important scientific co-operation, may easily become the means of abuse, and cannot expect to deserve or to retain the confidence either of the plumbers or of the medical profession or to succeed with the public.

The object is not and should not be to afford to any small number of gentlemen, creating themselves as a Council, a monopoly by which outsiders could be excluded and a select few favoured. What is needed is to provide adequate means of examination and registration, and then to leave to the medical profession, to architects, and to the public the right to select their own plumbers from among those who have shown that they are capable of satisfying the necessary tests of efficiency. Any narrow creation of independent local councils, which shall frame their own lists, and select their own members, would totally fail in the object in view. What is wanted is unity throughout the whole kingdom, just representation, the creation of a register for the three kingdoms, and the formation of a class of registered plumbers who shall have fulfilled the necessary minimum tests, of which the trade and the medical profession approve. This is amply provided for in the scheme of the Plumbers' Company, while on the other hand, the scheme proposed by the local association to which we refer appears to us at once inadequate and invidious.

We earnestly hope that the favorable indications of unanimous and conjoint action of the plumbing trade in support of the excellent movement of the Plumbers' Company will continue to meet with uninterrupted success, and that no local attempts to create imperfect local monopolies will meet with countenance.

A MEETING of Convocation of the University of London will be held on Tuesday, January 17th.

THE programme of the annual meeting of the British Medical Association, to be held at Glasgow on August 7th, 8th, 9th, and 10th, is now complete, and will be found at page 38.

DR. C. J. CULLINGWORTH, Professor of Obstetrics and Gynaecology in Owens College, and Physician to St. Mary's Hospital, Manchester, has been appointed Obstetric Physician to St. Thomas's Hospital.

THE Countess of Dufferin's Jubilee Fund, for the supply of Female Medical Aid to the Women of India, has received from the Duke of Westminster a donation of £200.

SOME energetic members of the Medical Staff Corps connected with St. Thomas's Hospital are exerting themselves to raise funds to procure suitable new headquarters for their staff.

A PROPOSAL has been brought before the Municipal Council of St. Petersburg to impose a poll tax of one rouble, in order to provide additional funds for hospital administration. The tax is estimated to produce about one million roubles (£120,000); but the suggestion has not met with a favourable reception, and its adoption is doubtful.

At the last meeting of the Academy of Medicine and Surgery of Naples, Dr. Di Vestra read a report of the inquiries instituted by himself and Professor Cantani into the results of antirabic inoculations. A resolution was unanimously passed, calling upon the Government to subsidise the Italian Antirabic Institution, which is threatened with closure for want of proper pecuniary support.

HER MAJESTY THE QUEEN.

WE understand that Mr. Boehm has consented to undertake the commission for the erection of a statue to Her Majesty the Queen, in commemoration of the Jubilee, in the Hall of the University of London. The funds collected amount at present to £700.

THE BRITISH MEDICAL JOURNAL.

THE volume of the BRITISH MEDICAL JOURNAL just published (July to December, 1887) contains 1,460 pages. This is the largest semi-annual volume of any medical periodical ever published. The volume for the corresponding half-year 1886 contained 1,316 pages. The demands on our space, however, have far more than kept pace with this extension. The pressure on every department is so considerable and so continuous that the plea for brevity, which is now a standing notice in this JOURNAL, is one of ever-increasing urgency. We would earnestly request our contributors, whether of original articles, letters, or other communications, to bear in mind this ever-present difficulty.

SIR TINDAL ROBERTSON, M.D., M.P.

HER MAJESTY has been pleased to signify her intention of conferring the honour of knighthood upon Dr. Tindal Robertson, M.P. for Brighton. Dr. Robertson is the eldest son of the late Mr. F. F. Robertson, of Bath, by his marriage with Anne, daughter of Mr. J. Tindal. He was born in the year 1825, and was educated at University College, London, and at the University of Edinburgh. He became a member of the Royal College of Surgeons in 1850. He was for some years physician to the General Hospital at Nottingham. Of late years, since he became blind, he has resided at Brighton, where he acts as local magistrate, and as chairman of the Brighton Conservative Association. He has been one of the members for Brighton since November, 1886, when he was chosen on a chance vacancy caused by the death of Mr. David Smith. Dr. Tindal Robertson married Elizabeth Anne, daughter of Mr. J. Leavers.

SMALL-POX IN THE NORTH.

THE reports as to the amount of small-pox at Rotherham, imported in the first instance from Sheffield, appear to have been much exaggerated. Mr. J. Hardwicke, medical officer of health of that borough, states that, "owing to the active measures at once taken by the corporation and officials upon its appearance, it is now about stamped out, there being now only five cases in the borough: three in the fever hospital, and two outside, all convalescent." At a meeting of the Leeds Sanitary Committee on Wednesday, applications were received from several places near Leeds for hospital accommodation for small-pox patients. The committee, however, agreed to receive only patients from Morley, which has no small-pox hospital. Another death from small-pox was reported in Leeds on Wednesday.

THE LADY STRANGFORD HOSPITAL.

ADMIRAL INGLEFIELD, reporting on the Lady Strangford Hospital, which has now been in working order for some months, and has been of great service to many sufferers landed from steamers passing through the Suez Canal, points out that, judging from the number already received, more than 200 patients may be expected in a year; and of these, many are likely to be serious cases, chiefly sailors. Last month, 60.8 per cent. of the beds were filled. There have been seven deaths, and fifty-three patients have been discharged cured. Not only from the ordinary steamers, but also from Her Majesty's Indian troopships and other vessels of the Royal Navy, have sick been sent to the

hospital. The committee have still to make up a deficiency of £1,700, and £500 more will be needed to build a separate ward for isolated cases. So many persons are interested, directly or indirectly, in those who pass through the Canal, or many have friends in India, China, or Australia and New Zealand, and not a few are concerned in Egypt, the Canal, or in ships that pass through, that the committee do not hesitate to make this appeal, in hopes that the £2,200 still required for the building fund will be supplied speedily and willingly.

ROYAL MEDICAL BENEVOLENT COLLEGE.

It gives us much pleasure to direct the attention of our readers to the announcement that at the request of an influential deputation from the Council of the Royal Medical Benevolent College at Epsom, the Lord Mayor has consented to take the chair at the biennial dinner on April 17th. This will be the first occasion on which the head of the Corporation has presided since 1856, when Sir David Solomons took the chair. Several members of the House of Lords and the present leader of the House of Commons have also presided. It is a matter of congratulation that the claims of the profession upon the public should be so cordially recognised, and we hope that practitioners of all classes will do their best to make this festival a financial and a social success. The work carried on by the Council of Epsom College is good and deserving of all support. There is perhaps another claim on the Association to co-operate. Dr. Holman, the Treasurer of the British Medical Association, is also the Treasurer of Epsom College. This conjunction of offices and labours will give perhaps to many an additional impulse to aid him in his efforts to provide for the aged, helpless pensioners, and to clothe, educate, and feed the Foundation scholars of the College free of all charge to relatives and friends.

"A WARM SITE."

An interesting point, resulting from an examination of the Meteorological Journals of the late Mr. J. H. Belville and those of the Royal Observatory, Greenwich, was contained in a communication made by Mr. H. S. Eaton to the Meteorological Society at its last meeting. On the eminence on which the Royal Observatory stands the average temperature at night, or rather in the early morning, was in all cases higher than over the low grounds; as this is deduced from the examination of registers which extend over forty-four years, it probably expresses a general truth applicable to similar sites in river valleys and on alluvial soils, and shows perhaps one of the grounds of the growing preference for elevated sites for houses in preference to the low and sheltered situations which used formerly to be so much preferred. Mr. Eaton's statistics do not afford any evidence in support of the suggestion that the climate of the country has changed in the last century; the registers he examined extend, as has been said, over forty-four years (1812-55), but no appreciable change in the mean annual temperature of the air could be detected.

A MODEL ACT.

THE Margarine Act, for preventing the sale of butterine or any compound of butter under any other name than that of "margarine," comes into force this week, and active steps are being taken by the local authorities to carry out its provisions. The provisions of this Act, on which we have already reported, are very severe, and might in many respects be taken as a model for the improvement of the Adulteration Acts generally. The many loopholes which the Adulteration Acts offer to offenders are carefully stopped in this Act; thus the onus of proof that he was in any way deceived as to the nature of the article which he is selling is thrown upon the vendor. The inspector is not compelled to make a purchase of the article and to divide samples; and it is not sufficient that the article shall be colourably what it pretends to be, or that ignorance of its source or origin shall be pleaded. The whole responsibility is put on the vendor instead of, as heretofore, largely on the purchaser,

and the old rule of law, *caveat emptor*, is efficiently abolished. If the Adulteration Acts generally were amended on a similar model, the material well-being of our population, especially of the poorer classes, would be improved. Milk ought certainly to be protected in the same way and to the same extent as butter. It is, however, notorious that skimming and adulteration are still habitually practised with impunity to the extent of at least 15 or 20 per cent., and such is the weakness of the Adulteration Acts that analysts and sanitary inspectors are powerless to stop it. So also as to the numerous mixtures sold as coffee. By the use of various additional titles, and the many other little devices which the Adulteration Acts favour, it is well known that a large part of the coffee and tea sold is fraudulently adulterated to an enormous extent; and, indeed, very few articles of food escape deterioration by fraudulent admixture in some form or other. Were the penal clauses of the Adulteration Acts generally brought into accord with those of the Margarine Act, all this would very soon be put an end to.

BRISTOL EYE INFIRMARY.

AFTER occupying its old home for three-quarters of a century, the Bristol Eye Infirmary has had to respond to the imperative demand for increased accommodation. In the summer of 1886 it was determined to purchase two adjoining houses and a yard, and take prompt steps for the enlargement, and these have now been turned into a capital block of premises, with free internal communication on the various floors, and fitted with appliances for the more convenient and successful carrying on of hospital work. When the furnishing is completed the out-patient department will be adequate for the daily attendance of 150 persons, and accommodation for 18 in-patients. The total expense has been between £3,000 and £4,000, the funds for which are forthcoming.

THE HOUR OF DELIVERY.

AN industrious statistician has recently contributed to a medical journal at Lille, the results of an analysis of one thousand labours, with the precise hour at which delivery took place. He reports that 45 per cent. of the labours terminated between 8 A.M. and 8 P.M., and 56 per cent. between 8 P.M. and 8 A.M. Pushing the inquiry a step further, he found that 23 per cent. terminated between 6 A.M. and midday; 22 per cent. between midday and 6 P.M.; 27 per cent. between 6 P.M. and midnight, and 54.1 per cent. during the night—that is to say, between midnight and 6 A.M. These figures only apply to normal labours, in which nothing interfered with the physiological course, so that they go far to confirm the popular notion which admits the greatest frequency of delivery at night, "conception generally taking place at about that time."

REGISTRATION OF COLONIAL DEGREES.

AN Order in Council has been published extending the provisions of the second part of the Medical Act, 1886, to Ceylon. That Act provided that the *Medical Register* shall contain a separate list of the names and addresses of the colonial practitioners, and also a separate list of the names and addresses of the foreign practitioners registered under the Act. No such lists are yet in existence, but the Order is the first step to the formation of a colonial list. The matter will now have to come before the General Medical Council, which is required to determine whether the diplomas granted in a colony mentioned in such an Order furnish a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery. In this particular matter of the registration of colonial and foreign degrees, the Act certainly contains some anomalies. At the present time colonial degrees cannot be registered under any circumstances. Clause 16, owing, it is said, to an oversight, only applies to foreign degrees, and not to colonial degrees. It is under this clause that the degrees from the Brussels and other foreign universities have been recently put on the *Register* by registered practitioners who had obtained such degrees before the passing

of the Act. The registration of practitioners holding colonial diplomas and degrees will be governed by Clause 11; it will be necessary to show that the diploma, which must have been recognised by the Council, was not granted while he was domiciled in the United Kingdom, or was granted in course of a period of not less than five years during which he was resident out of the kingdom, or that he was practising in the United Kingdom on the prescribed day, and had been practising there or elsewhere for not less than ten years immediately preceding. As with Ceylon an Order in Council must be in every case issued, and this can only be done if the colony itself affords such privileges of practising as may seem just. Put shortly, the provisions of the Act may be said to be on this head that the Privy Council is charged with the duty of ascertaining that the colony grants reciprocal privileges; the General Medical Council examines into the professional value of the diploma, while the Registrar must satisfy himself of the personal respectability of the candidate.

CULTIVATED IPECACUANHA.

It is satisfactory to learn that a sample of the cultivated ipecacuanha, recently referred to in this JOURNAL as probably imported from Singapore, has, in the hands of Mr. Hare, F.R.C.S.E., yielded results indicating its therapeutic equality with the Brazilian drug. He reports that on comparing a powder of the Indian drug with the ordinary powdered root of the *Pharmacopœia*, he found that in equal doses the action was absolutely identical. In the case of a child, aged seven months, suffering from severe capillary bronchitis, the usual dose of ten grains produced satisfactory emesis and gave relief. When minute doses were subsequently administered, the customary expectorant action was manifested; and, upon alternating the use of the ordinary root with that of the Indian drug, day by day, in expectorant doses, and also, when occasion demanded, in nauseant doses, it was found impossible to distinguish between the two as regards their therapeutic effects.

THE ILLNESS OF THE CROWN PRINCE.

It is with profound satisfaction that we learn, on the highest authority, that the symptoms which caused so much alarm at the beginning of November have almost entirely disappeared. The growth in the subglottic region, which was then looked upon with such suspicion, has now shrunk to a fourth of its former size; the ulcer on its surface has completely healed, and the submaxillary glands, which were enlarged and hardened, are now in a perfectly normal state. The little growth which recently showed itself on the left ventricular band (false vocal cord) sloughed away very soon after its formation, and the ulcerated surface left behind was nearly cicatrised when Sir Morell Mackenzie left San Remo. The Prince is now quite free from the slight but constant feeling of discomfort about the larynx, from which he had suffered since the beginning of last year, and his face has lost the somewhat waxen pallor, which struck so many observers when His Imperial Highness was in England. We are able to state that in the opinion of Sir Morell Mackenzie the appearances in the Crown Prince's throat are now quite compatible with the more severe form of chronic laryngitis. In illustration of this, it may be interesting to quote some remarks from his work on *Diseases of the Throat*, Vol. i, p. 288, where it is stated that "in addition to congestive swelling of the mucosa and sub-mucosa, there occurs in some rare cases an organic thickening or hypertrophy of the soft structures." It is also said there that "nodular excrescences the result of chronic inflammation are often met with," presumably in the rare cases just alluded to. These words were written eight years ago, and the case of the Crown Prince would seem to be a perfect example of the morbid condition which they describe. In addition to the chronic inflammatory process, there is no doubt that perichondritis is also present. In speaking of this affection, Sir Morell Mackenzie (*op. cit.* p. 391) has called attention to the frequency of "impaired

action of one or both of the vocal cords;" and it may be remembered that in the case of the Crown Prince the action of the left cord has been defective for many months past. Whilst, however, there is now good ground for hoping that the disease may be of the comparatively favourable character here indicated, it would be foolish to allow ourselves to take too optimistic a view of the situation. The possibility of the affection being after all malignant, in spite of present appearances to the contrary, must not be too hastily dismissed; and, on the other hand, it should not be forgotten that even the milder complaint, towards which the symptoms seem now more or less definitely to point, is a serious one both in itself and in its possible consequences.

LORD GRIMTHORPE AND THE MEDICAL PROFESSION.

LORD GRIMTHORPE'S facts and arguments appear to be alike influenced in this matter by passion and imagination rather than by sober or accurate inquiring reason. He sets out the number of homœopathic practitioners in Great Britain at 10,000. Is he sure that it is as much as, say, 300? That is the last record which we have at hand, and the list for the last ten years does not appear to be a growing one. Lord Grimthorpe, like Shelley, declares himself in very vigorous language the avowed enemy of intolerance. Shelley's oath was "May infinity and eternity blast me if ever I forgive intolerance." When the froth is blown off the somewhat paradoxical and foaming declarations of Lord Grimthorpe, it will be seen that they are themselves a form of very aggressive intolerance. If Lord Grimthorpe could add a little psychological study to that of the logic of Whately, of which he so comically considers himself to be a monopolist, he would have to admit that the compulsory tolerance for which he clamours conceals only a thirst for a new form of petty despotism. What he really asks for in the name of tolerance is a despotic power over the intelligence and the conscience of the medical profession. He would compel them, if he could, to enter into alliance with those whose dogmas and practice they consider a nullity or a fraud. He may be left to enjoy his opinion "that not a man in this country is foolish enough to believe" that medical men generally are actuated by any other than knavish or cowardly motives in declining to act as allies or accomplices in homœopathic experiments either in or out of hospitals. There is little room for argument with a gentleman who seriously puts forward such a proposition. It is evident, however, that if homœopathic practitioners' shops and patients swarm as numerous as he wildly alleges, his complaint of the lack of opportunity for carrying out their experiments is, at least, exaggerated. The one or two anecdotes which he relates as to the toleration by the Bar, in eminent persons under exceptional circumstances, of practices which are universally reprobated within the Bar, will deceive no one into the belief that ostracism as it used to be called, or boycotting as he prefers to call it, is not a time-honoured means in the Bar, as in other professions, of self-defence against complicity in objectionable proceedings. We do not need to argue with Lord Grimthorpe whether homœopathy be or be not either a nullity or a fraud. Our case is, that such is the conclusion at which the medical profession generally, including without exception all its most eminent men, and all its recognised leaders, have long since arrived. They have had ample opportunities, during the last forty years, of revising that opinion, and of altering it if they had seen any reason to do so, but the simple fact is that they have not. That being so, it will require quite other methods than those which Lord Grimthorpe pursues to persuade them or any other reasonable beings that it is their duty so long as they continue to hold those opinions, either to meet in consultation or to act in concert with those who profess opinions and practise methods of treatment for which they entertain either contempt or disgust, and which they believe, on grounds which are overwhelmingly conclusive, to be either valueless or deceptive. Any attempt to force them into such an alliance is obviously foredoomed to failure. The mere proposal is an effort to establish a silly form of tyranny which reposes on no solid basis either of morality or of social duty.

THE CURE OF HYDATIDS.

AN instructive discussion took place at the Clinical Society recently on three papers dealing with the treatment for the cure or removal of hydatid cysts of the liver and other parts. Opinions differed very much as to the ultimate value of aspirating these cysts, but the explanation of this extraordinary divergence of opinion is probably to be found in Dr. Broadbent's suggestion that the prognosis depended largely upon the nature of the fluid. When this is clear and does not contain, as is often the case, numerous daughter cysts, Dr. Broadbent's experience leads him to anticipate that recurrence will not take place. When, however, the contents consist largely of minor cysts and *debris*, suppuration or recurrence is probable. In any case aspiration ought probably always to be performed, for a certain proportion of cases recover after this simple operation alone, and it must obviously be to the interest of the patient to avoid the risks incidental to a more radical operation. In some cases aspiration fails to afford more than a temporary relief, and surgeons are agreed that in that case the only thing to be done is to cut down upon and extirpate the sac and its contents. The experience of most European surgeons goes to prove that this is most safely done by allowing adhesions to set up, uniting the sac to the margins of the abdominal wound, before proceeding to empty the cyst. Statistics leave no room for doubt on this point. Even a few hours will often be sufficient to prevent any danger of the fluid finding its way into the abdominal cavity, by glueing the sac to the wound. The latter can then be tapped and its removal effected. The most troublesome part of the whole proceeding would appear to be an early and reliable diagnosis. The best way of meeting this difficulty is an exploratory laparotomy, and this few present day surgeons would hesitate to perform in the face of obscure and menacing symptoms.

FOREIGN OPINIONS OF ANTIPYRIN.

M. GERMAIN SÉE was the first to call attention to the very marked influence of antipyrin over pain, whether administered by the mouth or hypodermically. Since he published his series of cases the drug has been employed tentatively in most civilised countries, and the reports are now coming in. With very few exceptions the experiments have been successful. Fränkel, of Berlin, in order to test its anodyne properties, substituted antipyrin for morphine injections in all the cases under his care. In not a single case did he fail to give relief. He employed it in five-grain doses, repeating the injection in an adjacent spot if necessary. He proved that the local action of five grains of antipyrin was about the equivalent of a thirtieth of a grain of morphine. The influence of the drug was manifested in about fifteen seconds, and lasted from six to eight hours. He expresses the conviction that antipyrin may be used with advantage in many cases in which morphine is at present employed. It produces no disagreeable after-results apart from the slight pain of the injection itself. Hirsch, of Hanover, is not less affirmative after a trial of the drug in seven cases of severe rheumatic and neuralgic pain. In the United States, Dr. Waugh, of Philadelphia, has employed it successfully in a series of cases of neuralgia, muscular rheumatism, sciatica, etc. In the treatment of sciatica the relief was more prompt and at least as marked as could have been obtained from the use of morphine. He used it in doses of from two to five grains. Dr. Arca, Professor of Medicine at Buenos Ayres, himself a sufferer from chronic rheumatism, was treated by M. Sée by means of a hypodermic injection of fifteen grains of antipyrin, together with from thirty to sixty grains by the mouth, daily. The result was marked relief, though the pain returned directly he discontinued the treatment. There seems no reason to doubt that in antipyrin we possess a powerful anodyne for pain of nervous or rheumatic origin. Dispensed in the form of tablets, it is easily dosed, and may be administered either hypodermically or by the mouth. Beyond the smarting which follows the injection, no after-effects of moment are produced, and it has rarely been known to give rise to inconvenient, much less toxic, symptoms.

AMBULANCE MOVEMENT AT HAWARDEN.

AN interesting meeting was held last week at Hawarden in connection with the ambulance teaching and nursing class carried on there, Dr. Waters presiding. The results were stated by the Rev. H. Drow, and they appear to be excellent. Dr. Waters, in a speech marked by eloquence, pathos, and humour, referred to the recent history of medical education and of the Medical Act of 1856, which rendered it obligatory that medical men should be qualified in all branches of their profession. He was proud to be able, there in Hawarden, to recall that that Act was passed when Mr. Gladstone was Prime Minister. As a proof of the necessity of good and reliable nursing, he referred to his own experience. When he was resident in Edinburgh Infirmary it was his lot to take fever. In his room he had three physicians attending him. As far as numbers went he was tolerably safe; but it so happened that every night his nurse wrapped herself up in blankets, put a pillow under her head, and fell asleep before the fire. In the morning the doctors came and asked him what sort of a night he had had, and he said he had not slept; but, turning to the nurse, said that she had slept. And so it went on for nine days. He told the doctors what was happening, but all his efforts to convince them that the nurse slept and he was awake were in vain, and he began to reconcile himself to the position. The doctors came in and asked him what sort of a night he had had, and he replied that *she* had had a beautiful night. Then the nurse, before his very eyes, significantly tapped her forehead to let them know that he was wandering. The doctors passed out of the room, and the very first question was, "Has he been raving much to-day?" He himself shouted, "I am not raving, but she is." The nurse was a very distinguished woman, but she wanted her rest. At last one of his doctors came in later at night than usual, and, coming to see him, found his nurse asleep and himself wide awake. His friend was extremely penitent, and he shall never forget the luxury of that one night. The nurse was changed, and in the hands of the new one, who ministered to all his wants, he made a very swift recovery. Nurses of the Mrs. Gamp class were now passing away, owing to the extension of nurses' training institutions. He had tried to establish a nurses' institution in connection with the Chester Infirmary, but the attempt fell through. In these days of over-crowding and crushing mechanical force the spread of the knowledge of nursing and ambulance work must prove of the greatest benefit in diminishing suffering. A demonstration of medical aid in accidents was given by the members of the Sandycroft Corps.

PREGNANCY AFTER REMOVAL OF CANCER OF THE VAGINA.

DR. RÜTER, of Hamburg, describes the following case of this rare disease in the *Centralblatt für Gynäkologie*, No. 33, 1887. The patient was aged 36, married twelve years, and had borne three children; menstruation was regular, and there was no evidence of syphilis. Defecation had been painful for months, and had been attended during the few weeks before she was first seen, on July 1st, 1884, by hæmorrhage from the vagina. The patient was bony and muscular, and not anemic in spite of the frequent bleeding. On rectal examination a hard substance could be felt in the posterior vaginal wall, over which the mucous membrane of the bowel was not adherent. The finger introduced into the vagina encountered at a distance of a little over one inch from the vulvar orifice a hard elevation, which formed the border of the substance detected by rectal exploration, an area of infiltration, tough, with an uneven surface two inches by one-and-a-fifth in diameter. This area occupied the posterior vaginal wall, and reached to within a few millimètres of the reflection of the vagina on to the cervix. The cervix and uterus were entirely free from disease, nor was there any evidence of extension of the new growth into other parts. Touching the brittle tissues of the surface of the growth set up hæmorrhage. There was no fever. The microscope confirmed the diagnosis of epithelioma of the vulva.

On July 23rd, 1884, the growth was removed. The mucous membrane was first set free above and around the upper part of the margin of the growth, so that the vagina was separated posteriorly from its uterine attachment. The bluish, transparent peritonæum was thus exposed; it was accidentally cut through, in fact Douglas's pouch was laid open, and a few drachms of clear, greenish, watery fluid escaped. The aperture was guarded by a refractor. Lower down the growth was detached from the muscular coat of the rectum, which appeared healthy. The entire growth was in this manner quickly detached, scissors being employed; there was but little hæmorrhage. The rent in the peritonæum was closed with catgut sutures. Then the cervix was drawn down and made to cover the hole in the posterior vaginal wall; the raw surface on the cervix whence the vagina had been dissected away was united by deep and superficial silk sutures to the edge of the wound in the vagina. The os externum thus lay almost as low as the vulvar aperture. Sublimate and iodoform were the antiseptics employed in this case. By August 7th the wound had thoroughly united by first intention. On May 15th, 1885, Dr. Riiter saw the patient again. The catamenia had been suppressed since the operation till eleven weeks before this consultation; the right thigh had repeatedly become swollen; the veins did not appear to have undergone distension. The os uteri still lay close to the vulva, and there was no pouch between the cervix and the remains of the posterior vaginal wall, nor any trace of recurrence of the new growth. After May, 1885, the period remained regular till the patient became pregnant at the end of that year. On September 5th, 1886, she gave birth to a child at term, and was able to suckle it. When last examined, on August 1st, 1887, there was no sign of recurrence. The posterior vaginal wall had become lengthened through changes during and after gestation, measuring two inches and a half. Dr. Riiter believes that the swelling of the thigh and the amenorrhœa were due to the dragging down and temporary obstruction of large pelvic vessels caused by the displacement and fixation of the cervix. The influences of pregnancy overcame all traces of obstruction, so that the nutrition of the parts once more became normal.

NATIVE FEMALE EDUCATION IN CALCUTTA.

We all know, and are glad to know, that an effort is being made in India to extend medical aid to native women in India who are cut off by the iron barriers of caste and custom from receiving it at the hands of male practitioners, native or foreign. An attempt is now being made to educate a class of native "women doctors" to meet this want. We have before us a copy of the scheme as promulgated in the *Government Gazette* of Calcutta, published in the *Overland Englishman* of November 29th, 1887. The details of the scheme submitted by the Director of Public Instruction are simply astounding. It is difficult to believe that anyone in the present day can have such an inadequate conception of modern medicine as to lay down such rules as are here authoritatively published by a gentleman holding the responsible position of Director of Public Instruction. According to this enlightened instructor of the public on medical education, all the preliminary knowledge required before entering on the study of medicine is the following:—"Reading and explaining a Bengali book of the standard of difficulty of Raj Krishna Mookirjra's History of Bengal; writing from dictation an easy Bengali book, and arithmetic to easy fractions and simple rule of three." With this amount of mental furniture, Bengali girls, aged 16, are deemed, in the opinion of this public instructor, to be capable of entering on the study of modern medicine, and after three years of study to be turned loose, so far as we can see from the scheme before us, without examination to exercise their skill on their unfortunate fellow-creatures. Here is Sir Alfred Croft's opinion on this extraordinary scheme:—"I am fully aware that it is by no means certain to succeed, owing to the want of education among women in Bengal and to the obstacles which social conditions impose. Material benefits would follow if, happily, it should be success-

ful. If it fails, little or no cost is incurred and no harm done." No harm done! The scheme is cheap, "little or no cost is incurred!" That in the opinion of this educational authority is enough. The Lieutenant Governor of Bengal, not without some misgivings, has given his sanction to this dangerous experiment, not being perhaps better "instructed" than its author. But what are we to say of the medical officers, Dr. Mackenzie, Surgeon-Major Chन्द्रu, and Surgeon-Major Coates, "who are in favour of trying the system." The least we can say is that in giving even a qualified assent to this scheme, they are as much misled as its author and the high official who has sanctioned it. They may plead Dr. Johnson's frank excuse when he fell into error on some literary matter, "Ignorance, Sir, sheer ignorance," but if they are ashamed to offer such a poor plea, as well they may be, then any other excuse they can offer for their weakness in giving assent to such a scheme must be inadequate. We are glad to see that other members of the profession, although their names are not given, had sense and courage enough to withhold their consent from the vain attempt to graft on the education of a school board monitor of a child's class even the simplest elements of the healing art.

SO-CALLED TINCTURA IODI DECOLORATA.

THE alcoholic solution of iodine and ammonia, first introduced by Sir J. Y. Simpson about twenty-five years ago, has, notwithstanding several modifications, remained in general use, and, under the name of "tinctura iodi decolorata," is represented in the Unofficial Formulary recently adopted by the British Pharmaceutical Conference. Various statements have been made at different times as to the actual composition of this preparation, and in a paper recently read before the Pharmaceutical Society at an evening meeting in Edinburgh, Mr. J. Rutherford Hill stated that an examination of four preparations, made according to different formulæ, showed that the iodine in each case existed as iodide of ammonium, together with free ammonia and a slight trace of iodoform. Owing to the solution usually containing about the same percentage of combined iodine as the official tincture does of free iodine, it is frequently spoken of as being of the same strength, and an impression has no doubt thus obtained with some medical practitioners who prescribe the preparation, that in doing so they are ordering a solution which will produce the specific counter-irritant action of free iodine. This impression is probably confirmed by such a misnomer as "tinctura iodi decolorata." Mr. Hill, therefore, suggested that a "liquor ammonii iodidi ammoniata" might be prepared, which would be of the same therapeutic value as the so-called decolorised tincture of iodine, and prevent the occurrence of mistakes. It is further worthy of note that an attempt has been made to attain the object sought by some who order the decolorised tincture, without altogether losing the specific effect of free iodine. It was stated that a certain medical man prescribes tincture of iodine and aromatic spirit of ammonia in separate bottles, and instructs his patient to paint on the iodine at night and to sponge it off with the aromatic spirit of ammonia before going out next day.

VEGETARIAN DINNERS FOR SCHOOL CHILDREN.

COLD weather and Christmas cheer are invigorating to most of us at this time of year, but it is a sad time for underfed children. The committee for supplying vegetarian dinners to school children in London have been actively prosecuting their good work this winter. We are glad to hear that their dinners have proved palatable and acceptable to the children. Their experiment is a fair one; but we should like to know whether the vegetarian dinners aided growth in the children as much as the mixed diets supplied, at equally low rates, to the school children in Birmingham. It does not appear that vegetarian dinners are more economical as to prime cost; it may also be doubted whether they are more economical physiologically. No doubt the ingredients necessary for the nutrition of the body are to be found in vegetarian food; but evidence is not forthcoming that the digestive

organs are able to extract and assimilate nitrogenous matters as well from a purely vegetable diet as from a mixed one. Plants get their supplies of nitrogen from compounds in the soil, not from the atmosphere. The feeding of children is at least as necessary to their development as teaching, and the cost is trifling in comparison to some of the results obtained: 19,673 dinners were supplied at £68 12s., or a little over three farthings per head. We may safely say that this admirable movement will do good, and that it is economically worked; still, in any plan for distributing food to the poor, there remains the necessity of avoiding pauperisation. The independence of the poor is best respected by enabling them to help themselves; and we are glad to see the suggestion made that senior girls in the school should be employed in cooking and serving the food. Teachers in poor schools are worked hard enough, and must not be expected to do much beyond their paid duties. It is to be hoped that well cooked and comfortably served dinners are served in the middle of the day for the teachers in the schools.

SCOTLAND.

DEATH OF PROFESSOR DICKSON.

DR. DICKSON, Professor of Botany in the University of Edinburgh, and Regius Keeper of the Botanical Gardens, died suddenly on December 30th.

EPIDEMIC OF FEVER AT PAISLEY.

DURING the past fortnight there has been a serious outbreak of fever, mostly enteric, in Paisley; it is hoped, however, that the worst is now over. Last week there were fifteen deaths from the disease, and there were sixty-four patients suffering from it in the hospital.

MEASLES AND WHOOPING-COUGH AT ALYTH.

AT Alyth, in Perthshire, measles and whooping-cough prevailed to such an extent that the propriety of closing the schools has been considered. As far as the infant department is concerned, the diseases have nearly done that themselves, as, out of 127 on the register, no fewer than 100 were absent.

CHILDREN'S BAZAAR.

FOUR young ladies in Edinburgh, all under 12 years of age, being greatly interested in the Sick Children's Hospital, organised a private bazaar on its behalf, and realised a sum of £17 10s. 9d., which was paid over to the institution and gratefully acknowledged by the managers.

IMPORTANT MOVEMENT AS TO INFECTIOUS DISEASE.

AT a meeting of Edinburgh Town Council Public Health Committee, a resolution of an almost revolutionary nature was agreed to. The Dean of Guild Court made a representation to the Committee on the subject of the occurrence of infectious diseases in relation to the houses in which they occurred. The Committee agreed to the following motion: "That in cases of infectious disease, such as typhus, diphtheria, and scarlatina, the Medical Officer shall supply to the Burgh Engineer a note of the address of the same, so that he may make a complete examination of the sanitary condition of the house in which the outbreak takes place."

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE third meeting of the current session was held in the Faculty Hall on December 28th; Dr. Wallace, President, in the Chair. Mr. A. R. Gunn, M.B., C.M.; Mr. Campbell Syme, L.R.C.P.E., Kilmalcolm; and Mr. William Cullen, M.B., C.M., were duly admitted Fellows. Dr. Robert Park exhibited a uterine cast of dysmenorrhœal origin almost entire. The cast was handed to the pathologist, on the

bringing up of whose report an account of the case will be given. Dr. J. Stuart Nairne then read a paper on two successful cases of cholecystotomy, in one of which obstruction had been due to gall-stones, and in another to catarrhal products.

ROYAL ASYLUM, MORNINGSIDE.

THE spread of the southern suburbs of Edinburgh, in the Morningside district, has so interfered with the comfort and amenity of the East House Royal Edinburgh Asylum, that the managers have resolved, at a cost of, it is supposed, of about £60,000, to erect a new asylum building in the grounds of Craig House, which are already in their possession. The East House has for many years been used exclusively for patients who were able to pay a good rate of board; and, some years ago, Craig House was added for their accommodation also. Dr. Clouston's views are to be consulted on every point, and Mr. Sydney Mitchell is the architect, but the plans are not yet prepared.

IRELAND.

THE Local Government Board have sanctioned the appointment of Dr. Kerwan, as medical officer of the Oranmore dispensary district.

THE Local Government Board for Ireland have refused their sanction to the election of Dr. Magner as medical officer to Timoleague dispensary.

THE MEASLES EPIDEMIC AT CAPE CLEAR.

A SPECIAL meeting of the Skibbereen Board of Guardians was held last week in reference to the epidemic of measles in Cape Clear, Hare Island, and the district. A report was received from Dr. John Jennings from Cape Clear, to the effect that, although the contagion continued to spread, yet there was only one death there for the week. One hundred persons are affected. Dr. W. Jennings reported that the epidemic had broken out in the townland of Coolanuller, near Skibbereen, with one death, that of a boy, aged 15; and that it has crossed the water to the mainland in Aughada, where a number of persons are now attacked, and some deaths have already taken place in adults and children. In the whole of Hare Island, where about forty families live, only three have escaped the disease. Quite a panic exists on the mainland, where the contagion has spread, and it was rumoured that a case had occurred in Skibbereen workhouse, which, however, has turned out to have been chicken-pox.

GLASGOW UNIVERSITY COUNCIL ASSOCIATION.

A MEETING of this Association was held on December 13th, in Glasgow, under the presidency of Mr. COCHRAN-PATRICK, LL.D.

In introducing the business, the CHAIRMAN made some remarks on the Universities Bill of last year. He pointed out the recognition it contained of the need of extra-academical representation in the University Court in the person of an assessor from the Town Council. He was also glad to see that last year's Bill contained a special grant to Glasgow University of £500 a year for maintenance of buildings. He objected to the system of cumulative voting proposed in the Bill, and he thought the Court should consist of thirteen rather than twelve members. The number in the Bill was thirteen, but for voting purposes it was really only twelve, as the Rector's assessor could vote only in the absence of the Rector. He thought also the General Council should have five assessors, one of whom should retire annually, instead of four all retiring together. He emphasised the views of the Association that the financial administration of the University should be removed from the Senate, and that powers of affiliation should be given to the University Courts. He suggested that since the Government had accepted the proposal to have extra-academical representatives in the Court, the Association should not specify in detail who these representatives should be, but leave that to the Commissioners, the various public bodies being entitled to urge their respective claims.

Professor EDWARD CAIRD moved :

That, in prospect of another Universities Bill, the executive be instructed to press upon Her Majesty's Government the reforms held essential by the Association, and the vital objections taken to the Bill of last session

and in speaking to the motion, acknowledged the conciliatory speech of the Chairman. He had no objection to the financial administration being transferred to the Court, provided the Senate were properly represented in it, nor did he object to powers of affiliation, so long as it was only the general principle that in the meantime was being considered.

Mr. GRAHAM, of Aulhouse, moved the second resolution, namely :

That a Universities Bill, in order to command the support of the Association must (1) give the General Council and the Senatus an equal number of representatives in the University Court, and the extra-academical public not fewer representatives than either; (2) vest in the University Court the whole financial administration of the University; (3) provide for the affiliation of new colleges; (4) empower the Commissioners to remove, as they may see fit, any other present restrictions on university teaching.

Both resolutions were duly seconded and carried unanimously.

DR. GÄRTNER ON THE THERAPEUTIC UTILISATION OF MUSCULAR WORK, AND A NEW APPARATUS FOR ITS DOSAGE.

For the following particulars we are indebted to our Vienna Correspondent :—

It is admitted by all physicians that the want of bodily exercise causes various diseases, and obesity is probably in all cases the result of the muscles not being properly exercised. Men and animals work with the expenditure of fat and hydrocarbons, and a certain amount of consumption of fat must, therefore, correspond to a certain amount of work. It is evident from these facts that the value of a certain form of movement as a therapeutic agent must depend on the quantity of work (expressed in kilogramme-mètres) which it involves. The physician is often at a loss when he has to prescribe the necessary work for the patient, as in many cases none of the common forms of exercise are suitable. Dr. Gärtner has tried to meet this want, and has devised an apparatus, which he calls "ergostat" (*έργον* and *στάσις*). The ergostat is a small machine, scarcely larger than a sewing machine, and consists of an iron plate, around which there is a band. The latter is supplied



with wooden blocks, and is fixed at its ends to a lever, and can be bent to a greater or less extent by means of a weight which can be moved to and fro on the lever. A scale on the lever indicates how many kilogramme mètres are equivalent to one revolution of the iron plate. At the axis of the iron plate there is an arrangement by which the number of revolutions of the plate can be controlled, and 10,000 revolutions can thus be registered. The plate is turned by the patient by means of a winch provided with a suitable handle. The winch is made of such a length that the patient has to stoop at each turning. Dr. Gärtner chose the winch-work because it was known as the result of experiment that this was the most rational form of work. A man may with the winch perform great quantities of work much more easily than in any other way without excessive fatigue.

All machines which are moved by human hands and which require much force are supplied with winches; by this arrangement almost all

the muscles of the body, and especially those of the vertebral column and of the hip are exerted. Another advantage of this form of movement, as compared with several others, consists in the fact that the conditions of respiration are very favourably influenced. At each turning the chest is expanded and narrowed, hence a sort of artificial respiration is produced. The work of the respiratory muscles themselves is much facilitated, and they do not become easily fatigued. It is difficulty of breathing which, in most cases, renders the continuation of heavy work impossible, and it was proved by experiments with the ergostat that persons who had not previously been able to perform any work whatever, could, when working with it, raise considerable quantities of kilogramme-mètres without any dyspnoea supervening. The work with the winch has, furthermore, the advantage that the abdomen becomes compressed at each turning, and a kind of massage of its walls is thus produced, which must obviously have a good effect on the peristalsis of the intestine and on the secretion of bile. In addition to all this, the ergostat presents the following advantages:—1. It is at the disposal of the patient at any time of the day; every spare minute can thus be used in healthy exercise. 2. The amount of work is regulated by kilogramme-mètres, in proportion to the patient's strength, just in the same way as the dose of drugs is adapted to the individuality of the patient. 3. It does not require any skill or practice. 4. The physician can judge for himself as to the patient's diligence by the position of the dial which registers the revolutions. 5. The use of the apparatus need make no noise or disturbance in the house.

Dr. Gärtner has employed the apparatus in a case of excessive obesity. The patient, who had become almost breathless on the slightest movement, was able to do a considerable amount of work with the ergostat on the very first day without being attacked with dyspnoea. She has now been working with the machine for nineteen days, and performs 2,000 revolutions, each of which is equal to twelve kilogramme-mètres, in about a hundred minutes. She has not changed her diet or her mode of living in any way, and yet she has lost, since the beginning of the treatment, about four kilogrammes in weight. Similar good results have been obtained in another case of obesity.

The ergostat can also be employed in some forms of nerve-disease, and in disorders of the portal circulation, in chronic constipation, in biliary calculus, gout, and opaluria.

In using the ergostat, the following rules should be observed:—1. The revolutions must be executed very slowly, not more than from twenty to twenty-five in the minute. 2. Speaking is not allowed during work. 3. The work is performed during winter in an unheated room, and the windows must always be opened. 4. The patient's dress must be easy and convenient. 5. No work should be done immediately after a meal.

THE CASE OF DR. CROSS.

The friends of Dr. Cross are working to obtain a respite of the death sentence, and the following is a copy of a requisition to the Lord-Lieutenant:—

To His Excellency the Most Noble Charles, Marquis of Londonderry, Lord-Lieutenant of Ireland.

The memorial of the undersigned humbly sheweth,

That Philip H. E. Cross, a retired surgeon-major in Her Majesty's service, was on the 17th day of December, 1887, found guilty of the murder of his wife, Mary Laura Cross, and sentenced to be hanged on the 10th day of January, 1888.

1. That grave doubts are entertained of the justice of the conviction, arising from the fact that the analyst had not previously examined the body of a person supposed to have died from arsenical poisoning.

2. There is no direct evidence to connect the accused with the alleged crime.

3. That the evidence was entirely circumstantial.

4. That a most important piece of evidence has turned up since the trial, as embodied in the statutory declaration annexed herewith, made on 25th December inst., by Mr. John Charles Westropp Butterfield, of the city of Cork, dental surgeon, to the effect that the late Mary Laura Cross had on two occasions alluded to poison in his study, asked him if he could procure it for her, and inquired if he had heard that arsenic was good for the complexion, and any one of which occasions was as recent as the 6th day of April last.

5. That the said P. H. E. Cross was very unpopular with the masses of the people of Cork and its neighbourhood, had been boycotted, and subjected to many signs of popular indignation.

6. That he is a man of advanced years.

7. That he has served Her Majesty for many years in Europe, Asia, Africa, and America, amongst others was engaged in the Indian Mutiny, at the Crimea, the China campaign, etc., and received three medals.

Your petitioners therefore humbly implore your Excellency to mitigate the capital sentence passed on the said Philip H. E. Cross, and your petitioners will, as in duty bound, ever pray.

[Here follow the columns for signature.]

The petition has been forwarded to Mr. Justice Murphy (who delivered the sentence) for his comments, but the prevalent opinion is that His Excellency will not interfere with the carrying out of the sentence.

MEDICAL LEGISLATION IN BOMBAY.

THERE does not exist in India generally the means of distinguishing between qualified and unqualified ignorant practitioners of medicine, such as was provided by the Medical Act of 1858 for the public in Great Britain and Ireland, and, subsequently, in several of the colonies. It appears from a memorial recently presented to the Government and Council of Bombay by the Bombay Medical Union that in the year 1881 the Medical Society of the Grant Medical College brought under the notice of the Governor and Council of Bombay the necessity of passing an Act in Council in many respects similar to the Medical Act of 1858 of this country. The proposals submitted to the Government were as follows:—

1. That medical men be publicly registered in the city after a sufficient scrutiny of their diplomas or degrees, rendering it illegal for anyone to assume a title which is not so registered.
2. That none but persons so registered be entitled to demand and recover charges in any court of law for professional aid, advice and visits, and the cost of any medicines, or other medical or surgical appliances, rendered or supplied by him to his patients.
3. That none but persons so registered be eligible for employment as a physician or surgeon in emigrant or other vessels, or in any hospital, infirmary, dispensary, or lying-in hospital (not supported entirely by voluntary contributions), or in any lunatic asylum, gaol, penitentiary, house of correction, house of industry, or other public establishment, body, or institution, or as a medical officer of health.
4. That no certificate required by any Act now in force, or that may hereafter be passed, from any physician, surgeon, licentiate of medicine or surgery, or other medical practitioner, be considered valid unless the person signing the same be registered under the proposed Act.

Arguments in favour of these proposals for legislation were at the time (1881) submitted to the Government of Bombay with such good effect, that a Medical Registration Act, founded on these principles, was strongly recommended by that Government to the Government of India. But the Government of Bombay went beyond this. They proceeded farther than the expressed wishes of the Medical Society of Grant College, and suggested that such a measure, if introduced, should not be confined in its operation to the town and island of Bombay alone, or even to one presidency, but should have application to the whole of India. This recommendation of a widespread registration Act was fatal to the proposal emanating from Bombay. It was felt to be impossible to apply a measure of this character to the whole of such a country as India, and the recommendation of the Bombay Government was not accepted.

The Bombay Medical Union, at a meeting held on November 12th, 1887, have unanimously agreed to recommend the Governor and Council of Bombay to return to the original recommendation of the Medical Society of Grant College, which had received the decided approval of the Government of Bombay of that date, and which is to the effect that a Medical Registration Act should be now framed, founded on the principles approved by the Government in 1881, and should apply to the city and island of Bombay, with power on the part of the Government to extend the operation of the Act to the minor cities of the presidency.

Without entering into the question how far such an Act could be adopted throughout India generally, we have no hesitation in saying that it is an absolute necessity that such an Act should be made available for the principal cities of India. Take, for example, the city of Bombay, the population of which is 800,000. The members of the Medical Union having taken some pains and undergone some expense to ascertain the facts, find that the total number of unqualified persons practising in the city of Bombay is about 640, out of which eighty pass themselves off under the title of "Doctor." Surely without reference to any special interests or privileges of medical men, it is the imperative duty of a Government which regards the welfare of the communities committed to its charge, to take means to protect them and their most vital interests from being imposed upon by ignorant and fraudulent practitioners. We have every confidence that the Governor of Bombay, Lord Reay, who is alike distinguished for his high scientific attainments and his wisely-tempered liberal feelings, will adopt a course on this subject which will be conducive to the welfare and the interests of the people committed to his charge; and that he and his advisers will not be reluctant to adopt the principles so highly approved by his predecessor in 1881.

HOSPITAL TELEPHONE.—The authorities of the Hospital for Consumption, at Ventnor, have decided to establish telephonic communication between the different wards of the hospital, the resident medical officer, and the porter's lodge. The installation is being carried out by the Equitable Telephone Association Limited, on their "Swinton" system.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN extraordinary meeting of the Council was held, at the College, on Thursday afternoon, January the 5th. The minutes of the ordinary Council, held on December 8th last, were read and confirmed. The Council then proceeded to the special business for which it had been convened, namely, to read and consider the report of the President and Vice-Presidents on a letter from the Lords of the Council, forwarding a copy of the statement relating to the supplementary charter prepared by the Association of Fellows, and requesting to be favoured with any remarks thereon which the Council may have to offer. A further letter from the Privy Council, forwarding for the information of the College a printed document, purporting to be a report of the statement made by Mr. Ernest Hart as spokesman of the deputation of the Association of the Members of the College to the Lord President on the subject of the application for a supplementary charter, was not read, but was deferred till the next meeting of the Council.

The Council, after a considerable deal of discussion, agreed to a statement to be sent to the Lords of the Council in reply to the objections raised by Fellows and Members to the application which has been lodged for a supplementary charter, subject, of course, to confirmation by the Council at its quarterly meeting on Thursday next.

VACCINATION GRANT.—Dr. White, Belmont, Wadhurst, public vaccinator of the Wadhurst District of the Ticehurst Union, has again received the grant from the Local Government Board for successful vaccination in the district.

CARBONATE OF SODA AND MILK.—At a recent meeting of the Conseil d'Hygiène M. Pronst presented a report on the system of preserving milk with carbonate of soda. He considers that this method should be prohibited. Carbonate of soda prevents the milk from turning sour, but produces a sodium lactate, which is a purgative, and causes diarrhoea in infants.

The friends and pupils of M. Péan a few days ago celebrated his nomination as Member of the Academy of Medicine by a banquet given at the Hôtel Continental. More than two hundred persons were present. Toasts were proposed and speeches were delivered by M. Peyron, director of the Assistance Publique, M. Guibout, M. de Pietra, Santa, and others.

PERMANGANATE OF POTASSIUM IN AMENORRHOEA.—The treatment of amenorrhœa, according to the method suggested by Professor Sydney Ringer and Dr. Murrell, has found a new supporter in Dr. J. D. Korotkevitch, of Turiask, in West Siberia (*Russkaja Medicina*, No. 15, 1887, p. 262). In five successive cases of obstinate amenorrhœa of obscure origin, he administered permanganate of potassium in the following form: R Potass. permangan. one drachm; argill. pur. q. s. M. f. pil. No. 60. Consperg. argill. pur. D. S. Two pills at dinner and supper time. The results were quite satisfactory in all the cases. After treatment lasting for a month or six weeks, the catamenia became regular, and remained so.

PERMANGANATE OF POTASSIUM IN TOOTHACHE.—In the *Russkaja Medicina*, No. 19, 1887, p. 330, Dr. Prokopy Popoff, of Minusinsk, in "Siberian Switzerland," writes that he has most successfully treated upwards of three hundred cases of toothache from dental caries by administering one-twentieth per cent. solution of permanganate of potassium in the form of a month-wash. The following is the formula: R Potass. permang., 3 grains; aq. destil. or fontanæ, 1 (Russ.) fl. pound, Misc. One tablespoonful to be taken in the month, every half-hour, and to be held therein on the affected side for several minutes. The most agonising pain is said gradually to disappear in a few hours. The wash acts, besides, as an excellent deodoriser.

DINITROKRÉSSOL.—M. Th. Weyl has ascertained the following facts concerning dinitrokréssol, a colouring matter which is sold as a substitute for saffron for colouring butter, macaroni, etc. He states that this substance causes death in rabbits in doses of 0.25 gramme to a kilogramme of the weight of the animal. When this quantity is administered, the animal is seized with dyspnoea and convulsions in the extensor muscles, and finally dies of asphyxia. Dinitrokréssol is chemically allied to picric acid or trinitrophenol. The symptoms of intoxication produced by these substances are very similar. Martins yellow, or dinitro-alpha-naphthol, is sometimes used to colour food stuffs, but it is not toxic.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary*.

December 24th, 1887.

ELECTION OF MEMBERS.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held, by the kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, January 19th, at 8.30 P.M. A demonstration of interesting cases of eye disease will be given by A. Q. Slocck, Esq. Visitors will be welcomed.—J. W. HUNT, *Honorary Secretary*, 101, Queen's Road, Dalston.

NORTH OF IRELAND BRANCH.—A general meeting of the North of Ireland Branch will be held in the Royal Hospital on Thursday, January 26th, 1887, at 12 o'clock noon. Gentlemen desirous of reading papers exhibiting cases, specimens, etc., will kindly communicate as early as convenient with the Secretary, JOHN W. BYERS, M.D., Lower Crescent, Belfast.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary, Oxford, at 3 o'clock on Friday, January 27th. Notice of papers to be read and cases to be shown must be given to either of the Honorary Secretaries on or before Monday, January 23rd. Members are requested to send their annual subscriptions to the Association and the Branch, due January 1st, to Dr. Darbishire, 37, Holywell, Oxford.—S. D. DARBISHIRE, W. LEWIS MORGAN, 42, Broad Street, Oxford, *Honorary Secretaries*.

SOUTH-WESTERN BRANCH.

An intermediate meeting of the Branch was held on Thursday, December 15th, 1887, at Newton Abbot, the President, Mr. PAUL SWAIN, F.R.C.S., of Plymouth, in the chair. About twenty-four members were present, including Dr. JOHN WOODMAN, of Exeter, *President-elect*.

New Members.—Several new members were elected.

President's Address.—The President then delivered an address on College Politics, which was devoted to a discussion of the line which the Council of the Royal College of Surgeons of England had taken in regard to important matters affecting the medical profession, especially in regard to medical education, and advocated the necessity for alterations in the constitution of the Council, and the mode of election of its members, with special reference to the proposed new charter for the College.

Vote of Thanks and Resolution.—A cordial vote of thanks was awarded to Mr. Swain for his address, and the following resolution was passed, on the motion of Mr. E. J. DOMVILLE, seconded by Dr. DEAS:

"That this meeting desires to endorse the opinions expressed by the President of the Branch in the paper read by him, and requests him to publish it, with a view to a copy being forwarded to the Lord President of the Council."

Papers.—The following papers were then read: Case of Pleurisy and Empyema: Tapping: Drainage Tube: Recovery, by Dr. JOHN WOODMAN, Exeter.—On the Importance of Early Diagnosis in Glaucoma, by Dr. L. H. TOSSWILL, Exeter.—Case of Alcoholic Paralysis, by Dr. A. H. BAMPTON, Plymouth.—Dr. ARTHUR KEMPE, Exeter, showed and explained a New Surgical Needle.

Luncheon.—After the meeting the members were hospitably entertained to a luncheon by the local members, Dr. Scott and Mr. Davies, Newton; Mr. Symons, Kingskerswell; and Mr. Goodwyn, Bovey.

METROPOLITAN COUNTIES BRANCH: HERTFORDSHIRE DISTRICT.

A MEETING of the above District was held at the Town Hall, St. Albans, on Wednesday, December 21st, 1887. The chair was taken by ARTHUR DURHAM, Esq.

Hysteric and Neurotic Dyspepsia.—A paper was read by Dr. HALE WHITE on the Treatment of Cases of Severe Hysteric and Neurotic Dyspepsia. Notes of two cases were given, in the first of which the patient had uncontrollable vomiting, in the second the chief symptom was diarrhoea. Each of them was completely cured by isolation, overfeeding, and massage. Hysteria in all its forms may be cured in the same way.—Discussion followed, and a vote of thanks was passed to Dr. Hale White for his paper.

New Rules.—The new rules on the agenda paper were discussed and adopted.

Vote of Thanks.—A vote of thanks was passed to Mr. Arthur Durham in recognition of his goodness in presiding for the occasion. The business of the meeting over, members were entertained at the house of Dr. Lipscomb, of St. Albans.

NEW SOUTH WALES BRANCH: SIXTY-EIGHTH GENERAL MEETING.

THE sixty-eighth general meeting of this Branch was held in the Royal Society's Rooms, Sydney, on Friday, November 4th, 1887. The following members were present: the Hon. Dr. CREED, M.L.C., President, in the chair; Drs. Chambers, Chisholm, Sydney Jones, Pockley, Knaggs, Wright, E. Fairfax Ross, Steel, Worrall, Hankins, McCormick, McDonagh, Bowker, West, Crago. Dr. A. E. Barcroft attended as a visitor.

The minutes of the previous meeting were read and confirmed.

Axillary Aneurysm.—Mr. G. F. HANKINS read notes of a case of axillary aneurysm, with ligature of the subclavian artery.—Dr. SYDNEY JONES said Mr. Hankins was to be congratulated on the success of the operation. The statistics upon which all calculations were based were collected before antiseptics were used. If the result of the operations of the last eight or ten years were collected, a great difference would, no doubt, be found.—Drs. WORRALL, E. F. ROSS, and the PRESIDENT also made some remarks.

Removal of Genitals.—Mr. G. F. HANKINS read notes on a case of total ablation of the genital organs in a man aged 50, and showed the patient.

Diabetic Coma.—Dr. CRAGO read some notes on a case of diabetic coma.

Revision of By-laws.—Dr. JONES proposed, and Dr. CRAGS seconded, "That the consideration of the by-laws be postponed until next meeting night, and that it be the first business of the evening." Carried.

New Member.—Dr. Leacock, of Camden, was elected a member of the Association.

STAFFORDSHIRE BRANCH: GENERAL MEETING.

THE first general meeting of this Branch was held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 24th, 1887. Mr. W. D. SPANTON, President in the chair.

New Members.—The following gentlemen were elected members of the Branch: Mr. J. Ruskin Hancock, Hanley; Dr. Armitage, Wolverhampton; Mr. F. Matthews, Nantwich.

Raynaud's Disease.—Dr. MCALDOWIE showed a case of Raynaud's disease occurring in a female epileptic, aged 18.

Phosphatic Calculus with Hairpin as a Nucleus.—Mr. WEST showed a specimen weighing half an ounce, which he had removed from a young woman *per urethram*.

Villous Growths in the Bladder.—Dr. W. G. LOWE exhibited two villous growths from the bladder, of papillomatous nature, situated close to the orifice of the urethra. They were taken from a woman aged 73, who had been the subject of occasional hæmaturia for several years, though without pain or difficulty in micturition, and who ultimately died after a sudden profuse hæmorrhage from the bladder.

Wound and Skin after a Dog-Bite.—Dr. W. HIND exhibited the wound and a portion of the surrounding skin after the bite of a dog, supposed to be rabid, and which was excised from a boy on the third day after infliction, on account of pain and a low form of inflammation.

Fibro-sarcoma of Breast.—Mr. SPANTON exhibited a fibro-sarcoma of the left breast weighing three pounds and a half, removed from a young woman last July. In February, 1884, a much smaller tumour of similar character had been removed by Mr. Spanton. The wound healed in five days, and the patient had since been quite well.—Mr. VINCENT JACKSON showed the photograph of a female patient exhibiting an enormously enlarged right mamma, due to a fibro-sarcomatous tumour, which, when removed, weighed more than six pounds. Microscopic specimens of the tumour, prepared by Dr. Heneage

Gibbes, were also shown. The recovery of the patient was rapid and easy.

Specimens.—Mr. STANTON showed: 1. Fibrous Tumour removed from Sheath of Biceps Femoris of a man aged 20, potter's turner, October 8th, 1887, coming slowly, causing inability to move the limb freely; good recovery, but slow. 2. Tubercular Testis, from man aged 46. Three years had pain in left testis, which came on rather suddenly. At times inflamed; never suppurated. Under care of Dr. Eddowes. Operation November 18th.

Papers.—The following papers were read: 1. Dr. McALDOWIE: Notes of a Case of Sensory Aphasia. 2. Mr. FOLKER: Villous Tumour of the Rectum. 3. Mr. FOLKER: Malignant Disease of Upper Jaw, and Operation. 4. Dr. WHELTON HIND: Notes of a Case of Reduction, *en masse*. 5. Mr. VINCENT JACKSON: Radical Treatment of Severe Hemorrhoids.

BORDER COUNTIES BRANCH.

THE winter meeting was held at Melrose on December 23rd, 1887, Dr. McLEOD, President, in the chair, and afterwards Dr. ROBERTSON, President-elect. Sixteen members and one visitor, Dr. William Russell, of Edinburgh, were present.

New Members.—The following new members were elected members of the Branch: Charles Henry Bedford, M.B., C.M., Rowrah, Cumberland (proposed by J. R. Irwin and G. Calderwood); John Ross, M.B., C.M., Wetheral (proposed by S. Lockie and H. A. Lediard); William Rushton Parker, M.D., Kendal (proposed by T. B. Green and B. R. A. Taylor); William Jordan Fairlie, M.B., C.M., Carlisle (proposed by S. Lockie and G. Murphy); William Laing Cullen, M.B., C.M., St. Boswells (proposed by J. R. Hamilton and P. M. Penman).

Proposed Meeting.—It was agreed to hold an evening meeting in Carlisle towards the end of February, to take the place of the Moffat meeting, which fell through for want of papers, and to invite an eminent medical man to introduce a discussion on the occasion.

Auditors for the Year.—Drs. MacLaren and Lockie were appointed to audit the accounts for the year.

Puerperal Mania.—Dr. SOMERVILLE (Galashiels) read Notes of some cases of Puerperal Mania. The cases were three in number, the patients all being multiparæ; two of the cases were fatal, terminating one on the twenty-sixth and the other on the thirtieth day; one recovered after an illness of ten or twelve weeks. Although in all the cases there was more or less abdominal pain and uterine tenderness, there was no peritonitis, no diarrhoea, no tympanitic distension of the abdomen. Dr. Keith's recent observation as to the frequency of mania after the operation of hysterectomy had an interesting relation to puerperal mania.—In the discussion which followed the PRESIDENT, Dr. JOHNSTONE, Dr. BARNES, Dr. HADDON, Dr. HAMILTON, Dr. MACLAREN, and Dr. RUTHERFORD took part.

Umbilical Hernia.—Dr. RUTHERFORD (Kelso) read Notes of a Case of Umbilical Hernia treated successfully by Elastic Pressure.

Ligature of Femoral Artery for Aneurysm.—Dr. ROBERTSON (Penrith) read a paper on Ligature of the Femoral Artery in Hunter's Canal for Traumatic Aneurysm.

Idiopathic Peritonitis.—Dr. HAMILTON (Hawick) read a paper on the Treatment of Idiopathic Peritonitis.—In the discussion which followed Drs. ROBERTSON, HADDON, RUSSELL, RUTHERFORD, and MACLAREN took part.

Leprosy.—Dr. BARNES showed some drawings of Norwegian leprosy.

Casts of Cases.—Dr. MACLAREN showed casts before and operation of (1) a Large Ventral Hernia, and (2) Talipes Equino-Varus.

Dinner.—The members and several guests afterwards dined together in the George and Abbotsford Hotel.

GLOUCESTERSHIRE BRANCH.

AN ordinary meeting was held at Gloucester Infirmary, on Tuesday, December 13th, 1887, at 7.30 p.m., under the presidency of Dr. BATTEN.

Priestley Smith's Perimeter.—Mr. BOWER gave a full demonstration of Priestley Smith's perimeter.

Cases.—He also showed the following cases: 1. Chancra on the Outer Canthus of Eye in a Girl; 2. A Case of Glioma in a Child 3½ years old, and pointed out the difference between true glioma and pseudo-glioma.

Insanitary Houses.—A paper was read by Mr. CARDEW on Insanitary Houses and their Results.

Varicose Aneurysm of Aorta.—Mr. KNAGGS, house-surgeon of the Gloucester Infirmary, showed a pathological specimen of Varicose

Aneurysm of the Aorta Opening into the Pulmonary Artery, from a patient lately under Dr. Batten. The history of the opening into the pulmonary artery was very short, only three weeks.

Vote of Thanks.—A vote of thanks was passed, proposed by Dr. NEEDHAM, and seconded by Mr. BOURN, to the outgoing President, Dr. Batten, for his conduct and zeal in the chair during the past year.

NOVA SCOTIA BRANCH.

THE first ordinary meeting of this Branch was held in Halifax on December 6th, 1887, the President, Deputy Surgeon-General McDOWELL, A.M.S., in the chair; and the other members present were Hon. Dr. Parker, Drs. Hayter, Black, Wickwire, Surgeon-Major Bolster A.M.S., Surgeons Deeble and Browne, Drs. Farrell, Milsom, Cowie, Chisholm, Morrow, Currie, Somers, and Tobin (Honorary Secretary).

Letter from General Secretary of Association.—The letter from the General Secretary of the Association, forwarding a copy of the resolution passed at a Council meeting held in Trinity College, Dublin, on Tuesday, August 2nd, recognising the Nova Scotia Branch of the Association, and thanking those who had been instrumental in founding said Branch, was first read; and it was moved by Dr. MILSOM, and seconded by Dr. PARKER, "That a copy of said resolution should be placed on the minutes."

Tetany.—Dr. MILSOM (Dartmouth) then read notes of a case of tetany at present under his care, in the treatment of which he had been assisted by Dr. Parker. The patient was a man who had been subjected to malarial poisoning in Panama, and was successfully treated by quinine when other remedies had failed.—A discussion ensued, in which Hon. Dr. PARKER, Drs. SLAYTER, SOMERS, and DEEBLE, A.M.S., took part, Dr. Deeble instancing a similar affection in a lady who had suffered from malaria in India, and whose larynx and pharynx were principally affected by the recurrent spasms.

Intubation of Larynx.—Dr. BLACK next exhibited the instruments used in intubation of the larynx, and gave an account of the method as seen in the *clinique* of Dr. O'Dwyer of New York. Intubation versus tracheotomy in diphtheritic croup formed the subject of a discussion in which the PRESIDENT, Drs. FARRELL and BLACK, amongst others, took part.

Lithotrity.—Dr. FARRELL exhibited stones and detritus washed from the bladder in a late case of lithotrity, in which caucine was injected into the urethra and bladder.

Abscess of Lung.—Dr. FARRELL also gave the history of a case of abscess of the lung supposed to be due to impaction of a cherry-stone in the bronchi several years before.—Drs. SLAYTER and CHISHOLM gave similar cases.

Hypodermic Injections of Mercury in Syphilis.—Dr. SLAYTER brought forward a case of secondary syphilis successfully treated by hypodermic injections of mercury. An abscess, however, had formed at the sites of the punctures.—Dr. MORROW had seen successful treatment of syphilitic skin affections in Dr. Lesser's *clinique* in Leipzig.—Drs. SOMERS and CHISHOLM made some remarks, and Dr. SLAYTER briefly replied.

Future Meetings.—It was unanimously agreed to hold meetings monthly throughout the winter, and the meeting adjourned, leaving the Council to fix time and place of such meetings.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

THE fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August, 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc. (Hon.), F.R.C.S.P., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate.

An Address in Medicine will be delivered by Thomas Clifford Allbutt, M.D., Consulting Physician, Leeds General Infirmary.

An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

A Special Address on his "Recent Investigations in Surgery" will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

A. MEDICINE.—*President*, T. McCall Anderson, M.D. *Vice-Presidents*, W. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries*, J. McGrigor Robertson, M.D., 400, Great Western Road, Glasgow; Robert M. Simon, M.B., 27, Newhall Street, Birmingham.

B. SURGERY.—*President*, George Buchanan, M.D. *Vice-Presidents*, James Dunlop, M.D.; Charles Robert Bell Keetley, F.R.C.S. *Honorary Secretaries*, David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pye, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

C. OBSTETRIC MEDICINE.—*President*, Thomas More Madden, M.D. *Vice-Presidents*, William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries*, William Walter, M.D., 20, St. John's Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

D. PUBLIC MEDICINE.—*President*, Henry Duncan Littlejohn, M.D. *Vice-Presidents*, James Christie, M.D.; D. Page, M.D. *Honorary Secretaries*, Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

E. PSYCHOLOGY.—*President*, James C. Howden, M.D. *Vice-Presidents*, James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries*, A. R. Urquhart, M.D., Murray House, Perth; Alex. Newington, M.D., Ticehurst, Sussex.

F. ANATOMY AND PHYSIOLOGY.—*President*, John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents*, R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries*, John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

G. PATHOLOGY.—*President*, Sir William Aitken, M.D., F.R.S., K.C.B. *Vice-Presidents*, Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries*, G. Sims Woodhead, M.D., 6, Marchhall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

H. OPHTHALMOLOGY.—*President*, Thomas Reid, M.D. *Vice-Presidents*, J. R. Wolfe, M.D.; C. E. Glascott, M.D. *Honorary Secretaries*, Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Friesland Fergus, M.B., 41, Elmbank Street, Glasgow.

I. OTOLOGY.—*President*, Thomas Barr, M.D. *Vice-Presidents*, John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries*, Johnstone Macfie, M.D., 23, Ashton Terrace, Glasgow; H. J. Hardwicke, M.D., 33, Holly Street, Sheffield.

J. DISEASES OF CHILDREN.—*President*, Walter Butler Cheadle, M.D. *Vice-Presidents*, James Finlayson, M.D.; Henry Ashby, M.D. *Honorary Secretaries*, George S. Middleton, M.D., 23, Sandyford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

K. PHARMACOLOGY AND THERAPEUTICS.—*President*, James Morton, M.D. *Vice-Presidents*, John Dougall, M.D.; Theodore Cash, M.D., F.R.S. *Honorary Secretaries*, Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

L. LARYNOLOGY AND RHINOLOGY.—*President*, Felix Semon, M.D. *Vice-Presidents*, George Hunter Mackenzie, M.D.; Peter McBride, M.D. *Honorary Secretaries*, D. Newman, M.D., 13, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

Honorary Local Secretaries, John G. McKendrick, M.D., F.R.S., 45, Westbourne Gardens, Glasgow; James Christie, M.D., Hillhead, Glasgow; John Glaister, M.D., 4, Grafton Place, Glasgow.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

9.30 A.M.—Meeting of 1887-88 Council.

11.30 A.M.—First General Meeting. Report of Council. Reports of Committees. Service in the Cathedral.

8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address.

WEDNESDAY, AUGUST 8TH, 1888.

9.30 A.M.—Meeting of 1888-89 Council.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Second General Meeting. Address in Medicine by Thomas Clifford Allbutt, M.D., F.R.S.

THURSDAY, AUGUST 9TH, 1888.

9.30 A.M.—Meeting of Council.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Third General Meeting. Address in Surgery by Sir George H. B. Macleod, M.D.

7 P.M.—Public Dinner.

FRIDAY, AUGUST 10TH, 1888.

9.30 A.M.—Address on his Recent Surgical Investigations by William Maccewen, M.D.

10.30 A.M. to 1.30 P.M.—Sectional Meetings.

3 P.M.—Concluding General Meeting. Address in Physiology by John G. McKendrick, M.D., F.R.S.

SATURDAY, AUGUST 11TH, 1888.

Excursions.

SPECIAL CORRESPONDENCE.

SPRAY FROM THE CARLSBAD SPRUDEL.

III.

The Real Secret of the Carlsbad "Cure."—*A Municipality of Sweetness and Light.*—*What it all Costs.*—*The Budget.*—*Cure Tax.*—*Music Tax.*—*Bands.*—*Hints for Home Use.*

WHAT a vast addition it would be to the attractions of our health resorts such as Brighton, Bath, Cheltenham, Buxton, and Droitwich, if they offered to invalids, pleasure seekers, and searchers after that kind of repose which is itself medicine to the mind and body, parks, woods, music of the first order, which could at all rival the attractions which the minusculous town of Carlsbad puts freely at the disposal of its 30,000 annual visitors.

The Real Secret of the Carlsbad "Cure."—At Carlsbad, as I have said, the "cure-guest" drinks his matutinal tumblers of saline water at wells, one of which is covered with a vast winter garden of glass, and to the strains of one of the best bands in Europe, which plays from half-past six till half-past eight—the hours consecrated to these morning devotions at the shrine of the Sprudel; or he walks beneath the splendid colonnade of the Mühlbrunn, where another division of the same band is playing, and around the Stadtpark, which is prettily cultivated and gay with flowers and fountains, and where the grandiose and conveniently arranged restaurant with its orchestral saloons for bad weather and for evening amusement, provide that agreeably suggestive hotel decoration of a landscape, which Dr. Johnson found always to add charms to the view.

A Municipality of Sweetness and Light.—An elaborate, extensive, and varied range of baths are provided by the municipality. The visitor breakfasts beneath the trees or in the various series of garden restaurants of which the sites are furnished by the municipality, and jealously guarded by them; and for his subsequent exercise during the day he has a range of 30,000 acres of pine wood, laid out with mile upon mile of well kept and carefully graded paths. The whole of this fir forest is watched by thirty civil and vigilant keepers and ten foresters, and there are fifty English miles of walk. Seats are provided at every 200 or 300 yards, and the distances are carefully marked for the benefit of the devotees of the strict "exercise cure." The foresting is carried out scientifically and with a view to artistic effect; at a dozen different localities, selected with a serious view to convenience as to distance and picturesqueness, there are little restaurants or coffee houses, of a small but sufficient accommodation, and picturesquely constructed.

What it all Costs.—To supply the visitor with these manifold attractions and conveniences there has been a large outlay by the municipality. The colonnade of the Mühlbrunn cost the town 700,000 gulden; the winter garden of the Sprudel, 300,000 gulden; that of the Markbrunn, 25,000 gulden; 300,000 gulden were expended on the Stadtpark; and as much as 250,000 gulden have been expended on the building of the Kurhaus, which contains suites of baths below, and above an admirable reading room, richly provided with periodicals of all countries, as well as hall room and restaurant, with the inevitable orchestra and music room attached to it; 600,000 gulden have been expended in the erection of a commodious and beautifully decorated theatre, which is provided with electric light, and where the performances are so arranged as to terminate always soon after nine o'clock. This theatre is kept by its lessee practically rent free, so as to enable him to provide for a small fee performances of adequate merit. The bathhouse at the Neubad has been erected at a cost of 150,000 gulden. Sool-baths (of glairy peat) and other specialities in medicated baths are liberally provided.

The Budget.—Now all this is done in a little town of 12,000 inhabitants, in a remote region, which has little to depend upon in the way of industrial production or other sources of wealth. How are the funds provided? The answer is to be found in the annual municipal budget, and it is a very simple one. The average number of visitors to Carlsbad is annually about 27,000, of whom 900 are English and 1,000 Americans. The chief sources of income are a small cure tax and music tax paid by all visitors who remain for more than five days in Carlsbad.

Cure Tax.—The cure tax varies according to the class in which the visitor inscribes himself. Noblemen, officers, landowners, independent gentlemen, professional men, bankers, manufacturers, and well-to-do people generally belong to the first class, and pay 10 florins; the second class, people of moderate means, pay 6 florins; the third class, that of the working class and small shopkeepers and people of small

means, pay 4 florins; the fourth class, children under 14 and servants, pay 1 florin.

Music Tax.—The music tax in the first class amounts to 5 florins for one person, 3 florins for two persons, and for a party of five or more 17 florins; in the second class, one person pays 3 florins; in the third class, one person pays 2 florins. Medical men and their families are exempt from these taxes. For the reading and smoking rooms in the Kurhaus the tickets are 2 florins a month. Each visitor, after his arrival, is supplied with a form of assessment to fill up according to the class in which he intends to rank himself, which is returned a few days afterwards for payment. In 1885 the cure tax yielded, I find from municipal accounts, 166,000 gulden; and the music tax yielded 63,000 gulden; the reading rooms 1,090 gulden; and the payments for baths taken by the visitors amounted to 129,000 gulden.

Bands.—The Kurkapello or official band consists of forty-eight members during the season, which lasts for five months; and throughout the winter it is maintained at a strength of twenty-four. It is conducted by Herr Labitzky, one of the best conductors in Europe, and no mean composer. This band has few rivals in any great city, whether for classical performance of symphonic music or for lighter pieces. In addition to this, there is an admirable band conducted by Herr Pleyer, which is paid by the hotel-keepers. The result is that you have music twice a day by the official band, and as often by the unofficial band. The selection of music was so good, and the performance so thoroughly delightful, that I collected the programmes, and have brought them away with me, and found them of much interest and use to some of our English band-masters.

Hints for Home Use.—I do not know how far these details may be of value to the administrators of our English health resorts, but it occurs to me that, by suitable bye-laws, they need have no difficulty in collecting a large revenue from the visitors, it being always thoroughly understood that these revenues should be expended, as at Carlsbad, for the benefit of the visitors. The torturing strains of the perambulating musicians who now make life more or less unendurable at our English watering places would be replaced by music such as really delights the ear and rests the mind. The incessant growth of smoke-producing houses, which swallow up year after year the green fields, the woods, and the country walks in which every watering place should abound, would be checked. Parks could be laid out, pleasure grounds provided, restaurants (which are the property of the municipality, and are administered under conditions free from extortion, and suitable to the needs of visitors) would abound. Instead of the visitor finding himself in a wilderness of brick, surrounded by competing extortioners whose activity knows no check but that of self-interest, he would find himself in a community where his feelings, his physical necessities, his mental repose, his recreation, and his facilities for healthy exercise are under the care of the municipality. I do not attribute to the Carlsbad municipality any large philanthropy or generous self-sacrifice for the benefit of their visitors, but they have had the wisdom to see that their true interest consists in consulting on a great scale the needs of their visitors as a community, and in providing by common municipal action, out of the resources which the visitors themselves supply, such extensive facilities for health and recreation as combine to make their place one of the playgrounds as well as one of the health resorts of Europe. It ought not to be beyond the resources or outside the sphere of the combined intelligence of the members of our local municipalities who seek to make their towns resorts for pleasure-seeking and health-seeking communities to adopt a similar scheme. What Carlsbad, nesting in the far off mountains of Bohemia, with a poor and scanty population surrounding it, and with only one line of railway communication, can achieve, ought not to be beyond the attainment of our English baths, situated near the centres of enormous wealth and limitless enterprise. Individual enterprise has worked wonders in England, so that too little thought has been given to the special spheres in which municipal combination is necessary to work out results which no individual can compass. It is, of course, easy to say that Englishmen would not submit to a cure tax or music tax at a British health resort. If not, why not? Has the experiment ever been made? My object in giving the above details is to furnish my reasons for believing that such an experiment, intelligently carried out in this country, is capable of producing results which would give the place that adopts it a new era of prosperity, and would confer no small boon on those who do not desire to be necessarily expatriated as they are at present because they cannot get a glass of hot saline water to drink in our English health resorts under the same conditions of convenient and pleasurable surroundings as are supplied at Carlsbad and other similar resorts on the Continent.

ERNEST HART.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Antipyrin in Hay Fever.—*Antipyrin in Nervous Drowsiness.*—*Surgical Erythema from Iodoform Dressings.*—*Ventilation by Perforated Glass.*—*Epidemic of Small-pox.*—*Seaside Hospitals.*—*New Work on School Hygiene.*

DR. ADOLPHE BLOCH, formerly physician to the Havre Hospital, has used antipyrin with excellent results in a case of spasmodic rhinitis (hay fever). The patient was a man aged 33, who complained of cold in the head, from which he had suffered for two years. The affection manifested itself, in the morning on rising, and in the afternoon when the window was opened, by painful attacks of sneezing, with a copious discharge of watery mucus. There was severe itching and pricking in the eyes, which watered incessantly; and pain in the head over the frontal sinuses. These symptoms completely disappeared during the interval between the attacks. The throat and the nasal fossæ were normal. On July 6th, 1887, two grammes of bromide of potassium were prescribed; these were administered daily, morning and night, in syrup of orange-peel. From July 18th one pill, containing five centigrammes of extract of belladonna, was given every morning. The interior of the nose was constantly painted with a solution of hydrochlorate of cocaine (one gramme to thirty grammes of water). This treatment was continued for a week. The affection disappeared for two days, but subsequently reappeared. The dose of extract of belladonna was then administered twice daily. Ten days later, finding this treatment did not produce satisfactory results, M. Bloch ordered two grammes of antipyrin daily at the hours at which the attacks usually came on. After the first dose the affection ceased. During eight days only two slight attacks occurred. The treatment was discontinued for six days; during which there were no attacks; it was then resumed. During twenty days only two slight attacks occurred; one gramme of antipyrin was then administered daily before breakfast. The treatment was discontinued from September 20th to October 3rd. On November 8th the patient stated that the hay fever had disappeared since the early part of October, although he had ceased to take antipyrin. M. Bloch considers that the anæsthetic action of this substance was not confined to the sensory and secreting nerves of the nasal fossæ; it is highly probable that the special action of the antipyrin on the encephalic nerve centres caused the hyperæsthesia of the Schneiderian mucous membrane to disappear.

M. Bloch also obtained good results with antipyrin in a case of nervous drowsiness. The patient, a man aged 21, with a neurotic family history, complained of an irresistible inclination to fall asleep every day after lunch. The complaint showed itself after he recovered from typhoid fever two years previously. His digestion was impaired; he was subject to nightmare. The three last cervical and the three first lumbar vertebrae were painful when touched. The patient complained of weakness in the legs and itching in different parts of the body. Tincture of nuxvomica was prescribed in doses of six to eight drops before meals during six months. The digestion improved; the drowsiness diminished. Eight months later the patient again complained of persistent sleepiness, accompanied by headache and debility. Two grammes of antipyrin in the form of wafers were administered daily—one when the patient woke in the morning, the other at 11 o'clock. Four days afterwards the drowsiness and headache disappeared. The dose was reduced to one gramme, which was administered at 10 o'clock every morning. The treatment was alternately discontinued and resumed during ten or eleven weeks. On January 10th the patient stated that the drowsiness had entirely disappeared. He had not taken antipyrin for three weeks. The action of antipyrin manifested itself from the first day it was administered. A dose of two grammes, and subsequently one of one gramme, produced the effects required. M. Bloch believes that strong doses of this substance (four, six, and eight grammes, as prescribed by Caravias) should not be given. In this case of nervous drowsiness, antipyrin acted as a stimulant; it has the same effect as black coffee, but is more active, and the effect is more complete. M. Bloch considers that the constipation frequently caused by antipyrin powder may be attributed to the form in which this substance is administered. If it were given in water or syrup, this result would not ensue; but the unpleasant taste of antipyrin is best disguised in the wafers employed by Dr. Bloch.

Dr. A. Trousson records a case of erythema, following the application of iodoform dressings. The patient was a child aged 11, suffering from an ulcer, of hereditary syphilitic nature, on the left upper eyelid. Suture was performed in order to prevent contraction caused by cicatrix.

sation; dressings with finely powdered iodoform were applied to the ulcerated parts, which were then covered with hydrophile cotton and a muslin bandage, saturated with a 4 per cent. solution of boric acid. The following morning the patient's condition was very serious. He had been unable to sleep, owing to incessant pain, since the ulcer was dressed. The dressing was removed; it was stained with viscid serum. The left side of the face, from the edge of the eye to the edge of the lower maxillary bone, and from the nose to the eye, was red and inflamed. The nose was of a violet hue, tightly drawn, and covered in parts with phlyctenulæ: several of these had burst and discharged a thick, gummy serum. The inflamed region was bounded by a prominent edge; one of the submaxillary glands was enlarged. The wound itself had a healthy appearance; the suture of the eyelids remained firm. The inflamed parts were carefully washed with a solution of boric acid; dressings of borated lint and hydrophile cotton, thoroughly disinfected, were applied to the ulcer. The next day, the inflammatory phenomena had entirely disappeared. Dressings with boric acid, corrosive sublimate, or carbolic acid solutions were henceforth applied; the ulcer healed rapidly. Three weeks later, cicatrization was temporarily arrested; the ulcer was reduced to half its size. Iodoform was again applied; four hours afterwards, there were serious inflammatory symptoms. The treatment with iodoform was then discontinued, and the patient recovered.

M. Wallon has tried the experiment of ventilating schoolrooms by means of perforated glass. In rooms ventilated by this method, the quantity of carbonic acid was $\frac{1}{10000}$; in rooms ventilated by means of air-pipes, it was $\frac{1}{10000}$; and in unventilated rooms, it was $\frac{1}{10000}$. In rooms ventilated by means of perforated glass and air-pipes, the proportion of carbonic acid was $\frac{1}{10000}$. M. Wallon considers that the system of ventilation by means of air-pipes is superior to that of ventilation by perforated glass, which is only efficacious when there is little wind, violent currents of air interfering with the escape of the carbonic acid. These systems may be employed together with advantage.

At a recent meeting of the Conseil d'Hygiène, M. Dujardin-Beaumetz delivered his report upon the recent small-pox epidemic at Aubervilliers de Pantin and St. Denis. According to him, this epidemic was erroneously attributed to the presence of a temporary small-pox hospital, at the Porte d'Aubervilliers. M. Dujardin-Beaumetz believes that the atmosphere does not carry the germs beyond a hundred metres. Cases of small-pox were observed before the establishment of this hospital. He attributes the propagation of the germs to persons accompanying the patients to the hospital, and to patients who, on leaving it, retain a contagious influence which they carry about with them. He recommended the following prophylactic measures:—The patients should be isolated; all bedding and clothing belonging to persons attacked with small-pox should be disinfected by means of movable disinfecting stoves. The places inhabited by such persons should be disinfected by burning quantities of sulphur. Vaccination and re-vaccination should be made compulsory. Dr. Broussard agreed with M. Dujardin-Beaumetz as to the epidemic at Aubervilliers, and the prophylactic measures he prescribed. M. Léon Collin stated that when chief physician at the Bicêtre Hospital during the siege of Paris, he received into his wards 8,000 small-pox patients from the French army. During six months the average number of cases of small-pox was 1,500. During this period the disease was not more prevalent amongst the soldiers who occupied the Bicêtre fortress (100 metres distant from the hospital) than amongst those inhabiting other Paris fortresses or barracks. M. Proust insisted on the necessity of vaccination and re-vaccination with animal vaccine. He proposed that a calf or heifer should be daily led round each of the quarters where small-pox existed, in order that the entire population might be vaccinated and re-vaccinated. At the end of a week the epidemic would disappear.

At the Société de Médecine Publique et d'Hygiène Professionnelle, Dr. Armaingaud recently read a note on the seaside hospitals at Arcachon and Banyuls. The only seaside hospital for scrofulous children in France is at Berck. Dr. Armaingaud has given numerous lectures on hygienic questions, and distributed pamphlets gratuitously on the same subject at Bordeaux and in other towns in the South of France. With the money he received for inserting advertisements in these pamphlets, Dr. Armaingaud founded a hospital, with 20 beds, at Banyuls.

MM. F. Dubrisay and P. Yvon have just produced a work under the title of *Manuel d'Hygiène Scolaire*, in which all necessary information is given on the situation and arrangement of schools, the personal hygiene of school children; the prophylactic treatment of contagious or other diseases; the organisation of dispensaries.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Students' Union Conversazione.—The Chairs of Surgery and Obstetrics at Owens College.—Royal Eye Hospital.—St. Mary's Hospital.

At the close of the Michaelmas term, the students of Owens College held the annual *conversazione* of the Union. All the debating and other societies were represented, and there was a large attendance of visitors. Many of the exhibits were very interesting; in particular, there was a fine display of physical apparatus, and experiments were carried out by the students themselves. The medical sciences were also well represented by exhibits of various kinds and numerous experiments. There was a very beautiful series of anatomical, botanical, and pathological exhibits; while the physiological exhibits were not only numerous, but such as to interest the general public. One of the most noteworthy features was the "Darwin Room," which contained copies of Darwin's works, various likenesses of the great naturalist, and several autograph letters.

The Chairs of Surgery and Obstetrics in Owens College will be advertised as vacant within a few days. It cannot be too clearly understood that the electors will endeavour to secure the best men they can; and it does not necessarily follow that local men will be elected, provided suitable and superior candidates from elsewhere apply.

At the out-patient department of the Royal Eye Hospital, in St. John Street, Manchester, over 10,000 patients have been treated during the year; while at the other branch of this hospital, in Oxford Road, about 6,000 cases were attended to in the corresponding period.

The directors of St. Mary's Hospital contemplate making great improvement in their premises, and already several thousands of pounds have been subscribed. Lord Derby, the President, has just announced a subscription of £1,000.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

The New Royal Infirmary.—The Epidemic of Diarrhœa in the Summer.—Typhus Fever in Liverpool.—Report of Hospital Sunday Committee.—Donations to Hospitals.—University College and Vivisection.

FOR the past five or six years the necessity of having a new infirmary has been agitating the minds of all those interested, and much satisfaction is naturally felt now that the enterprise is fairly under weigh. The question of site caused much controversy. Very wisely, however, the committee determined to build on the old site, which is not only good from a sanitary point of view, but has the University College adjacent. It was hoped that more ground could be obtained so as to have the front of the hospital facing Pembroke Place. This was found to be impossible, a portion only of the already occupied land being purchased. The new infirmary will, however, have a frontage of 184 feet to Pembroke Place; and the architect, Mr. Waterhouse, has cleverly so arranged his plan as to have the administrative block erected here. The wards will be in six blocks, three to the north and three to the south of a main corridor running east and west. In addition, there are to be some wards built on the circular principle. The building is to cost £100,000, the greater part of which has already been subscribed.

The report of the medical officer of health on the recent epidemic of diarrhœa has been brought before the Health Committee. In it, Dr. Taylor recommends that, having regard to our dense population, the present ash-pit system should be abolished. He mentions that more than one half of the deaths were of infants under the age of 12 months, and states that he considers the disease to have arisen from some specific cause originating in, or propagated by, decaying organic matter pervading the atmosphere and polluting both water and food. The report concludes by pointing out how the rapid fall of temperature, with heavy rains and high winds, at the commencement of September, had a very beneficial influence on the public health.

At the last meeting of the Health Committee, a report was given in by Dr. Hope, the Assistant Medical Officer of Health, with reference to the spread of typhus fever, in which he emphasised the necessity of such cases being immediately reported to the health authorities. The spread was mainly in the neighbourhood of Menai Street and Slade Street, and was due to healthy persons visiting the houses of people suffering from fever. Not many weeks ago a young priest succumbed to an attack of typhus, caught in the infected districts.

This year's report of the Committee of the Hospital Sunday and Saturday fund is not very encouraging. The falling off in the sub-

scriptions, which has been noticeable for some time past, continues. Hospital Sunday yielded a little over £3,000, as against £3,200 last year. The decrease in the Saturday collections is £284, and in the donations £150. The cages placed in the public streets produced a better result by £5 than last year. The boxes left in workshops have been very poorly supported, 105 boxes producing only £11. The amount divided among the charities was £3,750.

Several of our hospitals have recently benefited to the extent of £500 each from the executors of the late Mr. Lyon-Jones.

Some days ago the London correspondent of the *Daily Post* referred to a speech by Mr. McLaren, M.P., at the Anti-Vivisection Conference, in which our University College was charged with an aggravated breach of the Vivisection Act. The Dean of the Medical Faculty, in a letter appearing in the *Post* of December 22nd, draws the attention of the public to Mr. McLaren's letter in the *Globe* of the 19th, in which he states that he conveyed a wrong impression to his audience, and desired to withdraw the statement.

SHEFFIELD.

[FROM OUR OWN CORRESPONDENT.]

The Small-pox Epidemic and the New Hospital.—Appointment of Medical Officer of Health.—The late Mr. John Carr.

At the Local Government inquiry into the subject of the Sheffield Town Council's application to borrow £12,500, for the purchase of land as a site for a hospital, and for providing hospital accommodation thereon, at Lodge Moor, for small-pox cases, Dr. Sinclair White made some observations on the present epidemic. It began in March. During the months of April and May the cases were very few, but in June the disease began to increase, and had gone on increasing ever since. In March there were 3, in April 4, in May 21, in June 43, in July 91, in August 146, in September 275, in October 498, in November 604, and, up to December 19th, 585. Notwithstanding the considerable hospital accommodation, not more than one-third of the cases they would have liked to have taken could be admitted. All the cases are not reported, but they had learnt of 2,270. The disease has also broken out at Rawmarsh, and Leeds, and at Wath, Worsborough, Ardsley, Hoyland, and Wombwell. A special conference of sanitary authorities was held at Barnsley, to concert means between the urban and the rural authorities for dealing with the epidemic, should it continue to spread. The new hospital at Sheffield is being pushed on with as rapidly as possible. The hospital, when complete, will be for 100 beds, and this is in addition to the large accommodation already existing.

Dr. Theodore Thomson has been appointed Medical Officer of Health, vice Dr. Sinclair White, resigned, at a salary of £500 per annum.

Sheffield has recently lost, in Mr. John Carr, probably the senior member of the medical profession there. He died on December 8th, and was within about three months of being eighty-six years old. Besides being actively engaged in practice, he had filled many honourable offices in the town. He was a member of the Town Council at its formation in 1843. He had filled the office of Mayor, and had been Chairman of the Health Committee. He relinquished public duties and practice some years ago.

CORRESPONDENCE.

ISOLATION AND SCARLET FEVER.

SIR,—May I ask for a little space to reply to some of the criticisms which my letter of November 5th on the above subject has called forth in the *JOURNAL* since that date. Some of your correspondents have sided with me, some against me; I am equally obliged to all alike. Not one, however, has really traversed my main contention, namely, that strict isolation will gradually increase the number of persons unprotected by a previous attack, and therefore the number of persons liable to be attacked during any given epidemic. The mere statements that adults are less liable to scarlet fever than children are unreliable and misleading, and the experience of physicians, no matter how eminent, of ten or fifteen years ago, is of little value under the newly developing circumstances of to-day. Least of all should I place value on statistics concerning adult patients made in the fever hospitals of the Asylums Board; the majority of adults decline to be moved there; many go through attacks of fever at home, hardly conscious that they have the fever, and only come under observation when kidney disease incapacitates them for work.

In saying that the exanthemata run a severer course in adults than in children, I believed I was stating a general experience—certainly

it is my own experience and that of many of my personal friends; but neither they nor I gauge the severity of a disease solely by its mortality. In the case of children, disease of all kinds is quite uncomplicated by conditions which, without exactly aggravating the type, in adults tend to render its incidence very much more oppressive.

Speaking again from my own experience, I am quite sure that a greater number of adults are attacked both with measles and with scarlet fever now than formerly. When writing my first letter (November 5th), I was thinking over the number of resident officers and of nurses who had succumbed with scarlet fever in the Shadwell Children's Hospital within the last eight or ten years. I ought to state that, although we do not treat such cases, a good many come under our observation in one shape or another in the course of a year (strangely enough, the present year has been an exception to this statement). I think it is exceptional for residents and nurses who have not had the disease not to contract it, if directly and continuously exposed to the poison. It would be interesting to have some precise details from the fever hospitals and from nursing establishments of the numbers of adults who, serving in one or another capacity closely upon fever cases, escape the infection—not being previously protected by a former attack. Do the authorities of these fever hospitals make any point of not engaging officers and servants unless protected by a former attack? What is the experience also of houses of business where large numbers of young men and women are housed together, during such seasons as the one that is just past (although the effects of strict isolation are only now beginning to act)? Would the authorities of the great schools argue that, as 95 per cent. of all cases of scarlet fever occur before the fifteenth year of life, therefore all boys over that age might remain in an infected neighbourhood without danger? I feel sure, from my own observation, that the apparent relative receptivity of young adults and of children depends far more largely on being, or not being, exposed to the poison than on mere age.

I presume one of the objects in view in isolating infected persons is to try and exterminate the *matrices morbi*. Such an end will never be accomplished in this manner, although, as Dr. Thorne has shown, no direct evils from aggregating patients in hospitals (such as occurred in the case of small-pox hospitals) can be urged in connection with scarlet fever. As at present carried out, and under existing laws, isolation only concerns the infected person; in a great many—in the majority, probably—of cases, the locality from which the patient is removed remains untouched. Hence my assertion that efficient treatment on the spot rather than purely isolation measures will, in the long run, prove of greater service alike to the individual and to the public at large.

As regards some individual criticisms, I would say to Dr. Whitelegge that nowhere in my letter did I argue "that mild cases of scarlet fever should rather be encouraged than otherwise." I referred, of course, to cases of fever occurring in houses where the infected can have ordinary treatment. The practice, which is a very common one, of sending the remaining part of the family off to the house of a friend or of some relation is a reprehensible one, and ought to be entirely discouraged. We must not forget that the Asylums Board provide only for the pauper classes, and that scarlet fever by no means restricts its attention to these classes. To Mr. Sweeting's criticism that "the spectacle of a well known surgeon at the end of the nineteenth century gravely propounding that cases of fever should be dosed with drugs at home, is one for gods and men," I would simply reply that there yet remain some twelve years of the nineteenth century, a period of time long enough to bring about changes in medical thought and practice as great and as radical as have been effected during the twelve years which expired at Christmas, and that I, for one, shall be much astonished if the present state of things as applied to infectious disease continues to be held quite as perfect and satisfactory as Mr. Sweeting evidently considers it to be. It is, perhaps, not very wonderful that this difference of opinion on the advantages of purely isolation treatment exists between him and me, considering from what different standpoints we have respectively gained our experience. I am not deprecating honest criticism, nor astonished that the views I tentatively put forward in my letter of November 5th should have met with criticism. On the contrary, I am rather surprised that so little has been found to urge against me. On the other hand, it is possible that some who think with me are, perhaps, induced to remain silent in fear of the cheap ridicule with which, for want of sound arguments, Mr. Sweeting meets my "forecast and suggestion."

On the general question, the arguments, I fear, are not wholly in favour of the *status quo*. The Asylums Board is doing good work from its especial point of view—providing accommodation for infected persons who cannot be properly treated at home. I would

further add, I think the Board are doing this work so well, that in each succeeding year during the "prevalence" of the fever—on numerical grounds we are no longer correct, I believe, in speaking of an "epidemic"—more and more persons will be glad to avail themselves of the facilities they provide; thus a larger and larger provision will have to be made by the Board. But will this suffice? Is not the Board doing part of the work of the local sanitary authorities, and are not the latter only too pleased to let matters rest?

It will have struck many, I doubt not, that notwithstanding all the Asylums Board could do, the fever continued to spread until the cold weather came and put a stop to it. If my suggestion could be carried out of isolating houses when infection breaks out, keeping it there until the infection has exhausted itself—the life of all these disease germs is a very limited one—and adopting every known precaution in the way of disinfection afterwards, on the spot where the fever showed itself, there would be a better chance of eradicating the evil. Mere removal of a patient will never do much good to the community, though the individual may gain. I consider it thoroughly essential to the successful working of any scheme that the homes where infection breaks out should be visited by local sanitary officers fearless in the discharge of their duties. Such visits from such officers would bring to light facts that would astonish those who interest themselves in the physical welfare of the artisan classes. I am sure that thousands of rooms which at present serve as homes for the poor would be pronounced absolutely unfit for human habitation.

Most of us have heard of "mysterious outbreaks" of scarlet fever or other infectious disease. I have myself ceased to attach mystery to such occurrences since one day, when anxious to learn something about an interesting hospital case, I sought out the child's parents in their home somewhere in the heart of East London; during my search, for these people had changed about from room to room, I chanced to come upon three women "sweating" over some slop-work. The proprietor of the room had invited her two fellow-workers to co-operate in fire and lights, on the principle that the three could be served just as cheaply as one; she was sitting on the side of a bed, and was alternately tending a crippled child, ill with measles, and plying her needle.

While such things are, the isolation of a few cases of fever, though highly beneficial to the individuals themselves, will do little to benefit the public health, however much money the Metropolitan Asylums Board may spend, and however much it may elaborate its (almost perfect) hospital arrangements.—I am, etc.,

ROBERT WILLIAM PARKER,
Surgeon to the East London Hospital for Children.

HOW SHOOTING ACCIDENTS OCCUR.

SIR,—Although shooting casualties can hardly be regarded as a medical subject, still the prevention of accidents might not unnaturally be as much within our province as the prevention of disease; so I venture to offer the following brief remarks upon the subject, which was referred to in the JOURNAL of October 29th, 1887, and in which it is stated that, "as a rule, the fact of an accident having happened is *prima facie* evidence of want of care." I think many sportsmen will agree with me in attributing most shooting casualties rather to ignorance than to want of care, in the strict sense of the term. All shooting accidents that have come within my knowledge so long as I can remember appear to have been due to one of three causes, each of which is in a great measure preventable: (1) Ignorance of how to handle and use a gun on the part of the shooter; (2) ignorance in the loader, when two guns are used; (3) ignorance of the manner in which birds should be killed when they are driven to the guns. To the last cause may be attributed the loss of nearly all the eyes which are shot, of which there is a considerable number during every shooting season. In regard, however, to cause No. 1, no one should be permitted to shoot game in company with others until he has as a boy been frequently taken out alone, and carefully taught how to carry and handle a gun. He would then have learned never to point it loaded or unloaded in a direction where anyone is or might be standing; never to get over a fence or ditch without taking out his cartridges; never to shoot at birds flying low except when he is walking them up, and then only when they rise, clear of the line, in front or behind him. He would also learn many other precautions which are so well known to sportsmen as to have become habitual with them; in short, it will be found that men who have been so trained are never the culprits in gun accidents which are included in causes of the first order. As to the second cause of accidents, it is sufficient to say that the directions for training loaders are so carefully and well given in the Shooting Number of the *Badminton Library*, that anyone accustomed to shoot with two guns will at once recognise how, if they are attended to, it is impossible for

his loader to shoot him, or he the loader, provided that he knows how to change guns, and never hands a gun at full cock, with either barrel, to the loader, who under no circumstances is allowed to touch a trigger. The third cause is the most interesting, as whenever an eye is lost in shooting (except those that are destroyed by the unpardonable sin of shooting low-flying birds in cover) it is at grouse or partridge driving.

A great deal might be said, and often is said, on this subject, for the accident is very frequent, but it is enough to say here that it always happens in the same way, that is, by following a bird, or traversing, as it is now called. To those who see driven birds for the first time—or, indeed, till they are accustomed to it—this habit, if they are not strictly warned against it, is almost irresistible; and it happens as follows:

In grouse driving, the batteries being in line, the bird is seen to be coming between the shooter and the next battery, say to the left of the gun in question. He raises his gun to the shoulder, and having covered the bird and not instantly shooting, follows the bird with the gun till he thinks it has well passed the next battery, and fires. The bird not having gone far enough behind the next battery at the moment the trigger is pulled, some (or one, perhaps) of the shot hit the man in the battery. The fact being that, if a man follows a bird in this way, his eyes being kept on the bird, he cannot estimate how far it is from the next battery when he fires. Besides, it must be remembered that if this is done, at some moment of time whilst the bird is followed the gun is pointed straight at the next battery, and, the finger being on the trigger, it might on that instant, from want of nerve or excitability, go off unintentionally. What should, of course, be always done if a bird is passing between two batteries, and is not shot at once well in front, is that the gun should be taken from the shoulder, and not put again to the shoulder till the bird has well passed the line of batteries. Precisely the same cause of accident and its avoidance apply to partridge driving, when guns are placed in line in a field and birds driven over a fence towards them.

It may be asked very naturally, Why is this form of accident so frequent, if its cause and the way to avoid it are so well known? Frequent it is, for I am sure there are not many men who have had much grouse driving who have not sometimes felt and heard shot rattle into their battery. I think the explanation will be found to be as follows:

When a man is shooting rising birds, if a bird is flushed in front of him and comes backward, he either kills it in front of him, or waits till it has well passed the line, then turns round, raises his gun quietly, and kills it. Thus there is no following the bird, for in this case he has plenty of time to see the bird, and there is no haste in the manner in which he kills it. But when birds are driven to him, they come on him suddenly; he misjudges their pace, which is three or four times as fast as rising birds, for they have been on the wing much longer, and when he raises his gun to the shoulder they are past him before he has time to fire, so that he follows the bird and fires after it has passed him. In fact, he finds that shooting the driven is altogether a different business to the rising bird, the whole proceeding being so rapid that he hastily loses his head, and does what he would be incapable of doing if walking up birds in line, that is, following a bird that is flying past a man.

Of course, a man who shoots really well does not follow his bird under any circumstances, but fires almost instantly the gun is to his shoulder; but amongst the large proportion of those who get health and amusement from shooting in their holidays there are many who are liable to dwell on birds and follow them before pulling on them, so, when not accustomed to driving, they should be especially warned against the insidious practice referred to. It may then, I think, be fairly said that it is not so much to want of care as to want of experience that shooting accidents may generally be attributed.—I am, etc.,

WILLIAM B. DALBY.

18, Savile Row, W., December 30th, 1887.

SWISS ALPINE HEALTH RESORTS.

SIR,—The letter of "Teax" gives excellent information about the hotels at Davos and St. Moritz and the journey out, though, in regard to the hotels, several important changes have taken place with the lapse of time.

The journey from London to Davos can be made in two days. Leaving Charing Cross in the morning by the 11 o'clock train, and travelling by the Bâle and Calais route, one reaches Davos about 9 o'clock in the evening of the following day. In the case of invalids, however, it is undesirable to make the journey in one stretch. If only one break be decided upon, Leodquart is the most suitable place

fer stopping at. One can get very comfortably put up there at the Hotel zur Post, and next morning take the diligence for Davos. If a second break in the journey be desired, Bûle is the best place to stop at. Should the intention be to look at all the winter resorts of the high Alps, Davos will be found the most suitable one to begin with. Wiesen can be most easily reached from here, and one can get over to St. Moritz in a day. From that point the Maloja is a pleasant drive.

It is always a great pleasure to me to see a professional brother out here; and, if "M.B., C.M." will write to me, I shall be happy to give him further information.—I am, etc.,

WILLIAM R. HUGGARD.

Davos-Platz, Switzerland, December 30th, 1887.

COMMUNICABILITY OF SYPHILIS THROUGH THE SALIVA.

SIR,—In the case reported under this heading in the *JOURNAL* of December 24th, by Dr. Carleton, M.S., it is stated that the tattooer had "well-marked tertiary symptoms." Now, as tertiary syphilis is generally considered not to be contagious, it would be very interesting to learn from Dr. Carleton (1) how long this soldier had had syphilis; (2) the character of whatever lesions he had about him, especially in or near his mouth, at the time of the operation; (3) the further manifestations of disease in the "victim."—I am, etc.,

ARTHUR COOPER.

20, Old Burlington Street, W., December 27th, 1887.

METROPOLITAN MEDICAL PROVIDENT ASSOCIATION.

SIR,—In answer to the letter from Mr. Piper, which appears in the *JOURNAL* of December 31st, allow me to say that I did not refuse to read Dr. R. H. S. Carpenter's letter. It will be in the recollection of Sir S. Wells that I turned to him and said, "I will read Dr. Carpenter's letter if you, Sir, direct me to do so;" and Sir S. Wells, as Chairman, decided that it would be the more convenient course for Dr. Carpenter to read his own letter when he replied to me. My speech, in fact, had very little reference to Dr. Carpenter's letter, and the question whether I had interpreted, rightly or wrongly, the clauses in it referring to private (so called) provident dispensaries seemed to me of little importance.

Equally incorrect is Mr. Piper's assertion that "those on the platform led off an opposition and an endeavour to drown by noise what Dr. Carpenter said in his reply." So long as Dr. Carpenter confined himself to his undoubted right of arguing the question before the meeting, he was heard with all patience; but, when he persisted in wasting the time of the meeting in irrelevant declamation about some institution with which he asserted that Sir A. Olark and myself were connected, and which he believed to be in some way connected with the Provident Medical Association, and when he either would not hear or would not listen to my assurance that I had never heard of the institution in question, and that the Association had nothing whatever to do with it; when he would not submit to the directions of the Chairman, and exceeded beyond all reason the limits of time prescribed both by the regulations of the meeting and the convenience of those present, an attempt was certainly made to stop him, in which I believe the whole meeting (and not those on the platform more than those in the body of the hall) joined, with the exception of a very small but very persistent minority. It would have conducted much to the proper discussion of the real question, if that attempt had been more quickly successful.

I repudiate entirely any responsibility for the disorder which occurred at the meeting. It was caused by Dr. Carpenter and his friends.—I am, etc.,

T. HOLMES.

18, Great Cumberland Place, W., December 31st, 1887.

SIR,—In the *JOURNAL* of December 31st, I observe a letter from a gentleman who states that he was present at the late meeting at the Society of Arts, at which the subject of provident dispensaries was discussed. Your correspondent there states "that the scene which took place began by Mr. Holmes and others of the Committee on the platform refusing to read a letter they had received from Dr. R. H. S. Carpenter upon which they were commenting."

This conveys a wrong impression. I was in the body of the hall, and have a very clear recollection of the facts, which were as follows: Mr. Holmes was moving the first resolution, and in dealing with the objections to the scheme of the Metropolitan Provident Medical Association he said that he had received a letter from a gentleman which, in his opinion, showed that the writer had entirely failed to grasp the bearings and intentions of the project. Hereupon Dr. Carpenter rose and, in an excited tone, cried: "Read the whole of the letter,

Sir." Mr. Holmes expressed his willingness to do so if the Chairman (Sir Spencer Wells) desired him. Sir Spencer being thus appealed to ruled as follows: "It will be better for Dr. Carpenter to read his own letter after Mr. Holmes has finished his speech."

Most of the noise subsequently was due to the opposition of the majority in the hall to the puerile and irrelevant remarks of two later speakers, an opposition, in my opinion, richly merited.

I left before the end, but can vouch for the above as a correct description of what transpired as far as it goes.—I am, etc.,

EVAN H. HARE, F.R.C.S.

46, Weston Park, Crouch End, N., December 31st, 1887.

FALLACIES IN FROZEN SECTIONS.

SIR,—In your very favourable notice of my work on *The Topographical Anatomy of the Child*, the following sentence occurs: "No reader should forget, however, that there are sources of fallacy in frozen sections." This raises too large a question to be discussed here, but I hope to deal fully with it in a paper I have on hand. Still there is one point in connection with this subject to which I should like to refer. In describing the method adopted in order to ascertain the position of the uterine appendages, I stated that after a vertical mesial section of the body of a girl 13 years of age had been embedded in plaster and hardened in spirit, the coils of the small intestines lying above the bladder and uterus were carefully turned aside, and the ovary exposed. I expressed an opinion to the effect that in doing this the position of the ovary was not disturbed. The reviewer does not share in this opinion, but believes that embedding in plaster-of-Paris and hardening in spirit implies a good deal of disturbance. He, however, very kindly suggests that my opinion may be based upon reasons not expressed in print. This is probably the case, for I ought to have explained that the parts were embedded in plaster while frozen, and allowed to thaw under spirit. I believe that a combination of the methods of frozen section and dissections is sometimes a very useful one, and not so fallacious as some suppose.—I am, etc.,

Edinburgh, 27th December, 1887.

J. SYMINGTON.

OPHTHALMIC OPERATIONS.

SIR,—In reply to Mr. Doyne's interesting queries, permit me to remark that hypermetropes who do not squint manage to see, but their vision is imperfect, much the same as myopes who have never worn glasses; such individuals suffer from a high degree of the affection, too high to be overcome by the accommodative effort which involves a squint. No doubt many hypermetropes exert their maximum of accommodation for distant vision; it must be so, for some of them more than neutralise the defect, becoming slightly short-sighted, and in these cases distant vision is improved by a concave glass. Some hypermetropes bring the type, when reading, very close to the eyes; no doubt this interferes with definition, but the enlarged retinal images thus obtained more than compensate for the loss of definition. The hypermetrope who is obliged to accommodate for distant objects the rays from which are parallel, must accommodate still more in order to focus near objects, the rays from which are divergent, and this effort involves a squint, because the power of accommodation is greatly increased by convergence of the optic axes.

If the hypermetropia can be overcome by convergence it means squint; if, however, it is too high to be so overcome, the patient does not squint. Concomitant squint means diplopia so long as the patient sees with both eyes at once; but the brain has a horror of double images and suppresses one, hence the squinting eye gets weak, and, not being used, is not so much converged, and the patient is said to have grown out of the defect, which means simply that one eye is nearly blind from disuse. Spectacles sometimes suffice for cure, but I do not think such cases are frequently met with.

It will be seen from the above that it is quite possible to mistake a case of hypermetropia for one of hypometropia or myopia, as it is constantly called. Such errors are, however, rendered impossible by the free use of atropine in doubtful cases. With regard to Mr. Snell's ingenious operation, the one advantage that he insists upon is that the operator can stand behind the patient during the whole process. I may, therefore, mention that this is the position which I always assume when performing the operation, which I have illustrated in your columns, and which was described in the *Medical Times and Gazette* of March 17th, 1877.—I am, your obedient servant,

CHARLES BELL TAYLOR, Surgeon to the Nottingham and Midland Eye Infirmary.

MEDICAL MAGISTRATE.—The name of Mr. John H. Wraith, M.R.C.S., L.S.A., of Darwen, has been placed on the Commission of the Peace for that borough.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY SURGEONS AND THEIR RECORD.

SIR,—At a time when the merits and demerits of army surgeons are being freely discussed, possibly with advantage to public interests, will you allow me to adduce certain historical facts of importance bearing on this subject, which go to prove that the British and Indian Medical Services have traditions of which they may well be proud? Sir James McGrigor, in his autobiography, writes as follows: "It was said with much truth by an eminent individual that he thought the extraordinary exertions of the medical officers of the army might be said to have decided the day at Vittoria, for their exertions had undoubtedly added a full division to the strength of Lord Wellington's army; and without these 4,000 or 5,000 men, it is more than doubtful if his lordship, with all his unrivalled talents, could have carried the day." The eminent individual here alluded to is Napier, the historian of the Peninsular war.

During the retreat from Bruges the Duke of Wellington forcibly remarked: "The medical department is the only one that will obey orders; on them I can rely for doing their duty" (vide *Army Surgeons and their Works*, by Surgeon-General C. A. Gordon, C.B., pp. 69 and 70). Kaye, the historian, in the Preface to his *Lives of Indian Officers*, writes: "I must express my regret that the volumes contain no example drawn from the Medical Service of the East India Company—a service which was never wanting in men equally eminent for their professional attainments, which are exercised so unstintingly in the cause of our suffering humanity, and for those heroic qualities which are exemplified by deeds of gallantry in the field, and by lives of daring adventure."

After the battles of Chillianwalla and Goojerat, Lord Gough wrote as follows: "Camp, Goojerat, 26th February, 1849. I feel I cannot too prominently bring to notice the valuable exertions of Dr. McRae, Field-Surgeon, and of the medical officers of the army generally; they have been most unwearied and praiseworthy."

The following is an extract from the same great commander's evidence before the Select Committee of the House of Lords in 1852-53:

It was my fortune to serve during the whole almost of the Peninsula war, and I have served through several campaigns in India, but in the Punjab campaign I do not think that at any one period there was a wounded man without his dooly, nor wanting any comfort it was possible to give him. The attention and assiduity of Dr. Frauklin, of Dr. Renny, and of Dr. McRae, the indefatigable Field-Surgeon, and of the whole of the medical staff of that army, was the most perfect machinery I ever witnessed.

The following is an extract of a letter from His Excellency the Right Honourable the Commander-in-Chief, Lord Clyde, dated Lucknow, February 21st, 1859:

The military operations in the Presidency of Bengal, which ensued on the great Mutiny of 1857, having been happily brought to a close, I have the greatest satisfaction in recommending warmly to your Excellency's protection two great departments of the military administration, to which the troops and the officers who have commanded them in their long campaigns are under real and great obligations. I allude to the Medical and Commissariat Departments. The former, being composed of officers belonging to the two services, has shown equally in the matters of general organisation and of regimental arrangements. The Director-General, Dr. Forsyth, and the Inspector-General of Her Majesty's Forces, Dr. Linton, C.B., in Calcutta, have worked successfully to meet the great requirements made on them; and the staff and regimental medical officers have well maintained the credit of their noble profession, and the reputation for self-sacrifice which belongs to the surgeons of Her Majesty's armies, a reputation which is maintained in the field on all occasions, as well as in the most trying circumstances of the hospitals.

It should be noted that such splendid double testimony as the above came, on the one hand, at a time when the fate of Lord Gough's army trembled before the indomitable courage of the Sikhs; and again, in 1859, immediately after a period of danger, such as has never, before or since, threatened British power in India. In referring to a list of the medical officers of the Bengal Establishment who fell during the Mutiny, I find that thirty-five surgeons and assistant-surgeons perished, of whom twenty-one were cruelly massacred by the mutineers; the rest succumbed to wounds received in action, cholera, etc.

In a Minute on the Indian Medical Service, dated February, 1856, written by India's greatest proconsul, the Most Noble the Marquis of Dalhousie, the following passage occurs:—

The absurdity of regarding a medical officer as a non-combatant is, I believe, abandoned. The medical officer comes constantly under fire like other men. Every campaign which is fought exhibits the names of medical officers in the lists of killed and wounded; and the returns invariably show that they still more often fall victims to their own exertions on behalf of their suffering comrades. Proof can hardly be required of such well-known facts. If it be, the fatal record of the service which our countrymen have been performing during the last year and a half in Turkey and the south of Russia will more than bear out the statement I have made.

In moving the vote of thanks to the army in the Crimea, the Duke of Newcastle made the following remarks in the Upper House:—

The other body of men to whom I allude are the medical officers of the army. [Hear, hear!] I speak not now, of course, of the medical organisation, upon which so much was said the other night; but I must state, in justice to an honourable profession, that never were greater exertions made, never was more humanity evinced than by the doctors of the British army in the Crimea. [Cheers.] I will only ask your lordships to consider for one moment the services performed by such a man as Dr. Thomson. He was left, under circumstances of the most painful nature, upon the field of battle, not to attend to the wounded of his own army, all of whom had been removed, but to a large body of Russians, many of whom, persuaded that an Englishman was little less than a devil, were prepared to murder any individual who might seek to render them succour and assistance. Among such men was Dr. Thomson left alone; he bound the wounds of some hundreds of these poor Russian soldiers, at the great danger of his life, but, nevertheless, he escaped. He returned to his duties in his own army, but it pleased Providence to remove him from his sphere of usefulness two or three days subsequently. His death was occasioned by the immense exertions he had made, and a disease which he had thereby contracted. [Hear, hear!] I must say, my lords, that if it has not been usual for Parliament to thank men such as these, I consider that it is not wrong for a Minister of the Crown in this House to acknowledge their services.

The following facts have reference to the conduct and losses of the Army Medical Service in more recent campaigns:—

Three surgeons—Conolly, Stace, and Hewson—died during 1885 from illness contracted on active service in Egypt and the Soudan. Surgeon-Major Porter died at Cabul on January 7th, 1880, deeply lamented. In March, 1881, Surgeon-Major Cornish died at Mount Prospect, Transvaal, from wounds received at Majuba Hill. At the same time Surgeon Landon was killed in action at Majuba Hill. In August, 1882, Surgeon-Major Shaw was killed in action in Egypt. Surgeon-General O. Barnett, C.I.E., died in July, 1885, from illness contracted on service at Suakim, loved by all who knew him. In March, 1886, Surgeon Lane died of wounds received in action in the Eastern Soudan. And on January 9th, 1886, Surgeon Joseph Heath was killed in Upper Burma while endeavouring to rescue a wounded officer.

This list of casualties amply proves how strongly actuated the Army Medical Service is by a sense of duty, loyalty, and courage. Those whose names I have mentioned were all faithful unto death, and the youngest of them was not afraid to perish in the cause of his country and in defence of his friend. Such feats as those above quoted (which are, I believe, quite in keeping with the present general tone of the British and Indian Medical Services) certainly do not point to "peacocking," or inefficiency. That no contemptible, despicable sluggard, or hopeless "bad bargain" was ever to be found in the Army Medical Department probably no one would for a moment maintain; but to assert that characters of this description prevail to such an extent as in the slightest degree to justify Mr. Labouchere's sweeping indictment will, I feel sure, be found, on fair inquiry, to be quite contrary to fact.

With regard to the sin of "cartridge-filling" as affecting public interests, and as detracting from the reputation of the Medical Department, no doubt many have been guilty of this terrible offence. Is it not possible, however, that an army surgeon may be not the less a gentleman and a good officer because he is a sportsman? I am inclined to think that sporting proclivities have saved many a young officer, both in England and on foreign service, from the hateful quadrivium of "beer, brandy, billiards, and betting." If Mr. Labouchere can find time to give impartial consideration to both sides of the question now at issue, it is possible—although I cannot say I am young enough to expect it—that he will, "before vote No. 4 comes on for discussion," see reason "willingly to qualify his former remarks." It is hard to believe that certain leaders of public opinion can desire to dismantle a service such as that above referred to. Are we to go back to the old prototype barber-surgeon of bygone times? Can it be, as I have heard it humorously expressed, that "more soap is wanted, and less science?"—I am, etc., D. BOYES SMITH.

Netley, December 19th, 1887.

RANK FOR ARMY MEDICAL OFFICERS.

SURGEON-MAJOR SIMMONDS writes from Laurencepore: An order has lately been published, rendering medical officers incapable of the presidency of not only courts-martial, but all other mixed committees and boards. It is ridiculous that medical officers who have been specially trained to sift important evidence, and on whose judgment the supreme issues of life and death often hang, should thus be less capable of petty judicial functions than the average army subaltern. It is all very well for the authorities, when the medical service is well filled up, to begin degrading it, but the old Nemesis of supply and demand will sooner or later overtake them. Little is to be gained by consulting the unworthy prejudices of a certain section of so-called combatants, right and justice must be done in spite of them.

The Indian medical officer has, as, say, superintendent of a gaol, often absolute control over the prisoners, and the entire equipment of the establishment; and surely, if fit for this, is qualified to preside over an ordinary board of survey on

blankets or brooches. He would prefer a hybrid title embracing the term surgeon, but whatever the title, the rank must be real and not delusive, and thoroughly safeguarded from after subterfuge and positive breaches of faith. If the medical officer is worthy of precedence at all, then he is worthy of real rank, if he is unworthy of the latter, then he has no business to have the former.

DEPUTY SURGEON-GENERAL.—We would state that the designation Army Hospital Corps was displaced by that of Medical Staff Corps about four years ago. The old officers of the former corps became quartermasters Medical Staff, and as such have now both honorary rank and titles. The officers of the Medical Staff are declared by Warrant to be the officers of and to command the Medical Staff Corps. An exactly analogous relationship exists between the Commissariat and Transport Staff and the Commissariat and Transport Corps; there is no regimental union in either case.

We regret that want of space prevents the publication of his letter, but he will find the question of hybrid titles alluded to in the analysis of the voting under the proposals submitted to medical officers. Substantially, his arguments against these titles are those set forth under B. and C. of that analysis.

M.B., M.S. writes: With a view to relieving the minds of any of my brother officers who may be under the impression that the grant of proper titles and rank would be incongruous in the Medical Staff, and would lead to our being mistaken, I enclose for their perusal an extract from a recent *Gazette* of the United States Army, which shows how the case stands in that service. I would merely, as comment on this, refer to the well known opinion of the Surgeon-General of the United States Army as to the gain in efficiency which followed the introduction of this system in his service. Had we, like our more fortunate American brethren, our proper position in the army, I think it goes without saying that we would not be subjected to such stupid attacks as have recently been made on us in the pages of a certain society journal.

Extract from the United States Army "Gazette," January 20th, 1887.

Leave for six months is granted to Major Samuel M. Horton, Surgeon.
Leave for two months, to take effect from December 1st, is granted to 1st Lieutenant Jefferson R. Keane, Assistant Surgeon.
Leave for two months, with permission for an extension, is granted Captain W. H. Arthur, Assistant-Surgeon, to take effect on the arrival at Fort Niagara of Captain Paul R. Brown, Assistant-Surgeon.
Lieutenant-Colonel Andrew K. Smith is assigned the duty of Attending Surgeon in New York City, to relieve Colonel Joseph R. Smith, Surgeon, who will repair to St. Paul for duty as Medical Director.

Justice writes from India: It is high time the crying injustice and sorrowful humiliation to which surgeons-major of long service, in charge of hospitals in this country, have to put up with from the heads of their own department. Orders to bring them into contempt are constantly issued; their superiors are required to "mark and notify" every mistake and correction required in returns sent in, that such lapses may be embodied in confidential reports against them. Even petty breakages of hospital crockery are scored against the medical officers, as if they were so many "slaves" of all work. How long is such pettifogging administration to be endured without organised protest?

A CONTRAST.

FORTUNA FAVET FORTUNIS writes: In a *Gazette* some time past, referred to at the time in your columns, in which Surgeon-General Manby, V.C., and a Quartermaster, Medical Staff Corps, were gazetted out, the anomalous rank of army medical officers was pointed out.

I would refer to a similar instance in the last *Gazette*, in which Surgeon-General Reade, V.C., and a Quartermaster are placed on the retired list. What will be the status and how will they be received in civilian society? The one as Dr. Reade, a retired army doctor, the other as Major —, a retired officer of the army, and as such of superior official and social status to his late commanding officer.

In spite, however, of the indifference with which a grateful country rewards her army surgeons, the name of Surgeon Reade, Gist, will live in the historic memoirs of the Indian Mutiny, as a brilliant example of initiative and gallantry, when, on September 14th, 1857, he led a storming party of his regiment against overwhelming odds; and again, later in the siege, was one of the first to mount the breach of the magazine, which was stormed by his regiment. And yet we are told we have no grievance when men who have made history, and whom we look up to as heroes in our corps, are rewarded with such stint.

THE NAVY.

Surgeon A. W. McLeon has been placed on the retired list of his rank. His commission bears date September 20th, 1877.

Staff-Surgeon VALENTINE DUKE, B.A., M.B., has been promoted to the rank of Fleet-Surgeon. He entered the service as Surgeon September 7th, 1858, and became Staff-Surgeon December 20th, 1878.

Fleet-Surgeon E. J. BUTLER, B.A., M.D., has been placed on the retired list of his rank. He entered the service as Surgeon October 20th, 1859, became Staff-Surgeon August 2nd, 1871, and Fleet-Surgeon January 30th, 1882.

Mr. M. W. COLAHAN has been appointed Surgeon and Agent at Galway and Barra.

THE MEDICAL STAFF.

DEPUTY SURGEON-GENERAL A. F. BRADSHAW is brought on the administrative medical staff of the Bengal army, vice Deputy Surgeon-General J. Ferguson, whose tour of service in India has expired.

Surgeon G. F. H. MARCS is placed on general duty in the Poona Division, Bombay command.

Surgeon R. S. F. HENDERSON, M.B., serving in the Bengal command, has been posted to the station hospital at Mandalay, for duty.

Brigade-Surgeon H. C. HENNETT, M.D., F.R.C.S.I., is granted retired pay with the honorary rank of Deputy Surgeon-General (ranking as Colonel). His commissions are dated:—Assistant Surgeon, September 15th, 1857; Surgeon, May 8th, 1872; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, December 9th, 1882. He has no war record.

Surgeons W. T. SWAN, M.B.; J. H. DALY; B. L. MILLS, M.D.; C. A. RENN, M.B.; J. G. BLACK, M.D.; and F. W. G. HALL, M.B., all of whom are serving in the Bengal command, have passed the examination in Hindustani by the lower standard.

Surgeon A. DODD, serving in the Bombay command, has leave of absence for six months on private affairs.

The undermentioned gentlemen, who have arrived from England for service in the Madras command, are posted as follows:—Surgeon-Major F. A. DAVY, M.D., to be Senior Medical Officer at the Rangoon Station Hospital; Surgeon F. H. M. BONNAS, M.B., to do general duty in the Bangalore Division and Belgaum and Coond Districts; Surgeon A. L. H. DIXON to do general duty in the Eastern District.

THE INDIAN MEDICAL SERVICE.

SURGEON-MAJOR C. F. OLDHAM, Bengal Establishment, is promoted to be Brigade-Surgeon, vice J. C. Morice, promoted. Brigade-Surgeon Oldham entered the service as Assistant Surgeon July 27th, 1859, and became Surgeon-Major July 31st, 1873. He served with the 1st Goorkhas in the operations in the Malay Peninsula in 1875-76 (medal with clasp), and with the same regiment in the Afghan war in 1878-79 (medal).

The retirement of Brigade-Surgeon E. BONAVIA, M.D., Bengal Establishment, is cancelled.

Surgeon-Major A. J. WILLCOCKS, M.D., Bengal Establishment, Officiating Civil Surgeon, first-class, on return from privilege leave, is appointed to the civil medical charge of the Agra District.

The services of Brigade-Surgeon A. H. HILSON, M.D., Bengal Establishment, Civil Surgeon, First Class, Agra, are placed at the disposal of the Government of India in the Home Department.

The services of Surgeon A. D. EVANS, Madras Establishment, Acting Civil Surgeon, Moulmein, are placed at the disposal of the Major-General commanding the Upper Burmah Field Force from the date on which he may be relieved by Surgeon-Major G. T. THOMAS.

Surgeon C. J. BANDER, Bengal Establishment, Civil Surgeon, is transferred from Pyniaulin, and appointed to the medical charge of the Indian Marine Establishment at the Shore, Mandalay, in addition to his military duties.

Surgeons F. J. CHAWFORD, M.D., and A. H. JACOB are admitted to the Madras Establishment from November 16th, the date of their arrival at Bombay.

Surgeon W. H. QUICKE, Bombay Establishment, is appointed to officiate in medical charge of the 2nd Native Lancers.

The following postings have been ordered in Burmah: Surgeon-Major J. P. McDERMOTT, Madras Establishment, to Yewan, to assume medical charge of the 15th Madras Infantry; Surgeon W. CONRY, Bengal Establishment; proceeds with the section of his field hospital to Mandalay; Surgeon D. P. WABLIKER, Madras Establishment, to the General Hospital for native troops, Mandalay; Brigade-Surgeon G. D. RIDDELL, Madras Establishment, to the medical charge of the Native General Hospital, Mandalay.

Surgeon H. W. PILGRIM, Bengal Establishment, is appointed Officiating Medical Officer to the 9th Native Infantry, vice Surgeon-Major A. H. Williams, M.D., granted leave out of India.

Surgeon F. S. PECK, Bengal Establishment, is appointed Civil Surgeon of Mymensingh, but will continue to act as Civil Surgeon of Sarun.

The services of Surgeon-Major M. ROBINSON, Madras Establishment, are replaced at the disposal of the Commander-in-Chief.

Surgeon A. H. JACOB, Madras Establishment, who has arrived from England, is directed to report himself to the Deputy Surgeon-General, Her Majesty's Forces, Eastern District, for duty.

Surgeons C. R. M. GREEN, E. C. HARE, F. C. CLARKSON, J. D. M. SWINBURNS, and J. MORWOOD, M.D., all of the Bengal Establishment, have passed the examination in Hindustani by the lower standard.

Surgeon G. H. D. GIMLETTE, M.D., Bengal Establishment, Residency Surgeon, Nepal, is appointed to officiate as Medical Officer 1st Central India Horse, and of the Goona Political Agency, from the date of joining, vice Surgeon C. G. W. Lowdell, who has been granted furlough, and whose services are replaced at the disposal of the Military Department.

Surgeon D. SIMPSON is admitted to the Madras Establishment from November 2nd, the date of his arrival at Bombay.

Surgeon-Major G. E. E. BURROUGHS, Bombay Establishment, in medical charge 3rd Light Cavalry, has been granted leave out of India, on urgent private affairs, for six months, from date of being struck off duty.

Deputy Surgeon-General A. M. GARDEN, Bengal Establishment, retired, died at Marrow, near Guildford, on December 17th, at the age of 55. He entered the service as Assistant-Surgeon, January 11th, 1855, and attained the rank of Brigade-Surgeon, November 27th, 1879; he retired with the honorary rank of Deputy Surgeon-General, January 26th, 1881. He does not appear to have seen war service.

THE VOLUNTEERS.

Surgeon T. E. UNDERHILL, from the 1st Volunteer Battalion South Staffordshire Regiment (late the 1st Stafford), is appointed Surgeon to the 2nd Volunteer Battalion Worcester Regiment (late the 2nd Worcester); and Surgeon H. H. SMITH, from the 1st Volunteer Battalion, Worcester Regiment, takes Surgeon Underhill's place in the 1st South Stafford.

The undermentioned gentlemen are appointed Acting Surgeons to the corps specified: R. B. GRAHAM, 1st File; E. W. WHITE, M.B., 2nd Volunteer Battalion West Kent Regiment (late the 3rd Kent); J. M. HAAPER, 1st Volunteer Battalion Somerset Light Infantry (late the 1st Somerset).

Acting Surgeon A. HAY, M.D., 1st Dumfriesshire, has resigned his commission, which bore date January 24th, 1877; he is permitted to retain his rank and uniform.

Acting Surgeon G. A. RAVRATY, 18th Lancashire (Liverpool Irish), has also resigned his appointment, which dated from April 16th, 1884.

Acting Surgeon T. W. C. JONES, 14th Middlesex (Inns of Court), is promoted to be Surgeon to the same corps. Surgeon Jones joined the Inns of Court February 8th, 1882.

SURGEON-GENERAL, writes: I think the recommendation of "A Correspondent," in the *JOURNAL*, of December 17th, an excellent one—that a subscription be started for the purpose of defraying the cost of forwarding a copy of the analysis to every member of both Houses of the Legislature, and to meet any other expenses that may arise in this and the probable struggle arising out of vote 4 in the House of Commons. Should a subscription be started for the above object, at your office, I, too, shall be happy to contribute £1 as my mite.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A SATISFACTORY DECISION.

A CASE which was recently tried in the Sheriff's Court, at Dumfries, should serve as a warning to those who are disposed to pin their faith on bone-setters. A medical man brought an action against a farmer to recover his charges for professional services rendered. The farmer had met with an accident to his knee, causing damage of a more or less permanent nature. When he received the medical man's account, he wrote saying that his injuries had not been properly treated, and that in consequence his knee had been ruined, and that he purposed raising an action of damages for £500 in the Court of Session for maltreatment, on the authority of a north country bone-setter. The medical man immediately brought his action, and when it came on the farmer withdrew his allegations and threat of an action for damages, and craved to be allowed to make payment of the account by instalments. The sheriff, however, held that he was deserving of no sort of consideration, and gave a decree for payment of the full sum, with expenses.

ANOTHER DRAWBACK TO THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

MR. CHARLES HENRY HARRAL, L.R.C.P. Ed., M.R.C.S. Eng., L.S.A. (52, Kirkgate, Leeds), referring to the reply to Mr. Nevitt, published in the JOURNAL of December 10th, page 1307, writes: What we wish to know is this. Supposing a claim is made for, say, twelve visits, of which perhaps four are made by an unqualified man, is the principal entitled to charge for such visits with those made by himself? As I understand it, the registrar of this court refuses to allow for any work except that done by the qualified man; and should he keep an unqualified assistant, although he has not seen the case in question, and the debt is admitted, he still requires the personal attendance of the principal at court. This means the loss of much valuable time.

Of course, we all know that the attendance by an unqualified man solely cannot be claimed; but surely he may be permitted to make occasional visits, under the direction and supervision of his employer, who can charge for such services. I believe the same ruling was given in a case of midwifery; so that practically it amounts to this: that one must either have done all the attendance and personally make the medicine, or be non-suited. Surely this is unfair to the employer, and also to the unqualified assistant, who is generally compelled to work for his living until he can obtain his diploma, and who cannot in any other way learn the real practical part of his profession.

The questions to be answered are: First, is a medical man entitled to charge for the partial attendance on a case by an unqualified man, under his direction and supervision? Secondly, can he claim for attendance on midwifery cases by such assistants, the after attendance being made by himself? Thirdly, is the Registrar right in law in requiring the personal attendance of the principal at court when the debt is admitted?

The first question is best answered in the words used by Lord Coleridge in giving judgment in the case of *Howarth v. Beverley*, to which we have already referred: "If the qualified man had given advice, and the unqualified man had been merely the ministering hand under the directing brain of the qualified man . . . the services were those of the qualified man." In such cases the registered practitioner can recover. Where some visits are made by himself, he is undoubtedly entitled to his charges for them; but as regards visits made by an assistant, he must satisfy the court that he did in fact direct and supervise what the assistant did. If he can prove this, he may be entitled to recover charges for the assistant's visits, but not otherwise. County courts are not mere debt-collecting agencies, and are not bound to give judgment for the plaintiff merely because the defendant fails to appear to dispute the claim.

The Leeds registrar apparently considered that he had good grounds for supposing that some practitioners have brought actions to recover payment for services for which they were not legally entitled to charge, and if so, he is perfectly right in insisting on strict proof in all cases which he thinks suspicious. This may be a hardship on some perfectly honourable practitioners, but they have no real ground of complaint unless they are refused judgment when they prove their cases.

2. Midwifery cases stand on the same footing as others. They seem to come within the words of the statute, "medical or surgical advice, attendance, or the performance of any operation."

A MEAN FRIEND.

X. Y. Z. writes: A short time since an accident occurred near my house to Mr. A., on whom I attended. Mr. B. immediately afterwards called at my house, and requested to know at once how much I was going to charge for my attendance, etc., which I could not then possibly tell. Mr. B. requested me to attend his friend properly. Next morning he brought another medical man to meet me in consultation; he ordered a nurse in my name; and later in the day requested me to have a further consultation. An appointment was made by letter, and the consultation took place on the third day, Mr. B. being present, and he paid the consultant's fee.

After my attendance was over I received a letter from Mr. A., saying that his friend B. requested my account, which was duly sent and acknowledged by B. six days afterwards. B., however, stated that the amount was in excess of what he thought proper, and that he could not pay it; however, under the circumstances, he wished to be fairly liberal, and he thought this would be done by his paying £—, which he accordingly enclosed. I complained at once, and asked for the balance of account by a second letter, my charge not being more than my usual fee (which is not more than the usual scale), the amount having

been previously submitted to one of my old tutors. 1. Mr. B. pleads that he did not request me and direct me to attend Mr. A. 2. That the Statute of Frauds has not been complied with, 29 Charles II, chap. 3. 3. That I accepted £— in accord and satisfaction.

* * * On the circumstances stated it is clear that B. requested the attendance and made himself liable to pay the ordinary and proper charges; also that the cheque sent was not accepted in satisfaction of the whole claim. The Statute of Frauds does not seem to apply to such a case as this.

LOW FEES.

SUPPLY AND DEMAND writes: I am surprised to see in a note in the JOURNAL of December 17th, on "a business card," that you consider it unprofessional to charge such fees as "1s. for advice and medicine at the surgery," "1s. 6d. for visit and medicine, and 12s. 6d. for midwifery." What then, I would ask, are the lowest prices that can be considered professional in the above instances?

* * * Our correspondent's conception of what is due, not merely to himself, but to the profession at large, in relation to professional charges, is certainly not in accord with that of the great body of his brother practitioners. Need we remark that the fees in question for medicine and advice, although in excess of those usually specified on such self-advertising cards, are nevertheless lower than the ordinary charge of a chemist for medicine only. But even were it otherwise, the simple fact that the professionally objectionable cards were extensively and indiscriminately circulated of itself constituted a regrettable proceeding. Our correspondent may, we think, peruse with advantage the latter part of the fourth rule, page 53, of the *Code of Medical Ethics*, in reference to "sham" dispensaries.

FEES FROM THE CLERGY.

GRAFTON writes: I have been requested by a vicar, who lives at a distance of five miles, to attend his curate, who resides with him. Am I justified in making any charge for my visits; and, if so, to whom, the vicar or the curate?

* * * If our correspondent had been an observant reader of the JOURNAL he may have noted that the question of professional charges to the clergy has been repeatedly answered therein. Nevertheless, we have pleasure in assuring him that he will be fully "justified in making a charge to the curate," in accordance with the rule laid down in the second edition of the *Code of Medical Ethics*, page 79. His statement of charges should, in our opinion, be made out in the name of the curate, not the vicar, unless so desired.

THE SALE OF FOOD AND DRUGS ACT IN YORKSHIRE.

A CORRESPONDENT writes: At the Leeds West Riding Police Court a milk-seller was charged with obstructing the inspector of weights and measures by refusing to sell a sample of milk for the purpose of analysis, an offence punishable under Section 17 of the Sale of Food Act. It appears that the defendant was driving a milk cart, when the inspector asked him for a sample out of a particular can. The defendant refused to sell; and on the officer insisting, upset the contents of the can into the road. The bench of magistrates dismissed the case, holding that the prosecution had failed to prove that the milk was in course of delivery.

The case forcibly illustrates previous comments on the working of the Sale of Food Act which have from time to time been made in the JOURNAL. An excellent Act is mismanaged, and but too often rendered worse than useless by the action of the magistrates charged with administering it. If there could have been a shadow of a doubt whether the milk in question was in course of delivery the action of the milkman clearly showed his guilty conscience. A declaration on his part that the milk was not in course of delivery, but was intended for purposes other than human food, say, for that of pigs or other animals, an assertion which if true could have been substantiated in evidence, would have fully exonerated the milkman. But to knock down a churn for the purpose of destroying the *corpus delicti* is surely as conclusive evidence of guilt as the dropping of a watch by a pickpocket or a jemmy by a burglar.

* * * The magistrates were not wrong in the course they took. It is no offence merely to be in possession of adulterated milk, and some evidence must be given that it is (1) on sale or (2) in course of delivery to a purchaser in order to support a conviction for refusing to sell. The illustration of the burglar and the jemmy is unfortunate. Parliament has deemed it necessary to make the mere possession of house-breaking tools an offence, without proof of any attempt to break into premises. If a man was found under suspicious circumstances near premises where a burglary had been attempted or committed, the fact that he dropped a jemmy would be strong evidence that he was the burglar; but if he dropped the jemmy in the street, no premises having been attempted in the neighbourhood, he must be punished for possessing house-breaking tools, if at all. On the facts stated, a conviction might have been supported; but if a case were taken for the opinion of the High Court, the judges would not order the magistrates to convict.

LUNACY CERTIFICATES: ACTIONS FOR DAMAGES.

INFELIX writes: A brother practitioner and myself are to be made defendants in an action for damages, brought by a person who was put into confinement under our certificates some three or four years ago. Would you give me a reference to any such case, that has been tried of recent years, in which the grounds of action have mainly been that the statements in the certificates of the certifying medical men are insufficient, or considered so, to prove insanity?

* * * The subjoined list will furnish some of the information for which "Infelix" asks, although, in some of them, the chief or sole ground of action was scarcely the alleged insufficiency of medical certificates to prove insanity. The list does not pretend to be complete.

Smith (complainant), Lattey (defendant), at Southam Petty Sessions. *Midland Times*, December 3rd, 1887; BRITISH MEDICAL JOURNAL, December 17th,

1887, p. 1361. *Tanfan v. Sporgin*; tried in London November, 1886, before Mr. Justice Dean. Daily press, and JOURNAL, November 27th, 1886, p. 1043. *Hughes v. Langmore and Armstrong*; tried in London November, 1886, before Mr. Justice Manly. Daily press, and JOURNAL, November 27th, 1886, p. 1044. *Hasker v. several medical men*. Several actions tried in London in 1884 and 1885. Case from Lewes; tried in London 1885. Female plaintiff v. Whittle and others of Liverpool, and Mondil, of Cheadle, Manchester, about 1884. *Weldon v. Rutherford*. *Weldon v. Semple*.

M.D.—In referring to our correspondent's letter (without the slightest wish to traverse the statements therein) to the assessor—which, *ex necessitate*, came under our notice—we think it well to remark that, in our opinion, he has acted wisely in "unreservedly withdrawing the complaint or accusation as being intended to apply personally to the individual attended to any more than they would to any other practitioner similarly circumstanced." Be that as it may, we deemed it expedient, in consequence of the assumed personality, to investigate the matter more fully, with the result that, under the circumstances disclosed, we feel that the opinion expressed in our reply to "X. Y. Z." was more than justified.

G. J. W. F.—"In the interest of peace," (and of the profession also, it may be well to add), to quote the language of our correspondent, we would suggest that "the matter be now allowed to drop." Nevertheless, if, in assumed justice to himself, he deems further investigation of the alleged facts essential to a due vindication of his professional conduct in the cases, we shall be glad to receive, with as little delay as may be, the proffered correspondence, and especially that which relates to the alleged "dismissal" of Dr. A. prior to Mr. T.'s obstetric engagement by Mrs. W.; in reference to which we note the fact that, although the copy of her exculpating note is dated November 2nd, it was not transmitted to us until December 13th.

MIDWIFERY FEES.

W. F. writes: I was engaged by a clergyman on October 6th to attend his wife in her confinement about the middle of this month. I was sent for to see her about a fortnight ago for some trifling ailment. I have since received a letter to cancel the engagement for the following reasons: 1. That the distance was too great. The distance is not more than a mile, and neither of us has changed our residences. 2. That I had neglected to call on her unasked—a proceeding which I should deem unprofessional. 3. That I declined to administer chloroform as a matter of course during her labour, except if, in my judgment, I thought it necessary to do so.

I need not say that I refused to cancel the engagement, and solicited the fee that was agreed upon. I write to ask if my professional conduct has been correct; and whether, if in the event of a refusal to pay the fee (which the patient seems inclined to do), I can recover it in the county court.

* * W. F. has been perfectly correct in his conduct in the case, and we believe could recover in the county court. It depends, however, on the view taken by the particular judge; they differ on such questions.

A TESTIMONIAL TO A SECRET REMEDY.

MEMBER OF THE B.M.A.—So gross a departure from the ordinary collegiate disciplinary rules, as the "medical opinion" paraded in Messrs. D. and Co.'s placard advertisement, should, in our opinion, for the honour and dignity of the profession, be at once referred to the respective Councils of the University of Dublin and of the Royal College of Surgeons of England, of which the giver of the testimonial is a reputed graduate and member. A simple note from our correspondent, enclosing therewith the illustrated handbill, can scarcely fail to induce them to take action in the matter.

MEDICAL ETIQUETTE.

A. and B. are the two practitioners in a country town. A. is junior, and has been in practice only a few months. A. informed B. that he should have to make any practice he might get out of B.'s. B. sees no objection, provided it is done in a legitimate manner. B. is called to a case, but is out, and will not be home till 12 o'clock. The husband cannot wait, and goes to A., who attends, prescribes, and finds the patient within a fortnight of her confinement. B. has always attended her, and is engaged to attend again as usual. A. is informed of this by the husband, but goes on attending, and also attends the confinement, which is hastened by the present attack. B. asks: Should not A. have informed B. that he had gone to a case of his in an emergency, and declined to attend the confinement? B. only hears of the circumstances a fortnight after, when the husband calls, explains, and apologises.

* * The line of conduct which should have been pursued by A. in the case related by B. is clearly laid down in the following rule (7) extracted from the second edition of the *Code of Medical Ethics*, page 69: "When a practitioner is called to an urgent case, either of sudden or other illness, accident, or injury, in a family usually attended by another, he should (unless his further attendance in consultation be desired), when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter, but he is entitled to charge the family for his services."

CONSULTANTS AND GENERAL PRACTITIONERS.

M.D., F.R.C.S.Ed., writes: I am in general practice a few miles from one of our largest provincial towns. Cases sometimes occur when I wish for the opinion of either a specialist or general consultant. He appoints a time to see my patient at his own rooms, and, if I am unable to be present, he writes to me afterwards his opinion of the case, and suggestions as to treatment. So far so good. Instead of now leaving the case still in my hands, I find in a large number of instances that the consultant makes an appointment with my patient to return on a certain day. He goes, and then he is given a prescription, and told to come back again *ad lib.*, resulting in many cases in my losing sight of my patient altogether.

* * In giving the desired publicity to "M.D.'s" temperate communication

relative to the alleged [line of] conduct pursued by certain specialists and consultants, we note with regret that such disloyal action towards a professional brother is calculated to engender a more or less general distrust, and very naturally to induce general practitioners to rely on their own unaided skill in cases of doubt and difficulty. A policy so suicidal on the part of consultants ought, in our opinion, to be severely condemned.

PRINTED TESTIMONIALS.

W. K. asks for advice on the following point: A. gives goodwill of his practice to B., who has just come to the town. Is it a transgression of medical etiquette for A. to leave a copy of B.'s testimonials with his patients as he is introducing B. or taking his leave of them? B. had his testimonials printed in the form of a small pamphlet, as he was competing for an appointment in the town.

* * Although it is customary for the several candidates, in the case of a contested appointment, to transmit to the elective body a copy of their respective testimonials, it would be contrary to professional etiquette, and in bad taste, for A., on personally introducing B., to leave a copy with the patients. If, from some exceptional cause, such a presentation be deemed important, it should be effected by A. alone (in simple confirmation of his individual opinion of his intended successor), either prior or subsequent to B.'s introduction, and should, moreover, be strictly limited to A.'s *de facto* patients.

INDIA AND THE COLONIES.

INDIA.

A PRINCE OF PHILANTHROPISTS.—The Maharajah of Darbhanga, in Bengal, has established a hospital and dispensary for female patients near his ancestral seat in the district of Darbhanga, Behar, and is erecting new quarters for its accommodation at a cost of 55,000 rupees, in connection with Lady Dufferin's Medical Aid for Women Fund. This is one of the least considerable of the long series of philanthropic acts on the part of this distinguished Hindoo on a scale of magnificence hardly ever equalled.

SOUTH AFRICA.

HYDROPHOBIA.—Dr. W. C. Scholtz has sent to the *South African Medical Journal* the following account of a case of hydrophobia published in the *South African Chronicle and Mercantile Advertiser* in August, 1825. The special interest of the quotation is that it is generally stated that the South African colonies were free from the infection of rabies:—

HYDROPHOBIA.

STELLENBOSCH.—A very melancholy and distressing case of this horrible and incurable disease has occurred within these few days at the place of Mr. M. Beyers, at Clapmuts, John Edwards, formerly a farrier in Her Majesty's 21st Light Dragoons, a long resident on the place of Mr. Watney, and well known in the neighbourhood of this district, was suddenly attacked with its characteristic symptoms on the morning of the 15th instant, namely, inability to drink; a kind of convulsive horror on the approach of liquids to his mouth; with a severe shooting pain, extending itself to the bottom of his breast bone; these symptoms continued with more or less severity until the last; his sufferings happily were not so great, unless in forcing himself to drink—thirst being excessive; he suddenly and unexpectedly expired in the afternoon of the 17th, in full possession of his senses, about ninety-two days intervening from the infliction of the bite to the development of the disease. He was visited by professional gentlemen of Stellenbosch, and, when first seen on the second day of the attack, he positively refused to take anything in the shape of medicine from his horror and aversion to anything fluid, his inability to swallow, and a conviction on his mind that he was now going to die. His reluctance, however, was overcome, and attempts were made to relieve, but without the smallest success beyond alleviation, thus adding another melancholy instance of a disease that has hitherto baffled all the efforts of the medical profession.

* * Dr. S. F. Wernich, District Surgeon of Boshof, Orange Free State, has recently recorded in the above-mentioned medical journal a case in which he had made the diagnosis of hydrophobia. The patient, a young farmer of nervous temperament, died after an illness of five days, characterised by extreme excitement, inability to swallow, dread of liquids, the expectoration of white frothy mucus, and the absence of any signs of organic disease. There was no history of a bite from a rabid animal, nor had he been bitten by any animal, so far as could be ascertained, for at least eight years. The symptoms were certainly strongly suggestive of hydrophobia, but it is not possible to say more than this. Dr. Wernich states that rabies is well known in the neighbourhood of Boshof, especially among the older inhabitants. "When it occurs in the dog it is known," he says, "as 'Dol Hond,' and when a person is bitten by a 'Dol Hond' he is said to become 'dol' (mad)."

It would be interesting to learn whether the files of the *South African Chronicle* for 1825 contain any reports of any other case of hydrophobia, or of rabies in the dog.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DISTRICT MEDICAL OFFICERS AND "CLUB DOCTORS."

As regards the questions submitted by "Retlaw," we will reply to them in the order sent:

1. We doubt if a board of guardians would allow an extra fee where the fracture had been put up by another medical gentleman, and had remained under his care for fifteen days after the accident happened, that is, if the Board was put in possession of the facts of the case. The Central Department would assuredly disallow such payment.

2. The conduct of the district medical officer, on seeing the case above, taking off the splints, etc., of another medical gentleman, and putting on his own, was highly objectionable. This procedure should be reported to the Board of Guardians or to the Local Government Board, or to both.

3. To establish any claim to a fee, he should have taken entire charge of the case.

4. Here again we give the answer as above: lay the fact of the refusal to attend and send medicines before the Local Board and the Central Authority also.

5. The district medical officer has no power to refuse necessary medicines and attendance on any poor person whom he has been called to visit by an order in the handwriting of the relieving officer on the plea that the pauper he is directed to attend is a member of a club which is under the professional charge of some other medical gentleman.

Finally, we advise that pending the decision of the Board of Guardians or the Local Government Board on the points raised by our correspondent, he should continue his professional attendance on his club patients just the same as if no such objectionable district medical officer was in existence.

TO OBTAIN A DIPLOMA IN PUBLIC HEALTH.

DOUBLY QUALIFIED.—You could not do better than procure the certificate in sanitary science of the Cambridge University. The list of books recommended by the University is so long, that we would advise you to purchase, for one shilling, the last published examination papers, which also give this information. They are to be had at the Cambridge Warehouse, 17, Paternoster Row, London.

FEE FOR FORCEPS CASE.

DR. G. H. FITZGERALD (Ponteland, Northumberland), asks if an instrumental midwifery case (forceps) is included in those cases for which an extra fee can be claimed from the guardians for a workhouse case. He adds that the use of the forceps was urgently required.

. Our correspondent cannot claim as of right, any fee beyond £1 for assistance rendered to a case of midwifery occurring in a workhouse, but although such is the law, a board of guardians may grant a larger fee, if a representation was made to them that it was a case accompanied with difficulty and danger, which compelled instrumental aid to bring about delivery. If the Board granted such fee, it would have to be reported to the Local Government Board, to obtain their sanction, or the auditor would surcharge the board of guardians for giving an exceptional fee.

The writer of this reply once had a case of instrumental midwifery, where he called to his assistance the late Dr. Hall Davis and his own assistant. On appeal to the board of guardians, they voted Dr. Hall Davis £5 5s.; the medical officer, £2 2s.; his assistant, £1 1s.; the midwife an extra fee of 10s. 6d., and the paid nurse, 5s. Total, £9 3s. 6d., for a pauper girl. The facts having been laid before the Local Government Board, such grant was at once confirmed. The entire attendance extended over seventy-eight hours.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

DR. JOHN HADDON (Melrose) writes: I observe from the JOURNAL of December 17th that the Local Government Board is taking up the question of compulsory notification of infectious diseases, and asking answers to six questions from those local authorities where that system has been in use. The fifth question reads thus:—"What is believed to be the general result as regards the limitation of the spread of infectious disease?"

Replies to such a question will no doubt vary according to the experience of particular localities, but it is doubtful whether any authority is capable of forming a true estimate of the value of the notification of infectious diseases, even when supplemented by ample provision for the isolation of such cases in hospitals. Any local authorities which have had notification, with ample hospital accommodation, in use for fifteen years, and have kept a careful record of the prevalence of the several epidemic diseases during that time, may no doubt furnish valuable information, but unless the Local Government Board at the same time is informed of the general sanitary state of the various districts from which answers to their six questions are received, no reply can be of any practical value with a view to future legislation on the subject.

If we took a general survey of the most formidable infectious diseases, and endeavoured to answer the question—How can this disease be stamped out? for each individually it is evident that the measures we might suggest to such an end would depend on our knowledge of (1) the cause of the disease, and (2) the way in which it propagated itself when it had once originated. Thus, as to typhus, how would we proceed to stamp it out?

We are pretty certain that typhus is originated by the overcrowding of human beings, and that it will break out wherever sufficient overcrowding takes place; once originated it is, perhaps, our most infectious disease. With such knowledge, then, shall we rest satisfied with advising notification and isolation in a hospital so as to prevent its spread? Should we not rather advise that a careful inspection should be made of all the property under the dominion of the sanitary authority, and that wherever the conditions likely to give rise to typhus were found the necessary improvements should be effected? We should

not wait for the outbreak of the disease and then merely try to prevent its spread, but rather, acting upon our knowledge as to the conditions under which it originates, endeavour to remove them, and make an outbreak an impossibility. We may thus conclude (1) that notification of typhus with any number of hospitals to isolate the cases as they occur will be powerless to stamp out the disease, though such means may no doubt assist in preventing its spread; and (2) that by the improvement of the houses of the poor this disease may be entirely stamped out, so that neither notification nor the hospital would be needed.

It is a curious fact that in Edinburgh, where typhus used to rage, claiming its victims annually from among the students and physicians, that disease is now seldom met with, owing no doubt to improvements which have been effected in the slums of the old town.

Again, with regard to such a disease as scarlet fever, how would we proceed to stamp it out? We do not know how it originates, but we have a very strong suspicion that defective sanitary arrangements have to do with its inception. Once originated it is capable of spreading to the healthy who are exposed to its infection; but no one can have practised his profession with moderate powers of observation without being inclined to believe that those living under insanitary conditions are most liable to its infection. How, then, shall we proceed to stamp out such a disease? Shall we advise notification and isolation of all cases that occur, and pretend that we are doing our duty to ourselves and the public? If we did, and if we could ensure perfection in both particulars, we could not stamp out the disease.

So far as our present knowledge goes, then, ought we not to advise that the drainage throughout the whole country should be made perfect, according to present ideas, and that a pure water supply should be provided for every town, hamlet, and house wherever placed? To prevent its spread (if it should even then originate), not only might notification and hospitals for isolation be had recourse to, but those supplying any article of food to the people should be under intelligent and regular supervision. Dairies, no doubt, are much to blame but is it not possible that a butcher, a baker, or even a grocer may spread such a disease? If it be possible that Government intends to bring forward any measure calculated to free this country from those preventable diseases which are so destructive to the happiness and prosperity of the nation, it behoves this Association to urge upon the Legislature that the measure must be radical, beginning at the root and not at the fruit of the infectious tree.

QUARANTINE IN MALTA.

DR. L. MANCÉ, Surgeon-Major, R.M.F.A., writes: It was with great pleasure that I read the few remarks on quarantine made by Surgeon-Major Welch, of Netley, in your issue of December 3rd, as they awakened in me a desire of perusing the admirable and complete account of the several epidemics of cholera in Malta, published by that gentleman and Surgeon Leith Adams, in the Blue Book of 1864. After perusing the same I became the more convinced that "there is a clear mass of evidence showing that the disease is communicable by intercourse with the affected, and so precise and incontrovertible as to leave no doubt of the capability of its propagation in this way, independently of all atmospheric conditions whatever. Indeed it may be questioned if the disease ever found its entrance into Malta by any other means" (p. 311). In fact, the great care devoted by the authors to the gathering of data, in order to show that, during the several epidemics occurring between 1837 and 1865, the progress of cholera, not only from one country to another, but also from town to town, from street to street, from house to house, and even from one individual to another of one and the same family, and in the same regiment, deserves the highest praise, and is quite sufficient to lead to the conclusion arrived at by them at page 319 of their report, namely: "It is clear that the disease radiated from Alexandria to the seaport towns of the Mediterranean in the exact ratio of the frequency of their communication with it, and that these towns became new foci for its propagation to others, and into the interior by means of maritime and land communication. . . . These facts are incontrovertible, and, while they furnish indubitable proofs of the communication of cholera by human intercourse, strongly militate against the existence of a general epidemic constitution in the Mediterranean basin." Further on, at page 332, it is stated that "some of the worst streets escaped altogether, others remained exempt for a long time, but on the introduction of the disease clearly showed that the previous immunity was in nowise due to the absence of localising causes. The inference to be drawn was this, that whether dirty or clean, well situated or not, a first case was necessary as a starting point, the subsequent progress depending upon the presence or not of favouring conditions, and the sanitary measures had recourse to."

The inference to be drawn from the above statements, with which I perfectly agree, is that immunity from cholera can only be attained (1) by preventing importation of its virus, and (2) by improving the sanitary conditions of the island, so as to lessen its propagation when it has once been introduced. Though I am a staunch supporter of strict *sfratto* as the only means for attaining the first object, I am as strong an advocate for sanitary measures to obtain the second.

I am sure both you and Surgeon-Major Welch will be pleased to learn that the opinion universally entertained here is that both these preventive measures should go hand in hand, and I defy anyone to prove that in our case "the imposition of quarantine induces a sense of false security, which militates against the adoption of those beneficial sanitary measures on shore, whereby the spread of cholera, if the disease were introduced, could be prevented." In fact, considerable sums of money have been, and still continue to be, annually spent towards the improvement of sanitation in this island.

I still, however, maintain that, up to the time when the sanitary condition of every country will have attained perfection, and when all Governments, from one pole to the other, will, by international agreement, decide to do away with quarantine completely, so that free intercourse may exist between one port and another, whether they be infected with disease or not, up to that time, I say when such ties of affection will bind all nations, *sfratto* alone will be able to save us from the importation of cholera.

It will not be lost sight of that, under present circumstances, the very appearance of cholera in Malta, irrespective of all our preventive measures against its spreading, is considered by other Governments sufficient reason for interrupting all communication with this island.

As to the possibility of adopting *sfratto* when "what was intended as a safeguard becomes at best a useless measure," I may state that if British representatives abroad were as careful to report to this Government the appearance of the very first suspicious case of cholera as foreign Consuls in Malta are in bringing similar cases before the Governments they represent, with the present

easy telegraphic communications available, there would not be the least probability of imposing *scritto* when already too late, as past experience of the last twenty-two years has fully demonstrated.

POOR LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual report of the Poor Law Medical Officers' Association having been issued, showing the continued prosperity of the Association, the Council strongly advises all district medical officers who are not members to enrol themselves, as certain important questions, seriously affecting their interests, are likely to engage the attention of Parliament at an early date.

HEALTH OF ENGLISH TOWNS.

DURING the week ending Saturday, December 24th, 5,989 births and 3,679 deaths were registered in the twenty-eight large English towns, including London, dealt with in the Registrar-General's Weekly Return, which have an estimated population of 9,244,099 persons. The annual rate of mortality, which had been 21.1 and 22.1 per 1,000 in the two preceding weeks, declined again to 20.8 during the week under notice. The rates in the several towns, ranged in order from the lowest, were as follow: Derby, 15.5; London, 18.6; Bradford, 19.1; Norwich, 19.1; Hull, 19.3; Nottingham, 19.3; Leeds, 19.5; Oldham, 20.2; Liverpool, 20.3; Brighton, 20.3; Birkenhead, 20.8; Huddersfield, 20.3; Cardiff, 21.0; Wolverhampton, 21.3; Birmingham, 21.6; Bristol, 22.4; Halifax, 22.4; Newcastle-upon-Tyne, 23.3; Sunderland, 23.3; Sheffield, 23.9; Portsmouth, 24.2; Salford, 24.8; Bolton, 25.5; Preston, 26.5; Manchester, 28.9; Plymouth, 30.4; Leicester, 31.3; and the highest rate during the week, 31.7 in Blackburn. The death-rate in the twenty-seven provincial towns averaged 22.6 per 1,000, and exceeded by 4.0 the rate recorded in London, which, as before stated, was only 18.6 per 1,000. The 3,679 deaths registered in the twenty-eight towns during the week under notice included 455 which were referred to the principal zymotic diseases, against 443, 448, and 500 in the three preceding weeks; of these, 146 resulted from whooping-cough, 91 from scarlet fever, 79 from measles, 47 from fever (principally enteric), 47 from diphtheria, 23 from small-pox, and 23 from diarrhoea. These 455 deaths were equal to an annual rate of 2.6 per 1,000. The zymotic death-rate in London during the week under notice was equal to 2.7 per 1,000, while it averaged 2.4 in the twenty-seven provincial towns, among which it ranged from 0.0 in Brighton and in Portsmouth, and 0.6 in Huddersfield, to 4.4 in Derby, 4.5 in Wolverhampton, 4.6 in Bolton, and 5.9 in Sheffield. The fatal cases of whooping-cough, which increased in the three preceding weeks from 96 to 157, declined again during the week under notice to 45, and caused the highest death-rates in Salford, London, Wolverhampton, and Leicester. The deaths referred to scarlet fever, which had been 91 and 103 in the two previous weeks, declined again during the week under notice to 91; this disease showed the highest proportional fatality in Bristol, Oldham, Wolverhampton, Plymouth, and Birkenhead. The number of scarlet fever patients under treatment in the Metropolitan Asylums hospitals, which had declined from 2,602 to 2,347 during the three preceding weeks, had further fallen to 2,171 on Saturday, December 24th; the admissions, which had fallen from 209 to 162 in the four previous weeks, further declined to 129 during the week under notice. The fatal cases of measles, which had risen in the three preceding weeks, from 69 to 80, were 79 during the week under notice, and caused the highest death-rates in Bradford, Birmingham, Bolton, and Derby. The deaths referred to different forms of "fever" (including typhus, typhoid, and ill-defined forms of fever), which had been 77 and 64 in the two preceding weeks, further declined to 47 during the week under notice; this disease showed the highest proportional fatality in Wolverhampton. The fatal cases of diphtheria in the twenty-eight towns, which had been 44 and 47 in the two previous weeks, were again 47 during the week under notice, and included 24 in London, 5 in Manchester, 2 in Birmingham, 2 in Sheffield, 2 in Liverpool, 2 in Hull, and 2 in Carlisle. The 23 deaths from diarrhoea showed a marked decline from the numbers returned in recent weeks. The fatal cases of small-pox in these towns, which had been 26, 20, and 19 in the three previous weeks, rose again to 23 during the week under notice, of which 21 were recorded in Sheffield, and 2 in Bristol. The number of small-pox patients in the Metropolitan Asylums hospitals, which had been 9 and 10 at the end of the two preceding weeks, had declined to 5 on Saturday, December 24th; no new cases were admitted into these hospitals during the week. The deaths from diseases of the respiratory organs in London, which had been 405 and 413 in the two previous weeks, declined during the week under notice to 357; they were as many as 185 below the average, and were equal to an annual rate of 4.4 per 1,000. The causes of 80, or 2.2 per cent. of the 3,697 deaths registered during the week under notice in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

In the twenty-eight large English towns, including London, dealt with in the Registrar-General's Weekly Return, which have an estimated population of 9,244,099 persons, 5,333 births and 4,402 deaths were registered during the week ending Saturday, December 31st. The annual rate of mortality, which had been 22.1 and 20.8 per 1,000 in the two preceding weeks, rose again during the week under notice to 24.8. The rates in the several towns, ranged in order from the lowest, were as follow:—Brighton, 18.5; Huddersfield, 19.7; Norwich, 20.3; Derby, 21.1; Sunderland, 21.3; Hull, 22.0; Bradford, 23.0; Liverpool, 23.2; London, 23.3; Birmingham, 24.4; Cardiff, 24.5; Leeds, 25.1; Bristol, 25.7; Salford, 26.2; Portsmouth, 26.5; Sheffield, 27.7; Leicester, 27.7; Wolverhampton, 27.8; Newcastle-upon-Tyne, 27.9; Plymouth, 28.4; Nottingham, 28.9; Blackburn, 29.0; Birkenhead, 29.9; Halifax, 31.0; Oldham, 31.1; Manchester, 32.5; Preston, 33.7; and the highest rate during the week, 33.9 in Bolton. In the twenty-seven provincial towns the death-rate averaged 23.2 per 1,000, and exceeded by 2.9 the rate recorded in London, which, as before stated, was 23.3 per 1,000. The 4,402 deaths registered during the week under notice in the twenty-eight towns included 153 which were referred to whooping-cough, 80 to measles, 84 to scarlet fever, 52 to "fever" (principally enteric), 38 to diphtheria, 32 to diarrhoea, and 23 to small-pox; in all, 503 deaths resulted from these principal zymotic diseases, against 500 and 455 in the two preceding weeks. The zymotic rate was equal to 2.8 per 1,000. In London the zymotic death-rate was 3.1, while it averaged 2.6 per 1,000 in the twenty-seven provincial towns, among which it ranged from 0.0 and 0.4 in Halifax and Brighton, to 4.6 in Bolton, 5.1 in Preston, 5.4 in Nottingham, and 6.1 in Sheffield. The fatal cases of whooping-cough, which had been 137 and 115 in the two previous weeks, rose again during the week under notice to 153, and caused the highest death-rates in Salford, Oldham, London, Derby, and Leicester. The deaths referred to measles, which had been 80 and 79 in the

two previous weeks, rose again to 86 during the week under notice: this disease was proportionally most fatal in Newcastle-upon-Tyne, Birmingham, Plymouth, Nottingham, and Bolton. The fatal cases of scarlet fever, which had been 108 and 91 in the two preceding weeks, further declined during the week under notice to 84, and caused the highest rates in Norwich, Birkenhead, Oldham, Huddersfield, Blackburn, and Preston. The number of scarlet fever patients in the Metropolitan Asylums hospitals, which had declined in the three preceding weeks from 2,557 to 2,171, had further fallen to 2,046 on Saturday, December 31st; 120 new cases were admitted into these hospitals during the week, against numbers steadily declining from 184 to 129 in the four previous weeks. The deaths referred to different forms of "fever" (including typhus, enteric, and ill-defined forms of fever), which had been 77, 54, and 47 in the three preceding weeks, rose again during the week under notice to 52; the greatest proportional fatality of fever during the week was recorded in Portsmouth, Nottingham, and Preston. The fatal cases of diphtheria in the twenty-eight towns, which had been 47 in each of the two preceding weeks, declined during the week under notice to 38, and included 21 in London, 5 in Newcastle-upon-Tyne, 2 in Liverpool, 2 in Oldham, and 2 in Hull. The 32 deaths from diarrhoea exceeded by 9 those recorded in the previous week. Small-pox caused 24 deaths in Sheffield (against 17 and 21 in the two preceding weeks), 2 in Bristol, 1 in Leeds, and 1 in Hull, but not one in London or in any of the twenty-three other large provincial towns. The number of small-pox patients in the Metropolitan Asylums hospitals, which had been 10 and 5 at the end of the two preceding weeks, were 7 on Saturday, December 31st; 2 cases of small-pox were admitted into these hospitals during the week. The deaths referred to diseases of the respiratory organs in London, which had been 413 and 357 in the two previous weeks, rose again during the week under notice to 442, but were as many as 119 below the average. The causes of 137, or 3.1 per cent., of the 4,402 deaths registered during the week under notice in the twenty-eight towns were not certified, either by registered medical practitioners or by coroners.

HEALTH OF SCOTCH TOWNS.

IN the eight principal Scotch towns, having an estimated population of 1,299,000 persons, 789 births and 559 deaths were registered during the week ending Saturday, December 24th. The annual rate of mortality, which had been 22.7 and 23.0 in the two preceding weeks, declined again during the week under notice to 22.4, but exceeded by 1.6 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 11.3 in Perth, 17.8 in Greenock, 20.4 in Aberdeen, 20.7 in Dundee, 20.9 in Leith, 21.1 in Edinburgh, 23.4 in Glasgow, and 40.2 in Paisley. The 559 deaths registered during the week under notice in these Scotch towns included 25 which were referred to whooping-cough, 17 to "fever" (principally enteric), 17 to measles, 13 to scarlet fever, 4 to diphtheria, 4 to diarrhoea, and not one to small-pox; in all, 80 deaths resulted from these principal zymotic diseases, against 79 and 75 in the two preceding weeks. These 80 deaths were equal to an annual rate of 3.2 per 1,000, which exceeded by 0.6 the mean zymotic death-rate during the same week in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns during the week under notice were recorded in Dundee, Leith, and Paisley. The deaths referred to whooping-cough, which had been 29 and 26 in the two preceding weeks, were 25 during the week under notice, of which 13 occurred in Glasgow, 3 in Edinburgh, and 3 in Leith. The fatal cases of measles, which had steadily increased from 12 to 15 in the three previous weeks, further rose to 17 during the week under notice, and included 11 in Edinburgh and 5 in Dundee. The deaths referred to different forms of "fever" (typhus, enteric, and simple fever), which had been 5 and 9 in the two preceding weeks, further rose to 17 during the week under notice, of which 14 occurred in Paisley and 3 in Glasgow. The fatal cases of scarlet fever, which had been 14 and 9 in the two previous weeks, rose again to 13 during the week under notice, and included 8 in Glasgow and 3 in Dundee. The 4 deaths from diphtheria showed a decline of 3 from the number in the preceding week, and were all recorded in Glasgow. The 4 fatal cases of diarrhoea were considerably below those returned in any recent week. The 134 deaths referred to acute diseases of the respiratory organs in these Scotch towns during the week under notice were as many as 65 below the number recorded in the corresponding week of last year. The causes of 68, or more than 12.0 per cent., of the 559 deaths registered during the week under notice in these Scotch towns were uncertified.

During the week ending Saturday, December 31st, 850 births and 607 deaths were registered in eight of the principal Scotch towns, having an estimated population of 1,299,000 persons. The annual rate of mortality, which had been 23.0 and 22.4 per 1,000 in the two preceding weeks, rose again to 24.3 during the week under notice, and was slightly below the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the rate was equal to 14.6 in Perth, 15.8 in Leith, 21.5 in Edinburgh, 23.3 in Greenock, 24.5 in Glasgow, 25.3 in Aberdeen, 29.3 in Dundee, and 35.9 in Paisley. The 607 deaths registered during the week under notice included 73 which were referred to the principal zymotic diseases, against 75 and 80 in the two preceding weeks; of these, 24 resulted from whooping-cough, 14 from measles, 13 from diphtheria, 10 from diarrhoea, 7 from scarlet fever, 5 from "fever" (principally enteric), and not one from small-pox. These 73 deaths were equal to an annual rate of 3.0 per 1,000, which slightly exceeded the mean zymotic death-rate during the same period in the twenty-eight large English towns. The highest zymotic rates in the Scotch towns during the week under notice were recorded in Leith, Greenock, and Dundee. The fatal cases of whooping-cough, which had declined from 29 to 25 in the three preceding weeks, were 24 during the week under notice, of which 10 occurred in Glasgow, 4 in Dundee, 4 in Greenock, and 3 in Leith. The deaths referred to measles, which had steadily increased in the four previous weeks from 12 to 17, declined again during the week under notice to 14, and included 8 in Dundee and 5 in Edinburgh. The fatal cases of diphtheria, which had been 7 and 4 in the two preceding weeks, rose again during the week to 13, of which 8 occurred in Glasgow, 2 in Edinburgh, and 2 in Greenock. The 10 deaths from diarrhoea exceeded those recorded in recent weeks, and included 5 in Glasgow and 4 in Edinburgh. The fatal cases of scarlet fever, which had been 9 and 13 in the two previous weeks, declined during the week under notice to 7, of which 4 occurred in Glasgow. The deaths referred to different forms of "fever" which had risen in the three previous weeks from 5 to 17, declined again to 5, and included 2 in Dundee. The 193 deaths referred to acute diseases of the respiratory organs in these Scotch towns during the week exceeded by 14 the number recorded in the corresponding week of last year. The causes of 61, or 10.0 per cent., of the 607 deaths registered during the week under notice in these Scotch towns were uncertified.

HEALTH OF IRISH TOWNS.

In the week ending Saturday, December 24th, 520 deaths occurred in the sixteen principal town districts of Ireland. The average annual death-rate represented by the deaths registered was 51.2 per 1,000 of the population. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Arinagh, 20.7; Belfast, 41.4; Cork, 24.7; Drogheda, 38.1; Dublin, 28.8; Dundalk, 17.5; Galway, 16.8; Kilkenny, 16.9; Limerick, 33.7; Lisburn, 10.8; Londonderry, 17.8; Lurgan, 35.9; Newry, 59.7; Sligo, 14.4; Waterford, 30.1; Wexford, 17.1. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 5.3 per 1,000. Measles caused 5 deaths in Newry, 13 in Belfast, 3 in Cork, 1 in Limerick, and 2 in Kilkenny. Whooping-cough caused 10 deaths in Belfast. In the Dublin Registration District, the births registered during the week amounted to 132, and the deaths to 199. The deaths represent an annual rate of mortality of 29.4 in every 1,000 of the estimated population; omitting the deaths of persons admitted into public institutions from localities outside the district, the rate was 28.3 per 1,000. Thirty-three deaths from zymotic diseases were registered, being 3 over the average for the corresponding week of the last ten years, and 4 over the number for the week ended December 17th; they include 3 from measles, 4 from scarlet fever, 2 from typhus, 8 from whooping-cough, and 4 from diphtheria.

In the week ending Saturday, December 31st, 565 deaths occurred in the sixteen principal town districts of Ireland. The average annual death-rate was 39.9 per 1,000 of the population. The deaths registered in the several towns, alphabetically arranged, corresponded to the following annual rates per 1,000: Arinagh, 15.5; Belfast, 41.4; Cork, 38.3; Drogheda, 16.9; Dublin, 34.7; Dundalk, 13.1; Galway, 23.5; Kilkenny, 16.9; Limerick, 22.9; Lisburn, 33.8; Londonderry, 12.5; Lurgan, 10.3; Newry, 35.1; Sligo, 43.3; Waterford, 37.0; Wexford, 17.1. The deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 5.0 per 1,000. Measles caused 5 deaths in Newry, 13 in Belfast, 10 in Cork, and 8 in Limerick; whooping-cough caused 18 deaths in Belfast, and 1 each in Cork and Waterford. In the Dublin Registration District the births registered during the week amounted to 188, and the deaths to 245. The deaths represent an annual rate of mortality of 36.2 in every 1,000 of the estimated population; omitting the deaths of persons admitted into public institutions from localities outside the district, the rate was 34.7 per 1,000. Twenty-six deaths from zymotic diseases were registered, being 7 under the number for the preceding week, and 5 below the average for the fifty-second week of the ten years 1877-86; they included 1 from measles, 6 scarlet fever, 3 from whooping-cough, 2 from diphtheria, and 2 from simple continued and ill-defined fever.

HEALTH OF FOREIGN CITIES.

It appears, from statistics published in the Registrar-General's return for the week ending Saturday, December 24th, that the annual death-rate recently averaged 80.3 per 1,000 in the three principal Indian cities; it was 25.6 in Bombay, 28.3 in Calcutta, and 41.0 in Madras; cholera caused 7 deaths in Calcutta, 5 in Bombay, and 36 in Madras; a death from small-pox was recorded in Bombay, and "fever" was fatally prevalent in each of these Indian cities. According to the most recently received weekly returns, the annual death-rate averaged 23.7 per 1,000 persons estimated to be living in twenty-one of the largest European cities, and exceeded by 2.9 the mean rate during the week in the twenty-eight large English towns. The death-rate in St. Petersburg was 26.3 per 1,000, (against 26.5 and 25.8 in the two preceding weeks); the 468 deaths included 10 from measles, 10 from typhoid fever, and 70 from diarrhoeal diseases. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 27.9 per 1,000, and ranged from 21.8 in Stockholm to 40.8 in Christiania; as many as 30 deaths were referred to measles in Christiania, and 11 in Copenhagen; 6 deaths resulted from scarlet fever in Stockholm, 9 in Copenhagen, and 9 in Christiania; and 6 fatal cases of diphtheria were recorded in Stockholm and 8 in Christiania. In Paris the death-rate was equal to 22.1 per 1,000 (against 22.0 and 21.0 in the two preceding weeks), and exceeded by 3.5 per 1,000 the rate recorded in the corresponding week in London; the deaths included 49 from typhoid fever, 83 from diphtheria and croup, 5 from small-pox, and 13 from measles. The 159 deaths in Brussels, of which 3 resulted from diphtheria, 2 from typhoid fever, and 1 from small-pox, gave a rate of 18.3 per 1,000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 20.4 per 1,000, the several rates being 17.0 in Rotterdam, 19.9 in the Hague, and 22.3 in Amsterdam; 4 deaths resulted from diphtheria and 2 from whooping-cough in Amsterdam; and 3 fatal cases of measles were recorded in Rotterdam, while no zymotic disease appears to be fatally prevalent in the Hague. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 24.4 per 1,000, and ranged from 16.4 and 18.4 in Dresden and Berlin, to 27.8 and 32.0 in Hamburg and Buda-Pesth. Small-pox caused 18 deaths in Trieste and 10 in Prague; 38 fatal cases of diphtheria occurred in Berlin, and 18 in Breslau; typhus and typhoid fever caused 18 deaths in Hamburg, and 5 in Buda-Pesth, while measles was somewhat fatally prevalent in Dresden, Breslau, and Buda-Pesth. The death-rate in three of the principal Italian cities averaged 23.7 per 1,000, the several rates being 21.3 in Turin, 24.4 in Venice, and 26.3 in Rome; 16 deaths resulted from small-pox, and 9 from malarial fever, in Rome; 8 fatal cases of diphtheria and 4 of typhoid fever were recorded in Turin; and diarrhoeal diseases caused 4 deaths in Venice. In Cairo the death-rate was 52.1 per 1,000, and in Alexandria 39.7; typhoid fever caused 15 deaths in Cairo; a fatal case of small-pox occurred both in Cairo and in Alexandria; and 114 deaths were referred to diarrhoeal diseases in Cairo and in Alexandria. In four of the largest American cities the recorded death-rates averaged 21.3 per 1,000, and ranged from 16.7 in Philadelphia to 24.0 in New York. Diphtheria caused 55 deaths in New York, 20 in Brooklyn, and 12 in Philadelphia; 17 fatal cases of scarlet fever were recorded in New York, and 5 in Philadelphia; and 11 deaths resulted from typhoid fever in Philadelphia, and 4 in Baltimore.

It appears, from statistics published in the Registrar-General's return for the week ending Saturday, December 31st, that the annual death-rate was recently equal to 20.5 per 1,000 in Bombay, and to 47.6 in Madras. Cholera caused 47 deaths in Madras, and 2 deaths resulted from small-pox in Bombay; while the mortality from different forms of "fever," and from diarrhoeal disease, was excessive in both these cities. The usual return from Calcutta does not appear to have been received. According to the most recently received weekly returns, the annual death-rate averaged 23.9 per 1,000 persons estimated to be living in twenty-one of the largest European cities, and was 0.9 below the mean rate during the week under notice in the twenty-eight large English towns. The death-rate in St.

Petersburg was equal to 25.2 per 1,000, and was slightly below the rates recorded in recent weeks; the 449 deaths included 10 from typhus and typhoid fever, 19 from scarlet fever, 11 from diphtheria, and 72 from diarrhoeal diseases. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged 25.9 per 1,000, and ranged from 18.5 in Stockholm to 35.3 in Christiania; measles caused 28 deaths in Christiania and 7 in Copenhagen; 3 deaths resulted from scarlet fever in Copenhagen, 4 in Stockholm, and 3 in Christiania; and 7 fatal cases of diphtheria were recorded in Copenhagen. In Paris the death-rate was equal to 22.1 per 1,000 (against 21.0 and 22.1 in the two preceding weeks), and was 1.2 per 1,000 below the rate in the corresponding week in London; the deaths included 6 from small-pox, 32 from typhoid fever, and 39 from diphtheria and croup. The 166 deaths in Brussels, of which 16 resulted from diarrhoeal diseases and 3 from diphtheria, gave a rate of 19.2 per 1,000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 21.3 per 1,000, the several rates being 19.7 in Amsterdam, 21.7 in the Hague, and 23.7 in Rotterdam; 4 deaths were referred to diphtheria, and 3 to measles, in Amsterdam; 2 fatal cases of measles and 2 of whooping-cough in Rotterdam; while no zymotic disease appears to be prevalent in the Hague. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 25.2 per 1,000, and ranged from 18.3 and 22.7 in Berlin and Dresden, to 32.1 and 32.8 in Prague and Buda-Pesth. Small-pox caused 8 deaths in Trieste and 16 in Prague; 40 fatal cases of diphtheria were recorded in Berlin, 10 in Breslau, and 7 in Vienna; and 19 deaths resulted from typhus and typhoid fever in Hamburg. The death-rate in three of the principal Italian cities averaged 24.5 per 1,000, being equal to 21.1 in Turin, 24.8 in Venice, and 28.1 in Rome; 6 deaths resulted from small-pox and 7 from typhoid fever in Rome; 4 fatal cases of diphtheria and 3 of scarlet fever occurred in Turin; and diarrhoeal diseases were prevalent in Venice. In Cairo the death-rate was 54.8 per 1,000, and in Alexandria 36.5; 17 deaths were referred to typhoid fever and 10 to whooping-cough in Cairo; "fever" caused 10 deaths in Alexandria; while diarrhoeal diseases were fatally prevalent in each of these cities. In four of the largest American cities the recorded death-rate averaged 21.4 per 1,000, and ranged from 17.4 in Baltimore to 24.4 in New York. Diphtheria caused 49 deaths in New York, 32 in Brooklyn, 13 in Philadelphia, and 5 in Baltimore; 24 deaths resulted from scarlet fever in New York; and 8 fatal cases of typhoid fever occurred in Philadelphia, and 5 in Baltimore.

OBITUARY.

GUSTAVE BERNUTZ, M.D.

This distinguished French gynecologist died at Sedan early in December from chronic cardiac disease, the result of rheumatism. M. Féréol read a full obituary of the deceased at a meeting of the Académie de Médecine on December 20th.

Dr. Bernutz was born at Sedan in 1819. His family came from Bouillon in Belgium. His grandfather, Laurent Bernutz, was senior surgeon to the military hospital at Bouillon; his uncle, V. H. P. Bernutz, was attached to the civil hospital in that town; whilst his father, François Richard Bernutz, practised at Sedan. Gustave Bernutz, who has just died, studied in Paris, and was *interne des hôpitaux* in 1843. In 1850 he was selected for the Bureau Central; in 1854 he was attached to the Lourcine, and at once commenced those researches in gynecology which were to make him famous. He would spend three or four hours daily in the wards, and the time which he passed outside the hospital walls was devoted to the consideration of what he had seen within. He was assisted in his labours by a junior physician to the Bureau Central, M. Ernest Goupil. They produced a world-famed book on the diseases of women, which was translated into English for the New Sydenham Society by Dr. Meadows. The chapters on peri-uterine hæmatocele and pelvic peritonitis are masterpieces of scientific gynecology.

Dr. Bernutz was appointed to the Pitié in 1856, and transferred, according to the custom in France, to another hospital, the Charité, in 1869. He resigned hospital duties in 1884. His promising colleague, M. Goupil, died young.

Dr. Bernutz worked hard long after practice had become impossible through the ravages of his malady. Until recently he continued to deliver clinical lectures, and on his death bed he corrected the proofs of those which he intended to publish. Thanks to a colleague who is acting as editor, these valuable lectures are preserved, and will soon be issued to the public.

Dr. Bernutz was one of the compilers of the *Dictionnaire de Médecine et de Chirurgie Pratiques*, writing the articles "Abdomen," "Amenorrhœa," etc., and he was the author of essays on "Uterine Erysipelas" and "Phlegmon of the Broad Ligaments" in *Depaul's Archives de Tocologie*. In 1855 he read before the Société Médicale des Hôpitaux a valuable monograph on syphilitic affections of the cervix uteri. In 1882 he was made an officer of the Legion of Honour.

Dr. Bernutz has left to the hospital of Sedan a sum of 100,000 francs, the interest devolving on his widow till her death. This legacy is left on the express condition that the hospital is to be managed by a religious sisterhood. The deceased was one of the foremost medical men in France to protest against the sudden and arbitrary attempt to secularise the hospitals a few years since. He was

a brilliant example of some of the finest elements of French character, and a practical philanthropist who effected the relief of individual suffering, and hated that school of theoretical fraternity whose principles have been summed up in Chamfort's motto, "Be my brother or else I shall kill you."

JAMES BRIDEOAKE, M.R.C.S.

WE have received intelligence of the death of one of the oldest members of the British Medical Association, Mr. James Brideoake, which recently took place at his residence, Southport. The deceased gentleman was born in July, 1811, and educated at the Leigh Grammar School; he was early apprenticed to a medical practitioner near Huddersfield, and afterwards studied at London and Dublin, taking the diploma of M.R.C.S. in 1836. He commenced practice at Leigh, where he resided for over thirty-eight years, for thirty years of which period he was medical officer to the Leigh Union Workhouse. Mr. Brideoake enjoyed for many years an extensive practice, and it was often remarked by him that he never travelled less than forty miles a day. He was highly esteemed and respected by patients and friends. He retired from active practice about six years ago, and took up his residence in Southport for the benefit of his health. For many years he was a member of the West Leigh Local Board, and took an active interest in other provincial matters. He was a staunch Conservative and churchman. He leaves five daughters to mourn his loss.

GEORGE SYLVESTER, M.R.C.S. ENG.

WE regret to announce the death of Mr. G. Sylvester, surgeon, of Trowbridge, Wiltshire, which took place on December 26th. The deceased was born on March 16th, 1788, and consequently would, had he lived, have completed his hundredth year in March next. Mr. Sylvester became a Member of the Royal College of Surgeons in 1810. He studied at Guy's and St. Thomas's Hospital, London, and became assistant-surgeon in the Royal Navy. He was on board the *Lion*, commanded by Sir Gore Onseley at the taking of Java, for which he received a medal, dated 1848. The deceased gentleman filled for thirty-four years the post of coroner for one of the divisions of Wiltshire, which office he resigned about fifteen years since, when he was succeeded by his son, Mr. F. F. Sylvester. He leaves three sons and one daughter.

JOSEPH WILLIAMS, F.R.C.S.

THE sudden death of Mr. Joseph Williams has caused a deep feeling of regret to a wide circle of friends, by whom he was highly respected. Leaving his residence at Brentford in the morning in apparently good health and spirits for the purpose of visiting a patient at Hammersmith, he was, on the train reaching Gunnersbury, found to be very ill, and shortly after expired. Mr. Williams was born at Westerleigh, near Bristol, in 1832, and had practised at Brentford for upwards of twenty-seven years. His medical education was obtained at St. Thomas's Hospital, where, in his last year, he was gold medallist, and was subsequently house surgeon. In 1865 he gained the Fellowship of the Royal College of Surgeons of England, and in 1880 took the Sanitary Science Diploma. He was surgeon to St. Mary's Orphanage, North Hyde, and district medical officer to the Brentford Local Board, a post which he held from its foundation. The deceased gentleman took a warm and active interest in parochial matters bearing on health and hygiene. He leaves a widow, three daughters, and one son.

MEDICAL NEWS.

THE PLUMBERS' COMPANY.—At the Guildhall on Saturday last thirty-three journeymen and seven master plumbers received certificates of registration by the Plumbers' Company, having attended for the purpose from the following places:—Nottingham, Folkestone, Clacton-on-Sea, Hertford, Manchester, Chippenham, Southsea, Bristol, Maidstone, Norwich, Wells, Trowbridge, Wantage, Exeter, Cambridge, Romsey, and Bath.

SAUSAGE MEAT.—A man named Johnson, of Nottingham, who was found to have been engaged in making and disposing, for public sale, sausages made from horseflesh and putrid meat, has received a well merited punishment of three months' hard labour.

AN international exhibition of hygiene and life-saving apparatus will be organised next year at Ostend, under the direction of the Communal Council.

FRENCH HOSPITAL AND DISPENSARY.—M. Waddington, the French Ambassador, has informed the committee of the French Hospital that the Government of the Republic has made a donation of £2,000 towards the building fund of that institution. M. Waddington has added a personal donation of £100.

THE HUNTERIAN SOCIETY.—On Wednesday, January 25th, Mr. De Berdt Hovell will read a paper before the Hunterian Society, on the Therapeutic Indications of Neurasthenia contrasted with those of Hysteria. Having given much time and attention to the subject, especially with reference to treatment, which has hitherto been so unsatisfactory, Mr. Hovell is desirous of bringing his views before the profession, who are invited to attend.

THE MISSING JOURNALIST.—Nothing has been heard so far of Mr. McNeill, who mysteriously disappeared on his way from Boulogne to London. As he had been somewhat feverish and excited on his way down, it was supposed that he may have been taken ill and gravitated into some hospital. The missing man is about forty years of age, medium height, full dark beard, long moustache. He was the representative of the *Sportsman*. Information respecting his whereabouts is urgently sought by Mr. Christie Murray and other friends.

TWO cases of small-pox have occurred in one of the poorest parts of Nottingham; both persons had only recently arrived from Aldershot; neither are said to have been protected by vaccination, and they have been immediately conveyed to the temporary infectious hospital, where they are now under medical treatment.

A CENTENARIAN CRIMINAL.—According to the *Vratch*, No. 49, 1887, p. 959, about the end of last October an old man, aged 115, residing at Zadonsk, in the Voronej Government, was tried for arson, and sentenced to transportation to Siberia.

MEDICAL MAGISTRATES.—The names of John M. H. Martin, M.D., and John H. Wraith, Esq., M.R.C.S. and L.S.A., have been placed on the commission of the peace, the former for Blackburn, and the latter for Darwen, Lancashire.—Dr. Edward C. A. Ramsay, of Fleetwood, has been placed on the Commission of the Peace for Lancashire.

DR. THOMAS CASSIDY, of Hunmanby, recently died in Edinburgh, where he had gone to recruit his health a little more than a year ago. Dr. Cassidy was highly esteemed, and so long as his health permitted took an active interest in local movements.

WE regret to record the death of Mr. Idris Nannton Davies, surgeon of Llysygraig Ystrad Rhondda, after a severe illness extending over six months. Mr. Idris Davies, who was a cousin of Dr. Davies, Llantrisant, leaves a widow and five children. The deceased gentleman was 56 years of age.

THE Norwich Hospital Sunday Fund has reached the total of £941 15s. 6d. The Birmingham Sunday Hospital Collection for the past year amounts to £4,284, an increase on the previous year's collection of about £50.

IT is proposed to establish a cottage hospital for infectious cases at Brecon, and a site has been generously offered by the Rev. Garnons Williams, of Abercamlais.

DEATHS FROM TRICHINOSIS.—The *Frankfort Gazette* states that at Unterhausdorf, near Reichenbach, in Thuringia, 150 persons became dangerously ill after eating trichinous meat; 33 of them have died.

PRESENTATION.—Dr. H. R. Joel, on the occasion of his leaving Killingworth, has been presented by his numerous friends with an illuminated address and a purse of gold.

THE Paris Municipal Council have resolved on voting 12,000 francs per annum for a Professorship of Evolution or Biological Philosophy, at the Sorbonne, but on condition of having a veto on the appointment of the professor.

SUCCESSFUL VACCINATION.—Mr. H. G. Monk, of East Bridgford, has received the extra award for successful vaccination in his district.

CREMATION IN PARIS.—At the crematory which the Municipal Council has established at Père la Chaise, four hundred kilos of wood are required to consume the body, which is reduced to ashes in the space of two hours.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Fellowship Examination. The following gentleman has been admitted to the Fellowship of the College.

George Augustus Waite, M.B., B.Ch., Dip. State Med., Dublin, Army Medical Staff, Dublin.

SOCIETY OF APOTHECARIES OF LONDON.—December, 1887.—The following gentlemen, having passed the Qualifying Examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society.

Coulton, John James, Pentney, Swaffham, Norfolk
 Hearnden, Ernest Morgan, Down House, Sutton, Surrey
 Hicks, John Sydney, 37, Church Street, Falmouth
 Jenkinson, Joseph Arthur, 3, St. Mary's Road, Crumpnell, Manchester
 Lakeman, Thomas, 24, Claylands Road, Clapham, S.W.
 Levy, Harry, 73, Gregory Boulevard, Nottingham
 Norris, Oliver, Sherburn, York, E.R.
 Randall, Philip Nicholas, Hawthornden, South Wimbledon
 Spear, George, 23, St. Mary's Terrace, Paddington, W.
 Tunncliffe, Edwin Thomas Mosse, Riverslea, Woodside Park, N.
 Warry, John Klug, Elizabeth Cottage, Shooter's Hill, Woolwich

The following gentlemen passed the Surgical portion of the Examination.

C. A. Docket, of University College; F. P. Moles, of Owens College, Manchester; C. B. Pym, of St. Bartholomew's Hospital; H. S. Cooper, of Westminster Hospital; R. F. Hiley, of St. Thomas's Hospital; W. Hurst, of Owens College, Manchester.

The following gentlemen passed the Medical portion of the Examination.

J. Bamfylde, of Guy's Hospital; N. Hildyard, of University College; R. R. Slemann, of St. Mary's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

BOARD OF WORKS (LEWISHAM DISTRICT) HOSPITAL FOR INFECTIOUS DISEASES, Hither Green.—Medical Officer. Applications by January 10th, to T. L. Down, Esq., Clerk to the Board, Catford, S.E.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Two House-Surgeons. Salary, £140 per annum, with apartments, etc. Applications by January 31st to the Assistant Secretary.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Three Clinical Assistants. Applications to the Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary, £100 per annum, with board, etc. Applications by January 14th, to the Secretary, 24, Finsbury Circus, E.C.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant. Applications by January 12th, to the Secretary, 24, Finsbury Circus, E.C.

CLOUGH UNION.—Medical Officer, Aghnacloy Dispensary. Salary, £115 per annum, and fees. Applications to Mr. M. J. Fiddes, Honorary Secretary. Election on January 12th.

ESSEX AND COLCHESTER HOSPITAL.—Physician. Salary, £200 per annum. Applications by January 16th, to the Secretary.

FARINGDON UNION.—Medical Officer and Public Vaccinator. Salary, £60 per annum, with fees. Applications by January 10th, to G. J. Haines, Esq., Clerk, Faringdon.

GLAMORGAN AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff.—House-Surgeon. Salary, £100 per annum, with board, etc. Applications by January 10th, to the Secretary.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Clinical Assistant. Applications to Dr. M. Lubbock.

MANCHESTER ROYAL INFIRMARY (Mossall Fever Hospital).—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications by January 7th, to the Chairman of the Board.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS.—Honorary Anaesthetist. Applications to the Secretary, 32, Soho Square, W.

NATIONAL LYING-IN HOSPITAL, Holles Street, Dublin.—Assistant to the Master. Applications to the Master.

OWENS COLLEGE, MANCHESTER.—Lecturer on Dental Surgery. Applications by January 9th, to the Registrar.

PLYMOUTH PUBLIC DISPENSARY.—Physician's Assistant. Salary, £50 per annum. Applications by January 10th to W. H. France, Esq., Honorary Secretary, 7, Athenaeum Terrace, Plymouth.

RADCLIFFE INFIRMARY, Oxford.—House-Surgeon. Salary, £80 per annum. Applications by January 15th to the Secretary.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E. C.—Senior House-Physician. Salary, £80 per annum, with board, etc. Applications by January 14th, to the Secretary.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—House-Surgeon. Salary, £80 per annum, with board, etc. Applications by February 15th, to the Assistant Secretary.

SEAMEN'S HOSPITAL SOCIETY, Greenwich, S.E.—House-Physician. Salary, £75 per annum, with board and residence. Applications by January 7th, to the Secretary.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester Square, W.C.—Two Assistant Physicians. Applications to the Secretary.

SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.—Junior Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications by January 14th, to the Superintendent.

SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.—Medical Superintendent. Salary, £600 per annum, with furnished house, etc. Applications by January 20th, to J. H. Sclater, Esq., Chairman of the Committee of Visitors.

UNIVERSITY OF EDINBURGH.—Examiner in Anatomy. Salary, £75 per annum. Applications by January 16th, to the Secretary.

UNIVERSITY OF EDINBURGH.—Examiner in Chemistry. Salary, £75 per annum. Applications by January 16th, to the Secretary.

UNIVERSITY OF EDINBURGH.—Examiner in Midwifery. Salary, £75 per annum. Applications by January 16th to the Secretary.

UNIVERSITY OF EDINBURGH.—Examiner in Practice of Physic. Salary, £75 per annum. Applications by January 16th to the Secretary.

MEDICAL APPOINTMENTS.

COLVER, James F., L.D.S. Eng., appointed House-Surgeon to the Dental Hospital of London.

DICKSON, George, M.D., appointed Dispensary Physician in the Western Infirmary, Glasgow.

HAMTHORNE, Charles O. M.B., C.M., appointed Dispensary Physician in the Western Infirmary, Glasgow.

LEACH, Alfred, L.R.C.S., L.S.A., appointed Honorary Medical Officer to the St. Gabriel's Hospital for Infants, Grosvenor Road, S.W.

RICHARDSON, G. C., L.F.P.S. Glasg., appointed Medical Officer to the Manchester and Salford Provident Dispensaries' Association, vice J. Sutherland, M.D., resigned.

ROBINSON, Montague G., L.R.C.P., L.R.C.S., L.M., appointed Medical Officer and Public Vaccinator to the No. 2 District of the Daventry Union, vice W. H. Masson, L.R.C.P., L.R.C.S.

ROWNTREE, W. G., M.R.C.S., L.R.C.P. Edin., appointed Medical Officer for the Sixth District of the Parish of St. Mary, Islington.

SMITH, S. O., M.R.C.S., L.S.A., appointed Medical Officer for the Seventh District of the Parish of St. Mary, Islington.

TALENT, J. M., M.B., C.M., appointed House-Surgeon to the Ashton-under-Lyne District Infirmary, vice A. H. Gault, L.R.C.P., M.R.C.S. Eng., resigned.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. E. Hurry Fenwick: On the Reflex Inhibitory Action of Cocaine as a Diagnostic Factor. Mr. F. Treves: On the Treatment of Carotid Hemorrhage. Mr. Bowreman Jessett: A Case of Gastro-entostomy and a Case of Duodenostomy for Carcinoma of Pylorus.

ODONTOLOGICAL SOCIETY, 8 P.M.—Annual meeting. Election of officers for ensuing year. Mr. A. P. Underwood: Erosion in connection with some points in the Minute Anatomy of Enamel. Mr. S. J. Hutchinson: A Note on Erosion. The President's Valedictory Address.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Dr. W. B. Cheadle, and Mr. Thomas Smith: Case of Occlusion of the Left Bronchus by a Metal Cap, and its Removal by Tracheotomy. Mr. Alexander Haig: Influence of Salicylic Acid and its Salts on the Excretion of Uric Acid.

WEDNESDAY.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Annual meeting. President's address. Specimens will be shown by Dr. R. T. Smith, Dr. Bedford Fenwick, Dr. G. Granville Bantock, and others. Mr. Bland Sutton: On the Nature of the Hymen; Supplementary remarks. Council 8 o'clock.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 P.M.—Discussion of Dr. Klein's paper on Some of the Infectious Diseases Common to Man and the Lower Animals.

HUNTERIAN SOCIETY, 8 P.M.—Dr. Fletcher Beach: Some of the Uncommon Causes of Imbecility.

FRIDAY.

CLINICAL SOCIETY OF LONDON.—Annual Meeting. Report of Council. Election of Officers. Dr. MacLagan: Cases of Obstruction of the Bowels by Large Gall-Stones. Mr. Clutton: Laparotomy for Obstruction from Gall-Stone: Recovery. Mr. Pearce Gould: A Case of Gall-Stones; illustrating their Spontaneous Fracture; subsequent Suppuration and Operation; Recovery. Living specimens: Dr. Stephen Mackenzie: Case of Sporadic Cretinism.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

CRESWELL.—December 28th last, at Barnsley House, Billericay, Essex, the wife of John C. Creswell, L.R.C.P., M.R.C.S., L.S.A., of a daughter.

GREVES.—December 30th, at Rodney House, Bournemouth, the wife of Hyla Greves, M.D., of a daughter.

MARRIAGE.

PAUL—GREG.—On January 3rd, at All Saints, Knightsbridge, London, Frank Thomas Paul, F.R.C.S., 33, Rodney Street, Liverpool, to Lucy Geraldine, second daughter of Eustace Greg, Esq., of 21, Kensington Gore, London.

DEATHS.

ELLIS.—On November 3rd, at the Manor House, Crowle, Doncaster, Henry William Thomas Ellis, M.R.C.S., L.R.C.P., aged 76 years.

SCOOAL.—On December 31st, 1887, suddenly, at the age of 34 years, Clara, wife of Edward Fowler Scootal, M.B., Huddersfield.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY	10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.
TUESDAY	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department).
WEDNESDAY	10 A.M.: National Orthopedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.
THURSDAY	10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-west London; Chelsea Hospital for Women.
FRIDAY	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.
SATURDAY	9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.
GUY'S. —Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE. —Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. F., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., 2; Throat, Th., 3; Dental, Tu. F., 10.
LONDON. —Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu. F., 9.
MIDDLESEX. —Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.
ST. BARTHOLOMEW'S. —Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopedic, M., 2.30; Dental, Tu. F., 9.
ST. GEORGE'S. —Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopedic, W., 2; Dental, Tu. S., 9; Th., 1.
ST. MARY'S. —Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 8; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.
ST. THOMAS'S. —Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE. —Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER. —Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 8; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the Journal be addressed to the Editor at the office of the Journal, and not to his private house.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

Manuscripts forwarded to the Office of this Journal cannot under any circumstances be returned.

Public Health Department.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

F.R.C.S. EDIN.

A MEMBER asks for information as to the nature and extent of examinations for the Fellowship of the College of Surgeons of Edinburgh.

MEDICAL PRACTICE IN ALGIERS.

JUSTITIA asks: What are the restrictions, if any, to an Englishman practising in Algiers with English qualifications?

CONVALESCENT HOME FOR PAINING PATIENT.

MR. RICHARD DAURY (Birmingham) asks to be informed of some sanatorium in the North of England, or convalescent home, where a female adult patient of slender means, and who is suffering from cough, could be sent. The lady belongs to the middle class, and can contribute something towards her maintenance. Her stay at a seaside place must be a prolonged one, if any good is to come of it; and, if so, she must be economical, as she is one of a very large family.

TREATMENT OF SYPHILIS.

M.D. writes: A patient of mine states that about twelve years ago he contracted syphilis from a coloured woman. Primary and secondary symptoms appeared, but after some time he became apparently quite well. About a month or six weeks since sores made their appearance on the fauces and soft palate; and when I saw him the entire buccal surfaces, hard and soft palates, and angles of mouth were a mass of deep ragged sloughing ulcers. He was pale and anæmic, and almost unable to take food. I ordered the following "pill": R Hyd. perch. gr. i; quinine sulph. gr. i; ext. bellad. gr. i, with a chlorate of potash wash, lotions of iodoform and glycerine, and a topical application consisting of iodoform, borax, honey, and muriatic acid.

Will any member suggest a mode of treatment more likely to yield satisfactory results?

IS HOMŒOPATHY INCREASING?

DEPUTY SURGEON-GENERAL CHAS. T. PARKH (West Kensington) writes: In a paper which I have written on homœopathy I stated my belief that there are not so many practitioners of it now as forty years ago in proportion to population. Could you, or your readers, help me to prove or disprove my assertion by reliable statistics?—I want to know: 1. The number of homœopathic practitioners as well as "orthodox" ones in the year 1848, say, in London, and population of that year. 2. The same for the year 1857-58.

My reasons for taking forty years as an illustration are twofold: first, it is the period I have been connected with the profession; and, secondly, because in 1848 a revival of homœopathy took place, or, at any rate, created a great stir both in and outside the profession.

The British Homœopathic Medical and Pharmaceutical Directory, for 1875 (London: Homœopathic Publishing Company), contains in a "List of Qualified Physicians and Surgeons Practising Homœopathy in England, Scotland, and Ireland," 299 names, and in a supplementary "List of Practitioners Holding Degrees from Foreign Universities and Colleges whose Diplomas cannot be Registered under the Medical Acts," 9 names, making a total of 278 names. The British Homœopathic Medical Directory, for the year 1887 (editors and publishers, Thompson and Capper, homœopathic chemists, Liverpool, etc.), contains in a "List of Qualified Physicians and Surgeons Practising Homœopathy in England, Scotland, and Ireland," 238 names; there is no supplementary list. The preface contains the following paragraph: "Many inquiries having been received relative to the omission of well known names, it is necessary to state that in almost all cases such names have been omitted at the individual's own request."

DELIRIUM TREMENS IN HOSPITALS.

G. asks whether there are any general hospitals, metropolitan or provincial, where cases of delirium tremens are not admitted; and, if so, about what proportion they bear to those where they are admitted. It is proposed by the Committee of the hospital with which G. is connected to refuse for the future admission to these cases, hitherto always admissible into it. The plea is a financial one, namely, that special attendants are apt to be required; but, inasmuch as delirium tremens is liable to arise in cases already admitted for other disease, for example, pneumonia, potatorum, or in surgical cases, as compound fractures in intemperate subjects, some provision must always be made for the same. The cases of delirium tremens or acute alcoholism do not average more than three or four per annum at this hospital; and not being admissible into a lunatic asylum, the Committee propose henceforth to send them to the workhouse, two miles off. The physicians of the hospital are unanimously opposed to this change, mainly on the ground of its diminishing the chances of recovery of the patients.

ANSWERS.

W. E. W. (Abertillery).—The Medical Alliance Association (Honorary Secretary, Dr. R. H. S. Carpenter), 130, Stockwell Road, London, S.W.

PUBLICATION OF PASS LISTS OF THE ROYAL COLLEGE OF SURGEONS. MR. E. MANSELL SYMPSON (House-Surgeon, St. Bartholomew's Hospital).—All diplomas are now (and have been for the last nine months) granted by the Council on the recommendation of the examiners, and not as heretofore by the examiners themselves. This often delays the publication of the names of successful candidates for two or three weeks, as the Council only meet on the second Thursday in each month.

CERTIFICATE FROM COLLEGE OF PRECEPTORS. MR. LIEUT. COLONEL J. E. BAINE (Pamphill Manor, Wimborne) asks whether a second-class certificate from the College of Preceptors passes for medical examinations.

Our correspondent ought to consult the Educational Number of this Journal (September 10th, 1887). Among the examinations there, enumerated as fulfilling the conditions of the General Medical Council, is: "College of Preceptors.—Examination for a first-class certificate, or second-class certificate of first or second divisions; algebra, geometry, Latin, and a modern language having been chosen."

BALANITIS.

C. J. R. M. writes: The surfaces in this affection require to be kept separate. Lotions do not do much good unless this is done. What I usually recommend is to tease out some of the down from the ordinary boracic lint, and insert a thin piece, and then drawing the prepucé forward to retain it. Sometimes dusting with calomel or iodoform does good.

OBSTINATE ALOPECIA.

G. H. J. DUNSMORE, M.B. (Coldstream) writes: In reply to "Alopecia" in his query in *JOURNAL* of December 24th, as to treatment of obstinate alopecia areata, I have found the application of a strong solution of hydrarg. bichlor., 2 to 4 grains to the ounce, frequently used, until soreness of the skin results, followed by the use of an ointment of lanolin (Liebreich) and ordinary paraffin oil when the irritation has subsided, very effective; tonics to be given concurrently containing strychnine.

INCONTINENCE OF URINE.

DR. H. M. DUNCAN (South Hampstead) writes: "M. W." (*vide* Queries in the *JOURNAL* for December 3rd) should try (1) one-drachm doses of liq. potassæ in small tumblers of milk or ale *bis die*. If in the space of a week no improvement show itself, add to the treatment three grains of hydrate of bromal at bedtime. (2) Should these remedies fail, try the addition of tr. belladonnæ internally, and apply the extract, softened with glycerine, to the urethra by means of a flexible bougie, say, for a minute night and morning. The patient ought not to take a larger draught of fluid nearer than four hours to bedtime. (3) As a last resource, solution of nitrate of silver (gr. x to \frac{ij}) may be applied to the prostatic part of the urethra, by means of a small injection apparatus. In offering the results of my experience I am assuming that masturbation, constipation, urethral and preputial disease, and abnormal conditions of the urine form no part of the complaint. Finally, if the foregoing methods fail to cure the distressing malady from which "M. W.'s" patient is suffering, I would strongly recommend "M. W." to consult the authorities quoted in that wonderful *anurium* of medicine and surgery, Neale's *Digest*.

STAMMERING.

R. P. writes: The cure of stammering has been known for centuries. A stammerer can sing as well as a fluent speaker, and can repeat "do, re, mi, fa," etc., in the gamut. It is only needed to commence the expiration before pronouncing a consonant. I met Jaeky Broster, of Chester, in the year 1832 or 1833, and his secret was simply teaching his pupils to say "er" the "r" soft before each word. He was an auctioneer, and did not understand the theory of his practice. He was invariably successful, and charged a fee of three hundred guineas, and exacted a bond of secrecy.

NOTES, LETTERS, ETC.

ANTIPIRYN.

DR. C. R. ILLINGWORTH (Clayton-le-Moors) writes: The effects of a solution of antipyrin on fresh blood are the following: The red corpuscles become smaller and lose their colour, and their contents shrink with the cell wall; they lose their tendency to form rouleaux, each corpuscle standing distinctly apart from the others; and they become absolutely destitute of the slightest viscosity. The effect on blood clot is to clarify it so as to give it the appearance of gelatine, and to make it less firm.

It would seem, therefore, that antipyrin relieves pain by preventing congestion in virtue of its solvent action on the constituents of fibrin, and more particularly upon that which exists in the red corpuscles. It should therefore prove of service in all congestions of blood, whether of an active or passive nature; but it should not be prescribed in diseases which are known to be associated with diminished fibrin-forming power, such as septicæmia and typhoid fever.

VACCINATION INSPECTORS.

LINDUM writes: Since I have been in practice (twenty-nine years) I have held the office of public vaccinator and my vaccination has been examined by nearly all the medical inspectors of the Local Government Board. The first time I did not receive the extra grant; but since then I have always had it, and in fairness to inspectors I must say I have received from all of them the most courteous and gentlemanly treatment.

MEDICAL DEFENCE UNION.

MR. R. M. CRAVEN (Southport) writes: Referring to your reply to "A Member," in the *JOURNAL* of December 10th, it may be useful to refer to the fact that the above "Union" is a limited liability company, limited by guarantee under the "Companies Acts, 1862 to 1884," and its management is therefore regulated by its "articles of association," a copy of which the secretary must supply to any member of the company on receipt of 1s., with stamped and directed envelope. As your correspondent appears to be anxious to terminate his connection with the company, I would advise him to carefully peruse the articles of association numbered 8, 14, and 60, as well as the fifth clause of the memorandum of Joint Stock Companies as the secretary to the company has recently retired from his lucrative position at £250 per annum.

DISLOCATION OF THE SHOULDER IN A HORSE; THE ULTIMATE RESULT.

MR. NOBLE SMITH writes: In the *JOURNAL* of April 9th, 1887, page 810, was published my description of the reduction of the dislocated shoulder of a horse in the hunting field last March. The great interest expressed at the time in various ways has led me to think that the subsequent history of the case may be valuable to the readers of this *JOURNAL*.

The mare was put to work seventeen days after the accident. Five weeks subsequently I rode her over a few small jumps. Up to the present time she has gone perfectly sound, and has had almost daily work in harness or with saddle; and, what is of more importance, and without any harm resulting, days' hunting with her over a severe country, and has taken some big fences with several drops. In landing after a deep drop, the shoulders must bear a great strain, and I think we may assume that in this case the animal has perfectly recovered from the effects of the dislocation. This is considered a remarkable result by many eminent veterinary surgeons, and I attribute it to the observance of three principles, which I think should generally be applied in

the treatment of human dislocations. They are: 1. Allowing as short a time as possible to elapse before the reduction of the dislocation is attempted; 2. Avoidance, as a rule, of making such attempts until the patient is under chloroform (or ether); and, chiefly, 3. Daily movements of the joint, commencing soon (twenty-four hours, perhaps) after reduction.

The dislocation in this case was a very complete one, the head of the humerus being displaced upon the outer part of the neck of the shoulder-blade, and the nature of the considerable deformity produced, being very evident. The mare was not moved from the place of accident until I had given chloroform and replaced the bone. Before reduction she could barely hobble a few paces; directly after, she walked into the neighbouring town without difficulty.

CIGARETTE SMOKING—WITH OR WITHOUT A HOLDER?

MR. E. S. MCKAY (Dublin) writes: I have often noticed that the constant smoking of cigarettes without a holder has a great tendency to make the teeth yellow, whereas if a holder be used this is not the case, at any rate to a much less extent. Further, I maintain in pipe smoking the teeth do not become nearly so yellow as in smoking cigarettes the first way I have mentioned. The explanation, I think, of this is due to the fact that a cigarette is held between the lips, a holder or pipe between the teeth, so that in the former case, during inspiration the smoke comes in direct contact with the front of the teeth before entering the mouth, while in the two latter cases it is received at once into the mouth, and can only come in contact with the front of the teeth indirectly during expiration. A knowledge of this will perhaps prove useful to some of your readers, who, while they may be indifferent as to whether they do or do not use a holder, may not be at all so indifferent as to the appearance of their teeth.

MEDICAL PRACTITIONERS AND THE LAY PRESS.

MR. ERNEST G. ARCHER (Thetford, Norfolk) writes: With regard to your censure of Dr. Harris in the *JOURNAL* of December 24th, p. 1411, for allowing an account of an operation performed by him to appear in the *Ipswich Daily Journal*, will you permit me to bring the facts of the case before you? I assisted Dr. Harris at the operation in question, the removal of a large tumour of upwards of ten pounds (not ounces). Naturally, from its magnitude, a great deal of talk was occasioned in this quiet neighbourhood; and a mutual friend of ours, I need hardly say without communicating his intentions to us in any way, sent an account of the case to a local paper, whence it was doubtless copied, or sent by a reporter to the paper where it was seen by "A Member, Ipswich." It is unnecessary to say no one could be more indignant than Dr. Harris or myself at the unfortunate publicity given to this case, but I venture to hope my explanation will show how helpless we were to prevent the unfortunate affair.

* * * Dr. Harris writes to us from Thetford that no one could have felt more annoyed than himself at the paragraph which appeared; that he never sees the paper in question, and does not know how it was published; that he agrees that such notices are unseemly and damaging to the profession. In this instance, at any rate, the medical men concerned seem to have had no intention, that any such notice should be printed.

ENDEMIC DIPHTHERIA.

MR. HENRY GODDICH (Long Ditton) writes: As I notice in your Paris letter the suggestion that the endemic origin of croup and diphtheria lies possibly in the manure and refuse of stables and farmyards, I would call your attention to the fact that I have held that theory for many years.

THE CONSUMPTION OF TEINS.

DR. GEORGE R. YOUNG (Birmingham) writes: With regard to this subject, I should, with your kind permission, like to chronicle a new experience. I was about to give up taking tea; in fact, I had ceased to take it, when I saw in a grocer's widow a little apparatus for infusing tea, called "The Anti-tannic Infuser," which I have tried with the very best results, not only on myself, but also on patients who would not forego the pleasant beverage although doing them harm. It is made on the principle of the well-known infusion jug, as invented by the late Mr. Peter Squire. It can be fitted easily into an ordinary breakfast cup or into a teapot; and, after three minutes' infusion has taken place, can be removed, and with it the tea-leaves which it has contained. I find that the tea made in this way is both pleasant and suitable for anyone, and personally I much prefer it.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

MR. C. J. C. PRIDHAM (1, Old Serjeant's Inn) writes: Provident dispensaries at the present time are "farmed" medical practices, sometimes carried on in the name of a practitioner, but more frequently in no name at all, and under the guise of a provident institution for the benefit of the poorer classes.

A medical practitioner employing, or being employed by, unqualified assistants and adopting this system, can therefore carry on practice, say, in every district of London or other large city, and yet be resident miles away from any one of them.

In some cases, two or three such dispensaries have been owned by a medical man; in another, a practitioner has had one or more, and a joint proprietorship with an unqualified practitioner; in a third, and in a worse type of case, the entire dispensary—house, fittings, drugs, etc.—have belonged to the unqualified man, and the practitioner has been the recipient of a weekly salary or a commission on the profits for carrying it on. The foregoing is by no means an uncommon or unusual state of facts, and it is the fruitful cause of all the irregular or illegal customs which disgrace the medical profession, and constitute grounds for actions and prosecutions under the various statutes.

There are certain directions in these statutes which cannot be surmounted by unqualified practitioners, except by actual fraud. How often, therefore, do we find the proprietors of "branch practices" or "provident dispensaries" "covering" the delinquencies of their unqualified assistants by signing a quantity of vaccination or death certificates in blank for them to fill up at their discretion, or personally filling up such certificates and making false declarations in cases not seen by them, or allowing their assistant to assume their own name and medical rank in order the better to personate them?

It may be contended that these remarks only apply to establishments set up by medical men or unqualified practitioners, and have no bearing upon those large incorporated societies founded by laymen and employing medical officers

A LECTURE ON TUMOURS OF THE BLADDER.

Delivered at University College Hospital, November 21st, 1887.

By SIR HENRY THOMPSON, M.B., F.R.C.S.,

Consulting Surgeon and Professor of Clinical Surgery to the Hospital, etc.

PART II.

SUPPOSING that your investigation of a case of vesical hæmaturia results in the discovery of papillomatous *débris* in the urine, identified by you as such under the microscope; what is to be done? I cannot advise you to pursue any system of local applications to the interior of the bladder by way of injecting or otherwise. The question of operation is the only one a surgeon can entertain. I assume that there is no sign of the presence of cancerous growth of any kind, because if there is I shall advise you on no account to touch it with the knife—we may perhaps occasionally have to open the bladder in such a condition to afford relief, although I confess it has never fallen to my lot to see a case presenting any indication for such a proceeding, still that the need might arise is quite conceivable.

Thus for practical consideration, I may say that two distinct classes of cases are met with—the larger class consists of those patients in whose urine the *débris* of papillomatous growth are found, and which can be identified as such by the microscope. About these cases there is no doubt as to the presence of the growth, the only question is how are they best dealt with?

The second class consists of those cases in which the history and the symptoms, especially the nature and extent of the bleeding, render the presence of tumour highly probable. Nevertheless, after several examinations, no papillomatous or suspicious cell growth has been discovered. For these, with rare exceptions, digital exploration, though a small opening in the perineum, should be performed. This done, the operator ascertains if a growth be absent or present; and if the latter, whether it be a single polypoid growth, which may be easily removed by the forceps through the existing opening, or whether the extent and physical characters of the tumour indicate that a better chance of removal will be obtained by performing a suprapubic operation. Or the inquiry may lead to the decision that the growth implicates the coats of the bladder chiefly, that it is not developed in the form of prominent masses admitting of removal, and therefore that no further operative procedure is desirable. I may add here that when the existing conditions have been determined by exploration, and the surgeon believes that his best course is to attempt removal above the pubes, there should be no delay, but he should at once proceed with that operation. The perineal incision does not in the least degree interfere with the subsequent line of action; the rectum is to be distended in the usual way, and the bladder will retain the necessary injection, which is the next step of the process, notwithstanding the opening which has just been made.

Should the management of the cases constituting the first-class differ from that just sketched? I refer to the cases in which there is microscopic evidence that tumour is present. Is an exploratory incision necessary or desirable also for them?

In the majority of cases I think it is not. It is quite true that when there is only a small polypus with a narrow neck it can be easily removed by a simple perineal incision; and I am bound to state that my most successful cases have been thus treated, and have been permanently cured in that manner. But they would have been successfully treated also by the suprapubic method, which, moreover, offers an additional advantage in the fact that, especially when the patient is not stout, the operation affords an opportunity of removing other minor growths, if such exist, more easily and effectually than the perineal opening does. When I first began to remove vesical tumours the value of the new suprapubic procedure, in regard of simplicity, safety, and efficiency, had not been established; but an enlarged experience of it, in my own hands, has convinced me that it offers advantages when the tumours are multiple or considerable, not to be obtained by the perineal route. I cannot recommend that it should be performed when you merely entertain a suspicion, however strong, that tumour is present in any given case. As long as the absolute proof arising from fragments passed in the urine is absent the perineal exploration is the only legitimate proceeding, unless it is deemed better to wait and make further research for indubitable evidence.

Next, as regards the performance of these operations, I have nothing to add to the details which I thought it right to enter upon very fully in my last lecture, when dealing with the exploratory operation, relative to the mode of removing any foreign bodies, or detaching any morbid products when found by its means.

Again, when the suprapubic operation is to be undertaken for the treatment of vesical tumour, no different mode of performing it, from that required for the extraction of calculus, has to be adopted. Hence the operation is to be performed in the manner already described, in every particular as far as to the opening of the bladder itself. But at this point of the procedure I now give you some further instructions for completing it.

I request you to imagine then, that there is a patient here before us whose bladder I have just opened above the pubes, and that my right index finger has entered the small opening I have just made with the scalpel. You might observe that the water which was injected into the bladder before commencing has been flowing out in a full stream, but that it is now checked by the finger *in situ*. My left hand is still holding the handle of the hook with which I firmly fixed the vesical coats before making the incision, is now in the act of being removed. Of course my finger is engaged in carefully surveying the form, the dimensions, the consistence of the tumour, and especially the nature of its attachment to the walls of the bladder, whether by a narrow or by a broad base. Then the whole of the inner surface of the cavity, usually smooth and polished, is traversed in the search for other growths only exceptionally present. And when the work to be done, and the space required for action have been thus determined, the opening, at present small, may be enlarged either by distending with the finger, or by cutting to the size required, and also, if necessary, for light to see. It is usual, often convenient, to pass a long loop of stout silk, one on each side of the upper margins of the opening of the bladder, through its coats, that an assistant may by drawing them apart display the cavity, and at all events preserve the opening in its place. The operator then applies a pair of forceps of appropriate form, blunt or sharp according to the nature of the tissue to be removed, using the latter only whenever it is not possible to remove them with the blunt instruments. By careful management all the free growth is removed; and if a thick or hardened base is encountered it must be left; there can be no attempt to separate this from the coats of the bladder, with which indeed it is incorporated.

When the growth has a narrow, more or less pedunculated connection with the vesical walls, it is cut off pretty close to the adjacent surface. At last, when nothing remains to be dealt with, the fluid should be allowed to run out of the rectal bag, for the bleeding is usually rather free during the process of detaching the growth, and removal of pressure on the veins caused by the distended rectal bag, materially checks it. There is no occasion to close the bladder, indeed it is better not to do so. Its muscular tissues soon contract and narrow the opening, which may moreover continue to give exit to a quantity of small tumour *débris* which remains, some of the bruised surface of the base remaining will slowly slough and separate. The wound is then treated precisely as after the suprapubic operation for calculus, the directions for which were given in detail in the lecture on that subject.

I shall now briefly give you my view of the general results of my experience of removing vesical tumour to the present date.

I have operated altogether on thirty-eight patients,¹ male and female. In at least five patients, excluding, of course, the recent cases, say the last twelve, since the lapse of a considerable period of time is necessary to determine the question of permanent results, the cure has been complete, no return has taken place, and the patients, with one exception of a man since killed by accident, are as well at this moment as they ever were, and are perfectly free from any urinary symptoms. The victim of the accident had passed nearly two years after the operation, without return of symptoms. An necropsy was made by Mr. J. L. Crisp, of South Shields, who sent him to me and was interested in the result. He was good enough to send the bladder for my inspection, in order to demonstrate that there was no sign of reappearance, indeed a careful scrutiny was necessary in order to discover the very slight remaining cicatrix. The growth is in the museum at University College.²

A large proportion obtained relief from severe symptoms for different periods varying between two and four years, and then reappearance of the growth has led to a second operation. In two cases, one that of a medical man who fully understood the pathology of his terrible disease, I have operated three times; in both of these at the desire of

¹ My last public report was one of twenty cases, since which I have operated on eighteen other patients.

² This case is given in my work on Tumours, in which it is the last, or No. 20

the patient from experience of relief and reprieve, attained by their preceding experience.

Four patients died within a few days of the operation, partly from exhaustion, two from cystitis and peritonitis, all among the very early cases, probably from too great an anxiety on my part to remove the whole of the growth, and the want of safer and more efficient instruments, which experience has led me now to employ. Two died from blood poisoning, each on the twelfth day after operation, one after the perineal incision, and the other after the removal of a large tumour by the suprapubic route. Several are living with threatening return: the great majority gaining relief from severe symptoms and some extension of life, varying considerably in different instances.

We have to remember that every patient with bleeding vesical tumour inevitably succumbs sooner or later to his fate, unless surgical aid is afforded. Every case therefore of permanent cure is a life absolutely saved by our art, while prolongation of life, whatever it may amount to, is equally so. Hence these results, although necessarily showing many failures to remove the disease, certainly manifest a considerable aggregate of clear gain in the matter of human life, and must be so regarded in relation to the sum total of those who are afflicted.

Under these circumstances it is impossible to predict for any individual case the result of operation, even in an approximate degree. Until incision has been made and actual contact with the finger, sufficing to ascertain the physical characters of the tumour, has been completed, no one can say whether it be possible to remove it completely. If separation is not complete there is not much hope of a permanent cure; nevertheless, I am disposed, after observing the issue of one of my cases which suggested the idea, to think that even when not quite removed there are two processes, almost necessarily following, which tend to favour a successful issue. The first is, sloughing of a thin layer of the surface left, due to the crushing action of the blunt forceps; secondly, the cicatricial action and contracting of the surface, which probably suffices to strangle and destroy any very slight remains of the papillomatous tissue there.

HARVEIAN LECTURES ON LUPUS.

Delivered before the Harveian Society, December, 1887.

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LECTURE II.—THE VARIETIES OF COMMON LUPUS.

The Histology of Lupus Vulgaris.—Of Lupus Erythematosus.—Dr. Thin's Records.—Dr. Jamieson's Case.—Lupus not always the same.—Explanation of the Causes of Variability.—The Bacillus.—Reference to the Schedule.—Definition of Lupus.—Distinctions between Vulgaris and Erythematosus.—Meaning of Symmetry and Non-Symmetry.—Strumous-Lupus.—Necrogenic Lupus.—Lupus Mutilans.—Lupus of Mucous Membranes.—Eczema-Lupus.

I SAID in my last lecture that it was my wish to submit the question of the real nature of lupus to the test of clinical rather than of purely histological evidence. I have, in truth, no faith that it is possible to solve it by the latter. We must not, however, pass it by without availing ourselves of its aid, so far as it can at present help us. I wish, therefore, to somewhat amplify what I then said on this matter. "It is now generally believed" (I quote the words of Dr. Sangster, a much better authority than myself) "that the earliest changes of lupus are to be sought for as an independent cell growth in the corium, either affecting it as a whole (as held by Neumann, Anspitz), superficially (as held by Virchow, Billroth), or beneath the vascular layer (as held by Kaposi)."

The differences in opinion of different observers as to the precise part first attacked are to be explained by reference to the different stages of the disease which they had under their inspection. The most vascular parts of the corium, the immediate neighbourhood of the sebaceous and sudoriferous glands, and the peri-vascular spaces of the blood-vessels themselves, are the parts where the cell growth is first seen. It is usually noticed first in the most superficial parts of the corium, in close connection with the Malpighian layer; so that many observers have believed that it originates in a germination from the under surface of this structure. In the end the deep layers of the corium and even the uppermost of the adipose structures become in-

olved; and at this period the glands and hair-sheaths are for the most part destroyed by pressure. Unless ulceration has taken place, the layers of the epidermis and the rete Malpighii, although somewhat altered, remain intact. A very important observation has been made by several, and is confirmed by Dr. Sangster, that the Malpighian layer is apt to grow downwards in processes much resembling those of epithelial carcinoma.

The cells which constitute lupus tissue are at first not easily distinguished from white blood-corpuses, but at various stages and in different parts they present certain differences, becoming larger and lighter-coloured, with less granular contents. There are also seen oval bodies conspicuous for their shape and faint colour, which resemble the nuclei of the deep Malpighian cells, many of them having a point-like nucleus.

The presence of "giant cells" has been asserted by several observers, Langhans, Friedländer, etc. But the exact nature of the appearances so named has been disputed by others. Professor Lang supposed them to be only degenerated sweat tubes. Sangster is of opinion that "true giant cells are sometimes met with." As to the real origin of true giant cells there is, however, much discrepancy of opinion still existing amongst histologists.

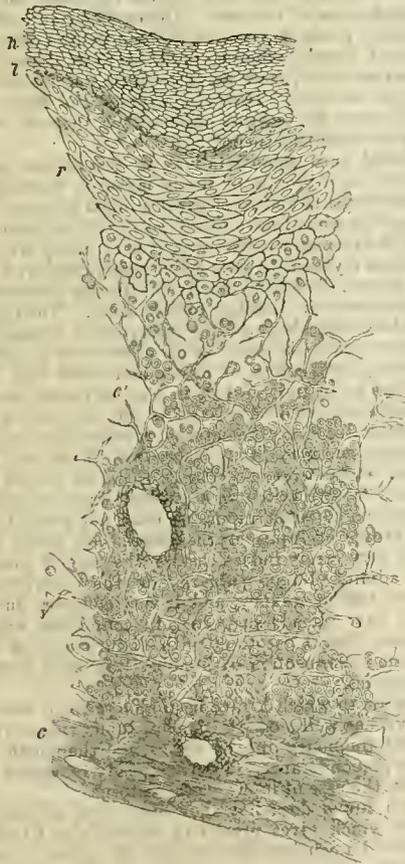
These descriptions apply to lupus vulgaris only; and let us always bear in mind to well developed examples of it only. The microscopist always selects for his purpose a position where the apple-jelly growth is well displayed, and it is this growth which he describes. His observations upon such cases scarcely touch the question as to whether there are not antecedent conditions which cannot be distinguished from common inflammation, nor that as to whether in other states the peculiar features of lupus growth be not wholly concealed by super-added inflammatory products. Respecting these, I suspect that the microscopist would not unfrequently allege that there was no proof that the disease was lupus at all, and the assessor would have to fall back on the clinical evidence. We may take it as certain that whenever the naked eye can recognise apple-jelly, the microscope can always find a definite and characteristic cell-growth in the corium, whilst respecting the other less marked conditions different verdicts will be given. The inflamed form which lupus almost always presents on the hands and feet, for example, will probably but rarely present for the microscopist appearances which are conclusive, and we have to prove that it is lupus by its laws of extension and persistence, and by the presence of better characterised patches on other parts in the same patient. I am anxious to impress this point because it is of great importance in reference to the admission of various allied diseases into the lupus family. My assertion is that lupus is by no means definitely *sui generis*; that it is only a specialised type of chronic inflammatory action, and that the degree of its specialisation may vary much in different cases, being in some so slight as almost to defy recognition.

If from lupus vulgaris we now turn to the histology of lupus erythematosus, we shall find almost all observers unanimous that there are important differences between the two. Some have even thought these differences so great as to wholly detach the maladies from relationship. Such, I need hardly say, is not my view. If we take the examples of common lupus in which cell growth is most marked and those of erythematosus in which the condition approaches nearest to mere erythema (as when it becomes generalised), then assuredly we shall have no difficulty in demonstrating by the microscope most conspicuous differences. The conditions delineated, for instance, by Dr. Thin in his able paper in the *Medico-Chirurgical Transactions*, show little more than dilatation of the capillaries. For Dr. Thin lupus erythematosus is in the main a disease of blood vessels. There are, however, other forms of the malady which present other appearances, and just as it is, I assert, often by the unassisted eye impossible to say conclusively whether any given case should be assigned to vulgaris or to erythematosus, so it is equally difficult when we examine a microscopic section. I shall prove my assertion as to this difficulty—impossibility, if you will permit the word—in the living patient by producing before you a number of portraits published by different authors on lupus, and I have no fear as to your verdict. In reference to the inspection of sections I will ask those who are skilled to examine the drawing which I produce and to tell me whether it shows the conditions of vulgaris or erythematosus. There is, as you will see, abundant cell growth in the superficial layers of the corium, and I quite expect that most will declare the appearances those of common lupus. I have, however, borrowed the woodcut from a paper by Dr. Jamieson, of Edinburgh, and it is taken from a case the whole history of which proves it to have been an example of the erythema form.

¹ I have to express my thanks to Dr. Jamieson for his kindness in lending the woodblock which I here use.

Respecting erythema lupus, indeed, the opinions of microscopists have been not a little various. Some have held that it begins around blood vessels; others (Geddings) that it is a disease principally of the sebaceous glands, whilst others locate it in the corium, or even think that the sudoriparous glands are its special sites. These discrepancies ought not to surprise us, and they reflect no discredit whatever on the observers or their modes of work. The fact is that lupus inflammation in the erythematosus as well as the vulgaris type presents great differences, and that the structures chiefly affected are by no means always the same. Neither it nor vulgaris are diseases of any special structure in the skin, whether gland or vessel, but beginning rather in the areolar spaces they implicate secondarily one or other of the cutaneous viscera or vessels. It may be the sudoriparous glands or the sebaceous ones, it may be the hair follicles, it may be the perivascular spaces, or, lastly, it may chance to be the lymphatics (lupus lymphaticus). Hence some of the differences which the lupus process assumes, and some of the various names which have been given to it. We must not look for sameness where Nature has made variety.

It may perhaps help to simplify our conceptions on the subject if we make bold to deny that there is any such pathological entity as lupus, and to assert that it is simply a name which for convenience sake we give to certain types of the inflammatory process, endlessly varying in detail, but having certain features in common.



With the preliminary statement that all varieties of the lupus when once well established keep to their type, it may next be well that I should state categorically the circumstances under which these varieties take their rise.

1. *The Kind of Local Irritation.*—Whether, for instance, a sting or bite, a wound, a sunblain, a chilblain, or a dissection prick.
2. *The Peculiarities of the Part to which the Irritation is applied.*—Thus the tip of the nose, its ala, its bridge, the clefts of the toes, the scalp, the various mucous membranes, etc., each have their one more or less peculiar form of lupus.
3. *The Vital Endowments of the Individual.*—Whether of vigorous

circulation or easily liable to chill, whether thin or of abundant cellular tissue, whether liable to chilblains or otherwise.

4. *The Age of the Patient.*—Thus the younger the patient the more certain it is that the lupus will be of the vulgaris type, and the more probable that it will become multiple. Lupus erythematosus scarcely ever begins before the disturbances in circulation incident to puberty have occurred.

5. *The Sex of the Patient.*—The female sex is more liable than the male to lupus vulgaris, but in lupus erythematosus the difference in proportions is very marked indeed. The influence of menstruation in disturbing the circulation is probably here at work.

6. *The Inherited Tendencies of the Patient.*—There can be little doubt that those who inherit a state of constitution liable to the easy growth of the tubercle bacillus are liable, also, to all the forms of lupus. They are just as prone, perhaps more so, to be attacked by erythematosus as by common lupus. The mucous membranes are, perhaps, seldom attacked, excepting in those who are tuberculous. An inheritance of a tendency to cancer gives, perhaps, a tendency to common lupus.

I have as yet spoken but very briefly of the tubercle bacillus in its relation to lupus. Many observers have succeeded in finding in the cell-growth of common lupus a bacillus, which all agree in regarding as identical with that of tubercle. It is, however, but sparingly found, not without much patience of search, and in many, or perhaps most, cases, it is not to be found at all. I am not aware that anyone has as yet recognised it in a well marked case of lupus erythematosus, but this, no doubt, is only a question of time, for tuberculous antecedents in the subjects of lupus erythematosus are, I think, more frequently met with than in those who present the vulgaris form. It is premature to venture upon any opinion as to the relation of this bacillus to the lupus process. The cases in which it is found do not differ so far as I am aware from those in which it is not. I must leave you to form your own conclusions as to whether it is likely that a bacillus is the cause of lupus, when I have developed in more detail the clinical history of the varieties of the malady.

We will now, if you please, turn to the schedule of the Lupus Family which has been placed in your hands (see page 7 of the JOURNAL for January 7th).

The general definition of lupus which I have given, as a *serpiginous, infective, scar-leaving inflammation of skin and mucous membranes*, will, I believe, include all varieties of the disease, and, with two exceptions, nothing else. Nothing is lupus which does not spread slowly by infection at its edge, and which does not leave the affected part more or less disorganised; and every form of inflammation of which these are necessary and invariable qualities is lupus, unless it be either syphilis or cancer. I need not trouble you with much as to the distinctions between cancer and lupus, because they are usually very obvious. It is only by exception that malignant action shows any tendency to permit of cicatrization in the parts which it has disorganised. A few rare forms of superficial rodent ulcer are the only conditions in which malignant action produces appearances which clash with my definition of lupus. It is, however, wholly different in the case of syphilis. Probably there is not a single variety of the lupus type of inflammation which may not be simulated, and that too with the utmost closeness, by syphilis. The diagnosis depends upon certain minor features of peculiarity, upon the history of the case, and upon the effects of specific treatment. Thus, then, the truth seems to be that the syphilitic poison can produce lupus inflammations. In doing this, however, it stamps them all with its own nature, and we are concerned, not with the true disease, but with an imitation of it. I cannot too strongly insist that the imitation is most accurate, and the diagnosis often most difficult. So far as the definition is concerned, I should be prepared, whenever a syphilitic skin disease spreads at its edge and leaves a scar where it has been, to say of such a disease, "it is a syphilitic lupus." It may be an eczema-lupus, a rupia-lupus, a lupus vulgaris, or lupus erythematosus."

The next point which stands for our consideration is the distinction between lupus vulgaris and the erythematosus form. I have enumerated in order on the schedule the chief features of difference; but part of my argument is that the two run into each other, and that there are connecting links. No single one of the features of difference is invariably such. Although apple-jelly growth characterises the most marked cases of common lupus, it is very often not to be found, and in some cases of erythematosus form the discs of the disease are somewhat thickened, and present this growth in a minor degree (see one of Hebra's portraits). A more trustworthy feature of difference is to be found in the strong tendency to symmetrical development in the erythematosus form, and the invariable absence of any definite

tendency in this direction in lupus vulgaris. The bat's-wing form assumed by erythematous lupus on the face is well known. We know also that it is not uncommon for the bat's-wings (on the cheeks) to have no continuity with the body (on the nose), and as further illustration of the law of symmetry, we know exactly where to expect the next manifestations of the disease. They will come in the ears, and in both ears, and again without continuity with the cheek patches. Next to the ears, we shall probably see the hands attacked, and it will be both hands. So constantly is this observed, that I have, as just observed, ventured to place the fact that lupus erythematous tends to develop symmetrically and lupus vulgaris not, foremost amongst the clinical features which distinguish them. It is certainly a very remarkable fact.

Whilst, however, insisting upon its importance, we must not exaggerate it. There are many cases of erythematous lupus which show no symmetry, but they are, I think, all of its sub-class, the sebaceous form. The more purely the disease keeps to the erythema type, the more certain it is to be symmetrical. Thus, I never saw one hand affected and the other free. On the contrary, I never in any single case saw lupus vulgaris, however numerous its patches might be, and however widely diffused, with any definite symmetrical arrangement. A tendency to symmetry is shown in the portrait of multiple lupus of children which I showed at our last lecture; but still, the exceptions to it are conspicuous, and far greater than we ever witness in psoriasis, pemphigus or any other skin disease which is really symmetrical in its outbreaks.

I cannot but think that we have a very interesting problem before us in this non-symmetry of the one lupus and symmetry of the other. Let us ask what symmetry implies. It means, in the first place, that there are on the two halves of the face and body and on the two sets of limbs corresponding parts, that is, parts which, by mutual sameness of structure and function, are liable in exactly similar ways to the attacks of disease. Let a poison circulate freely in the blood, and it will be likely to attack these corresponding parts, and produce symmetry of manifestation. The phenomenon in question may, however, imply more than this: it may mean that, wholly apart from any blood infection the tissues originated for themselves, whether with or without the help of external irritants, similar processes of disease. Thus, when chilblains occur on both feet or on both hands or on both ears, we explain the fact by assuming that the corresponding members were alike in structure, and have suffered alike from exposure to cold.

We do not think it necessary to seek for any blood contamination to account for the symmetry. Now by which mode of explanation shall we account for the symmetry of lupus erythematous. You will see that the one presupposes a higher degree of constitutional or inherited peculiarity than the other. A person in whom but little of hereditary peculiarity of tissues existed might easily, if his blood were rich in germs, become the subject of symmetrical manifestations. On the other hand, it would require great pre-existing peculiarity to bring about a symmetrical yielding to disease under the ordinary kinds of exposure to external irritation. It may be that in lupus erythematous we have to reckon with both classes of causative influence. It may be also that in some cases congenital peculiarity of structural proclivity takes a far larger share than it does in others. In the more severe forms—those for instance in which the patches on the face are very large, and the condition almost purely erythematous, those in which the hands also suffer (see for an example the New Sydenham Society's portrait), I think we must presuppose peculiarity of structure. The vital endowments as regards vigour of circulation and cell-growth are probably very similar to what we meet with in those who are exceptionally liable to chilblains. This hypothesis, probable as it is, however, by no means puts wholly aside the possibility that there may be also blood contamination from the original patch.

Our discussion of this question is not wholly a matter of curiosity, or, as some might say, of transcendental pathology. A moment's reflection will show that if we credit the original patch with being the parent of the others, it becomes of the utmost importance that it should be cured promptly on its first appearance. Now I have really very little doubt that it does in some sense, and that too in many cases a very strong sense, stand in the position of parent. We will make every allowance for constitutional peculiarity of tissues, but there yet remain many facts which suggest blood contamination as a very important aid. I am thinking now of the many cases which are exceptions to the law of symmetry, and in which the proximity of the secondary patches to the primary one suggests infection by contiguity. Remember also that there is often, indeed usually, a long interval between the local beginning of the disease and its becoming multiple or general, and, further, that not infrequently the general

outbreak is sudden, and apparently independent of any local exciting causes as regards the parts newly attacked. Whenever there is a considerable interval between the first patch and the secondary ones, we are entitled to suspect infection, and this is almost always the case when lupus erythematous becomes generalised. A few cases there are undoubtedly in which the diffusion is rapid, and which may, perhaps, be placed almost as varieties of Kaposi's disease, for they begin in youth and are very severe and peculiar, implying strongly marked peculiarity of organisation; of these, the boy who sat for the New Sydenham portrait may be quoted as an example. In making this remark, however, I am bound to remind you of the law asserted in our last lecture that the younger the patient the greater the risk of blood infection and multiplicity of lesion. If this be so in common lupus, a disease of but low infective power, we cannot be surprised to see it yet more emphatically marked in lupus erythematous. It is even possible that in Kaposi's disease itself—efficient as local influences combined with family proclivity appear to be—that there is a share taken by blood infection from the parts first affected.

Leaving, however, for a while the further consideration of cases in which lupus erythematous tends to become symmetrical, or even diffused and general, I will ask attention to exceptional facts.

A lady whom I have chanced to see this very morning well illustrates this argument. She is an example of erythematous lupus in its non-symmetrical form. She has three separate patches—one in front of the ear, one on the temple, and one on the nose, and they are all three on the right side of the face. The explanation of this I take to be that the parent patch was not in the middle line, but over the ear. The others are, I should suspect, satellites to it, that is, they result from the infection of adjacent parts by germinal material which has travelled from it to them. How else explain the fact of their proximity? Yet I must beg you to observe that there are wide belts of quite healthy skin between them.²

I have entered into some detail as to this feature of distinction between the two chief groups of lupus maladies because it presents considerable difficulties, and is of great clinical interest. I must be much more brief in what I have to say on the other points.

Respecting the tendency to ulcerate, it is certainly true in a general way that in lupus erythematous it is but rarely displayed, and only to a very slight extent. The more closely the disease keeps to the erythematous type the less is its liability to ulceration. The epidermis may peel, and the discs may show a dirty epidermis or sebaceous crust, but there will be no pus scab, such as is often seen in common lupus. There is, however, destruction of tissue, and a scar will be left when the disease comes to an end, so that, in a certain sense, we must admit that an ulcerative process does exist. As you may see by reference to Hebra's portrait of lupus erythematous, it sometimes notches the alae nasi. Respecting common lupus, moreover, it is not true that it always inflames and ulcerates. Whilst, then, we accept the liability to ulcerate as a feature which in a general way distinguishes lupus erythematous from common lupus, we must not push it too far.

That typical cases of lupus erythematous are never seen in early childhood, and very rarely indeed before the age of puberty, all authorities will admit. Lupus vulgaris, on the contrary, may begin during the first stage of infancy, and is very common during the first decennium. I have already suggested, in connection with this noteworthy difference, that it has to do with disturbances of the circulation which ensue in connection with puberty in both sexes, but more especially in females.

All the statistics to which I have been able to refer, those published by other observers as well as my own, show lupus vulgaris as occurring in almost equal frequency in the two sexes, the female sex always having a slight preponderance. I have already remarked that this is very different in the case of lupus erythematous.

That common lupus does not show any close alliance with that state of health which gives proclivity to chilblains I feel quite sure, for I have collected a considerable amount of clinical evidence on the point. We must distinguish carefully between any liability to feeble circulation and the liability to inflammatory action under the influence of cold, which is the cause of chilblains. Persons especially liable to cold extremities are often quite exempt from chilblains, and the reverse is also often true. Common lupus goes usually with feeble circulation and a retarded venous current, whilst lupus erythematous is so frequently in association with the liability to chilblains

² The further facts as to this case. The lady was 46 years of age. The lupus had begun over the right ear three years ago, and, after extending rather widely had left that part, and travelled in front of the ear. The patch on the temple came a year later, and that on the nose a year later still. All were of the mixed erythematous and sebaceous type, being rough and dirty in the middle, and having congested borders. In the middle a thin scar was left. There was a strong history of phthisis in her mother's family, but not in either parent.

that it is often difficult to tell where one ends and the other begins. In close alliance with chilblains you must allow me to place what we may call the sunblain, a much less common condition of inflammation, which is excited by exposure of the part—tip of nose, ears, or cheek, or possibly even the hands—to the direct influence of a scorching sun. Whatever ensues from influences of this kind, should it become chronic, is almost sure to take the form of lupus erythematosus. I by no means, however, wish to imply that a tendency to chilblains is not frequently met with in association with common lupus. The last feature of difference between the two which occurs in my schedule is that common lupus is scarcely ever fatal, whilst lupus erythematosus, if we except its very minor forms, is a condition which should give rise to serious anxiety. Much might be written on this point. I had long been aware that severe forms of lupus erythematosus were liable to end fatally by attacks of erysipelas, intercurrent pneumonia, or some form of acute catarrhal malady; and, in looking up my notes of cases in preparation for these lectures, I have been increasingly impressed with the importance of the disease as a revealing symptom indicative of a state of constitution very likely to prove incompatible with long life. On trying to seek up patients of whose cases I have preserved notes some years ago, I find that in not a few instances they are dead. The cause of death seems to have varied, and in some I have been unable to ascertain it; in some it is said to have been an attack of fever, but in most I believe it has been either pneumonia or erysipelas. In lupus vulgaris we also not infrequently witness attacks of erysipelas, and now and then it is to be admitted they end fatally; but I am sure there is far less danger in this than in the erythematous form of the disease. In some cases of the latter, when it is very extensive, a state of debility and emaciation is induced, which, apart from the liability to attacks of inflammation, itself threatens to end fatally. In very few cases indeed have I ever known lupus vulgaris so extensive as to cause serious interference with health. The liability to end in pulmonary phthisis is, I think, alike in the two, and is a very slight one.

In now concluding what I have to say as to the features which distinguish these two diseases, I am anxious, even at risk of repetition, to say that they are useful rather for the purposes of clinical diagnosis and arrangement than as implying essential differences. I can entertain no doubt that the two are closely allied, and that they are in a general way induced by a similar kind of causative influences. If such an expression be not too fanciful, I would say that, in the lupus family, vulgaris and erythematosus stand as brother and sister, having many essential resemblances and many strongly marked but superficial differences.

In the preceding lecture enough has been said as to the general characters of lupus vulgaris. I have arranged its principal varieties in a number of clinical groups, which may be found convenient, not only for purposes simply of classification, but as facilitating the formation of rules of treatment. It is to be understood that these groups derive their peculiar features, not from any real difference in the disease (which is in all common lupus), but from the part attacked or the age of the patient.

I will now turn to the second part of the Schedule, and briefly describe the several diseases which I have there placed as the principal forms of common lupus.

Under the name struma-lupus we may place cases in which the conditions of cutaneous struma and lupus are mixed. By cutaneous struma I mean an affection which begins usually immediately beneath the skin and affects the latter secondarily. The skin becomes livid, and ulcerates, and ragged sores with undermined borders are formed. This state of things occurs usually without any combination of true lupus. Sometimes, however, we meet with the apple-jelly growth in one part and a characteristic lupus condition, whilst at another subcutaneous abscesses are formed. I am attending at present a case of this mixed kind. The patient is a woman aged 40, with a somewhat tuberculous history. On her right cheek and side of neck are large patches of lupus, whilst lower down in the neck and over the front of the sternum a succession of abscesses have occurred and the skin has ulcerated in the manner described. These cases are not common, and we know that in most cases of lupus there is no tendency to abscesses and but little to gland disease. My notes would, I think, supply almost a dozen cases in which this complication was present, and to them the term struma-lupus seems applicable. In them the lupus patches always tend to inflame and ulcerate early, and there is, I think, almost always a strong history of strumous antecedents. As the disease is a mixed one, so must the treatment be.

Single-patch lupus may be considered as at the opposite end of the chain to that which we have just spoken of. Under that term I group those cases in which from first to last there has never been more than

one single patch of the disease. In such cases the tendency to inflammation is at its minimum, and usually there has been no ulceration whatever. If a lupus patch inflames, the risk of infection and of the production of satellites is vastly increased. In these cases the disease is simply one of quiet growth and slow and painless extension at the edge. The patient is usually in sound health, and it is almost as likely that there will be a family history of cancer as of tubercle. The part affected is almost always the cheek a little in front of the ear. If lupus begins in a part where the circulation is at a disadvantage and the tendency to chill great, as, for instance, the tip of the nose, or the middle of the blush-patch on the cheek, it is almost certain to inflame and prove infective.

In some of these cases of single-patch lupus the disease has been present twenty years or more; as they cause but little inconvenience the patient often declines treatment, and allows the disease to slowly advance. The advance is usually very slow, but the thickness of the jelly-like growth is often unusually great. There is, of course, not the slightest real difference or distinction between single-patch lupus and the multiple forms, the apparent difference resulting merely from the state of the patient's health and the part attached.

The term multiple, or many-patched, lupus is applicable to cases in which numerous separate patches are produced. I have already explained how this multiplicity is brought about by infection from a primary one. Lupus is always single-patched in the first instance, and sometimes remains so for long, but the risk of multiple infection is always greatest in the early stages. It is greatest also in those who are young. In a large majority of cases lupus is not confined to a single patch, but it is only exceptionally that the patches become very numerous. Now and then a patient may present fifty to a hundred different patches (see the portrait published by the New Sydenham Society). To cases in which the multiplicity is very great the term psoriasis-lupus may seem appropriate, but it is to be remembered that the symmetry of arrangement assumed in psoriasis is rarely present in lupus. The multiplicity may in some instances be so great as almost to defy local treatment.

I may suitably take together the three groups of lupus of hands and feet, necrogenic lupus, and lupus mutilans, for very similar explanations will apply to all three. Common lupus, when it occurs in the hands and feet, assumes, in virtue of the peculiarities in the circulation and the liability to chill, a remarkable tendency to inflame. [A numerous series of drawings taken from various authors were exhibited to illustrate this statement, all showing heaped scabs and extensive ulceration in connection with lupus of the hands.] In most cases in which these parts are affected, an injury has been the starting point. The apple-jelly growth is seldom seen, being always concealed or destroyed by the products of inflammatory action.

The disease would appear to obtain some minor peculiarities in connection with the special kind of irritation which sets it going. The pricks and scratches which those who have to do with dead bodies in *post-mortem* examinations or in dissections are liable to, not infrequently end in a kind of lupus. I believe that Dr. Wilks was one of the first to call attention to this disease, which he described under the name of necrogenic warts. Excepting that nothing of the nature of apple-jelly growth is ever seen, the disease in all respects conforms to the type of lupus. A thickened mass of granulation tissue developed into papillary masses is produced which may heal or ulcerate according to the exposure to cold, season of year, and state of health. Sometimes in the early stages the lymphatic glands may be irritated, but not in the later. The disease is to be cured, as we cure lupus, by liberal scraping or by cauterisation, and it has the same tendency which lupus has, to end, if long neglected, in epithelioma. It spreads at its edge with greater or less rapidity, just as other forms of lupus do.

I have treated many cases of this disease on the hands of my professional friends. It is well known on the Continent, and one of my friends told me that Professor Frerichs, when in London, chancing to see his hands with these leupoid patches on them, took them for an evidence of diligence, and exclaimed: "Ah, Monsieur! vous avez fait beaucoup des autopsies." A man in the garb of a baker once presented himself at the Blackfriars Hospital with this kind of lupus. I remarked to those present that I had seldom seen such hands, excepting in medical men, and he at once said: "Well, I was a medical student once."

I mention these facts in order to make it seem probable that certain minor features of peculiarity distinguish this form of lupus from others, and thus permit its recognition. My argument is that, within certain limits, lupus does derive peculiarity from the special cause which excites it, and that thus necrogenic lupus takes peculiarity from the fact that it originates from scratches or pricks from spiculae of bone or poisoned needles. Yet it certainly is lupus.

Before leaving this topic, I may just say that I have watched one case in a medical friend in which the lupus has been present nearly forty years. Two or three patches were cured long ago by canterisation, but one has persisted during the long period mentioned. It is as thick as ever, and just as liable to inflame in cold weather, but it has extended very little at its edge. The case is parallel with those of single-patch lupus on the cheeks.³

The term lupus mutilans might seem appropriate to cases in which the nose has been extensively destroyed and the patient's features much damaged. It has, however, I believe, been restricted to the rare examples of mutilation of the hand which we now and then witness, and of which I now show you a good portrait. (See lithograph, to be given next week.) I have only seen four or five good examples of lupus mutilans. For its production it is necessary that lupus should attack the hand of a young child, and this is not common. When it happens and, the disease being extensive, the fingers are surrounded and universally involved, a sort of arrest of growth takes place, and the most extraordinary deformity results. The fingers may all be lost, or may be dwarfed until only their tips remain. I have never watched such a case from the beginning, nor probably will any good surgeon ever have the opportunity. I am obliged, therefore, to take the histories given by the patients' friends, and, if they may be trusted, these deformities are sometimes produced without any exfoliation of bone.

That lupus mutilans is really lupus is proved by the usual coincidence of patches of ordinary lupus on other parts of the patient's limbs. In a case which was recently shown to me by my friend Mr. Sibley, a young lady had one hand almost in the condition shown in the sketch, and she had also common lupus on the face and lupus of the soft palate. Lupus mutilans is a result of lupus under peculiar conditions, and by no means a variety of it. The remark just made applies also to elephantoid lupus. It is seen occasionally on the lower extremity, and yet more rarely in the upper. The whole limb having been inflamed in connection with lupus and probably with intercurrent attacks of erysipelas, permanent œdema with thickening and overgrowth results. The diagnosis of lupus is made by the discovery of spots of lupus growth (apple-jelly) at the margins of the diseased part of the limb or on other parts, and it is confirmed by noticing that the surface of the diseased part is in a state of scar. I recently saw a good example of lupus with elephantiasis in a lad who was under Sir W. Mac Cormac's care in St. Thomas's Hospital. They are not common.

The subject of lupus of mucous membranes is a large and very important topic, but I must deal with it very briefly. It is almost always in association with lupus vulgaris, and not with erythematosis, that we find the mucous membranes affected. Almost always the skin is first attacked, but this is not invariable. I have seen lupus begin on the gums or the palate or in the cheek several times without any like disease of skin. We also see cases occasionally in which disease in the lachrymal sac appears to be the beginning of lupus of the cheek. When lupus affects mucous structures there is usually a very definite history of tuberculous tendencies in the family. It would be impossible to identify the changes which attend it as being lupus, did we not constantly find it in association with lupus of the skin. The mucous membrane becomes thickened, papillary, and ulcerated. There is never anything to be found like the apple-jelly growth. In the mouth the gums may be destroyed and the teeth fangs exposed; the soft palate may also be destroyed and the disease may spread to the larynx. The changes may usually be distinguished from syphilis by noting that the bones are never involved, and that no perforations of the palate occur. It is always a creeping, superficial process. How far the disease may pass down the throat I do not know, nor whether it ever invades the stomach. As a suggestion in that direction, I may remark that several of my lupus patients have died of hæmatemesia. The conjunctiva is sometimes primarily affected.

I have several times diagnosed lupus of the mucous membrane just within the anus, but never, perhaps, under conditions which placed the diagnosis beyond dispute. A syphilitic simulation of it is not uncommon in this part, and often leads to stricture. The exemption of the genitals from attacks of lupus is a very remarkable and well established circumstance. I have no doubt that it illustrates the

influence of temperature in causing lupus. The further the part from the centres of circulation, and the more frequent its risk of being chilled, the greater is the danger that it may be attacked by lupus. Warmth is inimical to the disease. On the female genitals I have scarcely ever seen well marked lupus, and very few have been the instances of it on the penis. The glans penis is not infrequently attacked in tertiary syphilis by a disease which spreads just like lupus. Although, as I have said, lupus erythematosis very seldom affects mucous membranes, yet it does so occasionally.

Lupus of the septum nasi is only a form of lupus of mucous membranes made peculiar by the part affected. It is, however, a rather special affection, and as it is almost constantly mistaken for syphilis, it is desirable to say a few words about it. It usually begins just within the nostril, and a small ulcer forms, which soon perforates the septum. The edge of the ulcer may heal, leaving only a comparatively small hole, or it may extend up to the edge of the vomer. Here, again, we observe the distinction from syphilis, that lupus never produces disease of the bone. These perforating lupus ulcers of the septum may occur without any skin-lupus whatever, but the proof that they are of the lupus nature is found in the frequency with which they occur in association with it. I have shown you a portrait of unusually extensive destruction of the lips and face by lupus, and remarked in connection with it that the young lady was one of the very few cases which I have known in which a lupus patient died of phthisis. Now a sister of this young lady, who had herself no skin-lupus, became the subject of a chronic ulcer on the septum nasi, which was only saved from perforation by free canterisation. In a lecture devoted to this special subject, I endeavoured to prove that perforating ulcers of the septum, when occurring as the sole lesion, are by no means necessarily syphilitic, being often examples of lupus.

I here conclude what I have to say as to the clinical groups of common lupus. It is obvious that other groups might easily be made, but I believe that these will be found sufficient for practical classification. I now proceed to diseases which depart from the type of common lupus so much as to constitute sub-species, or special forms of the disease. I will take first what I have been bold enough to name *eczema-lupus*.

For clinical convenience I give the name of *eczema-lupus* to cases which look like eczema, but which really are lupus. In some cases an eczematous process seems to have preceded that of lupus, but in others the lupus disease appears to have produced eczematous inflammation. More or less of eczematous or impetiginous inflammation around patches of lupus is not at all uncommon, but it is not these cases which I would claim for the present category. The name proposed should be restricted to cases which in all parts, and through their whole course, have the features of eczema but the tendencies of lupus. This eczematous development may occur alike in common lupus and in the erythematous form, and it may be either dry or moist. The very prolonged duration of the patches, their incurability, their slow extension by infection at their borders, and, above all, the fact that when cured they leave scars, sufficiently prove them to be lupus. Yet it is part of my assertion that the two diseases conjoined in the name are really mixed in the hybrid malady. Now and then the patient has patches of eczema on other parts which do not assume lupus characters.

One of the first cases which I remember as inducing me to employ this name was that of a lad of about 15, who was under care at the London Hospital. His whole neck was involved in a red patch, from which the serous discharge was profuse; it was, in fact, raw over the whole surface. It had been diagnosed and for long treated as eczema. When it was looked at critically I believe that everyone present was convinced that the right name was lupus. It had been present several years, and was steadily aggressive at its edge, which latter was everywhere abrupt. It was causing scar where it was getting well, and a slight degree of contraction was present everywhere.

Another very marked example of *eczema lupus* occurred in the person of an elderly lady from Durham, whom I saw with Dr. Barron. In this instance almost the whole of one breast was involved in a weeping, abruptly margined patch, which no ordinary remedies could get to heal. Nothing excepting cauterisation did any good, and the patient remained long under treatment and was still not cured when I last saw her.

In another case a rather delicate lady, aged 45, presented dry eczema-looking patches on the left side of the neck and behind the left ear. They extended very slowly indeed, but they never showed any tendency to get well, although they healed in places. No one seeing these patches for the first time would have doubted that they were dry eczema; I can only say that I have seen Miss — once or twice a year for at least eight years on account of these patches, and that

³ Riehl and Peltan (Vierteljahrsschrift für Dermatologie und Syphilis, Bd. xiii, p. 19) describe the typical cases, and state that in incised portions there are the following changes: (1) enlargement of papillæ and thickening of the epidermis; (2) production of small sub-cutaneous abscesses; (3) extensive cell-infiltration into the cutis, resembling that met with in tuberculosis (including giant cells); (4) the presence of tubercle-bacilli, which are more easily found than in ordinary lupus, but not so readily as in miliary tubercle. As regards treatment, they advise scraping, with application of iodoform.

they have never once been quite well. This is not the history of eczema. Cauterisation with the acid nitrate of mercury is the only measure which does real good. Under it the patch on the neck has for some years been quite well, but that behind the ear still persists.

I cannot show you any good portraits of eczema-lupus, for the reason that it is impossible for the artist to portray anything distinctive. Everyone seeing the portrait would call it eczema. It is the history and the clinical course which alone make the diagnosis. I show you, however, three portraits which may be of some slight help. At any rate, they go to prove that the morbid action took on exactly the same characters in three different positions. The patient was a woman named Laura J., thirty-three years of age. She was of healthy family, except that her father suffered from "a breaking out on the skin." She had never had any symptoms of phthisis. As a child she had erysipelas of the leg. Her sister had scrofula badly in the neck, and possibly intestinal tuberculosis. The lupus disease commenced by a patch behind the ear; then followed patches on the left side of the bridge of the nose, and then in the left ear. About two months before I saw her she had a patch form on the right arm, which, after lasting a few weeks, almost wholly disappeared. In the right ear the whole of the concha was affected by a condition which it was impossible to distinguish in any way from eczema. It was ill-defined, slightly congested, and covered with thin scales, and showing several cracks. Behind the ears on both sides there were red weeping patches, which were tolerably well defined, and in that feature differed from the more common forms of eczema. There was also a very slight degree of thickening in the skin which was involved. The disease had been present for several years, and Mrs. J. had been under excellent specialist care in Liverpool. She believed that the word lupus had been mentioned. A cousin of hers was under treatment for lupus. The portraits are not very satisfactory, because the disease partakes more of lupus features than is usual in the pure eczema-lupus, and some may think that they resemble simply superficial and rather indefinite lupus. I believe that I saw the patient only once, and I cannot report anything as to the success of my treatment by cauterisation. It will be seen that the unsymmetrical arrangement of the patches in this case, all on one side of the head, suggested infection by contiguity, and the order and dates of their appearance confirmed it.

The last narrative which I shall trouble you with, is that of a remarkable series of three cases in one family.

A young lady, named S—, has been recently under my observation. Her case is an example of eczema-lupus, of an eruption which weeps like an eczema, but which persists and leaves scars like a lupus. It also shows the lupus process occurring symmetrically on the backs of the hands and nowhere else, and in companionship with a pustular and vesicular eruption on the fingers, repeatedly recurrent and probably allied to chilblains. Further, Miss S.'s case is an instance of lupus occurring as a family disease, for a brother and sister have it also. In her sister it is seen only on the hands, and keeps to the pustular form, but her brother has suffered rather severely from an acne-lupus on his face, and from lupus ulceration of his palate. I have already described his case, and it is one of the best examples of acne-lupus which I have seen. This tendency in three members of the same family to suffer from scar-leaving pustular eruptions on the face and hands, associates the disease, I think, with Hebra's xeroderma (Kaposi's disease). There is this difference, however, that whilst in the latter the disease shows itself in infancy or early childhood, it has not occurred till a much later age in any one of the family now in question.

The S. family are all delicate in the direction of stroma, they are tall, well-made, and most of them of a clear thin skin. Miss S., the eldest, is now 22 years of age, of rather florid complexion, with brown hair and eyes. She considers herself in good health, her only trouble being the patches on her hands. She never had common chilblains on her hands, and never with any unusual severity on her feet. About the age of 6 she had scarlet fever, and after it became liable to have pustules and watery blisters form on her fingers. These would come and go without, so far as she remembers, any close relation to season or weather. On one occasion little blisters formed round her nails, and two of the nails subsequently came off. They were reproduced and are now perfect. Her fingers are long and taper, usually warm, and show no trace of capillary torpidity.

Four or five years ago, the patch which now gives her most trouble began to form on the back of the right hand. It varied much at different times, and would often get almost well, and then relapse again; its chief character being a weeping surface, with pustules at its margin. There is now a conspicuous scar, covering a considerable

area of the knuckles and back of the hand, and at its margin are some little dusky ill-developed pustules. Anyone looking at this scar and not knowing the history, would probably declare it to be lupus. During the last four months, Miss S. has had a patch form on the corresponding part of the back of the other hand; this patch is now of about the size of a shilling, it is red, slightly raised and a little scaly. It is abruptly circumscribed, and would be taken for a patch of psoriasis. She asserts, however, that although at present dry, its usual condition is running moisture. It has been steadily increasing at its edge since it first began, and in spite of many applications. There is at present no proof of scar, but I have no doubt that it is destined to run the same course, unless we succeed in curing it, that its fellow on the other hand has done. I claim to regard them both as patches of lupus, assuming the external features of eczema.

ON SOME NEW APPLICATIONS OF THE INDUCED OR FARADIC CURRENT IN GYNÆCOLOGY.

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TRANSLATED BY W. WOODHAM WEBB, M.D., M.R.C.P.L.

THE gynæcological employment of the induced or faradic current is of French origin, and I may safely affirm that my friend Dr. A. Tripiet was the first to use it some twenty-five years since.¹

It is to be hoped that the new branch of therapeutics will, from the renewed interest it is exciting, soon reveal all its advantages.

A. Tripiet was the first to show that, owing to its contractile powers, the induced current could not only be used in obstetrics, but could be turned to good account in general gynæcology.

According to the views of A. Tripiet all, or nearly all, inflammatory conditions of the uterus arise from either an interstitial or an intra-vascular inertia of the muscular fibre. This inertia, mostly post-puerperal, deranges the circulation, causes congestion and stagnation, and a consequent arrest of the nutrition of the organ. By artificially exciting and re-establishing the circulation, he proposes to attain the double end of cure and prevention. Such is the rôle of faradisation indicated by A. Tripiet, when, in his teachings and practice, he insists upon it as the means of removing the congestion to which he traces the subsequent affections.

In a recent memoir² I have endeavoured to counteract these exclusive views of A. Tripiet, by pointing out what he had overlooked—the preponderating part played by septic influences in gynæcology. I demonstrated the primordial influence of lesions of the mucous membrane, showing that it was from them, by way of continuity, the parenchyma became implicated. I also showed that although the faradic current was all powerful in relieving the early and purely mechanical forms of congestion, as in cases of simple subinvolution, it was, on the other hand, useless in chronic forms, and in lesions of the mucous membrane, that is to say in endometritis. And this might be easily accounted for, since in inveterate conditions of the disease, the muscular fibre, compressed by the new deposit of connective tissue, partially disappears, and consequently the induced current, which is a direct excitant of muscular fibre, finds no sufficient material upon which to act.

On the other hand, when, as is so frequently the case, the mucous membrane only is at fault, it is still more evident that there is nothing upon which faradisation can work curatively. I, at the same time, directed attention to the powerful resource we have under these circumstances, in the methodical application of the continuous current, and noted the leading place it must take in future practice.

While giving attention to the action of the faradic current, I have done my utmost to extend the limits of its application beyond those which satisfied Tripiet.

I will now specify the contributions of this kind which I claim as exclusively my own.

1. I have modified the mode of application³ to which Tripiet has given his name. He had originated the unipolar excitation of the

¹ Hyperplasies conjonctives des organes contractiles. De l'emploi de la faradisation dans le traitement des engorgements et déviations de l'intern et de l'hypertrophie pro-tataque. (*Comptes rendus de l'Académie des Sciences*, Août 1859.) *Leçons de clinique sur les maladies des femmes*, par le Dr. Tripiet. Paris, Octave Doin, 1883.

² Sur un nouveau traitement de la métrite chronique, et en particulier de l'endométrite par la galvanocaustique chimique intra-utérine. Paris, Octave Doin, 1887.

³ Sur la faradisation utérine double ou bipolaire. See *Union Médicale* 28 October and 1 November, 1884; also the *American Journal of Obstetrics*, September, 1884.

uterns, called utero-sus-pubic, in which the circuit was always closed upon the abdomen; for that, I substituted the bipolar method. I did this by using a sound, which contained the two poles side by side. It permitted the closing of the circuit within the uterus itself, while at the same time the current radiated sufficiently to act upon the whole muscular substance of the organ. By thus concentrating within the uterus the entire electrical action we secure the following advantages:—

a. There is less pain; the skin is not in any way injured as it may be when the current is closed above the pubes. b. It may be done more easily, as we get rid of the necessity of a cutaneous electrode, which requires holding either by an assistant, or by the patient herself. c. Being less painful the dosage may be increased. d. The effect is greater, as, other things being equal, the therapeutical effect is in proportion to the intensity of the current.

Simple, easy, and less painful, this method enables us, by using additional intensity, to expedite the curative effect.

My method of uterine faradisation is therefore uniform; it must necessarily be bipolar. Pregnancy is one of the rare hindrances to its employment. But, even in that case, as well as in some others I shall mention, vaginal bipolar faradisation may be used instead, and, although less efficacious, will be found of some service.

2. Next to the question of instrumentation, I claim as my second improvement in treatment the methodic and exact application of the faradic current of tension.⁴ This term "current of tension" requires a word of explanation. No apparatus for faradisation is complete without two independent bobbins, which, according to the length and thickness of the wires, give currents differing in qualities and characters. The bobbin with a short and thick wire gives that which is called the current of quantity, because the generating wire is less resistant and lets pass a greater volume of electricity. This current is the direct excitant of muscular contractility, and is the only one employed by Tripier to overcome muscular inertia, to produce a temporary vascular activity, and to carry out his treatment of uterine congestion. The other bobbin, with a longer and finer wire, is called the bobbin of tension. It gives a current which has, I may say, a much more considerable power of expansion. The current flowing from it acts less on the muscular contractility and influences the sensibility. It has therefore been employed especially when pain is the leading symptom, in order, by a contrary reaction, to deaden a too violent nervous vibration. This revulsive application on the skin is no novelty, though not sufficiently resorted to in gynaecology.

Now it is pain which leads most women to seek relief, and, if we examine the sources of this pain, we find that they are either inflammatory or nervous.

On the one side, then, we have to deal with uterine inflammations, and especially that class of peri-uterine inflammations which is usually so embarrassing; and, on the other, with a nervous condition which we recognise as ovarian pain.

It will be admitted that for these pains all the routine treatment is absolutely useless. No one can boast that by medicines he has ever permanently got rid of such ovarian pains, and the same may be said of the suffering from peri-uterine inflammations.

These problems are among the most pressing in gynaecology. Their gravity is made greater when the number of women is taken into account who are castrated on account of pains which we know can be removed by an electrical current. Such ovarian pain, as we meet with it in innumerable hysterical subjects, is nineteen times out of twenty curable, while the inflammatory pains can be often—I will not say always—mitigated in the same way. Now it is of this means of treatment that I consider myself the originator.

It was in 1833 that I first described, in a special memoir, my electrical treatment of perimetritis. I read a second paper on the subject at the Congress of Copenhagen in 1834.⁵

No other sedative, recognised in gynaecology for the purpose we are treating of, equals the faradic current of tension when applied in observance of the following rules:

a. Of these two applications, intra-uterine bipolar and vaginal bipolar, the intra-uterine will always be preferable as more active and efficacious, whereas the vaginal operation is forced upon us by such circumstances as the impossibility of passing a sound into the uterus. This will be our dilemma in pregnancy, in virginity, or in an acute stage of peri-uterine inflammation.

b. The length of the sitting is an essential condition of success. However prolonged, whether five minutes or twenty minutes, it ought

not to end till the pain has diminished or disappeared. This we can be informed of either by the patient's declaration or by direct contact. We should never interrupt an operation till we have clear evidence of this result. The needful duration of an application will vary not only in each patient, but in the same patient, during the course of her treatment. More time is generally required for the first sitting than for subsequent ones, in which we have only to complete the work begun. I insist upon this important fact, that though a case of perimetritis may only find relief from this treatment, the ovarian neuralgic pain may be, and generally is, done away with in a very short time.

c. The sittings should follow each other quickly. Every day, or even twice a day is not too often, so that the effect may be cumulative, and nothing of the benefit gained be allowed to subside.

d. The number of sittings necessary will always be uncertain. The nervous and inflammatory conditions we have to deal with are numerous and changing, while the treatment I advocate is especially directed against one symptom—the pain. The surgeon will be obliged to modify the treatment in every case. In simple neuralgias he will find from two to five sittings generally enough to secure the patient freedom from pain for several months, and even more. In case of relapse the same treatment will give the same results. With inflammations the case is different. Not even an approximate calculation can be made as to what will be required, since we have to encounter the difficulties of uncertainty of effect, and of deviations in the degree in which cases give way to the treatment.

e. As regards the operation itself, the dosage or intensity of the current to be used (as regulated by the sheathing of the bobbin) will vary within the known extreme limits.

First, in a case of perimetritis we must always be assured of the tolerance of the patient, only pass the current gradually and slowly, and above all, in acute cases, be content to use small—even very small—doses, increasing only as the power of endurance is developed and the phlegmasia shows a disposition to give way.

No pain ought to be inflicted on the patient, first, because it is useless, and, secondly, because too strong an application might do harm.

Great caution is always necessary, especially at the beginning of a sitting. First of all the bobbin should be entirely dismounted. Then starting from zero, the advance should be made millimètre by millimètre, while the eye is kept on the countenance of the patient, as the expression is the best indication of her sensations. The gentleness of proceeding must always be redoubled in acute cases of inflammation.

Secondly, on the contrary, in operating for ovarian pain, we may press forward directly and boldly to attain our end, provided the uterine region is healthy, as in that state it is extremely tolerant. A moderate dose will sometimes suffice, but generally it is necessary to go on to the highest point. Though in perimetritis we must avoid causing any suffering, it may here be well, as a slight dose would do no good, sometimes to rouse the uterus by pouring in a massive current of tension. It is clear from all this that the dosage will always be variable, and require delicate adjustment, by a tact which can only be acquired by practice.

Even my experience, with many hundreds of these cases, does not empower me to lay down any directions which will suit all conditions. I can only say that, having to do with a curative agent which is under control, it must be judiciously adapted to the circumstances.

If, however, the dosage of current is a personal affair as regards the patient, there are some general indications which may be useful in guiding the practitioner.

It is a peculiarity of the greater number of hysterical women that they bear easily the faradic currents of tension, even with the fullest dose; so well, in fact, that after a short time they will affirm that they feel nothing. A novice might thus imagine that his apparatus had failed; or that there was an interruption of the current. When such insensibility shows itself there need be no hesitation, and we may after having slowly passed the bobbin home, continue to use the highest intensity.

But, on the other hand, we find a few women in whom there is a complete contrast of sensibility. They are incapable of submitting to the current even in small doses without complaint. Here we should be very cautious in toning down the current to their power of endurance.

I have observed this interesting fact in dealing with the still rarer cases of complete insensibility to the current of tension. They seemed not only to be able to bear it, but to be unconscious of any action. Under such circumstances, as an exceptional proceeding, after having first tried the effect of the current of tension, I have changed it for that of quantity. This generally tells upon patients more and more

⁴ Sur un nouveau traitement de la douleur ovarienne chez les hysteriques. *Bulletin Général de Thérapeutique*, June 15, 1835.

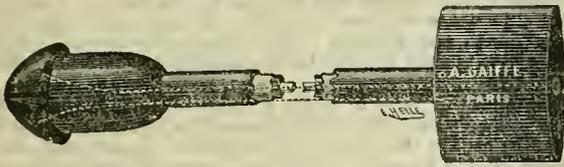
⁵ Sur un nouveau traitement électrique des périmétrites. *Comptes rendus du Congrès de Copenhague, Section d'Obstétrique et de Gynécologie*, page 141.

markedly as the hysterical symptoms are more prominent. The following curious phenomenon then presents itself: immediately the current of quantity is substituted for that of tension, it is found that the intolerance of even the smallest doses is such as to threaten the patient with a nervous paroxysm. This is the point at which to manifest the tact of medication. A state of calm only comes on when we have artificially brought the woman to the verge of a hysterical outburst by an intentional *brusquerie* of faradisation. At this moment there must be a pause, and a gradual cessation of the current. The threatened crisis will be checked, and a condition of tranquil relaxation takes its place. At the same time the ovarian region loses all, or almost all, its previous sensibility, and it is found that even when that sensibility had lasted for years, and been such as to render the slightest touch insupportable, there is, within the space of a few minutes, a transformation so complete, that the woman is indifferent to ordinary pressure.

Nevertheless, it must be borne in mind that, though this pain is called ovarian, its real seat is in the ovarian plexus, which lies above the ovaries, so that the spot where pressure causes most pain is considerably higher than the pubic margin of the pelvis, and away from the median line. This point, which, before the sitting, was exquisitely tender, will, after it, allow of any reasonable pressure. The woman will remain calm and free from any abnormal sensation, provided the source of pain is not irritated, and the corresponding ovary is not compressed by the fingers, used in a bimanual examination, by touch and palpation.

I may, therefore, thus state my opinion that hysterical ovarian pain, not having origin in any structural lesion, may in general be allayed, and that the patients have no further ground for complaint. In this state pressure above the pubes causes no discomfort. But the proof that the cure is not absolute, and that the cause of the suffering has not been removed, is that the calmed pain may be again aroused by pressure between the fingers from within and without, and that, even after a long interval of freedom, there may be a relapse.

3. I now mention my third and last contribution to gynaecological therapeutics.



There are many women who, independently of ovarian neuralgia, have intense and very localised sensibility about the entrance and lower part of the vagina. These are cases of imperfect vaginismus, in which the torment is so unbearable, and the hindrance to connection so complete, that life is rendered miserable. The difficulty of overcoming this trouble is only too well known. I have had to do with a large number of interesting and instructive instances of this affection, and I intend to publish a full account of the most important. For example, in one woman I found a single neuralgic spot, not larger than the tip of the index finger, just at the end of the right nymphæ. Another had the same condition exactly at the posterior commissure. In a third, the excessive sensibility was confined to the orifice of the urethra. The fourth case had a similar neuralgic area on the left side of the vestibule. Besides these single spot cases, I have seen many others in which the localisation was not single, and the extent varied. The remedy of which I have availed myself, and now recommend, for ridding women of these harassing annoyances is the faradic current of tension, well and methodically applied.

Over and above the general rules which I have laid down as to the dosage, duration, and mode of application of the current, which hold good equally in these cases, there is a fourth special indication that must be regarded as obligatory.

Uterine faradisation alone, by reflex action, may possibly effect a cure, without any immediate contact. But such a result is exceptional, and, as a rule, the electrical action must be brought to bear directly on the point concerned. The maximum of effect must be concentrated on the seat of pain under touch. To insure this result, I have designed an instrument, the conical end of which contains the two poles side by side, but separated by an isolating layer of gutta-percha. (See Figure.)

That which I have previously advised should be done to the uterus in certain conditions with my bipolar sound, may be effected here with my bipolar electrode.

If, however, the vaginal neuralgia is deep-seated, and extends over a large segment of the vestibule, this instrument will not answer, and we must replace it by a large bipolar sound, with which a double vaginal faradisation can be made, taking care, when the outer orifice is the part implicated, to rest the exterior pole upon it.

This will serve as a brief exposition of my views as to some applications of faradism in gynaecology. I look upon it as effectual in hysterical neuralgia, useful and variably sedative in the pains of inflammation. It is true that hysteria holds a large place in this medication; and it may be objected that, after all, suggestion has a great deal to do with the effect produced. Cure is admitted, but, in such cases, the question arises: may it not be brought about by the mental impression made by the operator?

This explanation I reject. Among many other proofs that it will not suffice, this is enough: that you may faradise one of these women, without saying a word to her either as to the nature of the treatment, or as to the probable changes that may be the consequence, and the results will be the same as if you had forewarned her.

Moreover, all suggestive influences, however potent they may be in other circumstances, are put out of question by the fact that faradism only relieves when we observe certain fixed and precise rules in its application.

EXTRACTS FROM AN ADDRESS

ON

COLLEGE POLITICS: MATTERS CONCERNING THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Delivered before the South-Western Branch of the British Medical Association, December 15th, 1887.

By PAUL SWAIN, F.R.C.S.,

Fellow of King's College, London; President of the Branch.

GENTLEMEN,—The aim and object of those who desire to reform the present mode of government of the Royal College of Surgeons is that it should no longer be a close corporation, managed well or ill by twenty-four gentlemen wholly irresponsible to the great body of the profession, and whose actions it is impossible effectually to challenge. The College of Surgeons has at its command a very large revenue; last year its total expenditure amounted to no less a sum than £33,629 11s. 7d., leaving a balance in hand of £1,742 14s. 7d. I do not for the moment stop to inquire whether this large sum is spent rightly or wrongly; but I ask you if you think it proper that the expenditure should be committed to twenty-four gentlemen who, however learned they may be in their profession or estimable in their private capacities, are not, that I am aware of, selected on account of any particular business aptitude, and who spend the money in the happy security that their actions cannot possibly be challenged by any single individual of the great profession, out of whose pockets the principal income is derived, and for whose benefit the expenditure is supposed to be made? The Council are apparently becoming afflicted with a distressing mania for building, and I see that the sum of £11,852 11s. 9d. has been spent on the new Examination Hall. They are also embarking on a large building plan for the extension of the College itself, the cost of which is to be eventually £53,700; and furthermore, at an extraordinary meeting of the Council on June 27th, the following resolution was carried, namely, "that for the present this Council do not spend more than £50,000 of the Erasmus Wilson bequest"—also to go in bricks and mortar. Verily let us be thankful for this small mercy for the present.

The Court of Examiners consists of ten members, who are elected by the Council by ballot. They hold the office for five years, and may be re-elected. They must be Fellows of the College; and being members of the Council does not disqualify. Last year the fees paid to the members of the Court of Examiners amounted to £5,219 2s. At a meeting of the Fellows and Members, held at the College in October, 1885, I alluded to the question, and showed that it was not only possible for the members of the Court of Examiners to be in a majority on the Council, but that such had really been the case, and that, too, in the face of a resolution of the Council that not more than one-half

¹ I would call your attention to an able criticism of this expenditure in a leading article in the JOURNAL of October 22nd.

of the members of the Court of Examiners should be on the Council at the same time. Thus the powers of the Council not only to make themselves examiners, but to re-elect themselves indefinitely, has existed in times past, and still exist. The author of a letter in the JOURNAL of October 29th points out the results of this practice.

I have made an abstract of the table he publishes, and find that there are at present ten members of the Council who are also members of the Court of Examiners, and who have shared between them the modest sum of £26,800, one of them having had £4,934, another £3,405, another £3,173, and so on in lesser proportions. Now, what I want to point out to you is this: not that the money spent in examinations is excessive, or that the gentlemen who have received it are, in the present instance, either incompetent or negligent, but that the system renders it possible for all three contingencies to happen, and that the perfectly irresponsible power which now exists, enabling members of the Council to endow themselves indefinitely out of College funds ought to be restrained.

Let me draw your attention to a late action of the Council, by which a serious injury has been inflicted on the profession. If there is one thing about which we have been fairly unanimous it has been the desire to obtain in London one examining body. Now, just when it was on the eve of accomplishment, the Council of the College of Surgeons, in conjunction with the College of Physicians, has excluded the Society of Apothecaries from their examination, the result being that a second examining body has been set up in London. And this has been done with a perfect knowledge of the wishes of the profession on the matter. In November, 1886, a large meeting of Fellows and Members was held at the College of Surgeons, and the following resolution was unanimously carried:

That, with reference to the report from Mr. John Marshall, on page 15 of the Council's Report, this meeting requests the Council of the College to consider the advisability of accepting an arrangement for combination with the Apothecaries' Society, as well as the College of Physicians, for the purposes of conjoint examinations for medical diplomas in England and Wales, under the Medical Act of 1856, and to report thereon at a future meeting of Fellows and Members to be summoned for the purpose at an early date.

On February 25th the President of the General Medical Council addressed a remonstrance to the President of the College of Surgeons.

It is not too much to say that the action of the College has been taken in opposition to what one may fairly say is the unanimous desire of the profession, backed up by the General Medical Council and the whole medical press.

The Council of the College, in the new charter for which they are applying, ask to be enabled "to determine by rules and regulations, instead of, as at present, by by-laws, the conditions of admission to the Fellowship by examination." Now we emphatically protest against any such power as this being vested in the hands of the Council. We know by past experience that it is more than likely that they would use it to lower the standard of examination. Some years ago an attempt was actually made to do this, and was only defeated by the energetic action of three well-known Fellows of the College, one of whom was Mr. Timothy Holmes. As this gentleman pointed out the other day, if the Council had been able to provide "by rules and regulations," instead of by the slower process of altering a by-law, the proposal would have been smuggled through without anyone outside the Council being aware of it.

Of a similar character is another proposition in the new charter, namely, "to empower the Council to elect to the Fellowship Members of twenty years' standing, not exceeding ten [instead of two] in each year." Against this proposal a resolution, proposed and seconded by Members of the College, was carried; but, as usual, the Council has ignored it, and still presses for the insertion of the clause in their new charter. Had I not the authority of Mr. Timothy Holmes for the statement, I could scarcely credit the fact that only last year a prominent member of the Council proposed to admit by vote of the Council fifty members annually to the Fellowship. This proposal was vigorously opposed by the Association of Fellows, and did not pass the Council.

The remedy for this state of affairs consists in taking from the Council this irresponsible power, and endowing the Fellows and Members with at least some of it. The other day I had the honour to form one of a deputation of Fellows to the Lord President of the Council, before whom we laid our objections to the proposed charter. At the termination of that meeting he said: "As I understand, it practically comes to this—that you want an alteration in the constitution of the Royal College of Surgeons, to make it a popular body, to a certain extent, instead of being comparatively a close body." And I think that expression of the Lord President showed that he perfectly grasped the situation.

² One member of the Council has since retired.

Although we have of late met within the College walls and discussed matters at those meetings, yet we do so only on sufferance, and a by-law actually exists which prevents the Fellows and Members meeting within the College walls, or discussing any matter except with the permission of the President and Council. In July, 1869, in conjunction with Dr. Morris, of Spalding, I tested this question. The late Mr. Wakley, many years ago, took a somewhat similar course. My fate was happier than his, for on that occasion he was forcibly removed from the College precincts and conducted to Bow Street. Whatever may have been the result of our action in July, 1869, the fact remains that, *post hoc* or *propter hoc*, in the November of that year Mr. Erichsen, who had been recently elected to the Council, and was then in favour of a more liberal policy, gave notice of a motion affording greater facilities for the meetings of Fellows and Members within the College walls. And on March 22nd, 1870, the first meeting was held, under the presidency of the late Mr. Cock, in the theatre of the College. But, although the Council were apparently compliant in the matter of meetings, they had little trust in the gentlemen whom they had invited to come, for on the eve of the meeting one of the porters of the College was sworn in as a special constable, "to prevent felonies and disorders." This fact was denied by the President, but it was verified by a now prominent member of the Council, who then had a keen scent for College peccadilloes. But, at any rate, a point had been gained; and we are now permitted by the grace of the Council to assemble annually within our own College "to receive as read," as Mr. Tweedy put it the other day, "the Report of the Council, which, as a matter of fact, I believe has been printed and bound up in the College Calendar before our meeting was held." But we demand more than this. We have thrice carried unanimously the following resolutions at meetings held at the College, namely:

That it is desirable that no alteration in the constitution or relations of the College shall be effected without the consent of the Fellows and Members convened to discuss such alterations.

And also

That there shall be an annual meeting of the Fellows and Members, at which the Annual Report of the Council shall be presented, received, and adopted.

Had these two resolutions been accepted by the Council, I believe a substantial justice would have been done, and most of us would have been content to rest satisfied. But, true to the traditions of the past, they have ignored these resolutions, with their usual contemptuous silence.

There is one other point to which I desire to allude before I finish, and that is the claims which the Members of the College have put forward to take part in the election of members of Council, and also to have seats on the Council. With the former of these proposals I concur. It is most desirable that so large a body as the Members constitute should have alike with the Fellows the right of meeting, the right of free speech, and the right of voting at College meetings. I am prepared to support the suggestion that the franchise should be conferred on Members of ten years' standing. With the second proposal, that Members of twenty years' standing should be eligible to sit on the Council, it being understood that not more than one-fourth of the Council shall consist of Members, I do not agree. It would take from the Fellowship the sole remaining privilege which distinguishes it from the Membership, and the position which we have obtained by the expenditure of time and labour would be hardly worth acceptance. But over and above this there is no substantial grievance existing which can justify so radical a change. All the members of the Council are Members of the College as well as Fellows, and in this double capacity represent the whole body. If it be alleged that the Council as at present constituted fails to represent the interests of the general practitioner, which I admit it almost entirely does; then I say the Members, supposing they had the franchise restricted as above indicated, will find plenty of men both in London and the provinces who are Fellows of the College and general practitioners also, and who would fully come up to the standard of representation required by the Members of the College.

THE BEDFORD PROVIDENT DISPENSARY.—The new buildings of the Bedford Provident Dispensary were recently opened by the Marquis of Tavistock. The institution, which was founded twenty-five years ago, is stated to have been of great public benefit, and has always commanded the warm support of the medical men practising in Bedford, the majority of whom are upon the staff. The new building is a handsome and well-planned structure, and most conveniently situated for patients, both in the town and surrounding villages. The cost of the building, furniture, and fittings, exclusive of the site, amounted to about £1,900.

AN ADDRESS ON THE THERAPEUTICS OF THE URIC ACID DIATHESIS.

Delivered at the Opening of a Discussion on the Subject in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association, held in Dublin, August, 1887.

By I. BURNEY YEO, M.D., F.R.C.P.,
Professor of Clinical Therapeutics in King's College, London; and Physician
to King's College Hospital.

(Concluded from page 19.)

In the next place, we must pass on to consider the more important medicinal agents which have been proposed for the treatment of this diathesis and its various morbid manifestations, and, first of all:

Colchicum.—I would ask you to consider the use and value of colchicum. This drug has been much discredited of late years, and if one of the results of this discussion is to remove that discredit, it will, in my opinion, have done practical medicine a real service. That the drug may have frequently been misused, I do not doubt; that it may have been administered without a due and discriminating regard to what I have referred to as the "constitutional element" in the therapeutic problem, I am also ready to admit; for I have read criticisms of the use of colchicum by physicians who certainly must either have had very few opportunities of observing its effects in appropriate cases, or they must have made but indifferent use of such opportunities as they have had.

When acute uratic arthritis was a much more common disease than it is now, over-doses of colchicum were probably not infrequently had recourse to, and with ill consequences, but it has never fallen to my lot to observe, or come within hearing of, any of those ill effects which some physicians have asserted to be the common consequences of the use of colchicum. I should hesitate to speak in this way if my individual judgment were at variance with that of other physicians who have had a far greater experience in this matter than I have, but I find that most of those who have had the largest opportunities of forming an opinion of the value of colchicum in gouty affections are advocates of its use. Garrod has given his verdict in its favour after the most searching and careful examination of its action; and so cautious and sound a practical physician as Sir Thomas Watson not only advocated its use as a curative, but also as a preventive, measure. I need hardly say in this city, your great master, Graves, held the same views. Lecorché, in his recent valuable and exhaustive treatise on gout, after relating the details of the numerous experimental investigations he has conducted into the action of colchicum, thus sums up: "In concluding this study of the effects of colchicum, we assert, as the outcome of our physiological researches and our clinical observations, that colchicum constitutes the specific *par excellence* for gout; that it may and ought to be used in the treatment of that affection both in the acute and chronic form."

Professor Bartholow, of Philadelphia, gives one of the best practical accounts of the effects and uses of colchicum that I have met with:

"In small doses," he says, "it increases the mucous and glandular secretion of the stomach and intestines, and probably, also, of the liver, kidneys, and skin. . . . It increases the flow of urine, of the solid constituents, as well as of the water, and promotes the cutaneous transpiration. . . . It is indicated when a prompt elimination of waste is required. . . . It relieves the pain, diminishes the swelling, and shortens the duration of acute gout. In order to accomplish these results, it is not necessary that the more harsh and violent physiological effects of the drug be produced. Sufficient should be given to increase secretion from the skin, the intestinal mucous membrane, and the kidneys, but nausea and vomiting should be avoided. Combination with an alkali increases the therapeutic effect." He gives the very moderate dose of twelve minims of the wine of the seeds, with forty minims of aromatic spirits of ammonia, every three hours, until some physiological effect is produced. He adds: "Combined with saline purgatives, it quickly relieves the constipation, hepatic congestion, and headaches of gouty subjects. It is useful in gouty bronchitis; it often relieves neuralgia occurring in gouty constitutions; it relieves by setting up an eliminative process."

This description so entirely agrees with my own observation, that I find little to add to it. There has existed some difference of opinion,

which experimental tests have failed to settle, as to the action of colchicum on the renal secretion. My own opinion is that it acts somewhat differently in different individuals and under different circumstances. Its most constant action is, I believe, on the hepatic secretion. Again and again when the motions have been hard and clay-coloured from the absence of bile, I have seen a few doses of colchicum restore the natural dark colour due to a proper admixture of that secretion. Then I think I have observed it act sometimes as a diuretic, and sometimes as a diaphoretic, and, when it acts more especially on the skin, the renal secretion may appear to be diminished by it.

Graves thought, and Lecorché supports the view, that it prevents or checks the formation of uric acid in the system, and this it may do by its decided action on the liver. My own view is that it acts more or less on all the excretory organs; that it is a stimulant to excretion; and as I regard the gouty constitution as one whose fault is especially, a sluggish and imperfect retrograde metamorphosis, and delayed excretion generally, not necessarily of uric acid alone—colchicum is in a special sense its remedy by promoting the elimination of waste products. Lecorché's experiments proved that it diminished the acidity of the urine, and decidedly increased the amounts of soda and potash in that secretion.

The prejudice against colchicum has induced Ebstein to make the extraordinary statement that it is preferable to relieve the pain of the gouty paroxysm by hypodermic injections of morphine. He says they act "quicker, more easily, and with less danger." I join issue with him utterly. The internal use of opiates in gout I consider, except under exceptional circumstances, indefensible. In a disease of defective elimination, you would be giving a drug which depresses in a remarkable manner the function of all the excretory organs but the skin. A very small dose of morphine will, especially in the gouty constitution, produce clay-coloured alvine evacuations, sometimes for days.

Colchicum then, I maintain, is one of the most valuable remedies, when judiciously given, for most of the morbid manifestations of this "uric acid diathesis," and so far from being a dangerous vascular depressant, I have shown, in my hospital practice during the session just past, that in a case of chronic gout with subacute exacerbations, moderate doses of colchicum restored regularity and strength to an irregular and feeble pulse. I trust, then, that the absurd prejudice against this most valuable remedy which has been excited in the minds of the public will be removed, for I find many gouty persons who, much to their own disadvantage, positively refuse to take colchicum, because they have been told it is "such a dangerous drug."

I observe in the last number of the JOURNAL of this Association a report by Dr. Taylor, of Brussels, on the action of colchicum on the elimination of urea and uric acid, in which he appears to have shown that the amount of both these substances in the urine is largely increased by the administration of this drug.¹

Next, as to the salicylates.

Salicylates.—We ought in this discussion to be able to determine, more accurately and decisively than has hitherto been done, the real value and applicability of the salicylates in the treatment of uricæmic affections. In the first place, it seems to me impossible to accept the exaggerated estimate of their value advanced by Professor Germain Séé, who has asserted that sodium salicylate is the best remedy for gout in its acute or chronic forms. Ebstein remarks that when he has used this salt in acute uratic arthritis, the inflammation has disappeared very quickly from one joint, to re-appear immediately in another, even when the administration of the salicylate was continued. Lecorché says he has found it useful in acute gout, though altogether inferior to colchicum, it lessens the pain and the violence of the paroxysms, but in no way shortens the attack. In cases of chronic gout with tendency to the production of deformities from deposition of urate of soda (tophi), and to constantly recurring subacute attacks, he considers it valuable. Given, he says, in such cases, from time to time, in the intervals of the attacks, in doses of sixty to eighty grains a day, it increases notably the amount of uric acid excreted in the urine, and so eliminates from the blood the excess of urate of soda. In a great number of cases, he asserts, he has been able by its use to (1) prevent attacks; (2) to prevent the formation of ankyloses and to cause already existing stiffness of joints to disappear; and (3) to facilitate the absorption of uratic deposits. To obtain these good results it was

¹ In a still more recent number of the JOURNAL (August 27th), Dr. J. McG. MacLagan, of Hexham, claims to have demonstrated this in a thesis published in the *Edinburgh Medical Journal* of December, 1881, and January, 1882; and still more recently Dr. MacLagan has shown that the paper alluded to was absolutely and entirely his own, although reproduced without a word of indication as to its original authorship.

necessary "to continue, unperturbably, for months the use of salicylate of soda in doses of sixty to ninety grains daily, only allowing the patient four or five days' interval every twelve to fifteen days, then returning to the medicine with the same regularity." He has found it of "enormous service" in the treatment of gouty asthma, angina pectoris, and cystitis. It should not be employed when there exist evidences of interstitial nephritis. Professor Bouchard (p. 316) considers it a valuable medicine in the treatment of acute gout, relieving pain and sometimes shortening the attack, but he considers its employment dangerous when there is any tendency to cardiac degeneration or when the kidneys are involved. In uric acid deposits, he says, like benzoic acid, it favours the elimination of uric acid, but does not lessen its quantity. He considers its action obscure and its prolonged use attended with great inconvenience, and that it is scarcely applicable to the treatment of uric gravel, and but little employed in chronic gout or in uratic deposits about joints.

Latham thinks salicylic acid often of service in gout, when unaccompanied by renal disease or albuminuria, and he believes it to act by seizing, in the system, either upon glycosin or its antecedent, and so removing an essential constituent of uric acid, and thus preventing its formation in the body. Lecorché, however, states that he has observed an enormous elevation (*hausse enorme*) of the amounts of urea and uric acid in the urine as the result of the administration of salicylate of sodium, that this elevation usually appears within the first twenty-four hours, but may be delayed for 48 or 72 hours, and that it lasts for three or four days, when a progressive diminution sets in. He also states that the amount of phosphoric acid increases, and diminishes in the same manner and at the same rate. It is difficult to reconcile Latham's view of the mode of action of salicylic acid with those observations of Lecorché.

I have little to add, from my own observations, to the testimony of these authorities; I should prefer myself to treat attacks of acute gout with colchicum, and until more fully convinced than I am at present of the value of the salicylate of soda in chronic gout, I should prefer the employment of a less depressing remedy. I believe it is chiefly of value in those cases in which the uric acid and the rheumatic diathesis are combined.

The benzoates, in the next place, require a brief examination.

Benzoates.—The benzoates of sodium and lithium have been largely employed in the treatment of uric acid deposits since their advocacy by Garrod. Latham has stated that benzoic acid acts by combining with glycosin and so preventing the formation of uric acid, and that it passes off in the urine as hippuric acid. The value of the benzoates has, however, been warmly contested, and I am myself, by no means, convinced of their efficacy. It has been stated by Brunton, that if benzoic acid is given it is found unchanged in the blood, that the change into hippuric acid occurs in the kidneys. Senator speaks of the "temporary popularity" of benzoates of soda and benzoic acid as "based on chemical theories, some of which were wholly erroneous," and adds that these "remedies have fallen into just oblivion." I can, however, testify that these benzoates are much used in France and in this country, as remedies for the uric acid formation, and I would ask you to consider whether they are of value or not. Very brief also must be my reference to guaiacum.

Guaiacum.—The high commendation given by Garrod to the use of guaiacum in chronic articular gout has found but few adherents. Ringer, in the ninth edition of his well-known work, does not even mention this drug; and it has received very slight consideration from other authorities. Yet Garrod has spoken of it as having afforded "striking benefit in numerous cases of chronic gout. I could relate," he says, "many hundreds of similar cases in which guaiacum has proved especially valuable; in some its action is almost magical. I have now for twenty years or more employed guaiacum very extensively in the treatment of chronic gout, I believe in some thousands of cases, and there is no remedy of which I can speak so confidently." There is certainly no one in Europe who has so good a right to speak as to the merits of any remedy for gout as Sir A. Garrod, and it is a little remarkable how little attention has been paid to this recommendation. I have certainly found the drug give great relief to the muscular pains of persons who were undoubtedly subjects of this diathesis. A more universally accepted remedy is iodide of potassium.

Iodide of Potassium.—I am satisfied we are but imperfectly acquainted with all the services that can be rendered in the manifestations of the uric acid diathesis by iodide of potassium. Its use in chronic arthritic affection is widespread, but it has its most important applications, I believe, in the less easily recognised degenerative changes dependent on this diathesis. I allude especially to the renal and vascular changes. I believe the iodide of potassium, if long

continued in fairly large doses, has a remarkable influence in retarding the progress of those degenerative vascular changes dependent on the gouty constitution, and which, as I have had occasion to observe, if left untreated, sometimes advance with great rapidity. I am not one of those who, whenever iodide of potassium is found to be of great service in relieving morbid conditions, at once sees a vision of constitutional syphilis. In cases of well-marked vascular and renal changes, with albuminuria, some of which bear signs of former arthritic affections, I have found iodide of potassium, in daily doses of fifteen to thirty grains, continued for a few weeks, and repeated from time to time, of remarkable value in improving the general condition, and I have, not unfrequently, seen the albumen disappear from the urine, or be reduced to a mere trace. How the iodide acts in these cases I am not prepared to say; it certainly promotes the action of certain of the excretory glands, and sometimes acts as a powerful diuretic. Its influence in promoting the elimination of deposits in the tissues is established by its power of removing lead and mercury from the system in cases of chronic intoxication by these metals. Latham has suggested that it prevents the conjugation of glycosin with other substances, and exerts also a solvent action on uric acid. It is necessary to "feel one's way" with regard to dose, some constitutions requiring a much larger one than others. I repeat that iodide of potassium is a valuable remedy, not only in the chronic and subacute arthritic affections of this diathesis, but also in the graver but less apparent arterial and renal changes. I should be glad to hear further evidence for or against this view.

The important group of alkaline remedies must next occupy our attention.

Alkalies.—The use of the various alkalies in the treatment of the uric acid diathesis has received almost universal sanction, and the only difference of opinion that exists, is as to which is the best alkaline salt to employ. They act: 1. By increasing the alkalinity of the blood, and so preventing the deposition in the tissues of acid urates. 2. By their solvent action they further the removal of such uric acid deposits as may have taken place. 3. By their diuretic action they promote elimination by the kidneys.

I have said their use has received "almost" universal sanction, for I believe Latham does not look with favour on the use of alkalies in gout. He considers there is danger of the oxidation of uric acid into oxalic acid, when the alkalinity of the blood is increased; and that so long as glycosin passes unchanged into the blood, oxalic acid will be formed by the action of alkalies.

The employment of the salts of lithium for these purposes has acquired a wide popularity; for my own part, I am disposed to think we are, nowadays, inclined to exaggerate the value of the lithium compounds as compared with those of potash and soda, although the equivalent of lithium is low, and the necessary dose is small, most of its preparations are far less soluble than those of potash and soda, and I fail to see any decided advantage in being able to give 4 grains of carbonate of lithia instead of 8 grains of bicarbonate of potash, supposing they have the same solvent effect on uric acid, and even Garrod does not claim so large a relative superiority as this for the lithia salts.

The diuretic effect of the bicarbonate of potash is, I think, more constant and reliable, especially when given with hot water containing a little milk, which quite conceals its taste. But when we are invited to select a mineral water for the treatment of these affections solely and especially because it contains, say, a tenth of a grain of chloride of lithium in a pint, in preference to another which contains 15 grains of bicarbonate of soda, we are running the risk of becoming the slaves of fashion.

Ebstein maintains that the chloride of lithium has no solvent action on uric acid, and that if a mineral water contains the carbonate in very minute quantities, it becomes wholly converted into chloride in the stomach, and is, therefore, so far as the lithium salt is concerned, quite without efficacy.

Sir William Roberts has also expressed some misgivings as to the superiority of the salts of lithium as solvents of uric acid deposits.

Lecorché, while he admits the powerful solvent effects of the lithium salts on uric acid, states that the results of his observations as to their diuretic and alkalinising properties were not so marked as those of Garrod, and that he had failed to render the urine alkaline by their means. Lecorché has much to say in favour of the use of bicarbonate of soda, which he prefers, as a solvent of acid urates, to either the salts of lithia or potash. He maintains that its prolonged use in large doses is much safer, and is better borne by patients.

"Taken internally, it combines with the uric acid which exists in the blood in the form of an acid binurate, and forms a neutral "nrate of soda," which is much more diffusible, and in this form it is elimi-

nated by the kidneys. He also points out that the bicarbonate of soda, as well as the other alkaline bicarbonates and sulphates, diminish the decomposition of nitrogenised substances in the body, and that these compounds are "*les médicaments par excellence de la diathèse goutteuse.*"

The superiority of the soda compounds in dyspeptic states, in gastric and intestinal catarrhs, and in disturbance of the functions of the liver so common in the subjects of this diathesis, is admitted by Garrod himself. I am convinced from my own observations that a combination of these alkaline salts acts often more efficaciously in removing an acid condition of the fluids than either of them alone. I am fully convinced of the value of the salts of lithium in the treatment of the uric acid formation, but I by no means see the necessity of depending exclusively upon them, as there is a tendency to do; indeed, I am convinced that in many instances of this diathesis a combination of soda and potash salts acts better, and in some even the soda salts alone. It will be interesting to hear what has been the experience of the eminent practitioners here present as to the relative value of these three alkalies.

It has been suggested that we have been to blame in allowing the compounds of lime and magnesia to fall into disuse in the treatment of the gouty constitution. Salts of magnesia are found in many of the mineral springs which enjoy a reputation in the treatment of this diathesis, and many gouty patients have testified to me of the great use they have found in frequently taking a dose of Gregory's powder. The startling effects produced by the Contrexéville springs, the chief constituents of which are sulphate and carbonate of lime, in some of the most serious forms of vesical and renal calculous affections, connected with the uric acid diathesis, should lead us to examine and consider what may be the solvent effects of lime salts generally in these affections.

Closely connected with the use of alkalies in this diathesis is the employment of mineral waters.

Mineral Waters.—The use and efficacy of the several classes of mineral waters which have been advocated for the treatment of the gouty diathesis may well engage a share of our attention. There is one thing which strikes one forcibly in approaching this subject, and it is that nearly every kind of mineral water that exists has been recommended in the treatment of the gouty constitution. The carbonate of soda waters of Vichy, the chloride of sodium springs of Homburg, the sulphate of soda waters of Carlsbad, the lime waters of Contrexéville and Bath, the sulphur waters of Harrogate and Aix, the indifferent thermal waters of Buxton and Gastein, and even the iron waters of St. Moritz: while there are a vast number of other springs, like those of Royat, which base their claim to be considered as remedies for the maladies of this diathesis, upon the salts of lithium they contain.

If each of these springs, so different in composition, is of value in the treatment of the uric acid formation, we should, naturally, look for certain conditions common to them all. What are these?

1. There is the quantity of water, more or less pure, taken into the body under regulated conditions daily. I have already attempted to estimate the value of this remedy.

2. There is, in many of these spas, the altered mode of life; the regular exercise in the open air, the modified diet, the early hours, the absence of business cares.

3. In many foreign spas there is the drier and hotter Continental climate, and

4. The stimulating effect to excretion and "tissue change" which the baths, douches, frictions and manipulations applied, at most of them, induce.

These are conditions, and not unimportant ones, common to most mineral water cures; and in the "indifferent thermal" springs which are chiefly applied to the relief of the chronic joint affections, deposits, deformities and loss of muscular power dependent on uratic inflammations the thermality and modes of application of these hot springs are probably the chief operative agents. I need only, for the purposes of this discussion, refer very briefly to the most typical examples of these resorts.

1. Vichy may be taken as the type of purely alkaline waters, its chief and all-important constituent being bicarbonate of soda (also Vals, Ems, Neuenahr, Apollinaris). We have already considered the importance of dilute alkaline solutions in the treatment of uric acid conditions. Whether the small amount of arsenic contained in the Vichy springs has any curative influence, I will leave with you to determine.

Durand Fardel, after more than forty years' experience at Vichy, satisfied himself that its springs "are extremely efficacious in gout

(regular acute gout), and absolutely curative in uric acid gravel." I gout, he says, it should only be employed in the intervals between the attacks. He appears to consider its good effects to be attributable to the influence of the soda in promoting a normal and regular nutritive metabolism. The water, when drunk and also when taken in the form of a bath, renders the urine alkaline or greatly diminishes its acidity, according to the quantity taken. Durand Fardel denies that it exercises any debilitating influence, as was asserted by Tronseau, and repeated by others, unless it is improperly and injudiciously applied.

The cases best suited to Vichy are gouty dyspeptics, fairly vigorous, with a tendency to pass acid urine, with deposits of urates and uric acid. It is also very efficacious in promoting the evacuation of renal (uric acid) calculi.

2. I will next refer to Carlsbad, as it is one of the special resorts of the gouty. Its waters, as you know, are hot, but of varying temperature, and contain considerable quantities of sulphate of soda, carbonate of soda, and chloride of sodium. It is a common error to regard these waters as powerful and very "lowering" purgative springs. They are no doubt aperient, but when properly administered only gently so, and it is often found necessary at Carlsbad to add a teaspoonful of the Carlsbad salts to the first glass of the water to ensure an action of the bowels. These springs have a remarkable action on the liver, and they have been especially utilised in the treatment of the gouty constitutions when this is associated with hepatic congestion, hæmorrhoids, and "abdominal plethora." Dr. Kraus asserts that he has found its waters "indicated in all cases of gout," and their use "attended with the most remarkable results." He specifies, however, those cases in which vascular and renal degenerations have set in, as well as the weak and debilitated, as requiring very careful supervision. For my own part I should not advise any regular mineral course in such cases; it is exceedingly undesirable to surcharge with water, even for a short time, the vascular system when it is the subject of degenerative changes. Dr. Kraus also states that recent gouty deposits "will generally disappear during or soon after the use of the Carlsbad waters, but that they have no influence over chronic indurations." I regard the Carlsbad course, when accompanied as it is with the employment of the hot mineral or mud baths, as exceedingly valuable in promoting elimination by all the chief excretory organs of the body, akin, kidneys, and intestines, and that in this way it stimulates a complete and normal nutritive metabolism and promotes the discharge of the waste products of imperfect metamorphosis.

3. In the next place we have the large and important group of springs in which the chlorides, and especially the chloride of sodium, are the chief ingredients. Leamington in this country, Homburg and Kissingen on the Continent, may be taken as examples of cold springs of this class; Nauheim and Wiesbaden of hot ones. There exists some difference of opinion amongst physicians as to the precise value in uric acid conditions of these common salt waters. The hot springs of this class are generally admitted to be valuable in chronic rheumatic conditions, but there is some hesitation in admitting their utility in gouty states. In the treatment of gouty articular deposits, Ebstein and others estimate highly the hot springs of Wiesbaden, applied as baths, and also drunk hot. Ebstein quotes the experiments of Pfeiffer to show that the water of Wiesbaden greatly increases the renal excretion and the quantity of urea excreted.

Homburg and Kissingen are especially applicable to chronic dyspepsias, gastric catarrhs in gouty persons, whose gout, however, does not assume a very serious aspect. The waters are diuretic and slightly aperient; they are considered to "promote tissue change," to promote elimination, to check the tendency to obesity, and to "ward off" the more serious gouty affections.

4. The most difficult waters to comprehend are, to my thinking, those earthy waters containing chiefly sulphate and carbonate of lime, like the cold springs of Contrexéville. Those very "hard" waters we should scarcely be disposed to consider, at first sight, as valuable uric acid solvents, yet this is precisely the property that is especially claimed for these springs. I have visited personally most of the important spas of Europe, and have remarked that the springs at nearly all of them are administered by the physicians who practise there in moderate and sometimes in quite small quantities. But it is quite otherwise at Contrexéville; here the first thing that struck me was the very large size of the glasses, each holding about twelve ounces, and the large number of glasses that many patients were ordered to drink. As many as eighteen glasses a day are occasionally ordered by physicians, and over-zealous patients will occasionally add half a dozen more on their own account!

One of the objects of passing this large quantity of fluid through the urinary passages is, no doubt, to mechanically dislodge and carry away

calculous deposits lodged in the kidneys; and it is indeed remarkable the success which frequently attends these efforts. But is it possible that this water exercises any solvent effect on the surface of these calculi, or on uratic deposits in the system? I was assured by the able physicians in practice there that in gouty persons large quantities of uric acid are secreted during, and sometimes for a long time after, the course. Is it a mere "lavage" or washing of the blood? They think not.

Another interesting point about the use of these sulphate of lime waters is the decidedly purging effect they often exercise at Centrexéville. This is at once apparent by the abundant and handy provision made for such accidents. Is this the result of the mere overflow and passage through the intestines of undigested water, as is maintained by practitioners at rival springs; or is it that this large quantity of water carried (when taken, as it is, in the morning fasting) immediately through the hepatic portal circulation stimulates a free secretion of an abundance of thin, very fluid bile, which acts as a quick purge when it reaches the intestine? or is it that both these events happen? Several patients who were trustworthy observers assured me that their alvine evacuations were distinctly "bilious," and not merely "watery."

I am not aware that our own Bath waters have ever been administered cold, for the same purpose and in the same quantity as the somewhat similarly composed springs of Centrexéville. I do not see why they should not be, and as the latter is anything but an attractive resort, I feel sure that all English patients would much prefer passing three weeks at Bath if they could be sure of obtaining the same amount of benefit there.

5. The local treatment of gouty deposits, of gouty deformities, and gouty neuralgias, which is often attended with such marked advantage at such thermal springs as Buxton, Gastein, Wilbad, Bath, and Aix, owes much of its success, no doubt, to the thermality of those springs, and especially to the frictions, douches, and manipulations there employed. And in the case of the indifferent springs, the ingestion of a certain amount of warm water daily acts, no doubt, as a useful solvent and eliminant.

6. The sulphur springs, as those of Aix and Harrogate, find their appropriate application in those numerous instances of the gouty constitution which are accompanied with cutaneous eruptions, as psoriasis and eczema. Uriage, with thermal springs rich both in sulphur and chloride of sodium, and with a hot and dry atmosphere, I have known prove very valuable in such cases. Harrogate, which also has springs of similar composition and a more bracing climate, finds one of its numerous applications in these cases.

The feebly alkaline lithiated waters of Royat, those of Baden-Baden, the arsenical and alkaline springs of La Bourboule, the weaker carbonate of soda waters of Ems and Neuenahr; these and numerous other springs may be doubtless advantageously employed in the treatment of the uric acid diathesis, in some of its various manifestations.

With respect to the use of drugs simply for their purgative effects, I should like to say that purgatives are useful only in so far as they are the means of ensuring the discharge of excrementitious matters from the system; it would be a grave mistake in the treatment of these morbid states to allow the alvine and hepatic excretions to remain locked up in the bowels, or, in cases of abdominal plethora and portal engorgement, not to take steps to relieve that congestion; but it is equally an error to drain away the serum of the blood by drastic purgatives after we know that the bowels have been completely emptied of excrementitious matters.

One of the most complete and satisfactory purgatives in these cases is a pill at night consisting of half a grain of extract of colchicum and 2 grains of watery extract of aloes, followed in the morning by a large tea-spoonful of Carlsbad salts in a tumblerful of hot water.

I am disposed to think if we employ colchicum that we rarely require to use mercurials in the treatment of these affections.

Diuretics and diaphoretics, also, are useful as stimulants of excretion. As a diaphoretic a very hot bath with bran is a most useful agent.

The use of opium should be as much as possible avoided, because of its influence in checking excretions generally.

In the foregoing remarks I have endeavoured to bring before you most imperfectly, I am well aware, some of the chief practical considerations in connection with the treatment of the uric acid diathesis. The subject is itself so wide an one that it has been necessary to avoid, as much as possible, entering upon disputed points in pathology; it has, however, been needful to allude to certain theoretical views, in order to make our therapeutic discussions distinctly intelligible.

I have not attempted to treat exhaustively any of the points upon which I have thought it necessary to touch, my duty being to stimulate discussion by opening and not exhausting the several questions involved in this subject.

I may have (in the opinion of many here present) overlooked or inadequately represented remedial measures which they have found of great value. I can only say we are here to learn of them, and that personally I shall esteem myself indeed fortunate if these few imperfect suggestions, drawn from my own small field of observation, should be the means of opening the rich storehouses of their varied experience and ripe wisdom for the benefit of those who suffer and the enlightenment of those who heal.

Professor LATHAM wished at the outset to draw a sharp line of distinction between gout and the uric acid diathesis. The latter could exist and show itself in various ways without developing gout, as in gravel, calculus, etc. For the development of gout there must be first the uric acid diathesis, and then another diathesis superimposed, so to speak, upon it for the uric acid to act upon. He would leave gout out of the question, and confine his remarks to the treatment of the uric acid diathesis alone. Dr. Burney Yeo had stated that an appeal to the therapeutic effects of remedies was, perhaps, the best mode of settling the theory as to the formation of uric acid, and, if time permitted, he thought he could show that the action and effects of all the remedies to which Dr. Burney Yeo had referred in his most exhaustive and interesting paper would lend support to the view of uric acid formation which he (the speaker) wished to bring forward in order to arrive at proper data for the treatment of the uric acid diathesis, it must in each individual case be determined whether the excessive formation of the acid was due (1) to imperfect metabolism in the muscular tissue, or (2) to imperfect metabolism in the liver, and (3) not the least important, a clear conception must be formed as to the constitution and formation of the acid itself. If we were guided by the "teaching of experience," we found the saying "to live on sixpence a day and earn it" summarised, though in an exaggerated form, the pith of that teaching. The following dogma came very near the truth. There must be moderation in all things. Moderate exercise, moderation in diet, and moderation in nervous expenditure, which last included mental work, worry, grief, or anxiety. These were the first rules to be laid down, and if they could be enforced, then we could turn to certain drugs which would materially help us, if necessary, to lessen the excessive formation of the acid, or to promote its elimination. But he would first ask, would scientific investigation help us to understand why this moderation in all things was so essential? He thought it would; and this led him to say a very few words as to the mode of formation of uric acid in the system. It must be borne in mind that, in the tissues and glandular organs, assimilation and construction were going on simultaneously with disintegration and destruction. His view of uric acid formation was that it resulted not from destructive but from constructive metabolism. Let a man be given a dose of benzoic acid, and on examining his urine some little time afterwards, it will be found to contain hippuric acid; that is to say, the benzoic acid had not been destroyed, but had combined in its passage through the system with glycochin—a normal constituent of the bile, and which, in the ordinary course of things, gave rise to urea—forming thus a more complex substance. Now, let uric acid be analysed, and it may be split up into urea and a number of other substances, and by one mode of disintegration it was split up into glycochin, carbonic acid, and ammonia, the two last being derived from urea. Let the process be reversed: let glycochin and benzoic acid be put into a tube and heated; hippuric acid was formed. Let glycochin and urea be put into a tube and heated; hydantoic acid was first formed, and then uric acid. [Crystals of this substance which Professor Latham had produced in this way were shown under the microscope.] He argued from these data that it was either excessive formation of glycochin in the muscular tissue, due to imperfect metabolism, from insufficient action of that tissue, or it was the inability of the liver to transform all the glycochin that was brought to it either from the tissues or introduced as food into the alimentary canal, that led to the formation of uric acid. For the arguments on these points he must refer them to his lectures in the BRITISH MEDICAL JOURNAL for April, 1886, and since published in a separate form. The treatment of the uric acid diathesis resolved itself into this: to diminish in all ways the amount of glycochin brought to the liver, and to promote the function of the liver, so that the normal assimilation of this substance should not be interfered with. By moderate muscular exercise the glycochin in the tissues underwent its proper metabolism. If horses were kept in the stable, their urine contained hippuric acid; if at work, benzoic acid

only was to be found. In some way or other the glycozin was used up, and so theory confirmed practice in advising moderate exercise. If the patient was unable to move, shampooing or massage might be substituted, and perhaps also the occasional use of warm baths might be useful. If the function of the liver was impaired, then, just as in diabetes as little starchy food as possible should be given, so in the uric acid diathesis as little nitrogenous food as possible should be given, but sufficient for the wants of the system should be given, and especially food rich in glycozin, such as jellies, soups made from bones, etc., should be avoided, and all articles of food or drink which, given in excess, might lead to hepatic congestion, should also be avoided. In addition, such remedies as would promote the digestion and assimilation of the food, such as the vegetable bitters, gentian, etc., should be administered; and it should be borne in mind that the function of the liver might be imperfectly performed, either from exhaustion of the liver-cells by overwork or from exhaustion of the nervous system. Nervous exhaustion, shock, worry, or anxiety would put a stop to the action of the liver, and interfere with the proper metabolism of the substances conveyed to it, and thus moderation in nervous expenditure became a factor in the treatment of the diathesis in question. If, after carrying out these suggestions, the formation of uric acid was still in excess, then its formation might be lessened by an occasional dose of calomel, which, causing bilious evacuations, carried off the glycozin in the bile. Gregory's powder and the mineral waters, to which Dr. Yeo had referred, acted beneficially for the same reason. Further, by the administration of benzoates or salicylates, both of which combined with glycozin and were excreted in the urine, the formation of uric acid was lessened, and, if formed still in excess, its solution and elimination would be promoted by the administration of the alkalies, or their citrates, or carbonates, or iodides. Taking this view of the formation of uric acid, the questions as to the use of alcohol, sugar, or fatty food must be answered according to the special conditions of each individual case.—Dr. MYRTLE (Harrogate) said there could be no doubt that there was a uric acid diathesis, and without attempting to offer any explanation as to its cause, as a practical man he would take it for granted that certain individuals formed this acid in great excess, or were incapable of eliminating the normal quantity, which led to its retention in the system and the development of that class of disease spoken of by Dr. Yeo. He agreed with Dr. Yeo that gout was not merely due to uric acid, but something independent of it. He advocated the use of glycerine instead of sugar in those showing a disposition to acidity. He disagreed with Dr. Yeo, in condemning light clarets, and held that those suffering from uric acid and gout should know how to live without requiring the physician to tell them what they were to eat, drink, or avoid. He pointed out the advantages of a dry climate and abundance of sunshine, condemned the use of colchicum in acute gout, or in fact any active treatment during its early stages. As to the amount of Contrexéville water drunk—ten or twelve ounces daily—that should be able to wash out anything it met with. He referred to the extraordinary fact that natural mineral springs of the most opposite character as to constituents and everything else, were found in similar cases to produce the same good results, and called attention to the fact that if patients went to any of these spas with latent gout, they very soon had acute gout developed, showing that mineral waters were not to be trifled with, and that medical men should be careful how they acted in giving advice to those resorting to such spas. As to Dr. Yeo's statement that women were seldom the subjects of gout, he entirely differed, as in his experience women without any gouty history often were the victims of severe and intractable attacks, brought on by grief, anxiety, and overwhelming sorrow. Without doubt these were cases of a neurotic order, as they most frequently appeared in constitutions known as highly sensitive, and in subjects who led most regular, abstemious, and active lives.—Dr. SPENDER (Bath) urged that in the treatment of the uric acid diathesis there should be a few distinct landmarks for our guidance, such as these: the quantity of excretable uric acid and urea ought to be fully maintained; the excretion should be hastened; and the volume of urine increased as far as possible. Touching upon remedies which had not been alluded to by previous speakers, he eulogised phosphate of ammonia, which had been introduced by the late Dr. Basham in 1872 as a remedy for saccharine diabetes; and he (Dr. Spender) had found it equally valuable for the glycosuric storms which alternated with gout. The chloride of ammonium had a wide range of utility, and must be taken in doses of half a drachm three or four times a day, as Dr. Ringer advised, if we were to treat successfully such neural troubles as gouty lumbago, and sciatica. The value of lithium (though perhaps over-rated) was undoubtedly great, because it increased the

volume of urine, lessened its acidity, and favoured the elimination of the products, which it dissolved in the blood. Lime, as administered in the form of the Bath thermal waters, had a good effect, both in gout and rheumatism, by increasing the alkalinity of the blood, though having no alkalisng effect on the urine. With regard to diet, Dr. Spender insisted on the occasional necessity of entire abstinence from butchers' meat for a few weeks at a time. The action of the skin was best solicited and maintained by daily sponging with very hot water, preferably in the morning. The great therapeutic and hygienic points seemed to be to keep up a regular metabolic action of the system, by supporting the power of the heart and releasing the nervous system from all unfair pressure. In this way we might sometimes abolish the so-called uric acid diathesis by not thinking about it at all, but by thoroughly establishing and strengthening the general health.—Dr. MILNER FOTHERGILL said that, in adopting the term "uric acid diathesis," Dr. Yeo had used a judicious expression. "Gout" and "chronic Bright's disease," the children, often the twin progeny, of that great vaso-renal change which was the outcome of the uric acid formation, were terms rapidly losing their original meaning. The uric acid formation was due to inadequacy in the liver, no matter how brought about, in consequence of which its formation of urea was imperfect, and it reverted to the earlier primitive uric acid formation of the birds and reptiles. This came about in two totally different ways. We were all familiar with the typical gout affecting the hands and feet in robust persons, and due to indulgence in albuminoid food beyond the needs of the system. This was known as "rich man's gout." But there was also "poor man's gout" occurring in spare persons, never guilty of dietetic excess. In such persons the liver was either congenitally feeble, or, as Drs. Budd and Murchison termed it, "insufficient," or was impaired by some disease. In the latter instance, the liver reverted to the early uric acid formation under perfectly ordinary, or even slight, demands, upon it. In dealing with lithiasis, or the uric acid formation, there were several lines of attack, which might be adopted singly; but usually it was well to employ a combination of these measures. The first was to reduce the albuminoid elements of the food to the requirements of the body. These included eggs, the lean of the larger animals, and, to a less degree, cheese and legumes. By this dietetic regimen the labour of the liver in the matter of the metabolism of albuminoids was greatly eased. In other words this was giving the organ physiological rest—that is, such rest as was possible. The dietary should consist of fish, farinaceous matters, fruits, vegetables, and fat in all forms—animal fat, butter, and oil. By so doing the liver was rested as regards albumen metamorphosis. This line of attack could be adopted in all cases with advantage, bearing in mind that it was never well to lower the subjects of the uric acid formation too far. The next line of treatment could also be adopted in all cases. It consisted of an attempt to raise the incompetent liver to a higher platform of functional activity by resort to hepatic stimulants. For prolonged use a compound of strychnine and ipecacuanha as the two bases, with some taraxacum or euonymin, iridin, etc., to which might be added some podophyllin, or other laxative also having an action upon the liver, when some such agent was indicated, which was very commonly. In addition to this medication, some sulphate or phosphate of soda might be taken with advantage. At intervals a mercurial pill at bedtime, with a seidlitz powder next morning, would be found beneficial. These two lines of attack gave good results in all cases. Then followed the resort to the uric acid solvents—lithia and potash. These rendered the insoluble urates of soda and ammonia soluble by taking the place of the latter bases. As urates of lithia or of potash, uric acid was comparatively soluble, and so readily escaped by the urinary channels. The chronic interstitial nephritis (otherwise Bright's disease) found so constantly in connection with lithiasis (the granular, contracted, or gouty kidney) was set up by the irritant presence of excess of uric acid passing through kidneys constructed to cast out a fluid urine. By the conversion of the original urates into the comparatively highly soluble urates of potash and lithia such injury to the kidney was minimised. These uric acid solvents were best borne by stout, florid people of the Norseman type, but were very depressant with spare persons of the Arab or neurotic type, with comparatively large heads and thin flanks. Beyond these, there was a fourth line of attack, namely, plenty of oxygen. Hence Jones held lithiasis to be a disease of sub-oxidation. Certainly uric acid was less highly oxidised than urea. A great deal of the uric acid formation of town life was due to the lack of fresh air and exercise. Of old, after a substantial breakfast, the eater turned out for work or exercise in the open air. His modern descendant, after a substantial meat breakfast, commonly went to his office or counting-house, where he stayed inactive, at a

temperature of 70° F., with a rebreathed air." Could we feel surprised if his liver, under these circumstances, reverted to the uric acid formation of the lethargic Ichthyosaurian in his tropical swamp? In such cases of lithiasis or uric acid formation, horseback exercise in the country was the cure *par excellence*. Frequently a stay at some hydropathic establishment was attended by the best results. There remained one more line of attack, namely, the resort to colchicum. No one who had had personal experience of the pains of gout had any doubt about the analgesic effects of colchicum. The ease it gave was simply magical. At the same time, no sufferer from gout in the possession of his senses would resort rashly or recklessly to this potent pain-killer. Infinitely worse was the resort to colchicum to ward off threatening attacks of gout. When the liver manifested a tendency to revert to the uric acid formation, no matter how brought about or in what form or morbid manifestation, the management of the case involved knowledge, thought, discrimination, and the capacity to adapt concrete measures to the wants and exigencies of the individual. —Dr. BURNEY YEO, in reply, congratulated the Association on having elicited from those who had taken part in the discussion such valuable remarks as they had heard on this practical subject. He thought that the view taken by Dr. Latham that the changes were constructive rather than destructive was negated by the fact that so many sufferers from this diathesis showed no signs of defective nutrition, until degenerative arterial changes had been established. He had found colchicum, in small and careful doses, exceedingly valuable in the treatment of those neurotic affections connected with this diathesis. He protested against the use of opium or morphine in acute gout. He considered it was not good practice or good theory to give a drug which arrested secretion in a malady which was one of defective excretion. He thought it most interesting to learn that uric acid had been detected in the secretion of the skin.

REMARKS ON A CASE OF ACUTE INTESTINAL OBSTRUCTION DUE TO THE PRESENCE OF A MECKEL'S DIVERTICULUM, SUCCESSFULLY TREATED BY LAPAROTOMY.

By A. F. MCGILL, F.R.C.S.,

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ON March 5th, 1887, I saw, in consultation with Dr. Glaister, of Rothwell, a collier, aged 30, who had been suffering from complete intestinal obstruction for nine days. We learnt that while at work on February 25th he was suddenly seized with severe abdominal pain; he walked home, and on taking a glass of water immediately vomited. From that time he passed neither fecal matter nor flatus from the bowel, and vomited everything that he took by the mouth. The symptoms were not of the severest type, as he had long intervals in which he was free from pain and sickness; vomiting was, however, induced by every attempt to take food. His abdomen gradually increased in size, and his general condition much deteriorated. He was treated in the usual manner, chiefly by opium and large injections. When I saw him the abdomen was immensely distended, and numerous coils of intestines were distinctly visible. He was in a feeble and almost moribund condition, extremely wasted, and with a quick thready pulse. The case was apparently one of intestinal obstruction, situated in the small intestine, and due to some mechanical cause. We advised his removal to the Leeds Infirmary, where I operated the same evening. The operation is described as follows in the Infirmary notes:

"The patient being placed under chloroform, the rectum was first examined, with a negative result. The skin of the abdomen having been thoroughly cleansed, an incision was made in the median line, extending from a point one inch above the symphysis pubis upwards for three inches. The peritoneal cavity was opened, and a small amount of clear serum escaped. Through the opening the right hand of the operator was passed into the abdomen, and its cavity was thoroughly explored. As nothing to account for the obstruction was found, the incision was enlarged upwards for an inch or more. The intestines were then allowed to escape; when about three feet had escaped from the peritoneal cavity, the junction of the distended and empty intestine was seen. At this point a Meckel's diverticulum, much dilated and about six inches in length, was seen, passing downwards and forwards, to be attached to the fundus of the bladder. A loop of collapsed intestine passed under the diverticulum, the obstruction being caused by the twisting of the bowel at the point where the diverticulum was attached. The loop slipped from under the diverti-

culum with slight traction, and the distended portion could be seen emptying itself into the part previously empty. The intestines with much difficulty were returned into the abdominal cavity, and the wound closed with silk sutures.

The patient passed a small amount of flatus during the night, and was somewhat relieved the next morning. During the day he became worse, and the vomiting returned. As the passage of flatus had entirely ceased, and the abdomen was very large and distended, a saline purgative (Rochelle salt) was given. A large quantity of flatus was passed, and the patient's condition much improved. He went on perfectly well till the tenth day, when a small amount of fluid fecal material escaped from the upper corner of the wound. This continued for a fortnight, when the discharge ceased, the wound rapidly healed, and he left the hospital perfectly well.

Several points in this case call for remark.

1. The attachment of the diverticulum to the fundus of the bladder has not, so far as I know, been hitherto described.

2. The obstruction was due to the twisting of the bowel at the point of attachment of the diverticulum, and not to compression of the gut under this band. In this case the diverticulum was a cause of volvulus, which in its turn was the cause of the obstruction.

3. The treatment by laparotomy does not now require to be defended, but the mode of operating is not as yet quite determined. According to Mr. Treves the method adopted in this case should be condemned. In his own words, "the practice of allowing the bowels to escape is absolutely bad." It is no doubt, when practicable, preferable to operate without permitting the bowels to escape, the shock of the operation being thus much diminished.

In a case under the care of my colleague, Dr. Churton, I operated in this manner. A middle-aged woman had suffered from acute symptoms of intestinal obstruction for five days. Having opened the abdomen, I was fortunate enough to immediately find a firm fibrous band, which was the cause of the obstruction. This I divided with scissors, and straightway closed the abdomen. The patient had not a bad symptom, and left the hospital in a fortnight well.

But in many cases it is impossible thus easily to discover the cause of the obstruction, and then the surgeon should not hesitate to allow the intestines to leave the abdominal cavity. The danger of the operation is no doubt increased, but we are almost sure not to leave a remediable cause undiscovered. This happened to me about two years ago; I failed during operation to find a Meckel's diverticulum, which had caused obstruction for five days, and the patient, a boy of 15, consequently died. We may occasionally find the cause of obstruction by intra-abdominal examination, but in the majority of cases this method is ineffectual, and the intestines must be allowed to escape.

A second point connected with the operative treatment of this case is the leaving the diverticulum untouched. It might appear at first sight advisable to divide it and sew up the divided end. This would have taken some considerable time, and the prolonged operation might have caused a fatal result. It appears to me to be preferable to leave the diverticulum in position, even though this exposes the patient to the risk of another attack of obstruction.

4. No opium was given, but a saline purge was administered with apparent advantage. The administration of opium as a routine measure after abdominal operations is, in my opinion, much to be deprecated. It seldom does good to the patient, and it lulls the surgeon into a false feeling of security. Unless called for by severe pain, opiates should not be given. In this case the administration of a purgative, which immediately caused the expulsion of a large amount of flatus, did much good, and apparently turned the scale in favour of recovery.

5. This case well exemplifies the great difficulty with which the abdomen is closed in operations for conditions associated with excessive intestinal distension. Though every care was taken to prevent such an accident, it is evident that a small portion of the intestinal wall was caught in the upper angle of the wound. The fistula thus formed soon closed, and, beyond delay in healing, little harm was done. In another case we might not have been so fortunate. It has been suggested that in some of these cases it may be advisable to evacuate a portion of the intestinal contents through a small incision in the intestinal wall. The increased severity of the operation and the risk of septic infection of the peritoneum seem to contra-indicate this procedure. It should only be adopted when all other means of closing the abdomen have failed.

SUPERANNUATION.—Mr. Alexander W. McLeod, late medical officer for No. 1 district of the Fulham Union has obtained a superannuation allowance of £35 per annum.

TREATMENT OF THE PAROXYSM OF MIGRAINE BY ACIDS.

By A. HAIG, M.B. Oxon., M.R.C.P.,

Physician to the Royal Hospital for Women and Children, Waterloo Road;
Assistant Physician to the Metropolitan Hospital.

In a paper read at the Royal Medical and Chirurgical Society in May, 1887, and published in the *Transactions* (vol. lxx), I showed that a certain form of headache was closely connected in time with a large excretion of uric acid; and in a subsequent paper in the *Journal of Physiology*, Vol. viii, Nos. 3 and 4, I showed that within certain limits it was possible to diminish almost at pleasure the excretion of uric acid by giving acids, or to increase it at pleasure by giving alkalies; and further, in a recent paper for the *St. Bartholomew's Hospital Reports*, I have given notes of some cases of the above headache which had come under my notice, calling it "the uric acid headache," with the object of drawing attention to the extremely important part which uric acid plays, as I believe, in its causation; but I may say at once that I have very little doubt, and those who read my cases in the *Reports* will, I think, agree with me that this headache is really a member of the class commonly known as "migraine or sick headache."

My object here is not to discuss the many interesting points in the etiology and pathology of this headache and its related diseases, but to point out as quickly as possible a mode of treatment of the paroxysms, which is the direct outcome of my uric acid investigations, especially those in the *Journal of Physiology*, and which has met with such complete success in my own hands that I am anxious that it should be tried by others on a larger scale.

It will be seen that I have shown in the above papers that, during this headache, uric acid is excreted in excess in the urine, and probably also exists in excess in the blood, and further that it is quite possible to stop this excess in the urine, and also I believe in the blood, by means of acids, and it is to this treatment of the headache paroxysm by acids that I now wish to draw attention.

The acid used is not of much consequence; citric or nitro-hydrochloric are equally good; the only point is that the dose must be sufficiently large, especially if, as is often the case, the headache is going on during the "alkaline tide" of digestion. A dose I commonly find successful is forty to sixty minims of dilute nitro-hydrochloric acid in a tumbler of water, one half to be taken at once, and the rest in thirty or forty minutes; the headache is generally much better within an hour, and quite gone within an hour and a half from the first dose. If the urine is alkaline, or very slightly acid before this treatment is begun, or if the patient has previously been taking alkalies, a third dose of twenty minims of the acid may be necessary; but I rarely have to go beyond one drachm of nitro-hydrochloric acid, and I have given some notes in the *Journal of Physiology* of the effects of such a dose on the uric acid excretion. An equivalent dose of citric acid, taken as strong lemonade, will do as well, or, so far as I know, of any acid that may be preferred, provided it raises the acidity of the urine. It is also possible to reverse the process, and, by giving alkalies, to bring the headache on or increase it.

The above refers entirely to the treatment of the paroxysm; a diet without butcher's meat, beer, wine, etc., is, as I have said in previous papers (*Practitioner*, August, 1884, and March, 1886) the best preventive treatment.

If acids, properly and carefully given as above, completely fail to relieve the headache is not migraine, or at least not migraine due to uric acid; and if the urine be tested in the way I have described, probably no uric acid rise will be found corresponding to the headache.

A large number of drugs reported to be useful in migraine really act as acids, increasing the acidity of the urine and diminishing the excretion of uric acid. Some others probably act like the bromides by quieting the nerve centres, and preventing their reacting to the irritant in the blood; but as compared with bromides, the treatment by acids is more satisfactory in that it removes the irritant from the blood, and leaves the nerve centres intact for other processes.

REQUESTS AND DONATIONS.—Mr. Nathaniel Montefiore has given £1,500 towards the rebuilding of University College Hospital, namely, £1,000 for Mrs. Nathaniel Montefiore, and £500 for Mr. Claude G. Montefiore, Mrs. Alice Lucas, and Mrs. Charles McIver.—The Sussex County Hospital, Brighton, has received £500 under the will of Mrs. Stanford; and 50 guineas from Messrs. Findlater, Mackie, and Co.

SUCCESSFUL CASE OF EXTIRPATION OF THE KIDNEY FOR HYDRONEPHROSIS.

By WALTER FELL, M.B. Oxon., Wellington, New Zealand.

THE patient, Mrs. T., was aged 31. She had had six children, of whom three were living. The catamenia were regular, but she had always been somewhat delicate. I first saw her in June, 1886, when she complained of periodic attacks of intense pain in the right lumbar and hypochondriac regions. On examination a hard, freely movable body, about the size and shape of a kidney, was found in the right flank just below the last rib; it could be pushed forward nearly to the umbilicus. The diagnosis of movable kidney was made, and she was recommended a pad and bandage to keep it in place.

At my second visit, three months afterwards, on September 1st, she told me she had suffered intolerable pain, and that the attacks were becoming much more frequent. She had just gone through two days of intense suffering, with incessant retching and vomiting; the least exertion seemed to bring on an attack. She was thinner, and looked much worn. There was no rise of temperature; the urine was clear and pale, with no albumen. On examining the abdomen, the same movable tumour could be felt as before, but now it was much larger, and came forward as far as the umbilicus, while the anterior part fluctuated. The uterus was pushed forward, and its length was normal, and was unconnected with the tumour, which also appeared to be quite separate from the liver. An operation was recommended, to which she at once consented.

On the next day but one, on seeing the patient again, I found her laughing and free from pain, and on examining the abdomen the tumour had disappeared; the kidney could still be felt a little in front of its usual position, but the fluctuating swelling reaching to the umbilicus was completely gone, and this she told me was always the case: "When the pain was bad the lump was there; when the lump went away she was as well as ever again." The obvious explanation appeared to be that the ureter got blocked for some reason or other, the pelvis of the kidney enormously dilated, pain and vomiting followed, only to be relieved by the obstruction yielding and the tumour emptying itself. I could not get any distinct history of excessive flow of urine at these times, but she thought a good deal was always passed then. There was never any blood in the urine. It seemed to me that, during the paroxysms of pain, she ran considerable risk of rupture of the thinned and dilated pelvis of the kidney; so on September 5th, assisted by Dr. Collins and Dr. Rawson, I proceeded to operate. The spray and full antiseptic precautions were used.

An incision about four inches long was made in the position for right lumbar colotomy, but carried a little more forward than usual. On getting through the abdominal walls, the first thing that came into view was the edge of the liver, and immediately below this the kidney. On passing the hand cautiously forwards towards the umbilicus, a large bag containing fluid was made out; it was evidently a part of the kidney, and pressure on it reduced its bulk somewhat. The cyst being thus partially emptied, a finger could, by invaginating it, get into the centre of the kidney; so that, with the thumb outside, it was possible to make out that the substance of the kidney proper was much reduced. The kidney was, in fact, being slowly converted into a large cyst. After a brief consultation it was decided that the kidney was useless and a source of danger, and had better be removed. Accordingly, as it was bound down tightly by its lower surface, I cut into and stripped off the capsule, which was adherent in parts, and shelled out the kidney; and then, getting my fingers beyond the cystic part, with some difficulty tearing away a lot of loose areolar tissue, I was able to get hold of the large mass of vessels—ureter, connective tissue, and mesentery—which constituted the pedicle, and transfix it and tie it in three portions. After removing the tumour, smart bleeding took place from some unsecured vessel in the upper part of the wound and deep inside. Only a few seconds elapsed before the artery was secured, but the loss of blood was sufficient to cause an alarming condition of collapse. A stout double silk ligature was passed round a mass nearly as large as three fingers, from the centre of which the bleeding came. The whole was tied securely, and the ends of the ligature cut off short. The wound was then sponged and rapidly closed with five deep and three superficial sutures, and dry iodoform gauze dressings were applied. The whole operation, from the time of commencing the administration of the æsthetic, occupied an hour and a half.

The subsequent history is soon told. Recovery was rapid and uninterrupted. The temperature once rose to 100°, but never exceeded this point. On the twenty-second day the patient was sitting up in

a chair, looking stenter and better than she did before the operation. She is now, after an interval of eight months, going about in good health, the one kidney apparently sufficing to do all the work. On examining the kidney that was removed, the ureter appeared, at the spot where it left the pelvis of the kidney, to be intensely inflamed, the mucous membrane being highly congested. Whether this was the cause or the result of the obstruction I am unable to say. The case appears to me to be of interest as being one where a functionally active kidney, capable of and actually engaged in doing a large share of the excretory work, was suddenly removed without in any way apparently affecting the general health, most of the cases I have seen reported having been of the removal of a kidney which, from long suppuration or other cause, had ceased to be anything but a mere *nominis umbra*.

CLINICAL MEMORANDA.

A CASE OF ACUTE TRAUMATIC TETANUS, SUCCESSFULLY TREATED BY LARGE DOSES OF SALICIN AND BROMIDE OF POTASSIUM.

NOTES of the following case have been sent me by my old pupil, Mr. E. Thurlow Prior, of Leddon, Norfolk. I quite agree with him in thinking that the case is one of interest, and that the treatment merits a further trial.

A.M., aged 26, a young man of rather intemperate habits, cut his arm severely on June 30th, 1887, by thrusting his hand through a window. The wound appeared to be making good progress until July 15th, when he complained of pain in the epigastrium. In the course of the day his face began to stiffen, and there were twitches of the muscles of the face and of the back and legs. These grew worse until July 19th, when Mr. Prior was first called to see the patient. At this time the risus sardonicus was well marked, and spasm was elicited by speaking sharply or loudly to him. He was placed in a warm room, which was fitted with carpets and curtains to deaden sound, and full doses of chloral hydrate and bromide of potassium were administered. But he grew worse; the breathing became laboured, the pulse very rapid. On July 22nd he appeared to be actually dying; the respirations and pulse could not be counted, and spasms recurred with extreme rapidity.

At 1 P.M. a draught was given of salicin gr. xx, potassium bromide gr. xx, every two hours. At 5 P.M. the spasms occurred only at intervals of ten minutes, the pulse was stronger and numbered 120, and severe perspirations had set in. On the following morning, July 23rd, the intervals between the spasms had increased to twenty minutes; he breathed easily, and the pulse was still stronger and less rapid. The draught was now ordered to be taken every four hours. The improvement continued during the next two or three days, but several days elapsed before he was free from pain in the epigastrium, and for nearly a fortnight it was necessary to draw off his urine. At the end of six weeks he was convalescent. The only trouble which remains is the stiffness of the muscles of the upper extremity, due to the direct effect of the injury.

The rapidity with which improvement followed the administration of salicin and bromide of potassium leaves scarcely a doubt in the mind that the change in the condition of the patient must be attributed to the action of the medicines. It is, of course, difficult to assign to each drug its actual share in the cure. The improvement was marked by the occurrence of a profuse sweat, and this had probably something (perhaps much) to do with the recovery of the patient. The influence of the salicin was, perhaps, exerted on the vasomotor centre, and its action as a germicide must not be left out of the account. It is to be observed that the case was one of acute tetanus, but not of the most acute variety, for the patient was not in imminent peril until the eighth day of the disease.

HENRY T. BUTLIN.

Harley Street, W.

A CASE OF UNTREATED PSORIASIS OF FOURTEEN YEARS' DURATION, ACCOMPANIED BY CORNS ON THE PALMS OF BOTH HANDS.

In Mr. Hutchinson's paper upon Arsenic Cancer, reported in the JOURNAL for December 10th, several cases of psoriasis are described, in which, after a prolonged course of arsenic, corns appeared on the palms of the hands. In connection with the report of these cases the following instance of psoriasis entirely untreated, but yet accompanied by corns, is of interest.

W. W., aged 52, a butcher by occupation, came under treatment a few weeks ago for vomiting and headache. He is at present the sub-

ject of unmistakable psoriasis, and he has had his present skin affection for about fourteen years. The patches of psoriasis, however, have never troubled him enough to make him take any steps towards its cure, but he is a good deal concerned about a crop of small corns which have lately (he says) made their appearance on both palms. They are scattered indiscriminately over the palms and flexor surfaces of fingers and thumbs. Near the tips of some of the fingers they are sufficiently numerous to thicken the skin and make the fingers feel numb. In many places he has picked the skin, and produced a roughened pitted surface. There are no signs of ulceration on either hand. There is no reddened skin, and there are no cracks or fissures, or warts. The skin on the soles of the feet is natural, except for some large corns, evidently of pressure origin. The skin over the rest of the body is, excepting for psoriasis patches, quite healthy. There is no history of syphilis, and no evidence of it, and no enlarged or hardened glands are anywhere to be felt.

W. A. FOX, L.R.C.S., L.M. Edin.,
R. J. RYLE, M.B. Oxon.

Barnet, Herts.

RELAPSING COMA DUE TO TUBERCULOSIS.

J. J., a groom, aged 20, was admitted into the Queen's Hospital on December 3rd in a state of coma. The family history was said to be good, there being no account of any hereditary disease. The patient had been steady, and had had no illness except slight bronchitis three months and erysipelas of the head and face six weeks previous to his present illness.

On November 27th, he first complained of great pain in the head, but he had no vomiting. The pain gradually became worse, until in a few days he became unconscious. On admission, the patient was found to be emaciated, the abdomen was retracted, he could not be roused, and he passed his urine and feces involuntarily. The pulse was 72 per minute, and regular; the temperature was subnormal; the plantar reflex and knee-jerk were absent on both sides; the urine contained a cloud of albumen; the patient's head and eyes were turned to the right, and he could not move his left arm; the conjunctival reflex was lost on the left side; the margin of the optic discs was clear, except where the vessels emerged, in which situations it was indistinct; the veins were full and tortuous.

On December 7th, the patient was conscious, could reply to questions, and talked with his friends. The knee-jerk was present on both sides; the grasp of the left hand was much weaker than that of the right. On December 8th, the patient was again comatose; the next day, however, he could be roused, and answered questions sensibly. Towards the evening of December 9th, he again became comatose, the knee-jerk being again lost. He remained thus till December 16th, when he died. He showed a great deal while comatose. On the day of his death coarse rales were heard over the chest but there was never any dyspnoea or important physical signs. The pulse remained regular and the temperature subnormal throughout. At the necropsy the lungs were found to be infiltrated with miliary tubercles, and tubercles with a slight degree of meningitis were found at the base of the brain. The kidneys were healthy.

The interesting features of the case are: 1. The well-marked remittent character of the coma, which was very striking. 2. The absence of fever, the temperature, in fact, being subnormal throughout. 3. The absence of alterations in the pulse or in the breathing, although the lungs were full of miliary tubercle. 4. The loss of the knee-jerk during the stage of coma, with its reappearance during consciousness. The emaciation and the retraction of the abdomen pointed to tuberculosis, but the absence of fever and the sudden onset of the illness prevented the diagnosis being a positive one. In cases of coma without fever tuberculosis must be borne in mind as a possible cause.

Birmingham.

C. W. SUCKLING, M.D. Lond., M.R.C.P.

OPHTHALMOLOGICAL MEMORANDA.

CUCAINE IN SQUINT OPERATIONS.

In the JOURNAL for December 10th, Mr. Edgar Browne describes a new strabismus hook, which is also an injection syringe, and which can therefore water its own path with cocaine. In the number for December 24th, Mr. Lloyd Owen points out that it is desirable to anaesthetise the tissues before introducing the hook; he opens the conjunctiva, etc., with the scissors in the usual way, and then, with a pipette, introduces a few minims of cocaine solution beneath them. The tendon is divided two or three minutes later.

I desire to mention another plan which answers extremely well, and

by which the cocaine is retained in contact with the tissues to be divided more effectually, I think, than by the foregoing. The conjunctiva being anaesthetised, and the lids drawn apart by the fingers of the assistant, I pick up the conjunctiva over the insertion of the tendon, and, with an ordinary hypodermic syringe, introduced from before backwards parallel with the tendon, inject two or three minims of the solution. The fluid, unable to escape, forms a bleb just where it is wanted. A few minutes later, the speculum is introduced, and the operation performed in the usual manner, in most cases without pain.

Now that the *British Pharmacopoeia* has ordained that the name of the drug in question shall be cocaine and not caucaine, would it not be well, in spite of some reasons to the contrary, to abide by that decision, especially as cocaine is the name which is known in other countries?

PRIESTLEY SMITH.

Birmingham.

THERAPEUTIC MEMORANDA.

ANTIPIRYN IN MIGRAINE.

SINCE first suggesting, in July last, the extended use of antipyrin in sick headaches, I am glad to see it is gaining ground. I would suggest for convenience and portability the use of Burroughs and Wellcome's dainty little tabloids of the pure drug. I find some cases require larger doses than the eight grains (hourly repeated) which I first recommended, and that double that quantity will then be effectual. It causes in some slight constipation, but it is notable that, if it is taken in conjunction with a usual purgative dose, the latter will act in due course during a seizure, while without it almost any article of food or medicine will only make matters worse. Some light food should always be taken as soon as the headache is dissipated.

For such as are unable to leave home or enjoy travel, to go into crowded rooms, or to venture on certain articles of food and drink, or even medicinal tonics, there is in antipyrin (at no time incompatible) a promise of immunity from the usually dreaded headache which may follow next morning, if not sooner. Its timely exhibition will avert, in most cases effectually, that universal lethargy of function and disturbance of the secretions which are the characteristics of the seizure, and keeps the pylorus relaxed for free communication. Already an established antipyretic in all febrile conditions, it would seem, from some features of its action, to be worthy, also, of extended trial in rheumatic and spasmodic affections, and for the often distressing after-pains of childbed.

J. OGILVEY, M.D., Surgeon-General.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

A CASE OF VESICAL CALCULUS, WITH REMARKS ON THE SUPRAPUBIC OPERATION FOR STONE.

Under the care of Mr. EDMUND OWEN.

(From notes by Dr. E. J. LEWIS, late House Surgeon.)

A BOY of 2½ years was admitted 24th October last, who, for three or four months, had been crying on micturition, and who had had, moreover, frequent attacks of hæmaturia. Six weeks previously his doctor had circumcised him; probably he had omitted to sound him, or he might have detected a small stone in the bladder. On 26th October, under chloroform, Mr. Owen incised the meatus and attempted to introduce a small lithotrite (No. 7), but without success. He, therefore, passed a straight staff with a median groove, opened the bladder through the left side of the perineum, and removed a very small stone by a pair of ordinary dressing forceps. There was practically no bleeding; the boy's legs were tied together, and he was put back to bed. In the evening his temperature was 99.8°, but next day it was down again to normal, and during the whole period of his remaining in hospital it never again rose to 99°. The wound promptly healed, and he was taken home on 14th November, in less than three weeks after his admission.

REMARKS BY MR. OWEN.—In a clinical lecture which was given last year by my friend, Dr. Dennis, Professor of Surgery at the Bellevue Hospital, New York, he said, speaking of the high operation: "It is

to be, undoubtedly, the lithotomy of the future." I venture to think that such a statement is, to say the least, premature. That it is at present the "fashionable" operation in surgery is beyond dispute; but it has not yet been sufficiently submitted to the test of time and experience for one to be able to assign to it its exact position amongst surgical procedures. True, on many sides, we hear the operation well spoken of. One is told of quick healing of the wound, of freedom from constitutional and local excitement, and of rapid convalescence, as characterising the procedure. But, on the other hand, one also hears of the bladder-wound giving way though the surface wound had healed, and of, in consequence, urinary infiltration and suppuration. Then, again, sometimes the wound is an extremely long while healing. The operation must be considered as yet on its trial, and in the meanwhile it is a misfortune that it is placed in direct competition with lateral lithotomy. Cheselden's operation has a magnificent history; the high operation may yet have a brilliant future, but this will not be secured by adopting it in the case of every calculous boy.

A few years ago, the question of a choice of operative procedures in the case of a boy with a stone in his bladder was never discussed. Every calculous boy, as a matter of course, was submitted to Cheselden's operation; and at the present day it would appear that, with a less pardonable want of discrimination, boys are being operated on by the suprapubic method. Statistics may shortly be forthcoming which will show that, in its general application, the high operation is not to be preferred to the lateral, though it may be far better in a certain small class of cases. The application of the operative procedures may not improbably be thus resolved:—Lithotripsy, after Bigelow's method, should be tried for all boys with a single, small stone; though, if this prove an oxalate, or too hard for crushing, the boy should be cut. Two very small stones might also be crushed and removed at the single operation. For a hard-ringing stone (oxalate), for a soft though large stone, and for several stones, a cutting operation must be done. For a large stone—of the size of a pigeon's egg and upwards—the suprapubic operation is to be preferred; but for a moderate-sized stone which is, from hardness or dimensions, unsuited for crushing, the lateral operation is, and, I think must continue to be, best suited. Dr. Dennis, who, from the deservedly high position which he holds in the surgical world at New York, as well as from the great practical experience which he enjoys, may well be accepted as the exponent of contemporary surgery on the other side of the Atlantic, said before the American Surgical Association last year: "I would venture to remark that the time is not far distant when there will be but practically two operations for stone in the bladder—suprapubic lithotomy and litholapaxy. If future experience demonstrates that a return of calculus occurs in a fair percentage of the cases after lithotripsy from *détritus* left behind, and that the mortality of the suprapubic is reduced to a figure equal to or less than perineal lithotomy, then suprapubic lithotomy, with its special advantages, will be the recognised operation of the day." This is, indeed, a very bold statement; it may possibly be verified, but in the meanwhile we must be content to record, watch, and wait.

One advantage which is claimed for the high operation is this, that it is "free from the risk of injury to the reproductive organs." But we have yet to learn that the operation of lateral lithotomy is followed by results which are prejudicial to the power of procreation. It has been remarked—I know not by whom, nor with what truth—that the begetting of children enters largely into the religious creed of the ordinary native of India, and that, if lateral lithotomy were frequently followed by sterility, the operation would be persistently declined.

It seems strange that an apologist should be needed for Cheselden's operation; but, as a corollary to the simple case which has been recorded above, and which has suggested these remarks, one may be allowed to say that lateral lithotomy in childhood still possesses its advantages. History tells us that it is comparatively devoid of risk; the time occupied in its performance is a matter of seconds; it drains the bladder in the most advantageous site, urinary extravasation and pelvic cellulitis following it only in the most exceptional cases; the wound requires no tube nor dressing, and it gives the surgeon no cause for anxiety.

THE Tavistock Rural Sanitary Authority, on reappointing Dr. F. M. Williams as medical officer of health, reduced his salary from £160 to £100 per annum; but the Local Government Board refused to sanction it, stating that they could see no sufficient grounds for the reduction. The subject was reconsidered and discussed at the last meeting of the Authority, when it was proposed by Mr. Northey, seconded by Mr. W. Perry, and resolved by a large majority, that the original motion for the reduction of the salary to £100 be reaffirmed, and that the Local Government Board be asked to sanction it.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

A FATAL CASE OF HEMIPLEGIA IN A CHILD WITH NEOROSY.

(Under the care of JOHN ABERCROEBIE, M.D., F.R.C.P.)

A. W., aged 5, was admitted into the hospital under my care on September 17th, and died the same day. For the clinical notes and report of the *post-mortem* examination I am indebted to Dr. F. Penrose, the medical registrar. About a month previously the child had been sent into the country for change of air, and, with the exception of occasional headache, had seemed well until two days before admission, when she was found to be paralysed on the right side; no particulars as to the mode of onset could be obtained. As she steadily got worse she was sent up to the hospital, where she arrived in a partially unconscious condition. The right arm and leg and side of face (?) were paralysed; she could feel on the left side, and could move the left arm and leg. There was no strabismus; the pupils were equal and sluggish to light, the optic discs healthy. No abnormal signs as regards heart or lungs. The right knee-jerk and plantar reflex were absent; they were present on the left side; there was no ankle-clonus. The breathing was slow, and gradually got slower from accumulation of mucus in the trachea and bronchi, and she died asphyxiated about five hours after admission.

The body was examined forty hours after death. It was that of a well nourished child; rigor mortis was well marked; there was no external evidence of violence. The left middle cerebral artery was completely filled by a black, dryish, non laminated, non-adherent clot. The artery seemed perfectly healthy. The left hemisphere, especially in the motor region, was more pink and decidedly softer than the right in the corresponding region, and the change was equally noticeable, both in white and gray matter. The left caudate nucleus showed some fine extravasations on its surface. The pons medulla and cerebellum appeared natural, as also did the fundus of the eyes and the left middle ear; the right showed superficial necrosis of the incus. The sinuses of the brain were healthy. Some adhesions were found over both lungs, and the bronchi were somewhat inflamed, and plugged with mucus. Near the free margin of the large mitral flap were found four minute whitish granulations, which were soft and easily removed, and appeared to be of fibrinous origin; in all other respects the heart was healthy. The urine was found to be albuminous, but no other evidences of disease were discovered, and no infarctions in any of the abdominal viscera.

REMARKS.—Although the clot showed no lamination whatever, and was not at all adherent to the arterial wall; still it must be considered, I think, as undoubtedly of *ante-mortem* origin. The clinical facts would alone quite justify such a conclusion, apart from the fact that there was found in the heart on the mitral valve just such a condition of things as would have been most likely to lead to embolism. The history of the case during life is much too incomplete to justify any opinion as to the cause of these little fibrinous coagula; the fact of the child having been sent into the country is, however, some evidence that she was below par, and the whipping up of a little fibrin from the blood in the cavities of the heart may have been due to her impoverished condition. It is difficult to say why changes had not commenced in the clot, for it must have been sixty hours old at the time of death; but, excepting that it was rather dry, it had all the naked eye characters of a *post-mortem* clot; the softening of the brain, however, in the region supplied by the plugged vessel is sufficient evidence of the time of its formation. On June 17th of this year I published in the JOURNAL a paper on hemiplegia in children, in which I took the view that arterial embolism was by far the most likely cause of the paralysis. This case supports that view very strongly.

REQUESTS AND DONATIONS.—Miss Mary Fothergill, of Hensol Castle, Glamorganshire, bequeathed £500 to the Cardiff Infirmary, £300 to the Cancer Hospital at Brompton, and £300 to the Hospital for the Paralysed and Epileptic.—Mr. W. S. Lewis, of Ketley, Wellington, bequeathed £500 to the Salop Infirmary.—The Queen's Hospital and the General Hospital, both at Birmingham, have each received £250 under the will of Mr. James Horsfall.—The Jervis Street Hospital, Dublin, has received £200 under the will of Mr. Thomas Synnott.—Mr. Solomon Longworth, J.P., of Whalley, has given two hundred guineas to the endowment fund of the Blackburn Infirmary.—The Grocers' Company have given £100, and the Skinners' Company twenty guineas, to the Seamen's Hospital (late *Dreadnought*), Greenwich.—University College Hospital has received £102 10s. from "The People's Contribution Fund."—Mr. George Henry Leather has given £100 to the Bradford Infirmary.—"T. K." has given £100 to the Bristol Royal Infirmary.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 10TH, 1888.

GEORGE D. POLLOCK, Esq., F.R.C.S., President, in the Chair.

A Case of Occlusion of the Left Bronchus by a Metal Pencil Cap, and its Removal by Tracheotomy. By W. B. CHADLE, M.D., F.R.C.P., and THOMAS SMITH, F.R.C.S.—The patient was a girl, aged 9. The loose metallic cap covering the end of a pencil, which the child had put in her mouth, became detached, and was drawn into the throat. Urgent choking and dyspnoea followed. This was relieved after the passage of a probang down the oesophagus, and the foreign body was believed to have entered the stomach. There was great pain at the time, and violent cough. Four days later, dullness on percussion and imperfect entry of air were first noted on the left side of the chest. Eleven days after the accident there was marked dullness over the whole of the left side, absence of respiratory murmur except over a limited portion of the upper part in front, displacement of the stomach upwards to the nipple line, and great retraction of that half of the thorax, indicating almost complete collapse of the left lung. The respirations were 30, the pulse 92. The temperature was subnormal—97.8°. There was no dyspnoea, but occasional short cough, aggravated by exertion. The conclusion arrived at was that the pencil cap, which was about one inch long and a quarter of an inch in diameter, had lodged in the extreme end of the left bronchus. After consultation it was decided to attempt the removal of the foreign body by tracheotomy before the supervention of serious inflammatory changes in the lung. Suitable provision was made for dealing with whichever end of the tube should present itself. For the open end a pair of suitably curved forceps, with external grip, were provided; these placed within a facsimile of the pencil cap were found to hold it firmly. The isthmus of the thyroid was divided between two ligatures, the trachea freely opened, and the edges of the tracheal wound attached to the margins of the skin by silk sutures. A long probe passed into the bronchus at once detected the foreign body in the position assigned to it, with the open end uppermost. The forceps were introduced, and the cap was extracted without difficulty. The plan of attaching the tracheal wound to the skin is recommended as serving to keep the trachea widely open; a help to the surgeon, and a source of safety to the patient. With the exception of a short pyrexial attack of short duration on the day after operation, the patient made a rapid and uninterrupted recovery; the lung slowly re-expanded, and a final examination of the chest fourteen days after the operation disclosed as the only abnormal physical signs slight deficiency of respiratory sound, and of expansion on the left side. The entrance of a foreign body into the left bronchus in preference to the right is shown to be by no means so rare an occurrence as commonly believed. Out of thirty-one cases collected in which the position of the foreign body is stated, it entered the left bronchus in eighteen instances, the right in thirteen. The physical signs observed in this case differ materially from those laid down by authority as typical in such conditions, and an explanation of this discrepancy is suggested. The collapse of the whole lung which followed the occlusion of its main bronchus is confirmatory of the accepted theory as to production of collapse of portions of the lung by obstruction of their supplying branches. The entire absence of pulmonary inflammation is opposed, however, to the view that collapse is the leading factor in the production of catarrhal pneumonia. Attention was drawn to the lowered range of temperature during the period of pulmonary collapse, to the inadequate compensatory rise in pulse and respiration-rate, and to the possible causes of the short phase of high pyrexia which occurred the day after operation.—The PRESIDENT complimented the authors on their skill in diagnosis and treatment. In a famous case in which Mr. Brunel had, during an exhibition of conjuring, let a half-sovereign fall into his throat, and Sir Benjamin Brodie had operated on him, the trachea was freely opened, he was turned on his face, his feet elevated, the body shaken, and the coin fell out through his mouth. Experiments subsequently made with sixpences and half-sovereigns showed that they generally went into the right bronchus. In a case of impaction of a piece of pipe in the inflamed walls of the trachea, Mr. Pick had not found any instrument as well adapted to his difficulties as that which Mr. Smith had so skilfully devised.—Mr. F. Sr. GEORGE MIVART had been first called in to this case, three days after the accident, and felt very grateful for the assistance he had received. At first sight the girl seemed to have very little the matter with her, and the case developed very slowly. He was sorry Mr. Smith had found it necessary, after opening the trachea, to stitch the skin to the lips

of the wound, as it left a large persistent scar.—Mr. HULKE congratulated Mr. Smith on a brilliant operation. He had himself published a somewhat similar case in which the end of a tracheotomy tube had broken off and fallen into the right bronchus. It was open at both ends, and so was easier to extract than the pencil-cap which Mr. Smith had had to deal with. He had made a flexible crotchet of silver wire, with which he found no difficulty in hooking it out. It was important that these foreign bodies were metallic and did not swell up and soften, as was the case with such substances as heads of grass, awns, and pieces of bone. Removal was easier in the adult than in a child, for in an adult it was not hard, after a free opening had been made into the trachea, to feel its division with the finger, and make certain of the position of the foreign body.—Mr. BARWELL related a case he had published in the *Clinical Society's Transactions* for 1873, in which a boy aged 17 had let a Punch's whistle slip into his bronchus. He had been quite unable to remove it, and the clinical symptoms were becoming serious when he took a rapid turn to the better and completely recovered. It was probable that he had coughed it up, swallowed it, and passed it unnoticed by the bowel.—Mr. HULKE, *à propos* of this, cited another of his own cases in which a sixpence was visible in the trachea; he could not seize it, but opened the trachea, whereupon it was coughed up and swallowed.—Mr. HOWARD MARSH remarked that he had been much interested with the various physical signs that the physicians found in the chest in these accidents; they seemed to vary quickly, but dulness generally attended collapse, as in Dr. Cheadle's case. He had found it impossible in another case in which a bean had passed into the bronchus to distinguish the foreign body by touch from the surrounding soft tissues, and, when the child died, it was found impacted in the left bronchus. Mr. T. Smith's operation had been so carefully considered that all contingencies had been provided for, and the matter seemed easy.—Dr. HOWARD had been struck with two points in the case before them; first, the good effects of stitching the skin temporarily to the lips of the trachea, for it was most important to be freed from the annoyance of a bleeding wound; and, secondly, the advantage that would be gained by having the tracheal wound higher than any point above it, so that the blood should not drain into the lung. On a question from the PRESIDENT, how this was to be brought about, he acknowledged that he had never done it.—Dr. CHEADLE, confining his few remarks to the medical side of the case, remarked that the difference of physical signs, according to the very varied physical conditions that might be produced in these states, was a complex matter; it was generally true that where the obstruction was incomplete, there was not much dulness, but it was much too sweeping an assertion in some textbooks that there was always resonance after impaction. When there was any it slowly disappeared as collapse set in.—Mr. T. SMITH said he had found no long forceps so well adapted to this case as a pair which opened outwards with a firm grip. With such a pair, duly curved, he had found it easy to grasp the pencil cap in the bronchus. In many previous cases he had seen great difficulty in grasping the foreign body, and the operation had often ended in its being coughed up. He agreed with Dr. Howard that the tracheal wound should be higher than any other part in the trachea. It was widely open; it was thought unnecessary to turn the girl on her face. He quite agreed with Mr. Hulke in the greater danger of soft objects, such as grains of barley, etc. In one of his own children a sugar-plum had obstructed the trachea, and caused very serious symptoms. It was shaken down in the larynx, and, after ten minutes of great anxiety, fortunately dissolved. As regarded the stitching of the edges of the trachea to the skin, he did not think that any serious aggravation of the scar would result.

Influence of Salicylic Acid and its Salts on the Excretion of Uric Acid. Dr. ALEXANDER HAIG, M.B.—After referring to the theory elaborated in the paper published on p. 73 of this week's JOURNAL, the author stated that salicylic acid formed an important exception to the general statement there made, for while it increased urinary acidity it did not in any way diminish the excretion of uric acid. Acids given while salicylates were present in the circulation had no longer the power of diminishing the excretion of uric acid. This action of salicylic acid and salicylates formed the subject of the present paper, and was of importance in explaining the value of these drugs in gout, rheumatism, and other diseases connected with uric acid. Statistics were given to illustrate the excretion of uric acid under salicylates, and were contrasted with others, showing the normal relation to acidity. Excessive excretion of uric acid taking place under salicylates was not accompanied by any headache, and salicylates had previously been found useful in this headache. The action of acids and alkalies on uric acid excretion was probably due to the fact that alkalies increased and acids diminished its solubility, and the same with the

exceptional action of salicylic acid, for salicylic acid, which it was supposed to form, differed from uric acid in being very greatly more soluble in water, and probably also more soluble in dilute acids. Benzooates did not act in the same way as salicylates, probably because hippuric acid, which they formed, was less soluble than salicylic acid. Both uric and salicylic acids were present in the urine passed under the influence of salicylates; this was possibly due to the salicylate acting on the uric acid in the blood, and not on the uric acid which was excreted direct from the kidney. Headache was present with the rush of uric acid which took place under alkali, but not with the rush under salicylates; possibly, therefore, under salicylates, uric acid was present in the blood in a different chemical combination (salicylic acid).—Dr. WARD felt much sympathy with this investigation of the causes of headache, and had confirmed on himself some of Dr. Haig's previous remarks on the connection of them with uric acid. He considered them gouty, and he was surprised that Dr. Haig should find acids a remedy for a gouty state. Similar headaches, or at least attacks of migraine, were found in women and in the French, who had no excess of meat; in his own case he found a high specific gravity of urine was a sign of coming headache. Strychnine and liquor ammoniæ acetatis afforded him the best relief.—Dr. A. E. GARROD did not find much light thrown on the action of salicylic acid in joint diseases, especially in gout, where its effects were trifling, though its slight power as an anodyne made it felt a little in rheumatoid arthritis. Uric acid had nothing to do with the pathology of rheumatic fever, and was not found in such cases in excess in the blood, though it had been very often looked for.—Dr. HAIG considered that he had established one form of headache, a uric acid headache, which he could produce and stop by increasing or decreasing the amount of uric acid. Women, he thought, suffered easily from small quantities of meat; the French from acid wine, for the acid helped the retention of their uric acid, and they did not get rid of it by exercise. A sensitive nervous system reacted to uric acid very easily. In a paroxysm of acute gout, salicylates were too late, for it took them some time to penetrate to the cartilages where the uric acid already was, but taken as a prophylactic they did much good, in his opinion. The relation of uric acid to rheumatism still needed to be worked out.

MEDICAL SOCIETY OF LONDON.

MONDAY, JANUARY 9TH, 1888.

J. HUGHLINGS JACKSON, M.D., F.R.S., President, in the Chair.

The Reflex Inhibitory Action of Cocaine as a Diagnostic Factor.—Mr. HURRY FENWICK read a paper upon a long series of cases in which pain in various parts of the body had been temporarily relieved in 30 to 180 seconds by urethral injection of 20 per cent. solution of cocaine. Cases of its action in neuralgic pain of the cranial, cervical, intercostal, renal, and lumbosacral nerves were mentioned, and the reasons for this power were roughly demonstrated to the Society by means of decapitated frogs. Thus, without a vesico-rectal injection of cocaine, the leg of the decapitated frog was rapidly jerked out of a weak acid solution in some fraction of a second; but after cocaine had been injected into the bladder or rectum, the leg was not withdrawn until after 20 to 30 or more seconds. This remarkable inhibitory power was only observed when weak acid solutions (that is, weak irritations) were used. Cocaine possessed no power of delaying the reflex excitability consequent upon stronger acid solutions. The following propositions were formulated:—1. Slight nerve irritations (as neuralgias) of any part can be relieved by injection into the urethra of a few drops of a 10 or 20 per cent. solution of cocaine. 2. Severe nerve irritation, as in the pain of carcinoma, inflammation, etc., cannot be thus relieved. Mr. Fenwick has used this knowledge largely in the differential diagnosis of urinary disease. Thus, if a renal pain was immediately relieved by cocaine, he judged the neuralgia to be due to a slight irritation, such as that experienced in lithiasis, congestion, or grit. If unrelieved (and cases were given) he diagnosed more serious cases (for example, stone, dilated pelvis, etc.) He then drew attention to the value of cocaine in operations upon the bladder and urethra in preventing damage to an unhealthy kidney. M. Tuffier's experiments upon renal congestion produced by distending the bladder or injuring the walls were mentioned, and it was submitted that this flooding of the kidney—which, if the organ was damaged, led to rigors, suppressions, and suppurations—might be partially or wholly prevented by the inhibitory action of cocaine upon the renal circulation.—Mr. JAMES BLACK asked whether Mr. Fenwick had noticed any serious toxic symptoms after injections of solution of 20 per cent. of

cucaine. He himself had used a 20 per cent. spray to remove growth from the inferior turbinated bone, and the patient became collapsed, livid, cold, and almost pulseless. A second case had exhibited the same alarming symptoms.—Mr. BOWREMAN JESSETT said he had removed an enlarged gland from the neck after the injection of 10 minims of a 20 per cent. solution, but serious symptoms had followed. He added that it was very difficult to obtain relief from pain by means of cucaine in removing polypi from the nose.—Mr. BERNARD PITTS asked Mr. Fenwick whether he had tested remote body sensations in a healthy subject after urethral injection. In a case of his own faintness had supervened, with general numbness and coldness of the surrounding surface.—Mr. WALTER PYE said he had seen many cases of fainting following the use of cucaine. He himself had felt faint after a 5 per cent. solution.

On the Treatment of Carotid Hæmorrhage.—Mr. FREDERICK TREVES read a paper on a method of controlling hæmorrhage from branches of the carotid arteries. He said it was usual to ligature the carotid trunk in hæmorrhage from small vessels, but much might be done by temporarily compressing the main trunk. Temporary pressure, however, could not be applied with success in the neck, and he proposed to isolate the common carotid, and pass a catgut loop around it, which could be pulled upon and so check the passage of blood. He quoted from cases in which he had resorted to this procedure, only one case—that of a child—proving fatal; and in all the lumen of the artery was ultimately restored. He added that no local inflammation or other inconvenience was to be feared as a result of the operation itself.—Mr. BERNARD PITTS asked Mr. Treves what he considered the best plan to adopt in cases of hæmorrhage from the internal carotid artery. In a case under his care, where there was copious hæmorrhage from a tonsillar abscess, he tied the common carotid. The hæmorrhage, however, recurred, and the patient succumbed to the loss of blood. At the *post-mortem* examination a large opening was found into the internal carotid in the vicinity of the abscess. He had made a series of experiments since, and he found that blood escaped much more freely from such an opening when injected into the external carotid. He asked whether there was a prospect of permanent plugging from the temporary ligature.—Mr. HARRISON CRIPPS observed that the mortality in punctured wounds of the carotids was due partly to deficiency of the cerebral blood supply, and partly to recurrence of the hæmorrhage. He thought it was better to ligature the external carotid rather than the common carotid. It most frequently happened that the hæmorrhage came from tonsillar branches of the external carotid.—Mr. TREVES, in reply, said the loop was in no sense a temporary ligature. Even in the child who died the lumen was not obstructed. The suggestion to ligature the artery at the site of the wound would not be possible in a deep punctured wound.

A Case of Gastro-enterostomy and a Case of Duodenostomy for Carcinoma of Pylorus.—Mr. BOWREMAN JESSETT read the notes of two cases in which he had operated for pyloric obstruction due to cancer. The first case was that of a woman who suffered from exceeding pain and persistent vomiting. There was a tumour to the left of the middle line, in the epigastric region, freely movable. The stomach was washed out, and on June 4th he operated. Owing to the patient's failing strength he contented himself with suturing the duodenum to the abdominal parietes, the wound being treated as in gastrostomy. The pain continued for some time, the patient being fed with beef-tea, zymuised beef suppositories, etc. The patient ultimately died on July 3rd, one month after operation. The second case was that of a man who suffered from melancholia. He was extremely emaciated, and only weighed 8 stone 4 lbs. He complained of great pain, relieved by vomiting. There was dulness below the ensiform cartilage; the stomach was not appreciably dilated. He was operated upon, the jejunum being stitched to the anterior wall of the stomach. He died ten days after the operation. At the *post-mortem* examination the cicatrix of an old ulcer was found near the pylorus, the walls of which were thickened. He recommended that duodenostomy should be performed while the patient's condition was still such as to allow of it.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JANUARY 4TH, 1888.

JOHN WILLIAMS, M.D., President, in the Chair.

Specimens.—Mr. SIDNEY HARVEY showed a specimen of Interstitial Gestation.—Dr. CARTER exhibited Ovaries and Tubes removed for Double Hydrosalpinx.—Dr. W. S. A. GRIFFITH showed (1) a specimen in which there was a Tubo-ovarian Cyst of the Right, and Hydrosalpinx of the Left, Tube; (2) a case of Cystic Adenoma of the Anterior Lip of the Cervix; (3) a Parametric Abscess.

Post-mortem Appearances of Phlegmon of Broad Ligament.—Dr. LEWERS read a note on this subject. The patient was admitted into the London Hospital a few days after her confinement suffering from mania and parametritis, and died of bronchitis. On *post-mortem* examination, the layers of peritoneum forming the right broad ligament were found separated by exudation, measuring from before backwards one inch and a half, and bounded above by the Fallopian tube stretched over the convex surface of the swelling. The external surface of the peritoneum was somewhat granular, with here and there flakes of recent lymph about 1-16 inch thick. On cutting into the swelling the cut surfaces had a coarse, sponge-like appearance, the largest holes being the size of a No. 16 catheter, and all the cavities were filled with a sero-sanguinolent fluid, but none of them contained pus. The right ovary measured 2½ inches long, 1½ deep, and ¾ thick. It was adherent to the adjacent surface of the broad ligament by recent lymph, and on section an abscess containing half a drachm of pus was found. The author said that the specimen illustrated a phase of parametritis rarely met with, and was interesting as bearing on the pathology of ovaritis. He thought it was difficult to conceive of ovaritis occurring as a primary affection, while it was easy to see how it might be secondary. Periovaritis was produced by extension of inflammation along the Fallopian tube to the pelvic peritoneum, producing pelvic peritonitis involving the ovary. Interstitial ovaritis might be produced by extension of inflammation from the connective tissue between the peritoneal layers forming the broad ligament along the connective tissue in the hilum of the ovary, and so to the parenchyma of the ovary—that is, interstitial ovaritis was secondary to parametritis. In the specimen, while the inflammation in the broad ligament was still in the stage of phlegmon, the inflammation in the substance of the ovary had gone a stage further and caused a small abscess.—Dr. MATTHEWS DUNCAN regarded the dissection as of great interest. Dr. T. Keith had mentioned a case of an allied kind observed during ovariectomy. So great was the swelling that he could not pass a sponge into the pelvic cavity. In Dr. Lewers's, as well as Dr. Griffith's case of parametric abscess, there was room for believing that septicæmia was present, and this might be the explanation of the situation of the disease between the folds of the broad ligament, a situation not common, even if it occurred at all, in simple traumatic parametritis. In puerperal septicæmia or pyæmia phlegmonous masses, as distinguished from abscesses, were not rare. They were generally situated on the limbs, and often multiple. They might or might not be superficially red and more or less tender. He had lately seen a case with redness, and with two small, deep, punched-out ulcers the size of a split pea. He had seen also two such cases of phlegmon where eminent surgeons had diagnosed abscess, and operated, finding no matter. Such cases, even when accompanied by bad symptoms, did not all end fatally.—Dr. GRALY HEWITT thought Dr. Lewers's contribution was very valuable, as the opportunity rarely offered of substantiating the actual locality of effusions in this situation. He had frequently met with cases similar to Dr. Lewers's. He was of opinion that presence of effusion indicated a localised septicæmia. The septic material entered by way of the lymphatics or by the blood vessels, and the effusion in the broad ligament was the result.—Dr. CARTER had been present at a necropsy of a patient who died of septic parametritis. The broad ligament of one side was enlarged, and appeared as though some plastic matter had been injected between and separated the parts. The veins were distended, and the lymphatics were embedded in plastic material and kept fixed and patent.—Dr. LEWERS replied.

Scarlatina during Pregnancy and in the Puerperal State.—Dr. BOXALL read a series of papers on this subject. He briefly referred to some of the anomalies which existed in ordinary scarlatina, and suggested that further deviations from the usual type might be expected under the special conditions which appertained to pregnancy and to the puerperal state. He mentioned some of the more recent literature on the subject as containing the varied and frequently diametrically opposed opinions expressed by different observers, and, in passing, drew attention to the confusion which had arisen through the loose application of the terms "puerperal fever" and "puerperal scarlatina." He then described a series of sixteen cases of undoubted scarlatina occurring during pregnancy and in the puerperal state, with special reference to the facts of exposure as far as they could be ascertained in each case. The clinical history of the same cases was presented in a tabular form for further consideration. 1. As regards the liability of pregnant and parturient women to scarlatinal infection, and the duration of the incubation period, Dr. Boxall referred to the rare occurrence of scarlatina during pregnancy, and its almost invariable appearance during the first few days of the puerperium. Bearing in mind the alteration in the existing conditions which took place

at delivery, he insisted that the two classes of cases must be kept separate, and that a distinction must be drawn (a) between those cases which received infection prior to delivery, and those which received infection during or after labour; (b) between those cases which failed before delivery, and those in which the disease did not make its appearance till after the onset of labour. He further pointed out that the duration of pregnancy had an important bearing on the question of incubation. The following inferences were drawn: (1) As regards the time, with reference to labour, at which the disease showed itself: (a) that scarlatina almost invariably occurred within the first week of the puerperium, and its occurrence at a later period was extremely rare; and (b) that in exceptional instances scarlatina might show itself during pregnancy, shortly before the onset of labour. (2) As regards the liability of pregnant and parturient women to scarlatinal infection, and the reciprocal influence existing between the latter and parturition: (a) that a woman exposed to the disease might become infected with scarlatina during pregnancy, during or after labour; (b) that the liability to infection was especially marked shortly before, and during the first few days after, delivery, but did not extend far into the puerperium; (c) that, if infection occurred during pregnancy, the onset of labour might be thereby precipitated; (d) that when infection took place during or shortly after labour, the incubation period might be shortened; and, finally, (e) that the foregoing considerations were in themselves sufficient to explain the frequent onset of scarlatina during the first week of the puerperium, without the necessity of ascribing to scarlatina in pregnancy an incubation period exceeding that of ordinary scarlatina.

II. With regard to the relation of scarlatina to menstruation, Dr. Boxall pointed out that an apparent analogy with regard to the onset of scarlatina existed between labour and the menstrual periods. Careful observations were made on a separate series of sixteen cases of scarlatina in non-pregnant and non-puerperal women. Upon this evidence it appeared that women usually failed with scarlatina shortly after, during, or just before a menstrual period, as in the case of labour. In conclusion, the author suggested that the following considerations (exactly analogous to those which referred to the intimate connection existing between the time of the onset of scarlatina and delivery) might serve to explain these facts: (1) That the liability to infection was especially marked shortly before, during, and immediately after a menstrual period. (2) That infection occurring shortly before a menstrual period might precipitate the flow. (3) That, when infection took place during or shortly after a menstrual period, the incubation period might be shortened.

III. With regard to the clinical course of scarlatina during pregnancy and in the puerperal state, Dr. Boxall, before entering into a consideration of the clinical features of the disease, reiterated the necessity of dissociating those cases in which the attack began before delivery from those in which it commenced after the onset of labour. The initial symptoms were discussed, and attention was directed to the special character of the throat affection. The following observations were presented: (1) That during pregnancy the throat symptoms were unmodified, but that after delivery angina was rare; (2) That in scarlatina after delivery (a) subjective soreness was usually absent at the outset, and even at a later stage rarely caused much distress; (b) signs of slight inflammation, though generally absent at the outset, might usually be observed on the second or third day of the attack; (c) the cervical glands were usually affected, whether any change had been apparent in the throat or not. The fallacy of adducing from the diminished intensity of the throat affection an argument in favour of direct inoculation of the poison through the parturient passages was pointed out. Attention was also directed to the slight intensity of the tongue affection, and to the marked flushing of the face which preceded the rash. These also appeared to be features of scarlatina developed *post-partum* but not of *ante-partum* scarlatina. From these observations it was concluded that some modifying influence, the nature of which was unknown, was called into play at the time of delivery. The peculiarities of the eruption were discussed, with especial reference to site and intensity. Its modifications were attributed to the altered circumstances of the patient after delivery. The frequent occurrence of sudamina and urticaria was also noted. A summary was given of the various complications which the scarlatinal patients presented. Mention was also made of the influence of a previous attack of scarlatina, and of the lapse of time after delivery in diminishing the severity of the disease.

IV. With reference to the effect of the scarlatinal poison on the course of labour, Dr. Boxall gave an epitome of the course of the labour, both of those patients who were delivered during the incubation period and also of those who were delivered during the actual attack of scarlatina. The following conclusions were adduced: (1) When labour occurred during the incubation period of scarlatina, it ran for

the most part its usual course, but the pains might exert a greater influence than usual on the mental condition of the patient; inertia, if induced, set in late in the course of labour, and a peculiar and almost characteristic odour might be present. (2) When labour occurred during an attack of scarlatina, the pains were apt to be feeble throughout, inertia set in early, and *post-partum* hæmorrhage was liable to occur. The same peculiar odour might be present. V. Respecting the effect of the scarlatinal poison on the puerperium, Dr. Boxall gave two tables, one representing the effect of scarlatina on the uterus and lochia, the other showing its effect on the mammary secretion. The nature of the slight and evanescent tenderness over the uterus, frequently noted quite at the outset of the attack, was briefly discussed. Particular attention was directed to the character of the lochia, and a suggestion was put forward that offensiveness might have occupied a more prominent position if local antiseptic measures had been admitted during the puerperium. In the majority of cases an increased flow was observed at the onset of scarlatina. The cause of this was discussed, and a similar increase of the menstrual flow on the supervention of scarlatina was noted. A brief review of the mammary function was given. The liability of the infant (when the mother was affected) to take infection was discussed with special reference both to the question of suckling (which necessarily implied direct contact with the mother) and also to the stage of the disease at which delivery of the mother took place. The following conclusions were offered: (1) That involution of the uterus was not much, if at all, retarded. (2) That the slight and evanescent tenderness over the fundus, occasionally present at the very outset of the attack, was often due to increased sensibility of the pelvic organs, and was rarely an indication of pelvic inflammation. (3) That, provided antiseptic precautions were taken, lacerations healed without difficulty, and the lochia as a rule did not become offensive. (4) That in some cases a peculiar, unpleasant odour might be observed. (5) That the lochia usually proceeded naturally and ceased about the usual time, but in many cases became red and free at the outset of the attack. (6) That the mammary secretion was frequently diminished and sometimes arrested, as the result of the illness. (7) That infants kept at the breast were especially prone to scarlatina, probably from the mere fact of contact with the affected parent. (8) That when scarlatina showed itself in the mother during pregnancy, the fetus might or might not be affected *in utero*. (9) That when the mother received infection shortly before delivery the infant more generally escaped, though it might be subsequently infected.

[As there was not time to finish the reading of two more sections of this paper, the discussion was deferred till another meeting of the Society.]

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SURGICAL SECTION.

FRIDAY, DECEMBER 9TH, 1887.

A. H. CORLEY, M.D., President, in the Chair.

Penetrating Wounds of Stomach and Transverse Meso-colon successfully treated by Abdominal Section.—Dr. CHARLES BALL brought forward the case of a boy, aged 15, who was admitted into Sir Patrick Dun's Hospital on March 29th, 1887, immediately after having accidentally stabbed himself with a half-inch chisel. The blade perforated his abdomen about half way between the tip of the ensiform cartilage and the umbilicus, and about a quarter of an inch to the right side of the linea alba. Dr. Ball saw him four hours after the injury; he was then profoundly collapsed; he vomited blood at frequent intervals, and at each effort to vomit a stream of blood spurted out from the abdominal wound. The whole abdomen was dull on percussion. An incision about three inches long was made in the middle line, between the ensiform cartilage and the umbilicus, and the chisel wound connected with it. As soon as the peritoneum was opened, a considerable quantity of blood gushed out. The stomach was found to be wounded. A clean cut existed in the great curvature, about half an inch in length; it was not bleeding. The mucous membrane, though perforated, was not prolapsed, and none of the contents of the stomach were found extravasated. The wound was sutured by passing a fine catgut suture, after the method of Lembert (but continuous), four times across the wound, only including the serous membrane; the ends were then tightly tied, thus absolutely closing the opening, and at the same time puckering up the serous membrane and bringing a considerable area on each side of the wound into apposition. The omentum was reflected upwards and search made for other wounds, as copious bleeding

continued. An opening in the transverse meso-colon, near its spinal attachment, could be felt with the finger; and, upon sponging away the blood, it was found that a large vein was wounded, to which, with some little difficulty, a catgut ligature was applied. The patient vomited shortly after the operation, but the vomit was free from blood. He was allowed nothing by the mouth, except small pieces of ice, for six days, and was fed by nutrient enemata of artificially-digested food. From the sixth to the fourteenth day, he was allowed gradually-increasing quantities of beef-tea and milk, and he then was allowed solid food. On the third day, he vomited some pieces of onion, quite unchanged, which he stated he had eaten the morning of the accident. Four weeks after the operation, he was discharged from hospital quite well.—The PRESIDENT pointed out that Professor Otis, writing on the surgery of the great American war, had emphasised the necessity of opening the abdomen in cases of gunshot wounds, while he disparaged the old method as oestrich surgery. Dr. Ball deserved praise for having the intelligence to conceive and the courage to carry out the operation.—Mr. HEVSTON and Dr. ARTHILL took part in the discussion; and Dr. BALL replied.

Foreign Body in the Œsophagus.—Mr. W. THOMSON read a paper on two cases of foreign body in the Œsophagus. In one, the patient tried to swallow a quarter of a pound of beef, and was brought in dead. In the second, the patient felt a piece of beef stick in the Œsophagus, when he went to a hospital and had a tube introduced. He went home; suffered much pain; the neck and face became emphysematous. He was admitted to the Richmond Hospital, suffering from dyspnoea and dysphagia. An attempt to explore brought on such a spasm that it was necessary to desist. Later in the day, tracheotomy was done with great relief. It was determined to explore the Œsophagus subsequently, but next morning the patient said the lump had passed down, and that he was able to swallow freely. He died that night. Opposite the cricoid cartilage the Œsophagus was transfixed by a bone, which passed forwards at the left of the trachea for a quarter of an inch. The posterior end also transfixed the Œsophagus, making a rent through which fluids passed freely into the posterior mediastinum. A piece of beef, two inches long, hung from the bone, like a morbid preparation in a jar.—Mr. TOBIN had had a similar case under his care in St. Vincent's Hospital. A woman, aged 57, was admitted, having a few days before swallowed a piece of meat and bone. She could not swallow fluids. Œsophagotomy was performed on the fourth day after the accident, and a large triangular bit of bone was removed. On the sixth day after the operation the patient died, partly from exhaustion and want of food, and partly from dyspnoea, due to the extravasation of pus and fluids, and perhaps from septicæmia, which the pus and fluids set up.—Dr. WHEELER, Mr. MYLES, Sir WILLIAM STOKES, Dr. GUNN, Dr. LENTAIGNE, Dr. P. MOLONEY, and Mr. W. THORNLEY SROKER took part in the discussion; and Mr. THOMSON replied.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, DECEMBER 21ST, 1887.

JAMES HARDIE, F.R.C.S., President, in the Chair.

Congenital Heart Disease.—Dr. HUTTON showed a boy, aged 8 years, the subject of congenital heart disease, and described the hearts of two sisters of this boy, both of whom had congenital heart disease. One of the hearts was also exhibited. The main malformation was in both cases due to arrest of development of the interventricular septum, leaving an opening between the ventricles just below the points of attachment of the aortic valves and the tricuspid valves. In the case of the boy there was seen to be great hypertrophy of the heart, and a loud systolic murmur was heard most plainly over the third left costal cartilage.

Epilepsy after Injury.—Dr. MOROAN showed a patient at present under his care in the Manchester Infirmary, in whom an epileptic attack immediately followed an injury of the ulnar nerve. About eight months ago the man was struck by a stick on the left "funny bone." He fell down unconscious, and remained in that state for some hours. Since that time similar attacks had occurred periodically, sometimes as often as eight times in a week. These seizures commenced with a feeling of coldness in the left arm, followed by clonic spasms; next, the little and ring fingers became flexed, while the wrist was bent on the forearm, and the latter on the arm; the left corner of the mouth and the left toe were then successively "drawn up;" unconsciousness followed, and conjugate deviation of the eyes towards the right side. As there had been partial left hemiplegia ever since the first attack, as likewise the tendon reflex on the left

side was exaggerated, and the deviation of the eyes during the attacks was towards the right side, Dr. Morgan looked upon the case as one of Jacksonian epilepsy, due to some gross cortical lesion (probably syphilitic) in the Rolandic area of the right side, and not as one of mere reflex epilepsy.

Suture of Tendons.—Some cases of suture of tendons were related by Mr. T. JONES. They will be published in full in the JOURNAL.

CLINICAL SOCIETY OF MANCHESTER.

TUESDAY, DECEMBER 20TH, 1887.

S. WOODCOCK, M.D., President, in the Chair.

Œdema of Larynx.—Dr. G. H. DARWIN related the history of a case of Œdema of the larynx, etc., produced by the action of raw spirit (brandy), which had accidentally entered the glottis during syncope. The patient was a widow, aged 45, who, while suffering from an attack of diarrhoea, fainted at stool, and her sister, who was attending, poured some raw brandy into her mouth, where it remained for a few seconds, and was drawn by the next inspiration into the larynx and bronchi. Here it caused immediate and alarming dyspnoea, followed by spasmodic cough and great pain in the ears. The throat was seen to be intensely red, and the voice was reduced to a whisper. There was found great congestion and swelling of the ventricular bands, which partly hid the vocal cords; and the whole of the lining membrane, so far as could be seen, was intensely red and swollen. Bronchial rales were heard all over the chest and back, and fremitus was distinctly perceptible over a large area. There was much pain behind the sternum increased on inspiration, and incessant coughing, with expectoration of frothy mucus tinged with blood. The treatment consisted of ice to suck, hot fomentations to neck and chest, and nutritive suppositories. On examination twelve hours afterwards the whole throat and larynx were covered with straw-coloured blisters, and there was great uneasiness, to relieve which steam inhalations were used. The following morning the Œdema was much increased and the breathing very difficult, with gasping and crowing inspiration. The patient gradually recovered.

Reflex Paralysis.—Mr. HERBERT LUND read notes of two cases of so-called reflex paralysis, occurring in two women, aged respectively 28 and 27 years. The exciting cause in both was carious molar teeth in the lower jaw, producing sudden weakness in the right arm, the weakness increasing gradually to a maximum, so that the arm could only by a great effort be abducted and raised, and disappearing abruptly on removal of the teeth. In the second of the two cases the weakness had existed for three months, and disappeared in a few hours after extraction of the teeth. Similar cases had been published by Mr. Salter (*Guy's Hospital Reports*, 1868). Mr. Lund then mentioned the theories as to the pathology of these cases: 1. Dr. Brown-Séquard's, that peripheral irritation of a sensory nerve produced anæmia of the cord and impairment of nutrition and function. In the *Guy's Hospital Reports*, 1861, Sir W. Gull refutes this opinion. 2. Lewisson's "inhibitory theory," demonstrated by his experiments upon rabbits; squeezing the kidney, uterus, or intestines of a rabbit producing paraplegia, the paralysis disappearing at once when the pressure was relieved. The three classes of "urinary paraplegias" of Professor Charcot were next enumerated: (1) Paraplegia in which the spinal cord is the seat of an inflammation. (2) Paraplegia, invasion rapid, cessation sudden, spinal cord unaffected. (3) Paraplegia depending upon direct propagation of morbid process from bladder, along nerves, to the cord. The second class Professor Charcot calls "reflex paraplegia," and under this heading Mr. Lund submitted that his two cases might be included.

Enchondroma of Finger.—Mr. E. S. BISHOP showed a case of single enchondroma of a finger. The patient was aged 29, and the growth had lasted twenty-five years. He pointed out that chondromata of the hand were usually multiple, and sprang from the medulla; this, on the contrary, was single, and arose from the deeper layers of the periosteum, thus resembling the tumours of this class springing from near the articular ends of long bones.—Mr. JONES doubted the peripheral origin of the chondroma; but Dr. HARRIS confirmed Mr. Bishop's observation that the phalanx from which the tumour had sprung was intact, except as to its periosteal covering.

Alopecia.—Dr. EAMES showed a collier, aged 21, affected with complete alopecia. The patient's hair began to fall off about four years before. A wash of hyposulphite of soda was used, and the disease appeared to be cured. Twelve months ago the affection returned, and by April last all hair had disappeared from the body, except in the axillæ. It remained in this state until last September, but hair was now again appearing.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, DECEMBER 21ST, 1887.

CHARLES SMITH, M.A., M.R.C.S., President, in the Chair.

Ophthalmoplegia Externa.—Dr. MCKENZIE DAVIDSON showed a case of bilateral ophthalmoplegia externa. The patient was a healthy woman, aged 26, of good family history. Eight years previously she began to complain of pain in the eyes, and discomfort, as if there were sand in them, with slight watering. At the present time the patient had double ptosis. On lifting the eyelids both eyes were seen to look outwards. The right eye could follow the finger inwards to a certain extent, but the left had no power of movement inwards at all. Otherwise the condition of the eyes was normal, nor did the discs show any trace of previous neuritis. These symptoms—almost complete paralysis of both third nerves—pointed to a central lesion located at the lower part of the third nerve nucleus. Dr. Davidson could not discover any obvious cause. Though her appearance was suggestive of syphilis, no history of that disease could be elicited. The treatment consisted in the exhibition of iodide of potash gradually increased.

Retention of Urine.—Dr. URQUHART read notes of some cases of retention of urine.

Cancerous Uterus.—Professor OGSTON showed a specimen of cancerous uterus which he had removed through the vagina. The cervix showed a distinct rim of healthy mucous membrane surrounding the "cauliflower" vegetations. The patient got up eighteen days after the operation, and left the hospital in three weeks.

Intra-alveolar Fracture of Central Incisor.—Dr. W. H. WILLIAMSON showed a specimen of intra-alveolar fracture of a right central incisor. There was a double fracture of the dentine at one point and of the cementum at another. The cementum had evidently united after the first fracture, and long after had been fractured at a different point. The pulp had been completely calcified.

REVIEWS AND NOTICES.

ON THE ANIMAL ALKALOIDS, THE PTOMAINES, LEUCOMAINES, AND EXTRACTIVES IN THEIR PATHOLOGICAL RELATIONS, being a Short Summary of Recent Researches as to the Origin of Some Diseases by or through the Physiological Processes going on during Life. By Sir WILLIAM AITKEN, M.D., F.R.S. London: H. K. Lewis.

WE have given in full the title of this little book, as it states exactly what the contents really are. Its pages, the Professor states, owe their existence to a lecture delivered by him introductory to the course of instruction at the Army Medical School at Netley.

The investigations underlying the most important practical work of the military medical officer relate, we understand, especially to the causation of diseases, with a view to their prevention. There is no disease which apparently acknowledges a single cause; but rather there are many and ever varying factors or conditions which, as antecedents, combine to produce disease. Many physiological agents undoubtedly aid and abet these factors; but we must regard the physiological agencies themselves as competent, under certain abnormal conditions, of generating many forms of disease.

The author deals first with the elaboration of toxic alkaloids and of azotised uncrystallisable extractives from proteid substances, and shows how they are the necessary products of vital physiological processes. He next deals with the pathology and symptoms of poisoning by these bodies, poisoning as the result of an accumulation of normally elaborated but toxic products; and he thus accounts, after a careful study of the physiology and pathology of fatigue fever, for the origin of certain constitutional diseases, such as the typhus of armies and of camps. What is true of fatigue fever and of typhus fever, Sir W. AITKEN says is equally true as regards typhoid, and he is convinced of its occasional spontaneous origin.

The researches of Professor Gautier and others have now abundantly proved that not only after death, but even during life, the animal organism, by virtue of its physiological powers, is able to elaborate the alkaloids to which the name of leucomaines has been applied, bodies which are, many of them, essentially toxic in their properties, and which resemble so closely the poisonous cadaveric alkaloids to which Selmi first called attention. This subject receives due attention at the author's hands, who treats the whole question from its clinical aspect in a most creditable manner. The book, indeed, is well worthy of perusal, not only by the army surgeon, but also by

every physician who is interested in such an important problem in medicine.

The work that has been done and the discoveries that have been made in connection with these animal alkaloids are very extensive, but we cannot yet comprehend their full significance, far less forecast the numerous and important results to which we have every reason to believe they will lead. Therefore it is that, filled with hope and assurance, we look confidently forward, with Sir William Aitken, for more of the same thoughtful work, so as to accelerate those discoveries which promise such a great and glorious future for pathology and practical medicine.

THE NATURAL HISTORY OF COW-POX AND VACCINAL SYPHILIS.

By CHARLES CREIGHTON, M.D. London: Cassell and Co., Limited.

IT is important for the candid reader of this work to bear in mind the elementary and well ascertained facts as to the formation of matter. However much the cosmogony or creation of the world had puzzled philosophers of former ages, a fresh departure, made in 1797, placed the question in so clear a light that it makes a fit preface to the arguments of Dr. CREIGHTON. At that date we learnt for certain that a primeval point, or *punctum saliens*, of the universe, evolving itself by its own energies, moved forward in a right line, *ad infinitum*, till it grew tired. After which, the right line which it had generated began to put itself in motion in a lateral direction, describing an area of infinite extent; and, further, that this area, as soon as it became conscious of its existence, succeeded in forming a solid space, filled with vacuum—a suitable nidus for the generation of chaotic matter; from the accumulation or deposit of which, as a centre, suns were projected, and from them planets, resulting eventually in organisation. And as with the creation of other matter, so it has been, we now learn, with the creation of vaccine lymph; it had its own origin, and has since demonstrated its own inherent powers. Though discovered about the same time that the cosmogony was explained, we have hitherto been in the position of a Sanchoniathon, Berosus, or Ocellus Lucanus about its nature. And now Dr. Creighton has removed the veil which, for many years, had obscured its origin.

Thanks to an inspired evolution from Professor Hirsch, Dr. Creighton was able, some years ago, to assure us that small-pox was the linear descendant of an originally innocent eruption, occurring in prehistoric times, among dirty Indians and Africans; and had acquired its specific and communicable ability by powers, nowise originally possessed by it, but yet inherent in it, and depending upon circumstances for their development. To this luminous doctrine the present work is a sequel. Vaccinia, however, differs from small-pox in not having yet attained the ability to disseminate itself atmospherically; it is, indeed, within measurable distance of its origin, and cannot be supposed at present to possess its final powers. It has grown, however, from an antecedent ulcerative process in the cow—not, indeed, prehistoric, but in our times. Harmless pimples (harmless, but potential for harm) forming on a cow's teats become ulcers by the merciless manipulations of milkers; those pimples, instead of dying away as pimples should, obtain in their ulceration a specific, transmissible quality; and go on to become inoculable from cow to cow, from cow to man—in man commonly being vesicular, but always having a tendency to revert to the original ulcerative process of the cow. It is that reversion that constitutes "vaccinal syphilis." This "syphilis" has no concern with venereal syphilis. The ulcerated arms of individual children, and the groups of syphilitic inoculations that we read of, are alike manifestations of this reversion to type. As with "vaccinal syphilis" so, we know (on Dr. Creighton's authority), with venereal syphilis; it has originated at some time in a simple scratch or sore, and by degrees, as time and opportunity have been given it, it has become a transmissible disease.

All this is very conclusive and satisfactory; of evidence we have none; nor do such theses stand in need of evidence. In its place Dr. Creighton bases his claim to the verdict of the profession and the public largely upon abuse of the plaintiff's attorney. He shows up with much detail what he characterises as Jenner's sophistries and falsehoods. Readers who have not got at hand a library of early vaccination literature have scant means of learning the facts of that period for themselves; but we may observe in passing that they will do wisely to verify each statement of our author before accepting him. His chief claim to be heard, however, is based on his own certain and infallible knowledge; and he kindly warns the "apologists of a contrary doctrine that he appeals to facts that are as well authenticated as any facts can be;" and such people

must beware how they attempt to wrap themselves in any "mantle of orthodoxy." He does not attempt to add to our knowledge of the protective powers of vaccination; and he gives us no assistance towards reducing whatever of risk there may be in the operation as nowadays practised.

We could have wished that it had fallen within the scope of Dr. Creighton's essay to notice a hypothesis of Dr. Birdwood, of the ship hospitals, another recent contributor to the literature of small-pox. This disease, being primarily a skin affection, and caused by germs that reach the susceptible individual through the atmosphere, is confluent or discrete, severe or slight, according as more or less of the germinating matter happens to fall upon the skin of the individual. This is, of course, why a person living near a small-pox hospital is more liable to attack than a more distant person; this is no doubt the reason why the face gets most pustules; and this (though we never heard of the fact) is why persons of large superficial area obtain more numerous small-pox pustules than smaller persons. As the constitutional effect of small-pox results from the local complaint, a certain security against death as well as against attack should be possessed by persons having small dimensions. Dr. Birdwood's evidence on this point is not yet forthcoming, but for the present we may commend Dr. Creighton's book to his study, and bid him beware of holes, exposing needless skin, in the mantle of his orthodoxy.

A MANUAL OF BANDAGING, ADAPTED FOR SELF-INSTRUCTION. By C. HENRI LEONARD, A.M., M.D., Michigan. Second Edition. Baillière, Tindall, and Cox.

A HANDBOOK OF ROLLER BANDAGING. By FANNY E. FULLAGER. Griffith Farran. 1887.

AMBULANCE LECTURES. By J. M. MARTIN, M.D. J. and A. Churchill. 1887.

ACCIDENTAL INJURIES, THEIR RELIEF AND IMMEDIATE TREATMENT. By JAMES CANTLIE, M.A., M.B., F.R.C.S. William Clowes and Sons. 1887.

THE first of the above-mentioned works by Dr. LEONARD, of Michigan, is one of the clearest and best manuals of the kind we have seen. Certainly the preface tarnishes, to our minds, the brightness of the work itself, for it is truly, as he allows, a chapter of preliminary egotism to which we are unused in our sober ways. But the material contained in the book is so practically laid before the reader and so clearly given that we cannot help being more than pleased with the work. We do not know any manual on the subject so well illustrated, and the author has adopted a method which we recognise as extremely valuable and original. All his diagrams—and they number 139—are done in white lines on a black ground, with the result of making them far clearer than the usual diagrams. But not only are the diagrams clear, they are correctly drawn, and explain themselves in a way we rarely see.

Moreover, the explanations and directions for use are particularly good—concise, clear, and practical—and are evidently the outcome of a large experience in the manipulative work of bandaging. They are expressed with the downrightness for which our American brethren are proverbially famous, and we have here many common-sense remarks which will be useful to learners and to practitioners alike. In a small manual of 150 pages it would be difficult to find practical information so clearly and fully given.

It would be unreasonable to expect the work to give everything that could be given in a subject which allows of so many little fads and references according to such manipulator's fancies and dexterity; but the author has tried to include many other applications of minor surgery, and the first twenty-five pages are devoted to poultices, the use of charpie or cotton wool, and the different kinds of compress, while the last fifty pages include chapters on immovable dressings, strappings, and the different kinds of knots. But we would recommend the author to give the plan described in Hoath's *Minor Surgery* as by far the best direction for tying a reef knot, and one which every dresser ought to be aware of.

The work has deservedly reached a second edition, and we feel it can be cordially recommended as a sound and useful guide for English students and for nurses, and those wishing to learn more of bandaging than is usually learned in ambulance classes.

The second is a small sixpenny pamphlet of twenty pages, meant for pupils attending ambulance classes. It has a large number of illustrations, which certainly do not reflect credit on the draughtsman for their beauty, clearness, or correctness. We do not expect a

little book of this kind to contrast favourably with such a work as has been noticed above, but we feel that a simple work for beginners should be written clearly and illustrated well. Pupils of the ambulance classes will be wiser to get a better, if rather more expensive, handbook. There is one piece of advice the authoress gives, which is good if pupils will give themselves time to practise it, and which few refer to on teaching handaging, and that is to be able to use the right and the left hand in applying the bandage to opposite limbs.

In the ambulance lectures of Dr. MARTIN will be found very sound advice clearly given, and well illustrated. We have here six lectures which will serve as an excellent guide to those giving such a course, and at the same time they will be acceptable to pupils as a reference book of immediate aid to the injured. The language used is clear, and the advice full of common sense, which will be found useful, while the illustrations, which number fifty-three, are many of them very practical, as showing how to utilise simple means at hand. The lectures include (1) An Outline of the Human Body, with a description of the simplest or most necessary appliances; (2) Hæmorrhage and its Treatment; (3) Fractures; (4) Shock, Choking, and Suffocation; (5) Methods of Lifting and Carrying the Sick and Injured; (6) Nursing, and an Appendix on Roller Bandaging. The work can be strongly recommended.

In the small manual of Mr. CANTLIE, on Accidental Injuries, we have a fuller work than the last; and the fact that this is the twelfth edition is an evidence of its popularity. The name given to the subject is a rather faulty one; for whether the injuries are accidental or intentional can make no difference in the treatment to be adopted. It is not often that a work runs to twelve editions in four years, and we must congratulate the author upon his well-deserved success. In the present edition he has added a chapter on the systematised forms of loading, carrying, and unloading stretchers as adapted to civil life, and recommended by the St. John Ambulance Association, and as many as forty-two new woodcuts appear in the work. The style is clear, and the directions for the different kinds of bandaging, carrying, lifting, and improvising surgical appliances, are just what will prove useful to those wishing to profit by ambulance classes. It is, however, more a work of reference for beginners than the lectures previously noticed, and has evidently been extensively used by those who have had to prepare such lectures, as well as by the classes attending them.

UEBER DEN EINFLUSS DES KOCHSALZ UND GLAUBERSALZHALTIGEN MINERALWASSERS AUF EINIGE FACTOREN DES STOFFWECHSELS. Von Dr. B. LONDON, Carlsbad.

THE action of mineral waters containing chloride and sulphate of soda upon the nitrogenous exchanges in the body, as well as on the excretion in the urine of the sodic chloride of the food, has received much attention of late years; but the results obtained by different observers cannot be said to agree very closely. Seegen, for example, in some papers of his we reviewed some time ago, maintained that the ingestion of sodic sulphate diminished the nitrogenous waste of the tissues, the body thus becoming richer in nitrogenous compounds, but poorer in the non-nitrogenous, particularly the fats. In the excrements, however, he found no diminution in the amount of nitrogenous substances, but the water of the feces was increased, and the amount of urine either unaltered or diminished in quantity. Other observers, on the contrary, such as Bischoff, Voit, and Pettenkofer, etc., have obtained different results. Bischoff, for instance, found that a large addition of sodic chloride to the food increased the urea excreted; the quantity rising in proportion to the volume of water poured out; the ingestion of much water also causing a similar increase. And according to Voit, an augmented nitrogenous tissue-waste occurs in consequence of the ingestion of sodic chloride, a decided diuretic action also manifesting itself. The endosmotic equivalent of the sulphate he further found to be greater than that of the chloride.

The results of a great many other observers are given as to the increased consumption of albumen in the tissue cells when water is imbibed in considerable quantities; and reference is made to Professor Hay's conclusions that a very slight increase in the urea excretion occurs when sodic chloride and sulphate are largely taken, and that after some hours diuresis sets in with consequent concentration of the blood.

Although the author, as the result of a series of carefully conducted and laborious experiments with Carlsbad mineral waters, was unable to arrive at any positive conclusions as to the excretion of nitrogen and the albumen exchanges in the organism, yet he uniformly found that the ingestion of these waters increases the excretion of the urine, the increase following very rapidly on the ingestion.

He likewise observed that where the body is methodically flooded by the mineral water, the circulation of the lymph in the tissues is quickened, the organic activity is increased, and in the more copious amounts of fluid poured out at the kidneys, concretions of different kinds may be eliminated. Further, the peristaltic activity of the intestines is heightened in a painless fashion, leading to more copious motions without diarrhoea.

IGNAZ PHILIPP SEMMELWEIS: EINE GESCHICHTLICH-MEDICINISCHE STUDIE. Von Dr. JACOB BRUCK. Wien: Karl Prochaska.

In the first chapter of this monograph a sketch is given of the early history of puerperal fever as it occurred in some of the chief lying-in hospitals in Europe, so far as any reliable records are available; and we learn that the mortality from this cause varied greatly, sometimes being as low as $1\frac{1}{2}$ per cent., and sometimes as high as 26 per cent. Till Semmelweis's time the theories held as to this disease were of the vaguest and most varied kind. He appears, however, to have been really the first to regard it as the result of a wound infection, and as a process identical with pyæmia. Indeed, he laid it down as a fever produced by the absorption from the inner surface of the uterus of decomposed animal matter, generated in the patient herself, or conveyed to her by unwashed hands or instruments.

Semmelweis's life was really a short one, for, born in 1818, he died in 1865, at the early age of 47; but short as his life was, his energy and genius enabled him to accomplish much.

The evil effects produced by the contact of dead animal matter with the genitals of pregnant or lying-in women, conveyed on the fingers of students or medical men from the dead house or dissecting room, were clearly recognised by him, and we find him in 1847 recommending the hands of all who had to do with the lying-in room to be thoroughly washed in chlorine water. By this means he was able greatly to reduce the mortality in his wards. Not only did he recognise the poisonous character of putrid animal matter, but he likewise regarded the living secretions as being capable, under certain conditions, of producing puerperal fever; and he pointed out the dangerous qualities of the lying-in chamber, if tainted with animal exhalations. We notice further that he brought his views forward in London in 1848, and a paper of his is to be found in the *Medico-Chirurgical Transactions* (vol. xxxiii) "On the Causes of the Endemic Puerperal Fever in Vienna." But little attention, we are sorry to say, appears to have been paid to his theories, although their truth we are now bound to acknowledge. Semmelweis was certainly, in some respects, in advance of his time, and this led ultimately to his withdrawal from Vienna to his native Pesth. During his six years' superintendence of the St. Rochus's Hospital in that city only eight deaths occurred from puerperal fever in 938 deliveries. In 1855 he was appointed professor of midwifery at the high school. His prophylactic measures against the occurrence of puerperal fever consisted, as far as possible by the means at his command, in hindering the entrance of decomposing materials from without, in preventing internal decompositions, and in removing at once any products of these decompositions. He further tried to introduce these antiseptic measures into operative gynaecology. In some measure we may therefore say, without detracting in the least from the honours so deservedly due to Lister, that Semmelweis anticipated some of the antiseptic methods of that distinguished surgeon.

The whole monograph must prove most interesting to all obstetric physicians, and the author deserves every credit for the able manner in which he has advanced the claims of Semmelweis, a physician who certainly deserves to have his name held in thankful remembrance by his fellow citizens.

MATERNITY, INFANCY, AND CHILDHOOD: Adapted especially to the Use of Mothers, etc. By JOHN M. KEETING, M.D., Visiting Obstetrician, and Lecturer on the Diseases of Women and Children, Philadelphia Hospital, etc. Edinburgh: Young J. Pentland. 1887.

The supply of works, large and small, on the hygiene of pregnancy and the care of infants is certainly, so far as number goes, in excess of the demand, and an addition to the number is only justifiable if the work is one of decided merit. The author really appears to have complied with this condition; the numerous practical suggestions distributed throughout the book testify to his experience of the subjects he treats, and his style is pleasing as well as clear. It is obviously difficult to say anything new with respect to the precautions to be taken during pregnancy, or the management of the new-born infant; but there is scope for observation and improve-

ment when we come to the question of rearing infants by any other than the maternal supply.

Mothers and nurses can never be too strongly impressed with the necessity for caution in the preparation and administration of the artificial food to which recourse must be had. A number of useful formulae are given for making cow's milk resemble the human secretion; but they all contain milk-sugar, a substance which, as the author himself informs us, is peculiarly liable to turn acid. We may note that the author prefers the "average" mixed milk to that obtained from one cow, except in the country. The directions for peptonising milk are quoted from a lecture by Mr. Fairchild, and cover the whole ground; but the author abstains from offering any opinion as to the value of this method of feeding—an unfortunate omission, even if intentional, for it is a department which is just now to the front.

The lists of different foods comprise many not known in this country. With reference to weaning the child, Dr. Keeting is of opinion that, after four or six months' nursing, the gradual addition to the dietary of a bottle is of advantage, and he gives some useful hints as to the choice of season. Dr. Keeting sets his face against the indiscriminate use of perambulators, the evil results of which "any mother can see for herself by going to one of the city parks," and mothers would do well to bear his remarks in mind.

The author disclaims any intention of countenancing the administration of drugs, except when ordered by medical men; but he is too liberal in his allusions to the effects of this or that drug, items of information which directly conduce to that undesirable result. It seems extraordinary that he should find it necessary to warn parents that "it is a very great mistake" to procure sleep for their children by means of "bromide, valerianate of ammonia, brandy, or gin." Is it not rather an exaggeration to ascribe rickets in the children of the well-to-do to "high pressure and nervous exhaustion," etc.? High pressure is the fashionable bogey just now, but it can scarcely operate at an age when rickets is to be feared.

Chapter xii, on Diseases of the Ear and Eye, is written by Dr. Turnbull. Both Dr. Keeting and his colleagues attach great importance to children being taught to blow the nose properly, and allude to this very frequently. Dr. Turnbull relies on Valvalva's method for the relief of many aural symptoms, but he omits to convey the necessary caution as to its use. He trespasses a good deal on what should be the exclusive domain of the medical man, but in other respects this chapter is very recommendable. The chapter on Nasal Affections, by Dr. MacCoy, of Philadelphia, is rather too technical for the ordinary reader. The chapter on Throat Diseases is not equal to those which precede it, and the author's classification is obscure indeed. Nevertheless, the book as a whole undeniably attains a high standard of excellence, and may safely be recommended as a reliable and comprehensive guide to the management of childhood.

NOTES ON BOOKS.

Sprains, their Consequences and Treatment. By C. W. MANSELL MOULLIN, M.A., M.D., F.R.C.S. 1887. (H. K. Lewis: London).—We have in this volume a carefully written essay on the subject, rather dealing with it from a philosophical point of view than from the practical view of the lecturer to popular ambulance classes, or even as adapted to the wants of the busy practitioner. The general principles of treatment are very carefully and fully considered, but it would be difficult for student or practitioner to learn what the author would recommend as the most appropriate treatment in sprain of any particular joint. It should rather be read by the student before he begins to see the practice of surgery, and much as we recognise the soundness of the views held by the author, we do not think the work so likely to be popular as the more practical ones which are now issued. And yet there is very much that is practical, rather hidden away in the masses of this volume, for the chapters on treatment by heat, cold, pressure, rest, forcible manipulation, and massage, are very complete, and make up a large proportion of the book. The whole is carefully written, and will repay thoughtful perusal, for the author, though strongly in favour of active measures of manipulation when joints have become fixed, is inclined to the simpler forms of treatment in ordinary cases, and the bolder methods of some modern writers are looked upon with only partial favour. The chapter on massage is particularly good, though it assumes more knowledge of the process than is often possessed, and its mode of application to different limbs is not sufficiently described. There is, however, much

in this book that does not readily appear, and we would recommend a much fuller index than at present exists, for the reader loses much that would prove useful to him for reference.

The Asclepiad. No. 16, Vol. iv.—This number begins with a lengthy article on the Clinical History of Scarlet Fever, in which Dr. RICHARDSON discusses several questions of special interest at the present time, when the recent epidemic of the disease in the metropolis seems to be on the wane. As to the occurrence of scarlet fever at different periods of life, he shows that it attacks most frequently in the third and fourth years of life. In London the chief incidence of the disease is in the four months from September to December, inclusive, whilst in New York, during the months from July to November, inclusive, the death-rate from the disease is below the average. As to the recurrence of scarlet fever in the same individual, the author states that he can discover, neither in literature nor in general experience, a case in which a second attack of scarlet fever has proved fatal. The mortality from the disease, its types, idiopathic and rheumatic scarlet fever, the pathology and poison of the disease, and its treatment, are headings of sections of this useful article. The Physiology of Good and Evil, forms the subject of an article, which is closed with the following dictum, that "Emphatically, science re-echoes the saying in all its solemn import; 'The wages of sin is death.'" A biographical sketch of John Brown, M.D., and the Brunonian system follows, in which the traits of character and person of that physician are well portrayed; whilst a portrait of him occupies the place of honour at the beginning of the book. A few other short articles go to make up the substance of this number, which, with the index and table of contents thereto appended, completes the fourth volume of a work which, whatever else may be thought of it, still maintains the character for industry and speculation of its author.

Dermatitis Venenata: An Account of the Action of External Irritants upon the Skin. By JAMES C. WHITE, M.D. (Boston, Mass.: Cupples and Hurd. 1887).—Under the title *Dermatitis Venenata* Dr. White has given the profession a book which, as a work of reference, will be useful to all those engaged in the practice of medicine, and will be indispensable to all those who are more specially interested in materia medica. He has discussed in a clear, concise, and systematic form the action of all substances belonging to the vegetable, animal, and mineral kingdoms which are known to produce dermatitis when applied to the human skin. Dermatitis of this kind is common among dyers, printers, chemists, silk-weavers, manufacturers of coloured papers and cloths, soap-makers, etc., and amongst a different class of persons, those, namely, who not infrequently irritate their skin by the use of cosmetics. The list of substances whose action is discussed by Dr. White is very large. The work is entirely systematic, and is written in a scientific spirit. As a solid contribution to practical medicine, we cordially recommend it to our readers.

The Diagnosis and Treatment of Eczema. By TOM ROBINSON, M.D. (London: J. and A. Churchill. 1887).—Dr. Robinson has had considerable experience in observing and treating eczema, and has assimilated with more or less success the ideas of Professor Laycock, Sir James Paget, and Mr. Hutchinson; we fear not always with complete success. Dr. Robinson believes that eczema is due to a physical peculiarity in the structures of epiblastic origin, and that persons who have the eczematous diathesis have certain peculiarities, namely, "a tendency to become bald or grey early in life; their teeth degenerate early, sometimes the incisors are pitted or marked transversely, they wear down and fall out in some instances in the most unexpected way. The nails are also of great interest in those patients, and present many forms of malformation; in some instances they are marked by white spots or white transverse lines, they are pitted with small circular depressions, or they are marked by transverse furrows; the longitudinal flutings are exaggerated in others. The shape of the nail is also of importance. It is often flat, sometimes even concave in its upper surface, and is frequently shaped like a shield; and they are often the subject of fatty degeneration of the cornea, constituting the state which is called *arcus senilis*." The chapters on the diagnosis and treatment of eczema contain nothing that calls for remark.

Letts's Medical Ledger. (London: Cassell and Co., Limited).—This handy volume has been arranged with the object of facilitating book-keeping, and lessening the trouble which the practitioner incurs in keeping his ledger. It is arranged for use in conjunction with *Letts's Medical Diary*, and is calculated to render the keeping of accurate accounts, without unnecessary detail, a matter of easy attainment. When the diary has been used as a journal, the data

are then posted to their respective accounts in the ledger. The use of abbreviations in these books materially lessens the amount of writing which is required when ordinary daybooks and ledgers are used. The publishers of the *Medical Ledger* state that they will be glad to receive suggestions for the improvement of the work, which, we may remark, is published in foolscap size, with 400 or 500 pages; also in quarto, with 200 or 400 pages.

The Climatic Treatment of Phthisis in the State of Colorado. By M. CHARTERIS, M.D.—In this little pamphlet Dr. Charteris gives the results of an autumn visit to Colorado, with some remarks on the climate of that picturesque State and its adaptability to the case of the consumptive. He claims for Colorado that it possesses all the advantages which have made Davos famous, with the additional recommendation that it is suitable for continuous residence throughout the year, and offers the prospect of remunerative employment to those who are sufficiently recovered to resume their avocations. These are solid advantages, and in view of them, and in the growing popularity of high altitudes in phthisis, it is not surprising that our American brethren unhesitatingly give the palm to Colorado among the multitude of competing sanatoria for phthisis. Dr. Charteris advises that the consumptive should pass the winter at one of the health resorts in Colorado, of which Colorado Springs seems the most desirable, and then proceed to a ranche in the spring. By this means the essential point of continuous open-air life may be secured, and well-paid though rather rough work may be obtained by those who desire it. We are somewhat surprised that Dr. Charteris should include Denver, a town with 80,000 inhabitants, among the desirable places for the consumptive, as the noxious influence upon phthisis of the air of large towns is now well understood; and his own figures show that in 1886, of 991 deaths in Denver, no fewer than 186 were due to phthisis—a proportion higher than that of some English cities. He shows, however, that of this number only twenty contracted the disease in Colorado, which confirms the growing impression that the air of high altitudes is infinitely more efficacious for prophylaxis than for cure. It seems not improbable that in the case of persons with hereditary consumptive tendency, or who are otherwise threatened with the disease, the routine treatment will one day include resort to one of the high-altitude stations. Dr. Charteris gives a few cases in illustration of his views, but the clinical details might have been more fully given. His views generally on climate are up to date, but some questionable statements are made, such as the remark that a sea-voyage tends to produce hæmoptysis. It would be a misfortune if the idea should prevail that hæmorrhage was any decided contraindication to allowing the consumptive the excellent chance of recovery which a prolonged residence on shipboard in some cases affords. There is really no evidence to prove that this opinion is correct.

Outlines for the Management of Diet in Health and Disease. By EDWARD TUNIS BRUEN, Physician to the Philadelphia and University Hospitals. (Edinburgh: Young J. Pentland. 1887).—This book is one of the "practical lessons in nursing" series, and its substance was originally delivered to the nurses of the training schools of the Philadelphia, University of Pennsylvania, and women's hospitals. The first chapter takes up the elementary physiology of digestion; but, bearing in mind that the work is presumably destined to educate and instruct non-medical persons, the author has failed to place himself on a level with his readers. He talks of "metabolism" and "assimilation," "succus entericus" and "arterial tension," without reflecting that such terms must be difficult of comprehension to persons outside the pale of the profession. The same fault pervades the subsequent chapters. The information, for example, that nitrogenous principles undergo resolution into urea and a "complementary hydrocarbonaceous product" is of doubtful value. There is an extensive tabulated list of food substances arranged in the order of their digestibility, in which black tea is classed as "easy of digestion," and apples rank with cooked fruits. With due allowance for individual peculiarities, however, such lists may doubtless serve a useful purpose. The author very properly objects to the habitual use of alcoholic beverages, except when prescribed by the physician as medicine, but it is open to doubt whether the cocoa milk substitute will become popular in lieu thereof. His advice to elderly people to partake of brandy, whisky, or gin "just before or with the meals" savours of physiological heresy, as does the permission given subsequently that tea may be used "without detriment if taken without food," but, in justice to the author, it must be remarked that he inculcates the greatest caution and reserve in the use of stimulants, whether alcoholic or otherwise. Water is evidently the author's favourite beverage.

and "should be freely used between meals." We cannot subscribe, moreover, to the assertion that "inorganic substances in drinking water, unless they carry with them sewage matter, are unpleasant rather than harmful." It is hardly correct either that charcoal is the only depravative substance which can be safely and yet effectively mingled with water without communicating taste or hurtful properties. Random statements of this kind do not add materially to the value of the book. Allusion is made to the "popular fallacy" of supposing that better milk can be obtained from one cow, and the mixed supply is preferred, but it is a most dangerous fallacy on the author's part to assert that placing milk on ice "obviates any probability of the transmission of poisonous microbes into the system." The addition of two ounces of lime water to half an ounce of milk is certainly excessive, though this mixture is credited to Meigs. Perhaps two ounces is a misprint for teaspoonfuls, which is ample. On the whole the book is not up to the usual mark, although it contains much information of a practical kind.

THE *Diary* for 1888 of the *Sanitary Record and London Medical Record* goes far towards attaining the object which has been held in view in its preparation, namely, to provide a handy and compendious *vade mecum* for the professional man and sanitary official—a book in which he may not only record his appointments and doings of each day, and be reminded of duties which the recurrence of particular dates imposes upon him, but to which he can turn with confidence for facts, figures, statistics, suggestions, instructions, references, addresses of societies, and manifold other hints and helps for which he must otherwise have recourse to a whole library of books. Besides the *Diary* proper the volume contains a full and careful review of the Acts on sanitary matters passed during last session; an account of the various diplomas in public health which exist, and how to obtain them; an article on the duties of householders; instructions as to vaccination, both with human and with animal lymph; abstracts of the statute law as to various sanitary subjects; an interesting article by Mr. Geschen on the reform of local government; and a quantity of other generally useful information such as is continually wanted. Such a book is of constant value to persons engaged in sanitary work.

Medical Diagnosis: A Manual of Clinical Methods. By J. GRAHAM BROWN, M.D. (London: Simpkin, Marshall and Co. 1887).—Dr. Graham Brown's work has reached a third edition in a very short time, and the present issue fully justifies the favourable notice we gave of its predecessors. The book is admirable, full of valuable information, which is given in the most concise and yet intelligible manner. It is primarily, of course, a student's handbook, but the student's teacher also will find it a useful book of reference to remind him of methods not in every day use, and to refer him to authorities where fuller details may be obtained if desired. The style is so condensed as to be by no means easy reading. This however is, in our opinion, a recommendation, for the book should be in the student's hands at the bedside and in the clinical laboratory, where the facts themselves may be studied with its assistance. It were ungracious to find fault where nearly everything is excellent, yet we may be allowed to point out that in estimating the high tension of the pulse, no warning is given of recurrent pulsation. This is a matter of importance, but almost invariably omitted from clinical handbooks. A little fuller account of Ehrlich's method of staining the tubercle bacilli is desirable; in our hands this has proved by far the most reliable method, but it will certainly not be found satisfactory if employed exactly as described by Dr. Brown. We would suggest, too, that Sir William Roberts's simple and essentially clinical methods of estimating albumen and sugar in the urine might find place in the book. Dr. Graham Brown is to be congratulated upon the success of his book, and we recommend it strongly.

DONATIONS AND BEQUESTS.—The Earl of Derby has given £1,000 to St. Mary's Hospital, Manchester.—Mr. Anna Maria Hargreaves bequeathed £500 to the Halifax Infirmary.—"A. F. F." has given £300 to the Hospital for Sick Children.—The Misses Fairfax have given 100 guineas to the Great Northern Central Hospital, to name a bed.—The executors of the late Mr. John Henry Smith have given £100 to the London Hospital.—The Hereford General Infirmary has received £100 under the will of Mrs. Ann Powell, of Whitecross Lodge.—The Royal Hospital for Diseases of the Chest has received £100 under the will of Mrs. E. Chambers.—"M. T." has given £100 as a Jubilee Donation to the British Home for Incurables.—"A Friend to the Hospital" has given 50 guineas to the Dental Hospital of London.—The Goldsmiths' Company have given £50 to the Metropolitan Convalescent Institution.

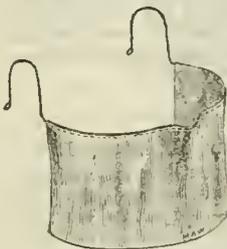
REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ORO-NASAL VEIL ESPECIALLY ADAPTED FOR OPHTHALMIC PRACTICE.¹

By JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,

Senior Surgeon to the Royal Portsmouth Hospital, and to the Portsmouth and South Hants Eye and Ear Infirmary.

THE veil represented in the engraving will be found very serviceable and convenient by many practitioners engaged in ophthalmic work. During the examination of the fundus of the eye, especially by the direct method, the faces of the surgeon and the patient are separated by an interval of only a few inches, and the respiratory exhalations of many patients under such close adjustment are often very unpleasant and disturbing. The veil is suggested as a simple protection against the expiratory interchanges which occur during close examination; and, from personal experience, I can recommend its use to any of my professional brethren who possess a sensitive



olfactory organisation, and who are called upon to labour frequently in the out-patient department of an ophthalmic hospital. It consists of a silk curtain, suspended from a frame of silver wire, which is shaped to rest upon the nose and over the ears in the same way as a pair of spectacles. The nasal loop is curved downwards for the purpose of carrying the veil over the nose, and keeping it from coming into direct contact with the respiratory orifices of the wearer. The frame is made of flexible wire, and can be bent to fit the face accurately so as to exclude the direct passage of air. Many of my friends have already used this simple contrivance in their practice, and they have found it to be a surgical comfort of great utility. Sometimes I use it during laryngoscopic examination. The veil can be obtained, very neatly made, from Messrs. Maw, Son and Thompson, at a trifling cost.

VAN ABBOTT'S GLUTEN PREPARATIONS.

We have received from Messrs. Van Abbott, 5, Princes Street, Cavendish Square, the well-known manufacturers of gluten bread for diabetic patients, samples of gluten butter biscuits, gluten buns, and almond cakes, sweetened with saccharin.

The butter biscuits and buns contain only as small a percentage of starch as is absolutely requisite to hold the gluten together—namely, 1.6 and 1.9 respectively. The almond cakes have 3.8 per cent. of starch, with 4.1 per cent. of sugary matter.

The preparations are flavoured with saccharin, the new sweetening principle, which thus finds its most legitimate application. Unfortunately, its taste is so persistent as to outlast for hours that of the articles of food flavoured with it, even if the quantities used are exceedingly minute. Nevertheless, we doubt not that these new sweetened gluten preparations will find favour.

G. AND G. STERN'S "PUMILINE."

THE *Pinus Pumilio* is a species of pine growing at various altitudes among the Alps. It is a fairly large tree on the lower levels, but above the line of perpetual snow it never reaches a condition beyond that of a small tree or shrub. It has long been observed that patients suffering from diseases of the throat and lungs, or from rheumatic and similar affections, derive benefit by residing near or amidst pine forests, and it is claimed for the *Pinus Pumilio* that it has more medicinal activity than other pines. The use of the products of this tree, apart from residence near pine woods, has been shown to be of very considerable value in the treatment of the diseases above-mentioned. The volatile oil obtained from *Pinus Pumilio* certainly differs in its peculiar fragrance and in other physical properties from oils yielded by most other coniferous plants. That obtained from the trees growing above the snow line is stated to be superior in medicinal activity to that obtained from trees growing in the valleys.

¹ Exhibited in the Ophthalmic Section, at the Annual Meeting of the Association Dublin, 1887.

Specimens of pumilino essence, pumilino extract, and pumilino jujubes have been submitted to us by Messrs. G. and C. Stern, of 11, Billiter Square. The essence is the volatile oil obtained only from trees growing above the snow line. It is very fragrant and agreeable, and can be employed in a great variety of ways, either internally or externally.

The extract is obtained from the needles and young shoots, and is of the consistence of thick treacle. It is used for baths, and as an external application in gout, rheumatic, and neuralgic affections. The jujubes are very palatable, and possess a most agreeable aromatic flavour.

MACKESSON AND ROBBINS'S CAPSULED PILLS.

We have received from Messrs. Mackesson and Robbins, of New York, a sample of their capsuled pills containing one-sixtieth of a grain of strychnine. They are recommended as being useful in the cure of dipsomania. They are, like all the pills made by the firm, ovoid in shape, and hence can be more readily swallowed by many patients than those of the ordinary round shape. They are elegant in appearance, and the covering is tasteless and perfectly soluble.

DAHL'S DYSPEPSIA CAKES.

DYSPEPSIA CAKE MANUFACTURING COMPANY, BROOKLYN, N.Y.

THESE biscuits are prepared from the outer layers of cereal grains, in which a considerable proportion of albuminoids, fat, and phosphoric acid are contained, and which, in larger or less proportion, enter into the composition of brown or whole meal bread.

In spite of the somewhat unprepossessing and woody appearance of the dyspepsia cakes, we found the percentage of indigestible fibra (cellulose) to be only 4.4, whilst there are no less than 13.5 per cent. of albuminoids, with upwards of 4 per cent. of fat. The cakes are, therefore, highly nourishing.

LIQ. CAULOPHYLLIN ET PULSATILLÆ CO. (OPPENHEIMER).

THIS preparation is recommended by the makers (Messrs. Oppenheimer, of Sun Street, Finsbury Square), as well as by independent medical testimony, as being a good uterine tonic, and useful in the treatment of painful, suppressed, and excessive menstruation. It is also stated to restore tone to the whole genito-urinary system. It is a well-made preparation.

THE ICTHYOL COMPANY'S PREPARATIONS.

ICTHYOL is a substance obtained by processes of distillation from peculiar fossil deposits, consisting largely of fish. It has an odour not wholly unlike that of cabbage, and contains a considerable proportion of sulphur, much of which is unoxidised. A few years ago Dr. P. G. Unna, of Hamburg, called attention to the therapeutic properties of ichthyol. Since then its effects have been tried by many medical men, chiefly in Germany. We believe that it has not been extensively employed in this country, but the Ichthyol Company (Cordes, Hermann and Co.), of Hamburg, now offer several of its preparations both for internal and external use. It has been advanced with great weight that ichthyol is curative in many skin diseases, for example, eczema, psoriasis, ichthyosis, etc., and that it is of great value in rheumatism, lumbago, and similar affections. Ichthyol can exist in combination with many bases, but the ammonium sulph-ichthyolate is generally recommended. This, however, has a somewhat unpleasant taste, and is therefore best taken internally in the form of pills and capsules. It is also put up in the form of ointment for external use, as well as of a soap for rough skin and chapped hands.

An alcohol-ethereal solution can be used as a spray in headache, neuralgia, and an ichthyol plaster and wadding are also employed. The various preparations forwarded to us by Cordes, Hermann, and Co. form a most excellent and convenient series.

CASCARA SAGRADA FRUIT LOZENGES (SACKER'S).

ONE disadvantage in prescribing liquid preparations of cascara sagrada is that they impart to mixtures containing them a very bitter and unpleasant taste. The lozenges made by Mr. W. E. Sacker, of 79, Fenchurch Street, contain the active matter of the bark of rhamnus purshiana (cascara sagrada), mixed in such a manner with a fruit paste that the bitterness of the drug is very well disguised. We have found by experiment that they are effectual as an aperient, and at the same time they are fairly palatable. The dose for an adult is from one to three lozenges.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 14th, 1888.

THE UNIVERSITY OF LONDON AND DEGREES FOR LONDON STUDENTS.

THE Senate of the University of London had under consideration, on Wednesday last, the question of opposing the granting of a charter to the Royal Colleges of Physicians and Surgeons of London, for the purpose of conferring degrees of medicine and surgery. The Senate discussed this question in a large spirit, concerning itself only with its position as an University of London, and whether the principle of granting degrees in medicine and surgery by a body other than itself should, as such, be opposed or accepted without opposition. It resolved that neither its own interests nor the public interests required that it should offer such opposition, seeing that there was a general opinion in the profession that increased facilities for graduating in medicine and surgery in London should be secured for the students of the metropolitan medical schools. The resolution to this effect (which was carried only by the casting vote of the chairman) was accompanied by the expression of an opinion that the degree should not be granted except upon satisfactory evidence that the preliminary education was not inferior to that required by the Universities generally, and that the charter should not confer retrospective powers of granting degrees. These, of course, are only pious opinions; and inasmuch as the Universities of Durham and Aberdeen, as was pointed out, confer their degrees, the one after a very moderate amount of evidence of preliminary education, and the other on the production of the ordinary certificate of registration as a medical student, this recommendation has no very stringent or deterrent character, and does not involve even any hypothetical difficulties. Thus far the way has been cleared in a very satisfactory and encouraging manner for the acceptance by the Privy Council of the principle of granting increased facilities for the obtaining of higher medical titles by the students of the great metropolitan and other schools in England. The University of London is the body most directly concerned in the application, in so far as its privileges and monopolies might have been supposed to be attacked by the new proposals. In the general interests of the profession they have waived any such claims, and have not stood upon their special or selfish interests. On the other hand, it is to be feared that the creation of a teaching university will be very prejudicially affected unless those who are more immediately concerned in the creation of the new degree-creating power combine to give that attention to the details of the new scheme for which the way is now cleared. The Senate of the University of London is quite outside the discussion of the question of the constitution or scheme of the newly proposed graduating body of the Colleges, and

they have merely signified that they do not consider that their interests call upon them to interfere with any such scheme. Obviously, however, the profession must now look after itself. The crudities and injustices of the scheme of the two Colleges remain untouched. With the principle of the creation of such a body we are all agreed; and the manner of its constitution and government are the points at issue. The University of London has behaved with striking magnanimity and wisdom. The rest must be done by the profession itself. The Privy Council will meet on January 16th formally for the purpose of taking cognisance of such petitions and opposing clauses as may have been lodged; but we understand that no active steps will be taken in the matter till after the meeting of Parliament.

COLLEGIATE GOVERNMENT.

THE recent address of the President of the South-Western Branch of the Association deals usefully with the pending questions relating to the constitution and government of the Royal College of Surgeons of England. Such addresses and discussions enable the Branches of the Association to fulfil one of their most valuable functions—the discussion of principles and details affecting the duties and privileges of the profession in their relations to the State, to the great corporate bodies, and to the public. Mr. Swain is one of those public spirited and able provincial practitioners who turn occasionally from personal cares and local occupations to the contemplation of the larger professional interests and relations of the body to which he belongs; the practitioners, removed from the immediate personal influence of the metropolitan circles which are constantly engaged in the conduct and government of the corporations seated in London, are able to bring to the discussion minds uninfluenced by the peculiar assumptions which naturally pass current in official circles and among their junior surroundings, of the divine right of hospital surgeons and physicians, belonging to the “great hospitals,” to govern the whole profession. In earlier times, this excessive preponderance was gained by the isolation of provincial towns and districts, the difficulties of transit, the absence of opportunities for literary intercommunication by means of widely-read journals, the force of old central and narrow monopolies, the relatively low level of medical education amongst all but a very limited number, and the absence of any efficient organisation or representation of the great mass of the profession. The growth of higher education, the rapid and easy communications of modern times, the creation and organisation of the British Medical Association and its Branches, the part of modern journalism, and the universal acceptance of the principles of fair representation as the only true basis of government have altered all this. But, not unnaturally, those in possession are slow to recognise and loth to accept the inevitable reforms which such changes bring. Without any charge of abuse or nepotism, it is plain that the distribution of the large annual income divided by the Council among its members in their other capacity of examiners self-appointed, so to speak, in itself gives an insensible bias to regard with complacency a state of things which brings about not unpleasant results. The rich prizes which are thus dangled before the eyes of the younger members and those able outsiders who are on their probation are not without their legitimate and necessary influence. The atmosphere of the Council chamber and its vicinity have a placating influence which not all can resist. All this is not specially and

peculiarly applicable to the existing circumstances of the College of Surgeons; it is the universal experience of history, and applies to the best of men in the best of worlds. The somniferous content of the possessors and incumbents of power and place is historical, and belongs to human nature, of which it often nourishes, assimilates and digests some of the best qualities. Mr. Swain assigns their due part to these influences and characteristics of humanity, abstaining, as is meet and just, from making any personal imputations. He summarises generally the facts, figures, and arguments which we have recently submitted to the profession as the bases of the demand for collegiate reform; and we are glad to see that he and his audience are, like the rest of the profession, generally in accord with them. As a Fellow of the College he fails in sympathy with the Members. It is a not uncommon weakness—in fact it is that which he protests against in others—that he does not feel the pinch of the shoe on any other corns than his own. He is fully conscious of the public mischiefs and peculiar injustices of the inadequate powers of the Fellows in the government of the College; but, although the Fellows are in a very small minority, and the Members are the overwhelming majority, and furnish the great bulk of the revenue, he, as a Fellow, thinks the Members may be very well left without any representation at all, or that the Fellows should be asked to represent them. He repeats the old fallacy, that the man who passes a higher examination in surgery, gets his certificate accordingly, and his passport to whatever professional distinction and public and private employment it may secure him, not for these purposes, not for that which the certificate and title represents to the public and profession, but for a political purpose—“the sole remaining privilege,” whatever that may mean, of sitting on the Council. In other words, the certificate of a further and final examination in surgery has, in this absurd hypothesis, its value more as representing a possible political monopoly. Even if this extraordinary contention were acceptable to reason and experience, as a judicious suggestion of motive, it would have neither logical nor political validity in the case. It is of course a far less disputable or imaginative proposition that the freemen of the old limited boroughs paid their fees and took up their freedom with the view of obtaining the “sole privilege,” as it actually was, of having a very influential and profitable vote for a member of Parliament, a privilege for which some of them obtained much emolument and received many benefits. That was not held to be a valid reason against a great extension of the franchise to its natural constituency. Mr. Swain may be sure that the Fellows will not succeed in their own claims by depreciating the far larger and more obvious constitutional claims of the Members. The two causes are really one, and by endeavouring to separate them he is only weakening that in which he is more particularly interested.

A NEW HYPNOTIC.

A new hypnotic, which appears to possess certain advantages, has been recently introduced by Professor v. Mehring; it is said to occupy in its physiological effects an intermediate position between chloral and paraldehyde. It has been called amylen hydrate, and is sold under that name, but chemically it appears to be tertisry amylic alcohol; it was originally discovered by Wurtz, and in constitution it is said to be dimethylethyl carbinol $\left. \begin{array}{l} (\text{CH}_3)_2 \\ \text{C}_2\text{H}_5 \end{array} \right\} \text{C.OH}$. It is a clear,

colourless, slightly oily liquid, which floats upon water, having a sp. gr. of 0.81; it boils at a little above the boiling point of water, 102.5 C. It has an odour resembling paraldehyde, with a faint suggestion of camphor; it is warm in the mouth, and has a hot aromatic taste, with a slight pungent after-taste. It is only slightly soluble in water, though freely in alcohol, and v. Mehring recommended it to be given with extract of liquorice, but Dr. Scharschmidt, who has recently reported on an extensive trial of the drug in Professor Jolly's wards, states that a satisfactory mixture is made by adding it to a little red wine, sweetened with sugar.

Experiments on dogs showed that the first effects of the drug were on the cerebrum, the animals falling in ten minutes or half an hour into a deep sleep; as the dose was increased the medulla oblongata became affected, respiration became slower, death being brought about by arrest of the heart, reflex action having previously disappeared. In doses sufficiently large to procure deep and prolonged sleep, however, these effects on the heart and respiration were not produced. In the dog,

the respiratory movements fell from twenty to sixteen, a fall which is not greater than that which occurs in normal sleep; the differences in the pulse rate and blood pressure were hardly perceptible. v. Mehring gave the drug to sixty patients in doses varying from 46 to 77 grains, he observed no unpleasant after-effects, no nausea, headache, or digestive disturbance. Scharschmidt found that so large a dose was not necessary, although he corroborates v. Mehring's statement that even then there was no appreciable disturbance of the respiration or pulse-rate. In 80 per cent. of the cases sound sleep of from five to seven hours' duration was procured by doses which did not exceed 45 grains, and were in some instances as low as 20 grains; by repeating the dose, or giving a larger one, sleep was, in all the cases where failure was at first noted, subsequently obtained. In 24 of Scharschmidt's cases there was much excitement, and by producing sleep under such conditions as mania, delirium tremens, and epilepsy or hysteria with delirium, amylene hydrate appears to have proved itself superior to urethran. Too large a proportion of pharmacological discoveries have ended in disappointment, and it would be rash, in the face of recent experience, to express a confident opinion that the new hypnotic will prove as useful and as harmless in the hands of other observers as it has done in those of v. Mehring and of Scharschmidt, but, as our contemporary the *Therapeutic Gazette*, which has published an excellent epitome of the papers in the *Therapeutische Monatshefte*, observes, its prospects as yet appear very promising.

THE QUEEN'S JUBILEE GIFT.

THE Queen has often shown her keen sympathy with the poorer citizens of this country when some great calamity has checked the public mind; and in the manner in which she has decided to dispose of the surplus of the Women's Jubilee Offering she gives evidence of her helpful sympathy with the industrial classes in those domestic calamities, less extensive indeed, but in their incidence on the individual not less severe, which are the common lot of every household. Such calamities, while they do not spare, as the Queen has so often sadly experienced, the most elevated social situations, bear with peculiar hardness on the classes in which health and the power to work are their only wealth.

The Queen has taken counsel of experienced counsellors, and has been wisely advised. She has approved the recommendation of the Duke of Westminster, Sir James Paget, and Sir Rutherford Alcock

that the surplus of the Women's Jubilee Offering, which was a personal present to the Queen herself, should be devoted to the foundation of an institution for promoting the education and maintenance of nurses for the sick poor in their own homes. Guarded by reasonable safeguards against abuse, such a system of home nursing is calculated to confer enormous and as yet inestimable benefits upon the artisan class. The scheme is merely sketched in the letter which we publish in another column, but its general scope may be well perceived. It is none the less likely to be popular and useful because it does not betray a disposition to seek novelty for novelty's sake. The plan has been tried on a fairly extensive scale in several districts of London, and in certain provincial towns, and has been found to work on the whole most satisfactorily.

The value of good nursing in the treatment of serious illness is now universally recognised, and some special organisation is needed to place it within the reach of the artisan, whose weekly wage, even when he is in good work, does not enable him to defray the expenses of a trained nurse. Sickness in such a family brings in its train many discomforts to the other members, and increased danger to the sufferer; when the father or mother of the family is prostrated by illness, the condition of the household is truly pitiable; it is not merely or chiefly a want of appliances, but a lack of knowledge to appreciate the needs of the invalid, and to make the best use of existing material. Under such circumstances a nurse trained to her duties as a sick-tender, and possessed of the special tact which teaches people to help themselves, may work a marvellous change, not only in the surroundings of the invalid, but in the general comfort of the home. That this is no exaggerated statement will be freely admitted by those who have seen what has been done, what is being done day by day, by the agencies which, with limited means, are already at work.

We pointed out, in an article on the work of the Metropolitan and National Nursing Association published some years ago, that a thoroughly well-organised system of nursing the sick in their own homes might go far towards relieving the hospitals from some of the strain now put upon them. The artisan has been really educated to look upon the hospital as his only resource in serious illness; no alternative has been offered between the skilled nursing and comfortable surroundings of a hospital, and the untrained attentions of well-meaning relatives, generally sufficiently taxed already to meet the ordinary daily round of household duties. Thus it is that, in spite of the separation from friends and relatives which removal to a hospital entails, patients who have once experienced the advantages of skilful nursing are generally anxious again to enjoy them when again suffering from disease. Hospitals are thus often morally forced to admit a large proportion of patients, because it is felt that they cannot be nursed in their own homes, owing to there being no one to organise the willing services of anxious but untrained friends.

The hospital of St. Katharine was founded and richly endowed by Queen Matilda in the year 1148, and was originally served by the Augustine monks of the neighbouring monastery of the Holy Trinity. The hospital was dedicated by this Queen to St. Katharine, in pure and perpetual alms, for the repose of the souls of her son Baldwin and her daughter Matilda. Queen Eleanor, widow of Henry III, after a long struggle with the monks, succeeded in regaining control of the hospital for the Crown, and in 1273 founded the hospital afresh for a master, three brother-chaplains, and three sisters, ten poor women called bedeswomen, and six poor scholars; the right to nominate the

master, chaplains, and sisters was reserved to herself and the Queens of England, her successors; among subsequent benefactors of the hospital, which appears to have hitherto been a purely religious and charitable institution, we find Edward III and Philippa, his wife, who granted certain lands in Kent and Hertfordshire, and a new charter which specially prescribed visitation of the sick as one of the duties of the community. Richard II, Henry V, Henry VI, Edward IV, and Henry VIII and Queen Katharine, were benefactors of the hospital, which escaped extinction when the other religious houses were suppressed, owing, it is said, to the personal intercession of Anne Boleyn. However this may be, her daughter Queen Elizabeth took some interest in the hospital, and preserved it from destruction. In consequence, we are told,¹ of "many heavy complaints made against the Master," Lord Chancellor Somers visited the hospital in 1698, reformed many abuses, and prepared the way for the establishment of a charity school in 1705. When St. Katharine's Docks were built, the hospital was removed to Regent's Park. The revenues of the hospital, it is provided, may be applied to such good and charitable purposes as may be directed by the royal patroness for the time being.

"The Royal Hospital of St. Katharine in the Regent's Park, in the County of Middlesex," is at present governed by rules made in July, 1878; the community consists of a Master, three resident brothers, three resident sisters, three extern sisters, ten nurses, ten bedswomen, and ten bedsmen. There is also a school in which twenty-four girls and thirty-six boys are clothed and taught, and afterwards apprenticed. The only persons directly charged with the duty of tending the sick are the nurses; they are called "the St. Katharine's nurses," and must be connected with societies of bodies for training, superintending, or employing nurses; the stipend paid to each nurse is £50. There is also a Chapter Clerk, the present incumbent of the office being Sir Arnold White. The Queen is patron and visitor, and the rules appear to provide that almost every question which is likely to arise shall be referred to her; for instance, it is provided that the extern sisters and nurses shall only be appointed to the full number "when the income of the hospital, not otherwise appropriated, in the judgment of the Patron admits." It would not be difficult to graft upon this scheme the new features which would be required to give effect to the Queen's wishes. The buildings for a central office exist in St. Katharine's Hospital, a grey stone edifice well known to persons who traverse the eastern side of Regent's Park; there are resident and non-resident sisters, to whom salaries are paid out of the funds of the hospital, and who may, in process of time, all be required to have had special training in the nursing of the sick.

THE Leeds Workpeople's Hospital Fund for 1887 amounts to £3,555 ss against £2,000 in 1886.

BOTH at Doncaster and at Thetford steps are being taken to provide temporary hospitals for the reception of cases of infectious disease.

THE Turin Academy of Sciences has awarded the Pressa prize of 12,000 francs to M. Pasteur.

THE death is announced of Mr. Peter Henry Maclaren, L.R.C.P., of Bedlington, from a fatal dose of chloral, taken to procure sleep.

¹ Dr. Ducarel's *History and Antiquities of the Hospital of St. Katharine, near the Tower*. Bib. Top. Brit., vol. ii, part 1.

LEAD-POISONING IN SHEFFIELD.

THE Sheffield Corporation, which has just taken over the water supply of the town, is called upon to deal with an epidemic of lead-poisoning that is very prevalent in some of the high-lying districts of the borough. Sheffield is supplied with water from two sources, and it has been proved with regard to one of them that there are certain vegetable acids in the water which take up lead, and render the water to some extent poisonous.

THE MORNING BATH.

THE Englishman's love of his "cold tub" appears to be a standing puzzler to persons not to the manner born. Professor Dujardin-Beaumont, the eminent Paris physician, in a learned lecture on hydrotherapy, published in the *Therapeutic Gazette*, makes the following observations, which show that he labours under a slight misapprehension: "Lotions of cold water and sponge baths have passed from the domain of medicine to that of hygiene, and the people of the North practise them constantly, especially the English, who, in their fondness for their bath-tubs, are in the habit every morning of taking thorough rub down with a sponge dipped in cold water."

REVACCINATION.

THE Local Government Board are about to issue an order reducing the minimum age at which revaccination may be performed at the public expense from fifteen years to twelve years, in ordinary circumstances, and from twelve years to ten years in the case of "any immediate danger from small-pox." This is a step that might with advantage have been taken long ago, as much of the so-called successful primary vaccination is not sufficient to protect beyond infancy, and moreover, the period between 10 and 15 years of age is the one during which revaccination is most likely to be sought. If the operation is delayed until after the ordinary school age, it is likely to be deferred altogether, or until a small-pox panic arises.

REGISTRATION OF NURSES.

A MEETING was held this week, at the residence of Mrs. Bedford Fenwick, Mr. Savory in the chair, at which Her Royal Highness Princess Christian, Sir Joseph Fayrer, Dr. Quain, and some other members of the medical profession were present, as well as leading members of the nursing profession. Resolutions were passed approving the formation of an association for the registration of nurses, and a series of rules proposed for the constitution of the association were presented, discussed, and approved with slight modifications.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

THE monthly meeting of the Executive Committee of the above Society, and the quarterly meeting of the General Committee will be held on Wednesday next (January 18th), at 38, Wimpole Street, W., the former at 4.30 and the latter at 5.0 P.M. The report for the quarter and accounts for the half year to December 31st, 1887, will be presented.

THE HEALTH OF NEWCASTLE.

THE high death-rates that have recently been visible in the mortality returns of Newcastle-on-Tyne have drawn special public attention to the sanitary arrangements of the town, with the result that room for considerable improvement has been disclosed. The Sanitary Committee of the Town Council have been exceptionally active of late, and their personal inspections in various localities have led them to pass a severe vote of censure on the Chief Sanitary Inspector. This is certainly not altogether surprising if the statements recently published in the *Newcastle Daily Leader* be accurate. It would appear that the tenement dwellings of the poor were found, on personal inspection, to be in a disgraceful and filthy condition; that many of the courts and yards were covered with human

excreta and refuse, one street "presenting the appearance of one common ashpit;" that ashpits have been allowed to become filled to overflowing with putrefying garbage; and altogether, that cleanliness and filth-removal have been greatly disregarded. The reports of the medical officer of health have not given quite such a gloomy account of the city's condition, but scattered through them are to be found continual condemnations of the open privy system, and complaints of defective closet accommodation, of foul privies, of unpaved and dirty yards, etc. It is to be hoped that the increased vigour which seems to have been imported into the work of suppressing filth nuisances will have a good effect upon the general health of the town. The authorities might well consider whether a system of "trough" water-closets could not be advantageously encouraged in the districts inhabited by the poorer and more careless sort of people.

NULLIFYING THE ADULTERATION ACT.

Dr. SEDGWICK SAUNDERS, the medical officer of health for the City, has complained in his report of the glaring inadequacy of the penalties inflicted in the City for offences under the Sale of Food and Drugs Act, as compared with those imposed elsewhere; he doubted the wisdom of trying to protect the public from systematic adulteration if prosecutions only resulted in the infliction of insignificant and merely nominal penalties. In one case of milk adulteration 33 per cent. of water had been added, and in another 30 per cent., and the alderman imposed in the former a fine of 20s. and costs, and in the latter 10s. and costs.

ROYAL VICTORIA HOSPITAL, MONTREAL.

WE are informed that Mr. H. Saxon Snell, F.R.I.B.A., of London, has been commissioned by the Board of Governors of the Royal Victoria Hospital, Montreal, which was constituted by a charter obtained during the last session of the Dominion Parliament, to prepare plans for the building, and to direct its construction. It will be remembered that two distinguished citizens of Montreal—Sir George Stephen, Bart., President of the Canadian Pacific Railway, and Sir Donald Smith, K.C.M.G., of the Hudson's Bay Company—gave one million dollars for the foundation, and that the Corporation of the City have granted a plot of land, about twelve acres in extent, situated at the north-east angle of Mount Royal Park, at an elevation of 300 feet above the St. Lawrence river, as a site. The hospital is to be designed to receive 300 in-patients, and, in addition to a commodious out-patient department, is to be provided with accommodation for the medical school, and for a training school for nurses.

STRYCHNINE IN ALCOHOLISM.

THE good results obtained from strychnine in dipsomania by N. M. Popoff, V. A. Manassein, Partzevsky, Tolvinsky, and Zivadsky, have induced Dr. S. Jaroshevsky (*Meditsinskoié Obozrenié*, No. 4, 1887, p. 332) to undertake an experimental inquiry into the antagonism between the alkaloid and alcohol. From experiments made on dogs Dr. Jaroshevsky feels justified in drawing the following conclusions: 1. Strychnine undoubtedly neutralises the intoxicating and narcotic effects of alcohol. 2. It enables large quantities of alcohol to be taken for a considerable stretch of time without causing the usual organic lesions which follow the use of alcohol alone. 3. There are, however, limits beyond which the alkaloid itself becomes injurious to the organism. 4. Therapeutically, strychnine should be used in all forms of alcoholism. 5. It may be regarded as a powerful prophylactic against alcoholism.

BENZOATE OF SODA IN URÆMIA.

STARTING from Cohnheim's theory of uræmia and from the fact that benzoate of soda inhibits the formation of urea within the system, Dr. A. S. Partzevsky, of the Basmanais Infirmary for Labourers, in Moscow, administered benzoate of soda (*Meditsinskoié Obozrenié*, No. 5, 1887, p. 508) in ten cases of uræmia, in seven of which the patients

were suffering from parenchymatous, and in three from interstitial, nephritis. The drug was given every hour, in daily doses varying between one and two drachms. It was given either in a solution or in wafers, in capsules, and, where the internal administration was impossible, in enemata. Nine patients recovered, one died. Analysis of the cases has led Dr. Partzevsky to the conclusion that benzoate of soda cuts short uræmic attacks, the convulsive phenomena gradually disappearing and giving place to a deep sleep. The latter, in "a majority of cases, terminates by passing into full consciousness." Given on the first appearance of symptoms (headache, sickness, dilatation of pupils), the salt may prevent any further development of the fit. Albuminuria mostly disappears altogether.

THE ILLNESS OF THE CROWN PRINCE.

WE are pleased to be able to state that Sir Morell Mackenzie continues to receive highly satisfactory reports concerning the Crown Prince from the physicians in attendance. The condition of the illustrious patient is still better than it was last week. Further absorption of the small vegetation which recently appeared has taken place, and the slight general thickening of the left ventricular band has diminished. There is much less secretion from the larynx, showing that the catarrhal condition of the left side, which has from time to time caused a good deal of trouble, is also greatly improved. The Prince's voice, though rather hoarse, is fairly strong when he makes an effort, but in obedience to the advice of his physicians His Imperial Highness speaks as little as possible. Whilst, therefore, reiterating the warning we have already several times given as to the imprudence of placing too much reliance on the present favourable aspect of the case, it is, we think, fairly permissible to hope for the best. We have already called attention to the peculiarly anomalous and perplexing nature of the case, which will, no doubt, apart from all points of extra-medical interest, remain as a *cause célèbre* in laryngological literature. As showing the extreme difficulty frequently met with in the diagnosis of tumours of the larynx, we may refer to a case related by Dr. Eugen Hahn—whose authority in questions of this kind no one will deny—before the Berlin Medical Society last month. A young man, aged 23, was suddenly seized with acute spasm of the glottis, apparently without any previous symptoms whatever. The presence of a tumour being suspected, tracheotomy was performed, and the larynx was afterwards extirpated. On admission an abscess associated with perichondritis of the cricoid cartilage was found, but no malignant tumour was discovered. This case, so frankly reported by Dr. Hahn, affords further justification, if such were needed, for the caution which has led the Crown Prince's present advisers to discountenance severe operative procedures, for which there was no decisive indication, while the danger directly attending them was only too obvious.

JAPANESE ART EXHIBITION AND MEDICAL COLLECTORS.

THE Fine Art Society open on Monday to the public, at 148, Bond Street, what is claimed to be the finest loan collection of the works of the ancient masters of Japanese art which has ever been brought together. Among the finest specimens of old lacquer are a series of the miniature medicine cases, in compartments, formerly carried by every gentleman in Japan at his girdle; the doctors' (shan) swords, worn to assert their position as belonging to the noble classes, are also of interest. The well-known collections of Mr. Anderson, of St. Thomas's Hospital, of Mr. Ernest Hart, and of Sir Trevor Lawrence, are largely drawn upon for this remarkably beautiful and interesting display, as well as those of H. R. H. the Duke of Edinburgh, Mr. Gilbertson, Mr. Salting, and some thirty others. The catalogue, with introductions by Mr. Katsoka, is a valuable art document, worth preservation as the work of a clever native expert, who has had the advantage of a European education. It is not uninteresting to note that while the earliest authorities on Japanese arts and products were medical men, Dr.

Kaempfer and Dr. Siebold, so at this moment the chief literary authorities and the possessors of the most illustrative collections of the works of the old masters of Japan in this country are also medical men; Mr. Anderson's splendid work on *The Pictorial and Glyptic Arts of Japan*, and his catalogue *raisonné* of the picture collections of the British Museum, and Mr. Ernest Hart's lectures on Japanese Art, published by the Society of Arts, with a historical index of Japanese artists and the glossary of their seals and signatures, being the standards of existing knowledge; while in America the collection of Dr. Bigelow, of Boston, is of vast extent and unsurpassed beauty.

POISONOUS FOOD.

In December some paragraphs appeared in the JOURNAL on cases of poisoning by unwholesome mackerel. The two patients, who had severe peritonitis, fecal vomiting, and violent delirium, are both convalescent, yet remain very weak. In both these cases peritonitis and delirium, almost maniacal, were the most marked symptoms. This fact is noteworthy, for in the great majority of instances of poisoning by unwholesome food, the patient is seized with symptoms of enteritis, cholera, or collapse, or at least one or two of these three symptoms predominate. It will be remembered that, in the case of the young gentleman at Bayswater, the two other members of his family who partook of the same mackerel had severe choleraic diarrhoea within a few hours, and felt perfectly well next day. Dr. George Johnson, F.R.S., has collected some interesting cases of collapse from poisonous food, which are published in his *Medical Lectures and Essays*. A woman had collapse and other choleraic symptoms twice in three months—first, after eating pungent decayed cheese; and on the second occasion, after eating tinned lobster. A case of the poisoning of a mother and three children by decayed American cheese is recorded; there were symptoms of gastro-enteritis, and the mother had several fits, to which she had never previously been subject; she and one child died. Some Irish peasants, in 1826, made a stew of the flesh of a dead calf which they found on the sea-shore; choleraic symptoms, followed by coma, as in opium-poisoning, occurred and proved fatal. Still, the occurrence of collapse, choleraic symptoms, and even coma, after poisonous food, is well known even to the non-medical public. The recent cases of mackerel poisoning show what is not known to all medical men, and is certainly not taught in the schools—namely, that poisonous fish may cause acute peritonitis, with symptoms suggesting strangulated hernia or rupture of intestine, and acute delirium after the peritonitis has abated.

THE FUTURE OF GREAT CITIES.

MR. FREDERIC HARRISON'S address at Toynbee Hall on the sanitary shortcomings of London is suggestive, eloquent, and forcible. Every year 70,000 souls are added by immigration and births, the excess of births and of immigration being chiefly among the poorest classes, and those who swell the number of the unemployed. The rich fly from its vast dreariness and its atmosphere of soot, and largely console themselves with frequent or general residence in purer air. Its municipal arrangements are sadly dislocated and chaotic. The mortality of the poorer neighbourhoods is fearfully in excess of normal rates. Its house-room grows largely by the malign and imperfectly supervised activity of the jerry builder. The supervision of drainage and plumbing ceases at the street-kerb, so that a large proportion even of its best houses, and even of those most recently built, are mere receptacles of sewer-gas and traps for fatal disease-germs. Of this some melancholy examples, showing unusual carelessness of architects and neglect by vestry officers of even the nominal precautions which they might enforce, have recently been brought to our notice. The water supply of London is, next to the purity of air and soil—if, indeed, second to it—of the highest importance to health. Of this Mr. Harrison speaks with just horror and indignation. "It is meagre in quantity, inconvenient in supply, very various in quality and exposed to one or two

immense risks of pollution. We are actually drinking water that is minutely, but sensibly, infected with poison and excrement." So that London stands always on the verge of a catastrophe. The rich are able to secure themselves from danger by specially providing themselves with potable waters above suspicion; so that no wonder the Apollinaris Company now boast of an authentic record of an annual sale of twelve millions of their pure table-water imported from Germany, and to this has to be added the sales of other natural and artificial waters employed by the caution of the well-to-do, classes for the same purposes of health and luxury. But pure table-water should also be the heritage of the poor. London, we fear, will never cease to be the city of soot, and of the unsolved problems of adequate prevention of fire, provision of open spaces, sanitation of houses, and disposal of the dead, until a really earnest generation of sanitarians shall arise, who will insist upon improved municipal government, and attention, above all things, to the physical needs of health and happiness for the four millions of Londoners.

FATAL AFTER-RESULTS OF CHLOROFORM INHALATION.

DR. UNGAR has recently published in the *Vierteljahrsschrift für gerichtliche Medicin* an account of some researches which he has made in order to determine precisely the effects of chloroform on the tissues. He kept a large number of rabbits and dogs under chloroform for many hours, with intervals of suspension of the anaesthesia. After death, marked changes were discovered in the tissues. The muscular tissue of the heart was very fatty, and numerous points of fatty degeneration were found in the endocardium. Similar fatty changes were found in the epithelium of the larynx, trachea, bronchi, pulmonary alveoli, and gastro-intestinal tract. The epithelium of the convoluted tubules of the kidneys was either full of fatty granules or was in process of breaking down. The liver cells and the epithelium of the smaller biliary ducts were affected in a similar manner. Fatty changes were also detected in the striated fibres of the diaphragm, and, though less marked, in the rectus abdominis and the extensors of the thigh. In nearly every case these appearances were most marked the longer the animal had been kept under chloroform. Dr. Ungar observes that the animals were healthy, whilst in the case of patients fatty changes due to illness, cachexia, alcoholism, etc., often exist before the narcotic is given. In such a case the chloroform may do much harm even when the patient recovers. Some of the animals died more than twenty-four hours after coming to from the final dose of chloroform. Dr. Ungar is therefore induced to believe that death shortly after operations may be more often due to the narcotic than is generally supposed. His researches do not confirm Nothnagel's theory that the fatal action of chloroform consists in the disintegration of the coloured corpuscles of the blood. He believes that the anaesthetic acts directly on the chlorine and chlorine salts diffused through the tissues. The successful administration of chloroform during labour, to which Dr. Ungar refers, appears to prove that the anaesthetic acts less seriously in our species than in animals, yet his paper contains important suggestions which should not be overlooked.

A CASE OF HERMAPHRODITISM.

In the *Russkaja Meditsina*, November 27th, 1887, p. 710, Dr. Lukomsky, of Priluki, in the Poltava (South Russian) Government, describes a case of true hermaphroditism, which is specially interesting from the fact that the subject of the anomaly has been known to the writer from its childhood. In 1857, at the village Kraslopy, near Priluki, a Cossack's wife, was delivered of a child, which, about a week later, was baptised, and christened "Melania." The child grew up, remaining always healthy and strong, and doing female rustic work. On her deathbed Melania's mother adjured her husband never to allow their daughter to marry. In 1887, however, Melania married

a peasant residing in the same village. Shortly afterwards both Melania and her husband came to Dr. Lukomsky, urgently beseeching him to examine her, and to tell them whether she was a woman or a man. Dr. Lukomsky's report was as follows:—"Melania is a tall, powerfully built, and well made person, aged about 30, the general outline of the body not presenting the usual rounded contour seen in women. The head is furnished with long flaxen hair, while the upper lip and chin are covered with scanty, short, bristle-like hairs. The voice is rough and deep, the neck long, the 'Adam's apple' fairly prominent. The breasts are ill-developed; the pelvis has rather the male configuration; the pubes is covered with thick curly hair. Just below the pubic arch there is a penis as thick as a man's thumb; it measures about $4\frac{1}{2}$ centimetres in length when flaccid, and has neither prepuce nor urethral orifice. Under sexual excitement complete erection takes place. Just below the penis there is a normally developed scrotum containing two testicles, freely movable, both somewhat larger than a pigeon's egg. Below the scrotum there is a slit measuring about 7 centimetres in length, with major and minor labia on each side, with a small clitoris and urethral orifice beneath it, as well as with caruncule myrtiformes, at the site of a hymen, which has been ruptured after Melania's recent marriage. The vagina is fairly spacious. On examining with a speculum a uterine cervix is seen, somewhat smaller than the average. Melania has never menstruated. 'She' hates the male sex, but is highly voluptuous in regard to women. In coition with women a whitish fluid is ejaculated from the vaginal slit. The hermaphrodite dresses like a woman, but is fond only of male occupations." A divorce was obtained from the Holy Synod on the medical evidence. It will be noticed that nothing is said as to the uterus and the ovaries. In the interests of science Dr. Lukomsky should furnish some details on those points, and should give a more detailed description of the vagina and breasts.

THE ETIOLOGY OF INEBRIETY.

THE first of a course of three lectures on Inebriety was delivered by Dr. Norman Kerr, President of the Society for the Study and Cure of Inebriety, on January 11th. Inebriety, as distinguished from the act of drunkenness, was defined as a disease of the higher nerve centres, characterised by a very strong craving for intoxication. Under the head of predisposing causes, sex, age, religion, race, climate, education, pecuniary circumstances, occupation, marriage relations, hereditary (the insane), temperament, associated habits, head and other injuries, diet, and intoxicating agents were considered. The male sex predominated, but the proportion of females was increasing rapidly in England, where it was much larger than elsewhere. The greatest liability was between 30 and 40 years of age, but juvenile inebriety was extending fast, both on the Continent and at home. The Jews showed less liability than other religious communities. Religious hysterical excitement had an influence. The Italians and the Spaniards exhibited a much smaller tendency to inebriety than other people, and cold climates predisposed more than hot climates. Refinement and culture were serious predisposing causes. In males, marriages made little difference; but in females, married inebriates were five times as numerous as the unmarried. In 703 cases at the Dalrymple and other homes, 308 had a family history of inebriety. The phlegmatic was the temperament least liable. Though the alcohol and tobacco habits were frequently associated, Dr. Kerr held that tobacco did not, to any great extent, predispose to inebriety. Syphilis, cerebral, chest, and other diseases markedly predisposed thereto. So did head injuries, bad feeding, and bad hygienic conditions. The chief exciting causes were nerve-shock, head and other injuries, sex, pregnancy and maternity, occupation, idleness, climate, overstrain, sociability, and intoxicating agents. Domestic worry, financial troubles, bereavement, unexpected good fortune were all varieties of shock which had operated considerably. Traumatic inebriety was a common phase.

Inebriety was often excited by gout, dyspepsia, and epilepsy. Sexual physiological crises were a prolific cause. Among the predisposing occupations were those of commercial travellers, horse-keepers, daily newspaper work, and liquor traffickers. A marine climate excited some; Italians, sober in Italy, became drunkards in England. About one half of the cases at the Dalrymple and other Homes had been excited to inebriety by association. In other cases the excitant had been an inebriant. If these and other exciting causes were the occasion of inebriety in some individually, why not all? Because, unless there was an inebriate diathesis, there was no response in inebriate manifestation, and the storm of excitement passed harmlessly by, after having exhausted itself.

SCOTLAND.

PERTH SICK NURSING SOCIETY.

ATTENTION being directed at present to the nursing of the sick poor through the proposed scheme in connection with Her Majesty's Jubilee offering, it is interesting to notice that the Perth Sick Nursing Society has, by means of its nurses, been able to make 4,500 visits to the sick poor in 1887, its total income having been £144, and total expenditure only £135.

THE CHAIR OF BOTANY, EDINBURGH.

NOTWITHSTANDING the ludicrous article in the *Standard* on the subject, the Chair of Botany in Edinburgh University has tempted a number of eminent botanists south of the Border to become anxious inquirers on the subject. It is not possible yet to name all the prospective candidates, still less those most likely to be seriously thought of; but a sufficient number will be at the command of the patrons to enable them to fill up worthily so valuable a chair.

COTTAGE HOSPITAL, KIRKCALDY.

THE want of a cottage hospital in Kirkcaldy has been long felt, and more especially since the multiplication of large waxcloth and linoleum manufactories has rendered the occurrence of serious accidents and injuries more frequent. This want is likely to be satisfactorily supplied by the establishment of a cottage hospital, and last week Mr. Michael B. Nairne, of Rankellour, offered, through the magistrates and Town Council of Kirkcaldy, a sum of £3,000 for the erection of a hospital for non-infectious diseases.

ABERDEEN AND INFECTIOUS DISEASES.

IN Aberdeen, last week, a man who had wilfully exposed himself so as to be a source of danger to others, while he was suffering from scarlet fever, was charged with a contravention of the Public Health Act, having pleaded guilty, he was fined a guinea, with costs, or in default imprisonment for ten days. It was reported, at a meeting of the Aberdeen Town Council Health Committee, that the entire cost of the new pavilion, which has been erected for receiving patients suffering from infectious diseases, was £1,062. At the same meeting a communication was received from the Trades Council, referring to alleged carelessness on the part of officials in the transference from the hospital to their homes of convalescent patients.

NORTH BERWICK DEATH-RATE.

THE following statement regarding the mortality of North Berwick (which has been termed the Biarritz of Scotland, and which is so largely favoured by members of the profession from England), will be of some interest; it is taken from the registrar's return. "There has not been a death in the district since September 24th. The town has been quite free from epidemic disease, and has been exceptionally healthy. Only thirty deaths have been registered during the year, being 11.1 per 1,000." These statistics refer entirely to the resident

population, and not to the host of visitors during summer and autumn; among whom five deaths occurred, of which two were sudden deaths and one suicidal.

DEATHS FROM INFECTIOUS DISEASES.

At a meeting of Edinburgh Town Council, held on Tuesday, the convenor of the Public Health Committee, Bailie Russell (M.B. and B.Sc.) made an interesting statement with regard to the mortality in Edinburgh during 1887. The general death-rate had been 18.65 per 1,000, which was slightly greater than in the two previous years. The chief item to be considered in this mortality was that due to infectious diseases, from which there had been 599 deaths, equal to 12.4 per cent. of the entire mortality. Of these 599 deaths, 275 were registered as due to whooping-cough; 145 were due to scarlet fever, of which 2,587 cases had been reported, and 42 were due to measles, of which 2,369 had been reported. During the year there had been two marked outbreaks of typhus fever, but these they had been able to deal with effectively and promptly, and although they had been able in recent years to keep typhus under control by improved sanitary conditions, these outbreaks showed the disease had lost none of its former power when it had made a little headway. Bailie Russell also gave some statistics regarding the work done for infectious diseases in the city hospital. At the end of 1886 there were 128 inmates of the institution, at the end of 1887 there were 181, while during the year 1,500 patients had been treated in it. He also made a statement as to the seizure of material intended to be used as food, but which the authorities had condemned as unfit for such a purpose, no less than seventy tons of meat having been seized and condemned as unfit, and £102 10s. obtained as fines from those who had tried to pass such food on the public. At the same meeting the Dean of Guild gave notice of a motion of some interest and importance to the effect that the Health Committee consider the expediency of the medical officer of health reporting the death-rate in the several wards of the city separately, and also stating the death-rate according to the rental.

IRELAND.

SEVERAL parties in Newtownards, last week, who all partook of a cheap fruit bread, were taken seriously ill with vomiting and diarrhoea. A portion of the bread has been sent for analysis.

DR. HUMPHREY J. BROOMFIELD, F.R.C.S.I., Lecturer on Anatomy in the Carmichael School, has been appointed Assistant Visiting Physician to the City of Dublin Hospital.

PORTRAIT OF DR. BANKS.

At the conclusion of the business of the annual meeting of the Dublin Branch of the British Medical Association on January 25th, the portrait of Dr. J. T. Banks, the President of the Association, will be presented to the President and Fellows of the King and Queen's College of Physicians by the President of the Branch, Dr. Mapother, on behalf of the subscribers to the reception fund of the annual meeting in Dublin. The annual dinner of the Branch will be held in the Hall of the College of Physicians on the same evening, and it is understood that many distinguished guests will be present.

BOYLE UNION: MEDICINE EXPENSES.

A SPECIAL meeting of the Boyle Dispensary Committee was held recently, on the subject of the great increase in the medicines used, as compared with former periods. The committee came to the conclusion that this increase was due to the great abuse in the issuing of red (or visiting) tickets, to parties who, to say the least, are not entitled to medical relief under the poor law. One of the Boyle guardians has suggested that whoever issued a visiting ticket to anyone not eligible for it should be made to pay for the visit himself, and

also for the medicine supplied from the dispensary. If this could be carried out, it would at once put a stop to a crying evil, and be a great boon to all dispensary medical officers. The expenses for medicines for the past half year, for Boyle, with a population of 41,215, were £245 5s. 6d., and of Castlereagh only £149 11s. 7d., with a population of 43,442. It is the practice in Boyle Dispensary, once a patient gets a visiting ticket, to be attended for twelve months without a second being issued; a strange arrangement; and one which must necessarily give greater trouble to the dispensary medical officer, than if the ordinary procedure was adopted.

BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY.

A VERY successful lecture in connection with this Society was given in the Ulster Minor Hall, on January 2nd, by Dr. A. W. Hare, of Edinburgh. The subject was "Facial Expression," and it was handled with a force and lucidity that held the attention of a large and distinguished audience. The lecturer illustrated his remarks by a series of excellent lime-light views, many of which were drawn from the works of Sir Charles Bell and Duchenne. Dr. Hare will have a hearty welcome should he return to Belfast in the capacity of lecturer.

A STRANGE STORY.

AN evening paper published on Monday a "romantic story," which has since been copied into other journals, and which has, of course, excited a good deal of notice. It relates that in a certain family, well known in a suburban district, one of them, who had always been regarded as a woman, one day appeared dressed as a man, and was introduced to the friends as a man. The story is true, and it was consequent on the discovery of the real sex by a medical man in the city. But the fact might have been allowed to rest there. Now, for the sake of an attractive "mystery" paragraph, the whole town—and particularly the female portion of it—is set talking over a matter which must involve sexual topics that ought not to be so discussed.

ULSTER HOSPITAL FOR CHILDREN AND WOMEN, BELFAST.

A "Fairy Tea and Christmas Tree" was given in connection with this institution on January 4th. The hospital was tastefully decorated, and numerous presents were provided for the youthful patients. A large concourse of visitors assembled at 4 o'clock, and refreshments were served in the operating theatre. The chief feature in the entertainment was the apparition of Father Time, laden with gifts for the children. The success of the afternoon was mainly due to the active exertions of the lady superintendent, Miss Moore, to whom the hospital owes so much of its efficiency. It is now in a very satisfactory financial condition.

FALSE CHARGES AGAINST MEDICAL MEN.

DR. DAVY, of Terenure, may be congratulated on the triumphant issue of the action brought against him, involving charges to which medical men, however innocent, are peculiarly liable. His character, it will be seen, was completely vindicated, and the Recorder described the case as an atrocious one, and ordered criminal prosecution for perjury against the prosecutor. The risks of medical practice are seriously enhanced by the perils disclosed by such a report, and Dr. Davy must be condoled with for his misfortune in having to incur this unfortunate attack as heartily as he must be congratulated on the triumphant issue from this unmerited ordeal.

HEALTH OF BELFAST.

FOR the past two weeks the death-rate in Belfast has reached the abnormally high figure of 41 per 1,000, almost twice the average. It is singular that with this heavy death-rate there should not be associated some special epidemic, but such is the case. The deaths are fairly distributed among the various diseases usually prevalent in

winter, and the specific fevers do not claim more than their share of the mortality. Scarlatina, measles, typhoid, and whooping-cough are all well represented in the death returns, but without a remarkable preponderance on the part of any of these diseases. Another sign which indicates the present unhealthy state of Belfast is the wide prevalence of epidemic and contagious sore-throat. The cases have been unusually severe, and have often closely simulated scarlatina, but in no instance coming under our notice has there been any subsequent desquamation. The high mortality in Belfast is currently attributed to the scarcity of water, which still to some extent prevails. The year 1887 was one of the driest years ever recorded in the north of Ireland. In estimating the gravity of the Belfast death-rate, it is well to remember that during the autumn the town was exceptionally healthy, the death-rate for some time being as low as 19 per 1,000. On the mere principle of averages, it is always probable that a period of exceptionally low mortality will be followed by one of somewhat high mortality, as during the former period many persons, especially the aged, live on who in the ordinary course would have died. At the same time, the high death-rate should be a warning voice to the corporation to expedite the drainage schemes which they have in hand. The urgent necessity is universally admitted.

CORK DISTRICT LUNATIC ASYLUM.

At a meeting of the governors last week Alderman Dale said he wished to take the opportunity of saying that the present satisfactory condition of the asylum was due to the management of Dr. Dwyer, the resident medical superintendent. At the same meeting the refusal of the Cork Guardians to pay for patients sent to the asylum was under consideration. It appears that the former had agreed to pay for the maintenance of the lunatic paupers admitted to the asylum, and they further passed a vote of thanks to the asylum board for relieving the lunatic ward of the union at a time when it was overcrowded. By the asylum rules it is in the power of the governors to seek for payment at any time for any patients transmitted to the asylum, if the medical officers certify such patients as not dangerous, at the cost of the guardians. After a long discussion it was determined to make another application for the amount due, and if not paid to take proceedings for the recovery of the same.

THE EXECUTION OF SURGEON-MAJOR CROSS.

SURGEON-MAJOR PHILIP EUSTACE CROSS was hanged at Cork on Tuesday last, for the murder of his wife. We have already given a summary of the evidence produced by the prosecution. There could be no doubt that the cause of his wife's death was arsenic; and when it was put to the jury by the judge that if they believed Mrs. Cross died of poisoning by arsenic they should find the prisoner guilty, there was little difficulty in determining what the verdict would be. Since the date of the conviction an increasing number of persons had formed the opinion that the extreme penalty ought not to be carried out, the cause of that belief being that there were some elements of uncertainty in the case, and that the prisoner did not seem to have got much of the "benefit of a doubt" recognised in criminal cases. We commented, at the time, on the character of the judge's charge, and in the same day's issue of the *Saturday Review* a severe article on the subject appeared. It said: "The manner in which Mr. Justice Murphy addressed the jury was a manner very much to be avoided by judges, and might very well have led to the conviction of an innocent man..... A judge having to deal with a capital charge against such a man was bound to put away all indirect considerations, to abstain from anything like the language of passion or emotion, to content himself with a close analysis of the facts before him. It is not too much to say that Mr. Justice Murphy did exactly the contrary." The memorial to the Lord-Lieutenant, which we published in the *JOURNAL* of January 7th, was influentially signed, and various reasons were adduced in favour of a mitigation of the capital sentence. But it did not seem from the first that such an appeal was likely to

result in success. In these cases the judge is always consulted, and his opinion was already settled. Then the extreme journals protested against any leniency. It was asked: "Is the suggestion this, that Mrs. Cross was poisoned by her neighbours, or by those who had boycotted her husband, or is it that a man who is boycotted and a member of the Property Defence Association may poison his wife with impunity?..... How strange that these advocates of justice undefiled have found a tongue to condemn judicial speeches for the Crown, only when a wife-poisoning emergency man has been sentenced to hang? A great public question, of vital moment to every person in Ireland, has been raised by this Cross memorial. It is whether the administration of the law, the machinery of Crown prosecution, the partisanship, and all the rest of it, shall grind to powder all the accused of one class, marked for destruction, and leave unharmed all of another class claiming immunity as 'loyalists,' and so forth." Thus the bitterness of political strife was also brought into the question, and Dr. Cross was between the hammer and the anvil. Reprieve would have been read as a yielding to the clamour of "loyalists," no matter what new facts might have been brought forward. The wretched man protested his innocence of the crime. He left no "confession," but went to the scaffold with absolute fearlessness. Dr. Moriarty, the prison surgeon, is represented as saying, "I have seen many executions, but never such bravery as exhibited by Dr. Cross. He was a grand old man. He walked erect and without faltering." Still the question, Was Dr. Cross guilty of murder? remains unsolved. Whatever his moral failings in regard to the unhappy woman he has left a widow, there was no necessary outcome of murder from them. They were useful in his trial only as supplying a motive. Yet motive may be discerned where it has really no active force at all. Lawyers have the knack of building up a case from facts which have no cohesion except that which is provided by their own imagination. Therein lies their art. So far as the present case is concerned, the question has passed beyond the region of dispute. Whether Dr. Cross was a callous murderer or not, we have the verdict of a jury as answer; but beyond that we have the dying man's solemn declaration that he did not kill his wife.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council was held at the College on the afternoon of Thursday, the 12th instant. The minutes of the Extraordinary Council, held on the 5th instant, were read and confirmed. Reports were received from the various Committees.

The Secretary reported that four dissertations had been received on The Pathology, Diagnosis, and Treatment of Tumours of the Bladder, the subject of the Jacksonian prize for the past year, bearing the respective mottoes or devices, "Veritas," "Thorough," "Totis Viribus," and "FALSTAFF: What says the Doctor to my water? PAGE: The water itself was a good healthy water, but for the party that owned it, he might have more diseases than he know of."

The President reported to the Council that Mr. Henry Power had consented to deliver the next Hunterian Oration, and accordingly declared Mr. Power appointed Hunterian Orator for February, 1889.

The Council resumed the consideration of the proposed reply, prepared by the President and Vice-Presidents, to the letter from the Privy Council and the statement presented to the Lord President on behalf of the Association of Fellows on the subject of the supplemental College charter.

After a long discussion on suggestions and additions, it was resolved to hold another extraordinary meeting of Council on Thursday next for the further consideration of the letter to be sent to the Lord President of the Council.

A letter of December 13th from the Lords of the Council forwarding, for the information of the College, a printed document purporting to be a report of the statement made by Mr. Ernest Hart, as spokesman of the deputation of the Association of Members of the College, to the Lord President on the subject of the application for a supplemental charter was read, but its consideration was again postponed.

The Council, in pursuance of the resolution of the Council of December 8th, elected, as a Committee to consider and report to the Council on the regulations relating to the election of members of the Court of Examiners, Sir James Paget, Mr. Marshall, and Mr. Hutchinson, together with the President and Vice-Presidents.

THE BRITISH PHARMACOPEIA OF 1885.

By WILLIAM CRAIG, M.D., F.R.C.S. Ed., F.R.S.E.,

Lecturer on Materia Medica and Therapeutics, Edinburgh School of Medicine.

THE first edition of the *British Pharmacopœia* was published in 1864, the second edition in 1867, to which an "Addendum" was added in 1874, and in 1885 the third edition was published. This book, for several years to come, must be of the deepest interest to every member of the profession, and, therefore, a few remarks regarding its merits and demerits may not be altogether devoid of interest.

It is now fully two years since this edition was published, and teachers and others have had time to estimate its true worth.

I frankly admit at the outset that this edition is, in many respects, superior to all previous ones, but notwithstanding many excellencies, it is not without very serious defects, some of which I will endeavour to point out.

Foremost amongst these I place its great size. The volume consists of 564 pages, whereas its predecessor, including the "Addendum," extended only to 488 pages. We have thus an increase of 76 pages in this third edition. This great increase in the size of the volume has been caused mainly by the introduction of many new substances and a corresponding number of new preparations, but partly also by the reintroduction of old remedies that had been at one time official.

It is a matter of great regret that the British Medical Council should have increased the size of the volume so much. Whether the responsibility for this rests with the Medical Council, the Pharmacopœia Committee, or the editors, I am not in a position to say, but undoubtedly it is to be regretted that all the three editors were connected with the Pharmaceutical Society, and none with the teaching of materia medica in any of the medical schools of this country. It is hardly possible to conceive that any teacher of materia medica in any of our medical schools could have sanctioned the retention in our *Pharmacopœia* of the numerous official drugs and preparations which are seldom if ever used in the treatment of disease. Be that as it may, all must admit that the book is too large, and the important practical question is, How could it have been made less? That question I will now endeavour to answer.

I have not much to say against the introduction of new medicines into the present edition. Many of these medicines were already official in America and other countries, and deservedly so, because they had proved themselves worthy of a permanent place in all *Pharmacopœias*. On the other hand, it may be fairly questioned if there was much need for such medicines being made official as cupri nitras, potassii cyanidum, sodium, etc.

It is only, however, to a small extent that the size of the volume could have been lessened by this method. There was ample room for the insertion of all needed new medicines without increasing the size of the volume. Nay, more; had the pruning knife been judiciously applied, this volume might have been the best and yet the smallest of all the editions of the *British Pharmacopœia*. There are many medicines and preparations in this edition which are seldom if ever prescribed in the treatment of disease, and certainly there is no beneficial effect to be obtained by their employment which would not be more readily obtained by other and more useful drugs.

We have far too many official medicines, and also too many preparations of even most useful drugs. Surely we could do with less than thirty-two preparations of iron or twenty-nine preparations of mercury!

The *Pharmacopœia* could be reduced in size by at least one-third, and yet no patient would suffer in consequence. Nay, more, were the volume greatly reduced in size, students would be enabled to master their materia medica much more efficiently, and consequently the members of our profession would possess a better knowledge of the actions and uses of remedies.

I shall now mention a few of the medicines which might have been excluded.

Scammonium has no virtues not possessed by scammonie resina, and is three or four times dearer. I am aware that it is stated in the *Pharmacopœia* as a source of the resin, but this is not done on account of the price.

Cambogia is another medicine which can well be dispensed with. It is apt to irritate, and possesses no properties not possessed by elaterium. Cerevisie fermentum might have been omitted without any loss to our patients; so, too, with mezerei cortex, rheados petala, and sambuci flores. Laricis cortex possesses no properties not possessed by oleum terebinthinae. Papsavoris capsulae have no properties not possessed by opium. Laurocerasi folia are only useful for the hydrocyanic acid contained in them. Hemidesmi radix is not of suf-

ficient importance to be still official in this country. Moschus might have been consigned to the same position as castor. Elemi, mastiche, and manna are not worthy to be retained; so, too, with saasafra radix, serpentariae rhizoma, sumbul radix, and many others which could easily be named. The omission of these and such like medicines—and, of course, the preparations derived from them—would have materially lessened the size of the volume.

The real question is not—Has the drug any virtue? but—Has it any virtue not already possessed by other and more useful medicines? The size of the volume might have been still further lessened by the exclusion of many needless preparations of several useful and highly important drugs. To this class belong os nstum, zincum, zincum granulatam, bismuthum, bismuthum purificatum. We have far too many preparations of iron, mercury, lead, antimony, etc. Ferrum redactum possesses no properties not possessed by other and more important salts of iron. Ferri sulphas granulata is twice the price of ferri sulphas; but that is no good reason for its retention in the *Pharmacopœia*, seeing it possesses no medicinal properties not possessed by the cheaper salt. Vinum ferri is a favourite with many, but it is a useless preparation; it possesses only traces of iron, and the sherry it contains is not necessarily the best. In like manner, the preparations of mercury are far too numerous. It is to be hoped that in the next edition of the *Pharmacopœia* the bulk of the volume will be greatly reduced.

Another defect is in regard to the nomenclature of drugs. This might be greatly improved. The present edition is much better in this respect than its predecessor, but even yet there is room for improvement. To call acidum phosphoricum *concentratum* is very misleading, especially when omitted in connection with other strong acids. Acidum aceticum glaciale, acidum sulphuricum, acidum lacticum, acidum nitricum, have each a higher percentage of acid than *concentratum* phosphoric acid.

Ergotinum should be *extractum ergotae*. Extractum filicis liquidum is a misnomer, for it is not a *liquid extract* in the true sense of that term. As well call "oleo-resina cubebe" a liquid extract. Gelsemium should be gelsemii rhizoma. Many similar examples might be given. More uniformity in nomenclature would be of much advantage to the student of materia medica.

The doses given in the *Pharmacopœia* might be revised with advantage. Some drugs should have no doses ascribed to them, inasmuch as they should never be given internally: for example, santonica has a dose of 10 to 60 grains. This substance should be used only as a source of santonium, which is tasteless, and has all the medicinal properties, whereas santonica is bitter and disagreeable; so, too, with regard to cusso. Surely it is not expected to swallow a quarter to half an ounce of this substance. I suppose it is meant that the infusion prepared from this quantity is to be taken as a dose. Conii folia is a bad form for internal administration. I suppose few practitioners, if any, give the powder of the dried leaves. Other similar examples might be given.

In some cases there is a want of consistency in the official doses; arsenii iodidum has the dose of $\frac{1}{30}$ th grain, but in the liquor arsenii et hydrargyri iodidi the dose is given as 10 to 30 minims, which is equivalent to $\frac{3}{2}$ to $\frac{9}{2}$ grain, or nearly from three to nine times the dose; and that notwithstanding the fact that this liquor contains an equal quantity of another very powerful substance—the mercuric iodide.

After what I have said about the size of the volume, it may seem out of place for me to complain about the exclusion of drugs from the present edition; and yet I regret to miss such substances as digitalinum and stramonii folia, for the former will still be prescribed in the treatment of disease, and the latter smoked in asthma, notwithstanding their exclusion from the *Pharmacopœia*.

There are other defects in the volume to which I might direct attention, as physostigmatis semen, but I have said enough to direct the attention of the profession and of the General Medical Council to the demerits of the *Pharmacopœia* of 1885; and I have also endeavoured to point out the direction in which amendment is to be looked for in any subsequent edition. Above all, it is to be hoped, for the sake of the already overtaxed medical student, not to speak of the advantage to our patients, that the next edition will be greatly reduced in size.

NOTIFICATION OF INFECTIOUS DISEASE AT BOLTON.—The report sent to the Local Government Board by the medical officer of health for Bolton, approving of the compulsory notification of infectious disease, was discussed at a meeting of the Town Council on Wednesday, and disapproved by twenty-seven to twenty-four.

DR. GARRÉ, whose name is so well known to students of bacteriology, has been appointed professor in the University of Bâle.

HONORARY DEGREES FROM UNIVERSITIES.

A CORRESPONDENT writes to us under the title, M.A. and M.D. : It is interesting to ascertain in how far the universities appreciate and recognise literary and scientific work done by medical men. The two oldest and greatest universities in England have, until very recent years, treated medicine in a most unkind and unbecoming manner, and only now have they seemed to awake to the knowledge of this fact; and they have, by strenuous efforts, begun to attempt to call their medical faculty into life, and to take means to establish a properly equipped medical school, and to attract students. Hitherto their graduates in medicine have been very few, and even these have received, in most instances, much of their instruction at other schools of medicine.

The Oxford University grants four honorary degrees, namely, D.D.; D.C.L.; M.A.; and Mus.D. From 1870 to 1885, it has conferred the following number of honorary degrees: 82 of D.D., 142 of D.C.L., 26 of M.A., and 5 of Mus.D. So far as can be made out of the 142 D.C.L. degrees, 9 only have been awarded to distinguished medical men.

Cambridge, according to its Calendar, has conferred titular degrees on 169 persons; so far as can be ascertained, only 11 have been conferred on medical men. Perhaps the absence of vitality in the medical faculties of their universities is the true reason why they have not shown a keener appreciation of the labours of men who have attained eminence in medicine.

The University of Dublin confers no fewer than ten honorary degrees; the last Calendar shows that, up to this date, it has not been very liberal with its D.D. degrees; 12 only have been conferred. The degree of Doctor of Laws has been conferred on 234; only 4 medical men are to be found in this list, but 37 distinguished medical men figure as honorary Doctors of Medicine, 3 as Masters of Surgery, and 3 as Masters in Obstetric Science. Considering the high repute of her medical faculty, the fulness and excellence of her course of study, the number and eminence of many of her medical alumni, I think this University cannot be accused of lavishly awarding her honours. In Scotland, most of the medical teaching is done at the universities, and a large proportion of those who register as qualified men are graduates in medicine.

The Universities of St. Andrews, Glasgow, Aberdeen, and Edinburgh grant two degrees as honours to persons selected by the Senatus Academicus: the D.D. degree for distinction, the LL.D. degree for literary or scientific eminence. In the Faculty of Divinity the D.D. can now be obtained by B.D.'s of a certain standing, who adopt prescribed forms for proceeding to this degree, but hitherto most, or, in fact, nearly all the degrees of D.D. conferred by the Scotch Universities have been honorary. The Calendars of the Scotch universities are now very complete, and give useful information concerning courses of study and all university matters. Those of St. Andrews, Aberdeen, and Edinburgh have a list of the honorary degrees given each year, and I certainly fail to see why the Calendar of the Glasgow University should not also give this information. The Senatus Academicus of each University wields this great honour-giving power, and doubtless a keen and scrutinising acumen discovers those apparently deserving of such degrees. A wise impartiality weighs in the balance the merits and demerits of those at first glance considered worthy of the honour; and a careful estimate of their work, professional, literary, or scientific, is, of course, made by such competent authorities as for the time sway the councils of their national seats of learning.

Slight variations seem to exist in the different universities that I have record of, as to the ratio in which these two honorary degrees are given. Taking St. Andrews from 1860 to 1885 inclusive, it has conferred 55 D.D. degrees, while it has during the same time given 87 LL.D. degrees. Aberdeen has since 1851 and up to 1885 given 91 D.D. degrees, while in the same time it has given 122 LL.D. degrees. The Edinburgh Calendar states that the list of D.D.'s now includes over 300 names, and the same is said about the degree of LL.D. from 1847 to 1874, a period of twenty-seven years; 107 LL.D. degrees were given, and only 10 fell to the lot of medical men.

At St. Andrews during the twenty years ending 1876, no medical man was deemed worthy of the LL.D. degree; and even though a little more liberality has of late years been shown in according this degree to medical men, only 10 medical men at present find a place among the list of St. Andrews honorary graduates. Aberdeen has since 1860 given its LL.D. to 14 medical men out of a total of 87.

Edinburgh, whose Faculty of Medicine, from its eminence, from the preponderance of its students and its medical graduates, almost overshadows the other faculties in the University, seems in this matter to do them scant justice.

Down to that supreme effort at degree-giving which took place at

the celebration of the tercentenary in 1884, only 29 LL.D. degrees fell to the lot of medical men out of the 191 conferred. That those who have to do with conferring the degree of LL.D. must at times have qualms of conscience and take a fit of seeing merit *evou* in medical men is quite apparent, for in some years medical men figure in a fair proportion.

In the list of 1875 this is seen more markedly than in any other year, for of 14 LL.D. degrees conferred, 8 fell to medical men. At the tercentenary celebration 124 LL.D. degrees were conferred, 42 on distinguished medical men; at such a time medicine was evidently duly recognised, but since that period only 4 medical men have received this honour, though 24 degrees have been awarded. Even in this University the highest honours are given with greater sparingness to medical men than to those of some other professions, and yet her medical sons have done, and are doing, as much to increase the fame of their Alma Mater as any of her children.

Now if honorary degrees are given at all on fair and equivalent grounds, a perusal of the Calendars and the list of honorary degree holders would lead one rather to the belief that the clergy, without any comparison, are the most distinguished of the professions; that they should be the best, and probably are, I admit.

That nearly all professions are distinguished by honorary degrees is legitimate, but that lawyers and medical men should be so unworthy of honour from their university is very sad indeed, and yet we hear of medical graduates of all the Scotch universities doing good work, and some even attain the highest eminence.

In Glasgow in 1886 six D.D.'s were given, thirteen LL.D.'s, three only of the latter were given to medical men. It is very seldom that one notices a medical graduate of Glasgow University receiving further honours from his own university. Yet there are 1,596 medical men among the 5,848 who constitute the members of Council of that University.

Of the twelve professors in the Medical Faculty only four are themselves students of, and graduates in, medicine of that University. It is highly probable, and I offer it as a possible explanation of the facts that a perusal of the University Calendars has forced upon me, that in all seats of learning, old customs, old fashions, and old beliefs linger long. The Church at one time was the learned profession, lawyers and doctors of medicine are of yesterday; the Church gave legal advice, dispensed medicine, and up to a given date even acted as surgeon.

Though matters have changed the belief in the profession still holds good, and D.D.'s are common in Scotland, and though at times and in certain cases those in other professions wonder what their old fellow-student has done to be so graced by his Alma Mater, age, a certain pulpit success, and a lucky avoidance of the pitfalls which beset clergymen, seem often to the uninitiated mind to be the principal ostensible reasons of the decoration of the doctorate. It is very possible that the medical professorate are not so much in touch with the graduates of their University, who live at a distance from their University, and that they are in most cases in a minority at the meetings which select those to be honoured, and that it is owing to this that I see clergy, rectors of schools, and school examiners in a very much higher proportion than lawyers or medical men in the lists of honorary graduates.

THE WOMEN'S JUBILEE OFFERING.

THE Queen has expressed her approval of the scheme contained in the following address from the Committee nominated by Her Majesty to consider and report upon the best means of effecting her wish to benefit nurses as well as the nursed by devoting to this object the surplus of the Women's Jubilee Offering.

"Eaton, December 26th, 1887.

"In obedience to the desire which your Majesty has graciously expressed to us, that we should consider and report on the method by which the surplus of the Women's Jubilee Offering may be best applied for the promotion of nursing, we have the honour to state to your Majesty our belief that the best method, and that which will be most gratifying to those who contributed to the fund, will be by the foundation of an institution for promoting the education and maintenance of nurses for the sick poor in their own homes. We believe that the institution should have its chief centre in London, but that similar central institutions should be in Edinburgh and Dublin, and that with one or all of them should be affiliated any institutions desiring such affiliation, and satisfactorily fulfilling, in any part of the kingdom, the general purpose of the foundation.

"We would recommend that the nurses should all be duly approved women of excellent personal character, and of good education,

similar to that of well-trained nurses in hospitals, and a special training in district nursing and in maternity hospitals, so that they may be fit to attend poor women after childbirth.

"We hope that your Majesty would give to the institution a name indicating the occasion of its foundation, and to the nurses authority to wear an appropriate badge or other decoration. We believe, also, that it would be very useful if, with your Majesty's authority, the nurses were classed in two or more ranks, the higher of which would indicate, by name or decoration, length of service, or remarkable skill, or devotion to duty. Further, we venture to suggest to your Majesty that it would add to the esteem and utility of the proposed institution if its official work could be done in St. Katherine's Hospital, or if it could be in some manner connected with that ancient foundation; for that hospital is one of the oldest benevolent institutions in the kingdom. Ever since its foundation in 1148 the Queens of England have been its patrons; and the charter granted in 1351 by Queen Philippa assigned to it, among its chief purposes, the visitation of the sick and poor. We are prepared, if it be your Majesty's pleasure, to consider, or to take part in considering and reporting in detail, on the means by which the institution which we commend to your Majesty's favour may best conduce to the end proposed.

"WESTMINSTER.

"JAMES PAGET.

"RUTHERFORD ALCOCK."

PSYCHOLOGICAL MEDICINE AT THE NINTH INTERNATIONAL CONGRESS.

A WELL-KNOWN alienist physician has sent us the following observations on the Section of Psychological Medicine and Nervous Disease of the International Medical Congress:—The President of the Section showed in his address how rapidly the urban population are developing insanity, so that very soon the Americans will not only be in advance in progress, but also in the ratio of their insane to their sane population. Their healthiest population is that of the advancing new States; their worst the New York State. With the negroes civilisation increases, but insanity outpaces it. It was shown that the American ideal in asylums is as good as possible, and that the newest plans for the treatment of patients are to be found in the States; even lady doctors and pathological laboratories are being introduced, but it seemed that the former were not appreciated as fully as might have been expected by the superintendents.

Discussions took place on treatment, but, as a rule, this was not from the therapeutical, but from the humane, standpoint. Restraint or non-restraint, that was the question; whether it was the duty of the superintendent to have a non-restraint shibboleth, or not. In the Section it was decided to the satisfaction of all, that a good deal of liberty should be allowed, even to medical officers.

Dr. Mendel, of Berlin, read a paper on the Origin of the Facial Nerve, with some clinical facts supporting his physiological observations. He also read a paper objecting to the use of the term "moral insanity;" in America it may well be believed that feeling is strong as to the use and misuse of the term. Probably no other nation in the world has so many persons who are morally insane, and, at the same time, no nation has so many persons who need to be kept in awe of something—persons who would be only too glad to give up self-control, if assured no punishment would follow. The nation is seething in its development, and with its great possibilities of good are also great possibilities of evil. It was generally felt that the use of the term "moral insanity" must be retained, but its use limited.

As might have been expected, there were one or two papers which were not up to Congress pitch. Either they were crude or they were ill thought-out, being but the outcome of fevered imagination. Such a one was by a superintendent, on Remissions of Insanity, who appeared to hold that a force allied to spiritual force had a good deal to do with the disease. No such thing as complete cure or recovery between attacks seemed possible to him. This, coming from one of the friends of the insane, was too terrible to leave unchallenged.

There are certain moot points in each Section, and one sure to crop up in Psychological Medicine is classification. It would be well if in future Congresses—for the next hundred years, at least—a notice were given that no such papers could be received; for they all come to the same thing; they add one more variety to the list already too long.

A very interesting paper was read by Dr. Spitzka, of New York, on a New Disease, the symptoms resembling very nearly those of insular sclerosis, and the pathological changes being due to multiple aneurysmal dilatation throughout the nervous system. In the case

described there was a history of similar symptoms having occurred in other members of the family, and Dr. Spitzka pointed out the fact of inheritance of special vascular tendencies. Other pathological subjects were considered, and some original work was shown by Dr. Homan, of Helsingfors, who had been for some years working at the effects of early amputation of limbs in the lower animals, not only on the higher nerve centres, but on the peripheral nerves themselves. It seems that too much has been made of the easily-spoken-about but not yet proved conduction of degeneration. Several writers devoted their attention to single symptoms, to the clearing away mystification in the use of terms; but we were astonished that no one took up the word "paranoia," in all its glory, and descanted upon it.

The English Section was honoured by the selection of Dr. Blandford to read a paper before the General Congress, and the large audience spoke well for the appreciation of our countryman, and the attention displayed proved the justice of the selection. The paper being on the Treatment of Recent Cases of Insanity in Asylums and Private Houses, was, of course, of more practical interest to us; but it showed the Americans our methods of dealing with the insane better than a more elaborate essay would have done.

Special papers were read, as we have said, on particular groups of symptoms, but these were not of any great novelty, and were, as a rule, the careful arranging of the author's experience according to his idea of order. Such contributions are good for reference, but not for cursory notice. The best attended meetings of the Section were those devoted to the papers from British contributors on the Relationships of Syphilis to Neuroses, and it will suffice here to say that papers were contributed by Drs. Shuttleworth and Beach on Idiocy and its Specific Relationships; by Dr. Wigglesworth, on Acute Syphilis and its Relations to Mental Disorder; by Dr. Mitchell, of the Royal Asylum, Edinburgh, on the Statistics of Syphilis among the Insane Population of that city; by Dr. Warner, on some of the Epileptic Associations with Syphilis; and by Dr. Savage, who took a general survey of the ground traversed by the former speakers, and also contributed a paper on the Connection between General Paralysis of the Insane and Syphilis. The discussion merits further notice, and we shall hope to give it in more detail.

The Section did much practical work in visiting asylums, and we have no doubt that the meeting of men from distant countries started some friendships and cemented more, which will be for the advancement of psychiatry.

REGISTRATION OF FOREIGN DEGREES.

JUDGING from some of the letters which have been addressed to us, it would appear that there are still considerable doubts as to the right of registered medical practitioners who have recently obtained, or may in the future obtain, foreign degrees, to register those degrees.

Certain questions raised by correspondents have been submitted to a competent legal authority, whose opinion is subjoined. The M.D.Brussels was selected for convenience, and because, after admitting many persons having the degree of M.D.Brussels to register that degree, the General Medical Council will, of course, acknowledge it to be a degree obtained after a proper examination, and therefore will, we presume, recognise it as a diploma "furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery, and midwifery," as required by Section 13 of the Medical Act, 1886.

I.—B. C. is a registered medical practitioner who has continuously practised medicine in the United Kingdom or elsewhere for a period exceeding ten years immediately preceding the prescribed day, he was practising medicine in the United Kingdom on the prescribed day, and is a British subject. He obtained the degree of M.D.Brussels after proper examination, on a date after the passing of the Medical Act (1886), but before the prescribed day. If an Order in Council were to be issued declaring that the second part of the Medical Act (1886) applied to Belgium—

1. Could B. C. then register the M.D.Brussels as an additional qualification?

If not—

2. Could he cause his name to be inserted on the separate list of names and addresses of the foreign practitioners? If (2) is answered in the affirmative, would his name be withdrawn from the general list on which it now appears in virtue of the registration of his English diploma?

* (1) When an Order in Council applying the second part of the Act to Belgium is issued, it seems that B. C. will be entitled to be registered under Subsection (3) of Section 12 as a British subject practising medicine in the United Kingdom on the prescribed day and for ten years preceding, who will show that he holds what should be a recognised foreign diploma, assuming that the Brussels M.D. entitles its holder to practice in Belgium.

(2) The separate list does not seem intended to supersede an ordinary British qualification.

II.—D. E. is a registered medical practitioner, a British subject, who has continuously practised medicine in the United Kingdom or elsewhere for a period exceeding ten years immediately preceding the prescribed day. He obtained the M.D. Brussels, after proper examination, on a date subsequent to the prescribed day. If an Order in Council were to be issued declaring that the second part of the Medical Act (1856) applied to Belgium—

1. Could D. E. register the M.D. Brussels as an additional qualification?

If not—

2. Could D. E. cause his name to be inserted on the special list of the names and addresses of the foreign practitioners?

* (1) Yes, it seems so. The prescribed day, by Section 17, is the day on which the Act is declared to apply to the foreign country.

(2) This is already answered in I (2).

THE CRIMINAL RESPONSIBILITY OF THE INSANE.

II.

DR. HARRINGTON TUKE sends us the following comments on the case of the Rev. G. C., in continuation of those published on November 26th, p. 1175.

The summing up of Mr. Justice Field was strongly adverse to the prisoner. I do not impute any blame to the judge, whom I know to be as humane and benevolent as he is just and learned. The fault seems to be in the present test imposed by the law as to the responsibility of an insane criminal. This test, in my opinion, often, as in this case, involves the manifest injustice by procuring the condemnation of an obvious lunatic. The judge, in the discharge of his duty, several times impressed upon the jury that they were to first consider whether the prisoner knew the nature and quality of the act he had committed, and, if so, they must find him guilty of murder. Now, it would seem to me, and I should think it would strike every reader of the evidence adduced in this trial, that the prisoner knew well the "nature and quality" of his act. He got a razor from his case, walked to the door of the vicar's bedroom; when admitted, after a short delay outside the locked door, he walked to that side of the bed in which his right hand would have the most power to use a razor as a weapon, and with the candle still in his left hand fatally wounded his victim in the throat. The question addressed by him to the vicar "What do you mean?" would appear to indicate some latent delusion as to an imaginary wrong, but that only strengthens the hypothesis that he knew the nature of the ghastly deed he was perpetrating.

Twice his victim's wife came to his room; on the second visit he noticed the blood of the murdered man on her dress, and desired her to go and change it. The murder was a mad act, no doubt, but the history I have given from the testimony of an eye-witness shows it was done by a man who possibly well knew the "nature and quality" of the crime he had committed. The unnatural calmness and composure of the prisoner during the whole time is worthy of notice.

The second question, "Did the prisoner at the moment of murder know that he was doing wrong?" a question the careless answer to which has often led to the "miserable spectacle," as Sir Edward Coke calls it, "of the execution of a madman," which, as he goes on to say, is "against law and of extreme inhumanity and cruelty," was frequently and impressively put to the jury, and also dwelt upon by the counsel for the prosecution.

In this extraordinary trial we have materials for a more minute examination of this question than are usually available in cases of murder in which insanity is pleaded for the defence. We have in evidence that at ten o'clock on the night of the murder the prisoner read family prayers in the presence of the lady whose husband he killed before her eyes two hours afterwards. He had probably his own private devotions; unless we presume his prayers to have been merely mechanical, he must, when he uttered the application, "Deliver us from evil," have known right from wrong. He spoke rationally, and, at all events, there then appeared no reason to doubt his mental capacity or his moral responsibility. That the prisoner knew right

from wrong the next morning early is shown by his ready acquiescence in the remark of the policeman who arrested him, "that the murder of the vicar was a bad job," and his unresistingly allowing himself to be arrested. According to the evidence of the next witness, he admitted that the murder was a sad affair.

It is seldom that an eye-witness can describe an act of murder, and is able to do so, by her want of knowledge that a murder had been committed. The prisoner carefully concealed the razor from the wife; the way he held the candle in his left hand seems to have prevented her seeing his act of desperate violence. She did not believe her husband when he says, "He has cut my throat!" and went at once to the prisoner's room. The prisoner had hidden the razor beneath his looking-glass, and to the question whether he had anything in his hands, shows them, and answers, "Nothing."

The wife returned to her husband, whom, in the agonies of death, she found lying on the floor in a pool of blood. She went a second time to the prisoner, and said, "What have you done? Come and help me." Her nightdress was stained with blood. The only reply she obtained is, "I have done nothing. Go and change your dress."

The concealment of the razor in the first instance, the hiding of it afterwards, and the denial of the crime seem to point to at least some feeble knowledge that he had committed an act which was wrong, and which he naturally shrank from admitting.

It must be perfectly understood that I and all the other medical witnesses present at the trial, and probably most of those who may read this account of it, believed, and still believe, that the prisoner's murderous act was that of a madman—that it was a recurrence of the same "homicidal mania" that had suddenly appeared at the same season nine years before, when, as Dr. Wright told the jury, Mr. C. had made an unprovoked attempt to cut the throat of an aged patient, and shortly afterwards had tried to throttle another; and this was the view apparently held by the jury, who refused to trouble themselves more than was absolutely necessary with either of the purely legal questions which had been dwelt upon, in the strict discharge of their duty, by the judge and the Crown counsel.

This and other trials show the disagreement that exists between law and psychological medicine as to the responsibility for crime. The lawyers apparently do not understand that a perfect knowledge of right and wrong is quite consistent with even hopeless and dangerous insanity. I had frequently recognised this difficulty, and in giving evidence before the "Royal Commission on the Abolition of Capital Punishment" I was much struck by the incredulity of Lord Derby, the Chairman, and other members of that distinguished Committee, as to the fact which I stated from my own experience, that I had heard an insane man condemned to death, who was afterwards executed, on the ground that at the moment of the murder he was able to distinguish right from wrong.

At a fully representative meeting of the Medico-Psychological Association held at the College of Physicians in 1864, several foreign alienist physicians being present, I brought forward a resolution as to the point whether the presence of the knowledge of right and wrong is any proof of sanity. The resolution was in these terms:

"That so much of the legal test of the mental condition of an alleged criminal lunatic which renders him a responsible agent, because he knows the difference between right and wrong, is inconsistent with the fact, well known to every member of this meeting, that the power of distinguishing between right and wrong exists frequently among those who are undoubtedly insane, and is often associated with dangerous and uncontrollable delusions."

In the course of the debate that ensued, Dr. Morel, of Rouen, a well-known French psychologist, expressed his surprise that the law of England should make an insane man responsible for his acts because he has a knowledge of what he has done. The best way of ascertaining if the acts of an insane person correspond to a particular trouble or disorder of the mind was to study the nature of the act in relation to the particular malady. The resolution was carried unanimously. It may be taken, then, that an insane man, in the opinion of competent judges, may be irresponsible, although knowing right from wrong; and it appears to me that the verdict of the jury in the case of the Rev. G. C. was consistent with this opinion, and inconsistent with the doctrine that the knowledge of right and wrong renders an insane man liable to capital punishment; but that he should be confined and prevented from further mischief, is consonant with right and justice.

MEDICAL MAGISTRATES.—Messrs. Richard Hingston, L.R.C.P. Lond., William Nettle, M.R.C.S. Eng., and Charles Bainbridge Rendle, M.R.C.S. Eng., have been placed on the Commission of the Peace of the Borough of Liskeard.

Jan. 14, 1888.]

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of January next, at 2 o'clock in the afternoon.

The following Committees will also meet:—
Tuesday, January 17th, 1888.—Habitual Drunkards Committee, 8.30 P.M.—Therapeutics Committee, 3 P.M.—Premises and Library Committee, 4 P.M.—Relative Rank Committee, 5 P.M.—Fees to Witnesses Committee, 6 P.M. *Wednesday, January 18th, 1888.*—Arrangement Committee, 10.30 A.M.—Journal and Finance Committee, 11.30 A.M.

FRANCIS FOWKE, *General Secretary.*

December 24th, 1887.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on January 18th, April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTemperance, which was presented to the Section of Medicine in the Annual Meeting of 1887, and a further portion of the Report upon OLD AGE have been completed, and will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has just been issued.

Memoranda upon these subjects, and forms for recording observations may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held, by the kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, January 19th, at 8.30 P.M. A demonstration of interesting cases of eye disease will be given by A. Q. Silcock, Esq. Visitors will be welcomed.—J. W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

METROPOLITAN COUNTIES BRANCH: WESTERN DISTRICT.—The next meeting will be held on Friday, January 27th, at St. Mary's Hospital, Paddington (by kind permission of the medical staff). The chair will be taken, at 8.30 P.M., by H. Charlton Bastian, Esq., M.D., F.R.S., the Vice-President of the District. Business: 1. Minutes of preceding meeting. 2. Clinical remarks on Chronic Diseases of the Knee-joint in Young People: by Edmund Owen, Esq., M.B., F.R.C.S., Surgeon to St. Mary's Hospital and the Children's Hospital; several illustrative cases of patients will be shown. 3. Demonstration of cases of Chronic Diseases of the Spinal Cord: by D. B. Lees, Esq., M.D., F.R.C.P., Physician to St. Mary's Hospital and the Children's Hospital. 4. Drs. Waller, Silcock, Handfield-Jones, and R. Maguire, will exhibit microscopic specimens, and give short demonstrations, etc.—C. A. PATTEN, Honorary Secretary, Marpool House, Ealing, W.

NORTH OF IRELAND BRANCH.—A general meeting of the North of Ireland Branch will be held in the Royal Hospital on Thursday, January 26th, 1888, at 12 o'clock noon. Gentlemen desirous of reading papers, exhibiting cases, specimens, etc., will kindly communicate as early as convenient with the Secretary, JOHN W. BYERS, M.D., Lower Crescent, Belfast.

DUBLIN BRANCH.—The eleventh annual general meeting of the Dublin Branch of the British Medical Association will, by the kind permission of the President and Fellows, be held on Wednesday, January 25th, at 4 P.M., in the hall of the King and Queen's College of Physicians, Killiare Street. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Edward D. Mapother, Esq., M.D., President-elect, will deliver the annual Address. At the conclusion of the business of the annual meeting, the portrait of the President of the Association, Dr. Banks, will be presented to the President and Fellows of the King and Queen's College of Physicians by the President of the Branch, on behalf of the subscribers to the Reception Fund of the late annual meeting of the British Medical Association in Dublin. Subscribers to the Reception Fund, although not members of the Branch, are invited to attend the meeting. Members wishing to bring any subject of professional interest before the meeting, to nominate any member to serve as an officer or on the Council of the Branch, or to propose any gentleman as a member of the Association, or of the Branch, must inform the Honorary Secretary on or before January 13th. The annual dinner of the Branch will be in the College hall, at 7 P.M., on the day of the meeting. The charge for dinner tickets for members who purchase their tickets on or before Tuesday, January 24th, is 17s. 6d.; for members purchasing their tickets after that date, and the guests £1. Applications for tickets and the name and address must be forwarded to the Honorary Secretary. Members' guests are not limited to their professional friends.—L. H. ORMSBY, M.D., Honorary Secretary and Treasurer.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary, Oxford, at 3 o'clock on Friday, January 27th. Notice of papers to be read and cases to be shown must be given to either of the Honorary Secretaries on or before Monday, January 23rd. Members are requested to send their annual subscriptions to the Association and the Branch, due January 1st, to Dr. Darbishire, 97, Holywell, Oxford.—S. D. DARBISHIRE, W. LEWIS MORGAN, 42, Broad Street, Oxford, Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

THE December meeting of this Branch was held at 198, Union Street, Aberdeen, on Wednesday, December 21st, at 8 P.M.; the President of the Branch, Dr. SMITH, of Kinnairdy, being in the chair.

Minutes and Ballot.—The minutes of the last meeting were read and approved, and Dr. J. J. Y. Dalgarno, Royal Infirmary, Aberdeen, was ballotted for and admitted a member of the Branch.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Sweating Fever.—*Treatment of Obesity.*—*Action of Bile.*—*Antipyrin in Epilepsy.*—*Cocaine Poisoning.*—*A Bullet extracted from the Wrist after seventeen Years.*—*The Lungs as Filters for Micro-organisms.*—*Antiseptic Lozenges.*

SWEATING fever appeared in Poitou last summer for the first time since 1845. The opinions concerning the origin and nature of this affection differ greatly. The *Poitou Medical* has published a volume containing the works of different authorities upon the epidemics of 1845 and 1887. Dr. Gaillard, who wrote a complete clinical description of the epidemic of 1845, remarked that it principally attacked persons in easy circumstances. He employed sudorifics and tonics. Dr. Gaillard noted that it was more serious when it appeared during pregnancy or delivery. He regarded sweating fever as non-contagious—an opinion which was shared by most of the medical men of the locality in which it appeared. Drs. Thandière and Litardière reported the epidemic at Sillars in 1887; 244 persons were attacked. Measles was observed at the same time as the sweating fever. Dr. Guillé, who observed both these affections simultaneously at Montmorillon, regarded the epidemic as military measles, or measles accompanied by sweating fever. This opinion was shared by Dr. Brouardel, who was sent by the Academy of Medicine to investigate the nature of the epidemic. Dr. Guillé believes that the affection is not directly contagious, but is transmitted by the air. Dr. Coutancin remarked that in the same district the affection followed the direction of the wind. Dr. Bernard observed that in several patients the number of blood-corpuscles was reduced by one-third; this accounts for the long duration of convalescence and consecutive anæmia. He regards sweating fever as a contagious affection of malarious nature. Dr. Ponteil observed that the affection usually proved fatal in the case of pregnant women. He attributed the disease to infection. M. Parmentier distinguishes two clinical aspects of sweating fever. In the first the number of white and red corpuscles in the

blood is not modified. In the second the number of white corpuscles is doubled, while the number of red corpuscles is reduced by one quarter. The proportion of hæmoglobin is diminished. Dr. Brouardel gave a detailed description of sweating fever in his report to the Academy of Medicine. The first period is marked by nocturnal sweats, fever, suffocation, epigastric constriction, *barre*, palpitations, delirium; and in some cases epistaxis and cough are present. The second period, which begins on the second or third day, is characterised by itching and pricking, followed by the appearance of a miliary eruption, which appears on the surface of an exanthem, which assumes three forms—those of measles, scarlatina, and puerperal fever. This rash appears on the face and extends to the neck, trunk, and limbs. The sweats and nervous disturbances are modified. The third period is constituted by desquamation. Convalescence is exceedingly tedious. Dr. Brouardel distinguishes two forms of sweating fever—1. A serious form, followed by death in forty-eight hours, decomposition taking place rapidly. 2. A mild form, in which relapse often occurs. This rubecolic sweating fever (*suetto rubéolique*) described by Dr. Brouardel is principally observed in children who have had measles. The incubation period is twenty-four hours. Dr. Brouardel has shown that sweating fever is eminently contagious. The nature or pathological anatomy of this affection is at present unknown. He recommends isolation and disinfection.

At a recent meeting of the Biological Society, M. Leven presented a communication on the treatment of obesity. He holds that it is principally due to nervous disturbance, which causes the food to be transformed into fat. Treatment which aims at curing the neuropathic phenomena should be adopted. Irritation of the solar plexus should be guarded against. A diet which is easily assimilated should be employed, such as eggs, soup, and plenty of milk. It is well to avoid intellectual or physical fatigue. M. Grimaux stated that he had employed a diet composed of eggs, potatoes, and milk rice, and found himself benefited by this system.

M. Dastre, who has continued his investigations on the influence of bile on the digestion, described the results of two experiments he had recently performed. He made a fistula between the gall-bladder and the intestine. The animals operated on recovered four months after the establishment of the fistula. A meal composed of meat, fat, and milk was given to them, and, while the digestive functions were in action, M. Dastre ascertained the following facts. The chyliferous vessels were only transparent between the stomach and the fistula, where the pancreatic juice had acted alone. Beyond the fistula, where the bile and pancreatic juice had acted, these vessels were white and milky. M. Dastre concludes that bile aids in the digestion of fatty substances as much as the pancreatic juice, but that bile or pancreatic juice, acting separately, fails to promote the assimilation of fat.

M. A. Robin read a note by M. Lemoine (of Nancy) on the treatment of epilepsy by antipyrin. It appears that this drug relieves the headache and neuralgic pains following epileptic attacks, but does not cure the disease.

M. Lafont, who has been studying the phenomena of cocaine poisoning, states that this affection is characterised by a tendency to sensory hyperæsthesia, and tachycardia which often ends in collapse. M. Déjerine stated that he had observed similar phenomena. In a case which he had seen, the patient seemed to feel the contact between his fingers and an external object, but he appeared to be insensible to pain when his fingers were pinched. Scabs resembling syphilitic rupia were observed at the spots where the injections had been made.

At the Surgical Society M. Poncet lately showed a bullet weighing 22 grammes, which was extracted from the left carpus, where it had remained during seventeen years. Since 1870 the patient remarked that the lower portion of his hand projected, and that he could not use it freely. In 1880 he suffered from severe pain in this limb after a fall. A movable body could be felt inside the carpus, between the pisiform bone and the styloid process. An incision was made; pus escaped, and a cavity was discovered in which the bullet had lodged under the nina. The bones of the carpus were laid bare, and were observed to be necrosed; these were cleaned. Six days later there was no more pus; the cavity had almost disappeared. M. Poncet concludes that large bullets should be immediately extracted. In the present case the patient would have been spared five years of suffering and twelve years of functional disability if surgical interference had been immediately had recourse to. M. Reclus observed that he did not share this opinion. He cited two cases in which bullets had not been removed. The patients experienced no inconvenience; one of the bullets was 11 millimètres in diameter. M. Poncet replied that it was only in the case of rifle bullets that he considered surgical interference necessary.

MM. Straus and Dubreuilh, by their recent experiments, have confirmed the statement that the air expelled from the lungs is free from microbes. They saturated some broth prepared for the purpose with a portion of air expelled from the lungs. On examination the broth was found to be almost free from microbes. This result proves that the lungs act as a filter, and purify the air which passes through them from micro-organisms. The breath of human beings crowded together in a confined space is only deleterious on account of the noxious gases it contains. The microbes found in the air under such conditions are due to the clothes, sputa, dust, etc.

In the *Union Médicale* of December 11th Dr. Durrant describes the effect of Dr. Albin Meunier's antiseptic lozenges in the treatment of pulmonary tuberculosis and other affections of the respiratory organs. The discovery of the pathogenic microbe of these affections suggested that they might be completely cured if an efficient agent could be found to destroy the microbe, or render the organism impervious to its attacks. The antiseptic treatment of affections of the respiratory organs was a method in accordance with the most recent scientific theories; its practical application was, however, rendered almost impossible for the following reason. It would only prove effectual if the antiseptic remedies were administered in large quantities; these in strong doses exercised an injurious and even dangerous action upon the cells of the organism. Dr. Albin Meunier has discovered a means by which antiseptic remedies which destroy the pathogenic microbe of pulmonary phthisis and other broncho-pulmonary affections may be administered in active doses without any danger whatever to the organism. Dr. Meunier's antiseptic lozenges are composed of carbolic acid, eucalyptol, iodoform, creasote, menthol, etc.; one to three lozenges are given at each meal. The beneficial effects of volatile essences in the treatment of broncho-pulmonary affections have been demonstrated by numerous observations. They arrest the evolution of the bacillus, modify the character of the secretions, and diminish the fits of coughing. Dr. Meunier's lozenges are rapidly absorbed, and the organism is quickly and thoroughly impregnated with the antiseptic substances. Their odour is observed in the breath, in the urine and perspiration of the patient shortly after the lozenges have been swallowed. Owing to the purity of the substances employed, this treatment never disturbs the digestion. The action is prompt and effectual; tonics and strengthening medicines may be combined with this treatment. Under it the patients increase in weight, diarrhoea and night-sweats disappear, and the local symptoms are modified.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

The Carlsbad "Cure."—*Hypodermic Injections of Antipyrin.*—*General News.*

DOCENS DR. JAWORSKI, of Cracow, gives, in the *Przegląd Lekarski*, under the above title, some interesting details respecting the influence of the springs of Carlsbad on diseases of the stomach. The author first emphasises the fact that the majority of gastric disorders are due to an increased activity of digestion, and not, as had long been thought, to impairment of the secreting power of the gastric mucous membrane of the stomach, or to complete destruction of the digestive action. He refers to the publications of Richmann in 1882, in which increased secretion of the gastric juice was said to be the cause of the disease, and also refers to researches on the diseases of the stomach by Jaworski, Gluzinski, and others, which illustrated this statement by several facts. Further investigations had shown that, in ulcerations of the stomach, hydrochloric acid was increased, and that hæmatemesis, as a result of *ulcus ventriculi*, was observed when the secretion of hydrochloric acid had risen to the highest point. The diminution of the secreting power of the stomach greatly lessened the danger of gastric ulcer. The springs of Carlsbad had been said to stimulate the secretion of the stomach, and to quicken the digestion. Dr. Jaworski, however, observed that, although the water and the dried salts of Carlsbad increased the secretion of the gastric mucous membrane when given in small doses, when used in large doses, or when taken for a long time, they lessened the secretion both of acids and pepsine, so that, after prolonged use of these remedies, the secretion was completely arrested without any great disturbances in the mechanism of the stomach. Out of 232 cases which Dr. Jaworski had examined, in 156 he found the cause of the gastric disorder to be increased secretion of hydrochloric acid. The good effect of the springs of Carlsbad in almost all diseases of the stomach was thus explained. With reference to the indications for the use of the waters, Dr. Jaworski, as the result of numerous internal examinations of the

stomach, distinguishes the following stages and forms of gastric diseases. The use of the springs of Carlsbad is indicated: 1. In increased secretion of the gastric acids during the time of digestion only (*hypersecretia digestiva transitoria*). In such cases the use of the Carlsbad waters lessens the sensibility of the mucous membrane of the stomach. 2. In increased secretion of the gastric acids when the stomach is empty (*hypersecretia hyperacida continua simplex*). When the Carlsbad waters are used in such cases in small quantities, not only the normal, but the functional and structural conditions were re-established. 3. (a) In the third stage, which had been called by Jaworski *catarrhus acidus v. gastrorrhœa hyperacida continua*, where the secretion of hydrochloric acid had attained the highest degree, so that the acidity of the non-digesting stomach was scarcely less than it is at the period of active digestion. In these cases, disturbances of the chemisms of digestion and anatomical changes of the glandular apparatus, and even in the muscular layer of the stomach, were already present. The use of the Carlsbad water, in large doses and for a long time, will diminish the acid secretion to a high degree, and produce a considerable improvement in the disease; (b) As, according to all the experimental results which had been hitherto obtained, the round ulcer of the stomach (*ulcus ventriculi rotundum*) was attended with the acid catarrh just mentioned, and was probably produced by it, the favourable effect of Carlsbad water in cases of gastric ulcer was satisfactorily accounted for. 4. Besides the continual increase of the acid secretion, there was still another abnormal and periodic hypersecretion of hydrochloric acid of nervous origin. The difference between these forms consisted in this, that in the former the increased acidity was met with at each internal examination, whereas in the nervous form, the increased acidity was only occasionally observed. In this latter the Carlsbad water might be advantageously employed. 5. In certain neuroses, sensory (*hyperæsthesia, cardialgia*) as well as motory (*vomitus nervosus*), Carlsbad water is not less useful. Dr. Jaworski does not remember any single case in which the water had been vomited, and this was also true of cases in which no other liquids, and even no medication, could be retained in the stomach. In such cases the good result was to be ascribed to the mild effect of the warm and diluted alkaline solution and the free carbonic acid on the mucous membrane of the stomach. The use of the waters of Carlsbad is contra-indicated in:—1. The fourth stage of the secretory debility (*insufficiencia secretionis acidæ*), when the acid secretion was insufficient even during digestion. 2. The last stage, which had been called *catarrhus mucosus*, when hydrochloric acid and sometimes even pepsine was quite absent even during digestion. Even in these cases it was worth trying whether the glandular apparatus could not be irritated to secretion by small quantities of Carlsbad water. Dr. Jaworski further points out that the effect of Carlsbad water was not only a symptomatic one, as was believed by many, that it not only neutralised the hyperacidity of the gastric contents, but that it also produced permanent anatomical and functional changes in the glandular apparatus, by which the power of secreting hydrochloric acid was diminished, and thus a permanent benefit obtained. Whether Carlsbad cure was indicated in a given case should be learned from the internal examination of the stomach. During the time the water was used the progress of the case must be determined from time to time by internal examinations. It had been proved by several experiments that a too protracted use of the Carlsbad water and salt finally led to complete loss of the power of secreting hydrochloric acid. On the other hand, it was a known fact that there was no strict causal connection between the subjective disturbances and the objective changes in the stomach, so that no sure conclusion could be drawn from the former as to the condition of the stomach. It was therefore absolutely necessary to examine the contents of the stomach chemically from time to time in order to obtain a true idea as to its secreting power, so that it might not be completely destroyed. It should also be borne in mind that atrophy of the glandular apparatus predisposed to the development of neoplasms in the stomach. Korczynski and Jaworski had shown (*Klinische Befunde bei Ulcus Carcinoma und Magenblutungen*, Berlin, 1887) by statistics that malignant neoplasms of the stomach coincided with the above-mentioned condition of mucous catarrh, and that there was probably a more or less close causal relation between them.

Subcutaneous injections of antipyrin are now used at the clinic of Professor Drasche in the general hospital with much success; 0.25 gramme (25 centigrammes) in a Pravaz syringe were used with the best results in cases of local pain, where injections with morphine were also indicated. In the same way they were used in cases of ulcerating tumours and cancers with very beneficial effects.

Dr. Edward Albert, ordinary Professor of Surgery in the Vienna

University, has recently had the title of "Hofrath" conferred on him by the Austrian Emperor. Docens Dr. Jarisch, who had hitherto been connected with the Vienna Polyclinic, has been appointed Extraordinary Professor of Dermatology and Syphilis in the University of Innsbruck, in the Tyrol.

SAN REMO.

[FROM OUR OWN CORRESPONDENT.]

The Crown Prince at San Remo.

SAN REMO has fortunately escaped the severe downfall of snow with which Geneva, Nice, and its immediate neighbours have been visited; but the weather has been very cold, and almost, in an English sense, seasonable. The Crown Prince, though debarred from much outdoor exercise, continues to make progress, and has in no way suffered from the change in weather. Sir Morell Mackenzie, on his return from Algiers, expressed himself satisfied with the improvement that had taken place, and confirmed his opinion that the small growth and thickening that had been observed was not of a serious nature. The Royal party at the Villa Zirio have had a happy if not a merry Christmas and New Year, and the Princesses declare it to be one of the happiest they have ever held.

On Christmas Day the Crown Prince himself, with all the family, was at the German church in the morning, much to the delight of his compatriots. In the afternoon, the Crown Princess and four Princesses, with Lady Ponsonby and ladies of the suite, attended a carol service in the English church. Some very pretty German carols with Italian words were also sung at the Villa Zirio by the boys of one of the government schools, the Crown Prince coming out into the garden and inviting the Syndic of the town into the Villa and showing him the innumerable Christmas presents he had received.

The Crown Princess, through Dr. Freeman, sent Christmas congratulations to the ladies of the Home, and intimated her intention of paying them a visit in the course of the week.

Prince Henry is still here, and a tennis-court as well as a small amateur theatre at the Villa have been arranged for the young people.

Dr. Krause gave a luncheon to Sir Morell Mackenzie, at the West End Hotel, before his departure, and invited Drs. Freeman, Heryng, Hovell, and Count Seckendorff to meet him.

Many people have arrived within the past week. Villas are being let and the hotels filling, and there is no doubt that the spring season will be an exceptionally good one.

The Crown Princess attended the monthly ordinary committee meeting of the Ladies' Home, and showed an active interest in the working of the institution.

The last few days, the weather being perfect, the Crown Prince has been out a great deal, on Sunday taking a walk of over two hours in the morning, and again walking in the afternoon, looking, at any rate, in perfect health.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

The University Council Register.—*The Medical Charities Committee.*—*Hospital Entertainments.*—*Friendly Societies' Medical Association.*—*The Pathological and Clinical Society.*—*Queen Margaret College.*

THE Register of the General Council of the University for 1888 has been made up, and shows a total of 4,562 names, that of 1887 having been 4,416.

The Medical Charities Committee at a recent meeting decided to make an attempt to arrange a conference with the managers of the various medical charities in the city for the discussion of the whole question of medical charity, and the securing, if possible, of united action. Hitherto the Committee has confined itself chiefly to compiling reports and statistics and collecting information regarding methods used in various institutions for discriminating between the deserving and undeserving. If the subcommittee appointed to memorialise the managers on the proposal of a conference succeeds in its object, a very important forward step will have been achieved.

The various hospitals have held this year, as usual, their seasonal entertainments. At the Royal Infirmary the annual meeting of nurses was addressed by Professor Jack, of the University. It was mentioned that, at the beginning of 1887, patients were present in the institution, 196 on the medical and 305 on the surgical side. During the year 4,789 had been admitted, 1,901 on the medical and 2,888 on the surgical side. At present there were 13 more patients under treatment than at the beginning of last year. The mortality of 1887 had been 8.8, against 9 in 1886, or excluding deaths within 48 hours of admission,

6.3 as against 6.6. At the Western Infirmary an entertainment was provided for children, and also at the Sick Children's Hospital, and the Glasgow Medical Mission. Besides these, a very large number of institutions provided dinner or supper for the poor on one of the first days of the year, 5,000 at least being thus entertained. During the holidays the work of the Ambulance Association was largely increased. This is due not only to the value of the Association becoming more widely appreciated by the public, but also to the skill and celerity with which the officials respond to calls upon them. Their ambulance waggons are constantly ready, and are usually despatched within two minutes of the receipt of a message.

The Committee appointed by the various friendly societies to consider the formation of a Medical Association for Glasgow and district have issued their report. They report in favour of such an association, which would appoint medical officers who should devote themselves exclusively to the work of the association. Upwards of fifty such friendly society medical associations already exist, having a membership of nearly 211,000, and the charges vary from 2s. 6d. to 3s. 6d. per member per annum. A meeting to consider the whole question will be held in February.

Of the recent meetings of the medical societies of Glasgow, probably the most interesting was that of the Pathological and Clinical Society, held towards the end of December. Dr. William Macewen occupied the evening by showing cases of cerebral abscess that had been operated on, and an epileptic, from whose brain a small tumour had been removed, whose presence in the motor area had been the source of irritation. Dr. Macewen also discussed the elicitation of a differential cranial percussion note, and its aid in diagnosis, showing patients in whom the note was abnormal, and sections from a case with dilated ventricles, in which during life a distinctive note was produced. At the January meeting of the Society, specimens of cervical dislocation of the spine, ossification of the choroid, and a diphtheritic cast of trachea, bronchi, and bronchial tubes, obtained from a tracheotomy wound, were shown by Mr. Maylard, Dr. Reid, and Dr. H. C. Cameron respectively. The latter showed, also, a specimen of subperiosteal sarcoma of the humerus.

At Queen Margaret College, a course of evening lectures has been arranged, each of the College lecturers delivering one of the course. The course includes ten lectures, and among them is one on "Metamorphosis and Mimicry," by Mr. J. H. Fullarton, B.Sc., and one on "Disease and Atmospheric Particles," by Dr. McGregor-Robertson. The other subjects belong to literature or art, such as that of Professor Caird on "The Genius of Carlyle," Professor Nicol on "American Poets," Professor Veitch on "Border Song."

CORRESPONDENCE.

ELECTROLYSIS IN THE TREATMENT OF UTERINE FIBROIDS.

SIR,—In your Hospital Reports in the JOURNAL of January 7th is published a case of "enucleation by electrolysis of a large uterine fibroid," occurring at the Soho Hospital. As this case has already been quoted as an example of the risk attending Apostoli's treatment, it seems only fair to point out that the electrical applications were conducted with a frequency and intensity which certainly were in excess of anything recommended by him, and that the sloughing which followed may probably be referred to this, and not to the inherent risk of the method itself. Apostoli's galvanometer is only graduated up to 200 milliamperes; he never exceeds this, and generally works with lower intensities—at least with the negative pole. Moreover, he usually applies the electricity once a week. In this case the applications were much more frequent and severe. Thus, on August 12th, 15th, 18th, and 20th, the negative pole was introduced into the uterine cavity four inches and a half, and currents of 250, 250, 300, and 235 milliamperes were used for ten minutes; and it was after this energetic action that sloughing occurred, happily terminating in the recovery of the patient. In promoting the absorption of fibroids, Apostoli recommends the puncture of the tumour *per vaginam* to the extent of a quarter to half an inch, not the cauterisation of a large surface, as in this instance, in which the negative pole was introduced into the uterine cavity.

This pole is described by Engelmann as "the irritating pole which promises the highest potency of the destructive and denutritive action of the galvanic current." There is probably a considerable difference between the action on a tumour through a puncture, and the application of a long unprotected electrode in the uterine cavity. When I visited Apostoli's *clinique*, I particularly inquired as to the occurrence

of accidents such as that described in this case, which struck me as not improbable; and I was assured that nothing of the kind had been observed, nor does Engelmann refer to any instance of the sort in his many cases he has treated. In a recent case of my own, in which I have made five negative electro-punctures of a large fibroid, rapidly increasing in size, two of them of 200 milliamperes, there has been a tolerably free and somewhat offensive uterine discharge, not provisionally existing, and the tumour has *pari passu* diminished from the size of an adult head to that of an orange; but there has been no sloughing, and no discharge of any substance, the tumour having apparently simply absorbed. The action of the negative galvanic current in electrolysis is probably simply that of a strong stimulus to absorption, not of a cautery, as is proved to be in this case, the lesson to be learnt from which is probably that very high intensities should be avoided, and that its application should be made at longer intervals. The hopefulness of this treatment has always seemed to me to lie in the well-known clinical fact that uterine fibroids often undergo spontaneous absorption—as, for example, during the involution following labour; and it seems not unreasonable to suppose that we may find a means of doing by art what is often done by Nature, under conditions as yet but little understood, but well worthy of further study.—I am, etc.

W. S. PLAYFAIR.

George Street, Hanover Square, January 7th.

HOW SHOOTING ACCIDENTS OCCUR.

SIR,—Sir W. Dalby's paper on this subject is worth reading and considering by everyone who finds exercise and pleasure in shooting. I can homologate all his sentiments, but I would like to point out that here, at any rate, in Scotland, on some moors and covers, some of his precautions are quite impossible; for instance, that of never getting over a fence or ditch without taking out your cartridges. Last week I was one of a party where the ground was so broken with hedges, ditches, fences, and obstructions innumerable, that if we had abstracted our cartridges on each occasion we would have had pretty good exercise and plenty to do. In a case like that it is enough to exercise care, and see that your gun is at half-cock.

Most of the accidents in the field which I have seen have occurred from shooting in line. This is an accident which ought really never to occur, and still it is not always due to ignorance on the part of the sportsman. Some men get so excited that they forget everything but the game and the gun. As a rule they are poor shots, and no amount of experience would ever make them either careful or good shots. A sportsman is born, not made, and I should not like that a law would be passed that nobody be allowed to shoot unless he has as a boy been taken out alone. Most of us as boys have had very little chance of using a gun. The fact is, that nobody should try shooting who, after the first trial or two, finds he has not a "knack" for it. I was myself brought up where there was plenty of fishing and shooting. I could never learn to fish, although I tried hard, and I think that sportsmen should only exercise that sport which they find they are best suited for; nobody certainly ought to lift a gun who knows nothing about it. If anyone wishes to learn let him study his gun first, and the first time he goes out he should let that be known, so that the others may keep out of his range. There ought to be very little danger in shooting, and I think if men of inexperience, and experience too, would be content to "keep cool" in spite of losing a "chance," there would be none at all.—I am, etc.,

Crosshill, Glasgow.

STUART NAIRNE.

THE ERGOSTAT AND LATERAL CURVATURE.

SIR,—I was very much interested in reading the account of the ergostat in the JOURNAL of January 7th, and cannot but think that its usefulness will become recognised, and is sure to extend in the future.

Amongst the various calisthenic exercises I recommend for patients suffering from lateral curvature of the spine is that which has received the appellation of the "top-sawyer movement," from the position of the men when sawing through blocks of wood, etc. The use of the ergostat would cause similar movements, but apparently would throw the shoulders further back at each turn of the handle, and thus induce much fuller respirations; but what is more difficult to acquire, and yet of the utmost importance in the treatment of delicate patients, is to regulate the amount of exercise, and this probably can only be done very accurately by the employment of the machine under consideration.

I have frequently watched chaff-cutters at work, and thought how beneficial some similar exercise would be to scoliotic girls. In performing many exercises, the breath is rather apt to be held for a longer

time than is desirable, and especially is this so in the slow movements with dumb-bells, and no doubt would be so at first with the ergostat. In giving the rules for the employment of this apparatus, it is recommended that speaking should be abstained from. This may be a wise precaution when the patients have become mechanical enough to conduct the revolutions without any special mental effort; but until they have become sufficiently educated to continue the free respiratory movements while their attention is directed elsewhere, I think it a good plan to instruct the patients to count audibly.

I should like, also, to say that it is important to have the handle of a carefully provided length, in order that the hands may be placed a fair distance apart, and so allow the chest to expand fully; while at the same time the arms should be extended as much as possible during the whole time. It would be a valuable addition if (without interfering with its stability) the props or uprights of the machine could be constructed so that the height may be regulated according to that of the patient using it.—I am, etc.,

AUGUSTUS CLAY, Assistant-Surgeon Orthopædic and Spinal Hospital.

Birmingham.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.

SIR,—Macaulay's "every schoolboy" knows that even a breath of suspicion with reference to the financial department of any charity is immediately succeeded by a lamentable dearth of contributions by the public. I need not therefore proffer any additional justification for trespassing upon your valuable space with this communication. When I assert that one of the medical officers present at the meeting recorded in the JOURNAL for December 24th, audibly regretted "that the meeting was not a legal one," it will be seen how far the interests of the hospital were intended to be promoted by the small band of some twenty governors constituting such meeting, out of a roll-call of about 800 subscribers we claim the distinction to muster. But there is a far more serious feature arising out of these proceedings. The persons convening the meeting were informed of the impropriety and illegality alike of their proposed venture, and were entreated to abandon their project. They knew that when the treasurer rejected the date improperly fixed by the requisition, and substituted in lieu thereof January 18th, he was wholly influenced by a desire to place before the governors the official audit up to December 31st, 1887. The board of management, after mature deliberation, regarded the acquisition of this audit as the best guarantee that the accounts were above suspicion. At any rate, the auditors, being wholly unconnected with the management of the institution, but jealous to a degree of their professional status, would be present to deal with all matters provoking either inquiry or investigation. The *reductio ad absurdum* is reached when one reflects that the persons who refuse to await the result of the audit are identical with those who are persuaded that an inquiry into the accounts is an urgent necessity.

The board of management, as may be assumed, took no part whatever in the meeting. They could not well arrive at any other determination, with any regard either for consistency or for the best interests of our hospital. On January 18th the management will be completely vindicated in the eyes of the public, but I should hesitate before predicting how long it will be before the mischievous effect of the meeting held on December 20th will be removed, and confidence in the hospital fully restored.—I am, etc.,

THOS. J. SAVAGE,
Honorary Solicitor to the Hospital.

57 and 59, Ludgate Hill, E.C.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

SIR,—In reply to your two correspondents in your last issue, I shall be glad of your permission to say that I have no alteration to make in my statement to you on December 31st, which was simply a record of fact.

Sir Spencer Wells, who was in the chair, held in his hand two dispensary circulars, which had been enclosed in the letter sent to him by Dr. R. H. S. Carpenter. He commented upon the letter, but did not read it, though requested to do so by that gentleman. Shortly afterwards Sir Spencer left the meeting, and Mr. Bousfield presided instead. It was during this time that the "disorder" took place, and it commenced in this way. Mr. Holmes, who like several others of the committee had received a copy of the letter and two dispensary circulars which accompanied it, followed Sir Spencer's example by commenting upon the letter and declining to read it, although requested to do so by Dr. Carpenter, who accused Mr. Holmes of misrepresenting its contents. Subsequently the letter was read by Mr. Hentsch, on behalf of the Medical Alliance Association, and the dis-

turbance which followed arose, I repeat, from those on the platform and their supporters in the body of the hall, endeavouring to overcome by noise, which included stamping of the feet, what Dr. Carpenter said in reply to Mr. Holmes, and in a denunciation of some of the members of the committee who were present.

The proceeding, which was a lamentable exhibition of unfairness, it is to be hoped will not be valued by thoughtful men of the profession, and the sooner it is forgotten, in my opinion as an outsider, the better it will be for those originating it. For that reason, if for no other, I decline any further correspondence upon the subject.—I am, etc.,

TOWRY PIPER,
Pridham, Piper and Co., Solicitors to the
Medical Alliance Association.

1, Old Serjeant's Inn, Chancery Lane, London, W.C.

SIR,—I was present at the meeting, and am astounded to read Mr. Timothy Holmes's insinuations in the JOURNAL of December 24th, to the effect that the discourtesy arose from general practitioners opposed to the scheme. It is true that the scheme met with determined opposition, and it is likely to do so from general practitioners, whose very living is put in peril. (I may say that a strong association is now in process of formation to oppose it step by step.)

The meeting may not have been packed, in the ordinary acceptance of the word, but it is curious that I and two other practitioners to whom I have spoken received no notification of its being held. I went through the invitation of a friend, and was shocked beyond conception to see the manner in which a gentleman—whose white hairs alone should have been a guarantee for indulgence and reverent respect—was hooted down and interrupted by cries of "Turn him out!" etc., by men who must have been in the nursery at the time when he had had a large experience of general practice.

At the next meeting, should due notice be given, it will be apparent that the main body of general practitioners are convinced that the existing charitable institutions, clubs, etc., are amply sufficient to supply the needs of those who are unable or unwilling to pay small fees to their private medical attendants, and that this long-suffering body are determined to oppose any further attempts to provide certain influential people with cheap philanthropy at the expense of their pockets.—I am, etc.,

F. H. COREY.

18, Abercorn Place, N.W.

SIR,—The letter of "A.S.R.W.," published in the JOURNAL of December 24th, on the above subject, appears to take far too gloomy a view of the consequences resulting from the establishment of local "provident dispensaries." That they may possibly absorb some members who would otherwise be private patients at low fees, is doubtless true, but is not the disadvantage more than counterbalanced by the gain of having on your list a number of "provident members," whose periodical subscriptions fully make up for the occasional loss of a low fee, to say nothing of the chance of making a doubtful debt (if you give credit) amongst a class of patients whom it is both undignified and unprofitable to give to a collector, or to sue in the County Court! I consider also that it is not justifiable to lay the burden of a debt on the wage-earning class, or to do what is now frequently done, demand a ready-money fee, however small, from a family who require every penny they can get for extras and comforts for the patient. To obviate these evident difficulties and disadvantages, the best remedy is undoubtedly a well-conducted provident dispensary. I think the scheme adopted by the Metropolitan Provident Medical Association in starting local dispensaries is worthy of the support of the general practitioners, first, because it invites the co-operation of the local medical men, whom it consults before starting a new dispensary; secondly, the medical officers attached (and all local medical practitioners can be so) have a seat on the governing committee forming the rules for admission and payments, etc., of members; thus comparing most favourably with the old club and one doctor system, which is only the provident system in an inferior degree, and under no control from the profession.—I am, etc.,

E. A. M.

A DISPENSARY DOCTOR SENT TO PRISON.—At the Bandon Quarter Sessions last Tuesday the appeal was heard of Dr. Magner from the decision of a Crimes Act Court at Ballinspittle, Co. Cork, sentencing him to two months' imprisonment for language used at Ballinadee last October. The sentence was confirmed, and an application to have the accused treated as a first-class misdemeanant was refused by the County Court Judge.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made in the Admiralty:—JOHN C. B. MACLEAN, M.A., M.B., Staff-Surgeon to Plymouth Hospital; GEORGE B. MURRAY, Staff-Surgeon, to the *Agincourt*; ROBERT F. YEO, Surgeon, to the *Hyacinth*; JAMES W. O. UNDERHILL, Surgeon, to the *Durcan*, additional, for temporary service; JOHN J. DENNIS, M.D. Surgeon, to Haslar Hospital; JOHN S. LAMBERT, Surgeon, to the *Wye*; E. C. WARD, M.D., Surgeon, to the *Royal Adelaide*; MURDOCH MACKENZIE to be Surgeon and Agent at Stornoway; J. F. SOMERVILLE to be Surgeon and Agent at Swanage; J. F. BATE, Surgeon to the *Janus*; ROBERT HADDIE, Surgeon to the *Hercules*, additional; JAMES O'CONNELL to be Surgeon and Agent at Crookhaven; G. G. JONES to be Surgeon and Agent at Amlwch.

We understand, the *United Service Gazette* says, that the Medical Director-General of the Navy, Sir John Reid, K.C.B., will be succeeded on February 1st by Inspector-General JAMES N. DICK, C.B., Senior Medical Officer on the Active List.

Staff-Surgeon MICHAEL RONAN, B.A., late of the *Hooper*, and formerly Surgeon at Chatham Dockyard, who has been some time in hospital, is ordered to be discharged and placed on half-pay.

THE MEDICAL STAFF.

BRIGADE-SURGEON W. R. LANE has retired with the honorary rank of Deputy Surgeon-General. He entered the service as Assistant-Surgeon December 29th, 1854; became Surgeon January 4th, 1871; Surgeon-Major March 1st, 1873; Brigade-Surgeon, November 5th, 1887. Beginning his career in the 2nd Grenadier Guards, he continued with this battalion as Assistant-Surgeon, Surgeon, and Surgeon-Major successively till May 25th, 1877, when he was transferred to the 1st Scots Guards as Battalion-Surgeon, and remained with this corps till November 5th last, when he was appointed Brigade-Surgeon to the Brigade of Foot Guards. He served with the 1st Scots Guards in the Egyptian war in 1882, and was at the battle of Tel-el-Kebir; he has the medal and clasp and the Egyptian bronze star for this campaign.

Surgeon-General H. T. READE, V.C., C.B., is granted retired pay. His commissions are dated:—Assistant-Surgeon, November 8th, 1850; Surgeon, November 3rd, 1857; Surgeon-Major, September 7th, 1871; Brigade-Surgeon, November 27th, 1879; Deputy Surgeon-General, March 27th, 1880; and Surgeon-General, November 30th, 1886. We learn from *Hart's Army List* that he served in medical charge of the 61st Regiment at the siege of Delhi from July 1st, 1857, to the final capture of the city on September 20th; he was present at the repulse of the sorties of July 4th, 9th, 18th, and 23rd, accompanied the regiment at the assault of the city on September 14th, and subsequently with a small party of the 61st repulsed an attack of about 300 Sepoys on some wounded men, whose lives were thereby saved; on September 16th he was one of the first up the breach at the storming of the magazine, and with a sergeant spiked a gun—mentioned in despatches, and recommended for promotion for "unwearied exertions and gallant conduct in the field" during the siege and assault of Delhi (medal with clasp, and Victoria Cross); he was awarded the V.C. for the following services: "During the siege of Delhi, on September 14th, 1857, while Surgeon Reade was attending to the wounded at the end of one of the streets of the city, a party of rebels advanced from the direction of the Bank, and having established themselves in the houses in the street, commenced firing from the roofs. The wounded were thus in very great danger, and would have fallen into the hands of the enemy, had not Surgeon Reade drawn his sword, and, calling upon the few soldiers who were near to follow, succeeded, under a very heavy fire, in dislodging the rebels from their position. Surgeon Reade's party consisted of about ten in all, of whom two were killed and five or six wounded. Surgeon Reade also accompanied the regiment at the assault of Delhi, and, on the morning of September 16th, 1857, was one of the first up at the breach in the magazine, which was stormed by the 61st Regiment and Belooch Battalion, upon which occasion he, with a sergeant of the 61st Regiment, spiked one of the enemy's guns." He was nominated Companion of the Order of the Bath on June 21st last. He was Principal Medical Officer at Portsmouth.

Surgeon-Major J. D. CROWE has also been granted retired pay, with a step of honorary rank. His commission as Assistant-Surgeon bears date October 1st, 1867; as Surgeon, March 1st, 1873; and Surgeon-Major, October 1st, 1879. He has no war record.

Quartermaster FREDERICK PHILPOT also has gone on retired pay, with the honorary rank of Major. He entered as Apothecary, September 21st, 1860; was made Captain of Orderlies, June 25th, 1873; granted the honorary rank of Captain, September 21st, 1890; and became Quartermaster Medical Staff from July 1st, 1881. He was in the Crimean war in 1854-56, including the battle of Inkerman and the fall of Sebastopol (Crimean and Turkish medals). He was also engaged in the war in Egypt in 1882, and has the medal and Egyptian bronze star.

The name of Surgeon-Major P. H. E. CROSS has been removed from the list of Retired Departmental officers. He was convicted of the murder of his wife, and was hanged at Cork on January 10th. His service as Assistant-Surgeon in the army dates from April 3rd, 1849; he was promoted to be Surgeon May 15th, 1855, and Surgeon-Major February 27th, 1872; he retired on half-pay April 14th, 1875. He received the medal and clasp and the Turkish medal for the Crimean campaign, including the siege and fall of Sebastopol; and he had also the medal for the Indian Mutiny campaign, in which he served with the 13th Light Infantry.

Deputy Surgeon-General HENRY MARTYN FRASER, M.D., who died at Leamington on December 31st, was the son of the late Rev. Hugh Fraser, M.A., of Ardrichattan, Argyshire. He entered the Army Medical Service as Assistant-Surgeon September 11th, 1849; became Surgeon October 2nd, 1857; and Surgeon-Major June 15th, 1869; he retired on half-pay July 29th, 1874, with the honorary rank of Deputy Surgeon-General. He served in the Indian Mutiny campaign, and was at the siege and capture of Lucknow, where he acted as Sanitary Officer to the forces under the Commander-in-Chief. He was also present at the taking of Sandee in October, 1859, when he was Chief Medical Officer with the force under Brigadier Hale.

Deputy Inspector-General EDWARD BRADFORD, F.R.C.S., F.L.S., died on January 4th, at Harrow, at the advanced age of 86. He entered the Army Medical Service as Hospital Assistant, December 5th, 1826; became Assistant Surgeon March 20th, 1828; Surgeon, September 24th, 1841; Surgeon-Major, April 16th, 1852; and retired on half-pay December 7th, 1858, with the honorary rank of Deputy Inspector-General. He was appointed Honorary Surgeon to the Queen August 16th, 1859. He had no war record, but was in receipt of a reward for distinguished and meritorious service.

INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON A. H. HILSON, M.D., Bengal Establishment, is promoted to be Deputy Surgeon-General with temporary rank, *vice* W. R. Rice, M.D., confirmed. Deputy Surgeon-General Hilson's commission as Assistant-Surgeon bears date January 29th, 1857, and he attained the rank of Brigade-Surgeon September 9th, 1884. He served in the Indian Mutiny campaign in 1857-59, and was present in numerous engagements with the rebels, at one of which he was severely wounded—mentioned in despatches (medal). He was also with the Bhoonath expedition in 1865-66 (medal with clasp). The services of Brigade-Surgeon A. H. Hilson are temporarily placed at the disposal of the Military Department.

Brigade-Surgeon W. R. RICE, M.D., Bengal Establishment, is promoted to be Deputy Surgeon-General, *vice* R. F. Hutchingson, M.D., whose term of service has expired. Deputy Surgeon-General Rice entered the service as Assistant-Surgeon November 20th, 1856, and became Brigade-Surgeon April 10th, 1884. He has the medal for the Indian Mutiny campaign in 1857.

Surgeon J. MACGREGOR, M.D., Bombay Establishment, is appointed to the medical charge of the 20th Native Infantry, *vice* Surgeon H. P. Dimmock, appointed Civil Surgeon of Shikarpore.

The services of Surgeon-Major C. T. PETERS, M.D., and Surgeon D. C. DAVIDSON, both of the Bombay Establishment, are placed at the disposal of Government in the Civil Department.

Surgeon-Major W. GRAY, M.B., Bombay Establishment, is allowed furlough to Europe for one year on medical certificate with the necessary subsidiary leave.

Surgeon G. M. NIXON, Bengal Establishment, on return from deputation in the Gaol Department, is appointed to the civil medical charge of the Furruckabad district from the date of taking charge.

Surgeon W. G. McEVoy is admitted to the Madras Establishment from November 5th, the date of his arrival at Bombay.

Surgeon A. V. ANDERSON, Bombay Establishment, is ordered to officiate in medical charge of the 3rd Light Infantry.

Surgeon C. H. L. MEYER, Bombay Establishment, is directed to officiate in medical charge of the 8th Native Infantry.

Surgeon-Major C. J. W. MEADOWS, Bengal Establishment, officiating civil surgeon of Patna, is appointed to act as civil surgeon of Mozampur, during the absence, on deputation, of Surgeon-Major R. G. Mathew.

Surgeon-Major D. W. D. COMINS, Bengal Establishment, officiating civil surgeon, Burdwan, is appointed to act as civil surgeon of Mymensingh, during the absence, on deputation, of Surgeon F. S. Peek.

Surgeon M. O'DWYER, Bengal Establishment, on return from furlough, is appointed to the civil medical charge of the Goojerat district.

Surgeon G. A. EMERSON, Bengal Establishment, on return from deputation in the Gaol Department, is appointed to the civil medical duties of the Boolandshur district, pending the deputation of Surgeon-Major J. Armstrong.

Deputy Inspector-General J. W. WINCHESTER, Bombay Establishment, retired, died on Christmas Day at Edinburgh.

Surgeon J. C. MARSDEN, Madras Establishment, Medical Officer 29th Native Infantry, is appointed Civil Surgeon of Coorg.

Surgeon B. SNOW, M.D., Bengal Establishment, is appointed to officiate as Residency Surgeon in Nepal.

Surgeon-Major J. McONAGHY, M.D., Bengal Establishment, on return from furlough, is posted to the civil medical duties of the Bari Banki district.

Surgeon D. B. SPENCER, Bengal Establishment, is appointed to the civil medical charge of the district and police of Bhamo, Burmah, in addition to his military duties, *vice* Surgeon-Major F. F. O'Connor, transferred.

Surgeon N. CHATTERJEE, Madras Establishment, is appointed to the civil medical charge of the police and district of Yamethin, Burmah, in addition to his military duties, *vice* Surgeon J. Crimmin, relieved.

The services of Surgeon-Major E. LEVINGE, Madras Establishment, are permanently placed at the disposal of the Commander-in-Chief.

The services of Surgeon J. W. EVANS and H. K. FULLER, M.B., both of the Madras Establishment, are permanently placed at the disposal of the Public Department.

Surgeon-Major D. F. BATEMAN, Madras Establishment, Medical Officer 3rd Light Cavalry, has leave of absence for one year on private affairs.

Surgeon-Major P. MURPHY, M.D., Bombay Establishment, Superintendent of Mahabeshwar, in the district of Sattara, is appointed to be a magistrate of the first class.

Surgeon-Major J. S. WILKINS, Bombay Establishment, is directed to officiate in medical charge of the 21st Native Infantry.

The services of Surgeon-Major J. DAVIDSON, M.B., Bombay Establishment, are replaced at the disposal of His Royal Highness the Commander-in-Chief.

The following is the allotment of annuities for 1888 from the Bombay Medical Retiring Fund; Deputy Surgeon-General J. F. SHEKLETON, M.D., F.R.C.S., £252; Brigade-Surgeon J. P. STRATTON, M.D., £210; Surgeon-General C. G. H. ROSS, £210; Surgeon-General L. S. BRUCE, £168; Brigade-Surgeon H. ATKINS, £168. (*Lapsed to Government, these officers having received a refund of their subscriptions.)

THE VOLUNTEERS.

Mr. HUGH PRYTHECH has been appointed Surgeon to the Liverpool Brigade of the Royal Naval Artillery Volunteers.

The undermentioned Acting-Surgeons are promoted to be Surgeons in their corps specified: J. A. GRAY, 1st Middlethian; W. C. WICKS, M.B., 3rd Volunteer Battalion Northumberland Fusiliers (late the 1st Newcastle); H. R. KEA, 1st Volunteer Battalion Worcester Regiment (late the 1st Worcester).

Acting Surgeon G. R. GRIFFITH, of the 1st Cheshire and Carnarvon Artillery, has resigned his appointment, which bore date September 11th, 1878.

Surgeon J. LEWIS, M.D., 2nd Volunteer Battalion Welsh Regiment (late the 1st Glamorgan) has resigned his commission, which was dated September 28th, 1876; he is granted the honorary rank of Surgeon-Major, and is permitted to retain his uniform.

Surgeon and Honorary Surgeon-Major T. W. TREND, M.D., 2nd Volunteer Battalion Hampshire Regiment (late the 2nd Hampshire), has also resigned his commission, dating from February 15th, 1865; he is allowed to retain his rank and uniform.

It is reported that Professor Kiessman, of Strassburg, will retire at the end of the summer session, and will be succeeded by Professor Naumyn, now of Königsberg.

MEDICO-LEGAL AND MEDICO-ETHICAL.

DISGRACEFUL ACTION AGAINST A MEDICAL MAN: VINDICATION OF CHARACTER.

At the Kilmainham sessions on January 6th, before the Recorder and a jury, the action of George Devlin against Dr. Davy, Terenure, to recover £1,000 damages for alleged *crim. con.* with plaintiff's wife, was heard.

Dr. Smyly, LL.D., appeared for the plaintiff; and Mr. Campbell represented Dr. Davy.

The plaintiff, a gardener, deposed that he was married in the year 1866, and in 1874 went to live at Terenure. Dr. Davy's visits to his wife then commenced, and from the first he suspected that an undue intimacy existed between them. In cross-examination he admitted that he was in prison several times for assaulting his wife, and that she had obtained a divorce from him on the ground of cruelty.

Mr. Campbell read Mrs. Devlin's evidence in the Divorce Court, which detailed the shocking brutality she received at the hands of her husband. He was an habitual drunkard, and kicked her and beat her a number of times. Counsel also read a letter from the plaintiff to his wife when he was in gaol for assaulting his wife a short time after the alleged occurrence in August, 1885. The letter was couched in the most affectionate terms, and asked that she would get Dr. Davy to come to court and give evidence that she was out of danger from the effects of the injuries he (the plaintiff) had inflicted upon her.

To the Recorder—He never, when before the magistrates for assaulting his wife, said he did it because she had misconducted herself.

Mrs. Susan Devlin, daughter-in-law of the plaintiff, was examined for him. She, however, said she never saw the defendant in her life. The plaintiff had offered her money to swear falsely.

Mrs. Mary Anne Purcell, servant to the Devlins for eleven years, stated that there was no truth in the plaintiff's allegations. Mrs. Devlin was always a most respectable woman. The plaintiff had offered her money to swear falsely.

Mrs. Mary Tills, daughter to the plaintiff, gave similar evidence. The plaintiff had also offered her money to swear falsely. She said: My mother has a little shop, and has kept us eight or nine years by her own industry. My father is a villain and a ruffian. He treated us shamefully.

Dr. Davy was called, and denied all the allegations made.

At this stage the jury stopped the case, and returned a verdict for the defendant. The verdict was received with some applause in Court.

The Recorder said not the slightest stain could rest on Dr. Davy. In all his experience on the Bench and at the Bar he never heard a more atrocious or more infamous case, or a more scandalous attempt on the part of a man to destroy the reputation of his wife and obtain money. The Recorder made an order that the Crown Solicitor should institute a criminal prosecution against Devlin for perjury.

ARE MEDICAL PRACTITIONERS "TRADERS"?

In a case of *Hance v. Harding*, which was decided by Baron Huddleston without a jury shortly before Christmas, a point of some interest as regards the status of members of the medical profession was raised and discussed. The validity of a post-nuptial settlement made by Mr. Alfred Peskett, a general practitioner, M.D., and Licentiate of the Apothecaries' Society, in 1882, was in question. He became bankrupt in July, 1883, and the settlement was impeached under Section 91 of the old Bankruptcy Act of 1869, which provides that any settlement made by a trader shall, under certain circumstances, be void if the settlor becomes bankrupt within two years of the date of such settlement. In determining the action it therefore became important to see whether Mr. Peskett was a trader within the meaning of the then Bankruptcy Act. Medical men are generally considered to belong to one of the learned professions, and not to be, strictly speaking, traders. But it appeared that, in an affidavit sworn in the bankruptcy, Mr. Peskett had described himself as a surgeon and apothecary, and, further, that he had on some occasions given his patients receipts for "attendance and medicine," and it was contended that these facts were sufficient to constitute him a trader. It was, however, shown that Mr. Peskett's practice was to charge his patients per visit, supplying them with medicines, but making no separate charge for them. Baron Huddleston held that there was no proof of any trading in drugs, so as to make Mr. Peskett a trader in the ordinary sense; and the question therefore narrowed itself to this, whether the description as an apothecary was sufficient to constitute Mr. Peskett a trader, and this he decided it had failed to do. It is

curious that the law reports are almost silent on the question whether medical practitioners are to be deemed traders. Under the former Bankruptcy Acts, the distinction between traders and non-traders was of importance. The only case cited was *Palmer's*, decided in the year 1856, where the Court of Appeal in the case of Mr. Palmer, of Rugeley, otherwise notorious, decided that a surgeon who practised as an apothecary was a trader who could be made bankrupt. The facts of that case on which the decision was based are not, however, reported, and Baron Huddleston distinguished it from the one before him, where he found, not as a matter of law but as a fact, that Mr. Peskett was not shown to be a trader. As far as legal authority, therefore, goes, it seems that a medical practitioner who dispenses medicines, and makes a charge for so doing, is to be considered as carrying on a trade; but that, if he merely supplies medicines as part of his attendance on his patients, and without charging separately for them, he does not. The question now is one of theoretical rather than of practical interest, because the legal distinction between traders and non-traders has, for most purposes, ceased to exist. It may, however, be a source of gratification to some members of the profession to know that they may dispense the medicines they prescribe without necessarily by so doing constituting themselves tradesmen.

PROSECUTION UNDER THE DENTISTS' ACT: A LEGAL POINT.

AN important case was tried at Wisbech on Tuesday, when Frederick W. Bradley was charged with infringing Section 3 of the Dentists' Act, 1878, which provides that any person calling himself a dentist, or dental practitioner, or any name implying that he is registered under the Act, unless he be so registered, is liable, on summary conviction, to a fine not exceeding £20. Mr. R. E. Melsheimer prosecuted on behalf of the British Dental Association, and Mr. S. D. Waddy, M.P., defended. The prosecuting counsel said defendant had described himself on his cards and plate as "F. W. Bradley, A.P.S. Eng.," and had carefully avoided using the word "dentist." Two clerks were sent from London as patients, and the charge was based on the novel ground that the defendant used the title "dentist" in connection with these patients. These witnesses were examined, and deposed to visiting the defendant, and being advised by him as to their teeth, and to the fact that the defendant said he was a practical dentist. Mr. Waddy, for the defence, submitted that the defendant did not use the title "dentist" or "dental practitioner," and that the Act was not intended to apply to efficient practitioners. The Bench, after consideration, found defendant had infringed the law, and fined him £5 and costs, at the same time consenting to state a case for the Divisional Court.

M.R.C.S.—The right of M.R.C.S. England, legally, is to practise surgery only, and not medicine. The right of M.R.C.S. to practise midwifery does not depend any more than that of L.S.A., on whether a person holds only one qualification, and both are equally entitled to practise it legally.

AGREEMENTS WITH UNQUALIFIED PRACTITIONERS.

ASSISTANT writes: I am in communication with a gentleman whose name appears neither in the *Register* nor *Directory*, about buying a practice from him, or allowing him an annuity out of it. There seems to be a medical practitioner in the same place. What should I do? I want a situation and must keep myself safe.

* * * In reply to the inquiry of "Assistant," the Court of Appeal decided, in the case of "*Davies v. Maknna*," that no valid agreement for disposal of practice can be made except with a duly qualified medical practitioner. Of course the gentleman to whom "Assistant" refers may be such, though he does not appear in the *Register* or *Directory*.

BONDS WITH ASSISTANTS.

A MEMBER asks for information as to the kind of bond to be signed by an indoor assistant in the country. Is there a form to be bought, or must a lawyer be employed?

* * * Forms of bonds may, we believe, be bought, but probably they would not express the intention of the parties. It would be safer to employ a solicitor in such a matter.

THE NATIONAL MEDICAL AID COMPANY.

A CORRESPONDENT sends us a circular of a society calling itself the National Medical Aid Company, Limited.

We consider the scale of remuneration simply disgraceful, and times must be bad indeed when highly educated medical practitioners are offered 3s. per annum for medical aid to sick members over 14 years of age, and 1s. 10d. per annum for similar attendance on those under 14 years, and even these liberal fees are dependent on none of the members being in arrears, as the profession are frankly told that in those cases they will only be "entitled to draw on those weeks" for which payments have been made.

We believe that in the metropolis, at all events, small as are the fees often

paid to the hard worked practitioner of medicine, there are few if any clubs that offer less than 4s. per annum for healthy male adults, and no society up to the present has offered the munificent sum of 1s. 10d. per annum for attendance on sick "infantile members."

We should cordially recommend all members of our profession to have as little as possible to do with the National Medical Aid Company, Limited.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DISMISSAL OF A PUBLIC VACCINATOR WITHOUT INQUIRY.

THE Board of Guardians for Cardiff have decided to terminate the contract of Dr. Horder, the public vaccinator for the town. This decision of the guardians appears to have been at the least precipitate. In his capacity of public vaccinator Dr. Horder was asked by three medical men to supply them with lymph. Even had he refused to oblige them he would have been perfectly within his legal rights, but, as a matter of fact, he complied with two of the requests, though he was unable to supply lymph to the third, owing to his shortness of stock. At a meeting of the guardians on December 15th a charge was brought against Dr. Horder of refusing to supply lymph to three practitioners, but the guardians neither informed Dr. Horder that he had incurred their displeasure, nor that they intended to discuss his conduct; an amendment "that Dr. Horder be heard in his defence" was negatived; and notwithstanding that Dr. Horder has held the post of public vaccinator for ten years, and has always obtained the Government grant for successful vaccination, the original motion, giving him twenty-eight days' notice of the termination of his contract, was carried. Unless a serious and not a frivolous charge can be brought against Dr. Horder, such action on the part of a board of guardians is unjust, and prejudicial both to their own authority and to the public service.

It is to be hoped, therefore, that, if only in their own interests, the guardians will take the earliest opportunity of reconsidering their determination, and, by instituting a proper inquiry into the whole matter, restore public confidence in their decisions.

HEALTH OF ENGLISH TOWNS.—During the week ending January 7th, 6,238 births and 4,279 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 20.8 and 24.8 in the two preceding weeks, was 23.8 during the week ending Saturday, January 7th. The rates in the several towns ranged from 14.8 in Brighton, 17.7 in Bradford, 18.8 in Huddersfield, and 19.5 in Birmingham, to 29.3 in Preston, 31.9 in Wolverhampton, 35.6 in Manchester, and 40.3 in Plymouth. The mean death-rate in the twenty-seven provincial towns was 24.6 per 1,000, and exceeded by 1.8 the rate recorded in London, which was only 22.8 per 1,000. The 4,279 deaths registered during the week under notice in the twenty-eight towns included 493 which were referred to the principal zymotic diseases, against 457 and 503 in the two preceding weeks; of these, 183 resulted from whooping-cough, 90 from scarlet fever, 67 from measles, 53 from "fever" (principally enteric), 42 from diphtheria, 30 from small-pox, and 28 from diarrhoea. These 493 deaths were equal to an annual rate of 2.7 per 1,000; in London the zymotic rate was 3.1, while it averaged 2.4 per 1,000 in the twenty-seven provincial towns, among which it ranged from 0.4 and 0.7 in Portsmouth and Bristol, to 5.1 and 6.2 in Bolton and Sheffield. The highest proportional fatality of measles was recorded in Birmingham, Nottingham, and Bolton; from scarlet fever in Sheffield, Huddersfield, and Blackburn; and from whooping-cough in Salford, Leicester, Norwich, and Wolverhampton. The 42 deaths from diphtheria included 28 in London, 2 in Birmingham, 2 in Derby, 2 in Leeds, and 2 in Cardiff. Of the 30 fatal cases of small-pox recorded in the twenty-eight towns, 27 occurred in Sheffield, 2 in Leeds, and 1 in Bristol. The number of small-pox patients in the Metropolitan Asylums Hospitals was 8 on Saturday, January 7th, and 2 cases were admitted to these hospitals during the week. These hospitals also contained 1,259 scarlet fever patients on Saturday, January 7th, against numbers declining from 2,602 to 2,049 in the five preceding weeks; the admissions were 147 during the week. The death-rate from diseases of the respiratory organs in London was equal to 4.9 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, having an estimated aggregate population of 1,314,274 persons, 804 births and 685 deaths were registered during the week ending Saturday, January 7th. The annual rate of mortality, which had been 22.4 and 24.3 per 1,000 in the two preceding weeks, further rose to 27.1 during the week under notice, and exceeded by 3.4 the mean rate for the same period in the twenty-eight large English towns. Among these Scotch towns the rates ranged from 20.3 and 23.1 in Leith and Aberdeen to 29.5 and 30.3 in Paisley and Edinburgh. The 685 deaths registered during the week in these towns included 89 which resulted from the principal zymotic diseases; of these, 30 were referred to whooping-cough, 23 to measles, 13 to diarrhoea, 7 to scarlet fever, 7 to "fever," 4 to diphtheria, and not one to small-pox. These 89 deaths were equal to a rate of 3.5 per 1,000, the highest zymotic rates being recorded in Edinburgh, Dundee, and Leith. Whooping-cough caused the highest proportional fatality in Aberdeen, Greenock, Leith, and Glasgow; measles in Dundee, Edinburgh, and Leith; and "fever" in Dundee and Paisley. Of the 4 deaths from diphtheria, 2 occurred in Edinburgh; and the 7 fatal cases of scarlet fever included 2 in Glasgow, 2 in Dundee, and 2 in Perth. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 6.7 per 1,000, against 4.9 in London.

HEALTH OF IRISH TOWNS.—In the week ending Saturday, January 7th, 469 births and 592 deaths were registered in the sixteen principal town districts, which have an estimated population of 871,128. The average annual death-rate was 35.4 per 1,000. The rates ranged from 5.2 in Armagh to 45.7 in Newry; in the latter town, 7 out of the 13 deaths were due to measles. In Belfast, measles and whooping-cough both showed a decrease. In Cork the deaths from measles rose to 15, and the same disease caused 3 deaths in Limerick and 2 in Kilkenny. The deaths registered in Dublin and suburbs represent an annual rate of mortality of 38.5 in every 1,000 of the estimated population; omitting the deaths of persons admitted into public institutions from localities outside the district, the rate was 37.5 per 1,000. The zymotic deaths rose to 37, and included 2 from measles, 9 from scarlatina, and 9 from whooping-cough.

HEALTH OF FOREIGN CITIES.—It appears from statistics published in the Registrar-General's return for the week ending January 7th, that the death-rate recently averaged 33.0 per 1,000 in the three principal Indian cities; cholera caused 32 deaths in Madras and 15 in Calcutta; and 3 deaths resulted from small-pox in Bombay. According to the most recently received weekly returns, the mean annual death-rate in twenty-one of the largest European cities was 24.4 per 1,000, and slightly exceeded the mean rate in the week under notice in the twenty-eight large English towns. In Paris the death-rate was equal to 24.8, against 22.1 in each of the two preceding weeks, and exceeded by 2.0 the rate in London; the 1,070 deaths included 60 from typhoid fever, 37 from diphtheria and croup, 6 from scarlet fever, and 3 from small-pox. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 21.1 per 1,000. In Berlin the rate of mortality was only 17.6 per 1,000; of the 478 deaths, 24 resulted from diphtheria, 5 from scarlet fever, and 6 from measles. The death-rate in Vienna was equal to 26.0 per 1,000; the 395 deaths included 11 from scarlet fever, 5 from measles, and 5 from diphtheria. In St. Petersburg the 497 deaths gave a rate of 27.9 per 1,000, and included 20 from typhus and typhoid fever, 11 from scarlet fever, and 89 from diarrhoeal diseases. The death-rate in Rome was equal to 27.7 per 1,000; 4 deaths resulted from small-pox and 10 from typhoid fever. In four of the largest American cities the rate of mortality averaged 22.2 per 1,000, varying from 17.6 in Baltimore to 24.7 in New York. The 677 deaths in New York included 51 from diphtheria and 25 from scarlet fever; 32 fatal cases of diphtheria were recorded in Brooklyn; and typhoid fever was somewhat fatally prevalent both in Philadelphia and in Baltimore.

THE new asylum which the managers of the Royal Edinburgh Asylum for the Insane have decided on erecting, and which is to embrace all modern improvements, and intended to form a model institution in every way, will, it is understood, cost £30,000.

COLLEGE POLITICS.—After the address read by Mr. Paul Swain (see page 65) before the South-Western Branch, the following resolution was passed: "That this meeting desires to endorse the opinions expressed by the President of the Branch in the paper read by him, and requests him to publish it with a view to a copy being forwarded to the Lord President of the Council and the President of the Royal College of Surgeons."

OBITUARY.

HUGH MILLER, M.D., F.F.P.S. GLAS., L.M.

WE announce with regret the death of a prominent obstetric physician of Glasgow, which took place on January 6th. Dr. Miller graduated at Glasgow in 1864, where he began practice, devoting himself specially to midwifery. He was for a long time obstetric physician and lecturer on clinical obstetrics to the Glasgow Maternity Hospital, to which, at the time of his death, he was consulting physician. He was also examiner in midwifery to the Glasgow Faculty. His contributions, some of which appeared in this JOURNAL, were all on subjects connected with his speciality. It is only about a year since Dr. Miller returned from a sojourn abroad in search of health, overwork having, for a time, broken him down. His death was the result of pneumonia of a week's duration. He leaves a widow, a son, and four daughters.

UNIVERSITY INTELLIGENCE.

MELBOURNE UNIVERSITY.

It has been decided to erect new biological and physical laboratories for the use of the University of Melbourne, Australia.

OTAGO UNIVERSITY, NEW ZEALAND.

At the last degree day, the degree of Bachelor of Medicine was for the first time conferred on a student of Otago University, Mr. W. Ledingham Christie. Dr. Coughtry, who gave an address on this occasion, urged that the single chair of anatomy and physiology, which he had formerly occupied, should be replaced by two separate professorships of anatomy and physiology respectively.

INDIA AND THE COLONIES.

INDIA.

CEYLON MEDICAL SERVICE.—Dr. J. L. Van Der Straaten has been appointed to act as principal civil medical officer of Ceylon. He is a Fellow of the Medical, Obstetrical, and Chemical Societies of London, and Honorary Treasurer of the Local Branch of the British Medical Association. He has visited Europe twice.

ARSENIC IN BEER.—A number of men belonging to the Manchester Regiment stationed at Agra have narrowly escaped being poisoned by drinking beer from a cask, which has since proved to have been previously used for storing arsenic. The beer drawn from the cask was, it was stated, comparatively pure, but the dregs contained enough arsenic to poison a whole regiment.

BEQUESTS.—Mr. Joseph Nicholson, of Sheffield, bequeathed £525 to the General Infirmary, and £105 to the Hospital for Women.—Mrs. Louisa Webber, of Upper Woburn Place, bequeathed £500 to the Royal Free Hospital, £300 to University College Hospital, and £300 to the St. Pancras and Northern Dispensary.—Mr. James Wishart, of Leith, merchant and shipowner, bequeathed £300 to the Edinburgh Royal Infirmary, and £250 to the Leith Hospital.—Mr. Joseph Aley, of The Hough, Stafford, bequeathed £400 to St. George's Hospital.—The Queen's Hospital, Birmingham, has received £250 under the will of Mr. William Slaney Lewis.—Mr. John Endell Powles, of Newton Court, Monmouth, bequeathed £100 to the Monmouth Hospital and Dispensary.

THE HOSPITALS ASSOCIATION.—Dr. J. S. Bristowe, F.R.C.P. Lond., F.R.S., Senior Physician to St. Thomas's Hospital, has accepted the Presidency of this Association, *vice* Sir Andrew Clark, M.D., resigned. Sir Edmund Hay Currie, Mr. E. H. Lushington, Treasurer of Guy's Hospital and Mr. F. C. Carr Gomm, Chairman of the London Hospital, have also joined the Council of the Hospitals Association.

FATAL FOOTBALL.—During this season the number of fatal injuries at football has been very great. Two deaths from this cause are reported to have occurred in one week.

THE DUCHESS OF ALBANY has consented to act as a Patroness of the Fancy Dress Ball to be held on February 9th, at the Hôtel Métropole, in aid of the funds of the North London, or University College, Hospital.

MEDICAL NEWS.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in Anatomy and Physiology on January 9th.

J. Atcherley, J. A. Abbott, and P. Gross, students of Yorkshire College, Leeds; P. I. Mehta, of Bombay; *T. Ohlmus, *O. R. Lewis, and *T. Lawson, of Edinburgh University; H. G. Barlow, of the Bristol Medical School; O. L. Robinson, of Dublin; R. C. McCullagh, of Belfast; A. E. Davis, of Newcastle-on-Tyne; E. L. Rowse, of Charing Cross Hospital; C. W. Vernon, of St. Bartholomew's Hospital.

Passed in Anatomy only.

C. F. Sutton, R. A. Burdett, and A. H. Aldridge, of Owens College, Manchester; W. Hutchinson, of Michigan; A. F. Gervis, of St. Thomas's Hospital; R. H. Heptinstall, E. T. Hollings, F. P. Shackleton, T. W. Swales, and O. F. Rowley, of Yorkshire College, Leeds; S. Greenwood and J. F. Atkins, of Birmingham; and C. Bernard, of Bristol Medical School.

Passed in Physiology only.

A. Shanks, of Glasgow University; F. T. Jackson, of Liverpool; J. A. Bell, of King's College; *E. J. McCardell, of Kingston, Canada; A. B. S. Stewart, of Yorkshire College, Leeds; A. E. Lathbury, of St. Bartholomew's Hospital; C. I. Blakeman, of St. Thomas's Hospital; J. H. Dempster, of King's College; J. Hall, of London Hospital; and *W. R. Willey, of St. Mary's Hospital.

Passed in Anatomy and Physiology on January 10th.

*W. H. Kershaw and F. J. W. Porter, of London Hospital; *R. E. Weigall and *A. A. Parry, of Melbourne University; *W. F. West, I. F. Nall, F. I. Rawlinson, W. W. Kennedy, J. Moore, and W. B. Curgeoven, of St. Bartholomew's Hospital; H. Fairfax, of Charing Cross Hospital; E. J. C. Tyler, of St. Thomas's Hospital; J. D. S. Nodes, of University College; E. J. T. Crutchley and R. A. Earle, of Middlesex Hospital; and W. F. L. Green, of King's College.

Passed in Anatomy only.

W. White, of Middlesex Hospital; E. G. Boon and F. J. O. Stephenson, of St. Mary's Hospital; T. Prescott, of King's College; H. L. A. Kellar, of St. Thomas's Hospital; J. R. Daly and H. F. Ransome, of Owens College, Manchester; F. Winnett, of Toronto; E. C. Ryall, of Dublin and Mr. Cooke's; J. L. S. Sherlock, of London Hospital; and R. H. B. Dudgeon, of Liverpool Infirmary School of Medicine.

Passed in Physiology only.

J. T. Barrow, of Charing Cross Hospital; M. Jenkins and F. D. Lumley, of Guy's Hospital; F. H. Lewis and A. Addie, of St. Bartholomew's Hospital; C. O'Sullivan, of London Hospital; and G. T. K. Maurice, of St. Mary's Hospital.

Passed in Anatomy and Physiology on January 11th.

E. W. Witham, of Westminster Hospital; S. Shore-Smith, of St. Bartholomew's Hospital; J. Spurr, of St. Mary's Hospital; T. Bamford, of University College; W. W. Wingate and W. E. S. Cobb, of Guy's Hospital.

Passed in Anatomy only.

F. W. Gattey and W. A. Mercer, of King's College; *W. W. Lacey, *W. M. Keal, of St. Bartholomew's Hospital and Mr. Cooke's School; H. H. Brind, of St. Mary's Hospital; A. W. Sturdee, S. R. Strouts, H. E. Burch, and Y. H. Mills, of London Hospital; E. H. Greaves, of Guy's Hospital; A. H. Reinhardt, of Yorkshire College, Leeds; P. T. Lunn, of Middlesex Hospital; *A. M. Ewing, of Toronto and Mr. Cooke's School.

Passed in Physiology only.

A. E. Price and R. H. D. Mahon, of St. Thomas's Hospital; C. S. Bowker, of Middlesex Hospital; H. S. Archdale and W. D. Sparrell, of Guy's Hospital; R. Jackson, G. Lys, A. Greenwood, and W. H. Goodson, of Guy's Hospital; H. C. Powell, of Charing Cross Hospital; B. W. Longhurst and P. L. Webster, of King's College; E. A. Brown, J. H. Mortimer, and W. J. C. Keats, of St. Bartholomew's Hospital; W. L. Deut, of King's College; *G. R. Bickerstaff and J. R. Fidler, of St. Mary's Hospital.

Under Old Regulations of College of Surgeons.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examination in Surgery for the diploma of Member, and having since obtained a medical qualification, were, at a meeting of the Council on January 12th, granted their diplomas.

O. W. Andrews, M.B. Dur., 11, Addison Terrace, Notting Hill; T. N. Greaves, L.S.A., 53, South Hill Park, Hampstead; and T. Lakeman, L.S.A., 24, Claylands Road, Clapham Road, S.W.

MEDICAL VACANCIES.

The following vacancies are announced:

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, S.W.—House Surgeon. Applications by January 31st, to the Honorary Secretary.

BIRKENHEAD BOROUGH HOSPITAL.—Senior House-Surgeon. Salary, £90 per annum. Applications by January 30th, to the Chairman of the Weekly Board.

BIRMINGHAM GENERAL HOSPITAL.—Two Assistant House-Surgeons. Applications by January 28th, to the House Governor.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Two House-Surgeons. Salary, £140 per annum, with apartments, etc. Applications by January 31st to the Assistant Secretary.

- BRISTOL GENERAL HOSPITAL.**—Assistant Physician. Salary, £50 per annum, with board, etc. Applications by January 23rd, to the Secretary.
- BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.**—House-Surgeon. Salary, £100 per annum, with apartments, etc. Applications by January 23rd, to the Treasurer and Committee.
- BROMLEY UNION, Kent.**—Medical Officer for No. 5 District. Salary, £60 per annum, vaccination fees and extras. Applications by January 19th, to R. G. Mullin, Esq., Local Officer, Bromley, Kent.
- ESSEX AND COLCHESTER HOSPITAL.**—Physician. Salary, £200 per annum. Applications by January 16th, to the Secretary.
- HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.**—Medical Registrar and Pathologist. Honorarium, £52 10s. Applications by January 24th, to the Secretary.
- HIDDERSFIELD INFIRMARY.**—Junior House-Surgeon. Salary, £40 per annum, with board, etc. Applications by January 27th, to the Honorary Secretary.
- MACCLESFIELD GENERAL INFIRMARY.**—Junior House-Surgeon. Salary, £70 per annum, with board, etc. Applications by January 21st, to the Chairman of the House Committee.
- NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS.**—Honorary Anaesthetist. Applications to the Secretary, 32, Soho Square, W.
- RADCLIFFE INFIRMARY, Oxford.**—House-Surgeon. Salary, £80 per annum. Applications by January 18th to the Secretary.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.**—Assistant in the Pathological Department of the Museum. Applications by January 21st, to the Secretary.
- ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E. C.**—Senior House-Physician. Salary, £80 per annum, with board, etc. Applications by January 14th, to the Secretary.
- ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.**—Assistant Resident Medical Officer. Applications to the Secretary, 34, Craven Street, W.C.
- ROYAL SURREY COUNTY HOSPITAL, Guildford.**—House-Surgeon. Salary, £80 per annum, with board, etc. Applications by February 15th, to the Assistant Secretary.
- STOURPORT FRIENDLY SOCIETIES MEDICAL ASSOCIATION.**—Resident Medical Officer. Salary, £170 per annum, and extras. Applications by January 21st, to A. Bouckley, Esq., Arley Kings, Stourport.
- SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.**—Junior Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications by January 14th, to the Superintendent.
- SUSSEX COUNTY LUNATIC ASYLUM, Hayward's Heath.**—Medical Superintendent. Salary, £600 per annum, with furnished house, etc. Applications by January 20th, to J. H. Sclater, Esq., Chairman of the Committee of Visitors.
- UNIVERSITY OF EDINBURGH.**—Examiner in Anatomy. Salary, £75 per annum. Applications by January 16th, to the Secretary.
- UNIVERSITY OF EDINBURGH.**—Examiner in Chemistry. Salary, £75 per annum. Applications by January 16th, to the Secretary.
- UNIVERSITY OF EDINBURGH.**—Examiner in Midwifery. Salary, £75 per annum. Applications by January 16th to the Secretary.
- UNIVERSITY OF EDINBURGH.**—Examiner in Practice of Physic. Salary, £75 per annum. Applications by January 16th to the Secretary.

MEDICAL APPOINTMENTS.

- ANDERSON, James, M.D., F.R.C.P.,** appointed Assistant Physician to the National Hospital for the Paralyzed and Epileptic, *vice* J. A. Ormerod, M.D., resigned.
- BASTIAN, H. Charlton, M.D., F.R.C.P., F.R.S.,** appointed Physician to the National Hospital for the Paralyzed and Epileptic.
- BEVOR, C. E., M.D., M.R.O.P.,** appointed Physician to Out-patients, to the National Hospital for the Paralyzed and Epileptic, *vice* H. C. Bastian, M.D., F.R.C.P., F.R.S., resigned.
- BOXALL, Robert, M.D., M.R.C.P., M.R.C.S.,** appointed Physician to the Samaritan Free Hospital for Women and Children, *vice* W. S. A. Griffith, M.B., F.R.C.S., resigned.
- BUCHAN, W. A. M.B. Edin.,** appointed Assistant Physician to the Plymouth Public Dispensary, *vice* T. E. White, M.R.C.S., resigned.
- GLANVILLE, M., M.R.C.S. Eng., L.S.A.,** appointed House-Surgeon and Secretary to the Dorset County Hospital, Dorchester, *vice* F. J. Malden, M.B., M.R.C.S., resigned.
- Lewis, Lewis, L.R.C.P. Lond., M.R.C.S. Eng.,** appointed one of the Visiting Medical Officers of the South Lambeth, Stockwell, and North Brixton Dispensary.
- MACKENZIE, Arthur C., L.R.C.P. and S.E., L.F.P.S.G.,** appointed House-Surgeon to the General Hospital, Birmingham.
- MARTLAND, T., M.R.C.S., L.R.C.P. Lond.,** appointed Medical Officer and Public Vaccinator to the Wigan Union, *vice* G. G. Tatham, M.D.
- McMURRAY, J., M.D., M.Ch.,** appointed Visiting Medical Officer to the Kirkdale Industrial Schools.
- ORMEROD, J. A., M.D., F.R.C.P.,** appointed Physician to Out-patients, to the National Hospital for the Paralyzed and Epileptic, *vice* Thomas Buzzard, M.D., resigned.
- PROWSE, William Hyess, M.R.C.S., L.S.A.,** appointed Medical Officer of Health to the Acton Local Board, *vice* C. H. Farnival, resigned.
- RUSSELL, W. B., M.B., B.A.,** appointed House-Surgeon to the Scarborough Hospital and Dispensary, *vice* H. O. O. Wharry, M.R.C.S. Eng., L.S.A., resigned.
- TOOTH, Howard, M.D., M.R.C.P.,** appointed Assistant Physician to the National Hospital for the Paralyzed and Epileptic, *vice* C. E. Beever, M.D., resigned.
- WILLIAMS, F. M., M.R.C.S., L.R.C.P.,** appointed Medical Officer to the Tavistock Union (Milton Abbey District) *vice* H. Swale, M.B., M.R.C.S., resigned.

WILLIAMS, W. B., appointed Resident Medical Officer to the Royal National Hospital for Consumption, Ventnor, *vice* D. J. Mason, M.B., C.M., resigned.

REQUESTS AND DONATIONS.—Mrs. Mary Ellis, of Cadogan Place, has bequeathed £100 to the Chelsea Home for Men in Consumption, and one-third of the "residue" of her estate (which is likely to be of very large amount) to be divided in such proportions and in such manner as her trustees shall, in their discretion, think proper, among certain charitable institutions, including the Royal Free Hospital, St. George's Hospital, the Earlwood Asylum for Idiots, the Hospital for Consumption and Diseases of the Chest, the Cancer Hospital, the Chelsea, Brompton, and Belgrave Dispensary, the Chelsea Hospital for Women, the Victoria Hospital for Children, Queen's Road, Chelsea, and the Royal Hospital for Incurables.—The Children's Hospital, Birmingham, has received £250 under the will of Mr. William Slaney Lewis.—The Sheffield Public Hospital and Dispensary and the Sheffield General Infirmary have each received £103 17s. 8d., being legacy and interest under the will of Mrs. E. M. Beaumont, of Kenwood Park.—Mr. H. E. Wright has given 100 guineas to the Chelsea Hospital for Women.—The Duke of Bedford has given £100 to University College Hospital.—"J. T. T." has given £100 to the Paddington Green Children's Hospital.

PASTEURISM IN HAVANA.—The following statistics of the Laboratorio Histo-bacteriologico (Pasteur Institute) in Havana, from April to December, 1887, are published in the *Revista de Ciencias Medicas*: The total number of patients was 181, of whom 75 underwent the treatment. In 14 of these cases the animals which had inflicted the bites were proved to be suffering from rabies, by the result of inoculations made on rabbits in the laboratory. Of the 106 persons who were not treated, 61 are stated to have been bitten by "suspected" animals. In these cases the animals had not been sent to the laboratory, or had arrived there in a state of decomposition. No information is vouchsafed as to the results in the cases treated, nor is it explained why so large a proportion was left untreated, in spite of the "suspicion" attaching to them.

SMALL-POX IN HAVANA.—The *Revista de Ciencias Medicas* for December 20th states that from the beginning of May to December 16th there were 1,436 deaths from small-pox in Havana. From an analysis made by Dr. Vicente de la Guardia of 298 fatal cases registered in the month of November, it appears that 201 occurred among the white and 97 among the black population. Of the whites, 118 were males and 83 females; 67 of the former were under and 51 over ten years of age, the corresponding numbers in the females being 61 and 22. Of the negroes, 51 belonged to the male and 46 to the female sex; among the former 26 were under and 27 over ten, while among the females 27 were under and 19 over that age. Unfortunately, no particulars are given as to the proportion of vaccinated to unvaccinated persons in these lists. The epidemic is at present more widely prevalent than ever, but the mortality appears to be diminishing. An exhaustive official inquiry is about to be made as to the causes which have led to so severe an outbreak.

CLINICAL SOCIETY OF LONDON.—The following are the names of the officers and Council of the Clinical Society of London, proposed for election for the year 1888, who will be balloted for at the meeting to be held this (Friday) evening. The gentlemen whose names are marked with an asterisk (*) were not on the Council, or did not hold the same office during the preceding year. *President*: W. H. Broadbent, M.D. *Vice-Presidents*: *W. H. Dickinson, M.D.; Sir Dyce Duckworth, M.D.; J. Hughlings Jackson, M.D., F.R.S.; *J. Warrington Howard; *Sir William Mac Cormac; Howard Marsh. *Treasurer*: Christopher Heath. *Council*: F. G. D. Drewitt, M.D.; J. K. Fowler, M.D.; *T. Colcott Fox, M.B.; W. B. Hadden, M.D.; *Stephen Mackenzie, M.D.; *Angel Money, M.D.; *Isambard Owen, M.D.; F. C. Turner, M.D.; W. J. Tyson, M.D.; Samuel West, M.D.; W. Hale White, M.D.; W. H. Cripps; H. T. Butlin; Rickman J. Godlee, M.S.; C. H. Golding-Bird, M.B.; W. A. Merdith, M.S.; *C. W. Mansell Moullin; *F. Shirley Murphy; Walter Rivington, C.M.; *C. J. Symonds, M.S. *Honorary Secretaries*: *Thomas Barlow, M.D.; R. W. Parker.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—The following members were elected on January 9th as officers and councillors for the year 1888. *President*: Daniel Corbett, Dublin. *Vice-Presidents (resident)*: S. J. Hutchinson; J. H. Mummary; W. F. Forsyth; (*non-resident*) Richard Rogers, Cheltenham; G. C. McAdam, Hereford; J. Cornelius Wheeler, Southsea. *Treasurer*: Thomas Arnold Rogers. *Librarian*: Felix Weiss. *Curator*: W. C. Storer Bennett. *Editor of the Transactions*: Frederick Canton. *Honorary Secretaries*:

Willoughby Weiss (*Council*); C. J. Boyd Wallis (*Society*); E. G. Betts (*Foreign*). *Councillors (resident)*: J. F. Corbett; J. Smith Turner; Sir Edwin Saunders; John Fairbank; David Hepburn; Ashley W. Barrett; Walter Coffin; Thomas Gaddes; R. H. Woodhouse; (*non-resident*) F. H. Balkwill, Plymouth; George Brunton, Leeds; F. Apperley, Stroud; J. H. Redman, Brighton; W. Bowman Macleod, Edinburgh; R. Wentworth White, Norwich.

LEPROSY.—Dr. N. Pringle (Lewisham), in announcing that he has received the promise of a donation of £100 as a commencement for "The Indian Jubilee Leper Fund," adds that he is so perfectly satisfied that scientific and of course sympathetic voluntary segregation is not only possible, but perfectly feasible, that he will gladly communicate his views to those interested in that line of treatment.

A SINGULAR CASE OF GLANDERS IN MAN.—According to the *Syn Otelchestva* (December 10th, 1887), a man has just died from glanders at one of the St. Petersburg hospitals. The deceased never kept, and never came in contact with, any horses in his life. Symptoms of glanders made their appearance in him shortly after his face and eyes had been profusely bespattered with foam from a passing cab-horse, the patient being in the act of crossing the street at the time.

SEASIDE CONVALESCENT HOME FOR LONDON WORKMEN.—This home, which was established at St. Margaret's Bay in 1883 by the agency of the Hospital Saturday Fund, received during the past year 370 patients, as against 302 of the previous year. Through the generosity of the late Lord Wolverton, the committee were enabled, in August last, to open a new wing, a portion of which is reserved for London postmen.

The Salford Town Council has resolved to purchase a site for the sum of £7,000 on which to erect a hospital for the treatment of infectious diseases. The Wilton Hospital has been bought by the London and North-Western Railway Company for the sum of £21,000, and it is stated that the cost of erecting the hospital will probably be about £14,000.

THE MISSING JOURNALIST.—The fate of Mr. McNeill, who disappeared so mysteriously at Boulogne on his way from Paris to London, has been explained by the finding of his body in the harbour, with wounds on the head clearly pointing to murder.

Miss Oxley, of Guy's Hospital, and Miss Loch, of St. Bartholomew's Hospital, have been appointed by the Secretary of State for India to the charge of the nurses which it is intended to introduce into the military hospitals in India.

A LARGE new pump-room is to be built at Buxton. The iron water hitherto supplied from the well will in future also be supplied in this room.

MEDICAL MAGISTRATE.—Mr. George Arthur Phillips, M.R.C.S. Eng., has been placed on the Commission of the Peace for the Borough of Walsall.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Lettsomian Lectures, by Mr. Reginald Harrison. *Lectures II*: The Pathology of the Enlarged Prostate viewed in respect to its Causation and Prevention, and the Treatment of some Complications arising out of it.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Norman Moore: Carcinoma of Gall Duct. Mr. W. K. Sibley: Abscess in Lung and Brain and Tumour of Pituitary in an Ewe. Mr. Symonds: Epitheliomatous Cyst in Neck. Mr. H. Fenwick: Etiology of Vesical Growths. Dr. Collier: A Recent Specimen of Charcot's Disease of the Knee-joint. Professor Crookshank: Further Inquiries into the so-called Hendon Cow Disease and its Relation to Scarlatina in Man. Mr. R. W. Parker: Specimens of Bone Disease. Mr. Godlee: Specimens of Ricketty Bones.

WEDNESDAY.

ROYAL METEOROLOGICAL SOCIETY, 8 P.M.—Annual General Meeting. Report of the Council. Election of Officers and Council. Mr. W. Ellis (President) will deliver an Address. 7 P.M., Ordinary Meeting. Mr. G. M. Whipple: The Non-Instrumental Meteorology of England, Wales, and Ireland, 1878-1885.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, 8 P.M.—Address by the President (Mr. Edmund Owen). *Conversations.*

FRIDAY.

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 7.30 P.M.—The Council will present reports on: 1. The Publication of the Society's Transactions. 2.

Proposal of the Manchester and Salford Sanitary Association for the Federation of Sanitary and Kindred Societies. 3. The Disposal of Books belonging to the Society. The discussions will be continued on Mr. Wynter Blyth's paper on the Contagion of Cancer, and on Mr. G. Bischoff's paper on Extension of Time of Culture in Dr. Koch's Bacteriological Water Test by Partial Sterilisation, with special reference to the Metropolitan Water Supply. Dr. Rowland: An Improved Method of Sewer Ventilation.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

BARRETT.—At 13, Rillbank Terrace, Edinburgh, on the 9th instant, the wife of William H. Barrett, M.B., of a son.

MURPHY.—On January 7th, 1888, at Belmont, Queenstown, County Cork, the wife of F. H. S. Murphy, Esq., M.D., Surgeon, M.S., of a daughter.

DEATH.

LYALL.—At 1, George Square, Edinburgh, on the 10th instant, Andrew Lyall, M.D., late of Leven, aged 41.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY --- 10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY --- 9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department).

WEDNESDAY --- 10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.

THURSDAY --- 10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-west London; Chelsea Hospital for Women.

FRIDAY --- 9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY --- 9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eys, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eys, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45 S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 8; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, or forwarding their Annual and other Reports, favour us with Duplicate Copies.

TO CORRESPONDENTS.

Our correspondents are reminded that prolixity is a great bar to publication, and, with the constant pressure upon every department of the JOURNAL, brevity of style and conciseness of statement greatly facilitate early insertion. We are compelled to return and hold over a great number of communications, chiefly by reason of their unnecessary length.

QUERIES.

S. K. asks how a large crop tent can be rigged up?

M. S. C. wishes to hear of a good Roman Catholic boarding school in England, where two brothers, aged 13 and 15 years respectively, would be taken for about £10 per annum.

CLIMATE FOR PHTHISIS.

M. S. asks to be informed as to the presumptive relative value of Texas and Florida for a case of phthisis with early hæmoptysis, and the parts generally visited? Are the States equal to New Zealand?

BATHS FOR COUNTRY HOUSES.

BAICE, asks members to give their experience of the different baths advertised. He is in search of a full-sized bath to be heated with oil-lamp beneath; he lives in a house where no water can be laid on.

UNDESCENDED TESTICLES.

PHYSIAN writes: A family medical attendant discovers incidentally in the course of examining a boy, 8 or 10 years old, that the testes are undescended. 1. Is it his duty, twenty years afterwards, when the man may be contemplating marriage, to suggest an excision of the scrotum, in case matters should still be as before, and the patient unaware of any defect; and 2, supposing the scrotum still empty, would it be wrong for the man to marry in view of sterility, both disappointing and perhaps proving injurious to the health of the wife?

ANSWERS.

"ALPHA" should apply to Dr. Corfield, Hygienic Laboratory, University College, Gower Street, London, W.C.; or Dr. W. Blyth, officers of the medical officer of health, St. Marylebone Vestry, Marylebone Lane, W.

A YOUNG APOTHECARY probably refers to varicocele, a condition which he will find fully discussed in all the textbooks of surgery.

ECZEMA.

W. J. C.—The causes of eczema vary so much in different persons, that the treatment and prevention must be decided in each case according to its special characters. The chapter on Eczema, in Dr. McCall Anderson's recently published work on *Diseases of the Skin*, is unusually full and instructive, and we cannot do better than refer "W. J. C." to this book.

"WINTER CLIMATE OF FLORENCE AND GENOA."

DR. ST. CLAIR THOMSON (Florence) writes: Florence has, empirically, a reputation as a climate for cases of asthma, and experience tends to confirm this. I know of several asthmatics who have found out for themselves the suitability of this climate; amongst them being some who have been told by London physicians that they would become confirmed bronchial-asthmatics unless they lived in Algiers, or even further afield. The cold is very sharp in the short winter; and at all times the difference between sun and shade temperature is considerable. Consequently, it is not suited to most phthisical invalids until the spring. The dryness of the climate suits people of a gouty disposition. Although there are several villages near to Florence which would suit "H. A. L.'s" patient, none of them afford sufficiently comfortable accommodation.

I can only speak personally of Genoa from some short visits in the winter. I found it as cold as Florence, bleaker, and with much less sun. I don't know that it has any reputation as a climate for asthma; and most certainly "H. A. L.'s" patient would not find there the conveniences for studying art, which are easily obtained at Florence.

MRS. LAMBERT (Tavistock Place, Sunderland) writes: In reply to the query of "H. A. L.," in the JOURNAL of December 31st, I beg to inform him that a friend of mine, a young lady of 25 (who in this country suffered terribly from asthma and bronchitis, and was nearly constantly confined to her room) has found a

residence in Leghorn most beneficial; indeed, while there or any place round about she is perfectly well. I shall be pleased to forward her address if necessary. She will, I am sure, be glad to give any information.

NOTES, LETTERS, ETC.

ERRATUM.

IN the JOURNAL of December 31st, p. 1420, owing to an accidental transposition, it was erroneously stated that Dr. Archibald Macdonald had made some remarks on the treatment of tubal fœtation by galvano-puncture; his paper dealt with the prevention of puerperal septicæmia.

RECIPROCITY.

MR. THOMAS A. WHITE (L'Abri, Territet, Vaud) writes: I remark in the JOURNAL of December 24th a paragraph relating to the registration of foreign diplomatas, in which a lady M.D. of Zurich wishes for registration in England. I would wish to inform you of what has just happened to me here. I have been in practice at Montreux for the past nineteen years, without Federal diploma, but manifestly with the connivance of the cantonal authorities, and, since January 1st, 1883, have had the sanction of the municipal authorities.

I say with the connivance of the cantonal authorities. Some years ago I attended, at one of the mountain summer resorts, a case of fracture, and one of the medical men there had me summoned for practising; the case was referred to Lausanne, and they ordered the proceedings to cease; and at a Medical Conference held some time ago at Lausanne, a medical man who has not been here so very long was making such a violent tirade against me that the President ordered him to desist. This same medical man, joined by the newest arrival (whom I neither know or have met), has made a public complaint against me as practising medicine here, and the cantonal authorities had to take the matter up, and ordered the Prefect at Vevey to inflict the highest fine they can upon me, namely, 300 francs, but he, under the peculiar circumstances of the case, has reduced the sum to 200 francs. I am at present, through my *avocat*, appealing to the cantonal authorities against this decision. The matter is under due consideration here, but whether the Federal authorities will reject or accede to our Medical Act and establish reciprocity I am not sufficiently advised to inform you.

I give you this letter, as the reciprocity question is before both Governments, and not as a complaint; for if I live in a country and break its laws (though under most peculiar circumstances), I must be judged by its laws. You will see from the foregoing how important it is to members of our profession who are living abroad for various reasons that reciprocity should be established, and that we should not be subjected to the effects of the ill feeling of an individual, even if, as I am, generously treated by the medical men of this place.

POISONING BY NITRE: TREATMENT WITH APOMORPHINE.

DR. H. W. PEARCE (Coole Abbey, Fermoy, Ireland) writes: A farmer's wife, aged 60, took a very large dose of nitre, mistaking it for sulphate of magnesia. This was taken on an empty stomach. When I got to the house I found that she had swallowed some bread and milk, she had also swallowed some warm water, but could not excite vomiting. Her pulse was about 38; she appeared very sallow and pale, and complained of some epigastric pain, but her chief complaint was of cold. "Oh, the cold, the terrible cold is killing me!" Her hands and feet, however, did not feel cold to the touch, and she had a considerable covering of blankets. I at once dissolved one of Messrs. Burroughs and Wellcome's hypodermic tablets of 1-10th grain apomorphine, and injected the same into her arm. In three minutes and a half emesis took place without apparent effort on the patient's part, and over a pint of the contents of the stomach was vomited. I then got her to swallow about half a pint of warm milk, which again was ejected. After this there was a little retching, or rather I might call it a few involuntary contractions of the stomach, and then the action of the drug seemed ended; there was little prostration, though there was some purging with blood in the stools, but no blood, as well as I could ascertain, in the urine. An opiate in some brandy and water, and a little good chicken broth had made her all right by next day, and she went about her household work as usual. When I was leaving her, about two hours and a half after her taking the nitre, the pulse was about 60, and colour had reappeared in face and hands. She had taken about 3ii of nitre, having stirred it in some warm water, and drank it in suspension, before it was half dissolved. I only applied a very rough test to the vomited matter, merely dipping a bit of cotton-wool in it and dried it. When this was lit, it burned in the characteristic way such substances do when impregnated with a strong solution of the salt. This case seems to me to speak well for apomorphine. I must add that I had some experience of the drug, as I hypodermically injected it, with marked success, on a former occasion, when a child had swallowed some spirits of turpentine and on two occasions when I thought my dogs had taken poison.

PALPATION OF THE THORAX.

DR. FREDERICK A. FLOYER, M.B. Camb., writes: A method of diagnosis has recently come under my observation which I believe has not hitherto received the attention it deserves. The value of tactile sensation in the examination of the abdomen is already well known, but that it is possible to diagnose by the fingers various conditions of the lung in disease, has not, so far as I am aware, been dwelt upon. That this is possible, according to scientific laws, is easily demonstrable.

In ascultation the impressions received are those produced by the vibrations originated in the movements of the air along the air-passages, or of the lung, etc.; these movements and impressions being altered according to morbid influences. Great differences in the wave-length of vibrations are capable of being appreciated by any sensitive conductor. The fingers, being extremely sensitive, can readily appreciate vibrations over a large gamut, and the variable sensations are precisely identical with those communicated through the auditory nerve, except that in the one case the expression is tone, and in the other tactile sensation. The high degree of perfection to which this method can be brought has been demonstrated to me by a practitioner whose fingers, by long experience, are far more sensitive than his auditory nerves. His interpretation of various intra-thoracic conditions is quite equal to that arrived at by auscultation. Moreover, his description of what he feels is precisely the same as that of another man with the stethoscope. Dr. W. H. Stone, of St. Thomas's Hospital, in writing to me on the subject, says, "this method is especially good for slow vibrations, less than 10 per second, which to the ear are difficult."

GENERAL BLEEDING IN LOCAL INFLAMMATORY SWELLINGS.

Mr. G. P. ATKINSON (Pöhteract), writes: On April 20th, 1856, I was called in consultation to a confinement case, where I found an arm presentation with the fetal hand protruding beyond the vulva, and the vagina so swollen as to make turning an impossibility. I bled the patient to $\frac{1}{2}$, and gave a soothing draught, and we left her quietly for fifteen minutes; on re-examination, I found all swelling had subsided; turning was readily effected, and delivery completed within ten minutes, and she made a good recovery. Would not bleeding be likely to be followed by similar effects in cases of physical obstruction, with an inflammatory constitution of surrounding walls of other natural passages; for example, the larynx or trachea containing one or more tumours in such difficult cases as that of the Crown Prince of Germany, and would not its effects be likely to prove more thorough and durable; and attended with little risk to the patient compared with a serious operation? I make these remarks with all due respect to others for professional consideration.

"A DOCTOR'S PRESENT."

E. B. writes: I excised the shoulder-joint of a little sailor boy, at the hospital I have the honour of belonging to; all went well, and a good useful arm resulted. One day I told the little man he might go home; he pulled out from under his pillow, a spherical box, elaborately ornamented, and as he told me containing box after box inside, and that in the innermost "was two rubies." Well, I didn't open this before the students, but took it home for the surprise of my little ones; when, lo, behold, the two rubies were there; and I had them set in a gipsy ring for a young puss, who thinks the possession of a ring will put her a stage above her fellows. I offer Walter Besant this story.

ANTI-TANNIC INFUSER.

A MEMBER writes: Like your correspondent of January 7th, I was much taken with the idea of an anti-tannic infuser; I therefore made some tea with one, following strictly the directions. The infusion looked like the ordinary beverage, except that it was weaker; but, on adding a few drops of weak perchloride of iron solution, it unfortunately turned to ink.

SQUINT.

Mr. ROBERT W. DOYNE (Oxford) writes: Dr. Bell Taylor's reply surprises me more than his first letter. The direct deduction from his opening sentence, taken with his previous letter, is that no hypermetrope, unless he squints, ever has vision of normal acuteness, that is, $\frac{20}{20}$. I cannot imagine anyone admitting this which is so easily disproved by observation. The very existence of what is known as relative accommodation disposes of the argument.

With reference to the next point, I do not believe that anyone, except for a few moments, can use his maximum of accommodation, and the proof that he gives to the contrary is certainly startling, for he insinuates that, whenever a hypermetrope overcorrects his error by accommodation, he does so to the extent of his maximum of accommodation.

He next proceeds to contradict his first statement, by demonstrating a hypermetrope who does not correct his hypermetropia for parallel rays without squinting and only squints, as certainly is often the case at first, when looking at near objects. In his explanation here he ignores the assistance to accommodation that is given by the normal convergence for near objects.

His next statement goes further than his first, and he implies that all hypermetropic children squint whose hypermetropia does not exceed 12 D or 14 D. For having claimed that they can by convergence make use of their maximum of accommodation (and this in children is 12 D or 14 D), he in effect says that only those do not squint whose hypermetropia is greater than this. I may incidentally mention the very extreme rarity of such a degree of hypermetropia. In his remarks on diplopia, he appears to maintain that it does always exist at first, notwithstanding that most observers (I would have said all) agree that it is the exception to find it in concomitant squint, and that usually it is only by certain manoeuvres that the impression of a second image can with difficulty be forced upon the mind. In connection with this point his assertions are completely unqualified, and, if true, would prove that in all cases without diplopia squint becomes a monocular affection, and gets well without treatment so far as parallelism of the visual axis is concerned.

As regards the cure by glasses, I believe that, if this mode of treatment is adopted at the very onset of the squint, nearly all cases of alternating periodic, most cases of periodic, and a few cases of recent permanent squint will get well without further treatment, and that the cases that ultimately require strabotomy will be very greatly reduced. No doubt a few get well without any treatment at all. He concludes this subject by drawing attention to the well-known fact that the use of atropine will reveal those cases of hypermetropia that simulate myopia, a condition, however, that can at once be detected by the ophthalmoscope.

TENERIFFE AND ITS SATELLITES.

Mrs. OLIVIA M. STONE (Kensington), author of *Teneriffe and its Six Satellites*, writes: Now that the Canary Islands are rapidly becoming better known as one of the most advantageous health-resorts within easy reach of England, it may be of some interest to mention a few facts concerning diseases in the archipelago. The one pre-eminent fact is that the climate seems to modify the virulence of the worst, the most dangerous diseases. Puerperal fever, which, though rather prevalent, is seldom, I may almost say never, fatal, though I know of cases where the patient has been neglected for several days before medical advice was obtained. Diphtheria is also very prevalent in the large towns, owing to the total absence of the most ordinary sanitary precautions, but it seems always to exist in only a mild form. I know of certain families who apparently have it frequently, but this terrible disease seems to be only fatal where the most elementary knowledge of nursing is absent. Fevers of all kinds are lighter in character. The treatment recommended there by the profession is different to that in vogue in England. For example, it starts by a thorough clearing out of the system by means of somewhat violent purgatives and emetics.

Equable as is the climate by day and night, the natives suffer most from chills, which often end fatally. This, I think, may be in a great measure accounted for by the absence of woollen or silken clothing. Those who visit the Canaries from colder northern latitudes where wool is worn next the skin, and who most wisely continue this habit, do not suffer in this way. It is advisable that every article of clothing worn in the islands be either made of wool or silk. Thus armed one is almost impregnable to the attacks of any disease of a catarrhal nature. Malaria does not exist. Precautions as to hours of recreation, such as keeping in the house at sundown, are in these islands unnecessary,

and one may be out on the hottest day at its hottest hour without any fear of sunstroke.

The only disease which in any way can be said to be peculiar to or prevalent in the Canary Islands is elephantiasis, which, as your readers well know, does not affect well-nourished inhabitants, and is neither contagious or infectious. In Gran Canaria diseases of the stomach and intestines are common among the peasants; such are clearly traceable to the national food, *gofio*, which in this island is made of Indian corn.

For phthisis the Canary Islands have been proved of inestimable value, and therefore on this point nothing more need be said. The temperature throughout the year by day and by night varies exceedingly little. In my recently published work on these islands I have gone so fully into this question that I need not recapitulate it here.

I should not have thus ventured to trouble you had I not been asked by some leading members of the medical profession to summarise facts scattered through the pages of my book, and to add thereto others which I had deemed unsuitable for the general reader.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

A. S. R. W. writes: Mr. Timothy Holmes's remarks on my letter of December 24th prove conclusively the offensive nature of this scheme. He says: "The dispensary and the general practitioner are the same, or are intended to be the same, and that 'the' course open to us will be to join in the movement." Has he considered that if every medical man in a working-class district was to join the newly-established branch every family in the same district would join for the sake of getting their medical attendant for 2s. 6d. a week; also has he calculated that the medical man would have to visit thirty patients daily, some of them two or three times a day, for the handsome sum of £3 10s. per week?

Will Mr. Holmes state how "all possible care" had been taken to get all the general practitioners to attend the meeting? I for one received no invitation, and I could name several more who have never even heard of the scheme.

There will be three courses open to us: 1. To ignore the existence of these dispensaries, and starve; and 2. To co-operate with them, and attend as a slave on hitherto private patients; and 3. To still remain independent and under all the dispensaries, which would require extensive advertising. I am sure all will agree it will be better to accept 2s. per week and remain our own masters, than to take this beggarly 2s. 6d. and be at the beck and call of the capricious club patient.

This is what I mean by a packed meeting: "An assembly of a few men who it is known will give their support to a scheme and who have been informed that a meeting will be held at a certain time and place." Mr. Holmes must admit that those gentlemen who were in favour of the scheme, particularly Dr. Glover and himself, were awarded a patient hearing, whilst those gentlemen who attempted to point out the weak places were treated with ignominy and deriding jeers.

Mr. ALBERT KISCH (Abingdon House, Sutherland Avenue) writes: In reply to a writer in the JOURNAL of December 24th, who criticises the method of the above Association, and points out the difficulties which beset medical men attempting to compete with it, Mr. Holmes suggests that all general practitioners concerned should co-operate in the work of the Association. For the benefit of any hesitating gentlemen, permit me to place before your readers some data by which anyone can readily ascertain what would be the probable effect on his income if he were to accept Mr. Holmes's cordial invitation.

In my interview with Mr. W. G. Bunn, the secretary, whose courtesy and frankness I gladly acknowledge, that gentleman informed me that a dispensary of the Association comprising 900 members, would be likely to yield to the doctor £50 per annum. An energetic man, in a working-class district, might, therefore, by joining one of these dispensaries, earn the magnificent income of £266 18s. 4d., by accepting the entire medical charge of 9,000 persons, or, in other words, that sum represents what he might expect if he cast in his lot with the Association, by joining the branch dispensary of his district, which would naturally absorb all his *clients*.

Has Mr. Holmes any idea of the amount of work involved in the medical charge of 9,000 persons? A personal experience on a smaller scale enables me to say that it would be enormous, and that it would probably sometimes entail as many as 150 visits on a day. The remuneration awarded is so ludicrously insufficient, that comment is superfluous. If Mr. Holmes would but try the work himself for one year, he would certainly appreciate the magnitude of the injury which he and his colleagues are, with the best intentions, inflicting on the hardest worked section of the profession, by foisting this pseudo-philanthropic scheme upon them.

Mr. JOHN H. GRAY (St. James's Road, Upper Tooting) writes: As I was one of those present at the meeting, convened by the Medical Attendance Organisation Committee, on December 6th, I shall be glad if you will allow me to confirm most emphatically the statements of Mr. Holmes and Mr. Hare in their letters which appear in the JOURNAL of January 7th. By those very accurate statements, Mr. Piper's desire that "the responsibility for the irregularity which occurred may be on the proper shoulders," has been fulfilled. I think I am able to speak as an impartial observer, for although sympathising generally with the object of the promoters, I considered that there was need for further discussion of the scheme, and for amendment of some of its provisions, and therefore I was one of the very small minority who voted for an adjournment of the meeting. But, if time is to be wasted (as it undoubtedly was) the other day) by what Mr. Hare justly terms "puerile and irrelevant remarks" on the part of those who are of Dr. Carpenter's way of thinking, there can never be anything like fair and reasonable discussion. If "Mr. Holmes and others of the committee" had been guilty of hatching a scheme for their own special aggrandisement at the expense of the general practitioners, they could hardly have met with a more discourteous opposition.

What your correspondent, "A. S. R. W.," could mean by saying that it was "a packed meeting," I am at a loss to imagine, seeing that it was summoned by printed circular, and that access was perfectly free and unrestricted; but so comparatively small was the attendance, that if anyone had cause to complain of want of support, it must have been those who are anxious to secure the active interest of the general body of metropolitan practitioners in this reformatory movement rather than those represented by "A. S. R. W.," and Dr. R. H. S. Carpenter.

Mr. F. E. COCKELL, Jun. (62, Forest Road, Dalston) writes: Like your correspondent, "J. H.," I have expected a more general outcry against the scheme of universal

HARVEIAN LECTURES ON LUPUS.

Delivered before the Harveian Society, December, 1887.

By JONATHAN HUTCHINSON, F.R.C.S., F.R.S., LL.D.,
Emeritus Professor of Surgery at the London Hospital.

LECTURE III.—ON THE VARIOUS FORMS OF LUPUS VULGARIS AND ERYTHEMATOSUS.—[With Lithograph.]

Difficulties of Classification.—*The Bacillus in Lupus Necrogenicus.*—*Acne-Lupus (Lupus Follicularis Disseminatus of Tilbury Fox).*—*A Mixed Form of Chilblain-Lupus.*—*Lupus-Psoriasis (Dr. Stephen Mackenzie's Case).*—*Lupus in Relation to Port Wine Stains.*—*Lupus Lymphaticus.*—*Rupia-Lupus of Young Children.*—*Navus-Lupus.*—*Alliances of Rhino-Scleroma and Sycosis with Lupus.*—*Kaposi's Disease.*—*Hobra's Xeroderma, a Family Form of Lupus.*—*On the Varieties of Lupus Erythematosus.*—*On Lupus-Cancer.*—*On Syphilitic Imitations of Lupus.*—*Concluding Remarks.*

THE classification of diseases is easy if we permit ourselves to keep aside unusual and ill-marked forms. If, however, we endeavour to comprise all, it becomes sufficiently difficult, and to lookers-on it may appear that needless complexity and useless detail are introduced. There is, however, a great and obvious gain in the conscientious admission of all witnesses, for very frequently we find unexpected testimony borne which proves of great value to the discovery of truth. The rare and the minor forms of disease are precisely the connecting links between the larger groups, and they enable us to see their continuity and to trace their relationships.

In our last lecture I had to bring before you the subjects of strumalupus, eczema-lupus, lupus mutilans, necrogenic lupus, and some others. Most of these are rare, but still very real, sub-species of the disease, and I shall be obliged, on the present occasion, to trouble you with the description of others some of them of even greater rarity in practice, but all of equal importance, to complete the picture of the group of diseases which we are investigating.

Before proceeding to fresh topics, I wish to supplement by a few words what I said last week as to lupus necrogenicus. I omitted to mention that observers have found the tubercle bacillus in great abundance in the granulation growth which attends this malady. I make this statement chiefly on the authority of Riehl and Paltauf, who found the bacillus more easily in it than in sections of common lupus. This is interesting because, in the first place, this is the only form of lupus in which contagion seems at all probable. The others, it is true, often begin from local irritation, but it is usually of a kind not in the least likely to convey infective material (chilblains, insect stings, and the like). We know nothing of lupus as a disease capable of spreading by contagion from one person to another. In the necrogenic form, beginning as it does from dissection pricks, it is easy to suppose the transference of bacilli possible. It is remarkable, however, if that be so, that it is precisely the form of lupus which shows the least tendency to spread. It rarely produces satellites, and I never in a single instance knew it followed by patches on other parts of the body, nor by anything indicating visceral tuberculosis. In our last lecture I instanced a case in which it had been present for forty years without doing any harm. On the other hand, lupus erythematosus, in which, so far as I know, the bacillus has not been found, is very infective, and is very frequently associated with a tuberculous family history:

I give the name *acne-lupus* to a disease which was, I believe, first described by the late Dr. Tilbury Fox under that of lupus follicularis disseminatus.¹ I am sorry to propose a change from that used by a dermatologist so distinguished, but I believe that mine expresses more with greater brevity, and will be more easily remembered. It is obvious that they imply the same thing. The disease is a combination of acne with lupus, or rather, perhaps, it is lupus attacking acne spots. I have seen but very few good examples of it, but it is a very definite variety of the disease. In the case of a young man named S., whose sister's case I have already detailed to you, both cheeks showed acne spots. On the left cheek, however, many of the spots had enlarged, and were obviously of the apple-jelly structure. There could be not the slightest doubt that they were lupus, and equally little that they were

arranged like acne, and occurred in connection with sebaceous follicles. This young man had also lupus of his *alae nasi* and of his palate. As already recorded, two of his sisters had somewhat similar affections, and the family was decidedly strumous. Acne-lupus is a form of common lupus, and not of the erythematosus division. It is, so far as I have seen, never symmetrical, and the apple-jelly is very characteristic. It is of interest to note that it never attacks acne spots on the back, but occurs, I believe, on the face only, illustrating what we have had so frequently to ask attention to, the influence of cold and exposure as causes of lupus. I show you portraits taken from another case, but in it the conditions were not so definite as in the last S.

The group of cases which I have next to describe is one to which I find it extremely difficult to give any concise name which shall, at the same time, be appropriate and descriptive. It is lichen, acne psoriasis, eczema, chilblains, and lupus altogether. Yet it is a definite disease, and one case is like another. It begins in early childhood, and it affects the parts which are exposed. Thus I have no doubt that it has affinities with Kaposi's disease, but I have not as yet seen it in more than one member of a family. If it happened to several brothers and sisters, it would be at once accepted as a modification of Kaposi's disease. In my own notebooks, in default of any name, I have been in the habit of classing its cases as belonging to "the Philip Holmes series." Now "Philip Holmes" was the youth whose condition is depicted in the portraits which I now show. His was not the first case that I had seen, but it is one of the best, and it is the only one of which I have preserved an illustration. Holmes's grandfather had been the subject of psoriasis. The boy in infancy had a rash which was called red-gum, and which never quite left him. I saw him first in 1874, when he was 11 years old, and the portrait before you was taken in 1877, when he was 14. He was florid but rather delicate, and had a cough. You will see that his cheeks (the conditions were quite symmetrical) were covered with acne-like pustules, some of which spread at their bases, and are exactly like acne-lupus. His whole ear was in a condition of eczema-lupus, and on his forearms and hands were ulcerating pustules and patches of various sizes. Everywhere the eruption was leaving scars when it receded, and the largest scars were on his elbows and backs of forearms (the psoriasis positions). A tendency to produce stigmata (a prominent feature in Kaposi's disease) was very marked. There had been bad chilblains on the feet. This eruption was, however, much more than mere chilblains. It had then been persistent for years, and it remained so during the five years more that the youth was under my observation. In some respects it was worse during cold weather, but often, like psoriasis, it relapsed "in spring and fall." It was not a disease of the sebaceous follicles only, for there were scars also in the palms. I find in the older atlases one or two portraits which bear upon this malady, so far as to show ulcerated and lupoid eruptions on the elbows and forearms, arranged like psoriasis, but none of them either delineate or describe the patient's face.

I possess the notes of several cases like that of Philip Holmes, and have seen several others of which I have preserved no notes. The cases constitute very important connecting links. I have no doubt that the eruption results from inherited peculiarities in the organisation of the skin and the general health-status of the patient very similar to those so wonderfully displayed in cases of Kaposi's disease.

Closely allied to the cases just mentioned, but with important differences, are the forms known as psoriasis-lupus, and well illustrated in the full length and excellent portrait which I now display, and which has been lent me by Dr. Stephen Mackenzie. There is no doubt whatever as to this case being one of lupus; probably the case of Dr. Jamieson's, from which we borrowed our microscopic illustration last week, was very like it. The question is whether it should be called vulgaris or erythematosus. You will see that it has notched the nostrils like vulgaris, and that it presents definite thickening of the skin, not easily distinguishable from apple-jelly growth. Still, as it is arranged with symmetry, I prefer to consider it as erythematosus, and as it affects the exposed parts and began in youth, I must again call your attention to its similarity to Kaposi's disease. Indeed, if I place side by side Dr. Mackenzie's portrait of lupus-psoriasis and Dr. Radcliffe Crocker's of Kaposi's malady, you would be puzzled to distinguish them. A sister of the subject of this psoriasis-lupus patient had common psoriasis, a fact of much importance in reference to my assertion as to hybridity. The disease began at the age of 16 all over the face, and subsequently affected the neck, forearms, and arms. Finally, and this is very unusual, it even involved to some extent the trunk, abdomen, and chest. You will see that the eruption is dusky and erythematosus, that it leaves scars, and

¹ I had previously exhibited a portrait of acne-lupus under that name in the Annual Museum of the British Medical Association, but I had not published any account of it.

that, as already noted, it has taken away the *ale nasi*. This case is in some respects a better illustration of *psoriasis-lupus* than the one which I published under that name many years ago in the New Sydenham Society's *Atlas*.

I almost fear that I may incur the charge of audacity in suggesting such a name as *navus-lupus*. My meaning is, not that lupus-sometimes become nevoid, nor that a nevus may sometimes look like lupus, but simply and definitely this, that skin in a nevus condition may become affected by the lupus growth, and I assert that there are certain very rare cases in which the one process does really become engrafted on the other. The combination may occur with different results, the latter varying with the kind of nevus which is attacked. Sometimes it is the thick, mixed nevus so commonly seen in infancy, and sometimes it is the port wine stain; if the former, it is always in very early life; if the latter, it may not be till puberty or after. My attention was first attracted to this subject by a case which my friend Mr. Higgins was kind enough to transfer to my charge at Moorfields many years ago. Its subject was an infant who had been born with a nevus on the side of the head. At the time of birth the nevus was so small that it was not noticed, but it developed as small red spots on the temple at a week old, which spread and ulcerated until a considerable part of the face was covered with scab, and the lips and nose were attacked. Part of the nose and of its septum were destroyed. In this instance satellites were produced near to the edge of the parent nevus. Thus we had serpiginous spreading, infection by contiguity, ulceration, and scarring—the characteristics of the lupus process. It was not without great interest that I discovered, a few days ago, amongst the plates published by Dr. Anthony Todd Thompson, the portrait which I now produce. It shows a nevus of considerable thickness and of very large extent, covering one side of the head and a considerable part of the face. It was still spreading when the child died of meningitis, and Dr. Thompson notes especially that it not only crept on at its edge, but that it showed a tendency to produce little islands of nevus structure in the skin near to it—satellites. We have in this instance proof only of infective tendencies, for I believe there had been no spontaneous ulceration. The important point is that the child at the time of birth had no nevus at all, at least none large enough to attract its mother's attention.

My next case is one for the opportunity of seeing which I was indebted to Sir William Gull. The child had been the subject of careful observation from the time of her birth. She was a young lady of 17 when I saw her. Within a week of her birth, an exceedingly slight port wine-stain was observed on the right arm, a little above the elbow. For some years no change occurred, and then the stain began to spread at its edge, producing abruptly margined rings, near to the edges of which minute satellites would appear. In this way gradually a large part of the back of the arm and forearm became covered, and the condition was produced which is shown in the drawing which I have placed before you. Where the disease had receded there were indications, slight I must admit, but definite, of scarring. Thus the disease proved its affinity to lupus by a steady, slow, infective spreading, and by disorganising the tissue in which it had occurred. If anyone should incline to object that my cases are, after all, only examples of *navi* showing a tendency to spread at their edges, and to leave scars, I have only to reply to him that our difference concerns only words. An infective scar-leaving, ulcerating nevus differs widely from what is usual in common *navus*, and assumes the characteristics of lupus. If we refuse to recognise it as one of the lupus group, we shall lose, I believe, an important link of connection between the latter and certain other maladies, which I am about to describe.

I possess a portrait, dated exactly 50 years ago, and bearing the signature of William Bowman, now Sir William, which formed part of a collection of drawings made by the late Mr. Partridge. I am not in a position to give any facts as to the case, excepting such as the portrait itself puts in evidence. It shows a child with a large tumour under the skin of the chest, in all probability one of the congenital cystic and nevoid forms. On the surface of the tumour are a number of little, apparently vesicular, outgrowths, which show minute tufts of vessels. I dare not lay much stress upon a mere portrait without any cotemporary description, were it not that I have more than once seen an exactly similar state of things in the living subject. At the College of Surgeons, not long ago, Mr. Bryant showed me a patient who had had from birth one of these subcutaneous tumourous, and over it quite recently a small development of minute serous cysts (lymphatic?) had been formed, some of which showed minute capillary tufts. At a meeting of the Pathological Society, now nearly ten years ago, the late Dr. Tilbury Fox, brought for demonstration a young man upon whose thigh a large port wine

stain had been present from birth. Near to this stain, though not actually upon it, there had recently been developed a number of serous cysts, just like those which I have mentioned. With these cysts were minute capillary tufts. Dr. Tilbury Fox, by microscopic examination, proved that the cysts had been developed from lymphatics. The disease was an infective one, and its patches were spreading at their edges and producing satellites. Although in this instance the morbid conditions which had recently occurred were not actually on the port wine stain, still they were so near to it that I have little doubt that it had been the cause of their development, and that the case might be claimed as being closely allied to *navus lupus*. I feel sure that there were only differences of degree between it and Sir William Gull's patient.

The statements which I have just made lead me by a short step to the description of a variety of the lupus process, in which I believe that the lymphatic spaces in the skin are the parts chiefly involved, or at any rate which has for its chief feature the production of little vesicular outgrowths, which contain a lymph fluid. This is the disease to which some years ago I gave the name lupus lymphaticus. It is a very well-characterised malady. One case is exactly like another, and there can be no question as to its individuality. All my dermatological friends admit this, although some—for whose judgment in this matter I have the greatest possible respect—doubt whether it ought to be called lupus. Nearly a dozen good examples of this disease have now been identified. Curiously enough the disease has not as yet, so far as I am aware, been recognised either in America or on the Continent. For the present it is a London disease only. I feel sure that it will not long remain so.

Briefly the characters of this malady are the following: It almost always begins in childhood. I have only once known it originate in an adult. A number of little persistent vesicles arranged in a confluent group are its first stage. By an infective process, which travels probably along the lymphatic walls, it very slowly advances. The original patch grows larger, and numerous satellites are developed near to it. The patches sometimes inflame, and become covered with scab, and now and then attacks of erysipelas occur. I have several times known the patch spread until it was as large as an outspread hand, but I have never as yet seen the patches reproduced on different parts of the body. Scars are left when the process comes to an end, but I have not as yet, excepting under the influence of treatment, witnessed anything very definite in the way of spontaneous cure.

The chin, the nose, the shoulder, and the side of the trunk are the parts on which it has been observed. In the case of Dr. Tilbury Fox, and in that of Mr. Bryant, conditions precisely the same as these which I have now described occurred in connection with congenital *navi*; but in not one of my own cases had anything of the nature of nevus preceded the disease. The latter, indeed, did not begin in any of them until the child was several years old. In one case, which was shown me by Mrs. Garrett Anderson, M.D., the patient was a lady of about 50, and the disease had not been present more than six or eight years. The facts, which seem to me to require that this disease should be placed in the lupus family, are the following: It begins usually in the young; it spreads by infection of continuity and contiguity; it spreads very slowly, but may in the course of time involve large areas; it leaves scars, and it is liable to erysipelas. I have, however, an item of evidence to offer which for some will perhaps be more conclusive. I mean that of the microscope.

Some sections of skin, which were cut for me by my son, showed such a large amount of cell growth in the corium that they were indistinguishable from lupus. There seems to me nothing whatever improbable in the supposition that lupus should, in some instances, infect the lymphatic system chiefly, just as it does, we well know in others, the blood-vessels or the sebaceous glands. I do not believe that in these cases the process is confined to the lymphatic vessels, but simply that they take the chief share. I may ask attention to the fact that the cure of the disease is to be effected by precisely the same remedies as those which we should employ against common lupus.

I now have to invite your attention to a very extraordinary and important case which throws, if I mistake not, a flood of light upon the life-history of lupus in general. I might place by its side several others of a somewhat similar kind, but I think we shall probably get the lesson which I think the case teaches more clearly, if for the present we restrict our attention to it. At the conclusion of the lecture I shall have the pleasure of bringing the patient before you, and may say, in anticipation, that not one of you will have the slightest hesitation in admitting that the disease in its present stage is common lupus. The poor boy is literally covered with large patches of what would formerly have been called lupus exfoliatus. On his cheeks, forehead, limbs, and penis these patches occur. Some of them are as large as the palm

of the hand, many of them show the apple-jelly growth in great perfection, and all of them are still spreading more or less at their edges. The trunk is the only part which is exempt. The case would be of interest were it only as an example of extreme multiplicity and of unusual size of patches. Its chief interest is, however, not in the present condition, but in the history of its origin, and of the mode of progress. The boy, who is four years and a half old, is, as you will see directly, apparently in excellent health. His parents are in good health; there is no history of scrofula, and there is not the slightest reason to suspect the inheritance of syphilis. The disease began by a patch on his forehead, which inflamed and ulcerated. Then in the course of a few months others developed on various parts of the limbs and face. All of these inflamed and became covered with thick scabs. In some instances the scab was heaped up in a conical form, almost amounting to *rupia prominens*. These conditions you will see well shown in the large portraits which I exhibit, and which represent the disease as it was at that stage. There was certainly nothing, then, which would have justified the use of the term *lupus*, and the boy had been under the care, before I saw him, of very skilled observers who had not used it. I ought to have said that in addition to the large patches which I have described, the whole of the back and parts of the belly were covered with an inflamed lichenoid eruption, amounting in some instances almost to small boils. I ought also to have laid especial stress on the fact that the large patches, although very numerous and almost covering the limbs, were nowhere arranged with symmetry. The treatment under which these large *rupial* sores healed and passed into a characteristic condition of *lupus* occupied about a year, and was for the most part of a very mild character. Mercury and arsenic were in the first instance pushed, and seemed to do harm rather than good. We were content afterwards to give bark and use a weak tar lotion and ointment. Under these remedies the patches skinned over, but you will note that they are still spreading serpigginously as a quiet, non-ulcerating form of *lupus*. The chief interest of the case seems to be in its being an example of extreme activity of the infective process in the first instance, and also in its making it probable that the early stages of *lupus* are those of inflammation rather than of new growth. It illustrates, also, what I have repeatedly asserted, that activity of infection-processes is greatest in the young. It is scarcely necessary to remark on the lesson which it teaches as to the paramount necessity of destroying, by the most energetic means, the initial patch when the patient is a young child. We must not wait for the disease to declare itself by unmistakable characters as *lupus*, but, if a young child gets an unhealthy ulceration of unusual character, caustics or escharotics must be used at once with the greatest freedom, the great danger of systemic infection being kept clearly in sight.

A case instructively illustrating these remarks has recently been under the joint care of Dr. Percival, of Northampton, and myself. Only by the most energetic measures have we succeeded in getting the original sore to heal. As in the case just recorded, the patient is a young child and apparently in excellent health. I must not, however, venture to trouble you with details.

I would call the disease which the case just narrated illustrates *rupia-lupus*, for the reason that it begins with all the appearances of a *rupial* eruption and ends by becoming definitely *lupus*. I am particularly anxious to assert and illustrate this transition in the case of common *lupus*, because it is of very frequent occurrence in the syphilitic form. *Rupia* always constitutes round sores, and beyond a certain and very limited extent its patches do not spread at their edges. The patches of *lupus*, on the contrary, are never round, but by spreading at their edges constantly tend to assume irregular forms; and in the case of syphilis crescentic often horse-shoe shapes. Now, it is by no means uncommon in the case of syphilitic *rupia*, beginning in the secondary stage of the disease, and being at first as well characterised as anyone could well wish to see it, for the eruption to undergo a sort of partial cure and to slide gradually from *rupia* into *lupus*. In these cases most of the patches heal, leaving the well-known shilling-like scars; whilst a few of them heal only partially, and take to spreading at their edges after the manner of *lupus*.

Let us next glance at the pathological relationships of the curious disease which Hebra and Kaposi have described under the name of *rhino-scleroma*. This malady affects in the first instance the nostrils and upper lip, and is attended by great thickening of the parts. The nostrils may be plugged by a very firm and remarkably indolent growth, which ulcerates but slowly, and which resents injury but little. If you cut it or scrape it away, it quietly grows again. By slow degrees the disease may extend into the nostril, perforate the septum, and destroy the soft palate. It keeps to skin and mucous membrane, and does not involve muscle or bone. It does not cause

gland disease. Its subjects are young adults. So slow is its progress, that its final stage has, as yet, scarcely been observed. Excepting in Vienna, where a series of examples of it have been recorded, *rhino-scleroma* would appear to be of the most extreme rarity. In this country only a single case of really typical character has been observed. It fortunately fell under the care of Dr. Payne and Dr. Semon, and was by them carefully studied, as it had indeed already been by Professor Cornil in Paris. You will have noticed in my description that this malady resembles *lupus* in many features. It occurs in young adults, it begins in a part liable to irritation, the outlet of the nostrils, and I might have said, it apparently sometimes is excited by the irritation of discharges; it spreads by contagion of continuity and contiguity, it keeps to skin and mucous membrane, and shows none of the more marked characteristics of malignancy. It differs from *lupus* in that it has no apple-jelly growth, that it occurs in one particular part only, and that it but rarely inflames or ulcerates. Finally, we have as yet no proof that it can infect the blood and produce distant growths. To come to its histological features, we have excellent data from several different sources, and the reports are, with some minor exceptions, very unanimous. Kaposi, Geber, Mikulicz, Cornil, and, lastly, Dr. Payne, agree in reporting the presence of cell-growth in the deep skin, not distinguishable from that of granulation tissue. The small round cells making up this tissue are very numerous, and are often collected around blood-vessels. A few large and peculiar cells are to be found, and in some parts the interpapillary prolongations of the Malpighian layer appeared to grow downwards, after the pattern of epithelial cancer. All these features have been observed repeatedly in *lupus*. It remains to be added that Frisch in Vienna, Cornil in Paris, and Dr. Payne in London, have succeeded by staining processes in proving the presence of bacilli in connection with the larger cells of *rhino-scleroma*. They are not those of tubercle or *lupus*, but "short, thick, almost ovoid bodies, often coloured at each end and colourless in the middle" (Payne).

It is very clear that *rhino-scleroma* differs from *lupus*, but by no means so certain that it is not a closely allied malady. Hebra thought it a sarcoma, Geber and Mikulicz a kind of chronic inflammation, Cornil refuses to consider it sarcoma, and Dr. Payne, agreeing with him in the main, appears inclined to class it with *lupus*. That it may conveniently and quite correctly be placed in this association, I cannot myself feel any doubt, and I have great confidence that the future will disclose connecting links even if such are not already on record. I may just remark that should, in certain cases, *rhino-scleroma* manifest more malignant tendencies, it will not on that account dissociate itself from *lupus*, since it is well-known that cancer is occasionally the final result of the latter. Although *rhino-scleroma* probably acquires part of its peculiar character from the part in which it begins, yet it will be very exceptional to what we know of other maladies if it should prove that it is absolutely restricted to the nostril. We shall probably find that similar conditions are occasionally produced on other parts of the face at greater or less distance from the nose. Its peculiar features are slow growth, no tendency to inflame even after partial operations, and the hard, bossy induration which it causes. In a lecture which I published more than ten years ago, with the design of drawing attention to Hebra's observation of this remarkable malady, I recorded three cases more or less resembling it. In two the palate was affected, and I have since been inclined to regard them as forms of adenoma, though by no means certain that they are not like the palate-attacking form of *rhino-scleroma*. The third and most important of my cases was exactly like *rhino-scleroma* in all its features, with the exception that it began on the cheek, and did not involve the nostril. I will here repeat the particulars of this case, for I never saw any other exactly like it, and it is of great value as proof that a chronic inflammation new growth of the kind described may, after a series of years, assume some of the features of *lupus*.

"A young lady, Miss B., from South Wales, was placed under my care by Mr. Dukes, of Canonbury, for a bossy mass of growth in the skin of her left cheek. It did not involve the nose, nor was it quite in the upper lip, but was placed just over and external to the outer angle of the mouth. Thus it was very near to, but not actually in, the *rhino-scleroma* territory. Its characters were almost exactly like those described by Hebra, and its behaviour under treatment also agreed very closely. Miss B. attributed the growth to a wasp-sting some years before. The mass was almost as large as a halfpenny, abnormally defined, a quarter of an inch thick, glossy on the surface, and of reddish-brown tint. There was no ulceration. For want of a better name I called it *lupus*, and treated it, as I always do *lupus*, by free cauterisation. We used both the actual canter and the acid nitrate of

mercury. These did little or no good. The sores we caused healed quickly, and the mass soon resumed its original state as to density, thickness, and smoothness. I next, a year later, applied a paste of chloride of zinc, and took away a thick leathery slough. A very considerable depression resulted from this, for we did it most liberally, as I was determined, if possible, to effect a cure. We were, however, again disappointed. No sooner was the sore healed than it again began to indurate, and a year later Miss B. returned to me again with the mass not so thick as formerly, but still very conspicuous. I now persuaded her to come into the London Hospital. She did so, and I put her under chloroform, and destroyed the growth very freely indeed, with the actual cautery. Her condition was much improved when she left the hospital.

"A year later (in November, 1877), I heard from Miss B. that her face was still uncured. She writes: 'The last operation did a great deal of good, for when healed the mark was quite white, with the exception of the centre, where a small red spot remained, which has since spread to the top and bottom, leaving the sides clear.' Miss B. complained that the part would flush and burn after taking food, and that, on taking the slightest cold, it became much swollen and painful. The tendency to recur is, therefore, very strongly marked.

"Now, although I called this lupus, I certainly never saw any example of lupus exactly like it. Its bossy hardness, its elevation, its freedom from ulceration, and its rapid healing and re-induration after healing, are all points in which it agrees with rhino-scleroma, and does not agree with lupus. Had it been on the nose, it would have agreed in all respects with Hebra's description."

I have quoted the above as I published it in 1879. I am now in a position to give the sequel to the case, and to say that it subsequently approached much more nearly to lupus.

Miss B., now Mrs. L., came to me in July, 1883—that is, about six years after my former treatment. I then found that the result of our deep cauterisation with the actual cautery, as described above, had been a cure so far as the central part of the growth was concerned. A soft white scar remained over the site of the former disease; but, during the last year or two, there had been spreading at the upper angle of the scar. The disease had, however, taken on a new type of growth. It was no longer bossy, thick, and smooth as at first, but presented a rough dry surface, like some varieties of lupus sebaceous. Its edge was abrupt and slightly raised; it had spread in a long irregular patch until it had almost reached the inner angle of the eye. There was no production of lupus elsewhere, with the exception of two or three other small spots, near to the margin of the scar on the lower part of the cheek. The precise form finally taken on in this case is a very exceptional condition of lupus. The patient spoke of being able to pull little roots out of it, by which she meant portions of dry epidermis, which dipped down between equally dry papillae, like granulation growths. With this, however, there was not, and never had been, any moisture or formation of pus scab.

Everyone will recognise this description as being applicable, with the exception of the absolute dryness, to what happens in many forms of lupus on the hands and feet, and now and then on the face. The bleeding of the lupus patch, when its epidermic investment is pulled off, is a feature which has attracted the attention of all observers. Usually, however, the epidermic investment makes the surface of the patch smooth. In this case it did not do so, but left it rough and as if papillary.

There is a not uncommon form of the disease known as sycois which is certainly nearly allied to lupus; it is locally infective, and spreads by contagion of continuity and contiguity. It destroys not only the hair-follicles, but the intervening skin; and it leaves a scar where its action comes to an end. Like lupus, it results in spontaneous cure when the tissues in which it began have been destroyed. It certainly occurs most frequently in association with evidences of struma and feeble circulation, and occasionally it results in conditions which everyone would recognise as common lupus. It is, however, quite correctly named sycois, since it is in the beginning a suppurative inflammation of the hair-follicles, and is always restricted to hair-growing regions. As a rule this form of sycois-lupus affects the whiskers or chin, and develops symmetrically. It is very chronic and very difficult of cure. Not infrequently it is coincident with ophthalmia tarsi, which is in fact the same disease attacking the eyelashes. It has long been recognised that ophthalmia tarsi destroys the skin around the hair-follicles and leaves a scar. In this way it frequently causes disfiguring lippitudo, and displaces the edges of the lids into a minor kind of ectropium. In very exceptional cases the hair of the scalp may be affected as well as that of the parts named. I have known the entire scalp reduced to a condition of tight scar in a patient in whom the eyelashes and whiskers were also destroyed.

Sycois of the eyelashes is common in early life and in both sexes, whilst the same affection in the face usually waits for its development until the sexual hairs have grown.

I have placed the name sycois-lupus in my syllabus of to-day's lecture mainly as a suggestion, and I did not know that it had been previously used. I have since found, however, in a paper on lupus by Mr. J. L. Milton very similar statements to those which I have just made. Mr. Milton goes so far as to place amongst some cases of lupus which he records in detail two which were only sycois. For myself, I do not think that we shall serve any useful clinical purpose by putting sycois in the lupus family. It is a relative only. The features of difference may easily be pointed out. Sycois, although it spreads by continuity and by contiguity of tissue, does not apparently infect the blood, and does not, as a rule, become multiple. It does not spread in the skin surrounding the hairy districts, but restricts itself to the latter. It is a disease of hair-follicles primarily, and of skin only secondarily. It never produces apple-jelly growth, and is seldom attended by common lupus in other parts. Lupus in all its forms is a disease of the deep skin, and not of any one of its structures; and it is capable of spreading in all regions. For these reasons I abandon the term sycois-lupus, and also that of lupoid sycois, given by Mr. Milton, and prefer to keep to the old name, asserting only that scar-leaving sycois is a disease nearly allied to lupus.

I may here add that there is a syphilitic form of sycois which approaches yet more closely to lupus. It travels over the whole beard by a crescentic spreading edge, leaving a scar behind it (the horse-shoe form). It is curable only, so far as I have seen, by liberal cauterisation of the spreading edge, just as in the case of lupus.

In advancing the opinion that Kaposi's disease is a family form of lupus, I have first to say a few words as to the characters of that disease and as to the meaning which is to be attached to the expression "family form." By the latter term, in conformity with the usage of Adams in his work on inherited tendencies, the expression is applicable to any disease which shows itself in several brothers and sisters without having existed in their parents. It is not to be applied, as might at first sight have appeared probable, to diseases such as gout, scrofula, and the like, which pass on in successive generations in the same family. Retinitis pigmentosa and ichthyosis are perhaps our best-known examples of "family" disease. If a single case of either of these be identified it may be assumed as certain, if there are several brothers and sisters, that two or three of them suffer, and that the rest are wholly exempt. Under some law of inheritance, as yet but partially understood, it would seem that part of the offspring of a certain pair derive a very definite peculiarity of structure which destines them to peculiar and remarkably uniform kinds of disease. Another proposition must be made as regards family forms. It is this: that although the disease has not occurred in preceding generations in exactly the same form, yet it would appear to have been led up to, as it were, by some other allied malady. Thus the rare disease known as xanthelasma, which is produced *de novo* in connection with jaundice, and severe liver disease, and is as such never seen excepting in adults, may now and then have its family form. When this happens, three or four brothers and sisters all show multiple xanthelasma in early childhood and without the slightest trace of the disorders of general health which attend it as an acquired disease. Probably almost all diseases have their family forms, receiving more or less of modification in this peculiar kind of transmission.

I have ventured to give the name Kaposi's disease to a malady which was described by Hebra and Kaposi conjointly under the name of xeroderma, and which has subsequently received a more or less modified designation from almost everyone who has written about it. Inasmuch as the names proposed have most of them been very unwieldy, and imply pathological statements which may or may not be quite appropriate, I put in a claim to the thanks of the profession for suggesting that this very peculiar malady should, for the present at least, be known simply by the name of the surgeon who has taken the chief share in bringing it to our knowledge. It is most certainly a family disease, being a very definite type of what we mean by that expression, and the question is as to what are its alliances. In retinitis pigmentosa we have a malady which always affects several children in the same family, and in which the nerve structures of the eye, and perhaps also of the ear, undergo a progressive degeneration, attended with the free deposit of pigment. In Kaposi's disease, making allowance for the difference between skin and retina, we have a very similar course of events. In both, the child at the time of birth appears quite healthy, and in both pigment accumulations are the first symptom of disease. In Kaposi's disease a condition of very inordinate freckles is the first stage. Next the skin shrivels, and becomes dry or even scarred. At this stage ulcerations may occur, and the alæ

nasal may be destroyed, just as they are in lupus. I have the pleasure of being able to show you, through the kindness of Dr. Radcliffe Crocker, an excellent portrait of a patient who was the subject of this malady, and I place beside it another which has been lent me by Dr. Stephen Mackenzie, showing a peculiar case of psoriasis lupus. Dr. Mackenzie's patient was undoubtedly the subject of a modification of lupus erythematosus. I ask you to note how closely similar the conditions in the two portraits are. In Kaposi's disease precisely the same parts are affected as those which suffer in lupus erythematosus. The disease begins on the face, and it next affects the hands and arms, and lastly in a slighter degree the feet and legs. There can scarcely be a doubt that the child is born with a skin so constituted that it will not wear well. In other words, that it cannot bear the ordinary exposure to wind and sun. Under these influences it first becomes pigmented and then inflames. Now this is precisely what occurs in the most severe and typical forms of lupus erythematosus. The portrait published by the New Sydenham Society may suitably remind us of one of these cases. In them the influence of exposure is only less definitely marked than in Kaposi's cases. Another feature of resemblance between the two maladies, or rather I would say an indication of alliance, is that both diseases may end in malignant action. Here, however, we have a feature of resemblance with lupus in general, rather than with lupus erythematosus in particular, for it is lupus vulgaris that is apt to fungate and pass into epithelial cancer. In Kaposi's disease, even in childhood, if the condition be severe, there is great liability to the formation of fungous excrescences, which, although often consisting of granulation tissue only, may in others run a malignant course. Thus I think you will admit that I have established my point that there are close features of resemblance between lupus and this remarkable malady. I by no means assert that they are the same disease, but simply that the one is the family form of the other, receiving, as usual in family forms, conspicuous modifications. My friend Dr. Radcliffe Crocker, in his excellent report on the disease published in the *Medico-Chirurgical Transactions*, remarks that "few will dispute that the disease is *sui generis*." This is precisely what I do dispute. Pathology knows no Melchisedec, and if we would rightly understand the nature and origin of the various and often very peculiar maladies which come under our observation, we shall succeed better by seeking for relationships than for differences. In all probability no malady is really isolated.

I have incidentally said so much as to lupus erythematosus, that it may probably not have been noticed that I have not yet given any description of it and of its varieties. I shall be very brief on this subject, for the time now at my disposal is very short, but I must not wholly omit it. First, let me say that I think it is to be regretted that the old term lupus sebaceus has been lost sight of, and that all cases, whether what used to be called sebaceous, or those purely erythematosus, are now classed under the latter name. This involves a confusion of things which present important features of difference. The earliest observations which we have as to the disease associate it with the sebaceous glands, and subsequently the same conditions were figured by Cazenave under the name of *acne sebacea partielle*. Yet there are forms of lupus erythematosus which are congestive only, and show no tendency to implicate the glandular system. In dealing with the histology of lupus in general, I mentioned that Geddings and Kaposi considered that lupus erythematosus began around the glands. Dr. Thin considered the blood vessels chiefly at fault, and Neumann and Jamieson the upper layers of the corium. These differences of opinion, at first startling, find, I think, a fair explanation in the fact that the disease is not always the same. Nor does it always in the same case present the same conditions at different parts or at different stages. I cannot say that I have found Kaposi's division into two forms, lupus erythematosus discoides and lupus erythematosus discretus et aggregatus, of much assistance in clinical work. The classification I would venture to suggest is the following; but, in making these subdivisions, I am well aware that many cases will have to be placed in more than one.

The first subdivision should, I think, be into lupus sebaceus and lupus erythematosus proper. In the former category I would count all cases in which there is conspicuous implication of the follicles, all in which the well-known dried orange-peel condition is seen. Many of these cases are comparatively slight, and remain for long strictly local. As Kaposi has well remarked, they rarely leave the face and head. Sometimes they, like lupus vulgaris, are non-symmetrical. Their significance as revealing symptoms is far less grave than that of the true erythematosus form. Some of them have little or no erythematosus congestion around the patches, but in others it may be considerable. At the other end of the chain, and in strong contrast, I would place the cases in which erythema is the conspicuous feature, and

almost the sole one. In many of these there is no roughness of the surface, and the orifices of the sebaceous glands are at no stage unduly conspicuous. In these the disease often spreads rapidly, the arrangement is always symmetrical, the hands and feet are often attacked, and outbursts of febrile illness are not infrequent. Between the typically sebaceous and the typically erythematosus, we have many cases which, in varying proportions, combine the peculiarities of both.

For purposes of clinical convenience I would arrange the cases of lupus erythematosus proper into groups; first of those in which the disease was restricted to the face and head; secondly, those in which the hands as well as the face were affected; thirdly, those in which the disease showed a tendency to become general, that is to extend to neck, shoulders, upper arms, and possibly to the trunk; also, fourthly, those in which erysipelas had repeatedly occurred. In our last lecture I spoke of the great danger which attaches to lupus erythematosus in its typical forms, and especially of the risk of a fatal attack of erysipelas. Kaposi's testimony on this point is very strong; indeed, he would appear to have met with erysipelas very frequently, and speaks of an "erysipelas perstans faciei," with which I am not familiar. The circumstance that he drew from the experience of a large hospital in which the patients remained for long periods, whereas my cases have been chiefly observed in private practice, may explain some discrepancies. He would be likely to encounter more serious complications than have fallen to my lot. The best published portrait of a purely erythema lupus with which I am acquainted is that in the New Sydenham Society's *Atlas*; one which I now show you, published at the Hôpital St. Louis in Paris, and designated scrofulide erythematosé, is also excellent, and has the merit of being a photograph. Those given by Hebra show the sebaceous and mixed forms only.

I have yet two topics to which I must advert before I conclude. I refer to the simulations of lupus by syphilis, and the association of lupus with cancer.

A large number of the diseases of the skin in the later periods of syphilis are lupoid in character. By that statement it is meant that they occur without symmetry, that they are infective and serpiginous, and that they leave scars. In these features they differ wholly from the eruptions of the secondary period, which are symmetrical and exanthematous and show no tendency to infective spreading. A syphilitic lupus, like other forms of lupus, may spread indefinitely, and may last for years; indeed, unless cured by treatment, it will as a rule never get well. We occasionally see very severe secondary eruptions, especially those of the rupia class, gradually slide when nearly cured into lupoid peculiarities, that is, some of the patches may take on serpiginous spreading. As a rule, however, syphilitic lupus is decidedly late (that is, tertiary) in its appearance. It may simulate any of the known varieties of lupus, and the closeness of the resemblance may be most deceptive. I cannot see that anything is gained by disuse of the term lupus in connection with syphilis. If instead of it we employ such terms as horse-shoe sores, serpiginous ulceration, and the like, we lose in clearness of meaning and do not gain in anything.

Many observers have recorded cases in which cancer has developed in lupus patches, either whilst the disease was still extant or after cicatrization had taken place. I have shown you a portrait from a case of my own in which this took place in a partially cured lupus, and several others have fallen under my notice. In three or four cases I have seen lupus and cancer in the same patient independently of each other, and on more or less distant parts. Thus it would appear that not only is the scar tissue of lupus prone to be attacked, but probably there is something in the patient's state which gives proclivity to both. The form of cancer is epithelial, but very malignant. It reappears usually very quickly after excision, and advances very rapidly. It is often attended by large fungating granulation masses, exactly such as are seen in the cancer which follows the ulcerations of Kaposi's disease. A very important addition to our knowledge of cancer in this relation has been made since these lectures were commenced. I have only to-day obtained a copy of a very able paper on *Lupus-Carcinoma* by Dr. Bayla, of Tübingen, published in Bruns's *Beiträge*. He has collected no fewer than forty-two cases, and in one of them it began as early as the twenty-sixth year. The paper is accompanied by four portraits, which well illustrate what I have just said as to the noteworthy tendency to fungate. These portraits I now produce for your inspection.

In conclusion, Mr. President and Gentlemen, permit me to recapitulate shortly the main arguments of my lectures. It has been sought to show that there are a large number of maladies, some of them, it is to be admitted very rare, but yet of extreme interest, which are cognate with common lupus, and that between common

lupus and lupus erythematosus there are bonds of essential relationship, whether we regard their clinical features or their histological characters. Next, it has been made probable that all forms of lupus are in occasional relationship with the state of health which gives liability to tuberculosis and to diseases of the scrofulous class; but in limitation of this it has also been proved that many lupus patients are in excellent health, and that there appears to be some proneness to cancer as well as to tubercle. That lupus begins as an inflammation under the influence of various exciting causes and derives its peculiarities from the part affected, and the special structures in that part, as well as from the age and preclivities of the patient, has also been asserted. Thus it has been sought to discredit the supposition that lupus, or any of its peculiar forms, deserves such terms as *sui generis*, the implied creed being that they are closely related amongst themselves, and also to other various pathological processes. The doctrines of infective spreading and system-contagion have been asserted as being explanatory of the phenomena of lupus, and as finding in it some of their best illustrations. The laws of hybridity and those of partnership in disease have also been appealed to, as well as those of modification in hereditary transmission, under which latter it has been attempted to establish the pedigree of the very remarkable malady known as Kaposi's disease.

I much regret that I have not had time to say anything in reference to treatment, since I might have drawn from it very important evidence in support of the conclusions placed before you. This, however, must be reserved for another occasion.

In reference to the introduction of not a few new names, and the alteration of some old ones, I am well aware that I have laid myself open to criticism, and that I have taken on me grave responsibility. My innovations in these matters, however, I willingly leave to the judgment of others. If found useful they will live, if otherwise let them die. I can only assure you that I have done nothing from caprice, but that I have honestly endeavoured, as far as my ability admitted, to make clear a very intricate subject, and to lighten the labours of those who will follow me.

LETTSONIAN LECTURES

ON

SOME POINTS IN THE SURGERY OF THE URINARY ORGANS.

Delivered before the Medical Society of London, January, 1888.

By REGINALD HARRISON, F.R.C.S.,

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LECTURE II.

THE PATHOLOGY OF THE ENLARGED PROSTATE VIEWED IN RESPECT TO ITS CAUSATION AND PREVENTION, AND THE TREATMENT OF SOME COMPLICATIONS ARISING OUT OF IT.

MR. PRESIDENT AND FELLOWS,—I purpose this evening speaking of the pathology of the prostate relative to some points in connection with the prevention and treatment of certain disorders arising out of it when it becomes hypertrophied. The causes of hypertrophy of the prostate have formed the subject of much careful observation, and I feel some hesitation in again referring to them. Still, on the other hand, though my views may not prove generally acceptable, I am inclined to think that a narrative of the observations upon which they are to a large extent based may serve a useful purpose in indicating lines of thought which may result, sooner or later, through the investigations of others, in clearing up doubtful passages in the physiology and pathology of this part. In the first place I shall speak of the prostate as forming the retentive apparatus of the male bladder, under whose influence the urine is collected and held, irrespective of any glandular function which, by the nature of other structures it may contain, it is capable of exercising. And I think it will not be difficult to substantiate the proposition that, in the human species at all events, this part may with greater propriety be designated the "prostate muscle," rather than the "prostate gland," for whatever function it may exercise intermittingly, relative to the process of generation in its latter sense, seems to be subservient to the physical part it is continuously playing as a portion of the retentive apparatus. In support of such a view I would draw attention to Mr. Ellis's important paper (*Royal Medical and Chirurgial Transactions*, vol. xxii), On the Muscular Arrangements of the Genito-Urinary Apparatus, wherein it is

remarked, "I would propose the name *orbicularis vel sphincter urethrae* for both the prostate and the prolongation around the membranous urethra, whilst I would confine the old term 'prostate' (without the word gland) to the thickened and more powerful part near the neck of the bladder. This orbicularis may be considered as only an advanced portion of the circular layer of the bladder, though it must have the power of acting independently of the vesical fibres." But if its muscularity is admitted, we must conclude that it for the most part exercises its function in conjunction with the bladder in the form of a hollow muscle, for it would be against the nature of things for it permanently to exist in the shrivelled and contracted state it presents after death. We have been too much accustomed to regard the prostate from its *post-mortem* aspect, that is to say, as a mass of muscle of the size and form of a chestnut, in which is contained some secretory tissue. For concluding that it thus exists during life, I believe there are no substantial grounds, as it seems to me that under no circumstances, save the rare and momentary one when the bladder is absolutely empty, does it present such an appearance. On the contrary, the muscular fibres are spread out like a funnel, with the apex downwards so as to form a strong muscular support for the bladder and its varying amount of contents, the degree of expansion being naturally relative to what the viscus may contain. Hence the action of the prostate may be said to be just as continuous as that of the heart. In reference to this important point it will be necessary that I should furnish some reasons for such a conclusion.

In the first place, the clinical examination of a healthy person with varying amounts of urine in his bladder affords no evidence that the prostate presents the contracted appearance we are accustomed to see; on the contrary, when the finger is introduced into the rectum, in the natural condition, the parts are felt to be disposed in the manner I have indicated, and providing a muscular floor for the bladder and its varying amount of contents.

But the retentive function of the prostate is more strikingly shown when we proceed to what I would speak of as actual demonstration. And for this purpose we have only to observe what follows in connection with certain surgical operations on those parts with which most of us are familiar. Incisions may be made into the male urethra, in any part of its course, as far as that point which we are accustomed to call the apex of the prostate, without any incontinence of urine following. I have seen cases of lithotomy by the median operation retain full control over the bladder during the whole period of their convalescence, in spite of the dilatation to which the prostate has been subjected by the introduction of the finger and the extraction of the stone. And this remark applies equally to cases of external urethrotomy.

When, however, the knife impinges to any appreciable extent upon the prostate, as in the lateral operation for stone and the modified median operation which I have recently drawn attention to, where the prostate is divided, from that moment incontinence takes place; the patient has no command over his urine; he can neither collect nor expel it, and in this condition he remains until the healing process has made considerable advance. We have here, striking evidence, not only as to the habitual function of the prostate relative to the contents of the bladder, but that the action of the part must be unceasing in its character, subject to the circumstances under which it has to distribute its force over the area it supports or brings into action. How completely the prostate forms the lower action of the bladder was demonstrated to me in a striking manner only a few weeks ago, and in a way that I had not previously noted. It was a case of lateral lithotomy in a young man where, ten days after the operation, there was some free hæmorrhage. As the bleeding did not proceed from any part of the perineal wound, I had the patient put under ether on the operating table, and, suspecting where the bleeding came from, I introduced the nozzle of a Higginson's syringe into the orifice of the urethra, expecting that the fluid would run out of the open urethra; this it certainly did, but not until it had first entered the bladder, out of which the fluid escaped, together with some old clots which had evidently collected in the viscus, just as water would do out of the side of a cask in which a hole had been made. This I was able to see, as the wound was held open with retractors under a strong light. In addition, however, to testimony of this kind, I am convinced, from a careful examination of the prostate, both before and after operations on this part, where the introduction of the finger into the bladder formed a detail of the proceeding, that the more usual condition of the healthy prostate is one of relaxation, and not of contraction, as we are accustomed to see when death has taken place.

But further, when there are no such physical functions to perform relative to the contents of the bladder, the prostate, as a muscle, so

far as I have been able to ascertain, only exists in a rudimentary form. I refer to those distressing abnormalities known as extroversion of the bladder, where, from the fissured nature of the structures, there is no receptacle for the urine which escapes from the ureters as it is excreted. Here, though the sexual sense may be normal, there is from the nature of the parts no necessity for any provision being made for the collection and retention of what the kidneys secrete. I have not been able to discover, though I have taken considerable pains to do so, that in these abnormalities hypertrophy of the prostate has ever been noticed. This seems to me to be a point of some significance in connection with what has been already urged. But though in an argument of this kind I would prefer to substantiate my position from positive evidence rather than by a deduction from the negative, I cannot help remarking that, if the office of the prostate was solely in relation to the sexual act, the pathology of the part would tend to indicate this more than I believe it does. It is not very common to meet in practice with cases of acute suppurative commencing in the follicles of this part, where one would think that irreparable damage must have been done, and yet we have evidence to show that the individual has not necessarily been unsexed by this process. Nor can I assert, though the opportunity for doing so has now for some years been abundantly provided me in my operations, involving varying degrees of mutilating the prostate, that I ever extinguished the procreative powers.

In the next place, I would point out that adult man seems to require some special provision such as the prostate affords for the purpose I have just indicated, by reason of the exceptional degree of pressure to which the most dependent portion of his bladder is constantly subjected. And in making use of the words "exceptional degree of pressure," I do so in contradistinction to what is found, so far as I have been able to observe, not only in the animal kingdom, but in other varieties of the human species which are not in exact correspondence with the type I have taken. As demand and supply in the disposition of muscular tissue are apportioned, it seemed to me that we had hitherto failed fully to recognise and appreciate all the circumstances which rendered it necessary that the adult male bladder should, as I have already pointed out, be provided with a muscular apparatus of considerable strength at its most dependent point.

But in what respects, it may fairly be asked, does the adult male bladder differ from other varieties of its own species, and from those animals which in their higher organisation more closely approach it? I maintain that in man the perpendicular axis of what I would speak of as urine-pressure falls directly upon the outlet of the bladder, whereas in the female, not only are there other means of supplying muscular support to the base of the bladder, but in consequence of the difference in the pelvic organs, a considerable portion of the weight of the viscera, especially in its more extreme degrees of distension, is borne by the pubic portion of the pelvis. Further, allowance must be made in the female sex for no provision being necessary for seminal ejaculation, in which function the muscular fibres of the prostate undoubtedly play an important but occasional part.

In the higher mammalia—excepting, perhaps, in the case of dogs—the prostate is not so largely developed as in man. In reference to this point, Mr. Bland Sutton kindly informs me that, although he has conducted many thousand *post-mortems*, yet, excepting in the doubtful case of dogs, he has never seen an enlarged prostate—at all events, such a one as would cause obstruction to the flow of urine. In animals, it will be observed that the perpendicular axis of urine pressure, when the bladder is tolerably full, does not fall, as in man, on the outlet, but on the parts which support the bladder, according to its varying degree of distension. In the dog, it seems to me not improbable that the exceptional degree of prostatic development is related to the somewhat peculiar condition under which, in this animal, micturition is performed.

As my opportunities of examining the urinary apparatus in the lower animals have been few, I feel much hesitation in making reference to any observations I may have rather casually made so far as they related to the point under discussion. It, however, appeared to me that where the habits of the animal, as observed in some apes and marsupials, necessitated the frequent adoption of an erect position, the males had a much greater development of the prostate muscularly than was usually found in other kinds of quadrupeds.

I regret very much that we have not at our disposal more abundant means for referring to dissections illustrative of the comparative anatomy of the body. I am sure they would prove of much assistance in investigations of this kind, having relation to normal and morbid human anatomy. But, apart from this, if time permitted, it

would not be difficult to adduce further evidence to show that in man the collection and storage of urine, if I may make use of such a term, implies a degree of muscular support to the most dependent portion of the viscera, for which no such complete provision has to be made under any other condition of life I am acquainted with. I should not, however, feel at all surprised if, when the "missing link" is discovered, he is found paying the penalty for his assumption of the erect posture by developing in some degree an enlarged prostate.

But to proceed; if the prostate represents the chief means of retention and support for the contents of the male bladder, is it necessary to pursue the argument for the purpose of explaining why it becomes hypertrophied? Does not one follow upon the other? Are not the circumstances of individual life sufficient to explain why it happens to one person and not to another?

Many of the facts connected with the natural history of hypertrophy which have been collected for us, or with which, in our daily practice, we are familiar, seem to me to support the view I have taken relative to the function of the part. In the first place, it is not met with during those periods of life which are most remarkable for muscular activity and development; on the contrary, it is called into existence where, pathologically speaking, quantity seems to supplement deficiencies in quality.

But as with similar changes in other parts of the body, so may prostatic hypertrophy be shown to be exactly compensatory; whilst in others, by an excess of the process, it may be proved to be detrimental. And in reference to this point I would remark that we have been too much accustomed to regard prostatic hypertrophy as necessarily a morbid and hurtful process. To such a conclusion I think exception may be taken on substantial grounds. It is stated by Sir Henry Thompson that actual hypertrophy of the prostate exists in about 34 per cent. of men at and above 60 years of age; that it produces manifest symptoms in about 15 or 16 per cent. From this it would appear that the larger proportion of persons are not injuriously affected by the change, a circumstance which seems to suggest that the majority of persons with large prostates are in some way or other benefited by them; and this deduction is considerably borne out by everyday experience. I am disposed to think, from my own examinations, that the frequency of some degree of prostatic hypertrophy is thus rather under- than over-estimated. Though it is not easy to form an absolutely correct estimate of the size of these parts relative to standard measurements by rectal examination, my conclusion is that a far greater number of males over 60 years of age have some enlargement of the prostate, and are never in any way conscious of the alteration, than we should conclude from the figures I have just referred to. How frequently, for instance, when we are examining elderly persons, say for some disorder of the rectum, we make the discovery that their prostates are enlarged, though they have no reason to be conscious of this change. I can at this moment recall many instances of this in my own practice where the persons are in every sense of the word in the enjoyment of the most perfect health, with an entire absence of any urinary ailment. Quite recently I was asked to examine a gentleman who, in the course of an acute bronchitis, had retention of urine for the first time in his life. This patient had an enormous prostate, which must have been in course of formation for several years. Surely, under these circumstances, in the first instance the hypertrophic change must have been called into existence for a distinctly conservative object, and had been merely disarranged by the violence of the cough from which he was suffering.

But though prostatic hypertrophy is, as I have shown, in the greater number of instances more or less compensatory, it may, as in others, be in excess of what is required, and thus prove detrimental. In the latter category, reference no doubt will occur to us of those examples where the prostatic mass is made up of projections having a somewhat lobulated or nipple-like form, where the degree of irritation and obstruction excited is often very considerable, and apparently out of proportion with the cause. These I would speak of as being the structural upheavings of a frequently-contracting muscular ring. In a muscle or part undergoing hypertrophic growth, and where the process is prompted by circumstances which are obviously liable to some degree of variation, tissue production may be excessive or become unnecessary. Such excess would naturally tend, under the contraction of the part, not only to protrude itself where the resistance was least, but to assume a more lowly-organised form than that which in the first instance was developed. In this way, I believe, these excesses of more or less degenerated prostate tissue are formed, which subsequently cause so much vesical irritation and irritability. And this observation, whether a large prostate still remains almost entirely muscular or has become largely converted into fibrous tissue, has an important bearing in practice in those cases where we have to express

an opinion in reference to the probabilities as to whether the use of the catheter will be a temporary or a permanent expedient; for where there is evidence to the touch that fibrous tissue predominates largely over the muscular, the use of the catheter is generally perpetual; whilst, on the other hand, when the prostate is found soft and yielding to the touch, as when it remains muscular, a complete restoration of function may be anticipated. Thus, then, may the resistance which is constantly going on in the most dependent portion of the bladder against that downward pressure which is exercised by the collection and retention of urine in the bladder, prove the common cause of its hypertrophy.

But this is not the only condition under which hypertrophy involving the lower section of the bladder can be studied. In the examination of the bladder, both after death and in the course of surgical operations, it is impossible not to be struck with the altered relations which frequently exist between the body of the viscus and its neck or outlet. In early adult life the bladder may be regarded as an abdominal rather than a pelvic organ; as years advance it gradually sinks within the pelvis; whilst still later on it will often be found to have become further depressed within the pelvic cavity. In this way I have seen a prominence given to the floor of the prostate, which was really due not to the development of more prostatic tissue, but to the depression or partial prolapse of the posterior wall of the bladder. This artificial condition of obstruction I have endeavoured to show, in some instances, not only precedes prostatic obstruction, but, further, is followed by the development of a strong muscular buttress between the orifice of the ureters, which in many instances leads to the obstruction of what otherwise would prove, by the sinking of the posterior wall of the bladder, an inconvenient pouch. Thus hypertrophy of the prostate and the adjacent part may not only be due to the natural resistance of urine-pressure, but may also be called into existence for the evident purpose of supplementing a structural defect of more or less accidental origin.

It is impossible to observe the function of micturition in the child and the adult without recognising that in the two conditions there are wide differences in the influences that the will exercises upon the merely mechanical act. In the child the process almost approaches the involuntary; the calls of Nature are impulsive, and must be obeyed without hesitation. This may be illustrated in a variety of ways, in health as well as in disease. In adult man this is to a large extent changed, as we find the process becomes much more subservient to the will than perhaps at first sight we should feel disposed to admit. That there is a wide difference in our respective powers of continence in this respect I am willing to admit. In some individuals the function of micturition seems in health but very slightly removed from a purely voluntary act. Let me illustrate what I mean. A medical man, closely approaching 70 years of age, asked me to examine his rectum for some slight ailment. In doing so I found that he had a very large, soft prostate. I mentioned this to him, when he remarked, "I could hardly believe it, as I have always had such excellent waterworks. I have been in the habit of not passing urine for eight or ten hours." Here then is an illustration of a man who submits his bladder to the same degree of urine-pressure at 70 as he did when he was 27. Again, a captain of one of our ocean steamers, in consulting me in reference to some urinary disorder clearly connected with a large prostate, in comparing his present with his past powers of retaining urine, remarked that, in consequence of remaining on the bridge of his steamer for long periods of time, particularly in thick weather, without leaving it to pass water, he had acquired a power of retention which had gradually become constant. Is it remarkable that Nature had thus substituted quantity for quality, and had made provision against the effects of a muscular strain which could not have been inconsiderable? We might from our daily practice multiply examples of this kind where persons, so far as was known, were not deriving anything but good from that excess of muscular tissue which we are accustomed to speak of as the prostate gland. If we admit that the muscular fibres, of which the prostate is so largely composed, exercise the function I have urged relating to the contents of the bladder, I do not think we can be at a loss to understand how they become hypertrophied.

Let me, however, not be understood as implying that in the human species the prostate has no relation with the sexual act. Evidence is not wanting to show that, both as a muscle, as well as by reason of its glandular element, it exercises purely physical functions relative to this important but casual function, independently of the continuous action I have laid stress upon in relation to micturition. The less important function of the glandular portion of the prostate has been, I believe, correctly described by Dr. Handfield Jones (*The London Medical Gazette*, vol. v, 1847), in the following words:—"Its part in

the generative function is probably not to prepare any essential element of the fecundating fluid, but merely an appropriate viscid material, involved in which the seminal animalcules may be more securely transported on their destined route."

Passing to some considerations relative to the prevention of prostatic hypertrophy, and the complications arising out of it, I would observe that more care should be systematically taken to preserve the muscular power of the bladder, and to aid it artificially when the necessity obviously arises. If a man goes on using his bladder as he would a water-bottle, from adolescence to old age, he must not be surprised if Nature prevents it breaking down entirely by the process I have described. The timely use of the catheter has often, I am sure, provided the means for warding off changes which unfortunately do not always cease when they have become precisely compensatory. Nor is there anything exceptional in this, for as age advances we recognise the importance, and make use of artificial assistance in a variety of ways which I need hardly particularise. In the clinical history of most cases of hypertrophy of the prostate, we can generally trace a period when a weakness of the viscus indicated itself by a frequency in action, which was subsequently corrected by an overgrowth in the part. But, unfortunately, the process of hypertrophy, as observed in the prostate, is not infrequently in excess. In by far the larger proportion of these instances the individuals are able not only to keep themselves comfortable by the use of the catheter, but I question very much whether their lives are in any way shortened by the continued inconvenience they have thus to submit to. Many of us could record some remarkable example of longevity under these circumstances. But making due allowance for this class of cases, there are others whose lives, in spite of careful and efficient catheterism, are rendered miserable and useless by what they suffer in this way. For no sooner does urine collect in their bladders to any appreciable extent than they require to get rid of it. Many expedients have been resorted to, both in the way of drugs and operative procedures for the permanent relief of this condition, about which it would be impossible to speak in detail. Let me, however, refer to a case (*JOURNAL*, December 24th, 1881; April 8th, 1882) which I reported some years ago, where I tapped the bladder from the perineum through the enlarged prostate, quite independently of the course of the urethra, and where a cannula was retained in this position for two months with great comfort to the patient. He was a man about 80 years of age, and had suffered much from almost all the complications that an enlarged prostate is capable of giving rise to. But the future of the case was perhaps still more interesting, for he completely recovered and lived for several years, and in this I include the acquisition of the natural and unaided use of his bladder. Further, the explanation of this was found in the fact that during the time the cannula was retained in his bladder his prostate underwent a gradual diminution in size, which was noticed by all who had the opportunity of watching and examining him. His condition prior and subsequent to the operation proved a most remarkable and instructive contrast. I may add that this process has been repeated, not only by myself but by others, with very satisfactory results, and this tends in no slight measure to substantiate the views I have already advanced relative to the pathology of the disorder. And in connection with puncture through the prostate, I would like to say a few words in reference to cases where relief has been afforded under similar circumstances by an incision through the part similar in many respects to what is adopted in lateral lithotomy. There can be no doubt that prostatectomy, which affords a free and incontinent escape for urine from the bladder, has proved of very great temporary and permanent service in this class of cases.

At the meeting of the International Medical Congress at Copenhagen, in 1884, I took the opportunity of illustrating this method of treatment as an alternative in cases where the catheter was of no avail in affording relief. And I will again refer to this operation, as sufficient time has now elapsed to enable me fairly to judge of the results obtained. The kind of cases to which this treatment has been applied are those of difficult micturition, due to the large prostate, which are not adequately relieved by the use of the catheter. This class, therefore, includes instances where there is unusual difficulty in introducing the catheter; where bleeding almost always attends the use of this instrument; where the withdrawal of the urine is followed by no sense of relief; and where the bladder, by the constant presence within it of pus and tenacious mucus, is converted into little else than a chronic abscess through which urine percolates. These, as well as some other forms of prostatic disease which might be included, are practically unrelievable by the catheter, and soon terminate in a painful death. For the relief of such conditions various expedients for establishing a more or less permanent communi-

cation with the bladder, other than the urethra, have been practised, namely, puncture above the pubes, by the rectum, and from the perineum, with the retention of a cannula or tube for the discharge of urine at these several points. Excellent in design as these proceedings are, they appear to me to fall short in one important respect—in not dealing with the cause of the obstruction. Two of these measures are open to objection, on the ground that the artificial canals are inconveniently placed as permanent vents, for it would seem desirable that the urethra should, as far as possible, be utilised and the external opening for the escape of urine be dependent. On considering various plans of treatment which had been applied under the circumstances mentioned to the obstructing prostate, it appeared to me that, by combining Cock's well-known and safe operation for opening the membranous urethra with Mercier's for dividing the prostatic bar from within the urethra, as will be presently noticed, it would be possible to obtain precision with an increased freedom from risk. Such an operation was suggested by the late Mr. Guthrie, but I cannot find that he ever tested it in practice. The want of anaesthetics probably interfered with the progress of this as well as of other departments in surgery. Apart, however, from the operative procedure, it appeared to me, from some experience I have had in lithotomy and other operations on the parts constituting the neck of the adult male bladder, that the means which had been subsequently adopted for rendering the prostatic section thus made permanent were very inadequate. Further, I had been impressed with the advantage that followed the employment of suitable bougies as dilators in cases where the prostate threatened to obstruct micturition (*The Prevention of Prostatic Obstruction*. London: Churchill. 1881). Influenced by observations of this kind, I was led to attach considerable importance to the treatment immediately following section of the enlarged prostate with the view of rendering it more permanent than had hitherto been attempted. The necessity for prostatotomy having been determined by the symptoms presented in each case, as well as by physical examination, I will describe briefly the operation and after-treatment employed.

The former consists in opening the membranous urethra, from the perineum, on a guide, and introducing the finger within the prostatic urethra; the obstructing portion of the prostate is then divided a little to one side of the median line, partly by incision with a curved probe-pointed bistoury from within outwards, and partly by division with the finger when the latter is feasible; a large drainage-tube is then introduced into the bladder. I attach considerable importance to the prolonged use of the drainage apparatus, as the object is to render the section of the prostate not a temporary one as after a lithotomy, when no such provision is made, but permanent. Hence, I am in the habit of retaining these tubes for six, eight, or ten weeks. If, after such periods, on removing the tube, I find that a catheter can be made to enter the bladder easily along the natural route, or if, as it sometimes happens, urine forces its way, in spite of the drainage tube, along the natural passage, I regard these as indications that the object in view has been obtained. The perineal wound is then allowed to close. Let me briefly illustrate this by the narration of one of my earliest cases (*JOURNAL*, June 9th, 1883).

A man, aged 63, came under my care in February, 1883, suffering from a large prostate, which was a constant source of irritation to him. The straining and forcing to urinate were but very slightly relieved by catheterism, and the only way he could get any sleep was by tying the instrument in, and this was generally followed by some cystitis. A fortnight after I saw him, I opened the prostatic urethra by a median perineal incision, and incised the prostate laterally. In doing this I found that, though the prostate was not very large, the orifice of the bladder was much obstructed by one of the nipple-like enlargements, which are sometimes more effectual in rendering micturition difficult and catheterism uncertain than some larger masses. A drainage-tube was introduced and retained for four weeks, when it was removed, and the perineal opening allowed to heal. In this case, so perfect was the drainage that the whole of the urine escaped by the apparatus, and the patient was kept absolutely dry throughout. He remained under treatment for two months after the operation. Three months after he returned to report himself. There was a slight fistulous opening in the perineum at the lower angle of the wound, through which urine sometimes passed in drops during micturition. He could now hold his urine for several hours. Some slight enlargement of the prostate could be felt from the rectum, but this did not appear to have increased. A full-sized catheter was easily introduced without any hitch or obstruction in the prostatic urethra, or at the neck of the bladder, being felt. This patient was seen at intervals for two years after the operation, and remained perfectly well. He has since neglected to report himself. Though I advised him to pass a catheter for himself occasionally, I believe that he did not do so.

Taking the case thus operated on, I have noted the following results: 1. The operation has merely afforded just such a temporary relief as the retention of a catheter or cannula would do as a drain, the condition of the patients, so far as recovery was concerned, being more or less hopeless at the time of operation. 2. The establishment of a permanent vent for the urine through the perineum. In two instances where this occurred the patients exchanged a life of misery for one of comparative comfort. The shorter route here proved most acceptable. 3. The substitution of easy for difficult catheterism. In one patient I thus operated on, though he had to use his catheter afterwards, so long as I heard of him, which was for over two years, he never had any difficulty in passing the instrument, and the bladder continued to be far more tolerant of urine than it had previously been. 4. The complete recovery of the patient, as I have just illustrated.

In discussions relative to the method of operation adopted, it has been pointed out that in some cases of this kind, it must be absolutely impossible to explore the whole length of the prostatic urethra with the finger. This circumstance has never influenced me, or seriously interfered with my carrying out the object in view. I never met with a prostate of such a size or shape as to prevent a staff or guide being passed into the bladder, and where a director will go a knife may safely follow.

But, to proceed, though a more or less permanent vent or opening for the urine, either above or below the pubes, may prove of value in some instances of urethral obstruction due to prostatic hypertrophy, where ordinary catheterism is useless so far as the amount of relief that is afforded, it is not applicable to all cases of this kind. For we must remember that in the former class of cases it is merely a matter of urethral obstruction that we have to deal with, whilst in others the symptoms are for the most part due to the irritation that is provoked in the bladder by the protruding masses of more or less degenerated prostatic tissue. The one is to the other, as well as to the bladder, as urethral stricture is to vesical calculus. The examination of specimens of hypertrophy in connection with their clinical history clearly points in some to the mechanical irritation which protruding masses of more or less prostatic tissue excite in the interior of the bladder. In connection with the treatment of such cases, where the lives of the individuals are not only absolutely useless, but most miserable, I am glad to see there are signs that something now may be systematically done for their relief. Heretofore we have been drawing for any experience we may possess in reference to this point upon what I would speak of as the casualties of lithotomy. There is much, however, in favour of direct surgical interference in these exceptional cases of grave prostatic obstruction and irritation, as the nature of the growth, unlike cancer, renders a return of it improbable. I have now on three occasions deliberately removed by perineal section considerable portions of the hypertrophied prostate, with permanent relief to the patients; and I have no hesitation in recommending the adoption of this course in suitable cases, after, if possible, perineal exploration of the part with the finger. Now, three instances may seem very insufficient data for basing such a recommendation upon; but it must be remembered that this is an exceptional remedy for the purpose of meeting exceptional circumstances. No operation of this or any other kind would in my judgment be warrantable so long as a man can keep himself reasonably comfortable with the use of the catheter, and therefore the percentage of cases where more radical measures would seem to me to be indicated is really extremely small. But we must be provided for these, and though they are oftener met with in the aged and feeble, with reduced powers of repair, whose chances of recovery from any operation are reduced, such means as I am referring to must not be too hastily set aside in these days when the practice of operative surgery, especially in relation to the interior of the body, has been shorn of many of its dangers, and is altogether very different from what it was, even at the commencement of the present century. I am induced to make these observations partly because I think it would be a misfortune if operative procedures were extended to what I would speak of as ordinary forms of prostatic obstruction, and partly because I think the risks attending the removal of protruding portions of the prostate have been somewhat exaggerated, and thus surgeons have been debarred from undertaking operations which, in proper cases, have afforded both immediate and permanent relief. So far, I have been able to do all I desired in the way of removing more or less of the obstructing prostate by proceeding from the perineum, which I have always opened with considerable freedom. In connection with the subject of prostatotomy, or removal of portions of the prostate, under such circumstances as I have indicated, I would take this opportunity of expressing the interest with which I read the paper by Mr. McGill, and the no less instructive discussion which followed it, at a recent

meeting of the Clinical Society. In this paper the author demonstrates by instances how portions of the prostate might be removed by scissors through a suprapubic incision. I am disposed to think that this, on still further trial, will be found the best way to deal with such cases, for it places the operator in view of those projecting masses of degenerated prostatic tissue which invariably protrude towards the cavity of the bladder, and which really are the cause of the distressing symptoms of irritation which accompany them. Care, however, will be necessary, as I have just urged, in the selection of cases for operations of this kind, it being distinctly understood that they are undertaken, not because the prostate is large, but because it has induced symptoms which cannot be alleviated in any other way. You may remove the prostate entirely, but this necessarily renders the individual incontinent for life. Lobulated masses proceeding from an hypertrophied prostate and isolated fibromas in the part, may thus be dealt with with permanent advantage; but this is a very different thing to extirpating the prostate in its entirety, or seriously mutilating the muscular ring, which under all circumstances is essential to the integrity of the bladder as a urine holder.

The following instance, which I will briefly relate, substantiates the proposition with which I opened this lecture; and, as it similarly bears upon the operative point now under consideration, I may consistently close my remarks with it.

In August, 1882, a patient, aged 64, came under my care with symptoms of primary carcinoma of the prostate, which caused bleeding, continuous pain, and irritability of the bladder. As no treatment afforded relief, I did a free median cystotomy, and proceeded with my finger and a blunt gouge to enucleate the prostate and the growth connected with it. In this I succeeded, with the exception of a small portion in front, which I could not get away. There was very little bleeding, and the patient made a good recovery, though he lost power of retaining his urine. Some degree of retentive power eventually returned, but it became necessary to provide him with an apparatus for controlling the incontinent escape of urine from the bladder. He lived for fourteen months after the operation, and was able to return to his work as a stevedore. He eventually died from a recurrence of the disease in the glands of the groin. I showed the specimen of what was removed at a meeting of the Royal Medical and Chirurgical Society, in connection with a discussion bearing upon the subject.

A FURTHER INVESTIGATION

INTO

THE SO-CALLED HENDON COW DISEASE,

AND ITS

RELATION TO SCARLET FEVER IN MAN.

Abstracted from a Report to the Agricultural Department of the Privy Council, read before the Pathological Society, January 17th, 1888.

By PROFESSOR EDGAR CROOKSHANK, M.B.,
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Description of the Streptococcus isolated from the Ulcers of the Teats.—Determination of the Species: Streptococcus Pyogenes.—Acute Abscesses; Distribution of Streptococcus Pyogenes.—Nature of Contagium undetermined in the Exanthemata.—Post-mortem Appearances in the Hendon Cows.—Post-mortem Appearances of Cows from Wiltshire.—Post-mortem Appearances of Inoculated Calves.—Summary.

At a special meeting of this Society I laid before you the results of an investigation which, though admittedly incomplete in some details, enabled me to bring forward evidence to show that the theory that a certain eruptive disease of the teats of cows at Hendon was the very disease which we call scarlet fever in man could not be maintained. That was the object of my communication, while as a side issue—which I, nevertheless, regarded as of greater interest than the overthrow of the above-mentioned theory—I brought forward evidence to show that this disease was in reality cow-pox. I was anxious that these conclusions should be made known without delay, partly to allay the public anxiety, and partly because I wanted to give every opportunity for my statements to be examined. Thus I wished to afford anyone interested in the matter an opportunity for visiting the farms while the details were fresh in the memory of the milkers, and before the disease had totally disappeared from among the cows.

I pointed out that the study of the streptococci which I had isolated was not yet completed. I had yet to study the effects of inoculation, and I was therefore only in a position to say that this streptococcus corresponded morphologically and on cultivation with the so-called scarlatina streptococcus. I inclined to the belief that these organisms were identical, not only with each other, but with certain other organisms which had been regarded originally as distinct species.

I promised further investigation on these points, and I also stated that I thought I should find in a calf at the Royal Veterinary College the *post-mortem* appearances which had been described by Dr. Klein. This animal showed symptoms of septicæmia, and has now been killed and carefully examined. I will therefore proceed to lay before you the details of these and of further inquiries in connection with this subject.

I desire to lay this further evidence before you, so that you may be concerned to-night in discussing the identity of the disease I have investigated with the disease which has been fully described clinically and pathologically by Dr. Cameron and Dr. Klein, and the micro-pathology of which has been so fully illustrated by Dr. Klein in a very extensive series of lithographed plates.

DESCRIPTION OF THE STREPTOCOCCUS ISOLATED FROM THE ULCERS OF THE TEATS.—I will first describe more in detail the chain-forming micrococcus which I found in the discharge from the ulcers.

The individual cocci are small spherical cells with a special tendency after fission, for the resulting elements to remain attached to each other, forming chains or rosaries. There may be a few, three or four, elements linked together, or a number of individuals forming straight or serpentine chains. The size of the individual elements is not always equal, here and there in a chain a larger element appearing.

In plate cultivations the appearances of the colonies are not very striking. They appear to the naked eye, after three or four days, as extremely minute, greyish-white, translucent dots, which, under the microscope, have a slightly yellowish-brown colour. They are finely granular and well-defined. They do not liquefy the gelatine, and after weeks do not exceed the size of a pin's head.

If the surface of nutrient gelatine solidified obliquely is traced over once or twice with a platinum needle, bent at the extremity into a little hook charged with the micrococci, a ribbon-shaped film develops in two or three days at 18° C. This film is composed of minute greyish-white translucent dots or droplets, which can be more easily recognised with the aid of a pocket lens.

According to the number of organisms seen on the jelly, the dots or colonies may be completely isolated or form a more or less continuous film. This film by reflected light has an iridescent appearance like mother-of-pearl, but has a bluish or bluish-grey tint by transmitted light, and with a pocket lens appears distinctly brownish.

The gelatine is not liquefied, and even after several weeks the cultivation is limited to the inoculated area and the individual colonies are not larger than pins' heads. Cultivated on the oblique surface of nutrient agar-agar at 37° C. the growth is very similar, forming a film composed of minute dot-like colonies like grains of sand. But the film appears less transparent, is whiter, and the colonies have a greater tendency to get irregular in form. If inoculated with one tracing of the needle the growth is scanty, but tends to get thicker in the centre than towards the margins, which may have a terraced appearance.

Inoculated in the depth of the gelatine there appears after a day or two, at 18° C., a thread-like growth along the track of the inoculating needle. This delicate thread is found on examination with a pocket lens to consist of a linear series of extremely minute granules. In a few days more the beads or granules become more marked, but even after weeks the cultivation only appears like a string of minute white compact globular masses or grains. In broth at 37° C. the cocci in twenty-four hours create a turbidity, and gradually develop chains varying in length according to the age of the cultivations. Even in forty-eight hours there may be chains of 8, 10 or 20 elements. After a few days the growth settles down at the bottom of the tube in the form of a white deposit, while the supernatant liquid becomes clear again.

Cultivated in milk at 37° C., they convert it in two or three days into a solid mass, while uninoculated control tubes remained liquid. Inoculated subcutaneously in the ear of rabbits, they produce in two days an inflammatory thickening, with erysipelatous redness, and without suppuration.

DETERMINATION OF THE SPECIES: STREPTOCOCCUS PYOGENES.—From its microscopical appearances, its characters on cultivation, and its effect on animals, it is obvious that this organism is iden-

tical in every respect with the streptococcus found in acute abscesses by Ogston, and studied more minutely and named *streptococcus pyogenes* by Rosenbach. For some time my attention has been drawn to the probable identity of the organisms described in puerperal fever, measles, scarlatina, diphtheria, with the chain-forming micrococcus in pus, and I find that, independently, bacteriologists on the Continent have not only considerably extended that idea, but have come to definite conclusions. Formerly, certain differences in the result of inoculation of animals were regarded as establishing a distinction of species; but further researches have shown that often these differences are not constant, and moreover, in the history of the well-known pathogenic organisms we meet with different effects produced by one and the same species. Indeed, we find that the pathogenic effect depends upon several conditions, such as the source of the micro-organism, the dose, the mode and place of infection, and the nature of the inoculated soil. The principal method of attenuation of virus depends upon the fact that by passing organisms through different animals, they assume different properties. Thus, anthrax bacilli from sheep are fatal to sheep, but if passed through mice produce a transitory illness. The microbe of swine-erysipelas passed through pigeons is increased in pathogenic power, but by passing through rabbits is progressively diminished, producing only a mild disease. But not only is the pathogenic effect different, but the organism itself may be altered. Thus, according to Huber, anthrax bacilli from the guinea-pig are thicker than when they are derived from the mouse or sheep, and the latter are thicker than in the rabbit.

Even the *streptococcus erysipelatis* of Fehleisen, which at first was regarded as quite a distinct species, has been identified by many German authorities with the *streptococcus pyogenes*. Similar in their microscopical features and their characters on cultivation, Baumgarten does not consider it beyond the limits of possibility that they might differ in their effects on inoculation, according to the condition with which they had been associated. Thus, when derived from suppuration, there might be a tendency towards the development of an inflammation accompanied with the formation of pus; and when derived from erysipelas, there might be a tendency towards the formation of an erysipelatos inflammation without suppuration; while under other conditions the organisms might lose their pathogenic properties altogether. But apparently there is no longer even this distinction, for these differences after inoculation have been minimised by recent researches. I will give further details of these investigations directly, and I will now proceed to enumerate the various diseases and conditions in which the Continental authorities principally have arrived at the conclusion that we have to do with one and the same micro-organism.

DISTRIBUTION OF STREPTOCOCCUS PYOGENES.—*Acute Abscesses.*—I have already mentioned that a chain-forming micrococcus was first described by Ogston in acute suppuration. It was later studied by the methods of cultivation introduced by Koch, and named by Rosenbach *streptococcus pyogenes*. According to Flugge, after subcutaneous inoculation of mice with a small quantity of a cultivation, there is no result in 80 per cent. of the animals experimented on. Sometimes there is limited pus-formation at the seat of inoculation, sometimes the animals die without any very striking pathological appearances.

Erysipelas.—In erysipelas Fehleisen isolated a streptococcus and described the appearance on cultivation. Fehleisen regarded the organism as quite distinctive, with special characters on cultivation; but Rosenbach pointed out the extremely close resemblance in every respect to the *streptococcus pyogenes*, though he described an apparent difference on cultivation on nutrient agar-agar. Further investigations, however, by other observers showed that these organisms could not be distinguished with certainty, either by their morphological appearances or by their characters on cultivation. Moreover, the marked differences which have been described after inoculation were not obtained by those who repeated the experiments. Passet found that the result of inoculating *streptococcus pyogenes* in the rabbit's ears induced a very similar condition to the result of inoculation of *streptococcus erysipelatis*, and both organisms, by subcutaneous inoculation and by inoculation in the cornea of rabbits and other animals, induced results without any constant difference. Passet showed that the inoculation of the cornea produced the same form of keratitis. Hoffa and Hajek described minute differences at the seat of inoculation, but Biondi and Eiselsberg repeated the experiments, and failed to establish the alleged differences. Baumgarten also investigated this subject, and failed to prove any essential difference, and indeed found much more often than might have been expected from the publications of previous

authors that no marked result at all was obtained on inoculation; and he concluded that *streptococcus pyogenes* and *streptococcus erysipelatis* in their form, cultivation, and their effects on animals were identical. Thus Passet, Biondi, Eiselsberg, Baumgarten, and Fränkel have definitely accepted the identity of the streptococcus associated with suppuration, and the streptococcus associated with erysipelas.

Spreading Gangrene.—From a case of spreading gangrene, which was identical with Ogston's erysipelatosid wound gangrene, and regarded by him as the most intense and dangerous form of erysipelas, Rosenbach obtained pure cultivations of *streptococcus pyogenes* by incising the skin of the limb, and inoculating tubes from the turbid reddish fluid which escaped. That the streptococcus was identical with *streptococcus pyogenes* was ascertained by comparison of the mode of growth, and of the effect on animals with a cultivation derived from pus.

Surgical Fever.—Eiselsberg proved the presence of *streptococcus pyogenes* in the blood of several cases of surgical fever in Billroth's clinic. The organism was identified by cultivation.

Puerperal Fever.—Fränkel isolated from puerperal septicaemia a streptococcus, which he called *streptococcus puerperalis*; he identified it with *streptococcus pyogenes*. Winkel obtained a pure cultivation of a streptococcus from the blood of the heart in a case of puerperal peritonitis. It produced erysipelatos redness when inoculated in the rabbit's ear, and in form and in cultivation was similar to *streptococcus erysipelatis*. Cushing found that *streptococcus pyogenes* was associated with puerperal infection. The cocci were found in endometritis diphtheritica as well as in secondary puerperal inflammation. These observations were confirmed by Baumgarten, and there can be little doubt, from the description, that the streptococcus isolated from puerperal fever by Dr. W. R. Smith, which is regarded by Dr. Klein as a distinct species of streptococcus, is the same organism as the one previously found by the observers just named, and, if so, it is only another manifestation of *streptococcus pyogenes*.

Puerperal Mastitis.—In puerperal mastitis Bumm isolated the *streptococcus pyogenes*.

Diphtheria.—In three cases of typical diphtheria Löffler found a streptococcus. He isolated it by cultivation, found that it was similar in form, characters on cultivation, and effects after inoculation, with Fehleisen's streptococcus of erysipelas. Löffler was not inclined to regard them as identical, because Fehleisen never found his cocci in the blood vessels. Flugge named the organism *streptococcus articularum*, and states that, after subcutaneous inoculation or injection of a cultivation in mice, a large proportion of the animals die, and in the sections of the spleen and other organs the streptococci are again seen. Baumgarten investigated the same subject, and decided that the streptococcus was *streptococcus pyogenes*.

Scarlet Fever.—Croke, in cases of scarlet fever with severely affected throat, found bacilli, cocci, and streptococci in the organs of the throat, and cocci in the internal organs. Croke left it an open question whether these cocci were the specific organisms of scarlet fever, or to be regarded as diphtheritic or septic associates. He inclined on clinical grounds to the latter view. In cases of scarlatinal diphtheria Löffler found the same chain-forming micrococcus which he had found in typical diphtheria. Babes was able constantly to prove in inflammatory products secondary to scarlatina the presence of a streptococcus greatly resembling that in pus. Heubner and Bahrdt, in a fatal case of scarlet fever in a boy, complicated with suppuration of the finger and knee joints and with pericarditis, found a streptococcus identical in form, from the description, with *streptococcus pyogenes*. Cultivations were not made. The secondary affection started from the diphtheritically affected tonsils, which were followed by retro-pharyngeal abscess. Fränkel and Freudenberg examined for micro-organisms three cases of scarlatina with well-marked affection of the throat. In all three cases they obtained cultivations of cocci from the submaxillary lymphatic glands, spleen, liver, and kidney. These cocci could in no way be distinguished from *streptococcus pyogenes* derived from pus; nor from the undoubtedly identical streptococcus which one of them (A. Fränkel) had already repeatedly cultivated in large numbers from puerperal affections. In two of the cases *streptococcus pyogenes* was the only organism present, and in all three cases it was far in excess of other colonies which developed. The organisms were also found in sections of the organs by microscopical examination.

The identity of this streptococcus with *streptococcus pyogenes* and *streptococcus puerperalis* was established by comparison of their macroscopical and microscopical appearances in cultivations on nutrient agar-agar, nutrient gelatine, and in broth, both at the ordinary and at higher temperatures, and also by experiments on animals. They concluded that it could be stated with certainty that the organ-

isms in question did not stand in causal relation to scarlet fever.

They consider that special methods of microscopical and biological research were apparently needed for demonstrating the true scarlet fever contagium, which probably was especially present in the skin.

They consider that the presence of the streptococcus was due to a secondary infection to which the door was opened by the lesions of the throat, a view which was supported by the fact that the organisms were found in the submaxillary lymphatic glands.

They preferred to use the term "secondary" to "complicated" or "combined" infection, because this expresses the fact that by the effect of the scarlatinal virus the soil is rendered suitable for this ubiquitous microbe, when it has once gained an entrance.

From the blood and desquamation of scarlet fever, Dr. Edington cultivated a streptococcus, which he named provisionally *streptococcus rubiginosus*.

Dr. Klein examined eleven cases of scarlet fever. In ten of them the tonsils were ulcerated, and in many severely. From five cases, from four during life, and from one after death, with ulcerated throat, a streptococcus was isolated—in one case in company with staphylococcus aureus. Dr. Klein regarded this chain-forming micrococcus as the contagium of scarlet fever, and named it the *micrococcus scarlatinae*. The Edinburgh commission regarded Dr. Klein's streptococcus as identical morphologically with the streptococcus rubiginosus, and Dr. Woodhead suggested that it was identical with the *streptococcus pyogenes*. In a specimen of tinned milk which had been suspected of containing the contagium of scarlet fever, Dr. Klein isolated a streptococcus, which he regarded as identical with the streptococcus from the scarlet fever cases. If the organism is identical with the streptococcus of scarlatina, it is obvious that improperly preserved milk is another source of the *streptococcus pyogenes*. From the blood of a monkey, which Dr. Klein received two days after death, a streptococcus was isolated, which corresponded with the streptococcus from the Hendon cow disease, from the scarlet fever cases, and from the tinned milk. This monkey died in a house where scarlet fever had occurred.

From the presence of this streptococcus and from the anatomical condition of the viscera, Dr. Klein regarded as without doubt the unity of this disease with acuta scarlatina. The *post mortem* appearances, however, were from description the *post-mortem* appearances of septicæmia, which are common to many diseases besides scarlet fever, and the streptococcus, which can only be regarded as the *streptococcus pyogenes*, may have been either the result of septic infection secondary to some undetermined disease, or it may possibly be accounted for by the animal not being examined earlier than two days after death.

So-called Hendon Cow Disease.—In the disease which Dr. Klein calls the Hendon cow disease a streptococcus was isolated which is identical with the streptococcus from scarlet fever. The Hendon cow disease was regarded as scarlatina in the cow, and the streptococcus as the micrococcus scarlatinae. From the ulcers of the Wiltshire disease I have isolated an organism identical with the description of Dr. Klein's streptococcus. I regard this disease as cow-pox, and the organism as identical with the *streptococcus pyogenes*.

Vaccinia.—In vaccine lymph, Cohn and others have recognised the presence of micro-organisms. Guttman and Pfeiffer have separated the different species by Koch's methods. Guttman found: (1) micrococcus pyogenes aureus; (2) staphylococcus viridis flavescens; (3) staphylococcus cereus albus. (Syn. micrococcus vaccinæ, Cohn, Voight, Garré). Dr. Klein has isolated a micrococcus which he calls streptococcus vaccinæ, and which he states is identical with one of Guttman's cocci. But the *streptococcus pyogenes* may occur in vaccine lymph, and Pfeiffer regards it as the result of contamination. Hence it is suggested that before calf lymph is employed for vaccination it should be tested on a rabbit's ear. If in two days no rash has been produced, the possibility of the presence in the lymph of *streptococcus pyogenes* or *erysipelatis* is excluded. The nature of the contagium in vaccinæ as in scarlet fever is unknown.

Variola.—In the pustules of variola Hlava has established the presence of *streptococcus pyogenes*, and Garré found streptococci in the internal organs in a case of variola hemorrhagica.

Variola and Pemphigus.—In a fatal case of variola complicated with pemphigus, Garré found a streptococcus in the pemphigous vesicles. Whether it was identical with *streptococcus erysipelatis* Garré left an open question.

Foot-and-Mouth Disease.—In 1868 Professor Brown figured a streptococcus in the milk of cows affected with foot-and-mouth disease. From the vesicles of this disease in sheep Dr. Klein isolated a streptococcus which he regarded as the contagium of the disease. From Dr.

Klein's description of its morphological features and characters on cultivation it closely corresponds with *streptococcus pyogenes*. Mr. Watson Cheyne investigated the same disease, and informs me that he also isolated a streptococcus, which he concluded was *streptococcus pyogenes*. Baumgarten also regards Dr. Klein's alleged contagium as most probably the *streptococcus pyogenes*. Against the fact of this organism being the virus of this disease, and in favour of its being *streptococcus pyogenes* we have the results of inoculation experiments. A great number of subcutaneous inoculations in sheep were without any result. One of several guinea-pigs fed with the organism had an abscess, another an ulcer. In sheep fed with the organism two out of nine, after a number of repeated administrations, developed a disease regarded by Dr. Klein as foot-and-mouth disease. There is the possibility of two fallacies: one that the disease, if really foot-and-mouth disease, may have occurred spontaneously; the other that the result which occurred may have been a spurious form of foot-and-mouth disease. The control experiment of exposing a number of sheep with these two sheep to see if the disease spread was wanting.

Cattle Plague.—Semmer cultivated streptococci from the blood and lymphatic glands of a sheep with this disease. A calf inoculated with a cultivation was stated to have died in seven days from cattle plague. The cocci were stated to lose their virulence by successive cultivation, and the weakened cultivations to protect against the virulent disease. I think it extremely likely this was another manifestation of *streptococcus pyogenes*, and that the animal died very probably of septic infection. Dr. Klein is also of opinion, in spite of Semmer's statements, that the specific nature of these micro-organisms cannot be considered to be established.

Swine Fever.—In a severe case of this disease with well-marked intestinal ulceration I have obtained from the blood of the spleen a mixed cultivation of streptococci and other organisms. Isolation and cultivation in the pure state are not yet completed. It was very probably mixed infection with *streptococcus pyogenes*.

Yellow Fever.—Babès observed the presence of streptococci in the vessels of the kidney and liver in yellow fever. Cultivation experiments are wanting. It was probably secondary infection with *streptococcus pyogenes*.

Fièvre Bilieuse Typhoïde.—Babès, in a case of this disease, found masses of streptococci filling the vessels of the liver, kidney, and spleen; probably another instance of secondary infection with *streptococcus pyogenes*.

Measles.—From the blood and from inflammatory post-products in measles Babès isolated a streptococcus, which he describes as closely resembling the *streptococcus pyogenes*.

Endocarditis.—Wysokowitsch found cocci in the internal organs in ulcerative endocarditis, and produced the disease in animals by injection of *streptococcus pyogenes* and other organisms after injury to the valves. Wechselbaum, by microscopical research and by cultivation experiments, proved the presence of *streptococcus pyogenes* in acute verrucous endocarditis. Baumgarten confirmed this. He found *streptococcus pyogenes* alone in one case, and accompanied by *staphylococcus aureus* in another.

Typhoid Fever.—Senger found a streptococcus in a case of typhoid with secondary infection. This was probably *streptococcus pyogenes*, for Dunin found in post-typhoid suppuration the well-known pyogenic organisms, mostly as staphylococci, but sometimes streptococci.

Pneumonia.—Wechselbaum found the *streptococcus pneumoniae*, which resembled *streptococcus pyogenes* and *erysipelatis* morphologically and on cultivation. It was found in twenty-one cases by microscopical research, and cultivated in nineteen. It had no effects on the rabbit's ear. Baumgarten nevertheless regards this as *streptococcus pyogenes*, and is of opinion that it is only a matter of further research to establish that view. In pneumonia after typhoid, Neumann found streptococci by microscopical research in the lungs, and by cultivation isolated a streptococcus. It corresponds with Wechselbaum's streptococcus in not affecting the rabbit's ear.

Empyema.—Rosenbach obtained a pure cultivation of *streptococcus pyogenes* in a case of empyema. Wechselbaum in two cases also established its presence.

Broncho-pneumonia.—Thaon found chain cocci in the lungs of children in fatal cases of broncho-pneumonia, complicating measles, diphtheria, and whooping-cough. They were regarded as identical with the streptococcus isolated by Löffler from diphtheria. Fränkel discovered a streptococcus in the lungs of a case of true croup complicated with broncho-pneumonia, and by cultivation established its identity with *streptococcus pyogenes*.

Progressive Tissue Necrosis in Mice.—Koch produced a disease in mice by subcutaneous injection of putrid blood. In tissue sections a chain coccus was found, and Baumgarten is of opinion that it is very pro-

bably identical with the *streptococcus pyogenes*, but cultivations are still wanting.

Septicæmia Consecutive to Anthrax.—Charrin found cocci in rabbits, examined some hours after death from anthrax. These when isolated produced death in rabbits from septicæmia without suppuration. Chains composed of fifteen to twenty elements were found in all the organs. This was probably another instance of *streptococcus pyogenes*.

Pyæmia and Septicæmia.—Rosenbach examined six cases of pyæmia. From Case No. 1 cultivations of *streptococcus pyogenes* were obtained from the blood of the patient during life. The blood was stroked over the surface of the culture medium, and in two tubes the *staphylococcus pyogenes aureus* was also present. In Case 2, with suppurative pleuritis, the pleura was tapped during life, and cultivations of *streptococcus pyogenes* were obtained. In Case 3, streptococci were found in the metastases in the kidneys, and in the other suppurations that were examined.

In Case 4 the pleura was opened during life, and *streptococcus pyogenes*, associated with *staphylococcus pyogenes aureus*, was cultivated from the fluid which escaped. In Case 5 pure cultivations of *streptococcus pyogenes* were obtained from pus from the knee, which was punctured during life. This case was one of erysipelas and pyæmia after removal of carcinoma of the breast. In Case 6, a case of whitlow, with metastatic abscesses, the patient recovered, and no streptococci were found. Thus in six cases of metastatic pyæmia *streptococcus pyogenes* was found five times, partly in the blood and partly in the metastatic deposits, and twice in company with *staphylococcus pyogenes aureus*. Baumgarten also found the *streptococcus pyogenes* in the internal organs in pyæmic cases, and Eiselsberg found *streptococcus pyogenes* in company with *staphylococcus pyogenes aureus* in the blood of cases of septicæmia.

Congenital Syphilis.—Kassowitz and Hochsinger found the presence of a streptococcus in the tissues and internal organs, and especially in the blood vessels, in fatal cases of congenital syphilis. These observers regarded their discovery as having an important bearing on the etiology of syphilis, but Kolisko pointed out that it was only the result of septic infection with presence of *streptococcus pyogenes*, as had already been established in scarlet fever.

Idiopathic Cerebro-Meningitis.—From the meningeal exudation of a case of apparently idiopathic cerebro-meningitis Banti found by Koch's methods the presence of *streptococcus pyogenes*, *staphylococcus aureus*, and *albus*. The cocci probably entered through an abscess of the jejunum.

Blepharadenitis and Phlegmonous Dacryocystis.—Widmark isolated by cultivation, *streptococcus pyogenes*, and other organisms from these diseases. In phlegmonous dacryocystis Widmark found *streptococcus pyogenes* almost exclusively.

Fatal Case of Leukæmia.—Flugge cultivated a streptococcus from necrotic patches in the spleen of a fatal case of leukæmia. Cultures corresponded very closely with *streptococcus pyogenes*. Inoculation in two rabbits' ears produced similar results to *streptococcus pyogenes*, or *erysipelatis*. Flugge called it *streptococcus pyogenes malignus*, but concludes that it is probably identical with the streptococcus from pns.

Earth.—Nicolai, and later Guarneri, isolated a streptococcus from soil. Microscopically it could not be distinguished from other streptococci. Baumgarten is of opinion that it is neither in form nor in cultivation to be distinguished with certainty from *streptococcus pyogenes*.

Air.—Emmerich succeeded in proving the presence of chain cocci in the air of a hospital where erysipelas had broken out. These cocci in their form, their characters on cultivation, and in inoculation results, were identified with the *streptococcus erysipelatis*.

Various Rotting Substances.—Baumgarten states that in the most various substances undergoing putrefaction streptococci are always found, which morphologically are exactly similar to the *streptococcus erysipelatis*. Baumgarten, therefore, regards it as quite possible that the *streptococcus erysipelatis*, or *pyogenes*, is essentially a saprophytic organism, that is to say, an organism which may be found wherever there is decaying organic matter, and that its parasitism is only incidental.

NATURE OF CONTAGIUM UNDETERMINED IN THE EXANTHEMATA.—I think, therefore, that the results of these numerous investigations constitute a mass of evidence in support of my opinion that in a disease which is accompanied with a lesion of the skin or mucous membrane, and in which the blood and tissues are profoundly affected by the virus of that disease, micro-organisms may gain an entrance into the circulation and escape destruction.

The occurrence, therefore, of *streptococcus pyogenes* in diphtheria, scarlet fever, vaccinia, variola, measles, typhoid, etc., must be re-

garded as a secondary result, and associated with septic or pyæmic complication—and I am forced to the conclusion that, excepting negative evidence, bacteriology has not assisted us in the least in the determination of the real nature of the morbid agent or actual contagium of the exanthemata.

That there are certain diseases which are due to micro-organisms is, I am sure, accepted by all modern pathologists, but we are far from having solved the nature of the contagium of all communicable diseases. In many cases, as in hydrophobia, where bacteria have been brought forward as the specific agents, they have been gradually substituted by the less definable term *virus*. Misapplied bacteriology will be both misleading and mischievous, and this criticism is applicable if a micro-organism is maintained to be the actual contagium of a disease, such as scarlatina, in the face of obvious fallacies and without affording the evidence which is usually regarded as necessary for admitting a causal connection.

POST-MORTEM APPEARANCES IN THE HENDON COWS.—A great deal of importance appears to have been attached to the *post-mortem* appearances which were found by Dr. Klein in the original Hendon disease. This is all the more surprising inasmuch as it was presumably not only a non-fatal form of scarlatina, but of such a very mild type that, according to Dr. Klein, neither feeding capacity nor milking power was affected, nor was the body temperature abnormal. Putting aside the danger of coming to conclusions from two *post-mortem* examinations, I will pass on to quote fully what the *post-mortem* examination of these two cows revealed.

In cow 4, killed January 9th, we read as follows:—

Naked Eye Appearances of Cow 4.—“On opening the chest, it was found that both lungs exhibited on the upper posterior lobes numerous petechiæ under the pulmonary pleura, the peripheral lobules of these parts being much congested. There were numerous adhesions by recent soft lymph between the lower lobes of the lung and the costal pleura, particularly laterally. In the liver there were several reddish streaks and patches reaching from the surface of the organ to a depth of about a quarter of an inch. In these patches the liver tissue was much softened. The spleen and kidneys, with exception of slight congestion, appeared normal. In the placenta there were numerous petechiæ.”

Microscopical Examination of Internal Organs of Cow 4.—“Lung.—Sections made through the portions above mentioned as containing much congested lobules show not only great congestion of the blood vessels, large and small, but a large amount of hæmorrhage; blood in substance being present in the air vesicles and infundibula, in the lymph spaces of the interlobular septa, and in the tissue and lymphatics of the pleura.

“Liver.—Under the capsule, as well as in the substance of the liver, there occur in connection with the interlobular branches of the portal vein, larger and smaller foci of inflammation, consisting in the presence of numerous round cells. Some of these foci are several millimetres in diameter, others are very small. From the interlobular tissue the inflammation extends into the lobules between the liver cells. The liver cells of these lobules involved in the inflammatory process are swollen up, and many of them are undergoing disintegration. In some of these foci, particularly those situated in the vicinity of the capsule, the round cells are so much crowded that given foci look almost like miliary abscesses. The blood vessels are much distended and filled with blood.

“Kidney.—Sections showed well-marked glomerulo-nephritis, infiltration of the sheath of the cortical arterioles, with numerous round cells; the epithelium of the convoluted tubules swollen, opaque, and, in many places, disintegrating.”

Naked-Eye Appearances of Cow 3.—“In the lungs there were numerous lobules, especially in the peripheral parts, which showed great congestion; there were, in addition, pleural adhesions; the cortex of the kidney was congested, but its medulla was pale.”

Microscopical Appearances.—“The lungs and kidneys showed, on microscopic examination, the same appearances as in Cow 3; in addition, there was a good deal of round cell infiltration in the wall of the infundibula and bronchi in the lung and around the arterioles in the kidney.”

Such *post-mortem* appearances can hardly be regarded as of primary importance. At most they are suggestive of some coincident affection. In both the description of the naked-eye appearances suggests pleurisy, or possibly some pleuro-pneumonia. The microscopical appearances in both are suggestive of septic poisoning.

POST-MORTEM APPEARANCES OF COWS FROM WILTSHIRE.—I have already mentioned that a cow from the outbreak which I investigated in Wiltshire was sent to the Brown Institution. Having duly received

notice of the *post-mortem* examination, I accompanied Professor Brown; and inasmuch as there was no suspicion of any disease complicating the eruptive disease of the teats, it was not surprising to find that naked eye appearances at the *post-mortem* examination were practically negative. All that could be noted of the viscera was as follows: petechiæ on the spleen; liver, a few whitish irregular spots; fatty patches on surface of the cortex of the kidney.

I have already mentioned that there was an unusual condition of ulceration in this cow, and milking had become a matter of great difficulty to inexperienced hands. The result was that after the cow had been at the Royal Veterinary College, the udder became enlarged, and the teats red and swollen. At the *post-mortem* examination an incision into the udder revealed an enormous abscess.

At the *post-mortem* of Cow 2, which was also sent to Dr. Klein, there was a somewhat similar condition, and the visceral changes were negative.

I shall refer to the examination of the ulcers of these two cows later, but it is interesting to observe that microscopical sections of the kidney of the Wiltshire cow No. 1 revealed a similar condition to that found in the kidney of Dr. Klein's Hendon cow.

Microscopical Examination of Kidney of Wiltshire Cow 1.—Sections showed glomerulo-nephritis; infiltrations round Bowman's capsule with round cells; infiltration of the sheaths of the vessels with round cells, especially of the cortex; blood-vessels in the boundary zone of the medulla engorged; arterioles of the glomeruli engorged, and slight hæmorrhages into the capsule; epithelium of the convoluted tubules granular, opaque, and in some parts breaking down.

Inasmuch as sections of the kidney of cow No. 1 (Wiltshire) show similar appearance to those in sections of Dr. Klein's Hendon cow No. 4, the appearances in the latter can hardly be regarded as a necessary indication of the disease being scarlatina in the cow.

Microscopical Appearances of the Ulcers of (Wiltshire) Cows 1 and 2.—Cow 1: Sections of a portion of the spreading ulceration of the teat, showed only a superficial ulceration, not extending far into the depth of the tissue. There were marked hæmorrhages in the corium. These appearances were somewhat different from the appearances in sections of a circumscribed ulcer from a teat of (Wiltshire) cow 2.

Sections of this ulcer also show infiltration of the corium with round cells, but the ulceration extends deeply into the tissue. There are spaces or cavities in the stratum Malpighii, especially in the superficial layers. These spaces are empty or filled with granular matter and round cells, and are separated from one other by trabeculae. In short, it may be said that the appearances under the microscope compared side by side with Dr. Klein's illustration of an ulcer from a Hendon cow (Plate x, fig. 12) are so strikingly similar, that Dr. Klein's illustration looks as if it might have been drawn from a section from (Wiltshire) cow 2.

It is interesting also to note that Dr. Klein states that appearances of microscopical sections of ulcers of the Hendon cows "recalled vividly the condition observed in the vesicles of cow-pox."

POST-MORTEM APPEARANCES OF INOCULATED CALVES.—Though the *post-mortem* appearances in the Hendon cows cannot be regarded as throwing much light upon the question, this is not the case when we come to examine the *post-mortem* appearances of calves inoculated with the scraping of an ulcer or with cultivation of the streptococcus from cases of scarlatina. These *post-mortem* appearances are very striking, but they cannot be regarded as characteristic of scarlatina; they are in reality the *post-mortem* appearances of septic infection, and common, therefore, to many diseases. For example, let us take the case of Calf No. 1, which was inoculated in the skin of the groin and the belly with a subculture of streptococci from the blood of a scarlatinal patient. This calf was killed, and the *post-mortem* appearances were as follows:—

The lymphatic glands of the groin much congested and swollen, some of them dark red, almost black. Similar appearances were found in some lymph glands in the subcutaneous tissues of the throat, and in the pelvis; in some, also, of those along the aorta and vena cava, in the bronchi, and in the anterior mediastinum, along the trachea, and along the stomach and mesentery. Many of these glands were either partially or wholly of a dark red colour, when cut into bloody fluid easily oozed out. Those that were not dark red were soft and juicy, and clear fluid oozed from them when cut into. Some of the dark red, almost black glands—for example, some in the bronchi, the glands along the aorta and vena cava, and in the pelvis—were not larger than a pea, others as large as a bean, and up to the size of a walnut. Sections examined under the microscope showed a large amount of blood effused *en masse* into the cortical and medullary

lymph sources, and into the tissue of the lymph follicles of the cortex, by which the adenoid tissue of these latter had become to a great extent destroyed.

"Both lungs were congested in the upper and middle portions, groups of lobules in the latter being dark red and hepatized and not floating in water. The pericardial cavity was filled with several ounces of clear liquid; patches of soft pseudo-membranes were found on the root of the aorta and pulmonary artery, on the wall of both anfringes, and particularly along the free margin of the latter. The liver was congested, and showed dark red patches of softened liver tissue. The spleen was enlarged, dark in its substance, with numerous petechiæ in and underneath the capsule. Both kidneys showed much congestion."

The result of microscopical examination of the organs of this and other calves Dr. Klein sums up by saying that the appearances "closely resembled those found in the viscera of cases of fatal human scarlatina."

I will now give for comparison with this account the *post-mortem* appearances of the calf, which was killed at the Royal Veterinary College. This calf had been inoculated in the groin with a scraping from an ulcer of (Wiltshire) cow 1. During the second week after inoculation it was very dull, and did not feed well. It had diarrhœa for several days, and passed bloody urine. It was noticed that it had a slight cough, which got worse. The place of inoculation was suppurating freely, and there was considerable inflammatory thickening around the seat of inoculation. The animal was killed thirty-six days after inoculation.

The *post-mortem* examination of the viscera was made under the supervision of Professor Brown and Professor Axe. I have submitted the microscopical specimens to Professor Brown. I will now give a detail account.

Naked Eye Appearances: Lungs.—Upper and middle lobes of each lung adherent to the walls of the chest; patchy congestion, especially of middle lobe, and patches of recent adherent lymph. Posterior parts of the upper lobes of both lungs were completely consolidated, and on section varied in colour from brick-red to greyish-white. The interlobular tissue was infiltrated with inflammatory products, which mapped out the tissue of the lung in small indurated areas, in which the tissue was granular looking and friable. These appearances in the upper lobes were due to pleuro-pneumonia. Scattered through the other lobes of both lungs were white, mostly firm, nodules raised above the level of the surface of the lung. They were surrounded by a zone of congestion, and in some cases sections were composed of indurated, in others of friable, lung tissue. In the posterior part of the right upper lobe there was a recent infarct. *Bronchial Glands.*—The bronchial glands at the roots of each lung were enlarged to two or three times their natural size, and were hard and firm in section. *Pericardium.*—The parietal surface of the pericardium was covered with recent adherent lymph. The visceral surface of the pericardium was normal. *Aorta.*—Along the external surface of the aorta were chains of enlarged lymphatic glands connected by dilated lymphatic vessels. These glands were dark red or purplish in colour, from hæmorrhage into their substance. *Heart.*—The heart was normal and the endocardium not stained. *Esophagus.*—There were chains of red glands on the œsophagus similar to those along the aorta. *Mesenteric Glands.*—The appearance of the mesenteric glands was very striking. The mesentery was dotted along the lymphatic vessels with glands, varying in size from a large shot to a pea, which were deep red or prune coloured. In addition there were here and there enlarged glands, without hæmorrhage into their substance, and greyish in colour. *Spleen.*—There were scattered petechiæ on the spleen. *Kidneys.*—The kidneys were firm on section, and there was marked congestion in both, while it was more pronounced in one kidney than the other. *Liver.*—The liver was congested, the congestion being more marked in patches.

Microscopical Examination.—Lung.—Sections from the consolidated upper lobes showed thickening of the pleura and infiltration with round cells. The exudation filled the alveoli, and was breaking down in some cases in the centre. The vessels were injected, and there were hæmorrhages into the alveoli. The periphery of the lobules was infiltrated with round cells. *Kidney.*—Slight infiltration around glomeruli and arterioles; epithelium of convoluted tubes, granular and disintegrating, hæmorrhage in straight tubes, and engorgement of vessels. *Liver.*—Inter- and intra-lobular vessels engorged; intratubular collections of round cells displacing the liver cells; interlobular connective tissue infiltrated with round cells; liver cells granular and cloudy.

There can be no doubt from the symptoms and *post-mortem* appearances that this calf suffered from septicæmia, as the result of introducing septic matter subcutaneously in the groin; and the *post-mortem*

appearances, excluding the consolidation of the apices due to the coincident pleuro-pneumonia, almost reproduce the *post-mortem* appearances observed by Dr. Klein. That the micrococcus from scarlet fever cases should fail to produce in calves fever, ulceration of the tonsils, or scarlatina rash, or any condition resembling clinically the disease in man, and yet that the result should be regarded as scarlatina in the calf, is quite untenable; but I am quite ready to agree with Dr. Klein that similar lesions may be produced in calves, whether inoculated with scrapings from ulcers, or with the streptococcus from the Hendon cows, or with the streptococcus from cases of scarlet fever. The micro-organism is a septic organism (*streptococcus pyogenes*); and its inoculation or the inoculation of septic lymph may produce septicæmia.

SUMMARY.—From the evidence I have adduced, and from the facts that I have described, I am led to the belief that:

1. The nature of the contagium of scarlet fever is unknown.
 2. The micro-organism regarded by Dr. Klein as the contagium is the *streptococcus pyogenes*.
 3. *Streptococcus pyogenes* is found, sometimes in company with *staphylococcus pyogenes aureus*, as a secondary result in scarlet fever and many other diseases.
 4. A streptococcus was first observed in scarlet fever by Crooke, later by Löffler, Henbner, and Bahrdt; but its exact relation to scarlatina, and its undoubted identity with the streptococcus from pus and puerperal fever, was definitely established in 1885 by Fränkel and Freudenberg.
- To these I would add the following statements:
5. Both the Wiltshire and Hendon cow diseases were called cow-pox by people on the farms.
 6. Both diseases correspond in their clinical history.
 7. The ulcers on the teats correspond in naked eye and in microscopical appearances, and the latter "vividly recall the appearances of cowpox."
 8. Calves inoculated from the discharges of the ulcers are similarly affected.
 9. *Post-mortem* examination of such calves, or of calves inoculated with streptococci isolated from scarlet fever cases, show similar appearances.
 10. The *post-mortem* appearances in such inoculated calves are the result of septicæmia.
 11. There are no specific visceral changes in cow-pox apart from complications or coincident affections.
- I propose to publish shortly the history of the lad shown at the Society, the full details of the calves inoculated from the boy, and of calves inoculated from those calves, the results of revaccination of those calves, and further details from Wiltshire and Gloucestershire.

RUPTURE OF THE SAC IN THE EARLIER STAGES OF TUBAL PREGNANCY, WITH NOTES OF TWO CASES.

By WILLIAM JAPP SINCLAIR, M.A., M.D.,
Honorary Physician to the Southern Hospital for Women and Children,
Manchester.

CASE I. *Tubal Pregnancy: Sudden Death: Necropsy.*—During the greater part of 1880 a patient, nullipara, was under treatment for an enlargement of the uterus, with retroversion. In November she did not menstruate, and in December she had symptoms which suggested pregnancy, but they were very slight, and from the history and circumstances it seemed an improbable event. On January 1st, 1881, she was taken suddenly ill, with faintness and pain in the bowels. The medical man who was sent for in the emergency found the chief symptom diarrhœa with tenesmus. The patient sank rapidly, and when I arrived in the evening, in response to a telegram, she was dead.

From my previous knowledge of the case, on learning the details of the fatal illness, I concluded that the patient had died of hæmorrhage from the bursting of the sac of a tubal pregnancy. We were permitted to make an examination of the abdomen, and we found it full of blood. There was a tubal pregnancy apparently of about six weeks' duration; the sac was near the middle of the left Fallopian tube, and the orifice, from which blood oozed on disturbing the parts, was on the posterior surface, so that there was a free opening into the pelvis. The uterus contained several fibroid tumours projecting on the serous surface, the largest of them about the size of a walnut. In cutting through the abdominal walls, which was done carefully as if in the performance of an operation on the living, we were struck with the

appearance of the blood through the peritoneum before it was cut. As soon as the peritoneum was reached we knew there was blood in the abdomen, because of the black colour apparently given to the peritoneum by the blood behind it.

It will be noted in the history of this case that the pregnancy was not capable of definite diagnosis. It was too early for certainty in almost any case; but in this case there were the previous symptoms of diseased uterus and disturbed menstruation, the uterus was always enlarged to the touch, owing, as was found after death, to the presence of small fibroids. The sound was not used after the menstrual period had been missed, and there was no sort of examination to excite unusual movements of the uterus or tubes for nearly a month before the rupture of the sac.

When the rupture took place, it will be observed that the disturbance set up in the bowels became the most prominent feature in the case, and so obscured the diagnosis that the experienced practitioner who was called in on the emergency concluded that some unusual bowel complication had occurred.

This case made a deep impression on my mind, and I resolved that if ever the opportunity occurred to me, I would operate at once, and endeavour to stop the hæmorrhage by surgical means. It seemed a simple operation, and the only question was how far the bathing of the whole abdominal cavity in blood, which could not possibly be completely removed, might militate against a successful result. Very few cases of operation in the early stage had been published at that time, and the proceeding did not seem so common-place then as it may appear now.

CASE II. *Tubal Pregnancy: Rupture of Sac: Laparotomy: Recovery.*—The next case is that of a patient of Mr. Priestley, of Fallowfield, at whose suggestion I had the opportunity of helping in the treatment. She was residing at a distance from home at the time of the rupture of the sac. Mr. Priestley's notes of the case prior to operation are as follows:

"The patient, Mrs. —, between 30 and 35 years of age, vii-para, after menstruating regularly for more than twelve months from the birth of the last child, missed two menstrual periods, and was, when the present symptoms commenced, a week past the second. A week after the first missed period there was a slight brownish discharge, which subsided after a two days' rest on the couch.

"On February 13th, 1887, the patient 'believes she caught cold.' On February 15th, after a hasty tea, she hurried to catch a train. Hardly was she seated in the carriage when she was seized with a 'sudden terrible pain, paleness, vomiting, and faintness.' She was carried out of the train on its next stoppage, in a few minutes, and conveyed home, when her abdomen was found to be 'distended like a drum.' The temperature was normal. On February 16th the pain and faintness continued, and the temperature was found to be 101°. She also complained of muscular pain in the limbs. The pain diminished towards evening, under the influence of sedative medicine. On February 17th the intense abdominal pain returned quite suddenly at 3 A.M., and at 5 A.M. a clot of blood passed by the vagina. More morphine was administered, and the pain abated towards evening. On February 19th, at 3 A.M., four days after the first attack of pain in the abdomen, the patient was once more seized with intense abdominal pain, and immediately became collapsed and pulseless. During the day she was seen by Mr. Priestley, and subsequently by Dr. Sinclair. She had then rallied. The abdomen was much distended and tympanitic; it was very tender all over, but extremely so beneath the ribs on both sides; there was dulness in both flanks, and in a zone one inch above the pubes (horizontal position of the body). The uterus was high up, and its movements were slightly impeded; the left broad ligament was somewhat full and stiff. The cervix was soft, the os externum patulous, and a trickling discharge of blood still continued. The pulse was over 120, and very soft; the temperature was somewhat above the normal. Diagnosis: rupture of a tubal pregnancy.

"It was determined to open the abdomen at once, and, if the diagnosis proved correct, to proceed to check hæmorrhage by surgical means, and remove the ovary and tube, and, if possible, the ovum."

The operation was performed with as much attention to antiseptic precautions as the circumstances of the emergency would permit. It seemed tolerably certain that hæmorrhage had repeatedly occurred when, in the process of rallying, the blood-pressure had reached a certain point, and there was every reason to fear a recurrence, which might be fatal, if we delayed till morning. The operation was, therefore, proceeded with immediately after our consultation, which was held late on the night of February 19th. The incision was carried as quickly as possible down to the peritoneum, and when this was reached any possible shade of doubt as to the nature of the case which might

have lingered in the mind of anyone present was removed. Although the light was not all that could be desired, the presence of a black liquid behind the peritoneum was most evident. As soon as the peritoneum was cut, the black blood spurted out like the fluid from a tense monocystic ovarian tumour when it is wounded. The amount of blood which flowed out was enormous. It could not be measured, merely estimated, and it would be easy to exaggerate; but it seemed to my colleagues and myself as if the quantity was about as great as would be the whole amount of blood in the body of a healthy woman of the patient's size. When we remember that the blood had been re-making, and bursting out to an almost fatal extent for four days, this estimate may be considered fairly accurate. When the blood, which was quickly pressed out by manipulating the abdominal walls, ceased to flow freely, the distension had disappeared; the belly was quite flat. Several handfuls of clots were now cleared out of the pelvis, and bright arterial blood could then be seen welling up rapidly through the black fluid which remained. Fresh hæmorrhage had evidently already begun. The ruptured sac was found at the extreme end of the right Fallopian tube, with very active hæmorrhage going on from its interior. The tube and ovary were ligatured in the ordinary way, and removed. No embryo was ever seen.

There could be no possibility of washing away all the extravasated blood, as it had been evidently bathing every abdominal organ up to the diaphragm. The pelvis was emptied with the help of sponges, and all the blood within reach was washed out by means of a warm saline solution—common salt in boiled water, $\frac{1}{2}$ per cent. This was poured from a jug, while the intestines within reach were gently moved about by two fingers of the left hand introduced through the wound. A considerable quantity of the fluid was left in the pelvis, a large Koerberlé's tube was put in position, and the abdominal wound was closed in the usual way. As it was anticipated that a large quantity of blood and sanguineous fluid would be discharged from the tube, the dressing applied consisted only of cotton wool and lint wrung out of corrosive sublimate solution, and packed round and above the orifice of the tube. This was kept in position by means of a flannel binder gently applied.

A large quantity of fluid was discharged into the dressings, and a large quantity was also drawn through the tube by means of an ordinary two-ounce glass syringe, with a piece of india-rubber tubing attached, of such a calibre as to enable it to be easily passed through the glass tube to the pelvic floor. The syringe was also frequently used to inject warm saline solution in the hope of breaking down the blood-clots and encouraging the discharge of the disintegrated blood within reach. The result was highly satisfactory. The bloody fluid continued to flow freely for several days, and the intestines and omentum seemed to be longer than usual in closing in round the tube and obstructing the free gravitation of the fluid to the pelvis.

The patient bore the operation well, and soon showed signs of improvement. The pulse, which was very quick and soft before the operation, fell to 100 within twelve hours; in two days it fell to 90, and never again rose appreciably higher. The temperature varied between 99° and 100°, for three days. During this time vomiting was severe, and though continuous since the administration of the anæsthetic, it began to cause us uneasiness. The pulse, however, continued satisfactory. From February 24th to March 8th, the temperature rose and fell from 99° to 102°. There was considerable hardening of the pelvic floor on the right side, with partial fixation of the uterus. Hardening could also be felt along the course of Poupart's ligament on the right side.

The hæmorrhage from the uterus, which had been almost continuous, though slight, before the operation, completely disappeared until March 1st. It came on then with a molimen like menstruation; the day before its appearance, the temperature rose for the first time to 102°. The glass tube was removed on February 28th; it had been kept in an unusually long time, owing to the continued flow of disintegrated blood, and precautions were taken to prevent it doing harm by pressure. A rubber tube was substituted for the glass one, and this was gradually shortened, and finally removed on March 3rd. The rest of the history has no event worth noting; the patient gradually recovered, and the last report of her, in June, was to the effect that she was quite well. Keeping to the experience of myself and of the gentlemen with whom I was associated in the treatment of the two cases outlined here, I should like to call attention to a few points.

1. There was an entire absence of symptoms pointing to abnormal pregnancy in both cases. Neither of them could exceed two months, and in both the Fallopian tube was distended to the bursting point without giving rise to such uneasiness as to evoke any complaint from the patient.

2. When the rupture occurred there were produced, in addition to

the signs of internal hæmorrhage, symptoms having no apparent relation to the pelvic viscera, and sufficiently prominent to obscure the diagnosis. This is a striking fact in the history of the first case, and, though Mr Priestley had diagnosed the second case, it was with considerable doubt as to the value to be assigned to the apparently irrelevant symptoms.

3. In making a vaginal examination in the second case it was found that the uterus seemed to be impeded in its movements, not fixed, and not free. During the operation the uterus was found to be surrounded with blood-clots, which explained the peculiar impression that had been conveyed in the examination. This fact must be of some diagnostic value in any similar case in which the hæmorrhage has not proved rapidly fatal, so that blood-clots have had time to form.

4. A minor point, to which attention has already been called, was the appearance of the black blood through the uninjured peritoneum. This is obviously of some importance where any doubt exists as to the diagnosis. The aspirator needle, if used to clear up a doubtful case, might fail to give reliable information if its point happened to be inserted into a blood-clot.

5. The use of the saline solution seems to me to be specially suitable for cases of this kind. Owing to its solvent effect on the blood, it probably aided greatly in carrying away all the fluid, which might have been subjected to the risk of infection by exposure or manipulation during the operation. To the viscera with which it came in contact it would be as irritating as non-sterilised blood-serum.

6. A physiological point of some interest may be noted. Mr Priestley and I examined the urine, with the object of ascertaining whether it contained an unusual amount of colouring matter, or any abnormal constituents resulting from the presence of such a large amount of blood in contact, under pressure, with the peritoneum; but the results were entirely negative.

THREE UNUSUAL CASES OF ABDOMINAL SECTION IN PRIVATE PRACTICE,

UNDER THE CARE OF HERBERT W. WHITE, L.R.C.P. ED., L.F.P.S. GLAS.,
Bradford.

By STUART NAIRNE, F.F.P.S.G.,

Surgeon to the Glasgow Samaritan Hospital for Women.

THE three following cases are unusual, in so far as their occurrence so soon one after another in the practice of one man is concerned, in the condition of the patients that preceded the operations, in the various guesses as to the diagnosis, in the apparent gravity of the cases, and in the very pronounced benefit resulting from the use of antipyrin. The whole after-treatment of the cases was conducted by Mr. White, to whom I am indebted for the histories, and by whose active and judicious management the cases were undoubtedly saved.

CASE I.—Mrs. G. came under the care of Mr. White on June 4th, 1886. She was suffering from latent peritonitis, with symptoms of septicæmia. She was grey, collapsed, dull, and semi-delirious; there was albumen in her urine; her pulse was 140, and her temperature 104° F. She was vomiting frequently, and had wasted considerably away. A large tumour protruded from the abdomen, filling the pelvis, and extending to the umbilicus. The case looked so hopeless that operation was delayed, and the patient put on tonic and antifibrile treatment. She had been allowed to get into this state for fear of falling into the hands of an operator, when, she was told, her death would be assured. She hung on for several days, and at length the operation was performed, June 29th, under an attack of peritonitis, her temperature being 102° and her pulse 120. Adhesions were universal, to the abdominal walls, the bowels, and the pelvic viscera. The pedicle was broad and thin. It was tied with the Staffordshire knot. A considerable number of ligatures were left inside the peritoneal cavity. The abdomen was carefully sponged out, not washed, and the incision in the abdominal walls entirely stitched up. She had a bad night, with vomiting, and her temperature rose to 104.6°. The operation was performed at 2.30 p.m., and at 8 p.m. her temperature was 104.6°. She was then given a powder of 20 grains of antipyrin, and the improvement was so marked and immediate as to establish the value of the drug in this instance. The temperature oscillated between 99.4° and 100.4° for some time, but never rose beyond the latter after the first powder of antipyrin. Troublesome diarrhoea commenced on the third day after the operation, and continued till July 9th, when her temperature became normal, and she made uninterrupted progress towards convalescence. In the first week in August she was well enough to go to Morecambe,

and on her return, September 5th, she expressed herself as feeling well, and had walked four miles the day before her return. The cyst was multilocular, filled with pus and grumous blood, which emitted a most fetid odour. After the operation I should also note she passed large quantities of fetid pus *per vaginam*.

CASE II.—Mrs. H. had suffered a long time from headache, pain in the groins, back, arms, and sides. She complained of a "catching in her breath." She had also bearing-down pain, pain on defecation, and dyspareunia. She was quite unable to follow her occupation. On examination the os was found indurated, patulous, and the womb enlarged one inch. A small, movable tumour, exquisitely painful to touch, was found in Douglas's pouch, and diagnosed as a prolapsed ovary. It was the right ovary. She had never been treated for uterine complaint. The "headache" and the "catches in her breath," and the other subjective phenomena, had been treated with no benefit. Operation for removal of the ovary was performed on June 30th, 1886. She vomited exceedingly after the operation, but did not become collapsed. After the first three days recovery was uninterrupted, and she was able to leave home for Bridlington in the first week of August. On September 6th Mr. White reports: "She has returned from Bridlington stronger in every way. She has resumed her household duties, all the symptoms are abated, dyspareunia is gone." This last statement is particularly interesting and important.

CASE III.—Mrs. P. had fallen downstairs a year ago, and afterwards complained of severe pain in her back. There was a history of another fall, two months after this, with a renewal of the pain, and finally, three months later, whilst lifting a weight, she became "dead sick" with a return of the old pain. From this time the pain persisted, and gradually became worse. When seen by Mr. White on July 19th, 1887, she was very much exhausted, sweating, cachectic, and suffering great pain. Her pulse was 120, and temperature 102° F. She had been totally confined to bed since April. Her complaint had been variously diagnosed as hæmatocele, blood-clot, and general treatment had been adopted which did her no good. Examination *per vaginam* revealed a hard, ovoid tumour in Douglas's pouch, painful to touch, and about the size of a hen's egg. Abdominal section was performed under these unfavourable conditions on July 22nd. The tumour was found attached to the right corner of the uterus, and the ligature had to embrace part of the muscular tissue of the uterus for its complete removal. It was a scirrhous tumour, and weighed within a few grains of two ounces. She passed a very bad night after the operation, vomiting; was collapsed, and altogether very hopeless looking. On the third day, however, she began to mend, and thereafter made good progress towards recovery, she was able to leave for Morecambe on August 23th. Mr. White's report on September 6th says: "She is not entirely free from pain, but is greatly improved and able to get about."

These cases have been put on record as being an encouragement not to abandon any case, however bad, where there is a reasonable prospect of completing an operation. In all these cases the wound healed by first intention, and the stitches were removed about the eighth day. The second case had no trained nurse; the nursing in the first and third cases, provided by the Bradford Nursing Institution, was excellent; and the happy result of all three cannot but be a recommendation to the performance of such operations in patients' own homes.

RUPTURED EXTRA-UTERINE GESTATION SUCCESSFULLY TREATED BY ABDOMINAL SECTION.

By JAMES McNAUGHT, M.D., M.R.C.S.,
Newchurch-in-Rossendale.

As the treatment of ruptured Fallopian pregnancy by abdominal section is still *sub judice*, the following case successfully treated in that way is worth recording.

The patient was 34 years of age, and had been married for ten years. She had never been pregnant before, and had menstruated quite regularly up to two months previously. Menstruation had been always painful and rather scanty. During the last few days she had had pain at the lower part of the belly, and the bowels had been a little relaxed. At 3 P.M. on July 21st she went to the closet to pass water, was suddenly seized with severe pain at the lower part of the belly, and fainted. She managed after recovery to struggle into the house, and knock for her next door neighbour. She had again fainted several times before my arrival at 6 P.M. She was then pale and blanched, and had evanescent attacks of syncope and pulselessness, but in the intervals was able to tell me by degrees what had taken

place. She suspected she was pregnant; the breasts had been tender and enlarged, and she had had morning vomiting for two or three weeks. She complained of great tenderness at the lower part of the abdomen, chiefly on the left side, but also a little on the right. On examination the uterus was found pushed down generally and fixed; and as she lay on the left side a distinct bulging was felt on the left side of the pelvis pushing down the vagina. Simulants were given freely; and Dr. Green, of Rawtenstall, was sent for at my request.

The following day she had somewhat recovered; the pulse was perceptible, but thready; much pain in abdomen; objective signs unaltered. The diagnosis of ruptured extra-uterine gestation was made, and after much pressing she consented to abdominal section. Her circumstances, she stated, entirely precluded the summoning of an operator from Manchester, and I was therefore somewhat reluctantly compelled to undertake the operation myself, with the kind assistance of Dr. Green, of Rawtenstall. An incision about four inches long was made and carried down to the peritoneum by careful dissection. The peritoneum, which seemed unusually thickened, bulged up slightly, and when incised by the point of the knife, venous blood escaped freely, which at first took me somewhat aback. As, however, I felt on examination that there was nothing but fluid behind the membrane, the intestines being far enough away, I freely slit it up to the length of the incision. A quantity of dark, venous, fluid blood then gushed out of the abdominal cavity. The rest was mopped out, and a few clots taken away from the bottom of Douglas's pouch. In the right Fallopian tube, half an inch from its junction with the uterus, was found a swelling the size of the yolk of an egg, and at the back facing Douglas's pouch there was an opening into it partially filled with blood-clot, admitting the tip of the little finger. Shreds of membrane hung out of this, and after tying a double ligature on each side, it was excised. Nothing was seen of a fetus. The belly was washed out with hot water, sponged dry, and the edges of the wound brought together with wire and silkworm gut sutures. No drainage-tube was inserted, as I had not a suitable one by me. Before the hot water was used the pulse was very feeble and the aspect sunken, but immediately afterwards there was a welcome revival. Hot bottles, etc., were applied in bed; one-sixth of a grain of morphia injection was given, and enemata of beef-tea and brandy every two hours. The wound was dressed with Gamgee's tissue, retained by broad strips of adhesive plaster.

For the next two days retching was very troublesome, nothing being retained. She had scarcely any sleep during the first two nights, and the belly was tender and painful. Morphine was given subcutaneously in small doses, and enemata of beef-tea and brandy continued.

July 26th. Restless night, retching, and feeling of nausea continued. Much pain in the belly, and some tympanites. The lowest stitch was removed; the edges of the wound, which were adherent, were drawn apart, and the peritoneum, which had united, scratched through. A good deal of perfectly odourless bloody serum escaped, and the belly was washed out, siphonwise, with hot weak, perchloride solution, and a large drainage-tube inserted to the bottom of the pelvis.

Next day the retching had ceased, but she had passed a restless night. Tube aspirated, and a little serum withdrawn. She was now able to retain a little champagne.

The temperature so far had remained normal, or rather subnormal, but on the 23th it rose to 100°, the highest recorded during the progress of the case. The tube was withdrawn on the 29th, as nothing seemed to escape from it. The stitches were removed on August 3rd, the wound having all united by first intention, except where reopened. This was left to granulate, and it closed in about ten days. She was sitting up for a short time a fortnight after the operation, and was able to leave for her native place on August 27th.

This case resembles others recorded in one remarkable particular, namely, that the patient had been married for some years without pregnancy, and had never previously conceived. She gave a history of painful and scanty menstruation, and stated that connection had always been very painful to her, pointing, probably, to some mischief in the uterus or appendages. The fact that bulging was felt particularly in the left side of the vagina whilst the rupture was in the right tube is accounted for by the blood remaining fluid and gravitating to that side of the pelvis as she lay in the usual position for examination. The symptoms unmistakably pointed to internal hæmorrhage, and the fact of suspected pregnancy, and the fixing and pushing down of the uterus, left little doubt as to the nature of the case. The successful result may, perhaps, encourage others, who practise in country districts away from the reach of specialists, to undertake abdominal section, rather than wait the otherwise almost certainly unfavourable issue.

A CASE OF CHOLECYSTOTOMY FOR GALL-STONES, WITH REMARKS ON THE TREATMENT OF THE IMPACTED CALCULUS.¹

By JOHN W. TAYLOR, F.R.C.S.,

Surgeon to the Birmingham and Midland Hospital for Women.

EVERYONE who has any practical knowledge of the operation of cholecystotomy, or is *au courant* with its literature, must have recognised the fact that the one occasional important difficulty of the operation is the removal of the obstructing calculus from the cystic or common duct. Sometimes this difficulty is almost insurmountable, and under such circumstances, as is well known, Mr. Tait has practised crushing the stone from outside the duct, either at the time of the original, or at a subsequent, operation. When the stone is very hard, this proceeding may be risky, or, at all events, may appear to the operator to be specially dangerous. Some alternative method is a desideratum.

Perhaps the narration of the following case may help to point out the direction in which we may seek for such an alternative treatment with the greatest probability of success.

Mrs. K., aged 42, was sent to me by my old friend and colleague, Dr. Woollett, of Monmouth, on March 21st, 1887, with the following history. For four or five years she had noticed a swelling on the right side of the abdomen. This grew suddenly larger about eight months previous to the date already given, and although unattended with special pain or tenderness, showed no signs of any subsidence or diminution, and caused her considerable uneasiness and anxiety. She had had eleven children, nine of whom were living; her last confinement occurred about twenty months before her visit. Menstruation was regular. There had not been at any time the slightest history of jaundice or even of acute colic.

On examination a large, rounded tumour was found in the right hypochondriac and umbilical regions, extending some distance below and to the left of the umbilicus. It was very freely movable, and careful palpation elicited a vibratory thrill. There was no true fluctuation. I diagnosed the case to be one of distension of the gall-bladder, and this diagnosis was subsequently confirmed by the opinion of my colleagues, Dr. Savage and Mr. Tait; Dr. Savage noticing the fact, which had at first escaped my observation, that the edge of the liver was to be felt overlapping and covering the tumour, except at its most extreme limit.

The patient was admitted into the Birmingham and Midland Hospital for Women at Spark Hill, and on April 2nd I opened the abdomen on the outer side of the right rectus muscle immediately over the most prominent part of the tumour. On dividing the peritoneum, liver substance was seen lying immediately underneath the incision. This appeared to have been dragged down by the enlarging tumour, and formed a thin covering to it. By pressing the tumour from the opposite or left side of the abdomen upwards and towards the right, a small portion of the tumour was found uncovered by the liver, and seen to be the rounded end of a largely distended gall-bladder. This was tapped, and fully a pint of clear, somewhat glutinous fluid evacuated. The puncture was then enlarged with a tenotomy knife, and the index finger introduced within the gall-bladder. Several large stones were felt lying loosely in its cavity, and these, four in number, were removed with scoop and forceps. One remained, wedged into the cystic duct, which it seemed impossible to move. There was no space for the application of any of the forceps at my command, and after repeated attempts to extract the stone I could only succeed in breaking off some portions of its upper surface.

As all the gall-stones were hard, and very considerable force was necessary in order to break them, I was afraid to attempt the crushing of the stone from outside the duct, and therefore determined to complete the operation in such a manner as to afford the best means for any subsequent treatment of the impacted calculus that might be necessary. I sewed the incision in the gall-bladder to the abdominal wound by several stitches, so as to leave a large external opening, and placed within this a short piece of large-sized rubber tubing. The nurse was directed to syringe out the gall-bladder with warm water every night and morning through the drainage-tube. No disturbance followed the operation, and by the fourth day it was noticed that the water returning from the gall-bladder on the use of the syringe was tinged with bile, indicating that the passage of the duct was becoming free. No alteration was made in this regular treatment of the case for more than two weeks after the operation. The large drainage-

tube was kept within the external opening, being only removed temporarily for cleaning, and the gall-bladder well syringed out twice each day.

On April 18th, sixteen days after the cholecystotomy, I examined the gall-bladder for the impacted stone with Lister's sinuss-forceps. I found that the stone was loose, and that it was soft. It broke into pieces on being grasped by the forceps, and the fragments were extracted without any difficulty from the opening in the gall-bladder. The latter was syringed out a few times after this to ensure its being thoroughly cleaned out from any *débris* of the broken calculus. The tube was removed, and the abdominal opening allowed to contract and close. The patient left the hospital for her house on April 26th, quite convalescent, and with gall-bladder and ducts patent and free from any calculus.

REMARKS.—1. The power possessed by a current of water, when wisely and patiently employed, for the dislodgment of foreign bodies or wax from the auditory meatus suggested its use in the present case. It appears to have been largely responsible for the successful result. 2. There is probably, in addition to this, some time in the history of a biliary calculus retained after operation, when a considerable amount of softening occurs due to the inflammatory changes and discharge set up by the operation. If so, it is of some importance that the best time for any secondary interference should be ascertained. 3. In difficult cases, whether at the time of the cholecystotomy or afterwards, it is probable that an impacted calculus may be divided by delicate forceps similar to those utilised in the present case, when no other forceps could be employed with advantage from within the gall-bladder.

These three points—the regular daily use of the syringe after operation, the taking advantage of a time when the stone becomes softer, and the use of proper forceps, will, I believe, be of use in bringing difficult cases of cholecystotomy for gall-stone to a successful termination.

A NOTE ON THE TREATMENT OF SPINAL ABSCESS.

By THOMAS LAFFAN, M.K.Q.C.P.I., Cashel.

I HAVE, in common, I suppose, with most surgeons, met with a good many of these melancholy cases of abscess dependent on diseased spine, most of which at least have but one end—death. I have witnessed several of these where death ensued notwithstanding the cure of the spinal affection. In these the fatal end was brought about by the discharge from an extensive fistula, which was without the reach of surgical art. It is not possible to bring pressure to bear on the walls of such fistulae; still less is it possible to slit them open and allow them to granulate from the bottom. We are told that spinal abscesses should not be opened hastily, inasmuch as they may become absorbed, and on the other hand we are directed not to allow them to enlarge to any considerable extent without opening them, as the constitutional disturbance that would follow on their being opened would be attended by risk proportioned to their size. These two rules will be found in practice to be more or less contradictory. If we act on the advice not to open them hastily, we too often give time for very considerable though not always apparent enlargement. If, on the other hand, we do open them early, we, in my experience, all but invariably ensure the death of the patient, and we also deprive him of the chance that the abscess might become absorbed. This seldom happens, but that it does sometimes happen is evident from a careful collation of writers on the subject. I have had myself one such, but only one, out of all my cases; it occurred in a girl aged 30; she was the daughter of a farmer, of healthy appearance, and with a family history which was good, though not wholly free from some suspicion of scrofula. About May, 1875, she strained her back whilst jumping off a ditch, and after more or less medical treatment she came under my care in the following November. At that time she had an abscess in the left iliac fossa, which was about the size of the two hands clenched. She had disease of the tenth and at least two adjacent dorsal vertebrae. The spine of the tenth was very prominent, and those of the two adjacent ones were also prominent, but very much less so. She had had several rigors; the pulse, appetite, perspiration, and the menses were what obtain in a hectic case. She was placed in the horizontal position, and such remedies as suggested themselves, the enumeration of which would but occupy time without communicating any fresh information, employed. She was kept for four months

¹ Read in the Section of Surgery at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

¹ Read in the Section of Surgery at the annual meeting of the British Medical Association held at Dublin, August, 1887.

in bed, and for three months after that a Sayer's jacket was kept on; she went on favourably in every way, and not only was the Potts' spine cured, with, of course, deformity, but the abscess became eventually absorbed. I examined her with the greatest care on June 21st last, and the following state of things was observed: Her appearance was healthy, though not entirely free from wear and tear; her pulse, temperature, and respiration were natural; a fulness, which when first seen had existed in the left iliac fossa, had entirely disappeared. No trace whatever of the abscess could be found on palpation, or otherwise. A severe pain in the spine, from which she had also on the occasion of my first seeing her suffered, had likewise disappeared. There was some little pain across the hips after sitting, and the left leg was weaker than the right; the bowels were moved every second day. The appetite, urine, and sleep were natural; there was neither perspiration nor vomiting. She could stoop, work, and get jolted in a vehicle without pain or uneasiness. A prominent spine, the slight pain and weakness I have referred to, and menses which were almost *nil* from the start of the disease, comprised the total of the obverse side of the pleasing picture. Though it is quite possible that in this case the remains of a partially absorbed abscess, which might recrudescere hereafter, might still be pent up in parts inaccessible to the sight and touch, yet all the probabilities go the other way, and the case may, I think, be fairly cited as one of those exceptional ones in which spinal abscess gets cured, and the rule of not allowing spinal abscesses to get very large comes in for inconvenient question. Some similar cases have, of course, been reported, but unhappily they are *rari nantes in gurgite vasto*. No one ought, I think, to propose to sacrifice the overwhelming majority for a few chance cases, and therefore these abscesses should be opened, if only a way could be found to obviate the terrible danger arising out of the existence of a long and tortuous line of inaccessible fistulae. I often asked myself, Was it possible that nothing could be done for those sad cases? and it was therefore with no ordinary pleasure that I read Mr. Treves's proposal for dealing with some of them.

Mr. Treves proposed to cut down direct on the bodies of carious vertebrae associated with abscess. He proposed to attain by such an operation four objects:

1. He would come into direct contact with the diseased areas.
2. He would open the suppurative collections at their points of origin, and evacuate their contents by the shortest possible route.
3. He would be enabled thereby to remove pieces of diseased bone.
4. He would be enabled to apply treatment direct to the local tissues.

Mr. Treves, however, proposed to confine it to the lumbar and last dorsal, and he does not state at what period of the abscess he would cut down on the spine. Now, it appears to me that, if the surgeon should wait until the abscess becomes apparent at one of the usual sites, the mere tapping of it at the proximal end, while furnishing an exit for detritus—which, no doubt, now helps to keep the sinus discharging—would not of itself prove sufficient to agglutinate the walls, and therefore dry up such sinuses.

We every day witness the continued patency of long fistulous tracts long after the disease at the proximal end has been cured. I do not see, therefore, how cutting down on the vertebrae, where a large abscess has been allowed to form, can, in the majority of cases, at all events, effect all the good we desire. I do not see either why this operation should be confined, as Mr. Treves proposes to confine it, to the lumbar and last dorsal. Such a restriction seems to me calculated to limit within too narrow a field its sphere of usefulness. I would extend it to the dorsal vertebrae, where it is we find the great bulk of the disease.

I am not blind to the anatomical difficulties which would beset cutting down on the vertebrae here. I do not, however, think that they are either insuperable or indeed at all comparable to those which have been successfully mastered in other regions of surgery. We might expect, for instance, that the pleura would occasionally be perforated, and that pneumothorax would ensue; but we have now a sufficient number of cases of this to prove that it is a very much less formidable affection than it was once supposed to be. It is not to be denied that it is much less formidable than interminable fistulae, whose existence affords a too certain presage of the patient's destruction.

Now for my second point. It will not, I maintain, do to cut down on vertebrae where an abscess can be seen and felt. The diagnosis of spinal caries having been once made, I would anticipate the external appearance of the abscess by cutting down upon the vertebrae at once, and maintain a direct opening with the diseased bodies. If disease should be really present, we might count on the presence of a considerable effusion around the bodies of the vertebrae; and this thicken-

ing might be counted on as a sufficient protection against the premature admission of air to the carious mass. The case of Potts' disease without abscess, if there be any such, would present a difficulty; but the thickening already referred to might here, as in the last case, afford sufficient protection against atmospheric action. On the other hand, if the diagnosis should be incorrect, and no spinal caries should be found to exist, no possible mischief could accrue to the healthy vertebrae themselves.

In conclusion I submit the above note to the Section with a profound conviction that for a disease which is but too often indeed the opprobrium of our art bold remedies offer the only resource.

Dr. ILLINGWORTH deprecated in the strongest possible terms the procedure recommended. The formation of any wound meant the incurring of new dangers. Aspiration, when the pus was fully formed, offered the safest means of prevention of septic processes. Spinal support during the process of aspiration was essential.—Mr. WALSHAM said that he considered Dr. Laffan's a very grave proposal. He understood Dr. Laffan to advocate cutting down on the dorsal vertebrae in cases of spinal caries, for the purpose of preventing the formation of an abscess as well as for the early evacuation of the pus, should such form. Such a procedure appeared to Mr. Walsham fraught with danger, as a deep wound would have to be made, probably a portion of a rib or two would have to be excised, and the pleura might easily be opened. On the other hand, if spinal caries was treated early by recumbency combined with some efficient support, the great majority of cases recovered without any suppuration. In the lumbar region cutting down on the vertebrae, as suggested by Mr. Treves, was no doubt, in suitable cases, of service, but Mr. Walsham would hesitate to attempt such an operation for caries in the upper dorsal region, even when pus had been formed.—Mr. EDWARD L. FREER (Birmingham) was in favour of aspiration where possible; when impossible, recourse should be had to free incision, with antiseptic dressings, weak iodine injections, and free drainage. Some disappeared altogether if the spondylitic vertebrae were kept at rest, so he did not advocate early operative interference of any kind.—Dr. GIBNEY (New York) advocated the directing of treatment to the bones diseased, and claimed that, when sufficient mechanical support, long continued, was provided, it was quite unimportant to give any attention to the spinal abscess. The cases thus managed, in New York city at least, gave satisfactory results. He was convinced that orthopaedic surgeons, as a rule, aimed to fix the spine and seldom treated the abscess.—Dr. LAFFAN, in replying, expressed his astonishment at the amazing number of cures which the speakers had had, and he invited them to authenticate them by publishing them. As for him, he had had no such success; and as far as he could gather, and he had inquired in several quarters since the commencement of the meeting, his experience was not unique. If the disease, therefore, was so fatal, he maintained that for it the remedy he advocated was the proper one. Some of the speakers had talked about the antiseptic treatment, but its advocates asked too much from it. He had tried it in these cases, and it had not saved them. He aimed at two objects in bringing that paper before the Section: the first one was to bring once again under public notice a line of treatment which should recommend itself, if for no other reason, because it had been suggested by so able a surgeon as Mr. Treves; and next, because he desired to extend and develop an operation which, he repeated, alone held out any rational prospects to patients.

TWO RARE GROWTHS OF THE SOFT PALATE.

By CLARENCE ELLERMAN, M.D. HEIDELBERG.

THE two cases which are described at length below present a certain amount of interest, on account of their uncommon occurrence, and this reason, I consider, justifies their publication.

CASE I.—Mr. S., aged 29, a student, came to the Heidelberg throat clinic (Professor Jurasz) to seek advice about his throat. On examination, he was found to be suffering from granular pharyngitis. Moreover, during the exploration of the pharynx, a small tumour was noticed lying somewhat to the right of the uvula, and partially concealed by the same; in length it measured about three and a half centimetres, was elongated in shape, and in colour agreed with the surrounding mucous membrane. To obtain a good view of it, it was necessary to seize it and draw it forward. The tumour was mobile, slightly narrowed at the base, of a soft consistency, and quite painless when manipulated. Its general appearance gave one at first the im-

pression of a large papillomatous growth, like those which, as is well known, are frequently observed at the base of the uvula. This view was, however, not confirmed by microscopical examination. The removal was easily performed without any loss of blood by means of a galvano-cautery snare. It was now for the first time observed that the surface of the tumour was not smooth and continuous, but partially divided into several portions by lateral fissures. It should also be mentioned, as it has its importance, that on the right side of the soft palate, the space between the anterior and posterior arches of the same was unusually large and deep; this appearance was found to be caused by the total absence of any trace whatsoever of the tonsil at its usual resting place. On the left side no such anomaly was apparent. The young man declared that he had never felt any inconvenience from the presence of the tumour, and that he had, in fact, been quite unaware up till now of its existence. The microscopical examination gave the following interesting results: The tumour failed to show any analogy to the characteristic texture of a papilloma, but presented a histological structure unmistakably like that of tonsillar tissue. A careful study soon left no doubt that such was the case. Tonsillar crypts, coated with a fine layer of stratified epithelium, were plainly discernible. The walls of the lacunæ were studded with numerous compact nodules of lymphatic tissue, the so-called lymph-follicles. These follicles presented the well-known reticulated structure, containing in its meshes innumerable leucocytes. The epithelium rested on a fine, almost invisible, basal membrane, which separated it from the mass of adenoid tissue which lay below. Towards the centre the connective tissue of the stroma had taken the place of the adenoid tissue, and was concentrated into a dense fibrous structure very poor in cells. Several large, greatly dilated blood vessels (arteries and veins) traversed it, ramifying towards the periphery. It was, broadly speaking, identical with tonsillar tissue, and there remained no doubt that the removed tumour was an aberrated tonsil.

The case which I have just described may be, I think, accounted a somewhat rare occurrence. However, the fact that similar occurrences seldom are observed is no positive proof that they seldom occur; for it can be readily understood that such tumours, by reason of their unimportant size and the absence of any symptoms of incumbrance, often escape notice, and even when they are now and then removed, they seldom undergo a microscopical examination.

CASE II.—Miss L., aged 28, noticed for some time back that she had a pendulous tumour hanging from the soft palate, which caused all sorts of unpleasant sensations in the mouth, accompanied by a copious flow of saliva. On examination, a long, purplish looking growth was perceived on the right half of the soft palate, lying midway between the tonsil and uvula. It presented a smooth surface, and was of a yielding consistency. It was removed by the galvano-caustic process. On being examined microscopically the growth, which was composed of different papillæ coated with epithelium, presented a peculiarity in respect to the condition of its blood vessels. The first thing that struck one on looking at a section through the microscope was the enormous size and development of the capillary vessels as compared with the size of the tumour itself. (This condition could be easily perceived with the naked eye on holding the section towards the light.) The capillaries were enormously dilated, ran in the centre of the papillæ, and ended in the shape of a bulbous expansion. In some parts the vessels seemed to be unaccompanied by connective tissue. It appeared as though the pavement cells of the epithelium were intimately connected with the endothelium of the dilated capillary vessels. Careful observation, however, showed this view to be a mistaken one; there still existed between the epithelium cells and those of the capillaries a very delicate, almost invisible, partition of connective tissue, which appeared to be in a state of atrophy. At the point where the tumour had been severed, the walls of a large artery were to be seen. Further, in two places, clumps of adenoid tissue were visible, which were evidently to be considered as follicles. The connective tissue matrix was, moreover, in some places very rich as regards cells.

Now this is undoubtedly the picture that would be presented by a plexiform angioma, and this is what I consider it to be. It is, however, not impossible that it originally existed as an ordinary papilloma, and that through the action of the negative pressure, which arises in the pharynx during the motions of swallowing and suction, upon the vessels on the surface of the tumour, the vessels were in a constant state of dilatation, and ectasia was the result. An analogue for this is found in the distension of vessels in granulations which appear at the edges of a tracheotomy wound; in the latter case it is of course the result of the inspiratory dyspnoea.

THERAPEUTIC MEMORANDA.

THE ODOUR OF IODOFORM.

THE odour of iodoform, the *Pharmacopœia* states, is "persistent and disagreeable," and to some these characteristics are so intense that it is avoided in practice, and less efficient agents are used. Various attempts have been made to disguise the odour by oleate of zinc, eucalyptus, coffee, coumarin. The latter substance seems to effect this better than the other agents, but yet it is not perfect.

From a series of comparative trials I beg to offer the following prescription as securing the end in view,—R Iodoform, gr. 60; ol. amygdalæ, ℥jss; ol. theobrom., ℥jss; ol. myristica, ℥xx; moschi, gr. iij; coumarin, gr. vj; sp. tenuior., ℥i. The essential ingredient here is musk. To some people, however, the smell of musk is also disagreeable, and the other substances are added with the view of leaving a pleasant odour, neither of musk nor iodoform. If the iodoform is desired for dusting purposes, as in soft chancres or burns, the combination of 1 grain of musk to 10 or 15 grains of iodoform is satisfactory. These prescriptions have been made up by leading pharmacists here, and they bear willing testimony to the facts mentioned.

MATTHEW CHARTERIS, M.D., Professor of Therapeutics and Materia Medica, Glasgow University.

SMALL DOSES OF MERCURY IN SYPHILIS.

I AM anxious to bring before the profession a plan of treatment which I have tried in cases of primary syphilis for more than ten years, a treatment which has been attended with uniform success, and without any further symptoms after the primary ones have passed away. A modified plan of the same treatment has been most satisfactory in its results in more advanced cases.

The great secret of the treatment consists in the dose, which can be continued an indefinite length of time, enabling the practitioner to sweep out every trace of syphilis; and it will be found that when all the primary symptoms have disappeared no tertiary will follow. Sometimes a slight recurrence of the primary appears, which will quickly yield to a return of the treatment, and I have invariably found that time and patience complete the cure.

My plan has been in cases of hard chancre to give hyd. c. cret. gr. $\frac{1}{4}$ *ter die*, giving any tonic or other medicine with a view to keeping the patient in the best possible state of health, avoiding too much stimulant such as spirits, wine, or beer; this should be followed up for a month or longer at the discretion of the practitioner, when the dose can be given *bis die*, and after three months or longer, once daily for a considerable time. Should the symptoms be rebellious after the third or fourth month, I give in addition liq. hydrarg. perchlor. ℥v—℥x *bis terve*.

I intended to have brought this treatment before the profession several years ago, but was most anxious to be sure of my statements as shown by many typical cases which I have kept in view for many years.

S. C. GRIFFITH.

Finsbury Square, E.C.

STROPHANTHUS IN HEART DISEASE.

DR. SUCKLING'S memorandum on his experience of strophanthus in heart disease comes as a thunderbolt: it certainly is at variance with the general opinion of the profession. I have used Hewlett and Sons' tincture for the last six months with immense advantage in heart affections, more especially in cases where digitalis seemed to be doing more harm than good. I quite agree with Dr. Suckling that digitalis will often do good after strophanthus has been given without relief, but this simply proves that the action of the two drugs is not the same. Strophanthus has, in several of my cases, produced an intermittency in the heart's action, always relieved by increasing the dose, (this symptom I have never seen mentioned by other observers). The salicylates can be given in combination with strophanthus when they cannot be borne alone on account of their depressing action on the heart. In conclusion, I may say strophanthus is of inestimable benefit in inorganic heart affections.

Plymstock.

EDWARD G. DUTTON.

THE TREATMENT OF HABITUAL CONSTIPATION.

AN hour after reading the memorandum of Dr. Althaus, p. 1379, on Dr. Oiltmann's method of treating the above affection, I had an opportunity of trying it. Two days before I had performed herniotomy on an old man aged 74, and found that morning very distressing meteorismus, with a rising temperature, which opium had not prevented. The remedy was obviously to empty the colon with the least

amount of irritation, and I at once injected a teaspoonful of glycerine into the rectum. Within five minutes there was a copious dejection and much flatus followed, to the thorough relief of my patient, who is now convalescent.

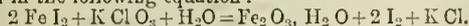
But the point is this: As soon as I had asked for the glycerine and injected it, the nurse observed: "That was Mr. Warden's favourite plan, he said it was better than all the pills in the world," and this gentleman died in practice here about sixteen years ago. Truly, "*Nihil sub sole novi!*"

G. F. CADOGAN-MASTERMAN.

Stourport, Worcestershire.

A DANGEROUS MIXTURE.

SEVERAL prescriptions have lately come under my notice in which occurs a mixture of chlorate of potash and syrup of iodide of iron. This seems a not unreasonable combination, and its incompatibility does not suggest itself, nor will it be found on reference to ordinary textbooks. As, however, a case has recently been reported from Australia in which death resulted from the administration of such a mixture, I think it desirable that the attention of prescribers and dispensers should be drawn to the fact that chlorate of potash liberates the whole of the iodine from iodide of iron, and, if at all concentrated, the solution soon becomes saturated, and crystals of iodine are deposited after a few hours. The products of the decomposition are shown in the following equation:



Further details of the reaction may be found in the *Pharmaceutical Journal*, vol. x, p. 850, and in the *Journal of the Chemical Society*, 1880, vol. xxxviii.

Heat favours the reaction; and the process, which may be slow in the medicine bottle, would be much more rapid in the stomach, where the development of nascent iodine might produce symptoms of gastric irritation which were neither expected nor desirable.

35, Clifton Road, Maida Vale, W.

R. H. PARKER.

OBSTETRIC MEMORANDA.

A CASE OF TRIPLETS: THREE HEAD PRESENTATIONS.

I was sent for at 4 A.M., on December 27th, 1887, by our midwife, to see Mrs. D., as her labour pains had quite ceased. Labour had commenced about 3 P.M. the previous day, but the pains had never been severe. On examination I found the head low down; I gave a dose of ergot, and as it had no effect I repeated the dose in twenty minutes. This had no effect, so about 5.30 A.M. I applied the short forceps, and delivered her of a female child, without any difficulty. On examination of her abdomen I found there was another child; I examined by the vagina, but could not make out any presentation. I waited an hour, and as no pains came on, I determined to leave Mrs. D., as the midwife was perfectly able to take charge. I looked in a couple of times during the day, but things were *in statu quo*; however, at 8 P.M. I could make out a head presentation. At 8.30 A.M. the next morning I was sent for, and found the second child born without any assistance, and the midwife informed me that there was a third to come. I examined, but could not make out the presentation. At 8 P.M. I was sent for, and found the child low down, and as the woman had been over fifty hours in labour, I applied the short forceps and delivered her of the third female child, the largest of the three. With some difficulty I removed two placentae; the first one was very large, and had two umbilical cords attached to it; the third placenta which was a full-sized one, had only one cord, and evidently belonged to the last and largest child. The mother has made an uninterruptedly good recovery, and the three little girls are thriving very well. The woman was a primipara, aged 29.

Tenby.

JOHN GRIFFITH LOCH.

CLINICAL MEMORANDA.

CASE OF CANCER OF THE PANCREAS, WITH ULCERATION AND HÆMORRHAGE INTO THE STOMACH.

Mrs. S., aged 61, was first seen February 26th, 1887. She was said to have been ailing a long time, but had been very ill for the last six months. Her complaints were constipation, flatulence, and aching or colicky pains, chiefly referred to the umbilicus and lower left abdominal region, backache and nausea, with increasing emaciation. There was

a fulness, tenderness on pressure in epigastrium, to the left of the middle line, with abdominal aortic pulsation immediately below. There was no jaundice and no fatty stools.

She had two slight vomitings of dark blood, one on March 15th, when I found her with a thready pulse, collapsed and cold, having brought up a teacupful of blood; the second about two hours before her death on March 20th, when she complained of feeling "something burst in her inside," and vomited to about the same amount. No blood ever appeared in the stools.

Necropsy on March 21st.—Rigor mortis was well developed. The skin was of a waxy colour. The lungs collapsed and pale. The heart small; all its chambers empty. The left ventricle firmly contracted; the other chambers flaccid, and their walls very thin; muscular substance of a dull brown colour. The outside of the organ heavily loaded with fat. On opening the abdomen the liver was found stretched quite across the upper part of that cavity, the left lobe in close contact with the under surface of the diaphragm, extending well into the left hypochondrium, and overlapping the stomach. On removing it the stomach appeared beneath as a large blue tumour, which, when opened, was found to be completely distended with blood, immense black coagula being turned out through the incision. The pancreas was enlarged and nodular, its substance infiltrated with cancer. It was closely adherent to the stomach and duodenum. A large ulcerated cavity occupied its central part, which communicated by a ragged opening with the stomach. At this point a vessel, the size of a goose-quill, apparently a branch of the celiac axis, had been opened, and from it the bleeding had evidently occurred. The spleen was small and friable. The blood vessels generally were empty, and appeared to have been thoroughly drained by the bleeding which had taken place into the stomach.

A. MIDDLEY CASH, M.D.

Torquay.

SURGICAL MEMORANDA.

ACCIDENTAL CURE OF HYDROCELE.

J. H., aged 50, an engine-driver, has had a hydrocele for the last ten years. I have tapped it on three occasions, and drew off (1) 14½ ounces, (2) 16 ounces, and, lastly, 17½ ounces of fluid. He would never sanction the injection of iodine. A fortnight ago, whilst carrying a heavy basket, he rubbed the rim of the basket against the hydrocele, which was about ready for tapping again. The whole sac inflamed, and then subsided, and to-day the scrotum, when examined, appears quite natural, and bears no traces of ever having been distended by about a pint of fluid.

H. G. MONK, M.R.C.S.

East Bridgford.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

MANCHESTER ROYAL INFIRMARY.

SUTURE OF TENDONS.

(Under the care of Mr. T. JONES, F.R.C.S.E.)

CASE I.—F. L., aged 35, was admitted on September 9th, 1887. Three months previously she had cut her right hand severely whilst cleaning a window. The wound healed well. On admission, it was found that she could not flex the middle finger of the right hand. Several scars were visible, one more prominent than the others, running in a transverse direction, half an inch in front of the superficial palmar arch, and situated over the third metacarpal bone. Half an inch above this cicatrix, a small rounded elevation could be felt, which was looked upon as the proximal end of the cut tendon. Under chloroform, an Esmarch's bandage having previously been applied, a vertical incision, an inch and a quarter in length, was made, its centre placed over the rounded projection above referred to. The proximal end of the tendon was readily found, and the distal, after a little difficulty; the latter was closely adherent to the sheath. These adhesions having been separated, an attempt was made to approximate the ends of the severed tendon, but it was found that the tension was very considerable. The following plan had then to be adopted. An incision was made into the proximal end of the tendon, in a transverse direction, and taken as far as its centre; the knife was then carried forwards, so as to split the tendon downwards in the middle, to within

an eighth of an inch from its divided end. The flap of tendon so separated was now turned forwards and stitched to the distal end by means of catgut. There was little or no hemorrhage when the bandage was removed; the wound was well washed with a saturated solution of fluosilicate of sodium, and the edges brought together with silver sutures. The finger was kept flexed for nearly three weeks, when it was found that firm union had taken place, and considerable resistance could now be offered to any attempt at passive extension of the finger. Two months later, she could flex the finger without any difficulty, and was able to follow her ordinary housework; previous to the operation she had been unable to do so.

CASE II.—J. W., aged 31, a Sawyer, was admitted on September 22nd, 1887. A few hours previously, his right hand had been caught by a circular saw. On admission, he was found to be suffering from a lacerated wound of the right hand, on the ulnar side of the dorsum; it was about one inch and a half in length, and extended in a direction upwards and inwards, its centre being situated over the knuckle of the fifth metacarpal bone. The extensor tendons of the ring and little fingers were divided, and the head of the fifth metacarpal bone was splintered.

On the afternoon of the same day, under chloroform, the splintered portions of the head of the injured metacarpal bone were removed, about a quarter of an inch being taken away altogether from the lower end of the bone. The cut tendons were then sutured with catgut, the divided ends being brought into apposition; the wound having been well washed with carbolic lotion (1 in 20), was sutured with silver wire, and dressed with iodoform gauze and a weed-wool pad. The fingers were fixed in an extended position on a straight splint, the anterior part of which was well padded.

The patient got on very well after the operation; the temperature remained normal. The wound healed by granulation, and, when sent to Cheadle thirteen days after the operation, a healthy granulating surface was visible.

December 20th The patient came to show himself about a fortnight ago; he could extend his ring and little fingers quite well, and was able to follow his occupation.

The patient was presented to the meeting of the Manchester Medical Society on December 21st, 1887; the parts were soundly healed, and the power of active extension had been restored in the injured fingers.

CASE III.—T. L., aged 21, a Sawyer, was admitted on September 19th, 1887, suffering from a cut hand. He had caught his left hand in a circular saw, causing a lacerated wound about one inch below the wrist, extending from the dorsum of the fifth metacarpal bone at its inner side, round to the palm of the hand, extending a little forwards, as it went round, as far as a point one inch and three-quarters from the ulnar border of the hand. The tendons on the dorsum were intact; but the flexor tendons of the fourth and fifth fingers were completely divided. Under chloroform, the divided ends of the tendons were found, but with great difficulty, owing to the great laceration of the tissues and the bleeding into the tissues; the divided ends were drawn together, and made to overlap slightly, being fixed by means of catgut sutures. The wound was then well washed in carbolic lotion (1 in 20), several wire sutures being inserted; a horsehair drain was introduced. After dressing it with iodoform gauze and weed-wool, a posterior splint was applied, so as to flex the wrist and fingers, the elbow being kept in a flexed position by means of a bandage round the neck, serving as a sling. The temperature was irregular for the first few days, but soon came down; the wound healed by granulation. For domestic reasons he was allowed to go home on September 24th, 1887, and was made an out-patient.

When seen on December 21st, he was found to possess very good use of his ring and little fingers. There were, however, some adhesions between the cicatrix and the deeper structures; and it is suggested to separate these, in order to render the movements of the fingers still more free.

TRALEE UNION.—The Local Government Board, Ireland, have sanctioned the appointment of Dr. Hayes as medical officer of the Tralee No. 1 dispensary district. When elected, Dr. Hayes's salary was fixed at £100 per annum; but notice of motion has been given to increase it to £120, as unanimously recommended by the dispensary committee.

THE RAMSGATE SHOOTING CASE.—Dr. Savage and Dr. Forbes Winslow, who were officially appointed to visit the prisoner, Richardson, at Canterbury, with a view to forming an opinion as to his mental condition, have expressed the opinion that at the time of the act he was of unsound mind, and that he continues in the same state.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, JANUARY 17TH, 1888.

Sir JAMES PAGER, Bart., F.R.S., F.R.C.S., President, in the Chair.

Vaccinia.—Dr. KLEIN, F.R.S., exhibited and demonstrated the residues of vaccinia in the calf which Professor Crookshank had exhibited to the Society on December 15th. This calf had been inoculated by Professor Crookshank in the second generation from the Wiltshire boy, also shown to the Society on that occasion. This animal had subsequently been inoculated with cow-pox at the National Vaccine Establishment, and when exhibited to the Society on this second occasion the calf presented well-marked vaccinia. Another calf, also inoculated under the same conditions by Professor Crookshank, also took vaccinia when subsequently inoculated at the National Vaccine Establishment. These facts Dr. Klein had expressed in the following table:

WILTSHIRE BOY.

Calf 1, did not take.	Calf 2, did not take.	Calf 3, took.	Calf 4, took.
		Calf 5, took.	Calf 6, did not take.
			Calf 7, took.

Calf 3 was further inoculated with Warlomont's lymph, but did not take.

Calf 4 was further inoculated with human lymph in six places; result doubtful. Calf 5 was further inoculated with cow-pox at Lamb's Conduit Street Animal Vaccination Station; it took well.

Calf 7 was exhibited at the Pathological Society on December 15th. It was further inoculated with cow-pox at Lamb's Conduit Street Animal Vaccination Station; it took well, and was again exhibited to the Society on January 17th.

Dr. Klein considered that the experiments had been spoilt, owing to calf 3 having been inoculated with stored calf lymph, which it was known was not reliable; and to calf 4 having been inoculated with lymph from a child's arm. A calf vaccinated at the National Vaccine Establishment in the ordinary course, was also exhibited for comparison.

Carcinoma of Gall Duct.—Dr. NORMAN MOORE showed specimens of primary carcinoma of the common bile duct. The first case was that of a man aged 44; the microscopic section seemed to show the development of the carcinoma from the large flattened epithelial cells of the common duct, and its extension outwards into the duct wall. The cells lay in the meshes of a well-developed stroma. The liver was only slightly affected at a few isolated points; the lumen of the duct was enlarged, and the surface slightly bile-stained. The ducts in the liver were not dilated, and there was no cirrhosis. Jaundice and emaciation were the most noticeable symptoms. No carcinoma was present in other organs. The second specimens were from the case of a woman aged 63, and had been made through a dense mass of new growth, which occluded the common and the cystic ducts. The gall bladder was adherent to the walls of a small hydatid cyst, containing caseous material; there were no deposits in the liver, the bile ducts in the liver were dilated, and that organ was cirrhotic. No secondary growths were found in other organs. The tumour was an epithelioma. The most prominent symptoms were pain, jaundice, emaciation, and hepatic enlargement; they had existed for two years, but had been severe for only six months. The diagnosis in these cases was difficult, and had not a careful microscopical examination been made, the first case shown might have been set down to catarrh of the bile ducts.

Abscess of Brain and Adenoma of Pituitary Body in a Ewe.—Mr. W. K. SIBLEY showed specimens taken from a ewe, aged 2 years. The animal had been apathetic, ill, blind, and deaf for some time. It was killed, and the *post-mortem* examination revealed pleural adhesions, small nodules in the lungs, and a large abscess in the right cerebral hemisphere; there was general meningitis. The nodules in the lungs were due to nematode worms (*strongylus pilaria*), such as were frequently present in the lungs of sheep. The bronchioles contained vegetable debris. Sections of the pituitary body presented all the appearances of an adenoma. The lungs also contained small abscesses. He discussed the mode of origin of the cerebral abscess, and rejecting the theory of pyæmia, suggested that this was the primary lesion, and that it had been set up by disease of the cranial bones which had been found after death. The morbid condition of the central nervous system might have disturbed the normal correlation of nerve-influence between the brain and the pulmonary tissue, lowering the vitality of the latter; this lowered vitality permitting the breaking down of the consolidation produced by the parasites, which on this theory would be attributable not to pyæmia but to a

trophoneurosis. Mr. Sibley also commented on the rarity of tumour of the pituitary body.—Professor BROWN said that it was rare to meet with an specimen of the lungs of the sheep in which these nematode worms were not present. Vegetable debris frequently found their way into the bronchi in the death struggle.

Cystic Epithelioma of Neck.—Mr. SYMONDS read notes and showed microscopical sections of a case of cystic squamous epithelioma of the neck. The patient, a man aged 56, came to Guy's Hospital in August, 1883, with a tumour in the right side of the neck. It extended from the angle of the jaw to the middle of the thyroid cartilage and from the sterno-mastoid to half an inch across the median line. It was connected with the thyroid cartilage and over the centre the skin was adherent; otherwise the tumour was fairly movable. It was freely circumscribed and gave an indistinct sense of fluctuation. There was no evidence of nerve implication. No ulcer or growth could be found in any part of the mucous membrane of the mouth or pharynx, so that the growth was considered to be a sarcoma, though the brawny condition of the implicated skin, the position to the larynx, and the pain resembled more closely the epithelial growths. The mass was extirpated on September 7th, the vertical elliptical incisions including the infiltrated skin. It proved to be widely and closely adherent, and its removal involved sacrifice of portions of most of the muscles in the submaxillary region and one inch of the internal jugular vein. The pharynx and sterno-hyoid membrane were exposed, as well as most of the chief arteries and nerves. The growth proved to be a large thick-walled cyst filled with sanious fluid containing flakes of epithelial debris. Several enlarged glands were also removed. The wound united without suppuration, but in four weeks recurrence had taken place to an extent rendering all operation useless. The wall of the cyst was five-eighths of an inch thick, white on section, and showed under the microscope a typical epitheliomatous structure.

The Relation of the Hendon Cow Disease to Scarlet Fever.—Professor CROOKSHANK, before reading the paper which is published at p. 122, protested against his calf (7 in above table) having been exhibited without his having been consulted. He did not object to the Society seeing the calf, because he wished to tell them that it was not protected. The three calves 5, 6, and 7 were inoculated from calf 4 on the seventh day of the eruption, when, that is to say, it was in the pustular stage, and Bryce had pointed out that the fluid in the vesicles in the advanced stage was unfit for propagating vaccinia; the attainment of this stage was marked by the fluid becoming puriform. The calf shown by Dr. Klein on the present occasion was inoculated after the lymph had become puriform. Four calves were inoculated direct from the Wiltshire boy; two of these took and two did not.¹ In the two calves which took revaccination, so far, had completely failed. Three calves were inoculated from one of the two first which had taken, but as had been said this inoculation had unfortunately been made rather too late—namely, after the fluid had become puriform. The two calves were therefore not protected, as was known would probably be the case from the writings of Bryce.² It was one of these calves, which had been vaccinated at the National Vaccine Establishment which Dr. Klein had brought to the meeting. He (Professor Crookshank) thought that if this was to have been done, it would have only been fair to have shown one of the first calves that had not taken when revaccinated. He thought that for one observer to publish part of the as yet unpublished researches of another, and to show one of his animals without his having been consulted, and been allowed to give his version of the results, was an event unparalleled in the history of the Pathological Society of London. Professor Crookshank also showed a boy, a milker, from Wiltshire, who had suffered from the spontaneous disease; he presented depressed scars on the back of his hand. He asked the Society to test the accuracy of the drawing he had shown at the special meeting of the Society.—Dr. KLEIN said that Professor Crookshank had given a great many facts about the *micrococcus pyogenes*, but he had not said anything new about the micro-organism which he (Dr. Klein) had observed in scarlet fever, nor given any observations of his own about it. This was the important point, and Dr. Klein said that he maintained that the micro-

organism which he had found in the Hendon cows and in human scarlet fever was not the same as the *micrococcus pyogenes*. Professor Crookshank had, indeed, said that he was under the impression that the two organisms were the same, but in reality he would not be competent to express such an opinion until he had accepted Dr. Klein's offer to present him with the *micrococcus scarlatinae* in order that he might compare them. Professor Crookshank showed microscopical sections of the kidney of one of the Wiltshire cows containing streptococci, but this cow had a large abscess in the udder, and Dr. Klein, who had also examined the kidneys, had proved them to be full of milary abscesses, that is to say, the animal was suffering from pyæmia; such a condition could not be compared with the description he had given of the morbid changes in the Hendon cows. Again, the sections of the ulcers of the skin had been made in the second week of the disease, and could not be compared with his descriptions of ulcers examined in the first week. There were also marked clinical differences. Dr. Klein dwelt especially on one, namely, that in the Hendon cows the ulcers only commenced on the fourth, whereas in the Wiltshire cows they were at their height on the fifth day. In the Edinburgh cows, to which he had referred at the special meeting in December, the ulceration occurred still later. So that they probably had to do with three diseases, and not one. He maintained that the symptoms in these three diseases were different, that the progress of the ulceration were different, and as to the Hendon cows and Wiltshire cows that the *post-mortem* appearances and micro-organisms present were different.—Dr. COLLINS had visited the Wiltshire farms with Dr. Crookshank, and was able to corroborate the local evidence brought forward; the milkers stated that the disease was rare, but was not unknown to the older of them; they named it cow-pox.—Dr. THORNE THORNE concisely summarised the different statements in relation to the whole question, and showed that no conclusion could be drawn from such conflicting evidence. Of the Hendon cow disease Professor AXE had said that it was a well-known and a common disease, he had seen it often, and that, whilst it was prevailing, two boys became inoculated and developed vaccinia, and that, therefore, the Hendon cow disease was exonerated from any participation in the outbreak of the London scarlet fever. Dr. Crookshank stated that it was a well-known and not an uncommon disease, and adduced a case in which a boy was inoculated and developed vaccinia. In contrast with these statements Dr. Thorne remarked that in 1880, when the Local Government Board established a calf vaccine station, Dr. Buchanan spared no pains to find a case of genuine cow-pox wherewith to start the inoculations, and could find none. Lately certain calves and certain boys were inoculated; but the boy shown that evening by Dr. Crookshank as having caught cow-pox from the diseased cows presented old large vaccine marks of the usual kind on the arms; again, the calves which Dr. Crookshank had inoculated had been three or four weeks subsequently inoculated at the calf vaccine station with vaccinia, and had developed the typical disease. The speaker considered that the only precise investigation was that originally undertaken by Drs. Power, Cameron, and Buchanan; and he thought that the evidence adduced by these writers in regard to the Hendon cow disease was reliable.—Professor BROWN concurred with the last speaker in his view that the whole subject was at present in hopeless confusion.—Dr. PRINGLE stated that during thirty years of service in India, he had seen no case of cow-pox in the cow. Small-pox was quite common in the natives, but he had never seen it communicated to the cow. In two cases of apparently true vaccinia in the cow, he had inoculated children and calves from the clear fluid, but had uniformly failed to communicate the disease; and he contended that the possibility of transferring the disease was the sole reliable means of establishing its identity.—Dr. COEY observed that the cicatrices on the hand of the boy shown that evening by Dr. Crookshank were not those of typical vaccinia.—Professor CROOKSHANK, in reply, denied that he had asserted cow-pox to be very common in the cow; it might occur in outbreaks at long intervals; moreover, many outbreaks would be successfully kept back from sight owing to the injury farmers would suffer from their disclosure. As regards the boy exhibited, the disease bore resemblance to that described by Jenner; and with respect to the incommunicability of the disease to the calves which were subsequently successfully inoculated with vaccinia, he pointed out that the lymph with which the calves were first inoculated was taken beyond the proper date, and that this would account for their escape.—The PRESIDENT commented on the singular likeness between the disease on the face of the boy previously shown by Dr. Crookshank and Coely's drawings of vaccinia. He remarked that Professor Klein held that there were three different diseases under discussion; and in face of the more recent differentiation of disease in man, he could not help believing that the same would be found true of disease in animals.

¹ "The above experiments, however, will serve to show the greater difficulty of vaccinating the cow with humanised than with primary lymph, and that when successful a much milder disease is the result." "Vaccine lymph in passing from the cow to man undergoes a change which renders it less energetic on being returned to many individuals of the class producing it." (Coely.)

² "The fluid contained in the vesicle in the advanced stages of cow-pox has undergone a certain stage whereby it is rendered unfit for propagating this affection so as to give security from true small-pox, and this change is said to be marked by the puriform appearances which the fluid then assumes." "The areola is fully formed, and this is said to be a mark that the virus begins to be active, and therefore improper for use." (Bryce.)

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 13TH, 1888.

W. H. BROADBENT, M.D., F.R.C.P., President, in the Chair.

Obstruction of the Bowels by large Gall Stones.—Dr. MACLAGAN read notes of cases. Case I.—Between the middle of July and April 6th this patient had four different attacks, each lasting from three to six days, all characterised by acute griping pain in the abdomen, sickness, nausea, and temporary obstruction. About a fortnight after the last attack the patient voided at stool first one, then another, then a third, and two days later a fourth gall stone. The stones (which were shown) averaged about an inch in diameter. During the whole illness there existed a tumour about the size of the fist between the umbilicus and the liver, just to the right of the middle line, in the region of the gall bladder. After the stones were voided there was no more severe pain, but constant nausea. The liver increased much in size all over, and very rapidly. The patient gradually sank and died. On *post-mortem* examination, the liver was found to be very much enlarged and fatty. The gall bladder communicated with the duodenum by a free opening. There was much inflammatory thickening all around. A fifth gall stone was found in the remains of the gall bladder. In Case II, there was a swelling of the size of a hen's egg in the region of the gall bladder, tender on pressure. This suddenly decreased in size. Immediately succeeding this diminution there were developed symptoms of acute intestinal catarrh, followed in a few days by those of intestinal obstruction. The obstruction lasted for three weeks, and was then relieved. Treatment was by morphine and nutrient enemata. The patient gradually improved, and continued to do so for six or seven weeks, after which she again had a recurrence of the old symptoms, with renewed obstruction, lasting for a fortnight. A third attack supervened. At the same time the temperature rose, and marked tenderness was developed over the region of the liver, and the patient gradually sank and died. No *post-mortem* examination was obtained. After the first attack was over, there was felt to be something in the right iliac fossa, causing tenderness on firm pressure, and preventing one from getting the hand freely into the fossa. This continued for a fortnight. The tenderness then disappeared, and the hand could be pressed into the fossa. At the same time a hard lump was felt just above the crest of the right ilium. This was believed to be the stone, which had passed from the cæcum into the ascending colon.

Laparotomy for Obstruction from Gall Stone: Recovery.—Mr. CLUTTON described the case, which was that of a woman of 70 years of age, whose abdomen was opened on account of obstruction, which was thought to be due to an impacted gall stone. The calculus, being felt in the lower end of the ileum, was pushed through the ileo-cæcal valve. The patient was relieved of her symptoms, and made a perfect recovery. Mr. Sidney Harvey, under whose care the patient had been for some years, was able to diagnose the probable presence of an impacted gall stone from the fact that, fifteen months before, she had passed a large faceted biliary calculus, and from that time, as long as she remained under treatment, he was unable to find a tumour in the position of the gall bladder. The symptoms of obstruction began about twenty-four hours before the operation was performed, with sudden acute pain in the abdomen, and vomiting. On examination, Mr. Harvey found that the tumour in the position of the gall bladder had disappeared. The operation was undertaken at this early period on account of the age of the patient, the exhaustion that had already been induced, and in the hope that the stone which was believed to be the cause of obstruction could be pushed through the ileo-cæcal valve without opening the intestine. This proved to be the case, for the calculus was found close to the valve, and movable. Some difficulty was experienced in pushing it through the ileo-cæcal valve in the colon; but, this having been overcome, the calculus was left to find its own way along the rest of the large intestine, and was passed naturally in five days after the operation. The calculus was pyramidal in shape, the base measuring 3.3-10 inches in circumference.—THE PRESIDENT said that these cases raised two questions: namely, the value of laparotomy for cases in which large gall stones were in the small intestine, and the time at which the operation should be done. In one of Dr. MacLagan's cases (in which he himself had also been consulted) the gall stone could be felt in the bowel, near the ileo-cæcal valve. It was interesting also to notice that the swelling at the gall bladder disappeared just as the intestinal obstruction commenced. He himself had only seen one case of acute intestinal obstruction by gall stones; that was in a patient aged 90, and was fatal in four or five days. The gall stone was found, on inspection, not to have travelled more than half the length of the small intestine. He asked whether it would be safe to open the bowel and remove the

gall stone on the spot, or whether it would not be better to attempt to pass the stone through the remainder of the small intestine to the colon, as done by Mr. Clutton; whilst Dr. MacLagan's case gave much encouragement to wait, as the stone might eventually pass naturally?—Dr. ORD said he had seen three cases of obstruction of the intestine by gall stone. The first was that of an old lady who had had several attacks of biliary colic, and at last one of extraordinary violence, at the end of which she passed a stone not at all unlike that shown by Dr. MacLagan. In twenty-four hours, however, she had another attack, with vomiting and symptoms of peritonitis and obstruction. She died shortly afterwards, and at the *post-mortem* examination a stone, as large as the top of one's thumb, was found tightly grasped by the wall of the small intestine, not far from the ileo-cæcal valve. It seemed to have entered through the gall duct, the liver end of which was markedly dilated. The stone seemed to have worked its way down the tube, until quite near the end, when it had rent the tissues to get into the intestine. In similar cases he should tend to adopt the principle of waiting, whilst using opium to relieve the spasm; though his next case told the other way. This patient he had seen with Mr. Thomas Smith. She was a lady over 65 years of age, in whom acute signs of obstruction of the bowels had suddenly occurred. There had been no previous history suggestive of gall stones. Mr. Smith opened the abdomen and drew out a gangrenous, or almost gangrenous, piece of intestine, but he could at that time find no obstruction. At the *post-mortem* examination he found, just above the semi-gangrenous portion, a large gall stone measuring $\frac{3}{4}$ inch by 1 inch. The third case was in a woman, who, soon after her confinement, and not having had any signs of biliary colic, had a sudden attack of obstruction of the bowels not far within the sphincter, where a hard substance was felt, which turned out to be an impacted gall stone. This was of so large a size that it must have ulcerated through into the intestine, yet without giving rise to any pain or jaundice.—Dr. GIBBONS quoted a case in which the patient had suffered for some years from biliary calculi, and had been put on a milk diet by her medical attendant, with the view of preventing any further formation. For some weeks previous to her death she had been, for her, in good health, but about ten days before her death she was seized with violent pain in the abdomen, and all the signs of biliary colic. She recovered from this, but for two or three days before her death she felt unwell, and sent for her doctor. In the night she was seized with a fit of vomiting, and fell back dead. The *post-mortem* examination revealed the presence of a large stone, which had passed along the bowel and become arrested near the cæcum, which had been perforated, causing collapse and death.—Mr. BARKER showed a calculus which he had removed from a lady *post-mortem*. It had ulcerated its way into the duodenum, and had passed down to the upper part of the ileum, where it was tightly grasped by the bowel. It could not be moved downwards, though it could be easily pushed upwards. It would, therefore, have been very difficult to press it down through the ileo-cæcal valve, as recommended by Mr. Clutton. The stone measured four inches in circumference. At present he would have operated on the patient, who was under Sir William Jenner, Mr. Erichsen, and others.—Mr. CHRISTOPHER HEATH said he had no experience of operative interference in these cases, but he had certainly obtained good results in renal calculi by rubbing. He thought it was quite possible that, with the patient under chloroform and the abdominal walls quite relaxed, the stone might be pushed on through the ileo-cæcal valve. He said that the results of operative interference were not such as to inspire too great confidence.—Mr. KNOWSLEY THORNTON congratulated Mr. Clutton on his successful operation, which he could not help contrasting with Dr. MacLagan's case, in which the waiting plan was not very successful. He thought it would be better generally if surgical interference in these cases was prompt, and if the stone was pushed down before the intestine became inflamed. He suggested that it was probable that the stone "played" up and down, until it caused irritation and became gripped. In respect of the operation, he alluded to Mr. Lawson Tait's suggestion that the stone should be pushed to a healthy part of the intestine and there crushed with padded forceps; for these stones were generally easily broken with very little force. Or they might be split up by puncture with a fine needle passed into them through the coats of the bowel. The fragments could then be pushed on through the ileo-cæcal valve. Very little risk was caused by such puncture of the intestine.—Mr. GANT mentioned the case of a man in the Royal Free Hospital, who was admitted with acute peritonitis, radiating from the cæcum. The abdomen was opened, and the intestines were examined. No obstruction, however, was found, and, although the operation afforded

some relief, the patient died. At the *post-mortem* examination there was found ulceration near the ileo-caecal valve, and a gall stone was discovered lying behind the bowel outside the peritoncum, on the quadratus lumborum muscle.—Dr. GLOVER remarked on the cases treated simply by the administration of 12 or 16 ounces of olive oil, by which the passage of the stones was said to have been much facilitated.—Dr. MACLAGAN, in reply, said that in Dr. Ord's case the stone was so large that it was probably ulcerated through into the transverse colon, and not into the small intestine. As regarded the question of operative interference, if the mass in the gall bladder consisted of one very large stone, which was so large that it could not pass through the small intestine, one should advise operation; whereas, if the mass consisted of three, four, or more stones, as they could probably each pass along the bowel, one might in that case counsel delay. Both his cases had died of inflammation of the liver, not of inflammation of the small intestine. Mr. Clutton had advised speedy operation, and had said that the stone would generally be found near the ileo-caecal valve. But as it required some time to enable the stone to travel to that point, it probably would not, if the operation were done at an early stage, be found so low down. The rubbing which was resorted to in his case was to relieve the tenseness of the abdominal wall, not to assist the onward progress of the stone. He did not think in his case the administration of oil would have done any good.—Mr. CLUTTON said that his remarks in favour of early operation applied only to cases of urgent obstruction. In Mr. Treves's book were recorded twenty cases of acute intestinal obstruction, due to gall stones; of these, fourteen had died, and only six recovered.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, JANUARY 5TH, 1888.

EDMUND OWEN, M.B., F.R.C.S., President, in the Chair.

Sporadic Cretinism.—The PRESIDENT showed a case of this disease which had been sent to him by Dr. Davson; the child, aged 5½, had been born in the Hampstead district, of healthy parents. She looked about three or four years younger than her actual age. She had been weaned at three years, but was still fed from the bottle. Amongst the chief clinical features were the large mouth and protruding tongue, and the absence of all trace of thyroid gland; the presence of diffuse tumours over the subclavian triangles, and of large and rounded limbs. The child could not walk or stand, neither could she speak. Reference was made to a valuable paper which was contributed nearly forty years ago by Mr. Curling on two similar cases, in which he suggested that the physical and intellectual defects in those children were probably due to absence of the thyroid gland depriving the economy of certain assimilative processes. Mr. Owen then referred to the work of Kocher, Ord, and Horsley upon the subject of cretinism, which he called the myxoedema of childhood. He was of opinion that the characteristic deposits in the neck, as also those which shrouded the muscles of and thickened the limbs, were the result of mucoid infiltration of the subcutaneous tissue, and not of the nature of fat. He concluded by calling attention to the importance of Mr. Horsley's vivisection experiments upon monkeys, by which it had been amply shown that the removal of the entire gland was likely to be followed by progressive myxoedema.—Mr. VICTOR HORSLEY thought the case a striking example of the disease. With reference to the kind allusion of the President to his own work, he wished to mention that Munk of Berlin had challenged his results. As he would take another opportunity of replying to Munk's statements (which could be easily explained), he wished only to remark on what appeared to him to be the most pressing problems connected with the destruction of the thyroid in these cases. There were three forms of the one disease resulting from atrophy of the thyroid. They were: (1) intra-uterine cretinism (child always born dead); (2) sporadic cretinism of childhood, in which there was early extra uterine loss of the gland; (3) adult cretinism, or myxoedema of middle life. Now, we were familiar in the last form with the congestion of the gland, its invasion by leucocytes, and its subsequent atrophy, with destruction of the gland tissue, but we were ignorant of what like destroying changes occurred in the thyroid in the first two forms. The solution of that question he desired to urge upon the attention of pathologists. In conclusion, he agreed with Mr. Owen that the resiliency of the arms seemed more than fat and connective tissue would account for, but he thought we must be very cautious in attributing the whole to mucin, for, as he himself had shown, this element in the case was wanting where the chronicity of the disease was notably increased.

Extensive Tubercular Disease.—Mr. QUARRY SILCOCK showed a case

of a young man, who was admitted to St. Mary's Hospital in June, 1886, suffering from tubercular arthritis of the left ankle-joint, tubercular nephritis, and tubercular abscesses on the front of the sternum. After consultation, he had amputated the leg in the lower third, and scraped the tubercular abscess, the man's general condition greatly improving; the hæmaturia diminished in amount, the abscess on the front of the sternum cicatrised, and the stump had practically healed when the patient left the hospital. Subsequently, however, the stump was damaged by a fall, a tubercular periostitis of the upper third of the fibula resulting therefrom, which, although scraped and otherwise combated, was exceedingly intractable to treatment. Accordingly amputation through the condyles, after the method advocated by Sir Joseph Lister, was done in June, 1887, with excellent results, for although the nephritic symptoms (hæmaturia and lumbar pain) were at that time very marked, the wound healed by first intention, the man being up on the ninth day from the operation. Mr. Silcock pointed out the apparent hopelessness of the case when first under observation, and cited it, as exemplifying the now well recognised doctrine, that where several tubercular lesions co-existed, the removal of one tended to the amelioration of the symptoms attending the others. He remarked that at some time, in future, it might be thought advisable to attack the renal lesion, for the hæmaturia and pain attendant upon it were becoming increasingly severe.

Trephining in Pre-historic Times.—Mr. VICTOR HORSLEY, F.R.S., delivered an address upon this subject. He commenced with three propositions concerning the operation in the neolithic age, which he proceeded to maintain by the help of lime-light reflections upon a screen; he also exhibited specimens of the flint instruments of the period.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, JANUARY 6TH, 1888.

C. B. KEETLEY, F.R.C.S. in the Chair.

Living Specimens.—Mr. WHITMORE exhibited a male patient from whom he had excised a Portion of the Rectum for Malignant Disease.—The Specimen and Microscopic Sections prepared by Dr. P. S. ABRAHAM were presented.—Dr. SPICER showed Three Patients from whom Laryngeal Growths had been removed.

Syphilitic Disease of the Eye.—Mr. J. HUTCHINSON, jun., showed two cases of syphilitic disease of the eyes presenting unusual features. The first, that of a woman who had lately suffered from severe tertiary symptoms, came under care for ulceration of the upper eyelid, with surrounding thickening; a small gumma sloughed out, and on the conjunctival surface a second ulcer appeared. With iodide of potassium internally and iodoform locally the ulcer healed, and at the same time a gummatous ulcer on the palate cicatrised. In the second case, a girl, aged 17, with inherited syphilis and typical teeth, there had been double iritis, and while under treatment interstitial keratitis appeared in both corneæ. Two small gummata developed in the inflamed iris, and had become absorbed under mercurial inunction. Since then iritis and keratitis had relapsed, but were disappearing with specific treatment and tonics. The rarity of gummata of the iris and tertiary ulcers of the conjunctiva was the reason for exhibiting the cases.—Dr. MARSDEN LOW, Mr. WHITMORE, Dr. BENNETT, Mr. LLOYD, and Dr. ALDERSON made remarks, and Mr. HUTCHINSON replied.

Nasal Trephine.—Dr. SPICER exhibited a revolving trephine, worked by an electro-motor, for removing bony growths from the nasal passages.

Epithelioma of Larynx.—Dr. ABRAHAM exhibited microscopic sections of epithelioma of the larynx which had been removed by Mr. Keetley, and remarked upon their characters.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

MEDICAL SECTION.

FRIDAY, DECEMBER 16TH, 1887.

JAMES LITTLE, M.D., President, in the Chair.

Argyriasis.—Dr. A. W. FOOT, *à propos* of the discussion in this JOURNAL, on absorption of silver nitrate applied to the throat, read notes of a case in which the solid caustic had been applied to the throat for eight years, and was followed by silver-staining of the skin and mucous membranes.—Mr. FITZGIBBON mentioned two instances of discoloration of the skin produced by the continued application of nitrate of silver to the throat, but he had no doubt the discoloration was due to the solution having been swallowed. He attributed it to the effect of light upon the white chloride of silver as in photography. Iodide of

potassium had been used, with marked though not complete benefit, in removing the discoloration.—Dr. HEAD said he knew a lady who, suffering from vaginitis, was treated with nitrate of silver by injecting a drachm of 30 gr. solution into the vagina, and in two years she became quite skin-stained.—Dr. DUFFEY pointed out that a case had been recently reported, in which the local application of nitrate of silver to an ulcer on the leg was followed by discoloration of the skin.—Mr. STORY said the local application of nitrate of silver to the conjunctiva, which was a common procedure some years ago, had often produced very deep discoloration, turning the whites of the eyes quite black.—Dr. BALL asked as to silver found in the liver and kidneys; how its deposit there was to be accounted for by the action of light?—The PRESIDENT observed that Dr. Head had disposed of the theory that staining was entirely due to swallowing the fluid.—Dr. FOUR, in reply, said the silver deposited in the liver, kidneys, spleen, and viscera was metallic silver in the oxidised or reduced form, and was indifferent to light.

Cerebral Tumour.—Dr. KENDAL FRANKS read a paper on a case of cerebral tumour. The patient was a married lady, aged 40, who in June, 1887, for the first time was seized with an epileptiform attack. These attacks recurred with diminishing intensity every four or five days until the middle of July, when they were replaced by modified attacks of *petit mal*. After the first attack she exhibited symptoms of amnesic aphasia. At first this was very slight, but after each epileptiform attack became more marked. Headache gradually developed, sometimes becoming very acute, and was always referred to the top of the head about the coronal suture, being most marked a little to the left of the bregma. She came under observation first on September 7th. Cerebral vomiting appeared for the first time on September 9th. On September 13th a paralytic condition of the bladder, necessitating the frequent use of the catheter, appeared; this lasted for five days, then disappeared for ten days, and finally returned on September 23th, and lasted until coma supervened. The only other paralytic symptoms which appeared were, on September 25th, some almost inappreciable paresis of the right external rectus, giving rise to a certain amount of diplopia; secondly, on October 3rd, a partial paralysis of the right orbicularis muscle; and, on October 4th, partial paralysis of the palate. A tumour in the left side of the brain was diagnosed, but its nature and exact position, Dr. Franks maintained, it was impossible to foretell by the symptoms produced. That there was a tumour and not an abscess, as was held by Mr. Wheeler, who saw the case in consultation on October 9th, was proved by the history of the case—the total absence of any predisposing cause, the gradual onset and progress of the disease, without any rigors or pyrexia whatever, until three days before death, and by the total absence of all symptoms of pus formation. Mr. Wheeler, who saw the case the day before death occurred, wished to trephine over Broca's space on account of the aphasia, but Dr. Franks objected on the grounds that none of the symptoms indicated Broca's space as the seat of the lesion. The only localising symptom was the aphasia, which was only partial and was of the amnesic variety; and therefore if it indicated one spot more than another, it pointed to the posterior portion of the parietal bone, the angular gyrus, the posterior part of the infra-marginal convolution, and the posterior portions of the superior and inferior temporo-sphenoidal convolutions, and the central portions of these parts was more than three inches from Broca's space. The *post-mortem* examination showed that the posterior half of the temporo-sphenoidal lobe was occupied by a cavity, extending two inches in antero-posterior diameter, containing perfectly clear serum. The cavity had no true cyst wall, but was bounded by disintegrating brain tissue. The microscope failed to reveal any trace of inflammation, or of any old blood-clot. The nearest part of the cavity to Broca's space measured nearly two inches. Dr. Franks maintained that to have explored the brain by means of a grooved needle through a trephine opening over Broca's space would probably have failed to reach the cyst, and that, even had it been reached, the amount of damage which probably would have been inflicted in the search for a tumour whose situation was so uncertain would have been such that no prudent surgeon would willingly have made the attempt. He strongly objected to Mr. Wheeler's statement that the *post-mortem* examination corroborated his diagnosis.—Mr. WHEELER said: On the 6th of October last a near connection of this patient wrote to me asking me to arrange a consultation with Dr. Franks the next evening. As I was unable to go at the desired time, I was further requested by the same relative on the 8th to see the patient by myself the following day, who stated that it was at Dr. Franks's request. As he would not see the patient until late next evening, I wrote for and received the following history of the case from her husband:—"The patient was in very good health up to the end of June, 1887, when, the weather being very hot, she

felt it much. One morning she was out under hot sun, but walked a mile and a half in the afternoon; was well up to 7.30 p.m. Shortly afterwards she was found lying in her room insensible with face much flushed, extremities cold, pulse feeble. She remained unconscious for several hours, and then awoke perfectly clear in her mind. There was a slight scratch on the forehead, but no appearance of bruise. For some weeks attacks somewhat similar followed, preceded by confusion and a sense of falling. After a short period speech became confused; she always knew what she wished to say, but could not use the right words, nor could she write a letter. Subsequently, violent pain in the head, with vomiting, came on. She fell into a semi-conscious state about three months from the first attack, then perspiration set in, and she lost control over her bowels, and required to have the urine drawn off." I found the patient in a semi-conscious state; saliva dribbled from her mouth, her gums were spongy, and there was a well-marked mercurial odour; pulse 96, but rose to 110; respiration under 24; temperature under 100°; could swallow fluids; no stertor; her pupils responded to light; some urine drawn off; specific gravity 1018, no albumen. I made an ophthalmoscopic examination, but was unable to detect any neuritis. Reflex tests gave no indication except abdominal and mammary. Heart sounds normal. I advised, in writing, even as a last resource, an operation in Broca's region, and stated that, in my opinion, there was a fluid collection, probably an abscess, and that, if a solid tumour existed which had been diagnosed, it would not be impossible to remove it. The *post-mortem* examination showed there was a clear serous collection, separated from the surface by a thin layer of healthy brain tissue, but there was no evidence that pus cells did not exist. I was then requested to meet Dr. Franks at 9.40 p.m. After a few minutes' conversation, he stated that Dr. Head's opinion, with which he agreed, was that the patient suffered from a tumour; and as he dissented from the operation, I proposed that we should see the patient. Her pulse was then over 150, temperature 102.6°, respiration nearly 40. She could not swallow; her pupils did not contract to light. I stated that she was so altered from the time I first saw her that I could not then recommend the operation. There was clear evidence to me that this patient was suffering from aphasia, agraphia, and amnesia, with every indication for operation in the region of Broca; and my opinion is that had she been operated on in time at the site indicated, the cyst could have been emptied, and probably her life saved. For the anterior edge of the cyst would be scarcely three-quarters of an inch from the site of the advised operation; there could be no difficulty in tapping it at even a greater distance, for scarcely two inches and three-quarters of the temporal lobe is posterior to Broca's region; but, supposing it could not have been emptied by the proposed operation, the correct treatment was to trephine a second or third time, and make explorations as often.—Dr. HEAD said that he saw the lady for the first time late on the evening of September 14th, and not being anxious to express a definite opinion without a further examination, he saw her again on the following morning. He had seen several cases in his practice resembling this one in many ways. In two of those cases, the tumours were such as it would have been utterly impossible to remove, even if it were known where they were. Therefore, having regard to his experience, he thought it would be inadvisable to trephine over Broca's space to look for a tumour the locality of which was doubtful, and he advised Dr. Franks not to operate. If the tumour became localised, or evidence of its locality more clearly defined, then the operation might be performed. When he saw the patient again on October 3rd, she was in a comatose condition, and the symptoms had not developed enough to enable him to localise the tumour. She was suffering intense pain, but he did not like to give opium. He suggested cannabis indica. She expressed herself greatly relieved. He suggested a caustic issue, and that the mercury should be given tentatively, but stopped if untoward symptoms arose. It was stopped on September 22nd. On October 3rd he examined her breath and gums, and she had not the smallest sign of mercurialisation. She had bad teeth, but there was no salivation, and there was not the smallest sign of mercurial tætor. Cannabis indica, she herself said, relieved her pain, so he did not see how that treatment could have done her much harm. With all the care he gave the case he could not attempt to localise the position of the tumour, or diagnose whether it was solid or fluid, except the probabilities being that it was on the left side. Under these circumstances he advised Dr. Franks not to operate.—Mr. SWANZY said he was asked to see the lady in order to ascertain whether, by means of the ophthalmoscopic or any other symptoms, a closer diagnosis could be made than had been effected. He examined her with the ophthalmoscope under considerable difficulties, and expressed an opinion that there seemed to be a slight haze over the fundus, which meant an optic retino-neuritis.

At the same time it was so very slight he could not lay much importance upon it. Whatever appearance there was, it was in one eye quite as much as in the other. The lady complained of not being able to see people who stood on the right side of the bed. He further examined to see whether this was due to any blindness in the right eye. So far as could be ascertained by covering one eye and then the other, and by counting the fingers, the sight of one eye seemed to be as good as that of the other. Still she complained of an unpleasant sensation and difficulty of moving the right eye to the right side, indicating a little paresis of the external rectus. He understood there had been a little drooping of the left upper lid, but when he examined her there was nothing of the sort. There was nothing enabling one to localise anything in the brain. If there had been any optic neuritis it would not localise the lesion in the brain; it would confirm the diagnosis already sufficiently made—that of a tumour of the brain.—Mr. BEWLEY, who made the *post-mortem* examination, supplemented his report. Sawing round the skull in the ordinary manner, the saw suddenly passed through the bone behind the left ear, and some clear serous fluid came out from a point above and a little behind the left ear. The membranes of the brain were found perfectly healthy. The cyst was situated in the temporo-sphenoidal lobe, its nearest point one inch and a half from the anterior rim to the fissure of Sylvius. The other parts of the brain, as far as he could make out, were perfectly healthy.—Mr. FITZGIBBON, Mr. FOX, Dr. C. J. NIXON, Mr. A. H. CORLEY, Mr. BROOMFIELD, Mr. MYLES, Mr. M'ARDLE, Mr. HEUSTON, Mr. BARTON, The PRESIDENT, Dr. PRATT, and Dr. COX took part in the discussion.—Mr. KENDAL FRANKS replied.

SOUTH INDIAN BRANCH (MADRAS).

JUNE 3RD, 1887.

The VICE-PRESIDENT in the Chair.

Intra-uterine Fracture.—Surgeon-Major BRANFOOT exhibited a foetus born dead which presented fractures of the shaft of both femurs and of the tibia and fibula of each leg; muscular contraction had occurred in both upper and lower limbs. [The specimens were subsequently examined by a sub-committee consisting of Brigade-Surgeon Sibthorpe and Surgeon-Major Branfoot; the femur, tibia, and fibula of the limb dissected were all bent nearly to right angles; it appeared that after ossification the bone had been fractured, and that new bone had been formed in the angles.] The mother was a primipara, and was under treatment for six weeks before delivery for acute articular rheumatism.

Ovarian Tumours.—Four specimens of ovarian cystic tumour were shown by Surgeon-Major BRANFOOT, namely, a simple cyst and a colloid multilocular cyst from the same patient, a papillomatous cystic growth, and a dermoid cyst; all three patients recovered after ovariectomy.

Dupuytren's Enterotome.—Brigade-Surgeon SIBTHORPE related a case in which Surgeon Maitland, of the General Hospital had cured a case of artificial anus left after herniotomy for strangulation with gangrene of gut by the use of Dupuytren's enterotome; the *éperon* had disappeared in ten days after the instrument was first applied.

Cardiac Thrombosis.—A heart, showing a thrombus extending from the right auricle into the right ventricle and pulmonary artery, was exhibited by Brigade-Surgeon SIBTHORPE. The patient, a Hindu ryot, aged 65, was suddenly seized with dyspnoea nine days after excision of the scrotum had been performed for elephantiasis, which had been followed by much reactionary hæmorrhage. The dyspnoea very rapidly increased, the heart's action became rapid and feeble, the temperature fell to 97° F., and the patient died in fifty-five minutes after the seizure. The necropsy showed that the mitral valve was incompetent. The clot on the right side was red, firm, and adherent to the walls of the heart; it extended to the bifurcation of the pulmonary artery.

Spinal Caries.—Brigade-Surgeon SIBTHORPE also showed a specimen of caries of the dorsal vertebrae in a man aged 25; the twelfth dorsal vertebra had almost disappeared, and the front of nearly all the others was eroded; the twelfth rib and the first lumbar vertebra were also carious. The abscess extended from the first dorsal to the first lumbar vertebra, had obliterated the right pleural cavity, and had reached the manubrium, the posterior surface of which was eroded.

New Stretcher.—A new stretcher, designed as improvement on the new army regulation pattern, was exhibited after the meeting by Brigade-Surgeon SIBTHORPE. Two small bamboo poles carrying the canvas bottom were kept in place by transverse pieces of light wood, which were so made as to serve as feet when the stretcher was placed on the ground; with pillow, strings and straps it weighed 22 lbs. The advantages claimed were—lightness (the regulation patterns weigh 31½ lbs.), cheapness (four rupees), ease of repair in case of accident.

REVIEWS AND NOTICES.

SYPHILIS. By JONATHAN HUTCHINSON, F.R.S., LL.D., Consulting Surgeon to the London Hospital, etc. With eight chromo-lithographs, pp. 532. Cassell and Co. 1887.

THIS is one of Messrs. Cassell's series of "Clinical Manuals for Practitioners and Students of Medicine," and certainly the publishers are to be congratulated in the present instance on their choice of an author; for no one has a better right to speak with authority on syphilis than Mr. Hutchinson, who, moreover, for many years past has been almost constantly writing or lecturing on the subject. This being the case, it was hardly to be expected that the present volume would contain much that had not been said before; and, indeed, it may be considered as to some extent a gathering together of what was previously scattered in many periodicals and other works, but with the important addition of a large number of illustrative cases from the author's own notebooks. The result, we may say at once, is a collection of facts and suggestions which forms a most valuable contribution to the literature of syphilis, and at the same time a storehouse of knowledge from which the practitioner cannot fail to derive profit; for though he will not find a complete or systematic treatise on the subject, nor very extensive reference to the works of foreign writers, he will find what he will probably value more, namely, much information and many practical hints that will be of real assistance to him in the management of his cases.

The book is divided into two parts, the first of which occupies less than 100 pages, and contains a summary of the chief events in the course of syphilis, as well as of its treatment. The remainder of the book consists of 242 pages of commentaries on a great variety of subjects, including remarks on the most important questions connected with the nature, diagnosis, and treatment of the inherited as well as of the acquired form of the disease.

As to the nature of the contagium of syphilis, the author speaks as follows: "The creed which will be found to interfuse not only this work, but almost all that I have ever written on syphilis, is that the disease depends upon a living and specific microbe, and that it is transmittable only so long as that microbe retains its vitality." With regard to the affection commonly known as the soft chancre, Mr. Hutchinson appears still to hold the opinion—an opinion held, we imagine, by few syphilographers at the present day—that that sore is related to syphilis; for under the heading "on soft or non-infecting sores" we find their etiology thus explained: "It would appear that some of the inflammations resulting from syphilis, but not attended by the actual presence of the virus, may produce a peculiarly irritative and very contagious secretion..... Sores form within a day or two of its contact, which are attended by ulceration, and by the secretion pus which is capable in its turn of inoculating other parts."

Respecting the all-important subject of the treatment of syphilis, most authors are now pretty well agreed as to the remedies to be employed, but there is still much difference of opinion as to details, such as the particular preparation of mercury to be used, the mode of its administration, and the length of time treatment should be continued. Mr. Hutchinson, we are glad to find, recommends for ordinary cases one of the simple preparations, namely, grey powder, given by the mouth. We also agree with him entirely that mercury should be begun as soon as the diagnosis of syphilis has been made, without waiting for general symptoms; but it does not accord with our experience that when mercury is given early it is "quite the exception for any secondary symptoms to occur at all." Rather should we be inclined to say that, in carefully watched cases, it is quite exceptional not to be able to detect some form of secondary manifestation. Again, we should not think it wise in any case to trust to a six months' course of treatment as adequate for cure, nor do we consider a period of two years from the time of contagion sufficient for marriage to be safely contracted, though it must be admitted that on this latter point Mr. Hutchinson has considerable evidence on his side when he states that in a very large number of marriages which have taken place after this interval and with his own permission, he has never, with one exception, known of any hurt to either wife or child.

There are certain points which might have been more clearly stated with advantage, as well as others on which it is not easy to find out exactly what the author's opinion really is. For example, the statement that syphilis "can be conveyed from one person to another only by direct contact of surfaces" might mislead an inexperienced reader. Again, with regard to the question of whether a primary venereal sore should be destroyed, we are told in the second part that the author would deem it a neglect of duty not to canterise freely

any sore which came under his treatment within five days of exposure; and in the first part, that "if a patient who has never suffered from syphilis before, and who can give his dates correctly, comes under observation at any period within a fortnight of the contagion, with a single sore, it will certainly be wise to destroy it utterly."

On another interesting point it would be very difficult to reconcile the various statements made with regard to it. We refer to the pathognomonic or non-pathognomonic nature of syphilitic manifestations. On the very first page of the preface it is distinctly laid down that "none of the symptoms of the disease are pathognomonic"; but on page 30 we read, "In the case of the condyloma the diagnosis is usually easy, for nothing resembling it is ever produced excepting in syphilis;" on page 75, "interstitial keratitis, in its typical form, is always a consequence of syphilis, and it is in itself sufficient for the diagnosis;" on page 229, "that the choroiditis was syphilitic no one could doubt, for its features were pathognomonic;" while on page 485 the statement made in the preface is repeated with emphasis: "We have absolutely no malady which is peculiar to syphilis."

From the passages we have quoted, and others which the reader will no doubt find out for himself, it will be seen that the book needs revision, and it must also be remarked that its value as a work of reference would be decidedly increased by a more methodical arrangement of the material in Part II. These, however, are matters of minor importance, considering the many admirable qualities of the book as a whole. We have read it through with great pleasure and profit, and can with confidence recommend it to all practitioners of medicine.

HEALTH MAPS. A Complete Series of Prescribed Exercises of the Body for Daily Use: for maintaining the Health in a State of Integrity, for correcting any tendencies to Functional Irregularity, and for resisting the Encroachments of Disease. By ANNA LEFFLER ARNIM. Groups I, II, III, IV, V. London: Swan Sonnenschein, Lowrey, and Co. 1887.

CALLISTHENICS and deportment used to be a part of the education of every young lady, and in spite of many defects both in method and application, the young ladies benefited by the instruction. Pope, no mean observer of human nature, has said, in a quotation which is now hackneyed, that "they move easiest who have learnt to dance;" and it will be admitted at the present day more readily perhaps than ever before, that vigour of body and grace of movement depend upon a training of the whole muscular apparatus. Dancing did to some extent accomplish this, for the dancing master had devised exercises for the foot, the leg, the thigh, the muscles of the trunk, and even to some extent for the arm and hand. Forms of exercise which make great calls upon limited groups of muscles do not tend to produce good æsthetic results; the increased development of the groups which are much used is accompanied by a wasting of the groups which are less used, and there is a loss of symmetry. The overgrown leg of the professional dancer or the attenuated calf of the horseman are not beautiful, though gaping fools may admire the one, and fashion, aided by the bootmaker, may have rendered the other an object of ambition to young sportsmen who, after an autumn on the moors, may be heard to lament at the beginning of the hunting season their inability to squeeze their new well-grown calves into the "neat" tops that had been their pride in the previous March.

Without denying the health-giving qualities of such exercises as riding or cycling, it will probably be admitted, on theoretical grounds at least, that other forms of exercise which make more universal calls upon the muscles, not only produce better types of manly and womanly beauty, but a better general state of health. Herein probably is to be found an explanation of the extraordinary popularity of cricket, boating, and football in this country and in Australia, and of football and Lacrosse in America. Lawn-tennis is another popular game which calls into play nearly every muscle of the body. But everyone is not in a position to indulge in these pastimes, and for such unfortunates Miss ARNIM'S Health Maps will have distinct value; she has elaborated a series of exercises which bring into use *seriatim* most of the important groups of muscles; each exercise is illustrated by a diagram. For these diagrams we have nothing but praise; they are drawn with spirit, and indicate very clearly the movements which are to be performed. The "maps" are, however, intended to have a wider application, and will be of considerable service in suggesting methods of obviating some of the evil consequences of constrained attitudes assumed during work. Some of the exercises recommended for special purposes, as for instance Fig. 7, Group III, are extremely simple, and are such as the attitudes which they are intended to cor-

rect naturally suggest. The authoress no doubt seeks to magnify her office, and some of the exercises in the series appear so simple as to provoke a smile; the series, however, must be taken as a whole, and simple as many of the individual exercises are, there is much to be learnt, not only as to their sequence, but also as to their performance. "To be a well-favoured man is the gift of fortune," said Dogberry, "but to write and read comes by nature;" and, *pace* Dogberry, we must learn not only to read and write, but also, under many of the circumstances of modern life, to exercise our bodies.

The author's physiology is sometimes in fault; it is, to say the least, doubtful whether the exercises in Groups II and IV would have the special effects on the liver, spleen, and kidneys, or on the digestive organs, which are attributed to them. Groups I, III, and V will be the most generally useful. The diagrams are arranged on a folding screen, which may be made to stand extended upon a table before the pupil. In looking at a group thus extended, the general resemblance to the restless movements of a healthy child is rather striking. Fig. 11, group V, represents a young person who "seats himself upon a bench or table, the edge being just allowed to come under the bend of the knee. He then commences to rotate the lower half of the leg, confining the movement to the knee, and keeping the thigh as motionless as possible. To be performed three times," etc. How many parents have been "fidgetted to distraction" during the recent holidays by the performance of this "exercise" many more than three times by a son or daughter whose exuberant vitality had at the moment found no other outlet!

NOTES ON BOOKS.

Lewis's Pocket Casebook for Practitioners and Students. Designed by A. S. BRAND, M.D. (London: H. K. Lewis).—This small casebook is intended to be used by the general practitioner on his daily round. The book is of the dimensions of an ordinary pocket book, and four pages are given to each case. On the first page there are spaces for date, name, age, and other like facts, and below headings for tabulating symptoms observed under the various systems; this table extends across the second page. On the two following pages the subsequent course of the case can be recorded. The omission of any heading in the table for the previous history of the patient appears to be the only fault which is likely to be found with this well planned and convenient pocket book. It contains space for about fifty patients, and is provided with an index.

Contributions to Clinical and Practical Medicine. By A. T. H. WATERS, M.D. (London: J. and A. Churchill. 1887).—Dr. Waters has collected in book form a number of clinical lectures and papers upon diseases of the lungs, some of which have appeared before at different times. The whole bears the impress of careful work by an accomplished clinical observer, and as a practical guide is of great value. The first chapter gives the results of a large number of observations upon the temperature in phthisis and other diseases. In phthisis Dr. Waters finds that the highest temperature occurs at or near 5 o'clock in the afternoon, and is low in the morning. The tubercle bacillus is not mentioned as of diagnostic importance, probably because of the early date at which many of the lectures appeared; but it is suggested that the exacerbations of acute phthisis and of septicæmia may be due to analogous conditions. In a later chapter Dr. Waters maintains the existence of an acute pneumonic phthisis, not of tubercular origin, and not accompanied by so much prostration as is present in acute tubercular phthisis. For pneumonia quinine is recommended in full doses as a valuable therapeutic agent, especially where the pulse is quick or the temperature is high. The author has not been able to satisfy himself as to the existence of a special "septic pneumonia," but considers that septic poison may modify the symptoms of a pneumonia. The article on bronchitis is a reprint of that in Quain's *Dictionary*. The remaining chapters of the book comprise practical remarks upon pleurisy, cancer of the lung, perihepatic abscess bursting into the lung, and Alpine climates in lung disease, in all of which useful hints will be found.

Bibliotheca Medico-Chirurgica, Pharmacutico-Chemica, et Veterinaria. Herausgegeben von GUSTAV RUPPRECHT. (Göttigen: Vandenhoeck and Rupprecht's Verlag. 1887).—This publication aims at placing before its readers in a systematically arranged summary a list of new works, important treatises and periodicals, published both in Germany and abroad, and embracing the wide domain of general medicine. It appears quarterly, each number containing classifications, under which

the new works are grouped, as well as an alphabetical index. It has now nearly completed its forty-first volume, the second of its new and more complete series, having been first published in 1847. We draw the attention of all medical men, whether interested in the progress of their science generally or of some of its more special points, to this valuable compilation, as giving them means to attain a rapid acquaintance with the progress effected by their foreign contemporaries in the numerous provinces of medical knowledge.

Krause's Monthly International Journal of Anatomy and Physiology.—The first number of this valuable journal for 1888 contains the following articles: "Qu'est ce que l'Homme pour un Anatomiste," by L. Testut; "Recherches sur la Portion Terminale du Canal de l'Ependyme chez les Vertébrés," by Dr. G. Saint Remy; "Sur la Structure des Nerfs Cérébro-rachidiens," by Dr. Louis M. Petrone. They are all articles of solid and valuable research, and the journal is one which well deserves the support of anatomists.

First Aid to the Injured: The Ambulance Pupil. By a Pupil of the St. John Ambulance Association. (Crosby, Lockwood and Co., London).—This is one of the best textbooks which has come under notice for those attending classes of the St. John Ambulance Association. The facts in anatomy and physiology are clearly, tersely, but sufficiently described. The directions for treatment are excellent, and at the same time easily understood, and likely to be put into practice. This small, compact ambulance work is to be highly commended.

Notes on Surgery for Nurses. By JOSEPH BELL, F.R.C.S.Ed., (Edinburgh: Oliver and Boyd. London: Simpkin and Marshall).—This is a charming little book. It contains just the kind of information that a surgical nurse would require, and is written in such a simple and interesting style that it cannot fail to draw attention to the salient features which the writer wishes to describe. These notes, the author tells us in his preface, embrace only the main points of the lectures which he has for twelve years delivered to the nursing staff of the Edinburgh Royal Infirmary, and one can well imagine that by personal explanation and the help of diagrams much that is here briefly described in writing would be more easily understood and remembered. No school of nursing is now considered complete without a systematic course of lectures, and we notice a little inclination to teach the nurses too much in the short time at their disposal. This little book will, we think, give a hint to those who lecture, and be of great service to the nurses themselves in impressing upon them the most important points of their surgical teaching.

REPORTS AND ANALYSES

AND
DESCRIPTIONS OF NEW INVENTIONS,
IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

PURE COMPRESSED MILK EXTRACT. (W. TULLOCH and Co., Philpot Lane.)

This preparation represents the solid matter of skim milk in a palatable form, capable of being kept for any length of time. It is said to be the highest degree of concentration to which milk can be subjected, and has on that account an advantage over ordinary condensed milk. It must be understood that the preparation is devoid of cream or fat; and whilst it may well be used in ordinary cookery, or as an addition to coffee, tea, or cocoa, we would hesitate to employ it in the nursery. It is, when used with discretion and in the proper place, a good preparation.

"ICHTHYS" FISH SAUSAGES.

NOVELTIES in the shape of everyday articles of food are so uncommon, that an idea, which successfully carried out would materially add to the popular dietary, deserves special notice.

Mr. W. P. Eoglish, of Hull, has brought into the market, at the low price of 3s. 4d. for four pounds, sausages made of the flesh of cod and other fish, separated from skin and bones. They are very palatable when fresh, and peculiarly so when smoked or curried.

They will be found very suitable food for invalids, and will be appreciated in family cookery. Any intelligent cook will be able to prepare a number of tasty dishes from the contents of the "Ichthys" sausage.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 21st, 1888.

VIRCHOW ON THE DIAGNOSIS AND PROGNOSIS OF CANCER.

THIS subject is discussed, in an article constituting the first "Heft" of Virchow's *Archiv*, Band cxi, from a purely scientific point of view, but it is evidently more or less a vindication by the author of his position in regard to the case of H.I.H. the Crown Prince of Germany. The opening words run thus: "It may seem almost superfluous at the present day to say anything on the diagnosis of cancer to those who have a knowledge of the subject. But an old dispute has quite recently been revived, namely, whether the anatomical or the clinical diagnosis is the more correct." The "constitutional" character of the disease has been regarded as its chief characteristic, that is, as expressed by the word "malignancy," or tendency to generalisation, but the sarcomata are still more malignant than the carcinomata, and even the most "innocent" growths, such as enchondroma and myxoma, occasionally form metastases. Malignancy, then, has ceased to be a diagnostic criterion, apart from the fact that an accurate diagnosis is a desideratum before a growth has begun to form metastases. The diagnosis must rest upon the knowledge of the histological structures of the growth. As early as 1847 the author showed that the alveolar structure belonged to all carcinomata, and not to ordinary cancer alone; further, that the alveoli contained, not a mere "cancer juice," but chiefly cells (Virchow's *Archiv*, 1847, i, p. 105). These cells were then declared to be "identical in kind with epithelial and epidermoidal cells, and especially with the cells of the so-called transitional epithelium." A cancer is thus analogous in arrangement to a gland, without an excretory duct. Attempts have been made, hitherto without success, to discover a cancer bacillus. "It is possible such may exist; indeed, such a discovery would constitute an important advance.....which might explain much that is still obscure as to the metastatic processes which occur in cancer." But gland cells have been shown to produce various tissue products, and cancer cells alone amply suffice to explain the constitutional effects of cancer. That cancer is always primarily local in character, and that its dyscrasia was always secondary, was contended for in the *Handbook of Special Pathology* as early as 1854, a time when the "cancerous constitution" was still firmly believed in.

To return to the diagnosis of cancer. Clinical observation alone is insufficient for diagnosis. "A striking example of this is to be found in tumours of the bladder. Till quite recently there has always been confusion on this subject, although I showed the distinction between the two kinds (that is, between an innocent papilloma and a villous cancer) a generation ago in point of time."

Professor Virchow narrates with spirit the battle over the "specific

cancer cell." He came to the assistance of Velpeau against the "micrographists" of Paris with his "three cases of generalised epitheliomata," to be found in the *Gaz. Méd. de Paris*, 1855, p. 208, and thus assisted in demolishing the theory of the specific cancer cell. "But perhaps the polymorphism of cancer cells would have been recognised earlier if the micrographists had been allowed time to look round them," in their newly-entered territory.

But even the anatomical examination may mislead. The author says that he showed by examples in 1851 that there may be mixed tumours, with different types of tissue. "Later on I declared this condition with regard to fibromata, and as this matter is one of importance I will quote my own words (*Tumours*, vol. i): 'Nothing can more easily cause misunderstanding than the fact that certain parts of a tumour may be formed purely of connective tissue, while other parts of it may be quite different. If in our examination we submit only very small defined portions to our inspection, only one or other of the constituent parts of a growth may offer itself to our notice, and its whole character may be determined accordingly. If the part examined happen to be connective tissue, our opinion on the nature of the growth will naturally be in general a favourable one, as a rule more favourable than if we had come across the other parts. This has happened to myself.....in particular I recollect a "recurring fibroma" which at the first extirpation I diagnosed as a simple fibroid tumour, but after a relapse (and a second operation) I found cancerous structure. On again examining the original specimen, preserved in alcohol, I found that very small portions of it showed the cancerous structure, almost all the rest of the tumour being fibromatous.'" The author adds that the case was a very uncommon one, and that a similar experience in regard to a large growth never happened to him again. Carcinomatous sarcoma and myosarcoma are mentioned amongst the mixed tumours in the author's work, and the present opportunity is taken to draw attention to this subject anew. A cancerous papilloma ("Wurdenkrebs") is, we are told, nothing but a mixed tumour, consisting of a cancer and a local hyperplasia of pre-existing parts; and if the anatomist may err, how much more likely is the clinician, who can only see the surface and watch the course of the disease. Great stress has been laid upon the enlargement of neighbouring glands, but even this may be simply inflammatory in character.

The exploratory investigation of a tumour is important. "A portion of its periphery is excised, or a few particles of the interior are withdrawn by puncture. These minute objects are then the only materials submitted for examination.....I say nothing against this kind of examination; it is often the only kind possible; but we ought not to be surprised if the result is deceptive. How easily may it happen that these minimal parts at the disposal of the investigator may not belong to the diseased site." Especially in regard to mixed tumours, "the examination of a portion of a new growth may easily give rise to error, but the real error is on the side of the clinician, not of the anatomist; for the latter can only form a judgment on what is submitted to him." As examples are cited co-existing uterine myoma and cancer, or hyperostoses and sarcomata in the long bones, though diagnosis is not difficult here. It is more difficult in the case of "papillary excrescences co-existing with ulceration." Ulcers of the larynx, especially syphilitic ulcers, frequently exemplify this. In chronic ulcers of this kind we see "a growth of the neighbouring mucous membrane with the most distinct papillary hyperplasia,

giving the impression of independent papillary tumours" (*Tumours*, vol. i).

Friedländer's objections to the theory that cancerous new growths are characterised by an alveolar arrangement with contain "heterotopous" (heterologous) epithelium are not without weight theoretically, but practically mean but little. The question of the derivation of the epithelial cells has become of great interest since the investigations of Thiersch and Waldeyer, but as yet has received no certain answer.

Professor Virchow refers to his early and steady advocacy of an early removal of any solitary new growth wherever feasible; in fact, he had determined such surgeons as C. Mayer, von Graefe, and von Langenbeck to extensive operations for even quite recent tumours of malignant kind. "This is now almost antiquated wisdom, and modern surgeons, in fact, claim credit for establishing the primary local character of malignant tumours." It is less important to know who originates a theory than whether it be true or not.

Cancer extends by the formation of accessory foci, and not by simple enlargement of the original centre. The first clearly described case showing this is the case of a cystic enchondroma of the shoulder-blade (*Archiv.*, 1853, v, p. 218). But these accessory foci are to be distinguished from the disseminated metastatic foci characteristic of malignancy.

Finally, the question of the possibility of spontaneous cure of cancer is touched upon. Dittrich showed that cases of supposed retrogression of cancer of the liver were really due to gummata; but Virchow has observed a cicatricial process in hepatic cancer caused by fatty metamorphosis of the cells in the centre of the tumour. "The formation of accessory foci is what forms the obstacle to a real healing. Cancer itself is no permanent tumour." Indeed, its cells have a very restricted vitality. Regarding medicines, Clay's treatment with Chian turpentine is mentioned, and the author is of opinion that though as yet no satisfactory proofs of cure are afforded, the profession is generally too sceptical on this subject. Von Nussbaum attempts to set up fatty degeneration in a tumour by thrusting the thermo-cautery in different directions beneath it, and thus depriving the periphery of its vascular supply. All such attempts are commended. "If cancer is at first, and often for very long, a local disease, it must be possible at this stage to cure it locally."

A NATIONAL PENSION FUND FOR NURSES.

ON various occasions during the last five or six years we have directed attention to the defenceless position of women engaged in the work of sick nursing when incapacitated by illness or age from continuing in the exercise of their vocation. It was pointed out that with the modern development of sick-nursing into a profession, the old pension system which existed at a few hospitals was not adequate to meet the necessities of the new conditions under which a nurse no longer remained attached to one hospital all her life, but after receiving her technical education most commonly obtained a situation in another hospital not provided with a training school, or became attached to one of the institutions which provide nurses for private cases. The great difficulty in making provision for pensions lay in these newly-formed migratory habits, and in the frequency with which the occupation was abandoned after a few years' trial.

The formation of the Hospitals' Association seemed to promise an opportunity of testing the feasibility of establishing a provident

pension fund for nurses, and it is with sincere satisfaction that we notice that the preliminary difficulties which necessarily surround the inception of such a scheme have been overcome. Four merchants and bankers of the City of London, Messrs. Gibbs, Hambro, J. S. Morgan, and Rothschild, have undertaken to provide the sum of £20,000, which must, in order to meet the provisions of the Friendly Societies' Act, be invested in the name of trustees before such a scheme as that of the "National Pension Fund for Nurses and Hospital Officials" can commence work upon the scale which is proposed.

Great credit is due to Mr. H. C. Burdett for the labour which he has bestowed upon the preparation of the scheme, the success of which seems now assured, if only the persons it is primarily proposed to benefit—that is, the nurses themselves—will come forward and show that they are in earnest. The scheme is founded on the provident principle, and the main resource of the fund will, it is expected, be the contributions of the nurses and other officials serving in hospitals. It is, we are glad to see, intended to make the fund self-supporting, and to fix the premiums and pensions to be paid at sums calculated by the actuary as safe. Contributions from the general public or from hospitals would be regarded in the light of a fund to provide bonuses. Contributors to the bonus fund will, we are informed, constitute the members of the Society, and will elect half the council, the other half being elected by the nurses and other policy holders.

One of the difficulties of the fund will be the relative frequency with which nurses will still continue to leave that occupation in order to marry, or for some other reasons which now operate to produce the very rapid thinning of the ranks which is always going on. This is to be met by providing a special scale of pensions for persons who reserve the right to require repayment at any time of all sums paid in to the fund.

The fund, too, will operate to diminish, though never altogether to do away with, these frequent retirements. In many cases a nurse only gives up her occupation because she has no prospect of making any provision for old age; the consciousness that this can in future be done by the exercise of a moderate amount of self-denial during the working years of life ought to have an important effect in retaining women who have once embarked in the career. If, as it is only reasonable to expect, the public contribute freely to the bonus fund, that will afford an additional inducement to a nurse to remain true to her calling.

Another difficulty which must be met is the relative rarity of habits of providence among women; they have hitherto had no organised help in this direction, and no societies which afford a standard, so that they are apt to think the premium high and the pensions small. It is not necessary to discuss the rates which it has been tentatively proposed to fix; these must be worked out on ordinary actuarial principles. This has been carefully studied by competent authorities, and it appears to be most desirable that as little delay as possible should occur in publishing them; sixty-five shillings a year will undoubtedly appear a large sum to nurses of 25 drawing £25 a year in wages; but when persons of business experience, whose advice they may be able to obtain, are satisfied that the rates are on a sound basis, a great step will have been taken towards gaining the confidence of the nurses. Some kind of test may have to be applied to applicants in order to ensure that only those who can be properly described as trained nurses are admitted as subscribers to the fund. The class which is to be included under the term "hospital officials" must

also be defined; difficulties will, of course, arise on this head, but they are only such as men of wisdom are accustomed to deal with. It would obviously be desirable to limit the fund to persons holding positions of responsibility and trust.

The object of the scheme is good, and its main features are such as will commend it to persons acquainted with the wants of the workers in our hospitals; great care, patience, knowledge, and skill will, however, be required in working out the final details of the scheme; such qualities we may expect to find in those who are now engaged in its elaboration.

The fact that the leading officials and treasurers and house-governors of so many great hospitals are showing an active interest in working out the scheme, and that it has secured the munificent support of merchant princes, proverbially as prudent as they are generous in a good cause, afford the highest guarantees of real and permanent success. The interest shown in the scheme by Sir Andrew Clark and Dr. Bristowe is only an earnest of that good will which the whole medical profession may with certainty be expected to show towards a class of persons—hospital officials and nurses—with whom they are intimately and daily associated in the great work of charity, in their daily lives, whose admirable qualities they appreciate, and whose welfare they may be counted upon to aid and promote by their influence and advice, and, when necessary, their active co-operation.

THE RELATION OF PUTREFACTION TO INFECTIOUS DISEASES.

II.

For a long time putridity was considered to be a special characteristic of putrefaction, and Ogston separated the saprophytes of "ordinary" putrefaction from other organisms. Koch also made it a distinction of his spirochæta that they did not emit an odour like the comma bacilli of Finkler and Prior. But Poehl and Brieger have shown that the former yield a large amount of "cholera red," an indol derivative, and indol and its derivatives are characteristic of all putrid processes. Again, Pasteur's theory of anaerobiosis made putrefaction dependent on the entrance of air. This is too absolute a statement; the entrance of air is but one of the several conditions requisite for the development of specific processes. The opposite view of Cohn, that his aerobic bacterium termo is the only real saprogenous ferment, is equally erroneous. The recent proposition of Wolny that putrefaction is essentially a reduction process, and that destruction is an oxydation process, is acceptable from the chemical aspect, "but biologically can only be received *cum grano salis*." Many bacteria exhibit both processes at the same time, as Herens (confirmed by Leone) has shown. Duncan's view is that the excitants of pyæmia and septicæmia take "no share in putrefaction," but he has omitted to say what constitutes their unsuitability in this respect, seeing that these organisms live in putrefying matters. Rosenbach has attempted to ascertain this, and has found that the differences between sapræmia and septicæmia are by no means so great as was supposed.

The fact is that the word "putrefaction" is misleading, as indicating one process, having one cause, while in reality it embraces several processes of different kinds. The organisms causing putrefaction (not to mention infusoria) have now developed, as shown by cultivations, into a part of the local cryptogamic flora of a geographical district, and not only so, but the same bacteria may be modified by cultivations

under various conditions, so as to exert different effects. Fitz took away their capacity of forming butyric acid from the anaerobic bacilli peculiar to the butyric acid fermentation, while their influence on albuminates remained unaltered. Professor Hueppe has done the same with the aerobic "butyric acid bacilli," and also was able to prevent the bacterium coli commune from causing the fermentation of sugar, while this organism still split up albumen, with formation of a poison. The same specific organisms may at times set up a pseudo-putrefaction, without any bad smell, and at times a true stinking putrefaction. It must be remembered that invasive organisms may act pathologically, not only by formation of poisons, but also by their mere increase.

From all this it is to be gathered that the so-called specific organisms of infectious diseases are not so specific as has been announced. The generally received opinion that filth in itself, though it may aid the spread of infectious diseases, can never cause them, requires modification. "Those sorts of filth which we meet with in putrefaction may at least contain the germs of the specific excitants of the infectious diseases, and these germs under (continued) favourable conditions may even set up the latter." There is a kind of correspondence between the gradations from cholera to cholera nostras and Asiatic cholera, those from epidemic icterus to yellow fever, and those from localised putrefactive processes up to the development of miasmatic or contagious diseases. Sporadic diseases may become endemic; endemic diseases may become epidemic. It is probable that Asiatic cholera was only an endemic disease during the last century, having been previously merely sporadic. Conversely, germs may perish; the plague has disappeared from Europe. But all well-defined infectious diseases have for the time being a favourite locality, a home, and their excitant organisms can owe their original development within this locality only to local putrefactive processes; these processes, as already stated, on other grounds being of various kinds and specific to the locality.

From the above considerations, Dr. Hueppe formulates the following conclusion as a fundamental basis of modern medicine: that "the excitants of infectious disease must be specific organisms, and this specificity may be either absolute or else evolved during thousands of years from local putrefactive processes." Now, seeing what modifications can be produced in bacilli by experimental cultivations, it seems unnecessary for Dr. Hueppe to postulate such long periods of time. He goes on to say: "I may be told that this is the pathology of the pre-Darwinian and pre-bacteriological era, but that does not prove it to be erroneous. Old truths emerge at last triumphant, however overlaid by alterations and systems, and new facts and modes of observation give the key to fresh explanations. In the process of putrefaction the modes of organic life are as follows, to use Garr's nomenclature. Various kinds of organisms grow side by side, and share in the destruction of their own substratum; this is symbiosis. Others prepare material beforehand for the development of others; this is metabiosis. Others, again, struggle for possession of the field with others; this is antagonism, which may be either one-sided or mutual. But different conditions may cause the same organisms to play very different rôles; an antagonistic organism may become metabiotic, and the latter may become symbiotic. Ultimately, persistent forms are attained, the so-called durable condition (*dauer-form*) permitting fresh development after long periods of inactivity." Duclaux kept germs in an inactive condition for twenty years, and found that

when, at the lapse of this period, air was admitted, they began at once to develop, that is, to share in the process of putrefaction—as even Koch's comma bacilli do for a few days. Hence the explanation of latent foci of epidemic diseases otherwise hard to trace.

In all the inductive sciences, it is no less important to arrange all newly-discovered facts in their proper sequence than to gather them by laborious experiments, and we ought not to feel disappointed if, when they apparently upset time-honoured theories, further examination reveals that they but substantiate those very theories. Such is the case with infectious diseases. Of old they were connected with filth, with putrefaction; then the microscope appeared to indicate that they were due to specific organisms, that they could be cultivated apart, that they apparently had nothing to do with putrefaction, but were even antagonistic to it, and succumbed to it in many cases; lastly, renewed examination of the bacteriological and epidemiological facts before us reveals that, after all, the ancient doctrine of Hippocrates had a substratum of truth.

As regards the "durable condition" above mentioned, Pasteur's attenuations of virulency—independently worked out in part by H. Büchner—are of the highest interest. A certain saprophytic stage acquired by organisms during the putrefaction of albumen represents the phyletic commencement of increased virulence. Watson Cheyne has shown that some bacteria, which in small numbers only act locally, may in large numbers cause general disease. Further, Heube and Kitt, as regards cattle-plague, have obtained the same results with a large number of germs of a low degree of virulence as with a small number of high virulence. Again, Pasteur has shown that pathogenic bacteria undergo modifications of virulence by transmission through (susceptible) animals, the lower grades of virulence protecting against the higher. Heube, who had previously argued that the four diseases, cattle-plague, swine-plague, rabbit-septicæmia, and fowl-cholera, must be nearly related, has made a series of experiments (partly with the assistance, partly under the control, of Kitt) which not only support this idea, but show that the bacteria of these four diseases, when attenuated either by culture or by transmission, are mutually protective against each other.

It results from these general considerations that not only may a virus be strengthened or weakened by adaptation, but collateral effects may arise. In other words, modifications of bacterial action may occur in quality as well as in quantity; hence the appearance from time to time of infectious diseases apparently new to medicine. When we also bear in mind that Salomon and Th. Smith were able to protect animals against American swine-disease by means of ptomaines as effectually as by attenuated cultures, it is evident that the boundary line between intoxication from putrefactive processes on the one hand and infection on the other is done away with. Nature herself steers between the purely localistic and the purely contagious theories, and the truth lies, as usual, between the two extremes. "To admit a saprophytic stage in the existence of infectious organisms at one period or another of their phyletic existence is to admit a miasmatic stage of a localised character; to deny it is to deny the recent revelations of bacteriology." "It is a matter of indifference," Heube continues, "whether with Pettenkofer we speak of ectogenous, or with Koch of occasional parasitism, with myself of a 'saprophytic stage,' with De Bary of 'racial selection,' or with Van Seighem, of 'facultative parasitism.'

On the other hand, the purely 'contagious' theory is not opposed to the dependence of the infective organisms upon the outer world, as Nægelli and Pettenkofer postulate. The question whether a disease be transmitted directly or indirectly, whether it is contagious or miasmatic, depends upon the presence or absence of definite organisms (for example, spores), and upon the mode in which infection occurs (for example, by wounds, by the lungs, or by the intestines). And as far as concerns these mere pathological considerations, the broader view of Koch commends itself as the most just, namely, that infection may occur by a plurality of modes."

This comprehensive address closes thus: "Putrefactive processes are necessary as an intermediate stage between plant life and animal life, and as long as these processes go on, so long will organisms exist which, owing to their very origin, will act detrimentally on the structure of the human body, that is, will excite disease.....Let putrefaction then go on as far removed from human dwellings as possible, in its natural place, the ground.....Cleanliness—a genuine cleanliness, not a merely external purity—(*Facaden-Remlichkeit*) is the best means of combatting infectious diseases, and here I adopt the English view of the subject.....The triumphs of hygiene are as brilliant as those of antiseptic surgery, though not so immediately appreciated..... Prophylactic hygienic measures against infectious diseases are worth more than all the protective inoculations, and the scepticism and reserve of Koch and Kitt, as regards the latter, are fully justified."

Thus, Dr. Heube traverses the whole ground of bacteriological discovery, and endeavours to bring unity of conception out of discrepancy, and harmony out of apparent discord. If to do this is the mark of progress in any science, then Dr. Heube's address will be referred to as constituting a meritorious advance in this direction.

THE Royal Astronomer reports that there was no sunshine at all in London during the whole of the week ending January 14th.

DR. DANION read a note before the Académie de Médecine, Paris, on January 10th, in which he endeavoured to prove that galvanocaustic currents of high intensity are dangerous and useless, especially when applied for the cure of uterine disease.

WE are requested by the honorary secretaries of the Association of Members of the Royal College of Surgeons to state that the dinner of the Association will be held at the Holborn Restaurant, on Tuesday, January 31st, at 7 P.M., following upon the general meeting at 6 P.M. of that date. A clerical error in the form of application issued by the Association renders this notice necessary to prevent confusion.

EDUCATION AND REGISTRATION OF MIDWIVES.

DR. J. H. AVELING recently delivered at the Chelsea Hospital for Women a lecture on "The amelioration of the present condition of midwives." Dr. Aveling called attention to the fact that as many as 4,500 women die in childbirth in England and Wales during the year, and that whereas the death-rate is as low as 1 in 650 in lying-in hospitals, and as low as 1 in 900 in one charity, it reached 3 in 600 in cases treated at home. It was plain that this high rate of mortality was due either to the medical men or to the ignorance of the midwives, and he inclined of course to the latter opinion, thinking that if only properly competent midwives were employed the death-rate might be reduced to one in 500, which would mean a saving of

300 lives every year. There were about 9,000 persons acting as midwives in England and Wales, very many of whom were ignorant and possessed no certificate whatever. He was desirous of seeing some system adopted in this country by which midwives would be examined as to their competency and receive certificates.

EXCISION OF THE PYLORUS.

Two women, upon whom Professor Billroth had performed excision of the pylorus, were recently exhibited to a Viennese Medical Society by Dr. Salzer. In the one case, the operation was done for a rapidly growing sarcoma, originating in the muscular coat of the stomach; in the other, the diagnosis of cancer was made, but the disease was found to have been only a simple ulcer.

OIL OF EVODIA, A DEODORANT.

DR. H. HELBIG calls attention (*American Journal of Pharmacy*) to the value of the essential oil of *evodia fraxinifolia* as a deodorant for iodoform. He has had, he says, an opportunity of examining the fruit of this plant, and found that it yields an oil having a most agreeable and powerful odour, which is even able to overcome the smell of iodoform either in its crystalline shape or in solution. For practical purposes he says it is only necessary to add a little (two drops to the ounce) of the essential oil to the disinfectant in order to obtain a complete deodorisation of the latter, the chief objection which has been raised against the use of this valuable remedy thus being obviated. Dr. Helbig adds that he would be pleased to find his observations confirmed by experiments of others.

MALARIAL INSOMNIA.

DR. F. EKLUND, of Stockholm, believes that there is a special form of insomnia due to malaria; in its severest form sleep by night is unattainable, but the sufferer is drowsy by day. In less severe cases a few hours' sleep are obtained on first going to bed, but the patient then wakes, in some instances always at the same hour, and cannot again sleep. He states (*Therapeutic Gazette*) that these patients can be relieved by quinine in small or moderate doses; the prescription he prefers is: R. Quin. sulph. gr. vi—xv, sodii bicarb. gr. xv—xxx, M. F. tal. dos. xii in caps. amyl. Sig. Take one capsule every morning, and if the case require it one in the evening.

THE DISCIPLINARY POWERS OF THE ROYAL COLLEGE OF PHYSICIANS.

AT the next meeting of the Comitia of the Royal College of Physicians, a resolution will be moved by the Senior Censor, requiring that no Fellow, Member, or Licentiate should contribute articles on professional subjects to journals professing to supply medical knowledge to the general public, or should in any way advertise himself, or permit himself to be advertised in such journals. At the same meeting, the Treasurer will move his resolution to present a donation to the Metropolitan Police Convalescent Home. Five new councillors will be elected to fill vacancies.

THE LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS.

THE Goulstonian Lectures at the Royal College of Physicians will be delivered by Dr. W. Julius Mickle on March 6th, 8th, and 13th, at 5 P.M. The subject will be "Insanity in Relation to Cardiac and Aortic Diseases and Phthisis." The Lumleian Lectures by Dr. W. H. Dickinson, on the "Tongue as an Indicator of Disease," will be given at the same hour on March 15th, 20th, and 22nd. The Milroy Lectures on Public Health will be delivered for the first time this year, in accordance with the provisions of the will of the late Dr. Gavin Milroy. The lecturer will be Inspector-General Lawson, who, on February 21st and 23rd, will give two lectures on "Epidemic Influences;" his third lecture will be given on February 28th, on the

"Epidemiological Aspects of Yellow Fever," and his fourth on March 1st, on the "Epidemiological Aspects of Cholera." These lectures also will be given at 5 P.M. The Croonian lectures will, under the new scheme, be delivered in the summer.

EXAMINATION OF THE MALE BLADDER BY ELECTRIC LIGHT.

MR. HURRY FENWICK has lately used electric illumination of the male bladder and urethra for diagnostic purposes with considerable success. We are informed that he proposes to give a demonstration on the living subject and on "dummies" of the capabilities of the vesical and urethral lamps, as recently improved, at the next clinical meeting of the Medical Society on Monday next, January 23rd.

POISONING BY ARTIFICIAL SELTERS WATER.

OVER thirty cases of poisoning were reported recently in Rendsburg, in Germany. Inquiry showed that only those were poisoned who drank freely of Selters water, and an examination of this water revealed the fact that it contained a very appreciable amount of arsenic. The water was a manufactured product, and had been imported from another city.

THE SENATE OF THE UNIVERSITY OF LONDON.

A VACANCY on the Senate having been occasioned by the death of Sir G. Burrows, M.D., the Senate have appointed a meeting of Convocation to be held on Tuesday, March 6th, 1888, when a list of three persons is to be nominated, in order that it may be submitted to Her Majesty for selection therefrom of a Fellow of the University. All propositions of candidates must be sent to the Clerk of Convocation on or before Tuesday, February 21st, 1888.

DEPUTY SURGEON-GENERAL GRAVES IRWIN.

WE regret to learn that Dr. C. Graves Irwin, principal medical officer in Bermuda, has been obliged to resign the post which he has held with such credit to himself and such benefit, not only to the service, but to the whole community on the island. Dr. Graves Irwin must be well known to many readers of the JOURNAL as the President of the Bermuda Branch of the British Medical Association, the success of which is largely due to his tact and energy. Before Dr. Graves Irwin's departure he was waited on by a representative deputation of citizens and professional men, and Dr. Park Tucker, in a suitable speech, presented him with a valuable silver salver "as a token of esteem from some of his many friends in Bermuda."

THE HOSPITALS ASSOCIATION.

A MEETING of the Council of the Hospitals Association was held at Norfolk House on Tuesday, January 17th, Dr. Bristowe, F.R.S., in the chair. Among those present were Mr. F. C. Carr-Gomm, Chairman of Committee of the London Hospital; Mr. T. Holmes, F.R.C.S.; Major-General Keatings, V.C., K.C.B.; Dr. J. C. Steele, Guy's Hospital; Dr. Gilbert-Smith, F.R.C.P.; Mr. A. H. Haggard; Lieut.-Col. Montefiore; Mr. Henry C. Burdett; Mr. Keith Young, F.R.I.B.A.; Dr. G. W. Potter; Mr. P. Michelli, and others. The meeting expressed by resolution its cordial welcome to Dr. Bristowe on his acceptance of the Presidency of the Association, and its high appreciation of the honour conferred upon the council and members by his appointment. Dr. Bristowe stated that, in yielding to the request of the council, he had felt impelled by a sense of duty to accept the honour offered to him. He considered that the Association had done much valuable work for hospitals and all connected with them, and especially instanced the National Pension Fund and the Nurses' Registration Scheme now approaching completion. He also emphasised his conviction that the Association was steadily growing in the esteem and confidence of the hospital world and of the public, and that the recent additions to the council of Sir E. Currie, Mr. Carr-Gomm, of the London Hospital, and Mr. E. H. Lushington, treasurer

of Guy's, would add materially to its strength and judicial authority. Members of the Council expressed their special gratification that, through the energy and perseverance of Mr. Henry C. Burdett, the £20,000 needed to establish the National Pension Fund on a firm financial basis had been finally secured.

"FOUND DROWNED."

"FOUND drowned" is a favourite verdict with the coroner's jury in a "Thames mystery case," and it is what is commonly called an open verdict; as a matter of fact, it is frequently anything but an open verdict, as it takes it for granted that the deceased has come by his death by drowning, which may not be true. One of the metropolitan coroners has just been conducting one of the many utterly worthless inquests which are weekly, we had almost said daily, to be found reported in the newspapers. It was on the body of a ship's stoker, who had been missing for a month. No evidence was taken as to how long the body had been in the water, or whether death had been due to drowning; for the coroner dispensed with a *post-mortem* examination, and the jury, under his able guidance, returned the meaningless and possibly untrue verdict of "found drowned." The only way to check such perfunctory work as this would be to disallow a coroner his expenses for every case in which, as in the one before us, no real attempt has been made to ascertain the cause of death.

THE ILLNESS OF THE CROWN PRINCE.

SIR MORELL MACKENZIE has just received most satisfactory intelligence as to the condition of the Crown Prince of Germany. We are able to state that the rumours which appeared in some foreign journals to the effect that a fresh development of cancerous growth had given rise to urgent symptoms are absolutely without foundation. On Saturday, January 14th, His Imperial Highness caught a slight cold, and on Sunday and Monday there was some elevation of temperature, which, however, returned to the normal standard on Tuesday. We are in a position to contradict the report that Sir Morell Mackenzie will return to San Remo towards the end of this month. The date of his next visit is still quite uncertain, but we may take this opportunity of pointing out that the fact of his going to see his illustrious patient is not to be taken as an indication that the case is assuming a graver character. The Prince is looking forward with much pleasure to the prospect of being able to return to Berlin in the spring.

DINNERS FOR SCHOOL CHILDREN: AN ECONOMIC QUESTION.

WE have several times noticed the efforts that are being made to provide food for school children, and have pointed out that one of the greatest difficulties is the economic side of the question—to do the greatest amount of good with the least possible weakening of the sentiment of self-dependence in the parents. That a large number of school children are underfed or starving appears to be demonstrated; it has also been shown that the power of body and brain suffers therefrom. In too many cases starvation is chronic and incapable of permanent relief; in other neighbourhoods the relief may be required as an exceptional matter, during times of special depression in trade. We have ourselves seen a large Board School in the J. B. quarter of Birmingham where most of the children appeared to be starving, and exhausted in consequence; this was explained as owing to the local depression of trade. Here was a case where a temporary supply of cheap or even free food at the school might have been most useful in arresting the tendency to disease, and in aiding development. The Charity Organisation Society, in a valuable report recently issued on charity and food, points out many facts founded upon evidence which they have collected; reports have also appeared in Birmingham, Liverpool, and other large towns on the work done there. The starving children often appear to show more signs of daintiness than of hunger, which seems to indicate the dyspepsia of inanition. The apparatus used

for cooking makes much difference in the economy of the meals, as well as in their success in point of tastiness. To leave the children attending school without dinner for three months is likely to result in a delay of growth and development of body and brain which would take a long time to overtake. Temporary relief in periods of distress, when the children continue their school work, seems very desirable—a true work of charity, and one not too costly, though requiring much personal labour on the part of managers and visitors. If relief is to be temporary, it cannot be self-supporting; if dinners for school children are to become a permanent institution, they ought not, we think, to be provided by charity or by the State, but by commercial resource. The numerous experiments made by charitable people have afforded much information upon which commercial enterprise may be founded; but it seems hardly likely that self-paying dinners can be provided, unless accommodation is to be had at or near the schools rent free. If it be shown that there is a permanent demand for dinners at or near large schools at a commercial price, the necessity of the case might be met on the same basis as at some of our colleges; let rooms appropriately fitted be provided by the public, and let at low rentals to contractors. It ought also to be arranged that such rooms, being independent of the schools, should be open on Saturdays and during the holidays, if wanted.

ENGLISH PHYSICIANS AT SWISS HEALTH RESORTS.

THE subjoined memorial is being very extensively signed by patients and visitors at Maloja and Moritz. "We, the undersigned British subjects residing in the Engadine, pray the British Minister will petition the Federal Government of Switzerland to permit our own medical men to practise in this country, so that we may, in case of need, avail ourselves of the medical assistance of doctors of our own nationality. Many of us have come to this canton in search of health, with the express understanding that we could place ourselves under the medical care of English doctors, but in mid-winter the law of the Sanitätsrath at Coire has suddenly been put into operation, and our English compatriots are heavily fined and threatened with expulsion from the Canton of the Grisons for practising without being in possession of the Swiss diploma. Under these circumstances we beg the British Minister will represent to the Federal Government the desire named in this petition, and express at the same time that the action taken against our English doctors will prevent many English subjects availing themselves of the climate and attractions of this canton both in summer and winter, which deprivation they would feel acutely." A narrow and jealous policy in such a matter would operate very prejudicially to the interests of the locality, and no doubt the Federal Government will take this into consideration.

STROPHANTHIN AND THE THERAPEUTICAL SOCIETY OF PARIS.

A DEBATE on strophanthin was held by the Therapeutical Society of Paris on December 17th, 1887. The discrepancy of opinions as to the action and value of this powerful drug which exists on this side of the Channel is apparently equalled amongst our French colleagues. M. Dojardin-Baumetz regards strophanthin as a true diuretic, and has even seen hæmaturia arise after its use; accordingly, he considers that the prevailing English opinion that strophanthin is primarily a cardiac stimulant is incorrect. M. Constantin Paul said that he was astonished that Professor Fraser had made strophanthin equal to digitalis in its effects. Strophanthin was in the main a diuretic, its action being less energetic, but more permanent, than that of digitalis (!), but it did not, according to his observer, modify arrhythmic cardiac action in the slightest. M. Paul allowed that it acted as a cardiac tonic, but only in chronic affections, and finally said that it closely resembled convallaria majalis in its action. Other speakers dealt with the chemical constitution of this glucoside, which in dilute acids is converted into glucose and an alkaloid—strophanthidin (MM. Bardet and Arian, *Deutsche Med. Zeitung*, No. 3, 1883.)

OPERATIONS FOR EXTRA-UTERINE GESTATION.

DR. CYEMPIN, of Berlin, describes in the *Deutsche Medicinische Wochenschrift* two cases where abdominal section was successfully performed for removal of an extra-uterine foetal sac. The first patient was aged 51. Her last natural labour was in 1862; after ten years' interval she became pregnant once more; at the third month there were uterine hæmorrhage, pain, and syncope; a fleshy mass was delivered. Extra-uterine pregnancy was diagnosed, but the patient refused to submit to any form of operation. The foetus died, and then, still in the year 1872, no operation appeared advisable. In 1881 the patient sought relief, as before, in Dr. Martin's private institution, and earnestly begged for operative relief on account of severe abdominal pains. The removal of the foetus was readily effected; it lay free in the peritoneal cavity, away from any sac, and there were but trifling adhesions; part of the left foot could not be found. Greater difficulty was experienced in removing a mass to the right of the uterus, which was taken to be the placenta; after long manipulation the mass was peeled away from its connections. The patient made a good recovery. The mass when examined proved to be tube and ovary; not a trace of placental tissue could be distinguished. The ovary was normal, with the exception of a small cyst; the greater part of the tumour consisted of the left Fallopian tube, very much thickened and stretched, forming a swelling as big as a goose's egg; at its abdominal end was a cavity, the size of a cherry, filled with pus. The foetus was much shrivelled, the soft parts had almost disappeared. The case was considered to represent tubal pregnancy, early rupture of the sac, and further development of the foetus, for a time, in the abdominal cavity. In the second case, abdominal section was also performed, and a tumour was removed which proved to be a dilatation of the left tube, and very thick-walled. The seat of rupture—for the sac had burst—was at the upper and abdominal end of the sac. On the postero-external aspect of the tumour lay the skeleton of a foetus, about two inches in length.

LEAD IN THE SHEFFIELD WATER SUPPLY.

THE contamination of the water supply with lead is giving rise to a good deal of discussion in Sheffield just now. Nearly two years ago when Dr. White, the late medical officer of health, issued his report on the liability of water, in passing through the communication pipes, to become poisonous, the Corporation, with creditable spirit and energy, endeavoured to get the water company to adopt some simple means to render the water less liable to be contaminated with lead. At the commencement of this year the undertaking of the water company became the property of the Corporation. During the proceedings necessary to obtain powers to purchase the undertaking, a great point was made of the necessity of adopting means to prevent this action on the lead piping. It may be safely assumed that the people of Sheffield will hardly be satisfied with any half-hearted action on the part of the Corporation, backed as they are by influential medical opinion. The water supply of Sheffield has two distinct sources and two systems of distribution: one from the hills round Redmire, and the other from the hills round Strines and Agden. Mr. A. H. Allen, the public analyst, from a large series of analyses, found that the water derived from the Agden and Strines reservoirs and distributed to the lower parts of the town had practically no action on lead pipes, the water drawn from ordinary house taps containing no appreciable quantity of lead, even when it had been stored in the pipes all night. The case was very different respecting water from the Redmire reservoirs, for in every instance in which water was drawn from taps in houses supplied from this source a very notable quantity of lead was present. When the water had stood all night in the pipes in some cases it exceeded half a grain per gallon. The parts of the town supplied by the Redmire Dam are the high-lying districts. Moreover, the numerous cases of lead poisoning which have been reported occurred in the districts comprised in this water supply. For some reason the Redmire water appears to be acting at present particularly

on the leaden pipes. Mr. Allen states that many of the numerous samples submitted to him during the last few weeks have contained more than half a grain of lead per gallon; and in some cases one grain per gallon has been reached, and even exceeded. The plan advocated by Dr. Sinclair White of filtering the Redmiro water through a bed of limestone before it is distributed was adopted by the Corporation when before the Committee of the House of Lords. They should give it now a trial, and if it fails resort to the more elaborate measures which found favour with the old water company.

THE USE OF ACIDIFIED CORROSIVE SUBLIMATE AS AN ANTISEPTIC.

SOME very interesting experiments of great practical importance have recently been made by E. Laplace (*Deutsche Medicinische Wochenschrift*, 1887, No. 40, p. 866-7) in the Hygienic Institute of Berlin, on the antiseptic action of corrosive sublimate when used in acid solution. It has long been known that the efficiency of bichloride of mercury is much reduced when it is brought in contact with albuminous substances, owing to the formation of insoluble compounds; thus when applied to animal tissues, the mercury becomes mordanted, as it were, on the surfaces with which it first comes in contact, the sphere of its activity being thus greatly diminished. Laplace finds that five cubic centimetres of blood serum is sufficient to precipitate the mercury from five cubic centimetres of the bichloride solution (1-1000). The formation of this precipitate of albuminate of mercury can be prevented by adding dilute hydrochloric acid (5-1,000) to the bichloride solution (1-1,000), whereby the antiseptic power of the latter is greatly increased. Similar results were obtained by the addition of tartaric acid. The solution recommended for use consists of 1 part sublimate, 5 parts tartaric acid, and 1,000 parts of distilled water. The bandages, gauze, etc., on the other hand, are soaked for two hours in a stronger solution; namely, sublimate 5 parts, tartaric acid 20 parts, distilled water 1,000 parts, after which they are wrung out and dried.

ST. JOHN'S HOSPITAL.

A SPECIAL meeting was held this week of the Governors of St. John's Hospital, at which there was much discussion on the subject of the charges brought of financial irregularities and other defects in the management of this hospital. Lord Aberdare took the chair at the request of the Duke of Northumberland, the President, who expressed his opinion that an independent inquiry seemed absolutely necessary; a telegram to that effect was read by Mr. Hamilton Hoare. Mr. Raymond moved and Mr. Maudslay seconded a motion for the appointment of a committee of inquiry into the management of the hospital, to report to a future special general board, and to have power to call for documents and professional aid. A detailed statement was read by the official auditors on behalf of the Board, admitting irregularities of system, but exonerating individuals from any other than the best motives and upright conduct. Much complaint was made by Mr. L. Browne of the extravagant expenditure of the hospital; and it was alleged that the nursing had been placed in entirely unskilled hands, the cook having been instructed with a view of undertaking the duties in replacing the matron. The discussion was long and angry, the meeting appearing to consist of hostile parties. In the end an amendment was moved expressing confidence in the Board and hostile to the original motion of Mr. Raymond and Mr. Maudslay. Dr. Robinson and Dr. Harries, two of the medical officers who objected to the existing management, were silenced, and after three hours' discussion the amendment was carried by a considerable majority. The general result remains to be seen. For our own part, we cannot but feel that the proceedings seem to indicate that the opinion of the Duke of Northumberland, the President of the hospital, that an independent inquiry is necessary, is very much strengthened by the result of this meeting. The managers of a hospital greatly weaken themselves by refusing to co-operate in a full and independent inquiry

where charges of this kind are brought. A full vindication of the affairs of a public institution of this kind is best obtained, not by a partisan vote or by statements at a general meeting, but by the calm detailed inquiry of a committee which has the confidence of all parties, and we hope the Duke of Northumberland and Lord Aberdare will insist on such an inquiry, and that the result may be for the best interests of the public and the institution.

OUR NOMADIC POPULATION.

MR. GEORGE SMITH, of Coalville, giving his experiences of a number of visits made to gipsy encampments in all parts of the country, says he found that the leading traits in the character of many of the gipsies were: living in dirt, heathenish ignorance, idleness, lying, dishonesty, immorality, fortune-telling, and deception. With some notable exceptions, these people huddled together in tents, regardless of any sense of decency or morality. He calculated that there were at the present time about 30,000 children in this country living in vans and tents, not 5 per cent. of whom could read or write. Bad as was the condition of the people here, it was, he said, even worse in Scotland, and he intended to include them in a Bill he was promoting for the poor travelling children's welfare. What he wanted, without interfering with liberty, was, in the first place, that vans and other abodes of the kind should be registered annually in a simple, easy, and inexpensive way, so as to give the sanitary officer power, instead of the policeman, to see to the health and well-being of those who live in them. The healthy appearance of many of our gipsy, van, and other travellers was vanishing, and disease was carried from village to village. He desired to give them all free education. The only means of improving the condition of these people was the sanitary officer's influence upon their homes, and the schoolmaster's influence upon the children.

CLINICAL SOCIETY OF LONDON.

THE annual meeting of this Society was held on Friday evening, January 13th. The officers and Council for 1888, nominated by the outgoing Council, as published in the *JOURNAL* of January 14th, at page 108, were elected. Dr. S. Mackenzie, the Medical Secretary, read the report of the Council, which spoke of the continued and progressive success of the Society, the number of members being 464, of whom 336 are resident. In 1887 death removed six ordinary and one foreign member, namely, Dr. Carrington, Dr. Wilson Fox, Dr. Meadows, Mr. Teevan, Dr. de Castro, Sir G. Burrows (an honorary member), and Dr. Von Langenbeck (a foreign member). The Council had decided to send a copy of the *Transactions* each year to about fifty of the principal medical libraries abroad, and had done so in 1887. It had also sent all the back numbers of the *Transactions* to the chief medical society of Berlin, and also to that of Vienna. The recently published volume contains the report of the Committee appointed to investigate joint disease in connection with locomotor ataxy, which was presided over by Sir J. Paget, and of which Mr. Bilton Pollard was the honorary secretary. The Council, in their report, warmly acknowledged their indebtedness to the latter gentleman for his labours on their behalf. The myxœdema Committee are still at work at their great task, but it is expected that their labours will be concluded during this session. The work of this Committee, especially the extensive tabular record of cases, has already cost a large sum of money, and Dr. Ord, the chairman, has generously volunteered to contribute £100 towards the expenses of the production of the report, his offer has been gratefully accepted. The report will be printed as a separate volume, and a copy presented to every member of the Society, while it will also be offered for sale. The Committee on Scoliosis are still at work, and will, after a time, report the results to the Society. The balance-sheet was read by Mr. Christopher Heath, the treasurer; it showed that the year began with a balance of £94, and ended with one of £37; whilst the Society has

£600 invested in Consols. The chief expense had been incurred in the printing, illustrating, and publishing of the volume of *Transactions*, and the myxœdema tables, and for the use of the Society's meeting room. The reports were adopted. Dr. Glover proposed a vote of thanks to the retiring Vice-Presidents and other members of the Council, and remarked that in the list of the new Council he could find the name of only one general practitioner; Mr. Silcock seconded the vote, which was carried. The President said that it was clearly an oversight that only one general practitioner had been nominated. Mr. Herbert Page, in eloquent and eulogistic terms, proposed that a very hearty vote of thanks be accorded to the retiring Secretary, Dr. S. Mackenzie; Mr. Pearce Gould seconded the vote, which was carried with acclamation. The President added his testimony to the value of Dr. Mackenzie's labours on behalf of the Society, and that gentleman feelingly acknowledged the cordial vote accorded him.

PROPOSED LARYNGOLOGICAL SOCIETY.

WE are informed that a new society is in course of organisation, as a sequel to the resolution passed by the Subsection of Laryngology and Rhinology at the Dublin meeting of the British Medical Association. The Chairman, Dr. W. McNeill Whistler, in his opening address on that occasion, dwelt strongly on the advantages that such a society would afford to workers in these special branches, who at present have no means of bringing their results to the test of direct criticism by competent judges, except at the annual meetings of the Association. It was decided that immediate steps should be taken to carry Dr. Whistler's suggestion into effect, and to Dr. R. A. Hayes, of Dublin, the able Secretary of the Subsection, was entrusted the duty of making the necessary arrangements. His efforts have been so successful that the list of original members already comprises about fifty names, which include those of nearly all the prominent laryngologists in the three kingdoms. The following gentlemen, among others, have signified their intention of joining the society: Sir Morell Mackenzie, Dr. Whipham, Dr. E. Woakes, Dr. Prosser James, Dr. A. Orwin, Dr. Coleman Jewell, Dr. Greville Macdonald, Dr. Dundas Grant, and Messrs. Lennox Browne, Carmalt Jones, George Stoker, W. R. H. Stewart, and Percy Jakins, of London; Mr. C. Warden, of Birmingham; Dr. Ward Cousins, of Portsmouth; Mr. Creswell Baber, of Brighton; Dr. P. McBride and Dr. G. Hunter Mackenzie, of Edinburgh; Dr. T. Barr, of Glasgow; Dr. Philip Smyly, and Messrs. Kendal Franks, Thornley Stoker, and J. B. Storey, of Dublin; Dr. Walton Browne, of Belfast; and Dr. A. Sandford, of Cork.

THE BEHAVIOUR OF THE BLOOD IN LIGATURED VESSELS.

BÖTTCHER'S researches on this subject, conducted according to the latest histological methods, are to be found in the *Arbeiten aus dem pathologischen Institut zu Königsberg*. They fully confirm the conclusions of Dr. Geiterbock, also those of Professor Pick, of Prague, on the processes which occur in the (so-called) organisation of thrombi. Böttcher finds that the blood contained in a portion of a vessel intercepted between two ligatures, applied under antiseptic precautions, does not coagulate. The changes which occur in the stagnated blood are as follows: 1. Arterial blood becomes venous in character by long standing. 2. The red corpuscles may remain perfectly intact, even after the circulation has been suspended for several weeks. 3. The leucocytes early undergo degeneration, even in a week, but their nuclei preserve their capacity for stains. 4. The blood-tablets may be found in well preserved condition, even after several days' stagnation. Finally, enumeration of the various forms of leucocytes in rabbits' blood led to the conclusion that the "lymphocytes," that is, the small, uninucleated forms of leucocytes, poor in protoplasm, represent the majority of the leucocytes existing in the blood. This is contrary to the prevailing assumption on the subject, which puts these very forms in the minority. This is a point, as Geiterbock remarks, of great importance in the study of the products of chronic inflamma-

tion, the leucocyte elements of which are mostly in the form of lymphocytes, as is well known, and this circumstance has been adduced as an argument against their hæmatogenous derivation.

TREATMENT OF INEBRIETY.

DR. NORMAN KERR delivered the second of his course of lectures on Inebriety on January 18th. He said that the predisposing and exciting causes of the disease in each case should be ascertained, and the treatment conducted on thoroughly scientific principles. Proceeding by an unscientific method, numerous alleged "cures" had been oracularly declared to be infallible; yet all these, such as alcoholic frog extract, raw meat and food steeped in alcohol, had been found to be ineffectual. There was nospecific. The first indication of sound treatment was the withdrawal of the narcotic, so that the narcotising process might be terminated. This withdrawal should be immediate with alcohol, chloroform, chloral, and ether, but should be gradual with morphine and opium. The risk and suffering with the last named were as a rule too serious in sudden withholding. Bromides with hyoscyamus were useful in allaying the irritability of the nervous condition. When gastric irritability was present, the bromides could be administered in an effervescent form. Ice, milk, and soda or lime water were of service. The second indication of scientific treatment was the removal of the exciting cause, or its counteraction when it could not be got out of the way. The third indication was the reparation of the physical damage wrought by the disease, the remedying of the pre-inebriate morbid state, and the strengthening of inhibition. Good sound wholesome food was essential to the renovation of healthy tissue. No restricted diet suited all, and a judicious mixture of flesh, fruit, grains, and vegetables was generally the most desirable. Tonics, contra-indicated at an earlier stage of treatment, were useful here. Among the best was un-intoxicating "port with bark." The correction of the pre-inebriate morbid state was of importance. Disordered function should be set right, and complicating disease attended to. The inhibitory power should be strengthened by exercise, by bracing hygienic measures, by mental, moral, and religious influences, and by nerve tonics, as strychnine. When seen early the inebriate could be treated while pursuing his usual calling, but resort was seldom had to medical advice till later. Then it was generally best to advise residence for at least twelve months in a genuine home for inebriates, preferably under the provisions of the Habitual Drunkards Act. When seen at an early stage this disease was as curable as most other diseases.

SPONTANEOUS DETACHMENT OF LARYNGEAL POLYPUS.

AT the meeting of the Berlin Medical Society, December 21st, Professor Fränkel read a very interesting communication from Sanitätsrath, Dr. von Swidersky, of Posen, on a case of extrusion of a polypus of the larynx during the act of coughing. Dr. von Swidersky had known the patient, a cavalry officer, since 1848. In 1862 he began to be affected with hoarseness and dyspnoea, and Dr. Valentiner then diagnosed laryngeal polypus. Other authorities in Berlin and Tübingen were consulted; one of these was of opinion that villous cancer was present, because the growth (plainly visible on the posterior third of the left vocal cord, and attached to its inferior aspect) bled profusely when touched. All who were consulted advised tracheotomy, but this the patient would never hear of. The dyspnoic attacks occurred from time to time, often accompanied by severe hæmorrhage, and the hoarseness increased. In 1870, von Swidersky, tracheotomy being still refused, attempted local treatment. The tumour was first touched with caustic potash (well solidified), and afterwards daily with a concentrated solution of ergotin. On May 12th, 1870, the patient was in imminent danger of suffocation, but next day his medical attendant found him in good voice and spirits, enjoying a cigarette with his coffee. He triumphantly pointed to a substance which he had coughed

up, and which he had placed in water. Microscopical examination showed that it was a fibroid polypus. The patient has remained well since then, and there is only a slight inclination to laryngeal catarrh. V. Smidensky attributed the cure to the ergotin treatment. Professor Fränkel had never in his large experience met with a similar case, and was of opinion that practically we should never trust to such a lucky termination, quite as uncertain as the chief prize in a lottery. But he had seen a case in which a polypus had very gradually retrogressed. Dr. Böcker had independently diagnosed the existence of a polypus in this case, so that there was no doubt about it. Hensch thought that it might have been coughed up without the patient's knowledge, and argued from analogous rectal polypi in children, but Fränkel persisted in his opinion that the improvement in his case had been but gradual, and promised further details in a paper on the subject about to appear.

THE CASE OF TRANCE AT BATTERSEA.

SOME excitement has been caused by the case of Florence Chisnell, a young girl, who has lain in bed, at her home in Battersea, in a state of trance ever since November 20th, 1887. She is tall, well nourished, and well developed, contrary to what has been reported, with plain, intelligent features and reddish-brown hair. She lies on her back with her eyes half open and generally oscillating slowly; the pupils are dilated and sluggish, the conjunctivæ sensitive; the lids seldom close or blink. The pulse is about 84; the temperature on Thursday morning was 98.0°. The arms are very rigid, the forearms bent, the hands crossed over the epigastrium, with the fingers extended. On extending the elbow, we found that the hand remained elevated for three minutes, then returned to its former position very slowly. The hips, knees, and ankle joints are extended and very rigid. The abdomen is somewhat distended with flatus. Deep pressure in the iliac region produces absolutely no effect. On tapping the skin of the cheeks, fingers, abdomen, or feet with the point of a toothpick, or on pressing the point under one of the finger nails, the eyes oscillate a little more rapidly than usual, but no muscular movements occur. The bowels act spontaneously about three times weekly. The periods commenced a year ago, and have continued to appear since the trance began. In the summer of last year she became aphonic; her voice improved a little late in the autumn. On the evening of November 20th, she fell into the trance; the rigidity of the muscles was noticed from the first. Frequent fits of laughing and crying occurred until three weeks ago. Florence Chisnell, in fact, is suffering from a neurotic condition not unknown to science.

THE COMPARATIVE ANTISEPTIC VALUES OF CHLORIDES, NITRATES, AND SULPHATES.

In a recent number of the *Journal of the Society of Chemical Industry* (Vol. vi, No. 11), Mr. C. T. Kingzett, F.C.S., records the results of some experiments which he has conducted in order to determine the relative extent to which certain metallic chlorides, nitrates, and sulphates retard the appearance of mould on flour-paste, and putrefaction in extract of beef respectively. The general bearing of the results is to show that the salts of the alkalis and alkaline earths, excepting magnesium sulphate, appear in many instances to promote and never to retard the growth of mould. The compounds of zinc resemble those of the alkaline earths in their action. On the other hand, the salts of iron, tin, lead, and aluminium exercise distinct but not very powerful effects in preventing the appearance of mould. The chloride of lead is, however, more active, whilst the most efficient are the chlorides of mercury and copper. In preventing the putrefaction of extract of beef, the chlorides of mercury and copper were also the most effective; whilst chloride of zinc was more and chloride of lead less active than in retarding the growth of mould on flour-paste. The value of the investigation is very much reduced owing to the experiments not having been conducted on the modern lines of bacteriological research. Thus the various test-

glasses containing the experimental media were allowed to become accidentally infected from the air to which they were exposed, instead of being all inoculated either with some definite micro-organism or with some definite mixture of microbes, as is now invariably done in experiments of the kind.

HOMICIDAL INSANITY IN CHINA.

ACCORDING to the law of China, the punishment inflicted on the murderer of a father, mother, brother, husband, uncle, or tutor, and on traitors, is that appalling process known as *ling-chie*, or slow death. The fact that the crime has been committed under the influence of insanity procures no mitigation of the dread sentence, and the miserable culprit is sentenced to be cut into 24, 36, 72, or 120 pieces, a large proportion of which must be accomplished ere the executioner dares to touch a vital part, and end the torture of the victim. Only in certain cases does the Imperial clemency grant death after the eighth division. The commonest form of this penalty is that of twenty-four cuts; and the executioner prides himself on the anatomical skill with which they are administered. The victim being bound to a cross, the butcher by the first two cuts removes the eyebrows, by the third and fourth the shoulders, the fifth and sixth the breasts, the seventh and eighth the flesh of the forearm, the ninth and tenth the flesh of the arm, the eleventh and twelfth the flesh of each thigh, and so on.

ANGIOMA OF THE EPIGLOTTIS.

In the *Revista de Ciencias Medicas* Dr. C. M. Desvervigne reports an example of pedunculated angioma of the epiglottis. The patient was a man aged 53, of robust constitution, who for two months before he came under notice had suffered from occasional slight bleeding from the throat. On November 14th he lost a large amount of blood, and the hæmorrhage only ceased on syncope supervening. Laryngoscopic examination showed an ovoid tumour of lobulated appearance and dark-blue colour, and measuring two centimètres in length by one in breadth, springing from the laryngeal surface of the epiglottis to the left of the middle line, about midway between the base and the apex. The tumour was attached by a short pedicle, and there was no infiltration of the tissues around its root. On November 27th, the pharynx and larynx having first been anaesthetised with a concentrated solution of cocaine, the tumour was removed with the galvanocautic snare. The only trace of the operation was a small eschar which came away a few days later, leaving the site of the tumour completely healed. Microscopic examination showed that it was an angioma enclosed in a fibrous capsule.

STROPHANTHUS IN RUSSIA.

DR. A. KAZEM-BEK, of Kazan (*Vratch*, Nos. 40 and 41, 1887) relates seven severe cases treated by tincture of strophanthus (one part of the seeds to ten of alcohol), five drops being given every three hours, four times during the first day, and ten drops three times daily subsequently. The cases included chronic myocarditis, with consecutive cardiac dilatation, with calcareous deposits on the aortic valves and walls; mitral stenosis, with regurgitation (two cases), alone or complicated with parenchymatous nephritis; bronchial asthma, with pulmonary emphysema (two cases); aortic stenosis, with regurgitation; and cardiac neurosis in a hystero-epileptic woman. In only one case, that of a woman, aged 37, with rheumatic mitral disease and chronic nephritis, did the drug partly fail, and, even in that case, it proved beyond all comparison better than succinate of caffeine and sodium, or digitalis with valerian, or grindelia robusta, or convallaria, with which the lady had been successively treated before. In the remaining six cases, strophanthus produced a striking improvement, usually in a very short space of time; dyspnoea ceased; the paroxysms of bronchial or cardiac asthma, as well as œdema, gradually disappeared; the heart's action became much less frequent and more regular, and the pulse fuller and stronger; while the daily amount of

urine considerably increased. When taking the medicine, the patients slept soundly and quietly for many successive hours. This circumstance is attributed by Dr. Kazem-Bek partly to an improvement in their general state, but partly to a direct sedative action of the drug on the brain, since a drowsy condition was observed by him also in dogs after an intravenous injection of the tincture. The experiments on animals (frogs, turtles, and dogs) were undertaken by the writer mainly with the object of elucidating the question whether strophanthus acts solely on the muscular tissue or not. He has come to the conclusion that the drug acts, not only on the cardiac muscle itself, but also on the cardiac ganglia and peripheral endings of the vagi. This conclusion is based on the following facts: 1. That atropine gives rise to a considerable acceleration of the heart's contractions which have been previously slowed by strophanthus; and 2, that strophanthus does not slow the heart's beats which have been previously accelerated by atropine. Dr. Kazem-Bek has also found that strophanthus increases the blood-pressure, but this increase seems to be independent of the heart's contractions; at least the arterial tension continues to rise, while the number of the beats remain unchanged.

THE DYEING OF COFFEE BERRIES.

HAVING succeeded in obtaining four specimens of colouring mixtures employed by coffee dealers for dyeing inferior sorts of coffee beans as well as damaged coffee grains, Mr. K. Sykora (*Farmaceutichesky Jurnál*, No. 48, 1887, p. 756) subjected them to analysis, and found that they consisted of (a) 4.5 to 8.0 per cent. of chromate of lead ($PbCrO_4$), (b) 12 to 15 per cent. of ultramarine, (c) 5 to 12 per cent. of indigo and gamboge, (d) 65 to 82 per cent. of kaolin, and (e) 3 to 10 per cent. of charcoal. Mr. Sykora recommends the following means of detecting this adulteration. First of all, on being touched with a brush moistened in distilled water, an artificially coloured coffee grain becomes spotted or mottled. On washing the grain with distilled water the latter becomes turbid in appearance. On evaporating a portion of the fluid on a watch glass, it leaves a solid residue, consisting of kaolin, charcoal, and various dyes, which may be then recognised under the microscope. Another portion of the water should be dried and subsequently made red-hot in a platinum vessel, to be similarly examined microscopically. On one occasion Mr. Sykora found that coffee berries had been dyed with yellow brown ochre.

UNMERITED SYPHILIS.

M. FOURNIER, in a recent communication, has set forth the statistics which he has taken the trouble to collect of "unmerited" cases of syphilis. In 842 out of 887 infected women, the disease was of venereal origin, leaving 45 who had contracted it in some other way. On analysing the latter group he found that in seven the disease was hereditary; four had contracted it accidentally in infancy; eight were wet nurses who had been infected by syphilitic infants; five were midwives who had caught it in the practice of their profession; twenty-two were cases of "domestic infection," either from nurse to child or *vice versa*, or from diseased servants; two of vaccinal syphilis; two in which the infection was conveyed in catheterising the Eustachian tube; one consequent on rape; and finally four of unknown origin, but certainly independent of sexual contamination. With respect to the first group of 842 infected women, 366 were "gay" women; 220 were married women, and 256 were of "doubtful" social status. Of the married women no fewer than 164 had taken the disease from their husbands. In view of these figures, M. Fournier maintains that the doctrine which forbids discrimination between the different groups of sufferers is one to be unhesitatingly condemned.

CUCAINE TOXÆMIA.

At the last meeting of the American Association for the Cure of Inebriates, Dr. J. B. Mattison, of Brooklyn, read an interesting paper on the toxic symptoms observed after the administration of cocaine. The object of the paper was to disprove Dr. Hammond's assertion that

he did not believe any dose that could be taken was dangerous. If it were needful to produce more proof of the unsoundness of Dr. Hammond's statement, Dr. Mattison has effectually done this. More than thirty cases, reported by various practitioners in different parts of the world, were brought forward. In all these dangerous symptoms were developed, and in several instances there was an exceedingly narrow escape from a fatal termination. Toxic symptoms were exhibited in an adult after even so small a dose as four minims of a 4 per cent. solution, given hypodermically. The leading symptoms were nausea, emesis, headache, blindness, deafness, loss of taste and smell, profuse perspiration, lividity, gastric cramp; pulse frequent, feeble, irregular, intermittent; respiration shallow, gasping, irregular, difficult, convulsive, suspended; impairment of gait, speech, and swallowing; muscular rigidity, palpitation, sense of suffocation and constriction of chest; loss of motion and sensation in limbs; restlessness, prostration, giddiness, faintness, feeling of impending death; convulsive twitchings, paralysis, mania, delirium. The general conclusions arrived at were that there is a lethal dose, though the fatal quantity is uncertain; that toxic effects may appear at all ages and in every state of health; that the drug should be administered with great caution, and never without the antidotes of amyl nitrite and hypodermic morphine for immediate use.

PROGNOSIS.

DR. PYE-SMITH has contributed to the current (forty-fourth) volume of *Guy's Hospital Reports* an interesting article, entitled Observations on Prognosis. It is likely to prove of great service to students, who have better opportunities of studying the main clinical appearances in disease than of acquiring prognostic faculties before qualification. Prognosis requires experience, and experience is just what every student must lack. The look of many diseases may soon be learnt, but prognosis requires the observation of many cases of the same disease in every type of subject which it is likely to attack, and the student cannot observe to this extent. Moreover, hospital patients recover from some diseases, and die from others which are more or less dangerous to private patients neither inured to hardships nor debilitated by poverty; so the limited prognostic power of the diligent student may serve him false after qualification. Dr. Pye-Smith dwells upon the temperature question. He notes how a transitory ailment may send up a child's temperature to 102° or 103°, whilst a high temperature, as 105° in scarlatina or pneumonia, in a child does not add to the gravity of the prognosis as it would in an adult. Women resemble children in this as in other respects. A temperature of 103° in a girl of 18 may be caused by menstrual irregularity, by non-specific sore-throat, or by slight gastric catarrh. A rise of temperature during menstruation is often noted after ovariectomy. Dr. Pye-Smith's observations on fevers and tubercular meningitis are most instructive, but cannot fairly be given here in a condensed form. He concludes his paper with some interesting prognostic aphorisms.

THE LESSON OF THE EPIDEMIC OF SMALL-POX IN MONTREAL.

A PAPER on the Outbreak of Small-pox in Montreal, Canada, during 1885-86, was read by Dr. Henry Tomkins, officer of health to the borough, before the Leicester Medical Society, on January 13th, 1888. For some years previous to the outbreak the city had been free from small-pox, and vaccination had been very much neglected, compulsory powers not being enforced. A man from Chicago suffering from a very slight attack, so mild as to be mistaken for chicken-pox, was admitted into a large general hospital, and from him the infection spread to several other inmates, from thence the disease was disseminated in numerous parts of the town, and extended with such rapidity that before the end of 1885 more than 3,000 deaths had occurred. During the progress of the disease so great was the demand for vaccination amongst those who had previously neglected it that more than 80,000 vaccinations and revaccinations were performed in a popula-

tion of about 160,000 at a great expense and by the putting into force of compulsory notification of infectious disease, vaccination, and efficient isolation and disinfection, the disease rapidly abated, and by the end of April, 1886, not a case was known to exist within the city. Up to the end of 1885, 3,164 deaths were recorded, of which no less than 2,717 were children under 10 years of age, showing how severely these suffered compared with vaccinated communities. From the returns supplied by the hospitals, the following figures were given:—The number of patients treated in hospital was 1,332; the deaths amongst these were 418, or 31.3 per cent.; of these patients, 805 were not vaccinated and 527 vaccinated; of the latter 103 died, or 19.5 per cent.; of the 505 not vaccinated there died 315, or 39.1 per cent. As further showing how many more children suffered than adults, who had mostly been once vaccinated, it is to be observed that out of the 1,332 patients admitted into hospital, 489 were under 10 years of age, and 848 above that age; of the former 202 died, whilst of the latter 216 only died.

SCOTLAND.

CHAIR OF BOTANY, EDINBURGH UNIVERSITY.

VARIOUS gentlemen are spoken of as probable candidates for the Chair of Botany at Edinburgh University—namely, Professor Isaac Bailly Balfour (Oxford), Mr. Patrick Giddes (Edinburgh), and Professor Traill (Aberdeen); but it may be conjectured that the list will be considerably enlarged when notice of formal application has been given.

THE PROPOSED NEW CHARTER FOR THE LONDON COLLEGES.

KEEN interest has been excited in Edinburgh regarding the memorial of the London Colleges. Considerable diversity of opinion has manifested itself as to the effect this move, if successful, will have on the Edinburgh Medical School. The *Scotsman* has taken up the cudgels against the London Colleges, and calls on public spirited citizens and members of the profession to resist a measure so destructive to their city's interests. Professional opinion appears divided, if we are to judge from the rumours of compromise; but there is almost complete unanimity of view, even among keen opponents of the primary measure, that whatever is granted to the London Colleges must, of necessity, be granted to the Edinburgh Colleges likewise.

MATERNITY HOSPITAL, EDINBURGH.

THE arrangements in the Royal Maternity and Simpson Memorial Hospital, Edinburgh, during the next three months, will be that Professor Simpson will be succeeded as Physician on duty by Dr. Underhill, with Dr. Barbour as assistant-physician. The present house surgeons, Messrs. John G. Havelock, M.B. and C.M., and Christopher Martin, M.B. and C.M., will be succeeded by Messrs. F. A. Jakes, M.B. and C.M., and Inglis Taylor, M.B. and C.M.

ROYAL INFIRMARY, EDINBURGH.

THE series of entertainments given to patients, nurses, and students which commenced with the kitchen concert in the middle of December in the Royal Infirmary, Edinburgh, and consisting of *soirées* and concerts in various wards, have afforded much entertainment and been on a more extensive scale than in previous years. From the report submitted at the annual meeting of the subscribers to the Infirmary, which was held on Monday, we learn that the total number of indoor patients treated during the year was 8,823, as compared with 8,033 in the preceding year, this large increase being mainly due to the greater number of wards now open. This is the largest number of patients ever treated in the wards in any year, and becomes more striking when it is considered that no cases of infectious disease are now treated in the Infirmary. The proportion of medical and surgical

cases treated to a conclusion was: surgical cases 52.9 per cent., and medical cases 47.1 per cent. The average number of days of residence was much the same as last year, 26.1 as against 26.9. The number of outdoor cases has also increased, and last year reached the number of 25,000. The number of beds now available for use in the wards is 670, with 30 cots in addition available for children. The average daily increase of beds has been 27 compared with previous years, and the rate of maintenance per bed has been £55. The financial condition is not so satisfactory as could be desired, the capital stock having been reduced by £9,711, while the building debt remains the same. There has been an unusually small amount of money derived from legacies during the year, amounting to only £7,670. In 1880-81 it was rather under £7,000, but the ten years preceding that gave an average of £15,000, and since that the average has been as high as £37,896. In their report the directors speak in high terms of their appreciation of the services of the superintendent, Deputy Surgeon-General Fasson.

GLASGOW LUNATIC ASYLUM.

THE annual meeting of the directors of the Glasgow Lunatic Asylum was held last week. The report submitted stated that at the beginning of the year the number of patients at Gartnavel was 480. The admissions during the year numbered 153, the discharges 137, of which 69 were recoveries, and there were 23 deaths. Of the total 470 at the close of the year, 286 were private patients, and 184 chargeable to their parishes. The report on the health of the inmates was exceptionally good, the percentage of recoveries being higher and the death-rate lower than on any occasion ever recorded at Gartnavel. The financial statement showed that the reserve fund of the asylum amounts to £28,796.

CONVALESCENT HOME, GLASGOW.

THE Lenzie Convalescent Home continues to complete the good work done in the Glasgow infirmaries and dispensaries. At the twenty-third annual meeting it was stated that last year 1,441 patients were received at the institution, and their average stay was 18 days. The expenditure during the year included £408 for alterations and additions to the farmsteadings, the cost per head for patients amounted to 1s. 4½d. a day, the total amount expended being £2,170 16s. 6d. The annual subscriptions came to £902 9s. 6d., the contributions from *employés* of works, etc., £306 2s. 11d., and the legacies £438.

THE LATE PROFESSOR DICKSON: A REMINISCENCE.

A CORRESPONDENT writes: Of five or six men distinguished by their labours in various branches of science, who taught in the medical curriculum at Glasgow University, some fourteen years ago, there was none who left a more enduring impression on a certain order of youthful minds than the late Professor Alexander Dickson. In no sense a brilliant orator, or showy dispenser of secondhand information, he yet managed to gain a respectful hearing from audiences, who might perhaps not unnaturally have been thought but slightly appreciative of higher claims upon their regard. There was in him a sleepless intellectual inquisitiveness, and he combined a rare gentleness and modesty with a certain naïve self-possession and unaffected ease of manner, the infallible marks, as all felt, of good breeding, and of a fine character. When interrupted in his discourse by more than usually noisy demonstrations of applause or disapproval, he has been heard somewhat pathetically to ask indulgence, on the ground that he was "not without nervousness," and it was this very excess of sensibility which, pervading the whole range of his mental activities, made him sympathetically alive to the perplexities and difficulties of others, while it, at the same time, had no small share in inspiring those feelings of almost chivalrous devotion, with which he was wont ere long to be regarded by the more "finely touched" among the students. As I write, the memory of our botanical excursions comes back after the lapse of years, fresh as those early spring mornings,

when we left the darkness and din of the great city, to wander in the sunny lanes of Clydesdale, or on the Camprie Hill. The figure of the Professor is still before me, tallish and slightly stooping, dressed in grey tweeds and small round cap, smoking a short pipe, with both hands in trousers pockets, striding rapidly along one side of the road, or pausing to describe some peculiarity of plant structure, with an enthusiasm which regarded neither time nor place, and which would constantly, when the discourse seemed to be near an end, as it were, spasmodically hurry the speaker away on some fresh line of inquiry and speculation, till at length he was brought up by noticing that his audience had dwindled to not more than one or two, whose blank faces indicated awe and dismay at the recondite and interminable course of the argument, and then an amused smile would pass into the dark blue eyes, and as if suddenly recollecting himself, he would resume his walk. There are some to whom the earth will seem colder and even the spring violets less sweet, by the death of such a lover, but in that place where the "shades of the pious" still linger, after their bodies have decayed, the grateful recollection of hundreds whose intellectual life owes something to the kind friend and honoured teacher whose loss they mourn, Dr. Dickson's memory will be a perpetual inspiration while life lasts.

SANITATION IN ABERDEEN.

A CONSIDERABLE amount of work, directed towards the improvement of the sanitary condition of Aberdeen, has been done during the past year. No less than 3,180 nuisances were abated and 4,206 orders were given for amendment of houses and premises. Patients, to the number of 517, who were suffering from infectious diseases, were removed to the hospital, and 4,380 were supervised at home. Unwholesome meat was seized in 105 cases, and fines for dealing in it were imposed to the extent of £19, the total weight seized was 32 tons, an increase of 20 tons on that of the preceding year. Dr. Mackenzie Booth has been appointed interim medical officer of health in place of Dr. Thomson, who has been appointed to a similar office in Sheffield.

FEVER IN PAISLEY.

PAISLEY has lately had an unenviable notoriety for the number of cases of fevers which have occurred in it. During the month of December, eighty-one cases of infectious diseases were admitted to the hospital, comprising sixteen cases of typhus, sixty-three of enteric, and two of scarlet fever. It is stated that no fewer than one hundred and twenty-six cases of enteric fever which occurred during the epidemic were associated with the milk supply from one dairy in the town. It is remarkable that so large a number should have been allowed to occur from one source of contamination. Twenty-four deaths from infectious diseases occurred during the month. There remained in the hospital on December 31st nine cases of typhus, fifty-four of enteric, and three of scarlet fever.

IRELAND.

THE death-rate of Belfast is said to be increasing to an alarming extent. It has been 41.4 per 1,000—more than double the rate in London and one-half greater than in Dublin.

THE LATE MR. D. F. BRADY.

MR. DANIEL FREDERICK BRADY died at his residence, Rathgar, on Monday, at an advanced age. He obtained the diploma of M.R.C.S. Eng. in 1836. He was inspector of anatomy in Ireland.

POISONING BY SEWER GAS.

SEVERAL cases of illness, believed to be due to poisoning by sewer gas have occurred at Sandymount, Dublin, and three children of Mr. O'Callaghan have lost their lives. Dr. Murphy, of Harcourt Street, who was in attendance, found a boy, aged

11 years, suffering from ulcerated sore-throat, and having at the same time sore patches over the body. The child was then in a low typhoid condition and he never rallied. A second child, a girl, aged 15 years, subsequently displayed the same symptoms, and she also succumbed; and the third child died soon after being attacked.

JERVIS STREET HOSPITAL.

A BALL in aid of the funds of this institution is announced to take place on January 25th. In the present state of depression in Ireland all charities are suffering. There is still a balance of £16,000 due on the new building of Jervis Street Hospital.

PROPOSED SCHEME FOR NURSING THE SICK IN COLERAINE.

A MEETING of those interested in the proposed scheme for the better nursing of the sick in Coleraine was held in the Town Hall last week. A report was read from the committee appointed at the last public meeting, which showed the estimated cost of a cottage hospital, with the rules for its management. A committee was appointed to solicit subscriptions and report to a public meeting which will shortly be held.

EPIDEMIC OF MEASLES AT CORK.

DR. DONOVAN, medical officer of health, in his monthly report for December, states that there is at present an epidemic of measles in Cork, which has not occurred previously for seven years. It is difficult to prevent it spreading, owing to the fact of the infection being so intense in its early stage, and also because nearly all the cases are treated at home, where, as a rule, the disease runs through whole families. This clearly points to the necessity of having cases of infectious diseases speedily removed to hospital, which is the only proper means of isolating them. At the police court last week a man named Noonan was charged by the corporation with a breach of the Public Health Act by "waking" his child, who had died from measles. Dr. Donovan expressed his belief that the recent spread of measles was owing to such conduct as the defendant was charged with. All the persons who attended the wake (about thirty) were, he said, liable to spread the infection, and might communicate it to 200 or 300 persons. A fine of forty shillings was inflicted, but remitted on his promising to go to the workhouse.

THE NORTH-WEST SECTION OF THE NORTH OF IRELAND BRANCH.

THE second annual dinner of the North-West Section of the North of Ireland Branch of the British Medical Association was held on Wednesday, January 11th, when the members spent a most pleasant and enjoyable evening. Dr. Bernard, President of the Section, was in the chair, and Dr. Warnock, Donegal, in the vice-chair; the great majority of the members were present. After the usual toasts had been honoured, that of "Success to the North-West Section of the British Medical Association" was received with much enthusiasm. Dr. Donaldson, the able and energetic honorary secretary, responded in a few appropriate and eloquent words. He showed that the success of the Society depended principally on two factors: 1. That the medical men in the North-West of Ireland be imbued with the scientific spirit and with love for their work. 2. That the meetings be conducted properly; and in this respect he dwelt on the importance of showing living cases and pathological specimens at those meetings. He then went on to speak of the success which had already attended the Section, and finished by an account of the outlook of medicine which advancing knowledge rendered possible.

A CORRECTION.—In reference to the case of Dr. Hahn referred to last week, we are informed that the report given in the condensed extract on which our notice was based was incorrect in fact; the operation performed during life was tracheotomy, and that the larynx was extracted after death.

ANNUAL SANITARY REPORT FOR 1886 BY THE SANITARY COMMISSIONER OF BOMBAY.

We have already dealt with the Report on the Health of the European Troops in the Bombay Command for 1886.

There is nothing more notable than the rapid increase of the population of India, in spite of the annual mortality from malarial fevers, and the recurrence of epidemics of cholera, at intervals more or less uncertain, and occasional famines from destruction of the staple grain crop by failure of the monsoon. Fortunately such visitations, although prevailing over wide areas, are not universal, and as year by year the railways are pushed into provinces and districts formerly ill-supplied with the means of carriage, famines, when they do occur, will be more easily dealt with and attended with less mortality. If population in the Indian empire goes on increasing at the present rate, the food supply for the teeming multitudes of people will become a serious question. The number of children born in the Bombay Presidency in 1886 was 572,431. They were 2,122 in excess of the number recorded in the previous year, while they exceed the mean of the preceding ten years ending 1885 by 169,643. The total increase of the Presidency was 10.12 per 1,000 of the population, above the mean of the preceding ten years.

The deaths in 1886 among the civil population in the 285 rural town, and cantonment circles in the Presidency of Bombay amounted to 200,140 males and 151,045 females, or a total 351,185 of both sexes. As compared with the three previous years, 1886 was a tolerably healthy year. The death-rate per 1,000 was 23.17, against 28.78 in 1885, and a decennial mean of 26.16. It is very interesting to note the great improvement in the death-rate in Ahmedabad for 1886, compared with that of 1885 and previous years; the Sanitary Commissioner gives the credit of this improvement to the wide sanitary measures introduced by Räs Bahādur Ranchorelāl, C.I.E., President of the Municipality. Under this enlightened gentleman, Ahmedabad, according to the Commissioner, "has certainly taken the lead of all the municipalities in Western India, including Bombay, in having provided a tramway, by which all the night soil collected in the city is removed to a distance of three miles from it." This would in any city in the world be deemed a sanitary measure of cardinal importance. In an Indian city it is impossible to exaggerate the good effect certain to spring from it. It is safe to prophesy that when cholera next visits Ahmedabad, Mr. Ranchorelāl will have the gratification of seeing a greatly diminished mortality, to say nothing of the good already obtained. The Government have acknowledged this gentleman's benevolent efforts; it would be well to hold up his good example to every municipality in India.

The mortality from cholera in 1886 was a mere flea-bite compared with that of the previous year, which amounted to 37,286, while in 1886 it was only 167. On this difference the Sanitary Commissioner remarks: "We know so little about the laws which govern the prevalence of cholera that it would be useless to speculate as to why the disease, after causing 37,286 deaths in 1885, should suddenly cease in the first month of 1886," and he adds, "the lessened prevalence was not due to any diminution of filth, in and around the villages and towns in the Presidency, and the only way to account for it is by the supposition that the factor necessary for its development (probably atmospheric) was absent." True; but this fact must never be kept out of sight: that in every place in the world, be it city, village, or hamlet, visited by cholera, the mortality has been in proportion to the filth present.

The Sanitary Commissioner, in obedience to a Government order, has given a map, which illustrates the distribution of and mortality from cholera in the different registration circles in which the disease was present. Appended to this is a statement showing each collectorate affected; the name and number of each circle; its population; the dates of first and last cases; the total cholera deaths; their ratio per 10,000 of the population; the period of maximum intensity; the number of villages in each rural circle; and the number of those affected and not affected by the disease. It is needless to say that a map illustrated in this way gives us instructive information as to the course and progress of an epidemic. As is usual in maps of this kind, it is coloured in different shades of green, according as a high or low death-rate obtained in the affected districts.

The deaths from small-pox amounted to 876 persons; the disease was of a mild type. During 1886, 146,986 males and 134,464 females died from "fever," a total of 281,450, while in the previous year the death-rate from this cause was 314,237. This illustrates an old Indian observation that a bad cholera year is also a bad fever year. The same rule obtains as regards bowel diseases; thus, in 1886, a non-cholera year, 36,612 persons died from bowel com-

plainte; in 1865, a cholera year, the deaths from this cause amounted to 45,056.

It is satisfactory to read of the zeal with which vaccination is carried on; 855,972 persons were primarily vaccinated, and 47,938 were re-vaccinated, a net increase of 1,585, or 0.19 per cent. under primary vaccination. It is evident that the people in the Bombay Presidency are wiser in their generation than the citizens of enlightened Leicester. The former know what small-pox is, the latter have to wait a little for their experience; when it comes it will be found in Leicester, as elsewhere, that Dame Experience keeps a dear school.

ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1885.

(Continued from vol. ii, 1887, p. 1399.)

THE foreign stations at which British troops were quartered during the year 1885 were twelve in number, and included a wide diversity of climates. They were Gibraltar, Malta, Cyprus, Egypt, Nova Scotia, Bermuda, West Indies, Cape of Good Hope and St. Helena, Mauritius, Ceylon, China, and India. A separate section of the report is devoted to a history of the health of the officers and men who were serving in each of these twelve military commands. The leading statistical and medical particulars furnished in the report on some of these foreign stations now follow.

The average strength of the troops comprising the garrison of Gibraltar was 4,353. There were 4,587 admissions into hospital during the year, giving a ratio of 1053.8 per 1,000; the deaths amounted to 35, a ratio of mortality of 8.04 per 1,000; and the average number constantly sick was 253.58, showing a constant inefficiency through sickness at the rate of 58.25 per 1,000. These ratios are all higher than the averages of the preceding ten years, and considerably higher, as regards the death-rate, than that of the previous year 1884, when the ratio of mortality was 4.01 per 1,000 less. The death-rate of 1884 was, however, the lowest on record at Gibraltar. Brigade-surgeon Warren, in medical charge of the station hospital, when remarking on the increase in the ratios of sickness and mortality during the year 1885, points out that the rate of mortality was increased by the occurrence of 2 deaths from cholera, 3 from enteritis, and by several deaths from injuries. Diseases of the febrile group led to 730 admissions, and among these were 10 deaths, of which 5 were due to enteric fever. In the preceding year there were only 3 cases of enteric fever; in 1885 there were 25 cases admitted. The medical report states that the disease could not be traced to any defects in the barracks or their vicinity, or in the water-supply. Primary syphilis caused 747 admissions, and secondary syphilis 140, giving ratios of 171.6 and 32.2 per 1,000 respectively, which are considerably higher than the ratios of 1884, and much above the average. Including gonorrhœa and its sequelæ, the total ratio of admissions for venereal diseases was 362 per 1,000, and the ratio of constant inefficiency from these disorders was 21.91 per 1,000, both very much above the average. One officer died from cholera. He was residing at Europa, where another case had occurred five weeks earlier, but no connection between the two cases, nor any cause for either of them, could be traced. No other cases occurred subsequently at Europa.

The average strength of the troops composing the garrison of Malta was 4,602. This number does not include the men of the Malta Fencible Artillery. The force enumerated caused 4,249 admissions into hospital, giving a ratio of 923.3 per 1,000; and among these were 68 deaths, a mortality of 14.77 per 1,000. The average number constantly sick was 272.04, being at the rate of 59.11 per 1,000. All these proportions are higher than they were in 1884, and are above the averages of the preceding 10 years. Enteric fever caused 93 admissions and 24 deaths. The deaths from this disease were equal to 35 per cent. of the deaths from all causes. Of the cases, 14, with 6 deaths, occurred at Valletta; 74, with 15 deaths, at Cottonera; and the principal medical officer attributes the disproportion in the number of cases which occurred at the two places to the improved water-supply of Valletta, while there was no corresponding improvement in the water-supply of Cottonera. The remaining 5 cases took place at Civita Vecchia. The medical officer of Cottonera remarks that the "enteric fever was very fatal during the hot months, and the year 1885 was one of the hottest ever known in Malta." Two cases of small-pox occurred among the troops; they were severe, but both the patients recovered. The disease was said to have been introduced by sailors at the lazaretto. Thirty-nine cases occurred among the civil population, but, careful precautionary measures being adopted, it did not spread among the military beyond the two cases already named. Primary syphilis caused 172 admissions, and secondary syphilis 102, the ratios being 37.4 and 22.2 per 1,000 respectively. Gonorrhœa and its sequelæ

caused 309 admissions, equal to 67.1 per 1,000 of the strength. Seven deaths were due to injuries; 3 being due to falls, 2 over ladders, and 1 from a terrace at the Valletta hospital; 2 resulted from drowning, and 2 were suicidal.

Some remarks, which appear to demand attention, are made by the Principal Medical Officer and other medical officers with regard to the bad state of health of the Dorsetshire Regiment. This corps had the highest ratios of admission and of constant sickness during the year, namely, 1,465.8 and 114.43 per 1,000 respectively. These high ratios are attributed in the report to "the inferior physique and great youth of the men, which rendered them quite unable to endure the unusual heat of the summer." The medical officers in immediate connection with the regiment also point out that the spring of the year was the most unfavourable time in which the regiment could have arrived in the command. The Principal Medical Officer concurs in this view, and adds he has noticed that regiments which have arrived in the island in the spring have suffered much from fever during the following summer and autumn.

The average strength of the Royal Malta Fencible Artillery was 353 non-commissioned officers and men and 20 officers. The corps was not so healthy as it was in 1884, and the admissions into hospital were above the average of the previous six years, but only one death occurred; this death resulted from remittent fever. It would appear from the report on the recruiting for this corps that there is considerable room for improvement in the matter of education in the island of Malta. Out of 111 recruits inspected during the year, only 1 was returned as well educated; and of the remainder, only 25 were able to read and write, while 2 could read but not write, and 83 were unable to read.

The troops quartered in Cyprus averaged 852 in number. There were 918 admissions into hospital, and 18 deaths; being at the rates of 1077.4, and 21.13 per 1,000 respectively. These numbers show a considerable increase by comparison with the corresponding ratios for the year 1884, and also as regards the average similar ratios for the preceding 6 years. With regard to the increase of disease and mortality in 1885, the Senior Medical Officer remarks that "the high ratios are due to the arrival of certain battalions from Egypt, the men being in a very sickly and debilitated condition from the hardships of the recent campaign at Suakin, and to enteric fever having broken out among them. A somewhat similar increase in sickness and mortality occurred in 1882, when a regiment arrived from Egypt under similar circumstances." Enteric fever caused 51 admissions to hospital, and 15 deaths. The greater number of the admissions and deaths occurred at Troodos, and the medical officer in charge at that port remarks:—"During the two years I have been in charge of the military hospitals at Cyprus I never saw a case of enteric fever amongst the men of the garrison except among those just arrived from Egypt." There was no death among the commissioned officers, who were 37 in number, nor among the women and children, whose numbers were 27 and 40 respectively.

The only station in the Dominion of Canada in which there was a garrison of imperial troops during the year 1885 was Halifax. The average strength of the troops quartered there was 1,273 non-commissioned officers and men, and 66 commissioned officers. Among the former there 910 admissions into hospital and 10 deaths, being at the rates of 714.8 and 7.86 per 1,000 respectively. There were 24 attacks of illness among the officers, but no death. Among the women, 89 in number, there were two deaths from phthisis pulmonalis; and among the children, who averaged 183 in number during the year, there were 11 deaths. One soldier, who had managed to conceal his illness for a fortnight, died from enteric fever, and this was the only case that occurred among the troops during the year at this station.

(To be continued.)

THE COLLEGE OF STATE MEDICINE.—The following gentlemen were elected Associates of the College at the meeting of Council on January 13th, 1888, Sir Joseph Fayrer, K.C.S.I., in the chair:—Adams, Charles, M.B., LL.B., Qal. State Med. Dub., Surgeon I.M.D., Madras; Alexander, F. W., Dip. Pub. Health R. Coll. Phya. Surg. Eng., Mile End Infirmary; Birch, Edwd. A., M.D., F.R.C.S.I., Cert. Pub. Health, R. Coll. Phya. Edin.; Corban, Laurence, M.D., Dip. San. Sci. R. Irel., Surg.-Major M.S.; Callen, Peter, M.D., Cert. Pub. Health, R. Coll. Phya. Edin., Surg.-Major I.M.D. Bengal; Evers, Benjamin, D.P.H.Camb., Surg.-Major I.M.D., Bengal; Hehir, Patrick, D.P.H.Camb., Surg. I.M.D., Bengal; McGann, T. G., F.R.C.S.I., D.P.H.Camb., Surg.-Major I.M.D., Madras; McNally, C. I., M.D., D.P.H.Camb., Surg.-Major, I.M.D., Madras; Simpson, W. I. R., M.D., D.P.H.Camb., Med. Officer of Health, Calcutta; Thompson, S. I., D.P.H.Camb., Surg. I.M.D., Bengal; Weightwick, F.P., M.B., D.P.H., R. Coll. Phya. Surg. Eng., St. John's, Horsleydown.

ROYAL COLLEGE OF SURGEONS.

AN extraordinary meeting of the Council was held at the College on Thursday afternoon, January 19th. The minutes of the quarterly Council, held on January 12th, were read and confirmed. A report was read from the Secretary of a candidate found qualified for the diploma of Fellow. It was resolved to issue a diploma of Fellow to Mr. C. L. Hudson, of Middlesex Hospital.

The Council then proceeded to the further consideration of the proposed reply to the Privy Council respecting the statement made on behalf of the Association of Fellows in reference to the supplemental charter. The revised reply, as proposed by the President and Vice-Presidents, was read, and, after some discussion and amendment, was agreed to, and ordered to be sent to the Lord President of the Privy Council, without waiting for confirmation by next meeting of Council.

ASSOCIATION INTELLIGENCE.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTemperance, which was presented to the Section of Medicine in the Annual Meeting of 1887, and a further portion of the Report upon OLD AGE have been completed, and will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has just been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: WESTERN DISTRICT.—The next meeting will be held on Friday, January 27th, at St. Mary's Hospital, Paddington (by kind permission of the medical staff). The chair will be taken, at 8.30 P.M., by H. Charlton Bastian, Esq., M.D., F.R.S., the Vice-President of the District. Business: 1. Minutes of preceding meeting. 2. Clinical remarks on Chronic Diseases of the Knee-joint in Young People: by Edmund Owen, Esq., M.B., F.R.C.S., Surgeon to St. Mary's Hospital and the Children's Hospital; several illustrative cases of patients will be shown. 3. Demonstration of cases of Chronic Disease of the Spinal Cord: by D. B. Lees, Esq., M.D., F.R.C.P., Physician to St. Mary's Hospital and Assistant Physician to the Children's Hospital. 4. Drs. Waller (Lecturer on Physiology), R. Maguire, Silcock (Joint Lecturers on Pathology, etc.) and Handfield-Jones (Joint Lecturer on Midwifery and Diseases of Women), St. Mary's Medical School, will exhibit microscopic specimens, and give short demonstrations.—C. A. PATTEN, Honorary Secretary, Marpool House, Ealing, W.

DUBLIN BRANCH.—The eleventh annual general meeting of the Dublin Branch of the British Medical Association will, by the kind permission of the President and Fellows, be held on Wednesday, January 25th, at 4 P.M., in the hall of the King and Queen's College of Physicians, Kildare Street. The officers and Council for the ensuing year will be elected by ballot, and any other necessary business transacted. Edward D. Mapother, Esq., M.D., President-elect, will deliver the annual Address. At the conclusion of the business of the annual meeting, the portrait of the President of the Association, Dr. Banks, will be presented to the President and Fellows of the King and Queen's College of Physicians by the President of the Branch, on behalf of the subscribers to the Reception Fund of the late annual meeting of the British Medical Association in Dublin. Subscribers to the Reception Fund, although not members of the Branch, are invited to attend the meeting. Members wishing to bring any subject of professional interest before the meeting, to nominate any member to serve as an officer or on the Council of the Branch, or to propose any gentleman as a member of the Association, or of the Branch, must inform the Honorary Secretary on or before January 13th. The annual dinner of the Branch will be in the College hall, at 7 P.M., on the day of the meeting. The charge for dinner tickets for members who purchase their tickets on or before Tuesday, January 24th, is 17s. 6d.; for members purchasing their tickets after that date, and the guests £1. Applications for tickets and the name and address must be forwarded to the Honorary Secretary. Members' guests are not limited to their professional friends.—L. H. ONMSBY, M.D., Honorary Secretary and Treasurer.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary, Oxford, at 3 o'clock on Friday, January 27th. Notice of papers to be read and cases to be shown must be given to either of the Honorary Secre-

taries on or before Monday, January 23rd. Members are requested to send their annual subscriptions to the Association and the Branch, due January 1st, to Dr. Darbishire, 97, Holywell, Oxford.—S. D. DARBISHIRE, W. LEWIS MORGAN, 42, Broad Street, Oxford, Honorary Secretaries.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—An ordinary meeting of this District will be held at Dalish's Hotel, Shanklin, on Thursday, January 26th, at 4 P.M., J. M. Williamson, M.D., President, in the Chair. Agenda: J. G. Sinclair Coghill, M.D.: Antifebrin in the Pyrexia of Phthisis. R. Robertson, M.D.: Heart Condition in Fifty Cases of Pulmonary Consumption. John Ellis, Esq.: The Bacillus of Dental Caries and Leptothrix Buccalis. W. E. Green, Esq.: Vegetable Parasites; Photographs and Microscopic Specimens. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary. Dinner at 6 P.M.; charge 6s., exclusive of wine.—W. E. GREEN, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The next meeting of this District will be held at the Deaconesses' Institution and Training Hospital at Tottenham, N., on the evening of Thursday, February 2nd, at 8 P.M. (Dr. Bridgewater, J.P., Vice-President of the District), when Dr. Dowse will read a paper on Massage, and demonstrate its practice. Several interesting cases will also be exhibited in the hospital.—GEORGE HENTY, M.D., Honorary Secretary.

NORTH OF IRELAND BRANCH.—A general meeting of the North of Ireland Branch will be held in the Belfast Royal Hospital on Thursday, January 26th, 1888, at 12 o'clock noon. Business:—The President (Dr. Palmer) will show a case of Excision of the Knee-joint. Professor Dill will introduce a discussion on the subject of Puerperal Fever. Dr. O'Neill will exhibit two patients on whom he performed Amputation of the Thigh by Sédillot's method; and also a patient treated for a severe case of Wry Neck. He will read short notes of the cases. Dr. Dempsey will show an Ovarian Cyst and also a Uterine Fibroid which he successfully removed, and will read notes of the cases. Dr. Byers will read a short paper on the Local Treatment of the Uterus in Puerperal Fever.—JOHN W. BYERS, M.D., Secretary, Lower Crescent, Belfast.

BERMUDA BRANCH.

A MEETING of this Branch was held at the Town Hall, Hamilton, on December 13th. In the absence of Deputy Surgeon-General C. Graves Irwin, P.M.O., the President, Dr. PARK TUCKER was asked to take the chair. Five members were present.

Thanks to Late President.—Dr. TUCKER said that on the eve of the departure of Dr. Irwin from Bermuda, they had all to offer him their heartfelt thanks for many acts of kindness, and especially for the manner in which he had discharged the duties of his office as President of the Bermuda Branch of the British Medical Association.

New Acting President.—Dr. ELDON HARVEY proposed, and Dr. E. C. WILKINSON seconded, that Dr. Park Tucker be asked to act as president *pro tem*. Dr. Tucker consented.

Cases.—Dr. ELDON HARVEY showed a case of Ulceration of the Palate; also a case of Naso-Pharyngeal Growth of Adenoid Tissue.

Stone in the Male Bladder.—Dr. PARK TUCKER, after an experience of some forty years, had only heard of two cases occurring in persons who had lived all their lives in the island. Stone in children must be extremely rare; no member present had ever seen a case.

Death of Dr. Krueger.—Dr. Richard O. E. Krueger having died since the last meeting, the Secretary was directed to write a letter of condolence to the widow.

New Member.—Surgeon James Porter, R.N., was proposed.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Professor Charcot's Clinique.—Faradisation of the Right Pneumogastric Nerve and the Urinary Secretion.—Physiological Effects of Gases Resulting from Incomplete Combustion of Coal Gas.

PROFESSOR CHARCOT lately delivered an interesting lecture at the Salpêtrière on hysteria and syphilis, and the influence which previous affections or intoxication had in determining the localisation and form of hysterical symptoms. Infectious diseases, such as typhoid fever, pneumonia; intoxication (alcoholism, saturnism or hydrargyrisim), traumatism, and syphilis may determine hysteria which had previously been latent; but hysteria induced by traumatism, saturnism, alcoholism, or other affections remains identical. The localisation of the symptoms may differ, and the form which certain accidents assume will show what part must be ascribed to the previous affection in the symptomatology of hysteria. M. Charcot showed a patient in whom hysterical phenomena had been attributed to syphilis. The patient was 23 years old. He had syphilis at 18, which was not properly treated. On returning home one day seven years ago he fell down unconscious.

There was hemiplegia and hemianæsthesia of the right side; the muscles of the corresponding arm and leg were contracted. The end of the tongue was forced up against the right molar teeth. A few days later nocturnal headache came on, followed by convulsions of epileptic character. Mercury and iodide were administered. Two attacks of convulsions occurred. The paralysis and nocturnal headache persisted. These symptoms were regarded as syphilitic phenomena until M. Charcot pointed out the peculiar signs of hysteria by which they were characterised. Hemiplegia was accompanied by complete hemianæsthesia, which is of extremely rare occurrence in organic lesions. The patient was partially unconscious of the muscular function of the regions affected. Finally, the spasmodic symptoms in the tongue, which closely resembled the glosso-labial spasm of hysteria, and the peculiar nature of the attacks of convulsions rendered the existence of hysteria unmistakable. M. Charcot considers that the hemianæsthesia observed in certain female syphilitic patients, especially during the second period of syphilis may be attributed to hysteria, determined by mental depression and distress in patients of nervous diathesis. The nocturnal headache was accompanied by marked hyperæsthesia of the scalp. This is a characteristic sign of hysteria. M. Charcot believes that the localisation of the neurotic phenomena was influenced by the previous existence of syphilis, and that the hysterical headache was due to the remembrance of syphilitic headache, and resulted from a process of auto-suggestion. M. Charcot cited a curious case described by M. Potain of a patient suffering from lead poisoning, in whom the extensor muscles of the right arm were paralysed. There was hemianæsthesia; the paralysed muscles showed no traces of degeneration. M. Potain showed that this case was one of hysterical paralysis of the extensor muscles in a case of lead poisoning. Hysteria had assumed the appearance of saturnism, but its special nature was in no way changed. In the same manner the hysteria manifested by M. Charcot's patient assumed the appearance of syphilis. In describing a case of hystero-epilepsy in a syphilitic patient, M. Potain plainly showed that "the patient in question was a hysterical patient. The syphilis merely provoked the nervous disturbance and hystero-epilepsy."

MM. Arthaud and Butte, communicated to the Société de Biologie, at the meeting of December 17th, a paper on the effects of faradisation of the right pneumogastric nerve on urinary secretion. The authors, in order to obtain the above effects by purely physiological means, administered curare to animals until they became motionless; then, by means of induction currents, gradually increasing in intensity, they successively excited the entire pneumogastric, and then its peripheral end after being cut. The quantity of urine eliminated was measured by comparing the column of urine running, in a given time, through a long horizontal capillary tube fitted to the right ureter. The first experiment was on a sheep-dog, which had received an injection of 0.03 centigramme of curare. In a normal condition, the urine runs through a length of tube equal to 4 or 4½ centimètres in five minutes. During stimulation of the right pneumogastric by a very weak current, the above length was reduced to 2.3 centimètres in the same time; when the current was a little stronger the length was further reduced to 1.4 centimètre. The pneumogastric was then cut, and the peripheral end on stimulation with a feeble current gave a normal figure—4 centimètres. With a stronger current, the length fell to 3 centimètres, and when the current was raised to its maximum the urinary secretion almost completely ceased. When the current was stopped, the secretion was restored to its normal condition. The experiment lasted two hours, and the animal was then killed. The kidneys, examined under the microscope, showed small red spots in the cortical substance. The urine passed during the experiment was clouded, pale, slightly albuminous, and contained blood corpuscles, and perhaps some epithelial cells. A second experiment on another dog gave similar results. Experiments on other dogs, without injection of curare, but with application of mechanical pressure or the use of chloroform, did not give such definite results. The authors conclude that the right pneumogastric has a distinct action, through its peripheral branches, on urinary secretion.

In the *Comptes-Rendus* of the Société de Biologie there is a communication from M. N. Gréhant on the physiological effects of the gases resulting from incomplete combustion of common coal-gas. M. Gréhant placed in a narrow chamber 12 cubic mètres in capacity a Bunsen burner, which he lighted in such a manner that the combustion of the gas took place underneath and produced acetylene. While the combustion was taking place he prepared the carotid artery of a dog, from which he extracted some blood in a normal state, which contained 41.2 centimètres per cent. of carbonic acid and 19.5 centimètres per cent. of oxygen. A ligature was then applied to the central end of the artery, and a little water was injected into the glass

tube fixed in the artery, so as to be able later on to withdraw some more blood without a clot being formed. The animal was then left in the chamber. At the end of forty minutes the confined air had the disagreeable and very pungent smell characteristic of acetylene. The dog lay down on its side. At the end of an hour and twenty minutes the animal barked plaintively and became unconscious; it was then killed, and a second sample of blood, being drawn from the carotid, gave the following analytical result: 30.3 centimètres per cent. of carbonic acid and 6 centimètres per cent. of oxygen. Further chemical experiments showed that this considerable diminution of oxygen was due to the presence of 20 centimètres per cent. of oxide of carbon in the blood. This experiment proves conclusively that the quantity of oxide of carbon given out by a Bunsen burner burning from below during two hours, in a chamber of 12 cubic metres capacity, is sufficient to almost completely oxycarbonise the blood and endanger the life of an animal exposed to its effects.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Antipyrin.—Creolin.—Strophanthus.—Disinfection in Schools.

GENERAL-STABSRZT DR. NEUDÖRFER of Vienna gives, in a recent number of the *Internationale Klinische Rundschau*, some details on the antiseptic effect of antipyrin and creolin. The chemical name of antipyrin was dimethyloxycinchin, being a methyl compound of the hypothetical basis chinic, and oxycinchin, $C_{11}H_{12}N_2O$, and for practical reasons one of its properties served to give this alkaloid its name. This property, however, namely, that of lowering high temperature, was the least of its qualities, and the name "antipyrin" did not represent the whole value of the drug. It had to be administered in doses of at least three grammes, one gramme each hour, in order to produce any temporary decrease of temperature. The daily dose for diminishing pyrexial temperature was from five to seven grammes, and in the case of children from ten to fifteen years of age the daily dose consisted in as many decigrammes. Its anodyne and antiseptic properties were of much greater importance, and Dr. Neudörfer, therefore, proposes the names "anodynin" and "antiseptin," as it equally deserved both these names. These synonyms are also used in Dr. Neudörfer's paper. In all affections attended with pain, one, or at most two, Pravaz syringefuls of the 5 per cent. solution of anodynin, subcutaneously injected, sufficed to remove the pain completely, or at least to diminish it to a great extent. The author has often observed that the hemicrania of women disappeared for a long time after a single subcutaneous injection of this solution. He has performed several injections simultaneously, and repeated them daily without having noticed any disagreeable after-effect. The drug was decidedly preferable to morphine, and was in many respects quite equal to cocaine. Anodynin had local as well as general anæsthetic properties without producing mental disorder and without giving rise to any toxic symptoms, such as nausea, giddiness, vomiting, constipation, anorexia, etc. The anodyne dose for internal use was from 30 to 50 centigrammes, to be administered from two to four times a day at intervals of from 20 to 30 minutes. The synonym "antiseptin" was equally justifiable, because the alkaloid in question prevented putrefaction, killed bacteria, relieved the pains caused by the wounds, and did not affect the surgeon's hands or instruments. Antiseptin could be used in a 5 per cent. solution, just in the same way as carbolic acid, and it was in this degree of concentration much more efficient than carbolic acid, gauze, lint, and ungreased wool, and other materials could be advantageously impregnated with a 5 per cent. solution of antiseptin and a $\frac{1}{2}$ per cent. solution of glycerine, and employed for dressing purposes. The high price of antiseptin was still an obstacle to its being generally used. Owing to the imperial patentee, the wholesale price was at present seventy florins (about £5 12s. a kilogramme, or seven kreuzers a gramme—a little more than a penny). It could now, however, be used as a powder, which could be sprinkled over chancres, and in cases of scrofulous ophthalmia, etc. Antiseptin was also undoubtedly of great value in cases of throat and ear disease, owing to its anodyne and antiseptic properties.

Another antiseptic which Dr. Neudörfer has advantageously tried is creolin. This is a sort of tar which is obtained from the English pit coals by dry distillation, and from which the poisonous hydrocarbons have been eliminated. The chemical constitution is not yet established, but owing to its characteristic qualities it can be very easily recognised by the practitioner. It is derived from the aromatic class of hydrocarbons, and is closely related to creasote, carbolic acid, resorcin, hydrochinon, etc. The very first results which Dr. Neudörfer had obtained with this drug were very favourable, and he had for

this reason at last abandoned all the other antiseptics and used only creolin. The first success he had obtained with it was in the case of a girl, aged 7, who suffered from *erysipelas bulbosum migrans faciei*. The skin of the nose, the upper lip, and over both zygomatic arches was greatly stretched and much reddened; some pustules were also present. The lower eyelids were œdematous, the frequency of the pulse and the temperature were increased, and the patient also suffered from headache. Dr. Neudörfer said to the relatives that the erysipelas would spread over the forehead and the ears, and that it would disappear in from seven to ten days. He ordered a 2 per cent. solution of hydrocarbonate of sodium with syrupus simplex, and directed the erysipelatous parts to be brushed thrice a day with undiluted creolin. The erysipelas did not advance; the pustules dried up; the infiltration of the skin disappeared, and the patient ceased to complain of any pains. The symptoms of fever also disappeared, and the erysipelas was cured in two days and a half. Dr. Neudörfer has, since that time, tried creolin in two other cases of erysipelas with like success. In former times he used always to treat severe cases of erysipelas successfully with subcutaneous injections of carbolic acid, and he had therefore no reason to resort to the method of Krascke. Since he had tried creolin, however, he no longer used subcutaneous injections of carbolic acid, which had recently been again recommended by Fehleisen. The second case which had been antiseptically treated with creolin was that of a butcher, aged 27, who had cut the last phalanx of his left middle-finger and the terminal front of his ring-finger. After treatment with a 2 per cent. solution of creolin and the application of creolin gauze, the wound healed, in eight days, without any suppuration or swelling. In the third case, in which a tumour in the region of the lower jaw was removed from a woman aged 30, creolin was used during operation and afterwards as a dressing, two silk sutures closed the wound, and no drainage-tube was put in. On the third day the sutures were removed; the wound was already closed, and the dressing could also be removed. The author has since used creolin in several minor operations both in the Polyklinik and in private practice, and has always observed that it relieved pain, checked the hæmorrhage, and limited suppuration. At first he used a 2 per cent. solution, but he has now found that creolin is efficient in a $\frac{1}{4}$ per cent. solution. Dr. Neudörfer prepares a fresh solution each time by adding two drops of creolin to 200 grammes of water. He uses only ungreased gauze, which, being folded from ten to twelve times, is wrung out of the milky solution and applied to the wound, which is afterwards covered with several layers of dry gauze. The dressing may be left until healing has taken place. This dressing is very convenient, both for the physician and the patient, and it is also very cheap. The surgeon's wards, the patient's skin, and the instruments can be disinfected with a 2 per cent. solution of creolin. Dr. Neudörfer concludes his paper by stating that he is so satisfied with creolin that he does not desire any other antiseptic. For country practice as well as for use in war creolin is, in his opinion, the most trustworthy and convenient, as well as the cheapest and most harmless antiseptic.

According to observations in Professor Bamberger's clinic, strophanthus was used with success in (1) every kind of disease of the cardiac muscle, in which its effect exceeded that of all other remedies; (2) valvular failures, in which the cardiac muscle could not do the necessary work, either owing to commencing degeneration or to slight hypertrophy; (3) those cases of renal diseases in which the action of the heart was impaired or normal, but where there was in any case an increase of the cardiac activity, and thus indirectly increased diuresis. Success was not to be expected in: (1) too advanced degeneration of the cardiac muscles; (2) valvular failures with great hypertrophy, where the greatest possible quantity of work was already done and an increase of the cardiac energy was no longer possible; and (3) in renal diseases with cardiac hypertrophy. Though the indications for the use of strophanthus were in general exactly the same as those of digitalis, the new remedy had nevertheless the advantage that its effect was produced in from ten to fifteen minutes, and that it had no cumulative effect, and could thus be given for a long period of time. The tincture recommended by Fraser (1:20), or the strophanthin itself was used. After the administration of the first dose nausea and increased action of the bowels were observed in susceptible persons. Strophanthin could be given by the mouth without any disagreeable after-effects. The following were the formulæ used: R Tinct. strophanthi 1.5—3.0 (grammes); aq. distill. 180.0; syr. simpl. or syr. cort. aurant. 20.0—30.0. M. Sig. The whole to be taken during the day. R Strophanthin puri 0.002—0.004 (from two to four milligrammes); aq. distill.

180.0; syr. simpl. 30.0. M. Sig. The whole to be taken during the day.

The Austrian Minister of Public Instruction has forwarded to all school authorities instructions as to the carrying out of disinfection, based on the recommendations of the "Oberster-Sanitätsrath" (Superior Sanitary Council). Those in charge of schools are invited to use these measures for the purpose of preventing the spread of contagious diseases in schools.

SHEFFIELD.

[FROM OUR OWN CORRESPONDENT.]

The Small-pox Epidemic: its Incidence on the Vaccinated and Unvaccinated respectively.—Lead poisoning by the Town Water.

THE opponents of vaccination will not find much comfort in perusing the additional report which, at the request of the Local Government Board, the medical officer of health has just made as to the epidemic of small-pox in Sheffield. Commencing in March, the epidemic did not assume alarming proportions until July. Altogether 2,738 cases were heard of up to the end of 1887. Revaccination has been extensively carried out in the town, and out of the 20,000—a small estimate—that Dr. White presumes have thus protected themselves, only a very few cases of the most trivial character have been reported. Ninety-five per cent. of the children of Sheffield who live are vaccinated and 5 per cent. unvaccinated, or for every 19 vaccinated children there is 1 unvaccinated. Now, 367 children under the age of 10 are reported as having small-pox; 14 are excluded from calculation for want of particulars as to vaccination; of the remaining 353 children, 207 were vaccinated and 146 unvaccinated; the vaccinated formed less than two-thirds of the entire number. If vaccination were valueless, they should have formed nineteen-twentieths of those attacked. As to death-rate: 2 died out of the 207 vaccinated, or about 1 per cent.; whereas no less than 70 deaths are recorded in the 146 unvaccinated, or 48 per cent. Out of the whole total of small-pox cases at all ages, as given above, 2,193 as vaccinated, 382 as unvaccinated, and 143 as not known, the deaths are mentioned as being 157 in the vaccinated, 97 in the unvaccinated, and 23 in the not known. The *Sheffield Daily Telegraph* has brought forcibly home to its readers, in more than one leading article, the lessons to be derived from the small-pox epidemic as to the value of vaccination, and enforces, as the duty of the hour, vaccination and revaccination. Taking it that 95 per cent. of the population are vaccinated, and estimating the population at 300,000, there will be 285,000 vaccinated, and 15,000 not protected by vaccination. The lesson taught by the statistics in Dr. White's report is that the chances of a vaccinated person escaping small-pox are three times the chances of the unvaccinated, and that if he actually take the disease, his chance of survival is ten times greater than the chance of an unvaccinated patient. The report states that 382 unvaccinated persons were afflicted with small-pox, or one in 39 of the 15,000 unvaccinated population. Of these 382, as many as 157 died, or two in every five. Of the 285,000 vaccinated population, 2,193 had small-pox, which is equivalent to one in 130. Only 97 of the vaccinated died, or one in 22. If all the population had been unvaccinated, and the rate of infection had been the same for the whole population as it has been for the 5 per cent. known to be unvaccinated, there would have been nearly 8,000, instead of being 3,000 patients, and about 3,000, instead of not quite 300, deaths. Or, if the death-rate that prevailed among the unvaccinated had done so among the vaccinated, the number of deaths, instead of being nearly 300, would have been 1,000. The report shows that the revaccinated enjoy almost complete immunity. Every effort is being made to complete quickly the new small-pox hospital at Lodge Moor. At night the men work by the aid of the electric light. The hospital is for 100 beds, which will give when completed, together with the present accommodation, 235 beds for small-pox cases, in addition to which are those at the two workhouses.

It is reported that at Dronfield Dr. Rook has had 200 cases of lead poisoning under his care traceable to the water supply. There are several hundreds of empty houses, and the Local Board has been urged to cut off the water supply to these empty houses, and thus diminish the quantity of leaden piping in which the water may settle. The Local Board advise the people to filter the water.

Dr. William Dyson has been elected president of the Sheffield Literary and Philosophical Society.

At a meeting of the North-Western Association of Medical Officers of Health, Dr. Tatham in the chair, Dr. H. Falconer, Oldham (resident

medical officer of Monsall Fever Hospital), moved the following resolution:

That this Association desires to draw the attention of the public to the prevalence of small-pox in Sheffield at the present time, and to the fact that during the past month several cases of small-pox have occurred in Manchester, Salford, and the surrounding districts, of which the source of infection has been directly traced to Sheffield. That this Association, therefore, advises all those who from business or other necessity must visit Sheffield to be revaccinated, and thus protect both themselves and the localities to which they may return from risk of infection. That this Association desires further to impress upon boards of guardians and upon all tramp lodging-house and other lodging-house keepers the importance of exercising special precautions in the cases of all persons who come from or have recently passed through Sheffield, and upon the lodging-house keepers the responsibility that rests upon them of reporting at once to the proper authorities any suspicious case that may come under their notice. And this Association has good reason to hope that the danger which at present threatens of the spread of small-pox from Sheffield will be warded off from any district or town protected by compulsory notification of dangerous infectious disease in which the public will earnestly co-operate in acting upon the principles here recommended.

He said that four cases of small-pox had recently occurred in Manchester and Salford in widely-separated districts, but in each case the infection had been directly traced to a visit made to Sheffield. The cases were promptly isolated, and no further damage had been done. but if many such cases were to arise the time might come when some case would escape detection early enough, and would become a focus of infection from which an epidemic might spring that would rapidly envelop Manchester and Salford and the densely populated districts surrounding those boroughs. He had carefully avoided recommending universal revaccination, because unless it was made compulsory it could not be carried out. The resolution was seconded by Dr. VAOHER, and adopted.

CORRESPONDENCE.

DEGREES FOR LONDON STUDENTS.

SIR,—In a leading article in the *JOURNAL* of January 14th, referring to proceedings at the University of London, it is said: "Inasmuch as the Universities of Durham and Aberdeen, as was pointed out, confer their degrees, the one after a very moderate amount of evidence of preliminary education, and the other on the production of the ordinary certificate of registration as a medical student"—

Allow me to remark: 1. I should not have thought of classifying Durham and Aberdeen together. In history, in nature, in aim, and in what the public and the profession owe to them, they differ diametrically. 2. The regulations for preliminary examination in general education for Aberdeen University are the same as those for Edinburgh and Glasgow Universities. Anyone who will take the trouble to look at the Calendars will see in what their preliminary examination differs from "the ordinary certificate of registration." 3. In the present excited condition of the great metropolitan medical mind on the subject of degrees, we must expect an exacerbation of the chronic *de haut en bas* to the rest of the medical world. On this side the Tweed we have the fortification that the long medical war out of which we have come successfully has spread the reputation of the combined excellence and cheapness of our education. Whatever may be the outcome of the present "plan of campaign" of our London friends, or of its successors when it has failed, London can never in medical education compete successfully with Scotland in the above-mentioned combination.—I am, etc.,

JOHN STRUTHERS.

Aberdeen, January 16th, 1888.

DEGREES FOR MEDICAL STUDENTS.—THE CLAIMS OF SCOTCH LICENTIATES.

SIR,—I am surprised that the determined effort of the Royal College of Physicians of London and the Royal College of Surgeons of England to obtain from the Queen in Council the power to confer the degree of M.D. on their licentiates, that is, those of the new Conjoint Board, has not been imitated by the corporations in Scotland. The Scottish corporations have certainly an equal right to claim a privilege as the English corporations. It may be argued that in Scotland we have four universities granting medical degrees, and that we do not require any further facilities. It may be replied that there are as many universities in England, at which students may obtain a medical degree if they choose to accept the conditions. But they object to these conditions, the expense, &c. Well, if there is anything unjust in the conditions enforced, why not alter these conditions? This evidently will not be done. But instead a great scheme is drafted out whereby great injustice will be done alike to Scottish universities and corporations, namely, the facilitating by this scheme an M.D. degree for a low pass examination. This is denied to the universities—to confer an M.D. at the pass examination. But it is chiefly the

Scottish corporations that will suffer. Students will not care for studying for a degree in Edinburgh to obtain a licence when they can get for a similar examination and same fees an M.D. in London (this of course is unjust also to the universities). The Edinburgh colleges will lose a large proportion of students, and also the licence of these colleges will be at a discount. The only way left to them is to open their examination to third-rate students and grant their licence for the fees proffered, thus establishing an unhealthy competition for the sale of degrees. The universities also will suffer; for a pass examination they can only confer an M.B.; and besides, their examinations are much higher than the Conjoint Board on Thames Embankment examination. They will have, to enable them to compete, to lower their standard of examination or lose the candidates. It is utterly too absurd for the English colleges to make such unreasonable and unjust demands. Let them raise their standard of examination and confer an M.D. and proceed the same as the university, but incorporate the Apothecaries' Society, and do away with lower examinations and try as far as possible to make a one-portal system. Let the Scottish and Irish corporations do the same. What is good for London is good for Edinburgh and Dublin. Let all the licentiates of the Edinburgh colleges urge the councils of these to be up and doing in looking after their interests. This is a beginning on this subject; I hope it will be reiterated again and again until we are placed on equal footing and receive honourable treatment and justice.—I am, etc.,

A. W. McFADYEN.

Lochinver, Sutherlandshire, January 13th, 1888.

HOW SHOOTING ACCIDENTS OCCUR.

SIR,—I am very glad to see that you have opened your columns to a discussion on "How Shooting Accidents Occur," and that so experienced a sportsman as Sir William Dalby has followed up your own remarks on the principle that "prevention is better than cure." No one can doubt that this subject is particularly adapted to the pages of a medical journal, and the frequency of these accidents, no less than their preventable nature, makes the inquiry into their causation one of real importance. My friend, Sir William, writes with the authority of long experience, and I agree with much of what he says. But I cannot help thinking that the dangers included under his first two headings would be lessened, and perhaps removed, by the universal adoption of hammerless guns. This ingenious mechanism makes the half cocking process so simple as to prevent that confusion between the triggers and the hammers which is so great a stumbling-block to beginners, and the slipping away of the hammer from the point of the thumb in cold weather, the pulling back by a twig or branch when going through a hedge, and, last but not least, the peril in which the sportsman is sometimes placed by a careless or inexperienced loader. For it is obvious that as the hammerless gun always closes at half-cock after the insertion of the cartridges, no accident can possibly occur when all tampering with the safety sliding cover is absolutely forbidden. Grouse driving, I agree with Sir William to be the cause of much mischief, and the foot must be put firmly down on the practice of following birds. But to many this habit is quite irresistible, and to avoid mischief the recommendation of the Duke of Beaufort (*Badminton Library Shooting Vol.*) should be adopted, that "there should be some sort of screen between all batteries." This would enable the guns to shoot freely all round, and would obviate the risk which I hardly think is yet enough recognised, of shot, and more especially chilled shot, glancing back or to one side from stones or roots, or even from the ground hardened by frost. Nor am I quite sure that a high wind may not deflect some portion of a charge from its right direction and land some of the pellets in or near the occupant of the next battery. The only accident which I have seen this year was caused by one of the most experienced members of the party, who described to me the horror with which he found that he had freely peppered his neighbour after firing, as he thought, in a perfectly safe direction and well away from the adjoining battery.

But what we have to come to is this: Putting aside all unavoidable causes, are shooting accidents due to want of care, or to ignorance? You adopt the first; Sir William argues in favour of the second. I agree with you. No one can have seen much of cover shooting without regretting the culpable rashness with which some so-called sportsmen handle their guns, and the recklessness which is the result of jealousy and wholesale rivalry as to the individual contributions to the bag. Nor can it be denied that the arrangements of the ordinary *battue* are of a very dangerous character. Outside a wood we place a certain number of guns, and inside an advancing line of beaters, armed and unarmed, walk forward and drive everything to the outside. Then the fire grows fast and furious, for the pheasants rocket up into space, and hares and rabbits swarm in perplexing numbers, and tempt

the oldest hands into rashness. Shot now begins to swish almost as though the opposing parties were seriously under fire, and hairbreadth escapes are made to be afterwards recounted at luncheon or in the smoking-room. Caution and moderation are at this time all essential, and whoever habitually disregards the first principles of sport and pulls trigger at a low-flying bird or any creeping thing after he hears the cry of "guns ahead!" or sees the advancing forms brushing through the rough ground, should be carefully left out when invitations to the next "shoot" are being made up. Whether this is or is not a true picture I will leave to the recollections of your readers, merely reminding them of the old story of the beater who declined to take a message to a well known nobleman stationed in the middle of a wood because, as he said, "Lord — always fires when he sees anything move." This is evidently the motto of some modern sportsmen, and instead of labelling them dangerous, and keeping as well as possible out of their way, I would advise a tonic course of "boycotting" until they recognised the responsibilities as well as the pleasures of sport, and the discredit into which it may fall by their means; and it will do us all good to take stock of our own individual experience, and see whether the most careful among us may not have something to learn or to unlearn.—I am, etc.,

ROBERT FARQUHARSON.

Finzean, Aboyne, N.B., January 11th.

INTRACAPSULAR INJECTION IN THE EXTRACTION OF CATARACT.

SIR,—A few observations on that part of the ophthalmic review (*JOURNAL* of December 31st) which relates to the above subject are desirable.

Referring to the paper which I read at the annual meeting, the writer says that the opinion of the meeting was decidedly adverse to the proceeding, and that the Sectional President, Mr. Swanzy, expressed an opinion that my paper had given the "deathblow" to the method. In the *JOURNAL* of August 20th last a correspondent speaks in much the same strain. These two anonymous contributions may be from one and the same person, who may be one of the hostile critics at the meeting—critics, who either had no experience whatever of the method, or the most meagre one.

The statements in the *JOURNAL* of August 20th last led to my writing a letter (which appears in the *JOURNAL* of September 3rd), in which I compared results by my method and results by the other methods. Of that letter the reviewer has taken no notice, neither has he told us what has been his own experience of intra-ocular injection; but he tells us the method "has not met with much favour, most surgeons who have tried it having reverted to the methods of removing the cortex which have been in use for many years."

I suppose this assertion is based upon the discussion at the meeting, a discussion of which the adverse critics were, I think, pretty tired. If it be not, I shall be glad to see a short statement giving the names of the surgeons referred to, and the grounds upon which they have retraced their steps. I do not know whether the reviewer has thought it his duty to confine himself to work done in these islands. But, even so, he omits to notice that it is much used in Liverpool, particularly by Mr. Lee. I know it is practised by other surgeons who have said and written nothing about it.

Beyond our limits there are some men who have a world-wide reputation, who do a large operative work, and who not only approve of but practise intra-ocular injection. The names of MM. de Wecker and Panas are above cavil. The report of the meetings of La Société d'Ophthalmologie of France and the journals published in France may be consulted with much advantage. From them we learn that intra-ocular injection has been most extensively practised in that country, and we do not read of any condemnation of the method there. Indeed, the invention of instruments to carry out the method more perfectly occupy the attention of some of our Continental *confères*.

Pending the publication of my paper and the discussion thereon, I shall merely add that intra-ocular injection has not only given results in very unripe cataract such as have never been otherwise obtained, but also brings within the range of successful operation cases that without it have been regarded as outside the pale of operation. My paper comprises many cases of very unripe cataract, of which the details are given, which are without parallel in ophthalmological literature.—I am, etc.,

WILLIAM A. McKEOWN.

Belfast, January 10th, 1888.

* * The remarks of our reviewer referred chiefly to British operators. Intra-ocular injection appears to be practised abroad more as a means of introducing antiseptic agents than for its mechanical effect, and the details have been modified accordingly. Those remarks were not solely based on the opinions expressed at the discussion, but, without consent,

it would be unfair to name individual surgeons, and impossible to give their reasons. In the only paper by Mr. Lee with which we are acquainted (*JOURNAL*, 1887, vol. i, p. 103), the experience given is as meagre as that of the "hostile critics." No doubt before long we shall hear Mr. Lee's further experience, as well as that of the other surgeons referred to by our correspondent.

THE ERGOSTAT AND LATERAL CURVATURE

SIR,—My colleague, Mr. Clay, has given so much attention and original thought to the subject of scoliosis, and his views as to its etiology and the broad principles of treatment coincide so closely with those which experience continues to prove to me are correct, that I regret I cannot endorse his remarks in the *JOURNAL* of January 14th respecting the advantages of the ergostat as an instrument of treatment in such cases. The conditions of the spinal column are so diverse and complex in such cases, and the bony, muscular, and ligamentous structures generally, so much involved, that it is almost useless to expect any great measure of success from attempts to treat them in a stereotyped manner, as is unfortunately the case now that surgeons are at last beginning to discard the old system of relegating their cases to the tender mercies of the instrument maker, with "here a ratchet, there a ratchet, everywhere a ratchet," and a fee for each turn of the cog.

While cordially appreciating the spirit which has led to a more rational manner of treating deformities, which, in the great majority of cases, are the result originally of bad positions and weakened muscles, by aiming at improving those faulty positions, and strengthening those weakened muscles, I hold that this treatment is as better carried out by such exercises as are adapted to each individual case, and without such complicated machines as the one alluded to.

Kinesi-therapeutics, to the perfecting of which Ling devoted his lifetime, and which, while they have long been understood and practised on the Continent, owe their enunciation in this country to the untiring efforts of Dr. Mathias Roth and his son, Mr. Bernard Roth, comprise several hundred exercises from which prescriptions may be chosen or modified by the surgeon for each individual case as it arises, commencing usually with simple exercises in a lying position, and as the weakened muscles and the patient's general constitution improve, gradually increasing the dosage and substituting other exercises. I cannot here go fully into a description of the treatment, but would refer those interested to the exhaustive works of Dr. Roth on the subject.

If I may be excused the digression, I should like to state that out of the hundreds of cases I have noted in hospital and private practice, I have traced the majority to bad position of the patients during their scholastic life, and I consider it is our duty to go beyond our attempts at curative treatment, and considering the irrevocable injury that is involved, to impress forcibly upon school authorities the necessity, as a preventive measure, of reducing the length of time that children are kept standing at class, improving their seats and desks, correcting faulty positions, and, above all, of making physical exercise a part of the daily curriculum. I am pleased to say that this last desideratum is being admirably carried out in our Birmingham Board Schools, but the funds have to be provided by a special subscription list, whereas, considering the great importance of its general adoption, it is our duty to impress upon the authorities most strongly the necessity of providing for such systematic physical training out of the grant.

In conclusion, although for other reasons besides those I have mentioned, I do not consider Dr. Gartner's invention suitable to cases of scoliosis, I have no doubt of its utility in obesity, gout, and many other ailments. I would, however, suggest that it might be made of more practical value, if, by a simple addition to the machinery, the obese patient could be enabled to grind his own coffee or churn his own butter.—I am, etc.,

EDWARD L. FREER, Hon. Surgeon,
Birmingham Orthopædic and Spinal Hospital.

7, Newhall Street, Birmingham.

ELECTROLYSIS IN THE TREATMENT OF UTERINE FIBROIDS.

SIR,—The comments on my case of electrolysis in your last issue by Dr. W. S. Playfair are consistent with the doctrine I have been inculcating the last three months at Soho Hospital; and, without questioning the propriety of using the high currents recommended by our American friends, I am at present feeling my way with much weaker currents (from 70 to 120), and should be loth to resort to 250 or 300 milliampères, unless, as I have repeatedly observed to our pupils, everything general and local in the patient was favourable to enucleation.—I am, etc.,

E. HOLLAND.

1, Titchfield Terrace, North Gate, Regent's Park, N.W.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

LECTURES ON CHILDHOOD.—At the request of the Teachers' Syndicate, Dr. Francis Warner will deliver a course of lectures on the "Growth and Development of the Intellectual Faculty." The lectures will be six in number, and will be illustrated by casts, diagrams, and botanical specimens; they will be delivered in the Literary Schools at 2.15 P.M., on Wednesdays and Saturdays during Lent term, beginning on January 25th.

APPOINTMENTS.—Sir Frederick Abel has been appointed Rede Lecturer for the present year. H. D. Rolleston, B.A., M.B., Scholar of St. John's College, has been appointed Demonstrator of Pathology. On Monday, January 16th, at a Special Court of Governors of Addenbrooke's Hospital, Mr. Frederick W. Burton, M.R.C.S., L.R.C.P., late house-physician and gold medallist of University College, was unanimously elected house-physician, in the place of Mr. R. H. Martin, who has left for Adelaide. The following have been admitted to the degrees of M.B. and B.C.:—F. R. B. Bishopp, King's; H. D. Rolleston, St. John's; R. H. Martin, Caius; E. Lloyd Jones, non-collegiate. The following have been admitted to the degree of M.D.:—James Harris Lilley, St. John's; Harry Groom, Magdalene.

UNIVERSITY OF LONDON.

A MEETING of Convocation was held at the University building on Tuesday last, January 17th. Mr. F. J. Wood, LL.D., presided. The first resolution, to present the report of the Annual Committee and to move its reception, was to have been proposed by Sir P. Magnus. Being unavoidably detained, he sent a letter, which was read by the Chairman, and which stated that a deputation from the special committee of Convocation on reform of the University, of which he is chairman, had had a second interview with the Senate, and that probably in the scheme which the Senate would eventually adopt several points considered important by Convocation would be embodied. The Senate had deferred the publication of its scheme so as to ascertain if it might not be possible to introduce into it such modifications as might satisfy the legitimate requirements of the University and King's Colleges, and thereby render their petition to the Crown needless. The University should resist the petition of the Colleges, not for any selfish policy, but in the interests of higher education generally. As regards the action taken by the Royal Colleges of Physicians and Surgeons, the letter suggested that a Royal Commission should examine the whole question. The report was then received.

Mr. T. B. NAPIER, LL.D., moved the adoption of the following resolution, recommended in the report of the Annual Committee:—"That Convocation expresses its approval of the Senate's action in objecting to the joint scheme of King's College and University College." He thought that no scheme which could be proposed by these Colleges could have an equal authority with that which had been so carefully discussed on many occasions, both in the Senate and Convocation and of which the main object was the same as that of the promoters of the new scheme—namely, the establishment of a teaching university for London. London certainly did want facilities for higher education, and better organisation of the metropolitan teaching bodies. The views of the Senate and of Convocation were gradually approximating, and agreement might be expected to ensue in a short time, when it would be found that the scheme of the two bodies would give quite sufficient authority and power to the teachers, as much, in fact, as any university could properly concede.—Mr. ROSS, M.A., B.Sc., seconded the proposition.—Professor CAREY FOSTER, in opposing it, said that Dr. Napier's speech was full of misrepresentations. The main objection brought forward by him affected only the minor principles of the scheme whilst he (the speaker) contended that, in the true sense of the term, London had no university to put the highest education within the reach of all. The chief function of a university was not to examine but to teach; the University of Berlin, for instance, would not lose its influence if it gave no further degrees at all. The teachers of the colleges desired to promote the interests of higher education, hence their anxiety to establish the Albert University.—Mr. ROBERTS, D.Sc., moved an addition to the original proposal that no new university should be established in London which did not make provision for the large class of persons who, though compelled to follow their occupations during the day, could attend lectures, demonstrations, etc., in the evening. The university should strike out a new line in this respect, and meet the great wants of the London population by providing evening instructions for all classes of students. If

the curriculum were extended over eight or ten years, too, such students might at the end of that time obtain a degree.—Mr. B. H. COOPER, B.A., seconded the proposal, desiring that educational facilities should be extended in every direction.—Dr. CURNOW thought the establishment of the proposed Albert University would do no harm to the University of London; the former would be only for London students, and would include the medical schools and have a medical faculty. Scotland, with a less population than London, had four flourishing universities. The scheme of the Colleges of Physicians and Surgeons was not promulgated in the interests of higher education, but for professional motives; and such a degree-conferring body the University of London did not oppose, though it did oppose the proposed Albert University, which will promote higher education.—Mr. HUTTON thought the Colleges could organise themselves as much as they might desire to further higher education, without forming themselves into a second university.—Dr. QUAIN thought it was a question of common sense. He had heard no good objections offered to the present University; then why desire the Albert University? The statement of the Senate was good, but it did not speak of the great benefits which that University had conferred.—Dr. SILVANUS THOMPSON thought the great drawback of the University was that it was still under the control of the Treasury in Downing Street; it should be emancipated therefrom, and the sooner the better. The proposed amendment was then withdrawn; and the motion of Dr. Napier was carried by a large majority.

Mr. H. A. NESBITT, M.A., and Dr. A. THOMPSON proposed a resolution by which standing order No. 58 was amended, so that at future elections to the Senate each member of Convocation can vote for three candidates to be placed upon the list to be submitted to the Crown. The resolution was carried.

Mr. J. G. FIRCH, M.A., and Dr. SILVANUS THOMPSON, D.Sc., next moved a series of propositions, the object of which is to economise the expense of circulars and notices, all of which relating to all the proceedings of Convocation are now sent to all the 2,400 members of Convocation. These propositions, with a slight verbal addition to make clear one of the standing orders, were all carried as proposed by the Annual Committee.

The remainder of the business on the agenda paper was then adjourned to the meeting which will be held on March 6th next.

Order of the Bath, a Knight of the Legion of Honour, and an Honorary Surgeon to the Queen.

The following appointments have been made at the Admiralty: THOMAS FINCH, M.B., to be Surgeon and Agent at Torquay and Bahhienbma; H. W. ACHESON, to be Surgeon and Agent at Morris Castle and Cahre; WILLIAM SHAW, to be Surgeon and Agent at Portmuck.

THE MEDICAL STAFF.

SURGEON R. R. K. ELMES has resigned his commission, which was dated February 15th, 1881.

Deputy Surgeon-General A. F. BRADSHAW is posted to the administrative medical charge of the Rawul Pindee Division, in the Bengal command, vice Deputy Surgeon-General J. Ferguson, whose tour of service has expired.

INDIAN MEDICAL SERVICE.

SURGEON-MAJOR A. S. REID, M.B., Bengal Establishment, is appointed to the permanent medical charge of the 2nd Battalion 4th Goorkhas, vice J. C. Morice, appointed Deputy Surgeon-General.

Surgeon R. PEMBERTON, Madras Establishment, Acting Civil Surgeon of Chittoor, is appointed Civil Surgeon of Guntoor, in succession to Surgeon A. P. Adams, deceased.

Surgeon J. W. EVANS, Madras Establishment, is appointed Civil Surgeon of Cochin.

Surgeon H. K. FULLER, M.B., Madras Establishment, is directed to act as Assistant-Physician at the General Hospital, during the employment of Surgeon-Major H. Allison, M.D., on other duty.

Surgeon W. H. KARNEY is admitted to the Madras Establishment from November 2nd, the date of his arrival at Bombay.

Surgeon J. SCOTT, M.B., Madras Establishment, Medical Officer 4th Infantry Hyderabad Contingent, has leave of absence from November 15th for one year on medical certificate.

Deputy Inspector-General HERBERT JOHN GIRAUD, M.D., late of the Bombay Establishment, died at Shanklin, in the Isle of Wight, on January 12th, aged 70.

Surgeon-General R. H. PERKINS, of the Bengal Establishment, died in London on January 14th, at the age of 64. He entered the Indian Medical Service as Assistant-Surgeon November 20th, 1850, and rose to Deputy Surgeon-General December 10th, 1877; he retired with a step of honorary rank May 4th, 1884. He was engaged in the campaign against the Cossyah and Jyntiah Hill tribes in 1862-63.

THE VOLUNTEERS.

ACTING-SURGEON E. TREVES, of the 1st Volunteer Brigade Cinque Ports Division Royal Artillery (late the 1st Sussex Artillery), has resigned his commission, which dated from December 7th, 1881.

Acting-Surgeon D. JACKSON, of the 1st Volunteer Brigade Northumberland Fusiliers (late the 1st Northumberland), has also resigned his commission, which bore date November 27th, 1872; he is permitted to retain his rank and uniform. Acting-Surgeon J. P. ELLIOT, who joined the same corps on September 17th last, is promoted to be Surgeon therein.

NAVAL AND MILITARY MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Brigade-Surgeon F. H. Welch	Netley	Bengal.
" J. S. MacAdam	Hilsea	Aldershot.
Surgeon-Major T. M. O'Brien	Bombay	London.
" G. Andrew, M.B.	Madras	Portland.
" A. H. Ratigan	Bengal	Newcastle.
" T. O'Reilly	London	Bengal.
" T. S. Cogan	York	Bengal.
" T. J. E. Holmes, M.B.	Devonport	Bengal.
" J. A. McCracken, M.D.	Queenstown	Barbadoes.
" J. A. Smith	Newcastle	Madras.
Surgeon F. H. S. Murphy, M.D.	Tipperary	Queenstown.
" H. C. Kirkpatrick, M.D.	Canterbury	Netley.
" O. E. P. Lloyd	Jersey	Sierra Leone.
" M. F. Macnamara	Cork	Tipperary.
" T. Areher, M.D.	Bermuda	Portsmouth.
" T. R. Lucas, M.B.	Egypt	Devonport.
" C. A. P. Mitchell, M.D.	Egypt	Edinburgh.
" E. J. E. Risk	Bengal	Oxford.
" H. J. Wyatt	Honduras	Dublin.
" H. A. Haines	Colechester	Gibraltar.
" H. A. Cummins, M.D.	Cork	Queenstown.
" R. E. Kelly, M.D.	Cork	Mitcheilstown.
" G. H. Barefoot	Pontefract	York.
" C. W. Allport, M.D.	Aldershot	Cork.
" G. Scott, M.B.	Edinburgh	Bengal.
" J. Ritchie, M.E.	Warwick	Wrexham.
" S. Macdonald, M.B.	Ayr	Edinburgh.
" D. Stiel, M.B.	York	Pontefract.
" L. E. A. Salmon	York	Newcastle.
" J. W. Bullen, M.D.	Cork	Queenstown.

THE NAVY.

THE good service pension of £100 a year, vacant by the death, on December 2nd last, of Sir William R. E. Smart, K.C.B., Inspector-General of Hospitals and Fleets, has been awarded to Inspector-General R. D. Mason, C.B., from that date. The latter entered the service in 1837; became Fleet-Surgeon, February 22nd, 1844; Deputy Inspector-General, September 21st, 1861; and Inspector-General, November 3rd, 1874; he retired February 4th, 1875. He is a Companion of the

MEDICO-LEGAL AND MEDICO-ETHICAL.

MILLICAN v. ADMIRAL SULLIVAN AND OTHERS.

COURT OF APPEAL.

(Before the Master of the Rolls and Lords Justices Fry and Lopes.)

THIS was an appeal by the defendants, members of the Committee of Management of the Queen's Jubilee Hospital, from the judgment of Mr. Justice Manisty at the trial granting an injunction restraining the defendants from interfering with the plaintiff in the performance of his duties as medical officer of the hospital by suspending him.

Sir H. JAMES, on behalf of the defendants, cited various authorities for the purpose of showing that a Court of Equity would not interfere by granting an injunction in a case where, even though there might be a binding contract, relationship between the parties to such contract was of a personal nature. It could not be contended in the present case that the plaintiff, in his position as surgeon, had any rights of property in the institution. On the point of damages, it was not suggested that the plaintiff had sustained any pecuniary loss whatever by being dismissed from his position, and therefore the defendants were entitled to judgment on that part of the claim. The manner in which the breach of contract had been made did not, except in cases of breach of promise of marriage, entitle the plaintiff to damages.

The PLAINTIFF, in person, submitted that as a subscriber of a guinea a year to the institution, he had, independent of his position as surgeon, an actual interest in the property of the hospital, from the use of which he had been debarred by the action of the defendants.

The MASTER OF THE ROLLS, in delivering judgment, said that their lordships were not called upon to give any opinion as to the propriety or the fairness or good sense of what had been done by either of the parties in this matter, and they had nothing to do except to deal with their respective legal rights or legal wrongs. The first question was, what were the rights of the plaintiff. The plaintiff claimed to have the same rights in regard to this hospital as a member of a club had with regard to his club. Members of clubs had

rights of property in their clubs, and it was upon that ground, and that ground alone, that the Courts had interfered on their behalf. No doubt the plaintiff, as a subscriber to the hospital, might have an interest in the property of the institution, but the claim he sought to enforce here was in reference to his rights, not as a subscriber to the institution, but as a surgeon, and it was impossible to contend that as surgeon he had any legal or equitable interest in the property of the institution. As surgeon he had, no doubt, a licence to use certain rooms and furniture in the hospital, but that licence might be revocable at any moment, and there was no ground for contending that he had sustained any pecuniary loss by the revocation of that licence. The relation between the medical officer and the committee of the hospital, whether it was a contractual relation or not, and whether binding or not, was a strictly personal relation, and the Courts of Equity had always distinctly refused to afford relief in the form of an injunction where the relations between the parties were strictly personal. The perpetual injunction which Mr. Justice Manisty had granted in the case could not be right, as the utmost that the plaintiff could have claimed was that he should be permitted to fill the office of surgeon for a year, for which he had been appointed. But, in his opinion, no injunction ought to have been granted at all. There was another remedy by which the Court of Equity did not give its own peculiar remedy when there was a perfect remedy at common law, as was the case here. As the plaintiff had not sustained any pecuniary loss, if he were entitled to damages they would be merely nominal damages, and would not affect the result of this case. In the circumstances, whilst it would be unfair to make the defendants pay the costs of the trial below, he thought that the plaintiff ought not to be called upon to pay their costs in the Court below. The defendants, however, having succeeded in their appeal, were entitled to have the judgment of the Court below reversed, with costs of the appeal.—Lords Justice Fry and Lopes concurred.

Judgment reversed, with costs.

VULVAR DISCHARGE IN CHILDREN AND CHARGES OF RAPE.

G. S. M.—The only thing that can be done is to determine, if possible, with certainty whether the child is suffering from gonorrhoea or not. Vaginal discharges are very common in delicate children (the age of the patient is not stated). If there was no discharge before the date of the alleged intercourse, and if it appeared within a few days of that date, and was purulent almost from the first, and was accompanied by itching and scalding during micturition, the probabilities would be in favour of gonorrhoea. If the discharge is gonorrhoea, there would be a strong presumption that it was contracted in the usual way. In all other respects the case must be decided on other than medical grounds. In law the slightest amount of vulvar penetration is sufficient to constitute rape, and the absence of all signs after the lapse of three weeks would therefore not be any argument that a rape had not been committed. The majority of these charges are false, and, as a rule, the most important function the jury has to perform is to decide on the credibility of the child.

TENURE OF CLUB APPOINTMENTS.

MEMBER (Withnell) writes: A. and B. are in practice in the same neighbourhood. A. holds all the clubs, but several members of one club prefer B. At a full meeting of this club the majority decided to have B. as their medical officer. Will it be necessary that A. should have six months' notice? He is paid every six months, and there is no agreement.

*. Though there is no written agreement, we presume that something must have been said at the time of A.'s appointment which would constitute a verbal agreement, and would, among other matters, define the term for which he was appointed. The fact of his being paid every six months would be evidence that the appointment was for at least that period, and he probably could decline to accept less than a six months' notice.

UNQUALIFIED ASSISTANTS.

MR. H. L. HOORS, L.R.C.S.I., L.K.Q.C.P.I., etc., (Eccles) writes: Mr. Charles H. Harral, in one part of his letter in the JOURNAL of January 7th, says, concerning unqualified assistants visiting, etc., in their employer's stead, and the employers being subsequently non-suited at the court for such attendance, etc.: "Surely this is unfair to the employer and also to the unqualified assistant, who is generally compelled to work for his living until he can obtain his diploma, and who cannot in any other way learn the real practical part of his profession."

Taking the employer first, I fail to see anything unfair in the decision alluded to. Doubtless Mr. Harral is one of those practitioners who does not think it unprofessional and unfair towards the public to employ the services of an unqualified assistant, which can be had for a small stipend. How can the judge's decision be unfair when it is strictly in accord with the law of the land relating to the medical profession, which every practitioner sets at defiance when he employs men not recognised by law (because they have not passed any qualifying examination), and sends them forth to visit and prescribe for such ailments as they meet with, and which they may or may not understand anything about? The real unfairness seems to me to consist in the fact that legally qualified medical men are allowed to take such a mean advantage of their less prosperous medical brethren who have to suffer from the encroach-

ments of the "make believe" doctor. I have suffered not a little through this cause myself, which will account for my taking the subject up.

Now, concerning the unqualified assistant. We all know that most of that class (or shall I say many?) are idle "good for nothings," who not only have passed no examination, but never intend to. There are, I am sure, honourable exceptions to this rule, and for their sakes I shall say little about the class. Why could not such men do as I have known many do in my time in Dublin, namely, get employment in some city where there is a medical school, at some large chemist's establishment, and read during the spare hours and attend classes at night, and dissect as I used to have to do, and others with me, early in the winter mornings for an hour before breakfast, as well as for an hour or two at night after class? I know young men who have done this, and who to-day hold responsible posts in Her Majesty's army, and other branches of medical service. They gained a very practical knowledge of drugs and their uses both behind the counter and at hospital where they attended as they had opportunity.

This much to show that hard-working young men can get on by their own honest endeavours without starting out and becoming unqualified assistants, which, in so many cases, means never getting any further. I only hope that the county court judges will set their faces against such things as are constantly being practised; I have seen two instances lately of young women with their perineums ripped up, in one instance back to the very anus, in the other not quite so far back, through the use of the midwifery forceps during labour, whilst the patient was under chloroform, and all this done by an unqualified assistant upon his own unaided judgment. That such licence may be no longer allowed to unqualified men by the General Medical Council is not only my earnest wish, but that of many another.

Now, Sir, I have shown that a young man wishing to be a doctor can work and get qualified without breaking the law; and there is no reason in life why doctors should have to employ unqualified men when plenty of duly qualified ones are willing to come forward for a reasonable salary, except the reason aforementioned, the love of money, which in this case is the root of a great tree of evil.

SCALE OF FEES FOR MISCARRIAGE.

W. was called to attend the wife of H. Symptoms of a four months' pregnancy aborting were found, and the case was treated until after the miscarriage to entire recovery. In all the amount of attendance required was a special visit, nine visits, and four medicines. When an account of £1 10s 6d. was sent to H. he tendered a guinea in full payment, saying that that was the amount he had hitherto paid a doctor for attending his wife in her confinements. Should W. have charged as for ordinary medical attendance, or treated the case as a confinement, and charged accordingly?

*. If our correspondent will refer to the medico-chirurgical tariffs issued by the late Shropshire Ethical Branch he will, we think, find under the head of "Miscarriages" a solution of his difficulty in the case of his patient H., and which is as follows:—

"Miscarriages.—In simple premature labour the same charge should be made as in ordinary cases of midwifery. In abortions the necessary visits should be charged as such, plus an additional fee for detention."

ADVERTISING IN NEWSPAPERS.

A MEMBER.—It can scarcely be necessary after our repeated comments on similar conduct to assure "A Member" that Dr. J. MacCormack's "card" advertisement in the Belfast paper is contrary to professional rule and custom. We would advise our correspondent to address a brief note to the university or college in question, setting forth the simple facts, and enclosing therewith a copy of the newspapers in which the objectionable advertisement has appeared.

THE BRITISH GYNÆCOLOGICAL SOCIETY.—The following is the list of officers and Council elected at the general meeting of this Society held on Wednesday, January 11th:—Honorary President: Robert Barnes, M.D., F.R.C.P. (Lond.). President: Arthur Wellesley Edis, M.D., F.R.C.P. (Lond.). Vice-Presidents: Fancourt Barnes, M.D. (Lond.); John Chalmers, M.D. (Lond.); J. G. Sinclair Coghill, M.D. (Ventnor); J. Halliday Croom, M.D. (Edinburgh); William Gardner, M.D. (Montresl); W. Chapman Grigg, M.D. (Lond.); William T. Lusk, M.D. (New York); Arthur V. Macan, M.D. (Dublin); Paul F. Mundé, M.D. (New York); F. L. Neugebauer, M.D. (Warsaw); Thomas Savage, M.D. (Birmingham); William Walter, M.D. (Manchester). Treasurer: G. Granville Bantock, M.D., F.R.C.S. Ed. (Lond.). Librarian: Bedford Fenwick, M.D. (Lond.). Council: William Alexander, M.D. (Liverpool); F. A. Newton Bateman, M.R.C.S. (Lond.); Thos. A. Cambridge, M.R.C.S. (Lond.); Thos. M. Dolan, M.D. (Halifax); R. W. Edgington, M.D. (Birmingham); C. Egerton Fitzgerald, M.D. (Folkestone); A. Phillips Hills, M.R.C.S. (Lond.); Francis Imsch, M.D. (Liverpool); R. Milne Murray, M.B. (Edinburgh); Thos. Morton, M.D. (Lond.); F. Albert Pureell, M.D. (Lond.); J. A. Rawlings, M.R.C.P. (Swansea); W. London Reid, M.D. (Glasgow); C. H. F. Routh, M.D. (Lond.); John Shaw, M.D. (Lond.); J. Herbert Simpson, M.D. (Rugby); W. Japp Sinclair, M.D. (Manchester); Bryce Smith, M.B. (Belfast); J. Greig Smith, M.D. (Bristol); W. J. Smyly, M.D. (Dublin); W. Dunnett Spanton, F.R.C.S. Ed. (Hanley); Lawson Tait, F.R.C.S. (Birmingham). Honorary Secretaries: J. A. Mansell Moullin, M.B. (Lond.); J. Bland Sutton, F.R.C.S. (Lond.).

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1887.

THE vital and mortal statistics of the twenty-eight towns dealt with by the Registrar-General in his weekly return are summarised in the accompanying table. During the three months ending December last, 73,235 births were registered in the twenty-eight large towns, equal to an annual rate of 31.8 per 1,000 of their aggregate population, estimated at about nine and a quarter millions of persons. In the corresponding periods of the two preceding years, 1885 and 1886, the mean birth-rate in these towns was 33.3 and 32.1 per 1,000 respectively. The birth-rate in London last quarter was equal to 31.2 per 1,000, while in the twenty-seven provincial towns it averaged 32.3, and ranged from 25.5 in Brighton, 26.2 in Bradford, and 23.2 in Bristol, to 37.2 in Preston, 38.0 in Portsmouth, 40.2 in Newcastle-upon-Tyne, and 40.5 in Cardiff.

The 48,533 deaths registered in the twenty-eight towns during the fourth quarter of 1887 were equal to an annual rate 21.1 per 1,000, against 21.7, 20.0, and 20.3 in the corresponding quarters of the three years 1884-5-6. In London, the rate of mortality did not exceed 20.0 per 1,000, whereas in the twenty-seven provincial towns it averaged 22.0 per 1,000. The lowest rates in these provincial towns were 16.3 in Brighton, 17.2 in Hull, 18.3 in Norwich, 19.0 in Leicester, and 19.8 in Bradford and in Sunderland; the highest were 26.0 in Newcastle-upon-Tyne, 26.6 in Bolton, 27.4 in Manchester, 28.6 in Blackburn, and 28.8 in Preston. During the three months under notice, 5,757 deaths were referred to the principal zymotic diseases in the twenty-eight towns, equal to an annual rate of 2.50 per 1,000; the zymotic death-rates in these towns in the fourth quarter of the five preceding years averaged 2.60 per 1,000. The lowest zymotic rates in these towns last quarter were 1.09 in Brighton and in Plymouth, 1.24 in Hull, 1.36 in Sunderland, and 1.38 in Cardiff; while they ranged upwards in the other towns to 3.85 in Preston, 4.50 in Blackburn, 4.61 in Derby, 4.86 in Bolton, and 4.92 in Sheffield. The 5,757 deaths referred to the principal zymotic diseases included 1,434 which resulted from scarlet fever, 1,256 from whooping-cough, 951 from measles, 714 from "fever" (including typhus, enteric, and simple and ill-defined

forms of continued fever), 622 from diarrhoea, 531 from diphtheria, and 249 from small-pox. The 1,434 deaths from scarlet fever registered in the twenty-eight towns during the quarter under notice were equal to an annual rate of 0.62 per 1,000, showing a marked further increase upon the rates recorded in the two preceding quarters, which had been 0.26 and 0.39 respectively. The rate of mortality from scarlet fever in London last quarter was equal to 0.63 per 1,000, and almost corresponded with the mean rate in the twenty-seven provincial towns. The scarlet fever death-rates exceeded 1.0 per 1,000 in Salford, Bristol, Oldham, Preston, Blackburn, and Birkenhead. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 1,778 at the beginning of October, rose to 2,602 at the end of November, and afterwards steadily declined to 2,049 at the end of the year. The admissions into these hospitals, which had been 466, 616, and 1,943 in the first three quarters of 1887, further rose to 2,908 during the three months ending December last. The death-rate from whooping-cough in the twenty-eight towns during the quarter under notice was equal to 0.55 per 1,000, and exceeded that recorded in the corresponding period of any recent year. This disease was proportionally more than twice as fatally prevalent in London as in the aggregate of the provincial towns; for, while the death-rate from whooping-cough in London was as high as 0.79 per 1,000, it averaged only 0.34 in the provincial towns, among which it was highest in Nottingham, Salford, Oldham, Wolverhampton, and Leicester. The rate of mortality from measles, which had been 1.35 and 0.44 per 1,000 in the two preceding quarters, further declined to 0.41 during the last three months of 1887. The measles death-rate in London last quarter was only 0.31 per 1,000, while it averaged 0.50 in the twenty-seven provincial towns, among which this disease showed the highest proportional fatality in Bradford, Blackburn, Birmingham, Bolton, and Derby. The 714 deaths referred to different forms of "fever" in the twenty-eight towns last quarter were equal to an annual rate of 0.31 per 1,000, showing a further increase upon the rates recorded in the two previous quarters of the year, which had been 0.14 and 0.23 per 1,000 respectively. In London the fever death-rate last quarter was 0.25 per 1,000, while it averaged 0.36 in the twenty-seven provincial towns, and was highest in Derby, Sunderland, Blackburn, Leeds, Bolton, and Preston. The rate of mortality from diarrhoea was equal to 0.27 per 1,000, and differed but slightly from that recorded in recent corresponding quarters. The 531 deaths from diphtheria in the twenty-

Public Health Statistics relating to Twenty-eight Large English Towns, for the Fourth Quarter of 1887.

Towns.	Estimated Population middle of 1887.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Rate per cent. of Uncertified Deaths.	Deaths of Children under one year of age to 1,000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.										
28 Towns	9,245,000	73,235	48,533	31.8	21.1	2.50	5,757	249	951	1,434	531	1,256	714	622	2.2	154
27 Provincial Towns	5,028,907	40,419	27,523	32.5	22.0	2.52	3,154	246	623	770	203	428	450	434	3.2	162
London	4,216,192	32,816	21,010	31.2	20.0	2.48	2,603	3	323	664	328	823	264	188	1.0	145
Brighton	115,186	751	481	25.5	16.3	1.09	32	—	1	4	14	6	3	4	2.1	111
Portsmouth	137,917	1,305	716	38.0	20.8	1.46	50	—	—	7	11	14	12	6	0.4	143
Norwich	92,848	782	424	33.8	18.3	1.99	46	—	—	20	7	7	3	9	0.7	123
Plymouth	77,127	601	469	31.3	21.3	1.14	22	—	4	2	1	4	4	7	1.2	148
Bristol	223,695	1,571	1,157	28.2	20.8	1.87	104	11	1	60	4	5	13	10	2.1	142
Wolverhampton	80,847	664	420	35.0	20.0	1.84	37	—	1	3	3	15	6	4	1.0	152
Birmingham	441,095	8,427	2,213	31.2	20.1	2.98	328	—	174	12	14	43	29	50	2.3	153
Leicester	149,153	1,127	670	31.6	19.0	1.46	52	—	1	12	5	27	12	7	2.2	151
Nottingham	224,230	1,734	1,159	31.0	20.7	2.36	132	—	43	11	1	84	27	16	1.6	172
Derby	94,006	689	489	29.4	20.7	4.61	103	—	86	—	2	6	12	2	2.7	173
Birkenhead	97,703	785	528	32.2	21.7	3.12	76	—	6	51	4	7	3	5	1.5	127
Liverpool	592,991	4,605	3,171	31.2	21.5	1.86	275	—	3	116	18	33	46	49	5.0	146
Bolton	112,354	913	746	32.6	23.6	4.86	136	—	68	11	5	7	26	27	1.9	217
Manchester	977,529	3,333	2,551	35.4	27.4	2.80	263	—	24	84	27	39	59	51	3.4	168
Salford	218,658	1,645	1,173	30.2	21.5	3.38	184	—	26	60	10	33	24	30	3.8	173
Oldham	184,158	1,036	837	31.0	25.0	3.17	106	—	12	42	11	21	10	10	4.5	198
Blackburn	116,844	1,027	832	35.3	28.6	4.50	131	—	43	48	—	2	16	23	9.7	233
Preston	102,283	947	734	37.2	28.8	3.85	98	1	8	39	9	—	31	10	2.7	171
Huddersfield	90,084	639	484	28.5	21.6	2.10	47	—	—	19	16	5	4	3	3.3	160
Halifax	79,207	586	470	29.7	23.8	1.42	28	—	2	13	3	4	4	3	9.1	189
Bradford	224,507	1,468	1,110	26.2	19.8	2.79	156	—	77	29	4	10	14	22	2.6	170
Leeds	845,080	2,837	1,829	33.0	21.3	1.63	140	1	6	30	1	31	48	23	1.7	160
Sheffield	316,288	2,695	1,839	34.2	28.3	4.92	388	230	10	60	12	26	27	23	6.4	163
Hull	196,855	1,588	846	32.4	17.2	1.24	61	—	—	23	5	18	10	8	5.1	186
Sunderland	129,684	1,037	639	32.1	19.8	1.86	44	—	2	6	2	5	17	14	2.8	152
Newcastle-on-Tyne	157,048	1,572	1,019	40.2	26.0	1.89	74	—	14	9	11	19	12	9	4.4	179
Cardiff	104,580	1,055	538	40.5	20.6	1.88	36	—	8	6	5	2	4	11	1.7	153

eight towns during the quarter under notice were equal to a rate of 0.23 per 1,000, against 0.14 and 0.16 for the two preceding quarters; while the rate of mortality from this disease in London last quarter was equal to 0.31 per 1,000, it did not average more than 0.16 in the twenty-seven provincial towns, among which, however, diphtheria was somewhat fatally prevalent in Brighton and Huddersfield. During the three months ending December last, 249 deaths resulted from small-pox in the twenty-eight towns; of these, no fewer than 230 occurred in Sheffield (against 3 and 45 in the two previous quarters), 11 in Bristol, 3 in London, 2 in Hull, 1 in Birmingham, 1 in Preston, and 1 in Leeds. Only 7 cases of small-pox were under treatment in the Metropolitan Asylums Hospitals at the end of December, but 30 cases of this disease had been admitted during the quarter, against only 7 in the preceding quarter.

The rate of infant mortality in the twenty-eight towns, measured by the proportion of deaths of children under one year of age to 1,000 registered births, was equal to 154 during the quarter under notice, against 146 and 160 in the corresponding periods of the two preceding years, 1885-86. While the rate of infant mortality did not exceed 145 per 1,000 in London, it averaged 162 in the twenty-seven provincial towns, among which it ranged from 111 in Brighton, 127 in Norwich, and 127 in Birkenhead, to 189 in Halifax, 198 in Oldham, 217 in Bolton, and 233 in Blackburn.

The cause of 1,084, or 2.2 per cent. of the deaths registered in the twenty-eight towns during last quarter were not certified, either by registered medical practitioners or by coroners. The proportion of uncertified deaths in London did not exceed 1.0 per cent., while it averaged 3.2 in the twenty-seven provincial towns, and ranged from 0.4 and 0.7 in Portsmouth and Norwich, to 4.5 in Oldham, 4.6 in Hull, 5.0 in Liverpool, and 9.1 in Halifax.

THE METROPOLITAN ASYLUMS BOARD.

THE returns presented to a meeting of the Metropolitan Asylums Board on Saturday last showed the gratifying result of a decrease in the total number of patients remaining under treatment for scarlet fever of 528. It was pointed out that, although the metropolis was at the present moment almost entirely free from small-pox, the managers were taking energetic steps to meet any epidemic of small-pox that might arise. The buildings as well as the ships appropriated to small-pox patients were already in preparation; and a letter was read from the Local Government Board, authorising the managers at once to enter into contracts for the erection of a hospital for small-pox convalescent patients at Darenth without the necessity of advertising for sealed tenders.

THE ABERDEEN DOUBLE QUALIFICATION.

W. X. Y. asks: (1) If an M.D., C.M. Univ. Aberdeen is a recognised double qualification for poor law appointment? (2) Whether an M.R.C.S. Eng., L.R.C.P. Ed. has the priority of claim as a double qualification in contesting a poor law appointment?

* * (1) Yes. (2) No.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons, 5,875 births and 4,194 deaths were registered during the week ending January 14th. The annual rate of mortality per 1,000 persons living in these towns, which had been 24.8 and 23.8 in the two preceding weeks, further declined during the week under notice to 23.3. The rates in the several towns ranged from 14.2 in Sunderland, 15.3 in Leicester, 17.7 in Birkenhead, and 18.3 in Brighton and in Hull to 27.6 in Blackburn, 28.2 in Plymouth, 28.7 in Wolverhampton, and 34.9 in Manchester. In the twenty-seven provincial towns the mean death-rate was 23.0 per 1,000, and was 0.6 below the rate recorded in London, which was 23.6 per 1,000. The 4,194 deaths registered during the week under notice in the twenty-eight towns included 203 which were referred to whooping-cough, 63 to scarlet fever, 60 to measles, 47 to "fever" (principally enteric), 33 to diphtheria, 33 to small-pox, and 27 to diarrhoea; in all, 476 deaths resulted from these principal zymotic diseases, against 503 and 493 in the two preceding weeks. These 476 deaths were equal to an annual rate of 2.6 per 1,000; in London the zymotic death-rate was 3.1, while in the twenty-seven provincial towns it averaged only 2.3 per 1,000, and ranged from 0.0 in Halifax and 0.4 in Brighton and in Sunderland to 4.5 in Wolverhampton and 5.4 in Sheffield. Measles caused the highest proportional fatality in Nottingham, Derby, and Birmingham; scarlet fever in Bristol, Wolverhampton, Birkenhead, and Norwich; whooping-cough in Preston, Derby, Manchester, Norwich, Leicester, Wolverhampton, and London; and "fever" in Preston. Of the 33 deaths from diphtheria recorded in the week

under notice in the twenty-eight towns, 16 occurred in London, 4 in Liverpool, 2 in Newcastle-upon-Tyne, and 2 in Oldham. The 33 fatal cases of small-pox included 27 in Sheffield, 4 in Leeds, 1 in London, and 1 in Bristol. The number of small-pox patients in the Metropolitan Asylums Hospitals was 6 on Saturday, January 14th, of which 3 were admitted during the week. These hospitals also contained 1,792 scarlet-fever patients on Saturday, January 14th, against numbers steadily declining from 2,602 to 1,959 in the six preceding weeks; there were 148 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 7.0 per 1,000, and slightly exceeded the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, January 14th, 345 births and 607 deaths were registered in the eight principal Scotch towns. The annual rate of mortality in these towns, which had been 24.3 and 27.1 per 1,000 in the two preceding weeks, declined to 24.0 during the week under notice, and slightly exceeded the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest were recorded in Greenock and Perth, and the highest in Dundee and Paisley. The 607 deaths in these towns during the week under notice included 78 which were referred to the principal zymotic diseases, equal to an annual rate of 3.1 per 1,000, which exceeded by 0.5 the mean zymotic death-rate during the week under notice in the large English towns. The highest zymotic rates were recorded in Edinburgh, Leith, and Paisley. The highest proportional fatality of measles occurred in Dundee, Edinburgh, and Leith; from diphtheria in Glasgow; from whooping-cough in Glasgow, Aberdeen, and Paisley; and from "fever" in Paisley. The mortality from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 6.6 per 1,000, against 7.0 in London.

HEALTH OF IRISH TOWNS.—In the sixteen principal town districts of Ireland the 592 deaths registered during the week ending Saturday, January 14th, were equal to an annual rate of 35.4 per 1,000. The lowest rates were recorded in Sligo and Waterford, and the highest in Armagh, Newry, and Dundalk. The death-rate from the principal zymotic diseases in these towns averaged 6.7 per 1,000, and was highest in Cork and Newry. Measles showed fatal prevalence in Limerick, Cork, and Newry; and whooping-cough in Belfast. The 242 deaths registered in Dublin during the week under notice were equal to 35.8 per 1,000 (against 36.2 and 38.6 in the two preceding weeks), the rate for the same period being but 21.0 in London and 21.5 in Edinburgh. The deaths included 32 from the principal zymotic diseases (equal to an annual rate of 4.7 per 1,000), of which 10 resulted from scarlet fever, 7 from whooping-cough, 8 from "fever," 4 from measles, 4 from diarrhoea, and 2 from diphtheria.

OBITUARY.

PROFESSOR TITO VANZETTI, M.D.

THIS distinguished Italian surgeon died at Padua on January 6th, after a long and painful illness, at the age of 78. His family belonged to Padua, and he was educated in the celebrated university of that city. At the age of 26 he settled in Russia, where he soon acquired a great reputation. He was Professor of Surgery and Ophthalmology in the University of Kharkov for fifteen years. On his return to Italy he was appointed Professor of Surgery in the University of Padua, a post which he filled with the highest distinction till 1866, when political intrigues led to his dismissal. He was thereupon immediately named Professor of Surgery at Palermo, and advantageous offers were also made to him to migrate to Paris. He preferred, however, to continue practising in his native town, and he was afterwards restored to the position from which he had been so unjustly removed.

Vanzetti had a European reputation as a practical surgeon. To him we owe the suggestion of digital compression in the treatment of aneurysm, and as a means of cutting off the blood supply from inflamed parts. He was not only venerated as a teacher of the highest order, but was the object of the warmest personal affection on the part of his numerous pupils. Professor Vanzetti was a member of many learned bodies not only in Europe but in America, but, strangely enough, no English society seems to have thought him worthy of such a distinction, though his name is familiar to every student of surgery in this country. By his will he left 100,000 *lire* (£4,000), together with a most valuable scientific library to his Alma Mater. He directed that his body should be cremated.

T. K. WHEELER, M.D., Belfast.

PROFOUND regret was universally felt in Belfast when it became known, upon the morning of Friday, January 13th, that Dr. T. K. Wheeler had just died from a dose of hydrocyanic acid administered by his own hand. So improbable did the event seem that the chief feeling on the part of many was at first one of simple incredulity, but all doubt upon the subject was soon dispelled. It seems that the deceased gentleman left his own house early on the morning of January 13th, and repairing to the medical hall of Messrs. Wheeler and Whitaker ordered a lotion containing hydrocyanic acid. The dispenser left the stock bottle containing the acid upon the counter, and went to another part of the shop to complete the preparation of the lotion. When he returned he found the bottle had disappeared, and feeling alarmed he proceeded to search the back premises, where he found Dr. Wheeler insensible and evidently dying. Dr. O'Neill and Dr. Strafford Smith were hastily summoned, but their efforts were unavailing, and death resulted about twenty minutes after the acid had been taken. From the evidence given at the coroner's inquest it appeared that the deceased gentleman, although naturally one of the most genial and cheerful of men, had lately been in very depressed spirits, and his altered condition had excited the attention and alarm of his friends. The *post-mortem* examination, conducted by Dr. O'Neill and Professor Sinclair, showed extensive disease of the vessels of the brain and old-standing heart disease. The verdict of the jury was "Suicide while in a state of unsound mind"—a conclusion which the medical testimony amply warranted and in which all will concur.

Dr. Wheeler was one of the original graduates of the late Queen's University, and was one of the oldest practitioners in Belfast. He had an extensive family practice, and was greatly esteemed and beloved. He was in a very special sense not only the adviser, but the personal friend, of all his patients, by whom his loss is deeply lamented. His relations with his medical brethren were invariably cordial and kindly, and his sudden decease has come as a painful shock in medical circles. The tragic nature of the melancholy event is much increased by the fact that Dr. Wheeler had been present at the marriage of his son on the day preceding his death. The most profound sympathy is felt for the afflicted family in their sorrow and bereavement.

PROFESSOR GUSTAVUS WERTHEIM, M.D.

PROFESSOR GUSTAVUS WERTHEIM, chief physician in the dermatological and venereal wards of the "Rudolf-Stiftung" Hospital, in Vienna, died on January 8th. In 1851 he became house-physician in the dermatological wards of the General Hospital under Hebra, and from that time date several valuable suggestions as to treatment, such as epilation in syphilis, etc. Among his later works may be mentioned: experiments on the causes of death in severe burns; experiments on the expired air in various febrile diseases; the external application of carbonic acid in sexual impotence in the male; examinations of the blood in psoriasis vulgaris, and of pus in syphilitic and non-syphilitic infective ulcers.

INSPECTOR-GENERAL HERBERT JOHN GIRAUD, M.D.

DR. GIRAUD, Inspector-General of Her Majesty's Bombay Army, has died at Shanklin, in his 71st year, from general paralysis. Dr. Giraud was born at Faversham, Kent, in 1817, and educated at the University of Edinburgh. In 1842, after graduating in honours, he entered the medical service of the East India Company. In that year his "Observations on Vegetable Embryology" appeared in the *Transactions of the Linnean Society*, and were subsequently largely embodied in textbooks on botany. Dr. Giraud filled the office of Professor of Chemistry and Botany, and subsequently that of Principal of the Grant Medical College, Bombay, and he was also chief medical officer of Sir Jamsetjee Jeejeebhoy's Hospital, Chemist Analyst to the Bombay Government, and in 1863 Syndic and Dean of the Faculty of Medicine in the University of the province. Dr. Giraud was a frequent contributor of papers on botany and chemistry to the *Transactions of the Botanical Society of Edinburgh* and other kindred publications.

OPEN SPACES FOR THE METROPOLIS.—At a recent meeting of the Metropolitan Public Gardens Association, presided over by Mr. Ernest Hart, it was announced that an anonymous donor had generously offered fourteen acres of land as a public recreation ground for Camberwell. The Mansion House Committee of the Gardens and Pleasure Grounds Fund have since placed £3,000 at the disposal of the Association for converting the above and a part of the Tower Garden into open spaces for the public.

MEDICAL NEWS.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Examination in Anatomy only, at a meeting of the Board on January 12th.

*A. H. Bird, W. D. Lockhart, H. R. Carter, and G. Gerrard, students of St. Mary's Hospital; H. Richardson, of Guy's Hospital; A. Gurney, A. C. Fox, *C. Welch, P. A. Colmer, and *J. G. Wilson, of the London Hospital; E. J. Hayford, and T. W. E. Morton, of St. Thomas's Hospital; H. E. Tracey, of St. Bartholomew's Hospital; C. H. White, C. L. Howe, and H. B. Shepherd, of Middlesex Hospital; and H. de R. Morgan, of St. George's Hospital.

Passed in Physiology only.

J. M. James, *W. R. M. Berridge, P. J. Atkey, E. W. Livesey, B. Goddard, and H. S. Lindsay, of St. Thomas's Hospital; R. L. Thomas, of University College Hospital; *J. P. Watkins, of Guy's Hospital; A. E. Hancock, and H. Wiggins, of Charing Cross Hospital; H. C. Barnes, and H. Vallance, of London Hospital; L. E. James, and E. L. Hoghes, of Westminster Hospital; *W. A. Andrews, and *J. L. Rubel, of King's College; *R. F. Burry of St. George's Hospital.

Passed in Anatomy only on January 13th.

H. B. S. Stradling, W. P. T. Toller, and J. Terry, of St. Thomas's Hospital; J. H. Maund, E. Collins, J. R. Williams, C. S. Wood, and G. J. Amy, of St. Bartholomew's Hospital; E. W. Brunton, of Charing Cross Hospital and Mr. Cooke's; P. P. Harris, and J. B. M. Kennedy, of King's College; F. R. Lathbury, and R. C. Middlemist, of London Hospital; *H. S. Challenor, of Middlesex Hospital; *S. T. Richardson, of Owens College and Mr. Cooke's; *D. Thomas, of University College and Mr. Cooke's.

* Under Old Regulations of Royal College of Surgeons.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman, having passed the necessary examination and having since attained the legal age (25 years), was, at a meeting of the Council on January 19th, granted his diploma as Fellow of the College.

Hudson, Charles Leopold, L.R.C.P.L., Middlesex Hospital.

MEDICAL VACANCIES.

- The following vacancies are announced:
- BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester Street, S.W.—House Surgeon. Applications by January 31st, to the Honorary Secretary.
- BIRKENHEAD BOROUGH HOSPITAL.—Senior House-Surgeon. Salary, £90 per annum. Applications by January 30th, to the Chairman of the Weekly Board.
- BIRMINGHAM GENERAL HOSPITAL.—Two Assistant House-Surgeons. Applications by January 28th, to the House Governor.
- BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Two House-Surgeons. Salary, £140 per annum, with apartments, etc. Applications by January 31st to the Assistant Secretary.
- BRISTOL GENERAL HOSPITAL.—Assistant Physician. Salary, £50 per annum, with board, etc. Applications by January 23rd, to the Secretary.
- BRISTOL ROYAL INFIRMARY.—Dental Surgeon. Applications by February 15th, to the Secretary.
- BRITTON, STREATHAM, AND HERNE HILL DISPENSARY.—Resident House-Surgeon. Salary, £150 per annum. Applications by January 26th, to the Secretary, Dispensary, Water Lane, Britton, S.W.
- DOWNPATRICK UNION.—Medical Officer, Killyleagh Dispensary. Salary, £105 per annum and fees. Applications to Mr. James Heron, Tullyvery House, Honorary Secretary. Election on January 30th.
- DURHAM UNION.—Medical Officer of Health. Salary, £100 per annum. Applications by February 3rd to the Clerk.
- FOREST HILL PROVIDENT DISPENSARY.—Medical Officer. Applications by February 15th to F. J. Marriot, Esq., 2, Perry Villas, Perry Vale, Forest Hill, S.E.
- HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Medical Registrar and Pathologist. Honorarium, £52 10s. Applications by January 24th, to the Secretary.
- HUDDERSFIELD INFIRMARY.—Junior House-Surgeon. Salary, £40 per annum, with board, etc. Applications by January 27th, to the Honorary Secretary.
- MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £70 per annum, with board, etc. Applications by January 21st, to the Chairman of the House Committee.
- NATIONAL DENTAL HOSPITAL, Great Portland Street, W.—Anæsthetist. Applications by January 27th to the Secretary.
- NATIONAL DENTAL HOSPITAL, Great Portland Street, W.—House-Surgeon. Applications by January 27th, to the Secretary.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Assistant in the Pathological Department of the Museum. Applications by January 21st, to the Secretary.
- ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Physician. Applications by January 26th, to the Secretary.
- ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.—Assistant Resident Medical Officer. Applications to the Secretary, 34, Craven Street, W.C.
- ROYAL SURREY COUNTY HOSPITAL, Guildford.—House-Surgeon. Salary, £50 per annum, with board, etc. Applications by February 15th, to the Assistant Secretary.
- STOURPORT FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £170 per annum, and extras. Applications by January 21st, to A. Bonckley, Esq., Areley Kings, Stourport.

MEDICAL APPOINTMENTS.

BROOKMAN, William A., M.B., appointed Physician's Assistant to the Public Dispensary, Plymouth.

GABRIEL, Leonard, M., M.B. Lond. M.R.C.S., appointed House-Surgeon to the Hospital for Sick Children, Great Ormond Street.

KANTHACK, A. A., B.A., M.R.C.S., appointed Clinical Assistant to the Central London Throat and Ear Hospital.

MURRES, James, M.R.C.S., appointed Clinical Assistant to the Central London Throat and Ear Hospital.

PHELPS, J. B., L.K.Q.C.P.I., L.F.P.S.O., L.M., L.A.H., appointed Medical Officer to the Anchorage Dispensary of the Clegher Union, etc. L. M. Cordner, L.K.Q.C.P.I., L.R.C.S.I., L.M., resigned.

POWER, Charles J., M.A., M.D., L.R.C.P., M.R.C.S., appointed Certifying Factory Surgeon for the Nailsworth District.

SAVEBY, Frank, M.R.C.S., L.R.C.P., appointed Junior Assistant House-Surgeon to the Hull Royal Infirmary, vice H. Pearson, M.R.C.S., L.R.C.P., resigned.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on Thursday, January 12th, the following list of officers, council, and microscopical committee was adopted. President: William Carter, M.D., F.R.C.P. Vice-Presidents: R. Robertson, M.D.; William Williams, M.D.; F. J. Bailey, L.R.C.P.; G. E. Walker, F.R.C.S. Honorary Treasurer: J. N. Cregeen, L.R.C.P. Honorary General Secretary: A. Bernard, M.B. Honorary Secretary Ordinary Meetings: G. Harrison, M.R.C.S. Honorary Librarian: R. Williams, M.R.C.S. Council: K. A. Grossmann, M.D.; W. Irvine, M.D.; C. G. Lee, M.R.C.S.; W. P. Rowe, L.R.C.P.; W. Whitford, M.D.; R. Eccles, M.D.; J. B. Nevins, M.D.; E. W. Hope, M.D.; E. H. Dickinson, M.D.; W. H. Fleetham, M.K.Q.C.P.; Robert Jones, M.R.C.S.; C. Pussey, M.R.C.S. Microscopical Committee: W. Alexander, F.R.C.S.; A. Barron, M.B.; P. M. Braidwood, M.D.; H. Briggs, F.R.C.S.; G. Gibson-Hamilton, F.R.C.S. Ed.; J. S. Hicks, F.R.C.S. Ed.; J. R. Logan, M.B.; Rushton Parker, F.R.C.S.; F. T. Paul, F.R.C.S.; W. Williams, M.D.; J. Wigglesworth, M.D. Auditors: W. Whitford, M.D.; T. H. Bickerton, M.R.C.S.

MANCHESTER MEDICAL SOCIETY.—At the annual meeting of the Manchester Medical Society, held on January 11th, the following were elected office-bearers for the present year:—President: Julius Dreschfeld, M.D. Vice-Presidents: C. J. Cullingworth, M.D.; James Ross, M.D.; George A. Wright, M.B.; Alfred H. Young, M.B. Treasurer: Charles E. Glascott, M.D. Secretary: Frederick A. Southam, M.B. Elected Members of Committee: H. A. G. Brooke, M.B.; Thomas Jones, M.B.; W. N. Maccall, M.D.; Frederick Melland; Simeon H. Owen, M.D.; Frederick M. Pierce, M.D.; Thomas C. Raiton, M.D.; Thomas Smith, M.D.; Graham Stoell, M.D.; Alfred W. Stocks; John Williams, M.D.; William Yeats, M.D. The above, with the past Presidents of the Society and two representatives of the Owens College, form the Committee. Library Committee: A. M. Edge, M.D.; A. Emrys-Jones, M.D.; Siegmund Moritz, M.D.; James Ross, M.D.; William Yeats, M.D. Auditors: William Coates; H. R. Hutton.

PROTECTION IN THE STATES.—Not long since, in virtue of a recent law forbidding the importation of contract labour, a trained nurse who had been engaged in London to take charge of the nursing department at the Pennsylvania General Hospital, was forbidden to land at New York, and was sent back by the next steamer, on the ground that her engagement constituted an infringement of the law. The same fate is probably in store for Dr. Heneage Gibbes, late of Westminster Hospital, who accepted an engagement as Professor of Physiology at the University of Michigan. The local press, stimulated probably by disappointed candidates or unscrupulous rivals, have lately called attention to the terms of his engagement with a view to putting the law in force should he venture out. A more preposterous law it would be difficult to imagine.

LECTURES TO ART STUDENTS AT NEWCASTLE.—A series of public lectures on anatomy and physiology adapted for artists, art students, school teachers, and others, will be given in connection with the Newcastle College of Medicine. The course will extend over two months, and the lecturers will be Dr. Mears, Lecturer and Examiner in Anatomy; Dr. Oliver, Lecturer and Examiner in Physiology in the Faculty of Medicine of Durham University; the subject to be dealt with being "The Mechanism and Force of the Human Body." The lectures will be given on successive Wednesday evenings, beginning on February 1st.

In a paper recently read before the Vienna Hygienic Society it was stated that the split part of a loaf is an excellent disinfectant for polished wood, paper, and like substances, and that experiments made in several hospitals had given very satisfactory results.

MAJOR HECTOR TULLOCH, R.E., has been appointed by the President of the Local Government Board to be the Board's Chief Engineering Inspector, in place of Sir Robert Rawlinson, K.C.B., who has resigned. Major Tulloch is well versed in the duties of the department, having acted as inspector since 1873.

SPAIN.—Among other signs of medical progress, Spain now possesses a lady doctor in the person of Señorita Dolores Leonart, who has just embarked on "medico-gynecological" practice in Barcelona. This means, no doubt, that the fair *profesora* will confine her professional work to midwifery and diseases of women.

PETER LAING, of Elgin, who has just celebrated his 103rd birthday, is still able to follow his occupation as a carter.

A TELEGRAM from Lima, dated January 17th, states that the cholera is now decreasing at Santiago and Valparaiso.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Clinical Evening.—Mr. Walsham will exhibit a Case of Epispadias and Partial Extrusion after Operation. Mr. Clutton will show a Case of Recovery from Chronic Pyæmia. Mr. Hurry Fenwick will give a Demonstration of the Urethroscope and the Vesicoscope. Cases also will be shown by Dr. Haddeo, Mr. Bernard Pitts, and Mr. Malcolm Morris.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. William H. Bennett: On the Occurrence of Tubercular Disease of the Testis as a Local Affection, particularly with reference to the Desirability of Early Castration in Certain Cases. Mr. W. J. Walsham: Case of Intra-Peritoneal Rupture of the Bladder; Abdominal Section; Suture of the Bladder; Recovery.

WEDNESDAY.

BRITISH GYNECOLOGICAL SOCIETY, 8.30 P.M.—Introductory remarks by the President, Dr. Arthur W. Edis. Specimens will be shown by Dr. G. Grauville Bantock, Dr. W. Japp Sinclair, Dr. R. T. Smith, Dr. Massell Moullin, and others.

HUNTERIAN SOCIETY, 8 P.M.—Mr. De Berdt Hovell: The Therapeutical Indications of Neurosthenia contrasted with those of Hysteria.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Living and Card Specimens at 8 P.M. Mr. Critchett: 1, Small Fixation Forceps for Cataract Extraction; 2, A new Form of Linear Knife. Mr. Higgins: Result of Operation by Cautey, for Conical Cornea. Mr. Gunn: Growth of New Lens Fibres after Spontaneous Absorption of Traumatic Cataract. Papers. Dr. Miles Milroy: On the Prognosis as regards Life in Albuminuric Retinitis. Dr. James Anderson: On Sub-Retinal Effusion in Chronic Nephritis. Mr. Lang: On a Case of Hemorrhage in Region of Macula.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Money and Mr. Paget: A Case of So-called Idiopathic Dilatation of the Colon. Dr. Barney Yeo: A Case of Embolism of the Right Axillary Artery, connected with Mitral Stenosis; Gangrene of the Forearm; Amputation; subsequent Embolic Pleuro-Pneumonia and Death. Sir Dyce Duckworth: A Case of Tricuspid and Mitral Stenosis, in which Physical Signs of Pulmonary Arterial Reflux were present. Dr. J. K. Fowler: A Case of Disease of the Aortic and Mitral Valves, of prolonged duration. Living Specimen: Dr. de Havilland Hall, Large Nevus on the Back.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

CHEYNE.—January 13th, at 59, Welbeck Street, W., the wife of W. Watson Cheyne F.R.C.S., of a son.

MARRIAGES.

BULLOCK—GREATHEAD.—On January 11th, at St. James's, Westgate-on-Sea, Joseph Ernest Bullock, M.D., of Ladbroke Grove, Notting Hill, son of the late Joseph Billingsley Bullock, Solicitor, of Berkhamsted, Herts, to Ada, only daughter of J. J. Greathead, R.N., of Sevenoaks.

JONES—EDWARDS.—On January 11th, at Bethel Chapel, Dolgelly, J. Kenrick Jones, L.R.C.P. and S., L.F.P.S., Eirlanfa, Llanrhadr, Oswestry, to Mary, second daughter of the late Mr. Edwards, Plas-y-nu, Dolgelly, Merionethshire.

DEATHS.

GRAVE.—On January 12th, at Heathfield, Shanklin, Isle of Wight, Herbert Girard, M.D., late Deputy Inspector-General H.M. Bombay Army, in his 71st year.

McDONALD.—On January 14th, at 26, Gladstone Road, West Kensington, Alexander McDonald, M.D., Fleet Surgeon (retired), Royal Navy, aged 45.

RYDER.—At Barnwood House, Gloucester, on January 17th, Richard Ryder, M.D., late of Hazelwood, Nailsworth, after three months' illness, aged 47.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—5 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY—9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department).

WEDNESDAY—10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.

THURSDAY—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-west London; Chelsea Hospital for Women.

FRIDAY—9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY—9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu, F., 1.30; Skin, M, Th., 1.30; Dental, M, W, F, S.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M, Tu, F., 1.30; Eye, M, Tu, Th, F., 1.30; Ear, Tu, F., 12.30; Skin, Tu, 12.30; Dental, Tu, Th, F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu, Th, S., 2; o.p., M, W, F., 12.30; Eye, M, Th., 1; Ophthalmic Department, W, 1; Ear, Tu, 3; Skin, Th, Throat, Th, 3; Dental, Tu, F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M, Th., 1.30; o.p., W, S., 1.30; Eye, W, S., 9; Ear, S., 9.30; Skin, Tu, 9; Dental, Tu, 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu, F., 1.30; o.p., W, S., 1.30; Eye, W, S., 8.30; Ear and Throat, Tu, 9; Skin, Tu, 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu, Th, S., 2; o.p., W, S., 9; Eye, Tu, Th, S., 2.30; Ear, Tu, F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu, F., 9.

ST. GEORGE'S.—Medical and Surgical, M, Tu, F., S., 1; Obstetric, Tu, S., 1; o.p., Th, 2; Eye, W, S., 2; Ear, Tu, 2; Skin, W., 2; Throat, Th, 2; Orthopaedic, W, 2; Dental, Tu, S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu, F., 1.45; o.p., M, Th., 1.30; Eye, Tu, F., S., 9; Ear, M, Th., 3; Throat, Tu, F., 1.30; Skin, M, Th., 9.30; Electrician, Tu, F., 2; Dental, W, S., 9.30; Consultations, M., 2.30; Operations, Tu, 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M, Th., 2; o.p., W, 1.30; Eye, M, Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu, F., 1.30; Children, S., 12.30; Dental, Tu, F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M, Tu, Th, F., 1.30; Eye, M, Tu, Th, F., 2; Ear, S., 1.30; Skin, W., 1.45 S., 9.15; Throat, Th, 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu, F., 9; Eye, M, Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W, S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

Authors desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

Correspondents not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

TO CORRESPONDENTS.

Our correspondents are reminded that prolixity is a great bar to publication, and, with the constant pressure upon every department of the JOURNAL, brevity of style and conciseness of statement greatly facilitate early insertion. We are compelled to return and hold over a great number of communications, chiefly by reason of their unnecessary length.

QUERIES.

C. W. asks for reference to any authentic records of diphtheritic paralysis without previous angina.

W. I. C. asks to be enlightened as to the causes and prevention of cœzema iris, and whether any treatment will shorten the attacks.

ASSOCIATE asks for the formula of a good cheap cough tincture or mixture for club, union, and hospital practice.

L.R.C.S. EDIN. asks any reader who has very recently passed the final examination for the Fellowship of the Royal College of Surgeons of Edinburgh to inform him as to the best books to read on the various subjects of the examination.

MR. HUGH HEALD (Ormskirk) writes: If any of your readers who are connected with a small cottage hospital would be willing to give me some information with regard to cost of establishing and of carrying one on, I should be very much obliged. They might communicate with me direct.

SUITABILITY OF FLORIDA FOR ASTHMA.

INQUIRENS writes: A patient who is liable to occasional attacks of spasmodic asthma, and who is married, with three children, is anxious to know the suitability or otherwise of Florida, between degrees 29 and 23, as a place of permanent residence.

ANSWERS.

DR. R. I. STEVENS should in the first instance communicate with Dr. R. Burnet, 6, Upper Wimpole Street, who was the treasurer of the fund referred to.

DR. V. G. FITZGERALD, Surgeon-General.—Regulations as to Defects of Vision which Disqualify Candidates for Admission into the Civil or Military Government Services, by Sir Joseph Fayer, K.C.S.I., is published by Messrs. Churchill. Our correspondent might have ascertained this by referring to the "Index to Advertisements" in the JOURNAL for January 7th (ex gr.).

EAST ANGLIA, who inquires about the removal of superfluous hairs, might refer to the numerous notes on the treatment by electrolysis which have appeared in the JOURNAL during the last few years, for example—1886, vol. 1, pp. 151, and vol. 2, p. 978.

SYPHILIS.

DR. C. R. ILLINGWORTH (Accrington) writes: In answer to "M.D." I beg to be allowed to recommend the following method of treatment, which I have found rapidly efficacious for some years past.

Internally, the binoiodide of mercury in iodide of potassium, thus:—Sol. hyd. bichlor. B.P., 3i; potass. iodid., ʒss; ferri am. cit., ʒi; aq. menth. pip. et euyrupi, ad ʒviii; ʒss ter, quater die. Locally, to the sloughing ulcers, after painting with a 4 per cent. solution of eucaine, apply a 20 to 30 grain solution of nitrate of silver every day or other day. To any secondary patches of syphilitic psoriasis on the face or body let the patient apply a 10 per cent. ointment of the oleate of mercury twice a day.

UNDESCENDED TESTICLES.

MR. S. OSBORN thinks that, 1. It is undoubtedly the duty of the medical attendant to examine the scrotum, to see if the condition of affairs is still as previously diagnosed. 2. It would also be the duty of the medical man to explain fully the result of such a condition, producing as it does sterility. Both contracting parties should be made cognisant of the fact, otherwise legal proceedings might in the future be taken to set aside the contract.

NOTES, LETTERS, ETC.

APPLICATION OF ELECTRICITY BY MEANS OF DOUCHES.

DR. J. G. DOUGLAS KERR (Bath) writes: I have recently been making some experiments which prove that the water of the douches employed in the massage douche baths is in sufficient continuity to conduct an electric current. So far as I know, this is the first attempt which has been made to utilise this powerful therapeutic agent in this way. Either the continuous or interrupted currents may be used. The procedure is very simple. One pole of the battery is attached to the metallic nozzle of the douche, and by moving the other to different positions, any part of the body can be made to complete the circuit, and thus be brought under the action of electricity. When it is desired to act upon the legs the patient sits upon a flat pole, and the limbs are douched. For the arm the pole is held in the hand. When there is no need to limit the action to a single limb, the movable pole is placed in the water which covers the patient's feet, and the douche brought to bear on the different parts in succession.

This mode of application, which combines the effect of douching with electricity, has the advantage over ordinary electric baths of being under better control, and also of localisation. Much stronger currents can be used when the limbs only are acted upon than would be safe in a general body-bath where the great nerve centres are also involved.

CHLOROFORM IN DENTAL OPERATIONS.

MR. SIDNEY SPOKES, M.R.C.S. (Anæsthetist to the National Dental Hospital) writes: Permit me to record a protest against the use of chloroform in dental operations as suggested under Therapeutic Memoranda in the JOURNAL for January 7th. Mr. Stephens alludes to "nervous ladies who are prejudiced against any form

AN ADDRESS ON SURGICAL INSTINCT.

*Delivered at the Annual Meeting of the Staffordshire Branch,
October 27th, 1887.*

By W. DUNNETT SPANTON, F.R.C.S. ED.,
Surgeon to the North Staffordshire Infirmary.

GENTLEMEN, I hope to be able to interest you for a short time in considering what I will venture to term surgical instinct.

Now what constitutes a surgeon? I would say that the acquirement of surgical knowledge, so far as is evidenced by the possession of a diploma to practise the art and science of surgery, is no true guarantee that the possessor of it understands his work. You may perhaps mould an unlikely mortal into a being who calls himself a surgeon, but his actions belie him; and sooner or later, if he does not discover it himself, his friends or his enemies will discover for him that he has mistaken his vocation.

To begin with, the surgeon must have that inherent love of the work he has to do which will render it not an irksome task, but the pleasure of his life; he must have "a heart at leisure from itself to soothe and sympathise" with those whom he has to treat. With his surgical instinct to guide him, our ideal surgeon will seek to extend his knowledge, and to allow no obstacle to turn him from the pursuit of it through life. "Let men be assured that the fond opinion that they have already acquired enough is a principal reason why they know so little" (Bacon, *Essays*, p. 251); and "if a man has not such a degree of enthusiasm and love of his art as will make him impatient of unreasonable opposition, and of encroachments upon his discoveries and his reputation, he will never become considerable in any branch of natural knowledge" (Dr. W. Hunter, *Medical Commentaries*).

How far surgical instinct is a matter of evolution I cannot say, but it is curious to find an illustration of it among fishes, such as the telescope fish, where the male acts as accoucheur to the female in a most amusing manner by rolling her over and over, and a still more surgical proceeding in the *bufo obstetricans*, one of the toads, where the male severs the gelatinous cord by which the ova are attached to the female. I cannot, however, imagine that man's primitive surgery was ever quite so simple as this, especially when we find among some of the oldest writings extant, which carry us back at least twenty-five centuries, indications of advanced knowledge very little behind what we know now. 460 B.C. we find Hippocrates, while strenuously advocating Nature as the physician of disease, yet in surgery a bold operator. He trephined fearlessly, opened the chest in hydrothorax and empyema, and treated fractures and dislocations by means of wax bandages as we now treat them with plaster of Paris, while in the treatment of infantile clubfoot he practised and advocated a plan of bandaging and fixation such as the most advanced surgeons now chiefly rely upon.

This example will suffice for my purpose, to show that enormous as are the advances which experience has afforded to the present generation, we must not overlook the fact of instinctive surgery, and that the ancients who were the fortunate possessors of it have paved the way for modern advances far more than those who confine their reading to the journals and modern textbooks would be led to believe.

In the ages when mysticism in its varied forms was rampant, although we find glimpses of the knowledge that Nature herself would do all that was necessary, no practitioners were bold enough to hazard their reputation by acting up to this belief, but almost invariably resorted to some application or some mysterious performance to give it due effect. To Hippocrates is due the everlasting credit of having broken through these bonds, which the Asclepiadae had so carefully striven to maintain by making the practice of medicine a secret art. In his famous first aphorism is a sentence not often quoted, though to my mind far more significant than the better known "*ars longa, vita brevis*." He says: "The physician must not only be prepared to do what is right himself, but also to make the patient, the attendants, and externals co-operate." Herein he displays his true perception of surgical treatment, the secret of his success. At this time and for centuries after, the surgeons proper were only, as Spence

calls them, "hands for the learned doctors," and thus their sphere of observation, and of power to act independently, must have been very limited. It was, in fact, a mechanical kind of surgery, confined chiefly to cutting for stone, cure of rupture and other specific operations, many of which would probably have been far better left undone. The true surgical instinct seems to have been handed down through the physicians, and by a gradual process the modern surgeon has been evolved, retaining the true hereditary instinct; necessity, experience, and above all a keen knowledge of all his surroundings having done the rest.

There may be some danger, perhaps, that surgeons of the present day may become too mechanical, and that, while the physician looks upon every affection he meets with as one amenable to therapeutic treatment, or, as some would put it, the *vis medicatrix naturæ* only, the surgeon is apt to go to the opposite extreme. The medical mind is apt to fall into the error which even in the great minds of Abernethy, of Pott, and of Astley Cooper, almost led them astray—that of largely ignoring local disease in the importance of considering constitutional influences.

It is perfectly true, as Sir Astley Cooper has so well pointed out, that the susceptibility of different individuals is a matter of vital moment. At present we have no means of gauging the resisting power of individuals, some of whom seem almost injury-proof, while others succumb almost from being looked at. I remember a striking instance of this in a patient who was to have had an abdominal section performed, but she died suddenly the night before. Nothing was found after death beyond an ordinary ovarian cystoma and a fatty heart. If this had occurred after the operation instead of before, there would have been one more case added to the list of deaths ascribed to surgery, no doubt.

In some instances we meet with the whole system seems imbued, as it were, with a tendency for disease—for example, tubercle—to manifest itself somewhere, as in the metastasis from the chest to the abdomen, or as in a case of a man whose leg I amputated for tubercular synovitis, who went on very well as far as the leg was concerned, but died of acute tubercular meningitis in three weeks after. This is one mode of origin of local disease which is not infrequently ignored; the system is so full of the tendency to it that it must come out somewhere. But may not the converse be equally true? While the one condition is essentially constitutional, probably accumulating through many generations, in the latter case it would be purely local; and, although it might be of a character to become constitutional, several generations may be needed to endue it with an hereditary character. Experience teaches us that it is far safer to trust here to the surgical instinct, which says, "Remove the disease forthwith;" and as the wisdom of our patients increases, so as to lead them to speak of local diseases while in their earliest stages, who knows but, in course of time, their hereditary constitutional character may be stamped out!

The surgeon meets with a case of local mischief; take, for example, epithelioma of the lip. His instinctive knowledge tells him he has something to deal with which may (very improbably) remain as it is, or may, on the other hand, be a focus for the diffusion of changes throughout other parts of the system. How is he to judge of the probabilities of either event happening? In the present state of our knowledge there can be no hesitation as to the course to pursue. We have a state of negative good, which may at any moment lead to one of positive evil; and on this ground the surgeon would eradicate it forthwith, just as he would a weed in his garden, before it has had time to seed and be beyond his control. I am aware that some eminent surgeons and pathologists still maintain the necessity for constitutional tendency before local disease can assume a malignant character; but their precepts, I fear, differ from their practice, and their true surgical instinct will guide them into the safer course I have indicated. I might refer to many instances in support of this principle, but will mention only two or three.

An old lady, 64 years of age, came under my care for a very large typical cystic sarcoma of the breast. She informed me that a small lump, not larger than a nutmeg, had existed for forty years, and that three months before I saw her it began to grow, and had become the enormous mass it was in that short time. I removed the breast, and she made a rapid recovery, and, so far as I am aware, she has remained well since. Her general health was good throughout.

Another instance: a man about 40, who came for an ulcer on the tongue, which I and my colleagues thought specific (as there was a distinct specific history). Under medical treatment the ulcer improved, and he returned home under the impression that it would be cured. Six weeks afterwards he presented himself again, the sore having rapidly increased, and assuming a decided malignant character. I removed the entire tongue; but rapid glandular implication took place, and death occurred shortly after. Of course I ought to have

operated while "in doubt." Then it was the transition from a passive to an active malignant condition probably took place.

The only other case I will refer to is one of a man over 60, an old soldier, whom I saw in consultation for a growth over the ascending ramus of the lower jaw, involving the skin, which was beginning to ulcerate. The jaws were fixed, so that for some time only liquids could be poured behind the teeth. The man was reduced to a skeleton, and was kept alive by morphine and stimulants, suffering excruciating pain. He was seen by some very good surgeons, who considered the disease malignant, and declined to interfere, as the submaxillary gland was also enlarged on the same side. The man's extreme suffering, and his willingness to submit to any measure which might give even a temporary respite, made me resolve to operate. I removed one half of the lower jaw, with a large elliptical piece of skin involved in the growth (which was sarcomatous, growing from the periosteum), and the patient rapidly got well. After the operation the local glands increased greatly in size, and alarmed us considerably; but, in spite of all these adverse conditions, recovery was complete, and he is now, five years after, a hale, active man, in perfect health. The disease here was clearly local, in spite of all its deceptive surroundings.

On the other hand, the surgeon will meet with many cases referred to him which more properly belong to the physician. One of the most common of these is gout or rheumatism, so often the result of an injury, but where general treatment is of course demanded.¹

Some time since I met with a very interesting case, in which the tables were, as it were, turned upon us by that goddess "Nature." A lad whom I saw in consultation was suffering from the usual indications of ordinary leukaemia. He was extremely feeble, pale, puffy, breathless on exertion, with rapid heart action and feeble pulse, and had that well-known waxy look characteristic of the disease. He had been a healthy, country-born lad, and his surroundings were favourable. On examining the blood from his finger, I was struck, not only by the great disproportion of white to red corpuscles, but by their relative increase to the serum of the blood. Under the ordinary treatment he made no progress whatever, took little food, and seemed reduced almost to the last extremity. Then Nature, wiser than we, somehow caused violent epistaxis, and from that time recovery was rapid. I confess that it never entered my mind to adopt such a remedy, and my instinct was clearly at fault. How did it effect the cure? The only explanation I can offer is this: assuming the blood to be too viscid, as it was, for free circulation to take place, nutrition would be *pro tanto* seriously interfered with; the heart would fruitlessly endeavour to overcome the difficulty (giving rise to its own symptoms), and a general suspension of the assimilative functions of the body would occur. The bleeding from the nose released the mechanical impediment by at once getting rid of the surplus of solids in the blood, and the organs were left free to act again.

I am led to think this is the true explanation, because it affords a key also to those otherwise obscure cases we meet with in girls rising into womanhood, which are common enough. The symptoms are similar; the girl keeps too fat, too flabby, pale, and weak, iron does her no good, and her good appetite only seems to add to her trouble. There is in these cases invariably amenorrhœa. As soon as that passes away, the natural flow does for them what the epistaxis did for the boy, and they rapidly get well.

The number of cases which fall into the hands of the surgeon, having a local character, often completely overlooked or undiscovered owing to the manner in which a purely medical mind inspects them, is rather remarkable. Chief among these are uterine or abdominal cases. How often do we meet with cases of menorrhagia which have been under general treatment for weeks or even months, and find an unsuspected malignant disease of the cervix, or perhaps a small polypus uteri.

I saw some time ago a lady who had been the subject of almost constant hæmorrhage, ascribed to "change of life," but which at length alarmed her and her friends. On examining her I found nothing more or less than a small highly vascular urethral caruncle, which was removed, and her troubles ceased. No surgeon would have allowed a case of that sort to remain undetected. I could mention scores of these cases where the reliance on simple therapeutic or homœopathic treatment (so called) almost led to the death of patients in whom a timely surgical examination and local treatment would have put the matter right without risk and at once. In the opposite condition, amenorrhœa, I am afraid even worse blunders of omission as well as commission occur. Quite recently a patient came under

my care with an enlarged abdomen, who was sent for operation as a case of ovarian tumour. The whole surface of the abdomen was studded with pustules, which were, I found, caused by hypodermic injections which had been employed by a man with a medical turn of mind for many weeks, whether to disperse the tumour or no I cannot say. She was pregnant simply. One instance I met with of a woman who had been diligently treated with emmenagogues, etc., in whom I failed to discover any uterus at all. She never had menstruated, and never would. Other frequent causes of either of these conditions, and almost always accompanied with dysmenorrhœa, are flexions of the uterus. The medical mind prescribes tonics, perhaps change of air and scene (often the very worst things), and trusts entirely to general treatment of symptoms to effect a cure. But how often does this succeed? The patient, after wearying of this unsatisfactory state, comes to the surgeon, who simply applies his instinctive surgical knowledge to this, as he would to any other part of the body, and finding a mechanical cause, treats it mechanically, when the subordinate symptoms speedily disappear. I have a strong suspicion that many practitioners who meet with cases of this kind act from a sort of kindly wisdom, that it is safest not to meddle with what they do not understand, and leave Nature to do for them what they are themselves unable. But is this fair to the fair patient?

Another class of cases are not uncommonly referred to surgeons to deal with as a *dernier ressort*—abdominal obstructions of various kinds. In the course of my practice I have seen a large number of these, some of strangulated hernia treated, for several days, in one case by three medical heads, without any suggestion of an operation until when I was asked to see the patient he was moribund; some of hydro-cèle, one of whom has lately seen me having worn a truss for sixteen years, which has at last caused a hæmatocele. These are commonly the product of that wisecracking surgical instrument chemist, who always thinks if he does know one thing better than another it is a rupture. I look upon the truss in the hands of chemists as a most dangerous weapon; the results of their ill-judged applications are often most disastrous. Not long ago I operated on a patient of my friend Dr. Orton, in whom a truss had actually been applied by a London chemist on an already strangulated hernia, which almost cost the patient his life.

Similarly with intestinal obstructions. The surgeon only sees them, too often, when the friends of the patient find death imminent under tentative treatment. I saw quite recently a lady at a distance whom I was sent for to operate upon. There was a distinct obstruction in the right iliac fossa, as plainly indicated as anything could be, with a history of old local peritonitis, probably a band. She had been well dosed with purgatives until sickness was incessant—ememata, etc., likewise. When I saw her she was moribund and almost pulseless, and I declined to operate. The medical man in charge of the case seemed to have no idea of the real state of affairs; to his purely medical mind it was inflammation, and he told me with the blindest simplicity "it was nothing more." In another instance a more fortunate result occurred; that of an elderly man who had been under treatment for absolute constipation for nearly three weeks. Obstruction was complete, vomiting incessant, and when I saw him he was reduced almost to the last extremity. He had been under treatment by two medical men the whole time on the usual expectant plan, rational enough from a medical point of view, only it did no good. Another surgeon was called in who asked me to see him; and finding from the history indications of obstruction on the left side of the colon, ill as he was we decided to operate. Colotomy was performed, and an enormous quantity of undigested potato-skins came rushing out, very much to our amazement. On inquiry we found that the last meal he had more than three weeks before had been some potatoes whole, of which he ate freely. Hence the result, and the wisdom of treating the case surgically. He is now quite well.

In no department has the surgical instinct been shown more conspicuously than in what is usually termed abdominal surgery. This has undergone a complete revolution during the last twenty-five years. The subject is now too familiar to need many words, but it is only due to our distinguished member, Mr. Lawson Tait, to say that it is mainly to his energetic and powerful advocacy that the reformation is due. Sir Spencer Wells made ovariotomy a justifiable and successful operation, Marion Sims gave the impetus to other pelvic surgery, but to Lawson Tait the credit is certainly due of having inaugurated a wider scope, which brings almost all abdominal, certainly almost all pelvic, diseases within the range of not only justifiable but eminently successful operative surgery. When I was obstetric assistant at Middlesex Hospital in 1862, two very illustrative cases came under my care, which indicate the state of feeling in the profession at that time, and which I will briefly relate. A married woman, aged 28, had five children

¹ Similarly we meet with instances of osteomyelitis treated as rheumatism, and I believe not infrequently the rash of septicæmia is mistaken for scarlet fever. They may nevertheless be looked upon as first cousins.

naturally. The midwife who attended her in her sixth labour, finding her after delivery still measuring forty-five inches, sent for me, supposing there was another child. I saw her with Dr. Priestley, and we found she had a large ovarian tumour. At the end of three weeks she was about again, her size undiminished. The poor woman died suddenly two months afterwards, from rupture of the cyst and peritonitis, as I found *post mortem*. During the whole time such a thing as an operation was never discussed, so far as I remember; and she died, as so many used to do and even now do, from rupture of the cyst.

The other case was one in which ovariectomy was performed by Mr. Mitchell Henry, with Sir Spencer Wells at his elbow—the first ever performed in Middlesex Hospital. The case was one which we now should consider a simple one, with rather extensive adhesions. All went well until at night, as I was watching the patient, every indication of internal hæmorrhage came on. I sent to the surgeon to know what to do, and to ask if he would reopen the abdomen. The reply was that nothing could be done beyond giving brandy, etc., *secundum artem* A.D. 1862. The young woman died in a few hours, and we found, *post mortem*, one bleeding vessel in the omentum and a quantity of blood in the abdominal cavity. I venture to say that, under the influence of Tait's teaching, such an event now would amount to surgical treachery. I can recall, also, the instance of a young woman whom I saw soon after this period, blanched, with a history of suppressed menses, and evident internal hæmorrhage. I will quote the words of the standard textbook at that time, referring to such cases of what I assumed to be rupture of the Fallopian tube: "This accident is almost always fatal. If there be time for remedies, of course the most active antiphlogistic treatment is the most appropriate; such, in fact, as would be prescribed for peritonitis under ordinary circumstances" (Churchill, *Dis. Wom.*, 1864, p. 494). I trusted to this teaching, and, as a consequence, my young patient died before night. Now that the ordinary rules of surgery are applied to the interior of the abdomen as to the exterior, such a lamentable result cannot occur without culpable negligence somewhere. In those days we knew no better.

So with regard to other affections of the female pelvic organs, it is quite clear that many of these, which have formerly been in the hands of the physician, will become proper subjects for the surgeon. A new light has dawned on many obscure conditions which have been too often guessed at, frequently mistaken, and perhaps in many instances entirely overlooked. The unhappy patient suffering from chronic ovaritis, from pyosalpinx, or some allied disease, is often the victim of everlasting medical treatment, sometimes a little better, much more often worse, until the cause of her trouble is removed; and our united experience as a Society I am sure fully confirms Mr. Tait's decided statement that nothing short of the removal of the offending parts will be permanently effectual. Indeed, he has made this no longer a question of doubt, but an established rule of surgery. For my part, I fail to appreciate the sickly sentimentality of those who raise objections to all such operations for removal of ovaries, whether diseased or not, on the ground of unsexing a woman, because I think the reasoning is founded on a false assumption. Has anybody shown one of the converted masculine women as a complainant on her own behalf? I never heard of one and never expect to see one.

Now to turn for a moment to some of those cases in which we are so greatly indebted to physicians and physiologists, such as cerebral tumours. Although the brain has been dissected and known for three thousand years or more, it is only within a recent period, since the localisation of the functions of the brain has been carefully ascertained by physiological investigations after pathological observations failed, that a sufficiently precise knowledge has been obtained to justify any specific surgical operation for their removal. We now know from experience that the interior of the brain may be surgically dealt with like other interior parts of the body, provided proper skill and precautions be exercised.

My friend and colleague, Mr. John Alcock, some time ago had a case in which he removed a depressed portion of the skull which had been the cause of epileptic attacks continuing many years, and did so with complete success. There is every reason to hope that in this happy union of physiological knowledge and practical surgery many lives will in future be saved from some of the most distressing ills which torment the human body.

Since I read a paper at Cork in 1879, by which I acquired a rather unenviable title, the smouldering fire of attempts to cure hernia under modern systems has been fanned into a flame, as will be readily seen by the mass of literature which has since appeared on that subject, and I am disposed to hope that the old misdirected surgical instinct (like that which does not prevent swallows flying against objects in their way) has been so far modified by recent knowledge and expe-

rience that operation for this affection has now become what it never was formerly, not only a justifiable proceeding, but one which the State has a right to look for in the interest of future generations. But I have already had a good deal to say on this matter elsewhere, and will now only add that the evidence of the last few years is largely in favour of some operative procedure, and that deaths from strangulated hernie ought in time to be almost unknown.

Let us now proceed to consider how the surgeon is to "make the patient, the attendants, and externals co-operate." With regard to the first point, the great thing is to keep our patient in a good humour, especially if any operation has to be done, not mentally only but physically. His stomach, his kidneys, and other working gear must be put into as favourable a condition as the circumstances will permit, as everybody knows.

The second object is an important one. However much may depend on the skill of the surgeon, his efforts may be entirely frustrated by an officious nurse or an ignorant but willing friend. Let him take care, therefore, to ascertain for himself that the attendant is one on whom he can safely rely. Trained nurses are very much like trained medical men, some are excellently practical, while others are uselessly æsthetic. Many of the best surgical nurses are ill-fitted for a tedious medical case, and *vice versa*. It is a great advantage to have a nurse well acquainted with one's foibles, who knows by a sort of surgical instinct what to do and when to do it, and does not irritate the operator by fussiness on the one hand or a listless inertness on the other. There are plenty such, and a great comfort it is to have them.

How much depends on the "externals!" The experience of recent years has caused an entire change in the ideas which formerly prevailed with regard to a patient's surroundings. In ancient as in modern times the most salubrious sites were chosen for hospitals, and yet the internal sanitary arrangements were such as to bring about the very evils they were intended to overcome. I will not weary you by reiterating the defects of old buildings intended for the sick; they are now well known; but I would refer to the necessity which still exists for the surgeon to ascertain for himself the sanitary condition of any house or institution in which his surgical patient is placed, possibly operated upon.

His surgical instinct will help him here, very much as it helps a ferret under certain circumstances. He will not think it beneath his dignity to see for himself that the drainage is right; that there are no direct communications between soil-pipes and lavatories and such like within the house; that no middens or other such objectionable accumulations lie under his patient's window; that the ventilation of the room is good, without draught; that, if needful, the room is fumigated, whitewashed, and so on, before his patient enters it; and that no contagious illness has previously existed in the place. The slightest hint of erysipelas, of blood-poisoning, tetanus, or obscure conditions euphemistically termed "low fever," ought to put the observer on his guard at once. I am quite sure sufficient attention—personal attention—is not paid to this important subject; and I am equally sure that those surgeons who can boast of the most successful work make it a *sine quâ non* to satisfy themselves on this vital question. That we all need this reminder is evidenced by circumstances within my knowledge, where a first-rate surgeon actually performed a capital operation in a room which was appropriated primarily and principally to a water-closet and a lavatory basin, from which the waste-pipe ran directly on to a not over clean grid immediately below!

And a painful case occurred to myself some time ago, which also indicates the need for circumspection. I was called upon to amputate the breast of the wife of a farmer whose house I had never visited. I made sure of a good nurse, and a reliable assistant, who thoroughly understood Lister's antiseptic spray treatment, with which we went fully equipped. On approaching the house, which was a large and good one, to my horror and consternation a certain well-known mal-odorous exhalation led me to exclaim, "Surely this must be a sewage farm!" and, having ascertained this to be the fact, I hesitated about operating with such precious "externals;" but a blind faith then in Listerism made me bold; with every minute detail most implicitly and specially observed, my unfortunate patient the next day gave evidences of my temerity in a high temperature, an oily serous exudation from the wound, and, in short, every indication of septicæmic mischief, which culminated in acute septic pneumonia, and a tedious convalescence. That this was attributable to the state of the atmosphere surrounding my patient I have no doubt whatever.

It taught me two lessons: one never to operate if possible without knowing the sanitary state of the residence, and the other to shake my faith in Listerism. I am almost afraid to enter on this question, but must say a few words about it. How did the foul atmosphere affect

my patient! According to Listerian doctrines, such an effect was impossible. But it occurred, nevertheless, and to my mind it affords a clue to some important considerations in connection with this subject. We all know that Lister's theory is based on the principle that to produce morbid results after an operation or a breach of surface germs of some kind must find an entrance; and the object of his practice is to keep out if possible, or to render inert, any such morbid bodies. But I have long thought, and am now very much inclined to agree with Sir Henry Roscoe (Address, Brit. Assoc., Manchester, 1887) when he says: "Present research points to the conclusion that the microscopist must give way to the chemist, and that it is by chemical rather than by biological investigations that the causes of diseases will be discovered and the power of removing them obtained." I do not think sufficient regard has been had to the influence of ptomaines, which must be far greater than that of mere germs, and which have been proved capable of producing their specific poisonous effects "in entire absence of living organisms." Take, for example, yeast, in itself inert, and so far as I know quite harmless in a wound; but place it in some saccharine solution, and you get an active poison (alcohol) speedily developed. Are there not analogous conditions of the blood or fluids of our own body in which, when a certain germ is introduced, poisonous ptomaines are developed which exert an influence which the germ itself was quite powerless to effect? Given a certain condition of the body, whether due to influences from within or surroundings without, and the introduction of a certain kind of germ immediately leads to such changes in the state of the pabulum as to create a poisonous product. Take, for example, a case of osteomyelitis. We often wonder why, in a case of this kind, in which there has been no contact with outer air or any outside germs, we should have pyæmia, perhaps septicæmia, set up. Now, we know how subtle must be some of the agents which affect us in this world. Even Dr. Dallinger has not yet discovered the size or shape of an atom of scent. But let a minute portion of some substances be inhaled only, and you will find evidences of their having passed into the organism. If we assume, therefore, that a quiet process of living death is going on in the bone marrow, so long as it is permitted to go on quietly no harm results; we know this often goes on for months, or perhaps years, unsuspected even; but so soon as certain products to which the body may be exposed find access to the part through the blood, then I imagine that change takes place which enables the micrococcus to set up its poisonous fermentative action, and the result is soon manifested in the development of the ordinary symptoms of septicæmia. It is not necessary for the bacilli or other organisms to find their way in; they are probably there already; but only for that special poison in the presence of which they can do evil to find access to them. Therefore, it is quite as important to see that the conditions under which organic germs can work are absent as to trouble quite so much about the organisms themselves. Antiseptics will do much, but common sense will do more to effect this in dealing with wounds. The latter being a not over-abundant commodity, it is as well perhaps for the majority of us to use antiseptics in our work, notwithstanding what may be argued in favour of their abolition. The perfect surgeon has not been evolved yet, and until he is I certainly advocate the use of those antiseptics which are best adapted for individual cases.

At this point, whenever anything surgical has to be done, surgical instinct will show itself in strict attention to minute details. A careful preliminary examination is made—under an anæsthetic, if necessary; nothing is taken for granted, and the course of proceeding determined upon. The surgeon must have brains in the tips of his fingers as well as in his organs of sense, give definite instructions to his nurses and his assistants beforehand, so that his sponges may be properly prepared, silk ligatures previously boiled, instruments faultlessly clean and methodically arranged; the patient's surroundings in accordance with directions given as to bed, temperature, light, and accessories. No detail ought to be too trivial to have his attention; it is the completeness of his preliminaries which goes far to ensure success. In the case of hospital nurses it is useful to have definite rules drawn up, so that each one may know her duty, more especially in abdominal surgery, when everything should go on like clockwork, and as silently.

In the method of dressing wounds I believe we shall revert to the simplest, of which none is better than scorched lint. Some of the best results in my practice have followed its use. Gangee tissue is extremely useful for almost all purposes, though more comfortable often when reverse. Much is said about drainage, and a recent writer (Professor Turazza, *Lancet*, vol. i, 1887, p. 947) endeavours to show that it is altogether a mistake. It may be so in his country, but I think not here. Drainage-tubes need discrimination in their use, far beyond the pedantic daily shortening of some surgeons. The

sooner the tube is removed the better—at any rate in private practice; and I usually take it out at the end of twenty-four or thirty-six hours after it has served its purpose of draining away the first effusion. Chassignac has immortalised himself by its invention, though it was devised originally for sinuses and such like. There is a small point regarding silver sutures I may mention, which is very useful; and that is, as soon as tension occurs, to nick them through. They maintain a sufficient hold, and need not be removed until union is firm. Many wounds are torn open in removing them too soon, because they cut, as they will sometimes in the best-regulated surgical *cliniques*. Then, again, in the after-treatment of his cases, there is a tendency now for our surgeon to revert to the practice of many years ago. The simplest possible diet takes the place of repletion and bleeding, the use of purgatives after abdominal operations superseding opium and aromatics. On this point Abernethy wrote (*On the Constitutional Origin of Diseases*, p. 13): "In many instances opium will not prevent continual efforts to vomit; yet when, by sulphate of magnesia, etc., stools are procured, vomiting ceases, the stomach retains both food and medicine, and general tranquillity of constitution is as suddenly restored." This accords with the most recent opinions on the subject of abdominal operations by Lawson Tait and others, and the view is commonly expressed that those patients who vomit freely after an abdominal section make more rapid and more certain recoveries. The most striking results obtained by the modern surgeon are the rapid healing of wounds and the larger proportion who recover. It is usually safe, for example, to promise a patient whose breast has been removed in private practice that she shall be quite well in a week, and I have here some extracts taken at random from my notes of such cases which show that four or five days often suffice for such wounds entirely to heal.

Extract from Notes of Breast Cases in Private Practice.—1. Miss B., aged 40, had fibroma of breast removed, with large part of mammary gland, November 17th, 1885. Whale-tendon ligatures, wire sutures, and sublimate gauze dressings and drainage-tube. 18th. Removed tube. 21st (4th day). Took out all sutures; wound perfectly united, without a drop of pus. Quite well.—2. Mrs. M. C., aged 41, on October 16th, 1883, had large fibrocystic tumour of breast removed, weighing a pound, and involving a long incision. Catgut ligatures, silk-worm-gut sutures, eucalyptus gauze dressings and drainage-tube. 18th. Tube removed. 21st (fifth day). All sutures removed. Quite well; no further dressings.—3. Mrs. M., aged 42; removed entire breast for scirrhus, September 26th, 1887. Wire sutures, catgut ligatures, alembroth gauze dressings. Tube removed next day. On October 1st (five days) perfectly well; all sutures removed. No further dressing.

Among such cases I have no death to record in private practice, and I find there have now been forty consecutive breast amputations at the North Staffordshire Infirmary without a death.

In looking over notes of operations in the old days of unhealthy hospitals, one is struck by two significant facts; the patient's record is either a very long or a very short one; or, in other words, a large number quickly succumbed to the evil influences around them, while those who did recover had a long and oftentimes hard struggle for life. To show what a change has taken place, I have collected some statistics of our own North Staffordshire Infirmary, and some which have been published as typical by Sir J. Lister.

Sir Joseph Lister has given the statistics of deaths from larger amputations in the Glasgow Royal Infirmary, before and after the introduction of his antiseptic treatment. Here are the figures: For the two years, 1864 and 1866 (old style), total amputations, 35; deaths, 16; mortality rate, 47.70 per cent. For the years 1867, 1868 and 1869 (Listerian), 40 amputations; deaths, 6; mortality rate, 15.00 per cent. And in 1879 the same surgeon published the results of 80 amputations performed at the Edinburgh Royal Infirmary, under his own method, of which 16 only were for injury, the other 64 for disease; 80 amputations: deaths, 9; mortality rate, 11.2 per cent.

I think, however, the figures I am about to give from the records of the North Staffordshire Infirmary will convince you that other modes of treatment are even better. The old infirmary at Hanley was a much patched up building, containing about 130 beds, with nearly all the defects of insufficient cubic space and sanitary arrangements of such institutions built seventy years ago. The only redeeming feature was its open situation. In 1869, this building was abandoned on the opening of the new infirmary at Hatfield, built to hold about 190 patients; and the addition of detached wards for children and for ovarian cases has increased the number of beds to 212, of which a large proportion are usually filled. The Listerian period began in 1871, and was continued with more or less strictness up to 1881. It was then gradually relinquished, and for the last four or five years has been used only

in such operations as osteotomy and some excisions. Now, so far as the spray is concerned, it is not employed at all, or only as an offensive instead of a defensive weapon. I have been obliged to take for our purpose the figures given in those years which contain the best kept records—some are defective—but they are taken irregularly for no other reason. They represent, I think, fairly the periods for which they are given.

Major Operations Performed at the North Staffordshire Infirmary During Five Years.

Operation.	1854		1855		1856		1857		1858	
	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.
Amputation Hip Joint	—	—	—	—	—	—	—	—	—	—
" Thigh	5	1	2	—	4	1	1	—	6	2
" Leg, or both	4	—	9	1	5	2	1	—	—	—
" Ankle Joint	—	—	—	—	—	—	—	—	2	—
" Shoulder Joint	—	—	1	—	—	—	—	—	—	—
" Arm	4	1	3	1	6	—	3	1	1	—
" Forearm	—	—	1	—	—	—	—	—	1	—
Excision Hip Joint (Disease)	—	—	—	—	—	—	—	—	—	—
" Knee (Disease)	—	—	—	—	1	—	—	—	—	—
" Elbow	—	—	—	—	—	—	—	—	2	—
" Breast	3	—	1	—	4	—	2	—	—	—
" Testis	1	—	—	—	—	—	—	—	1	—
Lithotomy	—	—	—	—	4	1	3	—	3	1
Amputation Penis	—	—	—	—	1	—	—	—	—	—
Total	17	2	17	2	25	4	10	1	26	5

Total for 5 years :—Cases, 95; Deaths, 14 = 14.73 per cent.

Major Operations Performed at the North Staffordshire Infirmary During Five Years.

Operation.	1859		1860		1861		1862		1863	
	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.
Amputation Hip Joint	—	—	—	—	—	—	—	—	—	—
" Thigh ¹	1	—	—	—	2	1	5	3	2	—
" Leg ²	10	3	5	1	6	1	12	4	10	2
" Ankle Joint ²	1	—	1	—	1	—	—	—	—	—
" Shoulder Joint	—	—	1	—	—	—	—	—	—	—
" Arm ³	1	—	2	1	3	—	2	2	1	—
" Forearm ⁴	3	—	4	—	3	—	2	1	2	—
Excision Hip Joint (Disease)	—	—	1	—	—	—	—	—	—	—
" Knee (Disease)	1	—	2	—	3	—	—	—	1	—
" Elbow (Mixed)	—	—	1	—	—	—	2	—	—	—
" Lower Maxilla	—	—	—	—	—	—	—	—	—	—
" Shoulder Joint	—	—	—	—	—	—	—	—	—	—
" Ankle Joint	—	—	—	—	—	—	—	—	—	—
" Wrist	—	—	—	—	—	—	—	—	—	—
" Breast	—	—	3	—	1	—	1	—	1	—
" Testis	—	—	—	—	1	—	—	—	1	—
Lithotomy	4	1	2	—	2	—	2	—	6	—
Amputation Penis	—	—	—	—	—	—	—	—	—	—
" Tongue	—	—	—	—	—	—	1	—	2	—
Radical Cure Hernia	1	—	—	—	—	—	—	—	—	—
Osteotomy	—	—	—	—	—	—	—	—	—	—
Total	22	4	22	2	22	2	27	10	26	2

Total for 5 Years :—Cases, 119; Deaths, 20 = 16.80 per cent.

¹ A—Burns. B—Comp. Fract. Tib. and Fib. and Femur. Comp. Com. Fract. Femur. D—

² A—Comp. Fract. Leg. C—E—Comp. Com. Fract. Tib. and Fibula sinist., and Fract. Femur. G—Com. Fract. Tib. and Fib. B—Comp. Fract. Leg. D—Pneumonia after Operation. F—Pyæmia. H—Fract. Tib. Comp. Fract. Tib. and Fib. I—Gangrene. J—Comp. Com. Fract. Tib. et Fib. K—Fract. Clavicle. Comp. Com. Fract. Tib. et Fib.

³ A—Comp. Commin. Fract. of Hand. B—Comp. Fract. Ulna and Rad., Fract. Femur, Injury to spine, Paralysis. C—Comp. Fract. Humerus.

⁴ A—ancer of Hand.

Major Operations Performed at the North Staffordshire Infirmary During Five Years.

Operation.	1870		1871		1872		1873		1874	
	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.
Amputation Hip Joint	—	—	—	—	—	—	—	—	1	—
" Thigh ¹	4	3	3	—	5	3	4	—	—	—
" Leg ²	10	3	8	1	9	1	8	1	4	—
" Ankle Joint	—	—	—	—	—	—	2	—	—	—
" Shoulder Joint	—	—	—	—	—	—	2	1	—	—
" Arm ³	5	2	5	1	2	—	—	—	6	3
" Forearm	1	—	1	—	—	—	6	—	1	—
Excision Hip Joint (Disease)	—	—	—	—	—	—	—	—	—	—
" Knee (Disease)	—	—	—	—	—	—	1	—	—	—
" Elbow	3	—	—	—	—	—	1	—	—	—
" Lower Maxilla	—	—	—	—	—	—	—	—	—	—
" Shoulder Joint	1	—	2	—	—	—	1	—	—	—
" Ankle Joint	—	—	—	—	1	—	—	—	—	—
" Wrist	—	—	—	—	—	—	—	—	—	—
" Breast	2	—	4	—	3	—	—	—	4	—
" Testis ⁴	1	—	1	—	—	—	1	—	—	—
Lithotomy	3	—	3	—	1	—	—	—	1	—
Amputation Penis	—	—	—	—	—	—	—	—	—	—
" Tongue	—	—	—	—	—	—	—	—	—	—
Radical Cure of Hernia	2	—	—	—	—	—	—	—	—	—
Osteotomy	—	—	—	—	—	—	—	—	—	—
Total	33	9	29	2	21	4	30	2	23	7

Total for 5 years :—Cases, 136; Deaths, 24 = 17.65 per cent.

¹ A—Burns. B—Comp. Fract. both Legs. Amputation Left Knee Joint and Right Thigh. C—Ununited Fracture. Tetanus.

² A—First, Syme's Amputation, afterwards Amputation of Leg in consequence of sloughing, Strumous. B—Comp. Commin. Fract. C—Comp. Fract. of Leg Lacerated Wound of Groin. D—Ulcer of Leg. E—Left Leg Blown Off, Fract. of Right Foot, Fract. of Skull.

³ A—Comp. Fract. of Right Arm, Commin. Fract. Right Leg, Laceration of Scrotum. B—Tetanus.

⁴ A—Malignant Disease.

Major Operations Performed at the North Staffordshire Infirmary during Three Years.

Operation.	1879.		1880.		1881.	
	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.
Amputation Hip Joint ¹	1	1	—	—	1	1
" Thigh ²	11	1	21	—	10	1
" Leg, or both ³	11	1	8	—	10	1
" Ankle Joint	—	—	—	—	2	—
" Shoulder Joint ⁴	—	—	1	1	1	—
" Arm	5	—	1	—	4	—
" Forearm ⁵	2	—	3	1	5	—
Excision Hip Joint (Disease) ⁶	3	—	7	3	1	—
" Knee (Disease)	—	—	2	—	—	—
" Elbow (Mixed)	5	—	4	—	2	—
" Up. or Low. Maxilla	1	—	—	—	2	—
" Shoulder Joint	—	—	2	—	—	—
" Ankle Joint	—	—	—	—	1	—
" Wrist	—	—	—	—	1	—
" Breast ⁷	5	1	16	—	13	—
" Testis	2	—	5	—	3	—
Lithotomy ⁸	3	—	8	2	19	1
Amputation Penis	1	—	2	—	1	—
" Tongue	2	—	—	—	1	—
Radical Cure Hernia	16	—	6	—	5	—
Osteotomy ⁹	7	—	11	—	4	1
Total	80	4	97	7	86	5

Total for 3 years :—Cases, 233; Deaths, 16 = 6.88 per cent.

¹ A—Shock, 17 hours. Enormous Sarcoma of Thigh, woman recently confined B—Shock, 12 hours. Compound Fracture, Railway Accident.

² A—Tubercular Meningitis a fortnight after. Wound nearly well. B—

³ A—Crush. Died in a few hours from shock. B—Shock and previous exposure. Lived only a few hours after accident.

⁴ Bronchitis, with secondary Cancer in Lungs.

⁵ Extensive Burns of Body, Crush, etc. Died in a few hours.

⁶ A and B—Erysipelas. C—Embolism.

⁷ Erysipelas following Abortion.

⁸ Peritonitis, all in Adults.

⁹ Septicæmia. Patient very unmanageable.

Major Operations performed at the North Staffordshire Infirmary, during Three Years.

Operation.	1885.		1886.		1887.	
	No. of Cases.	Died.	No. of Cases.	Died.	No. of Cases.	Died.
Amputation Hip Joint ..	—	—	—	—	—	—
" Thigh ¹ ..	0	1	3	—	9	2
" Leg or both ..	5	—	6	—	5	—
" Ankle Joint ..	1	—	1	—	3	—
" Shoulder Joint ..	1	—	1	—	1	—
" Arm ..	2	—	3	—	4	—
" Forearm ..	2	—	1	—	3	—
Excision Hip Joint (Disease) ..	2	—	1	—	2	—
" Knee (Disease) ..	6	—	2	—	1	—
" Elbow ..	—	—	—	—	—	—
" Up. or Low. Maxilla ..	2	—	—	—	1	—
" Shoulder Joint ..	1	—	—	—	—	—
" Ankle Joint ..	—	—	—	—	—	—
" Wrist ..	—	—	—	—	—	—
" Breast ..	9	—	6	—	13	—
" Testis ..	2	—	4	—	1	—
Lithotomy ..	5	—	3	—	3	—
Amputation Penis ..	—	—	—	—	—	—
" Tongue ..	1	—	—	—	5	—
Radical Cure of Herula ² ..	2	—	8	1	7	—
Osteotomy ..	8	—	8	—	3	—
Total ..	55	1	47	1	59	2

Total for 3 years:—Cases, 161; Deaths, 4=2.42 per cent.

¹ A—Septicæmia present before operation. C—Other Leg also amputated for smash. B—For Gangrene with Septicæmia due to compound fracture week before admission.
² A—peritonitis.

Summary of Major Operations and Rate of Mortality during the Foregoing Periods.

Years inclusive.	1854 to 1858 (Old Infirmary)	1859 to 1863 (Old Infirmary)	1870 to 1874 (New Infirmary)	1879 to 1881 (New Infirmary)	1885 to 1887 (New Infirmary)	1887 only.
Total Number of Operations named in foregoing Tables	95	119	136	263	161	59
Deaths ..	14	20	24	16	4	2
Rate of Mortality per cent.	14.73	16.80	17.65	6.08	2.42	3.39

If you will refer to the tables, you will observe in the first two quinquennial periods, when the old building had been practically condemned as unfit for its purpose, an average mortality of 14.73 per cent. and 16.80 per cent. respectively. These are far better than most of those published for that time. Then we come to the time immediately after entering the new building, and we get a mortality rate of 17.65 per cent. This was sufficiently alarming to cause an investigation to be made as to the cause. A contaminated water supply, unventilated drains, and other defects in the drainage arrangements were discovered, and partially remedied. This, no doubt, led to the more favourable figures we get for 1879-81: 6.08 per cent. But cases of septicæmia occasionally occurred and other indications pointed to the conclusion that all was not yet right. After some demur, the Committee sanctioned further improvements, by having every waste pipe disconnected, closets ventilated, and, in fact, all that we asked for; and the result of this is found in the figures for the last three years since the work was done. A mortality of 2.42 per cent., in 161 cases, for three years' major surgery, with a full proportion of cases of injury included in them, is the gratifying reward for the large outlay involved. This statement is one of the most satisfactory ever recorded for an aggregate of such cases. We can all select favourable years with a run of good fortune, as for example, in 1885 and 1886, when there were 32 major amputations, about equally divided for injury and disease, with only one death. But, if we take the two last series of 1879-81 and 1885-87 as representing our recent work, we find: 97 amputations, 8 deaths; 57 amputations, 3 deaths. In six years, 154 amputations and 11 deaths. Mortality, 7.14 per cent.—a record of which no hospital need be ashamed.

It is abundantly clear that, however fine a building may be in its

arrangements for cubic space and general comfort and convenience, it avails little so long as the drainage system is wrong; in this as in many things, we know more than we did a few years ago, and it is well for the community when an enlightened committee will second the efforts of the medical staff, as our Committee has invariably done. Were it otherwise, I should have a very different story to relate to you to-day.

The surgeon ought to be able to speak with authority, and he will best do that who can speak from his own knowledge. We are often asked about watering places, voyages, and special articles of food and drink; and the surgeon will derive great advantage from gaining experience in all these as far as he can in his own *corpus vile*; only in doing so I would advise him not to do as I once did at a famous foreign health-resort, drink of every spring in the place, and then go home to breakfast. He may wish he had not.

Then as to different climates. There is a tendency to send everybody to the South, whereas quite as often as not it is a bracing, dry air which is most needed, not a warm, relaxing one. Too often, fashionable and otherwise attractive places have some great drawback which is carefully concealed in guide-books, and can only be discovered by one's own personal observation. Therefore it is well to visit all the pleasant resorts he can, to make trial conscientiously of everything about which he is pretty sure to be asked; but having done so, let the surgeon beware of putting his opinion into writing, or he may find himself made famous in a way he never intended in the pages of some advertising medium. So with regard to clothing. Here the married man has an advantage over the bachelor, whose knowledge of infantile and feminine garments is usually secondhand, and his advice of little use. It is well to note how susceptible to cold convalescents, especially children, usually are, and need advice accordingly.

It is an amazing thing how persons ordinarily gifted with common sense and good judgment are led away by some specious form of humbug, in the shape of a lapsed surgical instinct, such as that of bone-setters, *et hoc genus omne*. The death of one of these notable characters gave rise not long ago to some ridiculous articles in the daily press. Everyone of us is well aware in what the strength of these quacks lies, and there is no reasonable doubt that in some cases of stiff joints and such like, their rough methods succeed where others have failed. But how many of their failures do we hear of? Where do we find recorded the histories of inflamed joints, of permanently injured limbs which are not infrequently the outcome of their attempts to cure? I know of one instance where the ligamentum teres was torn completely through, and the patient lamed for life, by one of them.

It is too often forgotten that in the case of a surgeon who honestly and rightly makes a forcible attempt to overcome an old standing ankylosis or similar condition, and sets up thereby acute mischief, he is very naturally condemned by the patient and the friends for having made matters worse; whereas, in the case of the bone-setter such a result is looked upon only as an accidental failure in what is recognised by an ignorant *clientèle* as his legitimate sphere.

No men, I imagine, belonging to any profession, have been the subject of so much popular ignorance, and the objects of such sarcastic attacks at the hands of popular writers as medical men, although I gladly acknowledge that we are greatly indebted to some of the most powerful literary organs for fair and generous treatment. Take, for instance that wretched caricature of "Heart and Science" written by an author who is supposed to know what he writes about. I do not hesitate to say there; never was written in a novel a more vile representation of a modern scientific physiologist. Morbid sentimentality (which he is pleased to call "heart," forsooth!) is raised upon a pedestal for admiration, while the "science" of the advanced physiologist, simply because based upon vivisection, is reduced to the level of simple indulgence in brutal experiments. Such fictions as these may be all very fine for the edification of our young men and women, but we have a right to expect that an educated author will at least refrain from introducing such rubbish by a preface declaring their foundation in fact. We may very well, however, with our tried friend, *Punch* :—

Leave sham humanity its lies,
And cry God speed to men of healing.

I do not suppose for a moment that my experience of more than a quarter of a century's responsible hard work at practical surgery differs much, if at all, from that of other surgeons who have enjoyed similar opportunities, and the lesson I have learned and would impress on those who have not yet passed through such an ordeal is this—do to your patient as you would be done to yourself; make up your mind as to the course to pursue, then act as quickly, as safely, and as plea-

santly for the patient as your surgical instincts impel you. Let his or her welfare be paramount. Allow no golden apples like those of Hippomenes to hinder you in your course of duty. Remember how Atalanta lost the race, and let not such a fate be yours.

Gentlemen, we cannot stand still. The world will not wait for us, and whether we will or no, we must go onward. I devoutly hope that our course may be at the same time upward.

ABSTRACT OF AN ADDRESS ON THE MEDICAL STUDENT AND HIS ENVIRONMENT.

Delivered before the Harveian Society, January 19th, 1888:

By EDMUND OWEN, F.R.C.S.,
Retiring President.

ONE subject on which I wish to speak is that of medical education. If it be asked how this can interest the Harveian Society, I shall urge that every question concerns this Society which affects the welfare of our profession. Similarly it might have been questioned twenty years or so ago, what has this Society to do with so outlying a subject as that of baby-farming? But our Society not only interested itself in that matter, but instituted an inquiry upon it, and issued a report thereon, which went a long way towards the passing of a Bill in Parliament by which a scandalous waste of infant-life was, if not entirely done away with, at least brought within comparatively narrow limits. Honour to whom honour is due. Let us not forget that the two members to whom not only our own thanks, but also those of the whole State, were chiefly due are Messrs. Ernest Hart and Curgenvin.

In this age of specialism the student is taught that there are special centres for almost every operation and function throughout the economy, a centre for heat, another for respiration, and one for micturition. It may be that this is all correct, and that its acceptance will be co-existent with the science itself. Certainly it is correct at present, at least, as a subject matter for examination purposes, and as affording a good working hypothesis. But it is quite within the range of possibilities that, before another generation is set to work, the entire science of physiology will have to be rewritten in the light of fresh acquirements, and with entire disregard of such centres.

Froude truly says, "Philosophical belief at the bottom means a 'perhaps' and nothing more"; nevertheless, we are teaching it as if we were assured of its being truth itself. Thus I have heard it urged by an enthusiastic apostle of science that Haeckel's interesting work should be straightway constituted the recognised authority upon the history of creation, and that a knowledge of it should be rendered compulsory in every student of art and science. Let it be read and enjoyed by all means, but at the same time let us remember the words which its translator uses in another place (*Degeneration*, by E. Ray Lankester, M.A.): "In everyday life we have often to be content without fully testing the truth of our guesses, and hurry into action based on such unverified suppositions."

Twenty-five years ago physiology, as taught in our medical schools, was not worthy of the name of science; now she has developed into a subject of vast importance, and anatomy has had to make way for her. But I think that physiology has now raised herself to fully her proper position as a subject in the education and examinations of the ordinary medical student. The average student wishes to qualify himself as a trustworthy practitioner of medicine and surgery, not merely as a man of science. But with this increasing intellectual pressure the student of to-day is himself somewhat changed. In obedience to a natural law the individual student has adapted himself to the environment. The medical student of to-day is, by his previous education and by intellectual development, vastly superior to his homologue of a few generations back, and to what he was as I first knew him twenty-five years ago.

The medical student of to-day is crammed with a store of teaching which would do credit to a nineteenth century Solomon. He is expected to know a good deal about most branches of natural science, from the coniferæ—I would say, but for some reason it does not happen to be "official"—from the cedar of Lebanon to the bacillus that grows on the wall of the tubercular cavity; and yet, with all this, the day still contains but twenty-four hours, and the average weight of the

human brain has not perceptibly increased. His studies err in the way of diffuseness, and he does not know how much or how little will be eventually required of him—unless, perchance, he has had the advantage of attending the special course of instruction by the gentleman who is going to examine him. His examinations ought, therefore, to be conducted on the broadest lines and in the most liberal spirit. Unfortunately, he is not sufficiently left alone at his work. It is a case of lecture and demonstration, demonstration and lecture all day long, and sometimes in preparation for examinations, which are a test of cram rather than of knowledge.

There are several matters in which the environment has, however, recently been endeavouring to adapt itself to the student, in each case with the best intentions; but in each case with unfortunate results, at least in my opinion. Its method of procedure seems spasmodic and speculative. First, in the praiseworthy endeavour to insure that a student works in his first summer—a part of the year which in my time was chiefly dedicated to cricket and outdoor amusements generally—the powers that be have instituted a compulsory examination in materia medica and chemistry, which is held at the end of the first July. The idea of this first summer examination is excellent, if only the men would pass it. But, as a matter of fact, they do not; and the result is that, at the beginning of the second winter session, when they ought all to be settling down to the important work of the dissecting-room and the physiological laboratory, they are frittering away golden time over flowering tops and sliced corns, over test tubes and sulphuretted hydrogen. The occupation is harmless in itself, I have no doubt; but it amounts to little less than a crime when it is carried on at such a time.

If the men who have failed at this summer examination start work in October on the studies proper to that season, they do it in an uneasy, half-hearted way.

I sincerely believe that a knowledge of materia medica and chemistry is of the greatest advantage to us all, but I greatly regret that the medical student should be submitted to the risk of having his entire career wrecked over an attempt to acquire it. Yet so it is. And I therefore take this opportunity of urging that the requirements in these subjects be reduced to the minimum, and that the student be compelled to pass the examination in them before being registered at a medical school. This semi-professional examination would then be a boon to the medical student, for it would set him free for his proper school work; to his parents and guardians it would be a sort of test for his fitness for the profession which blind chance or stern necessity seems to have chosen for him; to the teachers of physiology and anatomy the change would be most blessed.

Another "adaptation" is that by which the student is permitted to break up the subject matter of his various examinations into small fragments. Chemistry now, materia medica later; anatomy without physiology; surgery divorced from medicine, and medicine from obstetrics. There is one particular in which, with all respect I say it, this new system is directly productive of harm to medical education. I refer to the power which the candidate now possesses of passing his examination in physiology when he is absolutely ignorant of anatomy, and *vice versa*. The fallacy, it seems to me, is abundantly manifest, but to make it absurdly clear let me cite an instance that occurred only last week. A candidate was asked by an examiner in physiology a simple question, the answer to which involved an elementary knowledge of the brain. Thereon the candidate politely informed the examiner that he did not know anything about the anatomy of the brain, that he was "only up for physiology" on that occasion.

There is an excellent way, it appears to me, of escaping from the dilemma without injustice to the student, and that is by issuing a syllabus of those physiological functions and processes in which a sound practical knowledge will be required. Better a sound knowledge in a dozen of the chief physiological functions than what I will call an official minimum thinly spread over the entire science.

Before ending my remarks upon medical education, I feel it my duty to lay bare before you what I consider to be the most heartless regulation of modern days. It has been issued by the University of London. After that terrible ordeal of the Preliminary Scientific Examination, there comes another of only slightly diminished rigour in anatomy, physiology, materia medica and organic chemistry. At the July holding of this examination, when the weather is apt to be hot and sultry, and the examiners would fain be getting away, they find their labours shortened for them in a most delightful manner, but entirely at the expense of the unhappy candidates. Formerly, those who had succeeded in passing the examination, and had sufficient energy left, were allowed to enter the lists for honours. But the Senate has recently enacted as follows:—

Every candidate for the July examination, on sending in his name for the

examination, must state whether he intends to compete for honours in any subject or subjects; and, if he does so intend, must specify the subject or subjects.

A candidate who enters for, but fails to obtain, honours in any subject, may be recommended by the examiners for a pass in that subject, if they are satisfied that he has shown such a competent knowledge thereof as is required by the regulations for the pass examination.

That is to say, that if a young fellow thinks that he knows enough organic chemistry to warrant his aspiring for honours in that subject, and happens to have over-estimated his attainments by but a few degrees, he not only fails to obtain those honours (which must now look very empty, I should think), but he even fails to get a pass-plate. You notice that the regulation says that the examiners *may* recommend him for a pass in that subject. But, for my own part, I would have little belief in the tender mercies of a gentleman who could, without a murmur, make himself a party to such a scheme. Moreover, a foot-note to the regulation honestly hints that when the weather is hot and sultry, Burlington House is no place for rest and grateful shade. Here is the foot-note:—

Candidates must bear in mind that the standard of attainment for the honours examination is much higher than that for the pass examination; and they should, therefore, exercise due caution in making their choice.

Of course they should be careful! But it is hardly necessary for the Senate to tell the student that it is much more difficult to attain to a pass standard in an honours paper than in a pass paper. "Every schoolboy" actually does know that.

To call an institution which could elaborate such refinement of unkindness, *alma mater*, is to misapply two sweet words. Let us rather call her *injuncta noverca*, for she is still the stony-hearted step-mother of our student days. And this, be it remembered, is the only institution through which London students can at present obtain a degree in medicine.

ON ONE HUNDRED CONSECUTIVE CASES OF CATARACT, MATURE AND IMMATURE, TREATED BY INTRAOCULAR INJECTION.*

By W. A. McKEOWN, M.D.,

Surgeon to the Ulster Eye, Ear, and Throat Hospital, Belfast.

THE question of intra-ocular injection in the extraction of cataract, brought by me before the profession in 1884, has occupied so much attention, particularly on the Continent, that I embrace the opportunity now presented of stating my views and my most recent experience before the representatives of ophthalmology of various nationalities.

From the time I began the practice in 1884 till the present time, I have used intra-ocular injection in every case in which it was indicated. I have followed generally the lines laid down in my address to the Ophthalmological Section at Belfast in 1884. My views at that time are my views now. I have proceeded cautiously step by step, operating on cataracts less and less mature, until I have reached the practical point of extracting lenses which are sufficiently clear to admit of patients going safely about, but presenting too much opacity to enable them to follow their occupations. I consider it a blemish on ophthalmic surgery that patients with opacities of the lens requiring very many years to develop to anything like maturity, as hitherto understood, should be obliged to go about doing nothing, losing health, strength, spirit, and, if without means or helping friends, to become inmates of workhouses or private charitable institutions.

I purpose now presenting to you the statistics of the last 100 operations for cataract, of all degrees of maturity and immaturity, in which I used intra-ocular injection, and I would remind you that you have no analogous statistics. There is a large number of cases of striated cortex with clear triangles interspersed, and of cases in which the surgeon could see more or less the details of the fundus. All these would be rejected by the surgeon practising ordinary methods as unsuitable for operation.

Of the 100 cases there were 81 cases of idiopathic cataract uncomplicated, 5 complicated by affections of the eye or its appendages, and 14 traumatic. Of the 81, 13 patients before operation could see to go about, and could count fingers from two to fifteen feet, but had not been able to work for a considerable period, and the fundus could be seen with more or less distinctness; 9 had striated cortex with triangular areas transparent; making in all 22 of various degrees of immaturity. In the 81 cases there were 8 escapes of vitreous, all

slight but one, and of these only 2 occurred during injection. The proportion of escapes of vitreous, though a little more than usual, has, therefore, no bearing on intra-ocular injection. As to the sequences of the 81 operations, there were:

1. One case of panophthalmitis occurring three weeks after operation. On the sixth day I opened the eye, expecting everything right, there having been no complaint. I found vitreous projecting in wound enclosed in unruptured hyaloid membrane. Bandage for two weeks having been continued without material improvement, I cut off projecting vitreous; panophthalmitis supervened. The operation had been perfect in every respect, and I think the prolapse occurred from some injury to the eye.

2. Three cases of pretty severe iritis; fair vision still remaining, and capable of improvement. One counts fingers at four feet, another at one foot, and another at six inches. The first was owing probably to syphilis and rheumatism, and the other two to impaction of iris in angle of wound.

3. Three cases of irido-cyclitis and choroiditis. *a.* One in case of patient (in whom double extraction was performed) who would not allow bandage to remain on for six days after operation. Fortunately only one eye suffered, and when he left hospital the eye was quiet and field good. *b.* Another in case of old congenital cataract with thickened capsule in man, aged 30. Removed thickened capsule with forceps; vitreous began to come; used scoop syringe, as I have sometimes done successfully in escape of vitreous, but in this instance was obliged to leave considerable part of lens behind. An iritis with a nodule of pus and inflammation of ciliary region developed after some weeks. Made a section; removed remains of lens with syringe with complete relief. Saw him lately, when I found eye perfectly quiet, perception of light good, and tension normal; but as other eye, also operated on, had good vision, I did not propose further operation. *c.* The third in case of man, aged 70, very nervous, and accustomed to stimulants in the morning, as I learned afterwards. Operation normal. On sixth day wound unhealthy, showing a slight focus of infiltration at one part of cornea, and a little pus in anterior chamber. Iris became involved; no pain. Treated by stimulants and hot steeping. Field of vision good, and could see bulk when I saw him a month ago. I have not seen him since, and cannot give further particulars.

Having entered into these details regarding the whole 81 cases, I shall refer in particular to the 13 very unripe cataracts.

CASE I.—Female, 65. (Counts fingers at 2 feet before operation); after operation reads 0.5 at 8 inches with + 18 D.S.

CASE II.—Male, 63. (Before operation counts fingers at 1 foot, pupil undilated); reads 0.8 at 8 inches with + 18 D.S. after operation.

CASE III.—Female, 70. (Before operation counts fingers at 15 feet); after operation reads 0.5 at 7 inches with + 18 D.S.

CASE IV.—Male, 61. Opacities in lens ill-defined, slight central haze of cornea; sees No. 3 Sn. at 4 inches; can see disc; extensive posterior staphyloma. After operation reads 2.25 Sn. at 4 inches with + 16 D.S.

CASE V.—Male, 57. Before operation counts fingers at 3 feet; after operation reads 1.75 with + 18 D.S.

CASE VI.—Male, 51. Able to go about. After operation, iritis. Syphilitic and rheumatic subject. After operation counts fingers at 4 feet; iridectomy indicated; other eye perfectly successful.

CASE VII.—Male, 63. Before operation counts fingers at 2 feet, can see large part of fundus; after operation sees 0.5 at 5 inches with + 18 D.S.

CASE VIII.—Male, 55. Sees 1.75 at 3 inches, very myopic always, vision same for years, can see fundus; after operation sees 0.6 at 4 inches with + 18 D.S.; will probably be further improved by tearing capsule. After tearing capsule he came to see 0.5 at about 10 inches with very weak convex glass.

CASE IX.—Male, 61. Iridectomy performed by another surgeon four years ago, probably for simple glaucoma; always very myopic; small radiate opacities only; can see fundus. After operation reads 1.75 at 4 inches with + 16 D.S. The vision was only slightly improved by operation; slight irritation and fluctuation of tension for a long time after operation; slight haziness of cornea.

CASE X.—Male, 55. Obligated to give up work a year ago; left eye simply a central cloudiness and some peripheral streaks of opacity; can see fundus. After operation sees 0.5 at 8 inches with + 18 D.S.

CASE XI.—Same patient. Right eye same condition; find he can read with great effort smallest type, but could not see far off, which he required to do for his work, and he desired operation. After operation and subsequent needling of wrinkled capsule sees 0.5 at 8 inches with + 18 D.S.

CASE XII.—Male, 50. Not able to work for four years, and vision stationary; can see fundus; superficial radiate opacities. On injection

* Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

some vitreous came with transparent cortex. After operation could read small type, but I have not note of exact particulars.

CASE XIII.—Female, 64. Other eye operated on previously successfully; can see fundus, but in a haze. On sixth day after operation severe pain, which I found owing to impaction of iris in one angle of wound; removed incarcerated iris; eye became quiet, but requires iridectomy. Counts fingers at six inches.

Several of these thirteen cases represent the ultimate point to which ophthalmic surgery in the matter of cataract operations can be expected to reach.

As to the other nine cases of immature cataract, with striated cortex and transparent segments, the results were all excellent.

I have nothing to remark about the five complicated with serious affections of the eye and its appendages, save that in one complicated with a chronic dacryocystitis, which latter affection was treated in the usual way for a week before operation, the eye was lost from suppurative of the cornea, notwithstanding thorough antiseptic treatment before, during, and after operation, including injection of M. Panas's solution into the interior of the eye, and application of Galezowski's gelatine antiseptic disc over the wound.

Of the fourteen cases of traumatic cataract, a considerable number were immature, but I have only to note one mishap—namely, a panophthalmitis starting from the wound, notwithstanding thorough antisepticism, so far as it could be carried out. The patient was beyond control. He would not allow bandage to remain for ten minutes at a time after the operation.

I have entered into these particulars because without them bare statistics would be very misleading. Of the three cases of panophthalmitis in the whole hundred, not one can be attributed to the injection, and not one could have been avoided except by not operating, or by putting the patients under a sort of prison discipline. Of the three cases of iritis in the 81 vision may be improved, and of the three cases of iridocyclitis I can only speak definitely of one; but assuming that the other two, which I have not seen for some time, have taken the worst form, I should only have a total of 3 complete losses in 81 operations on idiopathic uncomplicated cataract, including the 22 unripe.

I shall now touch very briefly on some general questions.

1. Is injection of distilled water previously boiled and reduced to the temperature of the body attended with any appreciable danger as regards the introduction of germs within the eye? In all cases except thirty (in which I injected M. Panas's solution), I have used distilled water, and in not one case have I seen any evidence of intra-ocular inoculation.

2. Is injection dangerous because of the force employed to remove cortex? As may be observed from the notes of unripe cataracts operated on, the water must have exercised considerable force to clear out transparent and sticky cortex, yet the results are quite as good as in the ordinary operations for mature cataract.

3. Is the injection of M. Panas's solution desirable? I have injected it only 30 times in 100, and therefore cannot speak very decidedly about it. I would remark, however, that in two cases it did not prevent suppuration of the cornea and panophthalmitis; true, in one case there was an affection of the tear passage, and in the other the patient was unmanageable. I fear it has an influence, though it may be a small one, in causing iritis. I have seen extensive posterior synechie and muddiness of posterior surface of the cornea arise from its injection into the anterior chamber after removal of a cyst of the iris. At any rate, I have found no advantage from it, and have abandoned it.

4. Is the injection of M. de Wecker's solution of eserine desirable? I have injected it nine times, and I have used the solution a considerable number of times by simply pouring it into the conjunctival sac, and easing the pressure of the eyelids on the ball, so as to facilitate the entrance of the solution into the anterior chamber, and I have found that the latter mode is quite as effectual in contracting the pupil as the former, indeed, perhaps more so. I do not apply the bandage till the pupil is well contracted. I have noticed in some instances some adhesions, and have been obliged, because of pain, occasionally to apply atropine; but I have so far found no positive disadvantage from the eserine. I wish to do strict justice to M. de Wecker's eserine treatment, and therefore add that in one respect I have not followed his advice, namely, in removing a piece of the anterior capsule. I have simply torn it freely.

5. Should force be used in the injection? I consider it impossible to remove the cortex in the majority of cases of immature cataract on which I operate without force. The more cortex left behind, the less likely is force to do harm, and the more it is required. I am never troubled because of the quantity remaining after the nucleus is expelled. It is a mistake to suppose that one injection—at least by the

old syringe, whose piston was too easy—is always enough. Sometimes two or three are required; but it is probable, with the improved piston of the new syringe, the clearing out of the cortex may be more easily accomplished. Experience teaches the surgeon what he can safely do. He should use injection at first in cases in which he is not likely to experience any difficulty; then take up cases of striated cortex not far from being ripe; and, finally, cases of very slowly progressing cataract, such as those of which I have given particulars. In this way he will acquire confidence and the dexterity born of experience.

6. Allied to the question of force is that of the instrument to be used. One of the most striking things about this question of intra-ocular injection is the number of instruments devised since 1834. I at first used the force of gravitation, and changed to injection. M. Wicherkiewicz uses the force of gravitation from his "undine," and the force may be considerable. M. Panas describes his instrument as follows: "L'instrument laveur du globe est analogue à un compte-goutte muni d'un tube en caoutchouc durci." M. de Wecker's consists of a body like a small sized ear speculum, the wide extremity being covered by india-rubber, and the small end having a silver terminal to introduce into the eye. He says: "C'est évidemment le meilleur instrument de contrôle car la pulpe si sensible du doigt indicateur appliquée sur le tambour permet de régler avec la plus grande précision le degré de pression qu'on veut exercer pour introduire le liquide à injecter dans la chambre antérieure."

M. de Wecker also points out as an advantage of his instrument and method, that the danger of suction is avoided, and the tension of the eye estimated and regarded. If the tension is high, the small aperture in the nozzle of his instrument may be obstructed. I hold that the instrument should be so constructed and capable of exercising such force as to clear out the remains of the lens, without regard to tension. The very small instruments, with small capacity, with tiny nozzles and small slits and holes in the sides and in front are insufficient to cope with ease with unripe cataract, but are doubtless useful in washing out the anterior chamber and interior of the capsule in ordinary operations. My instrument is so constructed as to yield a free and broad flow regulated in its force by the finger on the piston, just as the force in M. de Wecker's instrument is regulated by the finger on the india-rubber covering of his compte-goutte. The finger is just as delicate a regulator of force in one case as the other.

In the new instrument I present to you you will find many changes. There are two bodies of syringe of different lengths, and various nozzles of different lengths widths and forms to suit different hands and sections of different position and size. I have found that the syringe and nozzle hitherto in use are unsuitable for the upper section in very prominent eyes, particularly if the hand of the operator is short, and likewise for lower and for lateral sections. I have, therefore, provided short nozzles of various widths and lengths. The chief idea to be borne in mind is: that the various nozzles are only the channel for conveyance of the water power, and are not to be regarded as ordinary scoops or levers, and are therefore not to be considered as agents for exercising the ordinary mechanical force of scoops. The terminals with a little ledge at the end, like that of Critchett's scoop, may be used as scoops, but they are only meant by a little to aid movement, and not by a leverage action, to aid the removal of masses of adherent cataract set in motion by the water. A new form, with a scooped out part at each side, is meant to break the force of the water in cases requiring little force.

7. Should iridectomy be performed? In one of my papers I stated that I considered iridectomy should be performed in all cases of intra-ocular injection. M. de Wecker points out, however, that intra-ocular injection has a marked influence in causing contraction of the iris, and therefore ensuring a greater immunity from the old blot in the old flap operation—prolapsus of the iris. He adds to the beneficial effect by using a solution of eserine instead of plain water. He, however, considers iridectomy necessary in immature cataract. I entirely agree with his view as to the restriction of iridectomy, and now I always operate on cataracts, mature or nearly mature, in patients on whose obedience to instructions reliance may be placed, without iridectomy; but in very immature cataracts with iridectomy. I do not now, as a rule, inject eserine into the eye, but instil it freely, as I have already stated.

8. General applicability of intra-ocular injection. A point which cannot be too much impressed is the wide sphere of usefulness of intra-ocular injection. It may be used in every sort of extraction except the extraction of the lens in its capsule; for example, in the flap operation, old or new, with or without iridectomy; in Graefe's operation, in simple linear extraction, as a substitute for the old spoon extraction and the suction operation. It may be applied in unripe idiopathic cataract and unripe traumatic cataract. Its universal

applicability is one great feature. The gentle, moderate, and diffused power of a fluid is substituted for leverage instruments and pressure outside the eye. It rejuvenates old methods discarded, unsettles old notions about ripeness of cataracts, and brings us nearer the goal of the surgeon—to give speedy and effectual relief to sufferers hitherto doomed by imperfect methods to long years of delay and misfortune.

I do not wish to say that any one of all the instruments devised for intra-ocular injection is perfect. I wish to emphasise the method as that of the removal of cortex by the force of a fluid. The operation for cataract is a purely mechanical procedure, and I hope that year by year we shall more and more perfect our appliances, and that all the instruments we have hitherto devised may be replaced by others more effectual, and that by our labours we shall increase the sum of human happiness.

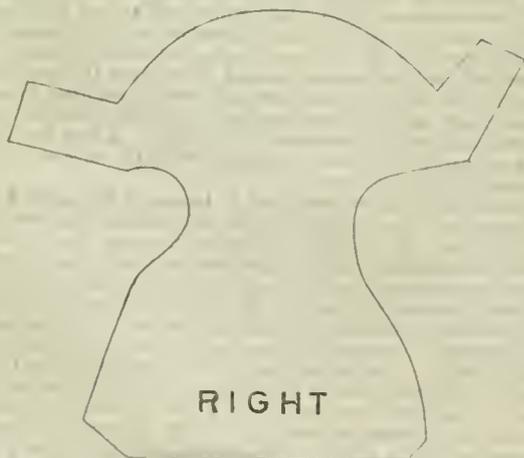
ON THE AFTER-TREATMENT OF CATARACT AND OTHER OPERATIVE CASES TO THE EXCLUSION OF DARK ROOMS, BANDAGES, Etc.

By SIMEON SNELL, M.R.C.S.,

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WHEN a new method of treatment has been advocated, especially when at variance with the plans usually adopted, it appears to me to be only fitting that he who is responsible for such advocacy should, at a subsequent date, state whether or not further experience has confirmed his views. These are the reasons for my reading this brief communication. For it may be recollected, by some at all events, that in an article in the *Lancet* nearly twelve months ago (September 18th, 1886), I spoke in high terms of a mode of treating cataract and other cases after operation without the stereotyped bandages, dark rooms, etc. Instances of operation cases in support were recorded, and I said I was disposed to adopt Chisholm's words, "From this times hence all bandages, compresses, and dark rooms will be among the things of the past, to be remembered only for the discomfort they occasioned."

My subsequent experience confirms all I stated in my first article. The plaster method has now been used in my hands in forty-eight cataract extractions in hospital and private practice, and in over one hundred other operations, including several for traumatic cataract, needlings for congenital cataract, opaque capsule, iridectomies, sclerotomies, and others. The stay in hospital of the cataract cases has been shortened, and the comfort to the patients has been great. Those who had previously undergone treatment under the old *régime* readily appreciated the altered conditions of the new plan. The mode of cutting and applying the plaster recommended by me I have found very convenient.



The engraving gives the metal shield for cutting the plaster in the desired shape. By reversing it the same does for each eye, and is marked a and b on the respective sides.

I have reason to believe that others in different parts, since the appearance of my paper, have adopted the plaster treatment.

Chisholm (*American Journal of Ophthalmology*, June, 1887), who

¹ Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

with Michel, was in America the advocate of this revolution in the after-treatment, has advanced beyond the position to which I alluded last year. Now he finds closing one eye sufficient, and no longer requires the patient to take to his bed; he lies on a lounge, and retires at ordinary bed time, and dresses before breakfast in the morning. "His present practice is to treat the wound made in the extraction of cataract as if it were an ordinary corneal wound, such as we daily see resulting from accident." At the end of the first week the patient can be allowed the privilege of the entire house.

From the first in cases of operation for traumatic cataract, and in some iridectomies and sclerotomies, I have not always seen the necessity of fastening up both eyes, and bed, has, after the day of operation, been dispensed with. As far as cataract extractions are concerned, there have appeared to me to be advantages in securing both eyes, and I should rather hesitate to regard them merely as ordinary corneal wounds.

ON THE OPERATIVE TREATMENT OF ZONULAR CATARACT.¹

By DAVID LITTLE, M.D.,

Senior Surgeon to the Royal Eye Hospital, Manchester; Lecturer on Ophthalmology, Owens College.

IN bringing the subject of zonular cataract before you, it is my intention to make a few remarks on the operative treatment, and I shall confine my observations chiefly to those cases of ordinary uncomplicated zonular cataract in which there is no arrest in the development of the eye, no shrinking of the lens, and no vitreous opacity or deeper seated disease.

I may say at the outset that I have nothing new to offer in the way of operation, beyond advocating a method which I have found from experience to be the best for gaining good vision. It is this, that when destruction of the lens is decided upon, I recommend a free crucial rupture of the capsule with a needle, so as to make the whole lens opaque and more soft, and two or three days afterwards to perform extraction by means of a Teale's suction instrument.

The disturbance of vision caused by zonular cataract depends altogether upon the extent and density of the opaque layer. If, on dilating the pupil, the zone is broad and perfectly transparent, vision may be fairly good; on the other hand, if the central opacity is great, considerable reduction of sight must exist.

My experience in the examination of the refraction in these cases is that some are emmetropic, a few only are hypermetropic, but the great majority are myopic. I never fail to test the vision before and after atropine, at the same using lenses to correct any defect in the refraction.

In the case of very young subjects whose vision cannot be accurately ascertained I postpone all interference for a time, unless it is quite manifest from the extent of the opacity that sight is bad. It is upon such an examination as this that I base my opinion for operative interference or otherwise.

I recommend destruction of the lens in all cases that are found to be of a progressive character, also in non-progressive cases where vision equal to at least twenty-fiftieths is not obtainable, after dilating the pupil with atropine. I would go further than this in exceptional cases, and say, if I found that twenty-fiftieths was not sufficient sight for the requirements of the patient, and if he or she were between the ages of 10 and 25 (which I consider the most favourable age for operation), with perhaps some myopia, and all other conditions favourable, I would not hesitate to recommend extraction. When the lens, then, has to be dealt with, there is the operation by solution. This is a tedious process, and I hardly ever adopt it in zonular cataract.

I have been most satisfied with the suction operation. Having dilated the pupil, I make a free rupture of the capsule across the pupil extending from margin to margin; a similar rent is made from above downwards, keeping the needle well in the anterior part of the lens. The capsule is extensively ruptured in this way to cause its retraction well behind the iris, and so avoid secondary operations; the needle should not penetrate too deeply for fear of rupturing the hyaloid or dislocating the lens. A light bandage is placed over the eye, the patient is kept quiet, and atropine freely used to dilate the pupil. After two or three days, or more, according to the condition of the eye, extraction is performed by a Teale's suction curette. This is accomplished by making an incision in the outer part of the cornea, halfway between the limbus and centre, with a double cutting edged needle from 3 to 4 millimètres broad. Through this wound the curette

¹ Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

is introduced into the area of the pupil, taking care not to push the open end behind the iris or too deeply into the pupil. Suction is then applied by the mouth, and by this means the whole of the pupil can be easily and rapidly cleared. The patient is then placed in bed, with a light bandage over both eyes; atropine is again used to keep the pupil dilated, and in the course of a week or ten days recovery may fairly be expected.

I have tried a Bowman's suction syringe, but I much prefer Teale's. The advantages of the latter are that suction can be better regulated by the mouth, and the hand is left free to guide the curette, while in the case of Bowman's there is a difficulty in applying suction by the hand, and directing the curette with it at the same time. The advantages of suction over ordinary linear retraction are that the pupil can be cleared with greater certainty, and there is little or no disturbance to the eye by pressure, two conditions, I think, of the greatest importance.

It is said by some there is a danger of suppurative iritis or iridochoroiditis in this suction operation. Speaking from my own experience, I have never met with symptoms so serious as to cause anxiety; and I consider the operation a safe one, if performed with care and judgment. I am careful that the curette is absolutely clean before use, and of late years I have used antiseptics at the time of extraction. On looking over my hospital and private notes during the last eight years, I find that I have performed this operation in forty-two cases, and in the great majority of them I have secured brilliant results as regards sight. The records of some of them are somewhat imperfect, particularly as regards the resulting vision, partly from the youth of the patients, and partly, also, from the difficulty of following up hospital cases. The condition of the eye, however, has been noted in all. In no instance has there been a failure. In three cases there was synechia anterior; in five cases secondary operations had to be performed on account of capsule. In all the others there was a perfectly clear and round pupil, and I attribute this freedom of the pupil from capsule to its extensive rupture in the preliminary operation. The ages of the patients ranged from 5 to 27 years, and I have followed the usual practice of operating upon one eye only at a time.

Regarding iridectomy, I would say that if dilatation of the pupil improves vision to twenty-fiftieths with or without glasses, this operation, generally speaking, should be adopted, with a few exceptions to which I have already referred.

I should prefer iridectomy also, even when only a moderate improvement of sight can be obtained, in all cases accompanied by some mental defect in the patient, arrest in the development of the eye, shrinking of the lens, or when there is evidence or suspicion of posterior disease. When a small iridectomy is desirable, the best method is that recommended by Mr. Anderson Critchett, in a paper he read before this Association, at Worcester, in 1882, to which I would refer you; he uses a broad needle, and a Tyrrell's hook, both instruments bent almost at a right angle, and excises a small portion of the pupillary margin of the iris downwards and inwards, leaving the periphery untouched.

Referring to the current belief that zonular cataract remains stationary throughout life, I have no conclusive evidence to show that opacity has ever become developed in a zone once absolutely transparent; but I believe that later in life, when the lens becomes harder, the opacity extends to the deeper nuclear layers, and so causes serious deterioration of sight. I have seen at least four cases about 50 years of age, in whom sight had become slowly reduced to 20 Jäger, apparently from no other cause than an increased density of the central opacity, involving the whole nucleus.

In operating upon such cases by the ordinary method for hard cataract, I have always found the eye most intolerant of operation. In every case, more or less, iritis followed, and many weeks elapsed before recovery took place.

The main purpose of this paper is a recommendation to perform extraction by suction oftener than is generally done, because I think that cases are frequently treated by the easier method of iridectomy, in which the resulting vision is disappointing to both patient and surgeon. Another object is to elicit information regarding the progression or otherwise of this form of cataract.

Dr. EMRYS-JONES said that his experience led him altogether to question the desirability of injecting any fluid whatever into the anterior chamber after cataract operations; he thought that there was considerable danger of introducing germs in this way, and that there must be greater liability to set up iritis and other complications. He had for the last two years used Mayo Robson's dry eucalyptus spray apparatus in cataract extractions, and he had about 130 consecutive cases without a single case of suppuration of the cornea and

with very few cases of iritis. The resulting vision had been in the majority of cases very good.—Mr. BERRY had seen three cases performed by Dr. McKeown, and must admit that his method was fairly efficient as far as the removal of cortex, which might otherwise give rise to difficulty, was concerned; but as it produced not a little irritation he (the speaker) had not adapted it until more experience had been accumulated. With regard to Dr. Little's excellent paper it was interesting to find that Dr. Little used suction. He (the speaker) had always found linear extraction, which must, however, be done by means of a sufficiently large incision, 4 to 5 millimètres, practically in every way efficient.—Mr. McHARDY considered that, having regard to the published analyses of the water supplied by the various London companies, Dr. McKeown's "pumping proceeding" must be fraught with great danger from the introduction of germs. He had been accustomed to utilise the aqueous humour as a solvent for any remaining cortex; this was rapidly resecreted after its escape, and if the eye be closed for a few minutes after the escape of the nucleus, the admixture of aqueous with the cortex materially facilitates its removal by friction. In the cases of immature cataract in which operation was indicated he adopted Förster's plan of artificial maturation.—Mr. PRIESTLEY SMITH thought that Dr. Chisholm's claim that he had introduced a novel method, which would revolutionise practice, went beyond the merits of the case. His friend Mr. Hodges would bear him out in saying that at the Birmingham Eye Hospital, fifteen years ago, closing the lids with strips of black court plaster, without pad or bandage, was a favourite method of dressing cataract operations. The speaker had employed it largely, and decidedly preferred it in glaucoma iridectomies. It was, he believed, a very old line of practice. In using adhesive plaster, it was important to leave an exit for tears, and he thought itching was rather more apt to occur than under the pad and bandage. As to confinement in bed, it was not of great moment whether we kept our patients in an upright or in a horizontal position, but it was very important to avoid frequent or sudden changes of position. Sudden changes in the pressure of the blood column easily led to reopening of the wound and to hemorrhage into the chambers. Such slight transgressions as stooping to reach a shoe or to move a footstool, or, as in one case of his own, carrying a coal-hox, were dangerous shortly after cataract extraction. If operating surgeons were going to disregard common sense and time-honoured principles, we should soon hear of disasters. With regard to dark rooms, the speaker's own hospital patients lay in large wards, occupied also by medical cases. He gave more or less protection by a bed-curtain, but had never employed dark rooms.—Mr. ADAMS FROST had used Dr. McKeown's method on several occasions, and as far as its mere mechanical effect was concerned, had found it as efficient as friction; the risk of infection, however, rendered it imperative to take elaborate precautions, and as there was always the uncertainty beforehand whether injection would be required, this had led to his abandoning the proceeding.—The PRESIDENT said that Dr. McKeown's method was not one that recommended itself to his surgical instinct, and the results that Dr. McKeown had himself adduced would not encourage him to attempt it in the future.—Dr. McKEOWN, in reply, said with respect to the surgical instinct of the President being against intra-ocular injection, the surgical instinct of the profession, as a whole, in relation to new operations, was invariably wrong for a variable period of time, when the new operations were much at variance with old practice and preconceived notions. The surgical instinct of the profession generally was long against ovariotomy, but the surgical instinct of the ovariotomists had proved to be a safe guide. The same held about more recent questions. The President had taken an entirely wrong view about the bearing of the statistics. A little escape of vitreous was not a serious matter, and, in the eight cases referred to, only two had any relation to the question under discussion, namely, intra-ocular injection. His paper, when carefully read, would show that, taking the whole cases, complicated and uncomplicated, ripe and unripe, idiopathic and traumatic, the statistics were most assuring, and quite equal to the statistics of selected cases of mature cataract. In the whole 81 cases of idiopathic cataract (including 22 cases of most unripe cataract, on the majority of which no surgeon with the ordinary methods would operate), there were only three total losses at the utmost. As to the case of the President, in which injection did not remove any unripe cortex, the probability was that the terminal had not been introduced inside the capsule. The President thought that some of the cases described were not simply immature cataract, but incipient cataract; but, if incipient cataract of one to three or four years, or more, standing could be operated on by injection, nothing further was required to put it on a level above any other operation ever practised. Dr. Emrys-Jones and Mr. McHardy, without having had any experience

of the method, or even having seen anybody use intra-ocular injection, had condemned it. No doubt the most competent critics were those who knew nothing practically about it—of course, they were far better able to judge of it than one who had been using it for three years in a public institution, open to the profession, and who had, on every occasion possible, demonstrated its utility to students and medical men. As to the cases mentioned by other speakers, they only amounted to six or seven, and they were not to be taken into serious consideration in face of the details Dr. McKeown gave in his paper, and of the experience of the most distinguished Continental ophthalmic surgeons. Mr. Priestley Smith inquired respecting the size of the nozzles. It was well known that, if water be driven with force through a very small opening, the force exerted on a limited area was very much greater than if the same force were exercised through a wide opening. The object was to direct a pretty uniform force on the whole of the internal surface of the capsule, and not a strong force on any one point. The nozzle being broad and the slit long, this was accomplished. Besides, the broad nozzle gave support to the vitreous humour. The capacity of the body of the syringe was considerable, as it was a mistake to have only a few drops when force had to be used. When the operator had more than he required, he need not use it; when he had too little, he had to remove the instrument, and replenish it.—Mr. SNELL, replying to the remarks made on the treatment advocated in his brief communication, pointed out that many of the subjects raised had been dealt with in his former article. The mode of cutting the plaster allowed for the escape of tears, and patients did not complain of any discomfort; but those who had been treated otherwise on previous occasions acknowledged the greater comfort of the plaster treatment. He was not aware that Mr. Priestley Smith had used plaster so much in his practice. The method he had advocated, however, appeared more complete than had previously been adopted. Referring to Dr. Little's paper, he remarked that he had not seen the danger from using the suction curette which in some hands had been experienced. For some time he had used suction very little because it appeared unnecessary, for if the lens were well hooked up, the softened matter readily escaped through a small corneal wound. His rule was to introduce as few instruments as possible into the eye.

A CONTRIBUTION TOWARDS THE ETIOLOGY OF PHTHISIS.

By R. W. PHILIP, M.A., M.D., F.R.C.P. EDIN.

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It is not my intention to discuss the morbid anatomy of the phthisical lesions, nor the dependence of the phthisical process on the presence of the tubercle bacillus, nor the important questions of heredity and of climatic and other influences, which bulk so largely in the etiological chapter.

For the present, I start with an acceptance of the doctrine of the unity of the phthisical process, and of the immediate dependence of the process on the presence of the bacillus. The rigidly exact observations and experiments of Koch and others have, in my judgment, placed this beyond doubt. I prefer, at least, not to raise the question now. But, in spite of the comparative fulness and clearness of our knowledge in these lines, it appears to me that we are far from a rational conception of the actual cause of death in phthisis. It was with the view of further elucidating this higher etiological problem that the present investigation was undertaken.

A glance through the literature of the subject reveals how seldom the attempt has been made to solve the problem, how comparatively seldom, indeed, the question has been raised. Where the matter has been discussed, explanations have been offered, which may be classified roughly under four heads, namely: (1) progressive asthenia; (2) loss of hæmatisis; (3) the lighting up of fresh inflammatory foci; (4) the absorption of waste products. Now, I have no desire to depreciate the value of these as integral factors in the process. My contention is that, in view of the comparative regularity of the clinical phenomena, and in the light of more recent work, they do not afford sufficient explanation. Each of them was fully discussed prior to the discovery of the tubercle bacillus, and Jaccoud, more especially, has the credit of emphasising the importance of the fourth, namely, the absorption of waste products. Since the announcement of the tubercle bacillus, comparatively little has been added in this

direction, though the features and clinical course of an ordinary case of phthisis and those of experimentally induced tuberculosis are well defined and strikingly similar.

What, then, is the *modus operandi* of the tubercle bacillus in leading towards death? Its fatal properties cannot, I think, be regarded as merely irritant or privative. In all probability they are attributable to a power possessed by it of elaborating new products, which are afterwards absorbed.

Before explaining on what facts I base that statement, I ought to mention that Dr. Hermann Weber has hinted at the probability of such elaboration and absorption. In the Croonian Lectures (1885) Dr. Weber speaks of "the chemical poison which probably is originated by the development of the tubercle bacillus in the tissues in an analogous manner, as, according to the researches of Gaspard, Panum, Billroth, Burdon Sanderson, and others, a powerful chemical poison—sepsin—is developed in the process of septicæmia." I am not aware, however, that up to the present any attempt has been made to treat the matter more seriously. Whether the suppositious product or products are secreted by the bacillus or are elaborated from the tissue which it infects raises another question which must be discussed later. It is enough, meanwhile, if we recognise the probable dependence of these new products on the presence and action of the bacillus.

Such a process of elaboration or secretion has its analogue in the more evident varieties of fermentation, which have been studied by Pasteur, Schützenberger, and others; for example, the alcoholic, the lactic acid, the butyric acid, and the ammoniacal. More particularly the view appears to me substantiated by the following weighty evidence. The association of special forms of microzymes with special forms of fermentative action has been conclusively demonstrated by Pasteur and a large school of subsequent observers. A distinct variety of fermentation as certainly follows the admission into a suitable medium of a given microbe, as the exclusion of the same microbe excludes the possibility of its occurrence. Further, the rearing of pure cultivations has shown that different effects are obtained, though some of the observations in this direction are open to question, and, certainly, marked differences in the rate of growth are observed, according to the constitution of the medium in which the cultivation is attempted, while certain organisms are most exclusive in their selective affinities. Moreover, if the same medium, say Koch's gelatine, be utilised for the cultivation in different tubes of different microparasites, the effects produced on the medium are very different in the several instances. Even in the gross, such differences, for example, in the rate and amount of liquefaction in the production of certain gases are marked. And it is in the highest degree probable that careful examination of the medium after cultivation has been carried on for some time would show important alterations in its chemical constitution, as occurs in the better known forms of fermentation. In other words, the living organism has the power of disturbing, or rather, in order to the preservation of its own life, the organism is compelled to disturb, the molecular arrangement of the elements in the medium of cultivation.

These considerations open up a wide and promising field for investigation. This appears the aspect of bacteriological observation, which is pregnant with most results. In illustration of this, the work of Panum, Selmi, Gautier, Brieger, Bergmann, and Schützenberger, need only be cited.

In practically applying this hypothesis to the problem of phthisis, I directed my attention first of all to the urine. The results obtained, which have been given elsewhere, were not sufficiently definite in character to warrant their citation here. Examinations of portions of the diseased organs, or of their glandular appendages, was abandoned, as it was found impossible to have these sufficiently fresh to avoid the objections that would inevitably assail successful results so obtained. This led to the adoption of the sputum as the *materies morbi* for investigation, and that, on the following, among other, grounds:—

1. The sputum is the constant accompaniment of the morbid condition, and stands in a peculiar relationship to the diseased organs.
2. It is always accessible in large quantity, fresh, and, therefore, as much as possible free from such contamination as might be supposed to introduce fallacy.
3. It has been shown that the maximum amount of the contagious element resides in the sputum.
4. Having regard to the conditions of growth of the tubercle bacillus, it seems likely that the muco-purulent secretion is a peculiarly good medium for cultivation.
5. It has been proved that tubercular sputum retains its virulence for months.
6. The presence of the tubercle bacillus can be comparatively easily determined, while with greater care its relative abundance in different specimens may be gauged.
7. The sputum

can readily be subjected artificially to similar conditions outside the body as within the chest. 8. Much of the experimental work already carried out with reference to tuberculosis has been done by the subcutaneous and intravenous injection of unaltered phthisical sputum (cf. the work of Villemo, Chauveau, Biffli, Vezz, Semmer, Tappiner, etc.). 9. Collateral evidence from the side of other ptomaine investigations seems to imply that the ready access of oxygen to the centre of ptomaine production aids considerably in their rapid and abundant development.

After approaching the subject in a variety of ways, with a remarkable constancy of results, I thought it best to institute a series of experiments with extracts obtained from different phthisical sputa by such methods as could be least open to objection in respect of complications introduced from without.

Method.—The sputum was carefully collected in a clean vessel, preferably a closed jar, with central hole for the entrance of the expectorated material, such as is used in some of the Edinburgh Royal Infirmary wards. In the selection of the patient the greatest care was exercised. *a.* Only such cases were made use of as showed undoubted signs of advancing phthisis. *b.* No case was accepted where the temperature chart did not record a more or less persistent elevation. *c.* After the first two or three examinations it was found best to restrict the selection to subjects where possible impurities from smoking were absent.

Similar care was taken in the selection of the sputum. *a.* The sputum was rejected when any foreign admixture was present, such as vomited materials. *b.* It was rejected when saliva was present in appreciable amount. *c.* The reaction of the sputum was tested, and only such admitted as gave an acid or neutral reaction. This last condition was found always associated with a peculiar odour which may be regarded as *sui generis*. *d.* The presence, and approximately the relative abundance of the tubercle bacillus was in every instance ascertained.

The sputum, thus carefully collected for twelve or twenty-four hours, is at once subjected to further examination. Its bulk is measured, and three volumes of rectified spirits are added to it. The mixing process is carried out *guttatim*, so that the separation of the elements of the sputum may be rendered complete, and the admixture made as intimate as possible. If the sputum be neutral, or but faintly acid, a trace of tartaric acid is added to the rectified spirits previous to mixing. The whole is transferred to a Florence flask. Its mouth having been protected by a fine muslin rag, the flask is placed in a Koch's steam steriliser, and exposed to a gentle moist temperature of 36° to 40° C. for twenty to twenty-four hours. At the end of this time the fluid is carefully filtered, first once or twice through fine muslin, and then three or four times through filter paper, till the filtrate runs off perfectly clear. Its volume is then measured, and the whole evaporated down in open beakers to one-fifteenth of its bulk (*circa*). This reduces it to the consistence of a more or less muddy extract, varying in colour according to that of the original sputum. The latter part of the process is conducted slowly, with the view of driving off all remaining trace of spirits, and to prevent the escape of other volatile products.

The extract thus obtained was utilised for injection. With regard to its constitution, it must be observed that it is as pure an extract as can well be obtained of the carefully-selected sputum. The only additions made are measured quantities of faintly acidulated rectified spirit. This, in the process of slow evaporation to one-fifteenth of its original volume, was presumably entirely given off; so that, in observing the results, we have to deal with the effects of a fairly purified extract of phthisical sputum—that is, sputum minus the coagulable elements, separated out by the addition of the rectified spirits and the after-process of filtration.

It should be further mentioned that the extract, when properly prepared, is most unstable; and, being extremely liable to the attack of fungi, breaks down in a few days, giving rise to new products. The extract was, therefore, never used for experimental purposes after it had been prepared for three or four days.

Four series of experiments were conducted with the extracts so obtained: 1. To observe its effects on the system generally. 2. To observe its effects on the circulation; that is, on the cardiac rate. 3. To test the antagonistic effects of certain drugs, especially atropine, as regards the system generally. 4. To test these antagonistic effects as seen more especially in the cardiac rate. It is impossible here to give details of the numerous experiments conducted under these heads, but the general results may be summarised.

SERIES I.—*A. On Frogs.*—Thirteen experiments carried out with varying quantities, and under a variety of conditions, yield results of striking uniformity, and point to the presence in the extract of a

toxic principle, or of toxic principles, of considerable potency. The results differ only in degree, a progressive increase in the intensity of the symptoms being observable with the increased dosage. The general line of symptoms is that of the gradual development of voluntary motor depression. In no instance was a stage of excitement traceable. This condition of depression appears, in part, explicable by a toxic influence exerted on the higher centres. This is evidenced by the general character of the depression, by the sluggish nature of the movements while co-ordination remains little affected, and by contraction of the pupils. The spinal cord appears to be unaffected, the reflexes remaining normal throughout in the less severe cases, and in the graver being unaffected till later on.

B. On Mammalia.—In mice it was found possible to induce distinct symptoms with 0.3 cubic centimetre of the extract. These symptoms resembled in general character those observed in the frog, and passed off gradually in the course of an hour or two. With increased injection, the intensity and duration of the symptoms were correspondingly increased. As in the frog, the scope of the symptoms suggested implication more especially of the higher centres. There was the same early appearance of gradually advancing depression. This, as before, was not preceded by any trace of excitation. In the course of ten minutes the animal invariably became quieter, the stage of quiescence passing on to more or less complete passivity and disinclination for movement, according to the amount injected. In the lighter cases this was gradually recovered from. In the more severe cases it deepened into death, or death followed after more or less complete approach towards recovery. In addition to these symptoms, common to frogs and mice, certain well-marked phenomena were observed. Among the more striking of these should be noted fibrillary twitching of the surface of the body, and convulsive movements of the trunk and limbs. Regarding changes in the respiration, it has to be borne in mind that the estimation of the rate of breathing is always difficult in mice. The general impression, however, was that after the preliminary excitement there remained a certain increase in the respiratory rate, to be followed later, when symptoms were sufficiently prolonged, by retardation. In those animals which died after prolonged symptoms, anorexia was a conspicuous feature, while water was drunk freely.

In rabbits, comparatively large quantities of the extract were required to produce urgent symptoms. On economic grounds this line of experimentation was less systematically carried out. So far as they go, the results obtained were in strict accord with those just detailed. Of greater interest, however, in the case of the rabbit, was the effect of daily repeated small doses. Thus, for example, two rabbits were fed on measured quantities of oats and water, and their weights registered for some days, until the daily register became fairly constant. The same conditions were continued, with the addition that once in the twenty-four hours each animal received subcutaneously small injections of the extract. Presumably as a result of this, their weights progressively decreased by amounts varying from one-fourth of an ounce up to one ounce per diem, and the amount of food consumed was reduced to one-half, and on one occasion to one-quarter, of the amount previously consumed in the corresponding time. After some days the system appeared to grow more tolerant of the morbid material, as it was found necessary to increase the dose to produce the same effect. At the end of ten days the injections were discontinued, and the weights, without increasing, remained almost constant for a week or two. Then a gradual progression downwards, apart from fresh injection, was observed, each animal continuing to lose a fraction of an ounce daily until death. It appears likely that the early loss of weight was due directly to the action of the morbid product, which doubtless led to loss of appetite, etc. This is evidenced by the daily loss of weight corresponding with the dates of injection and by return to a more constant condition when the injections were stopped. The later progressive loss of weight, apart from injection, is more difficult of explanation. We may suppose that, following the earlier injections, a condition of marasmus developed. In neither of the rabbits was there found, on *post-mortem* examination, the slightest trace of caseation to which rabbits are prone.

SERIES II.—Effects on the circulation, that is, on the cardiac rate. A considerable number of experiments were conducted under this head. They prove conclusively the presence of a powerful cardiac depressant. In each instance the fall is striking. Where large doses were used it was remarkable, the cardiac rate being reduced, in the course of four hours under the influence of the extract, from 44 to 18, and even 14. Coincident with the decrease in rate, a marked lengthening of the diastolic interval in relation to the systolic phase was evident. These results, taken along with those of Series IV (*infra*), imply, I think, that the depressed action on the heart is produced

through the medium of the inhibitory fibres, and not by direct action on the cardiac ganglia.

SERIES III and IV.—It is convenient in this brief summary to combine the results obtained in Series III and IV. In each it was attempted to neutralise the ascertained depressant effects of the extract by the exhibition of presumably antagonistic drugs. For the present, I limit myself to the results obtained with atropine. The double series yield results in remarkable consonance with those obtained in the earlier series. In the first place, they afford strong corroborative evidence as to both the general systemic and the special cardiac effects of the extract. But, in the second place, they prove that the combined exhibition of atropine undoubtedly modifies these results in a striking manner. Of this there is evidence in all the experiments, the degree to which such modification is produced varying with the relative quantity of the antagonistic principle. Most perfect antagonism was produced by the combined injection of $\frac{1}{100}$ milligramme of sulphate of atropine with 0.6 cubic centimètres of extract. Under such conditions the general systemic effects—easily produced both in frogs and in mice by 0.6 cubic centimètres of extract—were almost completely absent, while the cardiac rate, which 0.6 cubic centimètres sufficed to depress considerably, remained practically constant. The effects were similar, whether the atropine were exhibited simultaneously with the extract, or at varying intervals before or after. The antagonising influence of atropine is most strikingly demonstrated in those experiments where the injection of the extract preceded that of the atropine by a measured interval of time. In such cases the effects of the extract were first of all well defined, and gradually declined on the addition of the atropine. Similar results, though less striking, were obtained when the atropine preceded the extract. It should be added that, in every instance where counter-experiments were made with atropine, the extract was first tested, with the view of establishing its physiological action.

This experimental record is necessarily too brief, and doubtless is open to much criticism. But the results at my disposal—which I hope to publish in more extended form—appear to me to justify the statement that from the tubercular sputum there is separable one or more products possessed of well-marked toxic properties, those toxic properties being more or less completely opposed by atropine.

The remaining question is, in how far this poisonous principle is dependent on the presence of the bacillus? Might not such toxic effects be produced by extracts obtained from other sputa besides those strictly bacillar? There is, unfortunately, no time to give in full the ground for my statement, but my belief, which rests on experimental basis, is that the presence of the bacilli is causally related to the poisonous product obtained from the sputum. I incline also, for similar reasons, to the belief that there is a relation traceable between the toxicity of the extract and the abundance of the bacillar elements discoverable in the sputum.

On the line of absorption and the therapeutic indications, regarding which I had proposed speaking, I must not dwell; but it may be convenient in closing to tabulate shortly the chief points which have been briefly discussed.

Conclusions.—1. In view of the work of Koch, it is impossible to avoid admitting that a causal relationship exists between the tubercle bacillus and the phthisical process. 2. The mere predication of this relationship is not sufficient in explanation of the clinical facts and the generally fatal termination of such cases. 3. The usually received explanations of the *modus moriendi* in phthisis are insufficient. 4. It appears probable that the lethal influence of the bacillus is due to the production thereby of certain poisonous products. 5. Clinical and experimental evidence appears to indicate that the morbid secretions from the respiratory surfaces afford a good medium for the growth of the tubercle bacillus, and, presumably, for the elaboration of such products. 6. Such a product is separable from the carefully selected and prepared sputum. 7. This product is possessed of well-marked physiological properties, being eminently toxic to frogs, mice, and other animals. 8. The toxic properties of the product are, speaking generally, depressant. 9. More particularly they include a marked depressant influence on the heart. 10. This depressant influence seems to be exerted through the medium of the cardio-inhibitory mechanism. 11. The toxic action of the product is more or less completely opposed by atropine. 12. The amount of the product which may be separated appears to bear a distinct relation to the abundance of the bacillar elements present. 13. Absorption of the poisonous product most probably occurs by way of the lymphatic circulation.

ON CERTAIN NEURALGIAS SIMULATING RENAL CALCULUS.¹

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THE purpose of the present paper is partly to draw attention to certain painful affections of the kidney which may be taken for calculous disease of that organ, and to seek for information from those who may have had a wide experience of such cases as to the distinguishing points that may be best relied on for diagnosis in cases in which doubt exists. As a rule, the diagnosis of renal calculus is easy; a time usually comes, either early or late, in which the calculus endeavours to escape by the ureter, giving rise to severe colic, and causing blood and pus to appear in the urine; to these is usually added a symptom which writers have been accustomed to consider as absolutely symptomatic of renal calculus, namely, retraction of the testicle on the side affected. Though this latter symptom is of undoubted importance, nevertheless, too much dependence must not be placed on it, since the phenomenon will appear quite independently of renal calculus, and is evoked whenever a tenacious mass of any size passes from the pelvis of the kidney down the ureter; thus, it may be observed in cases of hydatid of the kidney, or when tuberculous or scrofulous masses are passed downwards into the bladder. It is also a well-ascertained fact that a stone in the kidney may exist for a considerable time without giving rise to any of these symptoms, except pain, and that in some instances may be quite unimportant, giving rise rather to a feeling of weight and dragging than to actual suffering; whilst the urine may be examined repeatedly with only negative results. Thus, Dr. Murchison (*Diseases of the Liver*, third edition) refers to a case which was under his care, and other physicians, in which for years the painful affection of the right side was referred to hepatic neuralgia and treated as such, till after years of suffering the patient was relieved by the passage of a renal calculus. One can hardly suppose that such an acute clinical observer as Dr. Murchison would have neglected to examine the urine, and had blood or pus been present to have come to a speedy and right conclusion. An interesting illustration of a similar incident was reported in the March number of the *Chicago Review* for this year (1887), in which the patient for eighteen years had suffered from severe lumbar pain and whose urine had been frequently examined, but with negative results, till at last pyelitis was evoked, and then, after eighteen years of doubt, the nature of the case was fully revealed. I have myself (*Morbid Conditions of the Urine*, Churchill, 1882) recorded a case in which a gentleman suffering from severe lumbar pain consulted an eminent surgeon and a distinguished physician. The surgeon told him he was suffering from locomotor ataxy, the physician that the symptoms were due to syphilitic disease of the spinal cord, and placed him on a course of mercury; two years afterwards he passed an oxalate of lime calculus, which completely relieved him of his pains. He assured me that during the whole time of his sufferings his urine continued bright and clear, and that it was frequently examined by his medical attendants, and it was not till the day he passed the calculus that he noticed it thick and bloody.

It would be easy to enumerate other cases in which stone in the kidney existed without being recognised by the usual symptoms, but the converse of these cases, namely, when lumbar pains of long standing have been attributed to renal calculus, are not so numerous, and are certainly more perplexing. Thus, some years since a patient of the late Dr. Murchison, who was thought by him, and by the other physicians who also saw the case, to be suffering from stone in the left kidney, although the urine was repeatedly examined with negative results, and who went on suffering excruciating agonies of paroxysmal pain, died suddenly one night. At the inquest the *post-mortem* examination showed the peritoneum full of blood, which proceeded from the rupture of an aneurysm of one of the smaller mesenteric vessels, but which evidently pressed on some nerve plexus supplying the pelvis of the left kidney. Here, indeed, is an instance in which a correct diagnosis was impossible; but all cases of renal pain are not so obscure, and I have endeavoured to classify them in the following order.

1. *Neuroses of the Kidney.*—(a) A true neuralgia of the kidney is of very rare occurrence. I cannot say I have ever met with an instance. Delicate women at the menstrual period, and for some time after, suffer from aching pains in the renal region, and these pains by some have been considered neuralgic. But it has been shown that

¹ Read in the Section of Medicine at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

there is an intimate sympathy between the renal organs and the female generative apparatus, and that during menstruation slight enlargement of the kidney occurs. In delicate women this physiological engorgement may become exaggerated, and the distended capsule give rise to pain. Renal neuralgia, it is said, sometimes occurs in malarial subjects—it may be well to note the possibility; but with seven years' experience of tropical diseases at the Seaman's Hospital, where the opportunities of watching the sequelæ of malarial disease are very great, I never met with an instance of renal neuralgia. (b) Reflected neuroses of the kidney, however, are not uncommon. In 1878 the late Dr. Murchison gave me the particulars of a peculiar form of neural attack which he designated as a renal storm, and which had frequently occurred in a patient suffering from aortic regurgitation. The attack commenced with excruciating pain over the region of the right kidney, exactly like renal colic, but there was no sickness or retraction of the testicle, and the urina passed after the attack was perfectly normal, nor was there jaundice, or anything to suggest that the pain was due to either renal or biliary calculus. After lasting some hours the pain passed off as suddenly as it came on. With reference to this case I may mention the remarks made by Dr. Habershon (*Diseases of the Liver*, p. 13) with regard to the neuralgic pain sometimes met with in organic disease of the heart, and which is referred to as being situated deeply behind the first part of the duodenum. "It is," he says, "severe, almost like that of gall-stone, but it is without jaundice or other symptoms of calculus; it is not connected with the stomach, for it is not affected by food, but paroxysmal, and sometimes recurs with great regularity." In 1880 a man, aged 47, applied as an out-patient at the London Hospital, solely on account of severe paroxysmal attacks of pain, which, commencing at the angle of the epigastric region, where it joined the right hypochondrium, passed downwards into the right lumbar region. No disease of the liver or kidney could be detected, and the urina was perfectly normal. On examining the chest, however, we found the left ventricle considerably hypertrophied, the result of aortic regurgitation. This case and that of the late Dr. Murchison are probably of a similar character. Reflected nephralgia may occur in connection with inflammatory affections of other organs. Thus, in pneumonia, the pain is often at first more lumbar than dorsal, and I have known an acute practitioner taken in, for he sent for me saying that one of his patients was passing a renal calculus, the symptoms being intense pain in the right lumbar region and albumen in the urina. Shortly after, on examining the patient again, he discovered fine crepitation at the right base, but not before he had given the patient a warm bath and a dose of opium for the relief of the supposed colic. In disease of the bladder the pain may be wholly nephritic. A gentleman sent for me some time since on his arrival in town from Edinburgh, suffering from intense paroxysmal pain in the right kidney; the testicle on the same side was retracted, there was blood and pus in the urina; no irritability of the bladder. About a fortnight after he began to get intermittent discharges of pus, the renal pain still continuing severe and no bladder symptoms. Dr. Murchison, who saw the case with me, agreed that there was pyonephrosis of the right kidney. About a week after this the renal pain suddenly transferred itself to the neck of the bladder; a finger passed into the rectum detected a hard mass lying between the rectum and the bladder. I then asked Mr. John Wood to see the case with me, and he came to the conclusion that an abscess had formed in the cellular tissue between the rectum and bladder, and had burst into the latter. At first the discharge had been intermittent, but was now becoming continuous. The patient did very well, the discharged pus soon ceasing, and the urina clearing up, no symptoms of renal calculus or of renal pain ever again declared themselves. Had this case occurred in the present days of nephrotomy, I am sure that when the case first came under observation operative procedures would have been taken under consideration.

2. *Nephralgia from Disease of Contiguous Parts.*—If we consider the anatomical relationship of the duodenum to the right kidney, we shall not be surprised to find that many morbid conditions of that portion of the intestine may give rise to pain simulating a nephralgia of calculous origin. Thus Mr. Cursham Corner asked me some short time since to see a patient who had many symptoms of renal colic; namely, attacks of paroxysmal pain accompanied by vomiting, great tenderness on pressure over the right renal region, a urine loaded with uric acid and turbid with mucus, but no blood or pus. Mr. Corner had his doubts about the case, but rather inclined to the view of renal calculus, and so at first did I; but, on strict inquiry, we found the attacks of pain had a very constant relation to food, and that the vomit was not so purely reflex as we generally meet with in renal colic, but contained undigested food; then, again, the patient was

losing flesh rapidly. The conclusion we finally arrived at was duodenal ulcer, and though we did not exclude the possibility of a stone being present as well, and advised the usual treatment, we added to this treatment substantial doses of bismuth, and a light farinaceous diet. Under this treatment the patient made a complete recovery, losing his pain a very few days after it was commenced. No suspicion of the existence of calculus was left behind after his recovery.

Another instructive case illustrates this point of the connection of duodenal irritation with nephralgia. About four years ago Dr. Ball brought a patient of his to my house for consultation. This gentleman had suffered for some time from severe paroxysmal pain in the right hypochondrium. He had consulted many medical friends, and the general verdict was visceral neurosis, and I, at first thought, had pretty much the same view. The urina was examined, but it was perfectly normal. Then the idea of biliary colic or retained gall stones without jaundice occurred as a possible solution, and a terebinthin mixture was prescribed. To our astonishment, a few days after, instead of a gall-stone out came a large round worm. The symptoms were greatly relieved, though not completely; probably some degree of chronic ulceration of the duodenum was present as well. But the patient being a medical man could not give himself sufficient rest till he could take a good holiday, when I believe he became entirely free from pain.

Gall-stones retained in the gall-bladder are often taken for stone in the right kidney, and *vice versa*; as a rule, however, the direction of the pain serves as a guide. With gall-stones the pain radiates from the right hypochondrium towards the epigastrium and umbilical region. With right-sided nephralgia the pain comes forward from the lumbar region into the right hypochondrium, and is then reflected downwards towards the right hypogastrium.

Caries of the spine with psoas abscess in the early stage sometimes gives rise to lumbar pain that may be taken for nephralgia, but a careful examination of the spine is sure, sooner or later, to reveal a tender spot along the spinal column, and so lead us to a right conclusion.

3. *Nephralgia from the Disease of the Kidney.*—"The tender kidney," caused probably by some displacement of the organ, with consequently a certain degree of perinephritis attendant on the dislocation, is often a condition extremely difficult to diagnose, and still more to treat. Early in February, 1887, Dr. John Williams sent a young lady to me with many symptoms of renal calculus. She had constant aching pain in the right kidney, sometimes severe paroxysms of pain; the urina was turbid, contained some pus cells, but no blood. The right kidney was exquisitely tender to the touch, and its dimensions, which were enlarged, could be easily mapped out. Her account was as follows. One day, during the menstrual period, she was playing lawn tennis, when she felt a sudden rick in her side, so painful as to make her quit her game; since then she had never felt free from pain. I had no doubt that the kidney had been displaced slightly downwards, with partial rupture of the surrounding cellular tissue during the act of using the racket at lawn tennis, the displacement being aided by two conditions—the naturally enlarged state of the kidney during menstruation; tight lacing, pushing the liver downwards. It was quite two months, with absolute rest on bed and sofa, before she could move without pain, and then required the support of an abdominal belt. This case I at first thought was one of renal calculus, the pus in the urina and the paroxysmal pain being misleading. I have seen two similar cases at the hospital; both occurred after working at a mangle during the menstrual period.

Dr. Samuel West, in a communication to the JOURNAL in 1885, drew attention to the frequency and importance of hæmaturia occurring in patients suffering from granular kidney, and observed upon the fact that writers on urinary pathology had neglected to describe a symptom of such importance. So important is it to recognise the fact that hæmaturia does occur in these cases that Dr. West says that in one the operation of nephrotomy was going to be performed under the supposition that the hæmaturia was caused by calculus, when Dr. West saw the case and proved the true nature of the hæmorrhage. Other diseases of the kidney, giving rise to a semblance of renal colic from time to time during their progress naturally occur to us; thus the passage of an hydatid vesicle, a mass of tubercle or cancer, gives rise to a colic often indistinguishable from calculous colic till the offending mass comes under observation.

4. *Nephralgia due to Functional Derangements of the Urine.*—Dr. Proust some years ago drew the following graphic picture: a middle-aged individual, who has lived an easy and somewhat luxurious life, after some slight disorder of the bowels or exposure to cold, begins to complain of uneasiness in the region of the kidneys, which gradually

increases and extends forwards and downwards to the groin and testicle. The stomach now frequently sympathises, and there is either absolute nausea or at least inability to take food. The tongue is much furred; there is thirst; the pulse is full, strong, and usually accelerated. There is a tendency to drowsiness and headache. In conjunction with these symptoms the patient complains of a constant desire to pass his urine, which is scanty, highly coloured, extremely acid, and often loaded with bile. Under these circumstances the urinary symptoms sometimes increase to a great degree of severity, only small quantities of urine being excreted at a time, and the colicky symptoms strongly resembling those of renal calculus, being decidedly pronounced—and yet under careful treatment—when the medical attendant and the patient have come to the conclusion that the symptoms are due to renal calculus, and to renal calculus alone; they clear up and give no further trouble.

A patient exhibiting similar symptoms came under my care last summer. Early in March Dr. Allt, of Clapham, advised a gentleman, aged 47, to consult me, as it was feared that premonitory symptoms of diabetes were making their appearance, that is, the amount of urinary water was increased and the specific gravity considerably above the average, though no sugar was present. The patient had lost flesh, and his appetite was capricious. He had formerly led an active life, riding many miles daily, but since he had left the country he had taken to driving in a closed carriage, took little or no walking exercise, whilst his social popularity being great, he was in demand for dinner parties and other functions that led him in the way of more eating and drinking than was good for a man of his habit and constitution, and which was also against his natural inclination, which was for plain and simple food. During the two years he had been in London his health had certainly failed him, and the attack in March was undoubtedly premonitory of something more serious. I prescribed mineral acids and Carlsbad salts, and advised a less nitrogenised diet than he had been taking. Under this treatment he seemed to be doing well, when one day he took a long drive outside a coach to St. Albans and back. The day happened to be cold, with a north-east wind. On his return he felt chilly, with general *malaise* accompanied by severe lumbar pain; the next day he took a Turkish bath, in which he happened unfortunately to slip; this seemed to increase the pain in the back, which gradually localised itself in the left kidney. When I saw him the next day in consultation with Dr. Allt, he had a quick pulse, a foul tongue, obstinate constipation, constant nausea, often actual retching, scanty, highly-coloured, acid urine, with intense renal pain on the left side shooting down into the left inguinal region. For some days the pains increased in severity and the symptoms were decidedly aggravated, and the late Dr. Wilson Fox was added to our consultation. He held strongly for the view of renal calculus, and though I was rather biased that way myself, still, remembering Prout's description, I had hopes that with due purgation and a light non-nitrogenous diet, the symptoms would pass off and leave no trace of mischief behind. Time proved the correctness of the surmise, and a fortnight after, the patient made a good recovery; and though he occasionally suffers from dyspeptic attacks, still the renal symptoms have entirely subsided.

There is again another form of nephralgia which often gives rise to the suspicion of renal calculus, connected with functional derangement of the urine, which is the converse of the above. In this class of cases the patient, instead of being stout and plethoric, is usually thin and somewhat emaciated; he complains of a sensation of soreness, heat, or chilliness about the spine, loins, or sacrum; in some instances much increased by pressure, and accompanied by shooting pains and sense of heat or flashing extending to various parts of the body, sometimes by an occasional sensation of tinnitus aurium, also with various nervous affections in different parts of the body, as pain and soreness in the epigastric region, along the course of the nerves of the arm, thigh, etc. These symptoms are generally accompanied by great disturbance of the assimilating functions, and a condition of urine leading to the deposition of oxalate of lime and excessive elimination of phosphoric acid. Prout, speaking of these cases, says their termination is often critical, and the crisis unfavourable. I have at present a case of this kind under observation; the pains in the renal region (the right) have now lasted three years, and though resembling in many respects the pains of renal colic, still the urine, with the exception of the deposition of oxalate of lime, gives a negative result. The patient continues to lose weight, though the dyspepsia is not marked, and there is no organic mischief to account for it. The case has been seen by other physicians, who have from time to time given different opinions—rheumatism, gout, aneurysm, etc. The last time the patient was in town Sir Andrew Clark saw him with me. Sir Andrew Clark was doubtful whether the symptoms pointed decidedly to renal

calculus, as the urine gave such a negative result, but he agreed that the case was one resembling the description given by Prout, and that the nephralgia was due to the irritation of the urinary passages by the passage of crystals of oxalate of lime. Treatment in accordance with this view has been adopted, but I hear the patient still continues to lose weight and to suffer from renal pain; and the case, I fear, is likely to terminate both critically and unfavourably.

CASES ILLUSTRATING THE ANTISEPTIC AND ANTIPYRETIC TREATMENT OF PHTHISIS.¹

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It is only in quite recent times that there could be said to exist any rational treatment of phthisis founded upon scientific knowledge; and the past few years have witnessed a new departure in the rational treatment of phthisis consequent upon the rapid strides made in the new science of bacteriology and in all that relates to the share and influence of micro-organisms in disease. New modes of treatment have sprung up whose principles rest on experimental evidence and scientific deduction therefrom, and now much attention is being bestowed on the use of antiseptics in the treatment of phthisis. Already the results of this mode of treatment justify most favourable expectation, and promise much benefit to the common humanity we work for.

I propose to relate some of my experiences whilst using in acute phthisis remedies now tolerably common, yet still the subject of experiment and discussion—antiseptics and antipyretics, to wit—and whilst using them under circumstances better adapted to continuous trial and careful observation than can generally be compassed in private practice. And any thoughts and suggestions and practical points that I may give as the outcome of my experiences relate not only to these two cases, but are drawn from many other cases and a much wider observation.

CASE I. Acute Pneumonia of Left Lung, passing rapidly into Acute Tubercular Phthisis; Almost Complete Repair by Fibroid Substitution; Bacilli, Abundant during the Acute Stages, Disappearing as Recovery Progressed; Complete Recovery Almost Assured, when Sudden Profuse Haemoptysis Caused Death; Duration of Case, Ten Months; Treatment by Kairin, Quinine, and Iodoform.—E. B., aged 20, a domestic servant, after definite exposure to severe cold, was seized with acute pneumonia on the day following the exposure, and was admitted to the infirmary three days later, on March 15th, 1884. The patient had been previously in good health; she was somewhat subject to cold and cough, but had never been laid up with any illness. On admission the patient was found to be well nourished, but rather anemic. Further was noted: flushed face; herpes on lips; profuse sweating; a short hacking cough; temperature, 104°; pulse, 124; respirations, 44; viscid sputa; at the left base and up to the spine of the scapula physical signs of consolidation, with fine crepitation.

The day after admission the temperature rose to 105°, and the use of antipyretics was commenced. Notwithstanding the daily use of antipyretics, continued for a period of four weeks, the temperature rose daily (sometimes twice in the twenty-four hours) to a point between 104° and 105.4°. At first kairin was used in ten-grain doses, and it was always given when the temperature had reached 104° or over. After each dose the temperature fell rapidly; observations made every quarter of an hour showed that the fall was continuous for about two hours, the total fall being from three to five degrees. There was a striking constancy in the effects produced by a given dose of kairin, whether the dose was five, ten, or fifteen grains; on no occasion was more than fifteen grains given. A dose of ten grains gave always the best results; fifteen grains did no more than five grains, and neither did so much as ten grains. The stationary period varied, but at most it lasted only a few hours; the longest time recorded was ten hours. The subsequent rise of temperature was usually as rapid as the decline. Each dose of kairin was followed, within half an hour, by profuse sweating and symptoms of depression; and when two doses were given in close succession (the interval being three and a half hours) marked cyanosis and collapse occurred. Kairin was exhibited twice daily for ten days. At the end of this time, the fourteenth day of the disease, the maximum temperature was still 105° or thereabouts. Meanwhile, the sputa had ceased to be viscid and rusty, the cough was looser, the crepitation at the left base had become coarse. Then the sputa became viscid and rusty

¹ Read before the Bath and Bristol Branch of the British Medical Association.

again, the cough more teasing, and there was evidence that the left apex had become involved—consolidation and fine crepitation.

On March 29th, the seventeenth day of the disease, the sputa were found to be loaded with the bacillus tuberculosis. The left apex rapidly underwent softening, and by April 10th the physical signs of a cavity were well marked. From the date of leaving off the kairin, the pyrexia had been treated by large doses of quinine. Quinine was given from March 25th to April 5th, almost daily, in twenty-grain doses; and only when the temperature was over 104° and rising. The effect of each dose was to lower the temperature by four or five degrees, to control the pyrexia from twelve to sixteen hours, and to ameliorate the general condition of the patient. Little or no permanent effect, however, was obtained, since, for some twelve days after discontinuing the quinine, the daily maximum temperature was over 103°.

On April 10th treatment by iodoform was commenced. The iodoform was given in pills, each containing one grain, at intervals of four hours. This was the time of greatest lung destruction; the whole of the left lung appeared to be riddled with suppurating cavities; the expectoration was profuse and purulent, temperature hectic, night sweats profuse, emaciation and weakness extreme. Hæmoptysis also had occurred.

After iodoform had been taken for about two weeks, the temperature came down to a lower level, rarely over 102°, the hectic character was less marked, and the patient began sensibly to improve. In two weeks more, the temperature fell and continued upon a still lower level, and the improvement all round was going on rapidly.

On May 28th, forty-eight days after beginning the iodoform, the temperature was normal morning and evening, and it continued practically normal for the next six weeks. The patient now was greatly improved in appearance, took her food well, and was vastly better in every respect. At this time the physical signs showed that repair had commenced, and made some progress at the left base. Weight now, 6 st. 8 lb.

Passing on to June 17th, an interval of three weeks, the physical signs showed almost complete repair in the left lower lobe and as high as the spine of the scapula. The whole left chest was markedly retracted, but there was no curvature of the spine, the right lung extended beyond the left margin of the sternum, and the heart was displaced, the apex being tilted upwards and three inches outside the left nipple. No bacilli were found in the sputa, but after further repeated examinations with the highest powers, a very few small and partially developed bacilli were seen with difficulty.

By the end of June, the signs of repair in the left apex were unequivocal. On August 1st the patient was so much better that she was allowed to get up, but the temperature rose, and the effect generally was such that the bed was kept for some time longer. Weight now, 6 st. 12 lb. Curvature of the spine had become marked. Things went on much in the same way, with occasional recurrence of temperature of the hectic type, and slight hæmoptysis; but with improvement in the general condition and increase of weight for about two months.

Towards the end of September, an attack of colic and diarrhoea occurred—the first during the progress of the case. (Tubercles and ulceration were found in the intestine *post mortem*.) The temperature rose, and the patient was a good deal pulled down. The attack did not last long, however. The iodoform was discontinued now for about two weeks, on account of gastric disturbance, and resumed on October 10th. At this time an effort to get up was attended by syncope. From the middle of October to the beginning of November the temperature was normal; progress was steady, and the weight increased to 7 st. 7 lbs. The patient kept her bed during this time.

Early in November the temperature rose again, and continued hectic for a week. The patient became very drowsy, and slept a good deal, with snoring. She complained of severe pain in the head; the pupils were dilated (contracting to light); there was nausea, without actual vomiting; the pulse became very rapid—144. The retina were examined, and found normal. These symptoms soon passed off; the temperature became normal in ten days, and remained so until the end of the case. From this time to January 6th, the day the patient died, there was steady though slow and gradual progress towards recovery. The patient began to get up daily, and was eventually able to be up a good part of the day. The weight increased at the rate of about 1 lb. per week, and on January 5th it was 7 st. 13 lbs. (6 st. 8 lbs. on May 28th). The physical signs denoted complete repair at the left base; and, as to the apex, they had indicated progressive diminution in the size of the vomice, until only a few dry crackles were discovered at the apex. There was much retraction of the left chest, and much lateral curvature of the spine. On January 6th, 1885—ten months after the onset of the acute pneumonia—the patient was sitting up in bed, talking and cheerful, at 10.15 p.m., when an attack of coughing

came on; this lasted for about five minutes, and was succeeded by a sudden hæmoptysis to twenty ounces. The blood was bright red, alkaline, and formed firm clots. There was no retching or vomiting. The patient's face became livid, and breathing ceased at 11 p.m. There had been no hæmoptysis since September.

Necropsy.—On opening the thorax, the right lung was found to be greatly expanded, extending far over to the left side. The left lung was much contracted, and firmly bound to the chest-wall by adhesions, reaching from apex to base. At the apex of the left lung were two or three very small vomice, and a larger one about the size of a filbert. These contained very small quantities of pus. The lung substance had to a great extent disappeared throughout this lung, and had been replaced by strong firm bands of glistening fibrous tissue; this tissue was well-marked around the bronchial tubes. There was a small deep seated cavity in the apex of the right lung. The contents of the head were healthy. Fat was prominent in the walls of the abdomen, and in the tissue round the abdominal organs. In the intestines there were deeply congested patches here and there. In the ileum there were several small tubercular ulcers, and near the valve a few scattered tubercles; other organs healthy; no trace of the site of the hæmorrhage could be discovered.²

CASE II. *Acute Double Pneumonia, passing into Acute Tubercular Phthisis; Phlebitis; Complete Recovery, maintained at the end of Twelve Months; Duration of Case, Five Months; Treatment by Quinine, Iodoform, and Eucalyptol Inhalations.*—L. D., aged 22, a domestic servant, admitted to the infirmary on January 16th, 1885, having been ill about four days. The patient was reported to have been a delicate girl, but had had no serious illness. There was no family history of phthisis. On admission, she was in a very prostrate condition; she was well nourished, but anæmic; she had much pain in the chest; temperature 103.2°; pulse 132; respirations 85; a trace of albumen. At the left base were found dulness, tubular breathing, bronchophony and fine crepitation; and at the right base also there were signs of commencing pneumonia. For two days the patient was very bad, requiring a good deal of stimulation; temperature between 103° and 105°. The temperature then came down, and in six days from the time of admission, resolution appeared to have commenced.

Eight days after admission, on January 24th, the temperature rose to 103°, pain in the calf of the right leg was complained of, and now the patient suffered an attack of phlebitis of the right popliteal vein. This attack ended favourably.

But on February 1st it was found that at both bases there was still abundance of crepitation, yet not altogether that of a resolving pneumonia of the ordinary type. The temperature had assumed a hectic character, and the physical signs showed that the right apex had become involved; indeed, there was evidence that both apices were implicated. There was also extension and renewal of acute inflammatory mischief at the left base; the temperature rose to 104° and over, and the condition of the patient became extremely critical. For four successive days the temperature remained persistently at between 103° and 104°. Then salicylic acid with hydrobromic acid and ether in mixture was given; in two days the temperature was below 100°, and the mixture was discontinued. The temperature soon rose again, and the salicylic acid mixture was resumed and continued for four days; during this time the temperature was kept below 103°.

At this time there was evidence of extensive breaking-down at both bases and, to a slighter extent, at both apices; the patient was delirious, had little or no sleep, sweated copiously day and night, and was extremely prostrate; there had been some hæmoptysis; the pulse was dicrotic, the tongue dry and brown. Bacilli and elastic fibre were found in the sputa.

February 14th, the patient began to take iodoform in one-grain doses every four hours. For the five subsequent days the patient remained in very much the same critical and prostrate state. Then improvement began. The temperature settled down to a hectic form, with maximum never above 103°; the general condition of the patient became better; the pulse got steady and the appetite improved greatly. The iodoform had to be stopped on March 8th on account of gastric disturbance. No change worthy of note occurred up to March 18th, except that the temperature showed marked oscillations, twice reaching 104° and twice touching the normal.

On March 18th inhalation of the vapour of eucalyptol was commenced. At this time there was dulness with coarse crepitation all over both bases, and signs of excavation in places; coarse crepitation and signs of excavation were present also at the right apex. The patient was greatly emaciated, and, including the temperature, all the symptoms

² The hæmoptysis was doubtless due to shrinking of the cicatricial tissue in the lung, and consequent laceration of vessels.

were those of pronounced hectic. Thenceforward the patient improved.

On March 24th the iodoform was resumed. Now an attempt was made to control the pyrexia. The temperature was distinctly of the hectic type, the daily maximum being about 102°. Quinine in ten-grain doses was given from March 27th for six days, at particular hours corresponding with the definite times in the day at which the maximum temperatures were observed to occur. The idea was to break a habit, so to say. The plan succeeded, but the temperature fell to adopting different hours at which to reach its maximum, keeping at a markedly lower level than before. Accordingly the times at which the quinine was given were changed. The temperature came down to below 100° for four or five days, and the pyrexia seemed for a time to have been "scotched." Again the temperature got into its old ways, and took to rising, sometimes to 102°, at an unusual time in the afternoons. To meet this, an additional dose of quinine was given at 5 p.m.; and now thirty grains were taken daily. The next day the temperature fell practically to the normal, and remained so, with occasional and isolated exacerbations, to the end of the case in the middle of June. The quinine was gradually discontinued, and was stopped altogether on May 16th, the temperature having then been normal for about three weeks. On this day, May 16th, the patient weighed 6 st. 7 lbs., as against 5 st. 9 lbs. a month before. Meanwhile the lungs had been improving steadily. The evidences of repair, first detected at the end of March, were now very marked; there was only a little dry crepitation at the right base close to the spine, and the apices showed no signs of active mischief at all. At the end of May the patient was so much better as to be able to get up every afternoon.

On June 17th, the patient was sent to the seaside. The weight now was 7 st. 7 lbs. The apices were quite clear, and the only remaining sign of any mischief in the lungs was a little dry crepitation at the right side, between the angle of the scapula and the spine. Three weeks later, the patient came up to report herself; she was then looking well, had gained 2 lbs. in weight, and there was no trace of any lung mischief at all.

In July, 1887, twelve months after, the patient was still well, her only trouble being shortness of breath on exertion.

The pathological conditions and the clinical features of these cases, as set forth in the foregoing histories, may be recapitulated, by way of summary, thus: An acute pneumonic condition of the lower lobes of the lungs at first—both lungs in one case—with concomitant general and special symptoms, declaring the disease to be acute croupous pneumonia.

A transition from the pneumonic condition into an acute tubercular and phthisical condition, beginning in the parts first affected, namely, the lower lobes. Thence, invasion of the apices, after the phthisical condition of the bases was well assured. Rapid breaking down and the formation of vomica both at base and apex. Then, the discovery of the tubercle bacillus in the sputa confirmed the nature of the later lung mischief, and gave significance to the general constitutional symptoms— hectic temperature, night-sweats, wasting, etc.—as well as the local characters.

After this, we have the repair of the damaged lung-tissue by fibroid substitution. This repair proceeding simultaneously both at base and apex, and traced by physical signs most distinctly during its progress.

Finally, in the first case, the accident of profuse hæmoptysis; caused no doubt by the contraction of the lung tissue, whose building up, step by step through many months, had brought with it both healing and destruction.

It will, I think, be of advantage to recapitulate what has been set forth as to the treatment of these cases, and at the same time to add some particulars, so that a complete view of the whole treatment adopted may be gained. A distinction into general and local treatment seems hardly possible; yet it may be convenient to apply the term "local treatment" to those means adopted with the special object of influencing the localised mischief in the lungs—the antiseptics, to wit.

As regards the general treatment: For Case 1, a mixture of sulphuric acid, bark, and other was used pretty continuously throughout the case, and along with the other remedies. Cod-liver oil was taken at intervals and for short periods, but it was borne badly. Kairin and quinine were used as antipyretics. The former did always effectually reduce temperature, and quickly; but, as is usual with all antipyretics of its class, the fall of temperature was transient, and the resulting depression was marked. Quinine was used in large doses, at intervals only and for a short time, without any effect as to the general progress of the case.

In Case II, a mixture of sulphuric acid and quinine (four grains), or

one of tincture of perchloride of iron and quinine, was used almost throughout the case. Cod-liver oil was borne well and taken for a considerable time. Salicylic acid and quinine were used as antipyretics. The former produced good effects undoubtedly as regards steady and continuous reduction of temperature. But, notwithstanding its combination with ether, the depressing effects were sometimes a source of anxiety. A special feature in the treatment of this case was the mode of using quinine, in moderate doses, to control the pyrexia—a method attended with unqualified success.

As regards the local treatment: This consisted in the use of, first, iodoform. The drug was given in pill in doses of one grain, six grains in the twenty-four hours. It was given for long periods in both cases. In Case II it was given alone, and was tolerated remarkably well. In Case I it was for a time combined with one grain of quinine and one-eighth of a grain of hydrochlorate of morphine, but no advantage was gained. On more than one occasion the attempt was made to increase the dose to two grains, but this dose always caused pain and gastric disturbance. The iodoform was taken by this patient for nine months continuously, with the exception of two weeks. Secondly, inhalation of the vapour of oil of eucalyptus. This was used only in Case II, and here along with the iodoform. The vapour was inhaled by means of a celluloid respirator inhaler, worn continuously except when taking food or sleeping. No nausea or other unpleasant effect resulted. Finally, a liberal diet was allowed throughout the cases. As soon as the patients began to experience the good effects of the iodoform, the appetite improved remarkably, and good food was supplied without stint. From an early period after the return of appetite some stout was taken with the dinner.

REMARKS.—As regards the general principles of the treatment, everyone knows what they are; and it would ill become me in this assembly to reproduce them. But, as regards the special methods of the treatment by iodoform and eucalyptol, or both together, let me say:

1. I see no reason to doubt that, when iodoform is given in doses which the stomach will tolerate well, and given frequently and continuously for long periods, it is absorbed into the circulation; and in the lungs, in whatever form it be, manifests its antiseptic (shall I also say, antibacillary?) properties. The good effects of iodoform so administered, in phthisical conditions, is too unequivocal to be gainsaid, however they may be produced.

2. I see no reason to doubt that, when the vapour of the oil of eucalyptus (or other antiseptic vapour that can be tolerated equally well) is inhaled continuously and for long periods, it reaches the residual air in the lungs; and so externally, as it were, bathes the affected tissues, or suppurating cavities, which may be open to the ingress of the air.

3. That so, I apprehend, we may have antiseptic remedies, not antagonistic, brought up on two sides to the sites of inflammatory lung lesions, or the sites of bacillary activity; and these antiseptics, mutually co-operative, do affect for good both the inflammatory process and the bacillary activity, and bring about repair by the mode of organisation after suppuration or fibroid substitution.

4. And further, let me say, that I think it is both correct and desirable to treat the pyrexia of acute phthisical processes, whether the temperature be high or moderate, by and for itself. I think Case II goes to show that there is both an agent—quinine, to wit—and a mode of using it, which will do great things for us in regard to this object. I think no other special antipyretic than quinine should be used in phthisis; and quinine serves other purposes as well when used as an antipyretic in moderate doses. And at least it is in evidence that the deliberate intention and plan which was carried out in Case II succeeded perfectly three times in succession in controlling the pyrexia—not the temperature only.

I may now sum up the whole in some remarks on what I conceive to be the practical outcome:

In our treatment and general management of these cases, it is our aim to promote or bring about healing of the damaged lung tissue, and this by means of fibroid substitution. In order to attain this end, we must secure the same conditions and adopt similar measures, if we can by any means compass it, to those we find successful in dealing with suppurations, ulcerations, and the like lesions, in parts exposed to view. To secure these conditions, we should adopt measures for supplying adequate nutrition—that is, adequate anabolism of tissue and the storing of energy—in the body generally, and in the damaged part in particular. We should deal with pyrexia on its own account, as a general and constitutional state, apart from the local suppuration or ulceration (as by quinine). We should bring the lesion under the influence of antiseptic remedies, both by internal medication (as by

iodeform), and by external applications (as by inhalations of eucalyptol); and the application and influence of the antiseptic should be complete, continuous, and prolonged.

DERMEPENTHESIS.

(*Δέρμα—ἐπέπνευσις.*)

By G. F. CADOGAN-MASTERMAN, L.K.Q.C.P.I.

THE valuable expedient of skin grafting is attended with several inconveniences. The donor finds the "snip" rather painful, the little sores are some days in healing, and there is danger, if alien skin be used, of conveying disease with it; and, when there is a large surface to be covered, the process is tedious and often disappointing. Frog's skin has been used, but these amphibia are so repulsive to many people, and especially to women and children, that after two trials and failures I gave it up.

About two years ago I was treating in the usual way a broad wound surface in a young farmer, who while riding sustained, from the shaft of a passing cart, a ragged, lacerated wound extending from the middle of the thigh to Poupart's ligament, and involving the muscles. The wound was cleansed and treated aseptically, but the crushed integument at the back of the thigh and much of that in front sloughed away altogether, leaving a surface of about ten square inches to cover, and, after a week of human skin grafts, this was speedily effected with portions of young wild rabbit's skin. The second case was one of a large varicose ulcer, and quite successful; the third, a middle-aged tradesman, had severe orchitis, the result of an accidental blow. Delirium tremens ensued, and probably as the result of further injury, the whole of the integument of the scrotum sloughed away from the root of the penis to the perineum, leaving the tunic of the testicles covered only by the pale, pink lattice of the cremaster muscle. There was a herder of but half an inch of healthy skin left after the slough had separated, and the case was complicated by large bed sores and the extremely bad state of the patient's health generally. However, I found that a disc of skin, two inches in diameter, would cover the testicles, and again tried the rabbit as its source. The animal was killed by a blow on its neck, and the previously shaved and marked out piece expeditiously cut from the abdomen, pressed smoothly over the wound, covered by a piece of wet lint; then a fair-sized hot poultice, which was in turn kept at a proper temperature by a frequently refilled hot-water cushion. At the end of forty-eight hours the applied skin was cautiously examined, and found to be adherent. It was re-dressed as before, and supported by a special suspensory bag padded with sublimated cotton-wool. On the fourth day the outer layers of the skin separated, leaving a firm, smooth surface more like the mucous lining of the lips than integument, and, except that it has greatly thickened, so it remains to the present time.

The fourth was a pale, flabby ulcer, after a very tedious case of hip-joint disease; and therein, after many trials with rabbits of all ages, the plan failed utterly. The fifth was a very severe case of burning, in a little child; the whole of the skin of the back from the shoulders to the nates, the back of the arms and thighs, had been destroyed, in some places down to the muscles. After the carbonate of soda treatment (which relieved the pain immediately), and the surface had been pretty well cleared from sloughs by lotions of very dilute nitric acid under an outer dressing of iodoformed cerate, a number of rabbit-skin transplantations were made at intervals of about three days. The greater number adhered, and I had succeeded in covering nearly half the trunk, when the child unfortunately died from pneumonia, three months after the accident.

In order to secure success, healthily granulating surfaces should be selected for treatment, and young wild rabbits for the discs of skin. These may be from 0.5 to 1.5 inch in diameter, and, operating alone, rarely more than one can be taken from each animal; for, although it is killed in the customary manner by a blow at the back of the neck, the skin must necessarily be still alive to be of any substitutional value. If it were not for an obstructive Act, the best plan would be to chloroform the animal, remove as much skin as necessary, and then kill it before it had recovered consciousness. As it is, not a moment must be lost in the transference. Young wild rabbits are best, because their skin is very thin, contains no fat, and separates readily from the subjacent fascia; and I think discs not larger than a shilling succeed best. There is no need to remove the fur, it comes away within a week; and the skin should be pressed closely down on the surface of the wound, so as to expel the air, and kept thoroughly warm by a poultice or hot-water bag.

I have used the term "adhering" in place of "growing," for I am in doubt if the transferred skin really unites and grows with the surface it covers; in every case the fur-bearing layer separated after a time—so, it can be only the inner, perhaps the superficial, fascia, which is revitalised; and, although prolongations could be seen starting from the edges of the adhering discs, they were neither so marked nor so vigorous as those from grafts of human skin. The latter I have often noticed to start the growth of new skin from sites in which they have themselves apparently perished; and it is possible that the rabbit skin may act rather by influence than substitution, and so determine the conversion of granulation cells into integument under the smooth soft, and, possibly, still living shield.

CASE OF OBSTRUCTION FROM GALL STONE—SPONTANEOUS FRACTURE AND RECOVERY.

By ARTHUR JAMISON, M.D., London.

THE discussion at the meeting of the Clinical Society on January 13th, on the treatment of gall stones, and the question as to whether we should interfere at once in subsequent obstruction from them induces me to place on record the following case. Probably early laparotomy in very urgent cases is the best procedure, but at times cases crop up in practice with such unanticipated endings, that they may rank as true clinical experiments. The patient, a woman 36 years of age, of very spare habit, had long suffered from gastric troubles, slight jaundice, and occasional attacks of severe pain. In the right hypochondrium she had a swelling over the region of the gall bladder, moving up and down with respiration, and general tenderness around it. I was sent for to see her in great haste, being told she was dying. When I got to her bedside I found her in comparative ease. She told me she had had an attack of the most violent pain and intense retching which had suddenly ceased. The tenderness over the liver was much less and the swelling hardly to be felt. Things went on very well for two days, when another attack of acute pain came on, now referred to the region of the umbilicus, great retching and constant nausea; there had been no motion since the previous attack of pain. The pain now came on in paroxysms, the intestines could be seen moving tortuously about, and she said the pain seemed to "stick in one spot." There was no rise in temperature and the pulse kept fairly good. It was obvious that the case now was one of obstruction from a gall stone. I told her plainly that the issue now might be fatal, and strongly urged her to submit to operation. This she steadily refused to do, having heard of a fatal case, so matters went on for four days longer, no motion had been passed nor any flatus. I kept repeatedly urging her to have laparotomy performed, but she still steadily refused, and I became more and more confident in telling her of the outlook in her case. Judge of my surprise when in the evening I found her much better, she said she was quite well. She told me that shortly after my last examination she felt something give way during a violent pain, and almost immediately afterwards passed a huge bile-stained motion, and within an hour another copious motion. This had not been thrown away, and on examining it I found two pieces of what had been a large gall stone of softish consistence. I fancy the stone must have been gripped and fractured spontaneously from the force of the intestinal contractions. However the patient quickly mended and got comparatively strong. She rather drily asked me if I did not think she "was better unopened."

Of course, during the treatment, she was kept constantly under opium; but she was quite sure that, in the form of morphine suppositories, she got much more ease than when given either by the mouth or hypodermically. This was not the first time I had heard patients prefer opium by the rectum. This patient refused to have any hypodermic injections of morphine, when she said she got so much more relief by a suppository she could introduce herself. When the symptoms of obstruction were obvious, she was kept to as little iced water to sip as possible. She said that all attempts at rectal feeding brought on her paroxysms of pain, and preferred to keep to her iced water. These two therapeutic facts I have seen brought out, in cases of obstruction, over and over again; and I am perfectly sure that, till the pulse and temperature begin to rise, absolute starvation, and morphine by the rectum only, give the best chances of success. But, if the temperature or pulse rise (and I think the pulse is the safest guide), then laparotomy should be resorted to without delay. It is quite possible Mr. Tait's suggestion of trying to crush the stone might be tried first. It would do no harm. At all events, this case goes to show that the chances of spontaneous fracture should not be omitted from our calculations.

COLOUR-BLINDNESS IN THE MERCANTILE MARINE OF THE UNITED STATES.

By S. T. ARMSTRONG, M.D., Ph.D.,

Passed Assistant-Surgeon United States Marine Hospital Service.

The very interesting paper on "Colour-Blindness: its Present Position in the Mercantile Marine Service;" which was read by Mr. T. H. Bickerton, at the meeting of the British Medical Association in Dublin, last August, and the Editorial comments thereon in the JOURNAL of November 12th, have prompted me to present the results of the experience with this question of that branch of the United States Service which has supervision over the sanitary affairs of the mercantile marine.

It was a matter of some surprise to note the high percentage of colour-blind seamen in the results of the Board of Trade examinations, but this seems explicable when it is understood that the names of the colours are required.

Since 1880, all pilots on harbour vessels and steamboats, on the rivers and lakes of this country, have been required to pass an examination for colour-blindness. This examination is required of the officers and seamen of the Revenue Marine Service (coastguard), and of the surfmen of the Life Saving Service. The officers and seamen of the navy are examined by the naval surgeons.

The examination is made with Holmgren's test. The names of the worst skeins are not necessarily referred to, as very often the individual examined does not know the names of any but the primary colours. Occasionally the mental processes of the seamen are so slow, that it is necessary for the examiner to first illustrate the examination by making the entire selection before him, of course this would in no wise assist a colour-blind person to make the proper selections.

From the appended table it is seen that during the past seven years, 20,742 seamen have been examined for colour-blindness, and 478, or 2.3 per cent. were rejected as unfit for service, on account of this disability.

It should be understood that the law does not require the officers or seamen of vessels engaged in foreign trade to pass this test. It must also be noted that in reality the percentage of colour-blindness, as given above, is a little high on account of men who have been rejected

*Examinations of Seamen for Colour-Blindness by the United States Marine Hospital Service.*¹

Year.	1880.			1881.			1882.			1883.			1884.			1885.			1886.		
	Examined.	Colour-Blind.	Per Cent.																		
Pilots	2,870	64	2.23	4,284	116	2.65	2,000	63	3.0	2,171	63	2.9	1,850	41	2.2	1,645	48	2.9	1,680	47	2.8
Revenue Marine .. .	218	4	1.84	205	3	1.0	273	4	1.46	210	1	0.50	242	2	0.82	219	3	1.37	183	1	0.54
Seamen	620	3	0.48	—	—	—	—	—	—	—	—	—	—	—	757	4	0.53	1,025	11	1.0	
Total	3,708	71	1.9	4,689	119	2.5	2,363	67	2.3	2,381	64	2.7	2,092	43	2.7	2,621	55	2.1	2,888	59	2.0

¹ The Percentages in this table have been added by us.—Ed.

THERAPEUTIC MEMORANDA.

A CASE OF UREMIC CONVULSIONS SUCCESSFULLY TREATED BY PILOCARPINE.

J. M., aged 21, fell ill with scarlet fever on October 13th. He went on well until November 3rd, when symptoms of nephritis showed themselves; the attack was slight, and appeared to improve rapidly under treatment.

On November 10th I found him in uremic convulsions; the fits occurred every few minutes. My friend Mr. Cox saw him with me, and, with his concurrence, I injected one-third of a grain of pilocarpine into the front of the forearm; the patient soon began to sweat profusely, and the convulsions gradually diminished both in force and frequency; they recurred in the early part of the night, about every fifteen or twenty minutes, but with longer intervals towards morning; at 8.30 A.M. I repeated the pilocarpine, and the intervals between the convulsions became still longer; in the afternoon, when he became sensible enough to swallow, I gave him one-third of a grain of elato-

rium; this acted freely, and he probably passed a little urine at the same time, otherwise he had passed none since 7 or 8 the previous evening; as the convulsions still recurred at frequent though longer intervals, I again injected one-third of a grain of pilocarpine at 9.30 P.M. During the night he had a few slight fits, and in the morning, about 11 A.M., I gave him another injection of pilocarpine, and the last fit occurred about 4 P.M. on that day. In the evening I again gave him one-third of a grain of elaterium, which acted freely, and he now passed more urine, the urine having been very scant up to this time.

On November 15th he had symptoms of more convulsions coming on, but I gave him another injection of pilocarpine, and this passed off.

He lay in a semi-comatose condition from November 12th to 17th, swallowing what was put in his mouth, but totally unconscious of everything going on around him, and taking no notice of anything; on November 17th he was maniacal, and on November 20th he could not be kept in bed. During the whole of this time the bowels had been kept open by occasional doses of elaterium, and he had taken a

at one city coming up for an examination elsewhere. This was particularly the case when the law was first passed. Several instances of this character may be cited. Pilot J. F., examined and rejected on July 13th, 1881, was again rejected on July 27th. Pilot G. S. F., rejected April 6th, 1882, was again rejected on July 5th. Pilot J. F., managed to secure examination on August 24th, and December 16th, 1882, and February 7th, 1883, each time being rejected. His experience was equalled by Pilot G. W. H., who was rejected on August 25th, November 20th, 1886, and February 9th, 1887.

In one instance coming under my notice, a pilot, who had been rejected twice, had a friend personate him, and the latter having normal colour sense, obtained a successful certificate; the fraud was discovered, however. Mr. Bickerton's inquiry to ship-owners, relative to the employment of colour-blind men, met with an affirmative response once in my experience. The master and owner of a steamboat, on the Mississippi River, brought a man to me for examination for colour-sense. The man proved to be colour-blind, and on looking over the records, his rejection several years previous was found; the man said he had not expected to pass, and stated that his steamboat had once collided with, and sank, a steamboat, on account of his inability to distinguish the signal lights. His would-be employer was aware of these facts. As the examination of all railroad employes has been required by law in several of the United States, as well as in some European countries; and public opinion has been educated towards a recognition of the necessity of examinations of the ability to distinguish colours by employes of railroads and vessels, it seems desirable that the State should regulate the examination of the first class; and if by international agreement, no person be shipped, either as officer or seaman, who has not passed a satisfactory physical examination, the competency of the second class would be assured.

Of course special provision should be made in the case of a seaman of ten to thirty years' service, who is colour-blind. It would be as manifestly unjust to absolutely debar him from following his vocation, as it would be to prevent a man who has spent the same time in the study and practice of medicine from pursuing it for a similar disqualification. In such cases, in this country, day licences were issued.

It is to be hoped that international legislation will soon be consummated, ensuring the safety of ships, and of those who travel in them, from accidents due to colour-blind seamen.

mixture containing liq. ferri perchlor. and liq. ammon. acetat. On November 22nd he became sensible, and talked rationally, but had no recollection of anything that had occurred since November 10th; on November 25th, for the first time since the commencement of his illness, there was no trace of albumen, and he improved rapidly; on November 28th he got up and dressed, and from that time made a good recovery, and is now again following his trade as a shoemaker.

I think we have in pilocarpine a most prompt and valuable diaphoretic; the preparation I used was one of the hypodermic tabloids prepared by Messrs. Burroughs, Wellcome, and Co.

W. J. FRANKLIN CHURCHOUSE, L.R.C.P.Ed., etc.

Long Buckhy, Rugby.

CLINICAL MEMORANDA.

NARROW ESCAPE FROM CHOKING.

I WAS called a short time since in great haste to an old man who, I was told, had had a "fit" while eating his dinner. On my arrival he was lying with his head over the back of the chair, livid and unconscious, his edentulous mouth wide open. Respiration appeared to have ceased. Nobody had any explanation to offer as to what had occurred, but seeing his empty plate before him, I put my fingers as far as I could get down his throat to search for any morsel which might have become impacted. I could feel nothing, however, and somewhat at a loss what to do, I put him on the couch and tickled his fauces with a feather pen. In a minute or so he gave a desperate gulp or two, and brought up a large piece of half-chewed meat. Unable to cut his meat himself, and impatient that it had not been cut for him as usual, he had commenced masticating one end of the slice, on attempting to swallow which the whole slice was drawn down the œsophagus, and had become fixed. It was fully five minutes before he recovered consciousness, when he showed every disposition to recommence his interrupted repast.

The procedure is a simple one; and although I am not the inventor of it, any more than *le fil à couper le beurre*, as the French say, it might be useful to bear in mind as a ready and available emetic.

ALFRED S. GUEB, L.R.C.P., M.R.C.S., etc.

The Grove, Hammersmith, W.

OPHTHALMOLOGICAL MEMORANDA.

ATROPHY OF THE OPTIC NERVES TREATED BY Pilocarpine.

THE JOURNAL of November 8th, 1884, contains notes of a case of atrophy of the optic nerves treated by hypodermic injections of nitrate of pilocarpine. Prolonged treatment by recognised methods had been fruitless, and when the pilocarpine was commenced (July 15th, 1882) the patient required a guide, and with difficulty could with either eye see the fingers at the distance of a few inches. The improvement was soon such that the guide was dispensed with, and when the patient was shown at the annual meeting of 1884 he could with either eye spell words of No. 3 at a distance of several inches, and sometimes even words of 1.75. The case is one of whose subsequent history there should be some record. There was further treatment by pilocarpine, and further improvement in vision. On the 26th of last May the patient could with the left eye read 1.5 at 4½ inches with trouble, and even make out some words of 1.25; and with the right eye spell 2.25 at 4 inches. He distinguished colours quickly. The discs were white, with the exception of a little piece at the temporal side (reversed image), which was slightly rosy. What is particularly gratifying is, he was then earning his livelihood as a labourer in the ship-building yard of Harland and Wolff.

Manchester.

DAVID McKEOWN, M.A., M.D., M.Ch.

PASTEURISM IN FRANCE.—During the month of November last 115 patients were treated at the Pasteur Institute in Paris. Of these, 28 had been bitten by animals which were proved to have been suffering from rabies, either by the successful inoculation of other animals with the medulla, or by the production of the disease in other persons or animals bitten at the same time; 64 were bitten by animals declared to be rabid by competent veterinary authorities. In 23 cases the bites were inflicted by "suspected" animals. No information as to any case of death has been received at the Institute.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

NEWCASTLE-ON-TYNE ROYAL INFIRMARY.

(Cases under the care of Mr. PAGE.)

[Reported by Mr. MAYNARD, House-Surgeon.]

Central Sarcoma of Upper End of Femur; Amputation at Hip-Joint.—J. P., aged 16 (nearly 17), was admitted on February 9th, 1887, complaining of a swelling of the thigh of seven months and a half duration. Seven months and a half ago he fell and hurt the left hip; he was confined to bed and has never walked since, though the doctor says he had no shortening or swelling. It was diagnosed as morbus coxæ. Six weeks later, swelling began in front of the hip-joint—painful, worse at night, and slightly tender. It has gradually increased, and shortening came on since. The hip was examined under chloroform, and a spontaneous fracture found. When admitted, the boy was found to be very feebly developed; no hair on pubes; looks about 12 or 13; organs otherwise sound.

The left leg lies on its outer side, with foot everted; 1 inch shortening. The upper third of thigh is occupied with a swelling, which is evenly hard, elastic, not lobulated, and which extends all round the joint, beginning above, just below Poupert's ligament (from which it is separated by an interval), reaching up to perineum on inner side to above the great trochanter on outer side, and to same level behind. Its vertical extent is four inches and a half in front, less at the sides and behind. It is fixed, and the femur, tnmour, and pelvis all move together; no crackling anywhere. The skin is normal, except that a few veins course under it. No enlarged glands to be felt, though there is some tenderness in left inguinal region on deep pressure. The left thigh over it measures three inches and a quarter more than right.

On February 15, Mr. Page amputated at the hip-joint by a short anterior and longer posterior flap—using Esmarch's tubing round abdomen—no bleeding. The tumour proved to be a central sarcoma (spindle-celled) of upper one-third of femur. The bone was expanded and thinned, remaining only as plates on surface of a large blood cyst as it were—sarcoma tissue. The head was completely filled with the growth, but its cartilage was healthy and the joint not involved. The muscles were not involved. He rallied well. February 23rd, had done well. Temperature up a little at nights, and outer end of wound had opened, and some bagging taken place.

April 1st. Appetite improving, but is very thin. Can stand now. Wound nearly healed. April 12th. Wound quite healed. June 3rd. Stump firm and sound. Can bear weight on it, and is in very good health.

January 24th, 1888. The lad has developed considerably since the operation, and is to-day strong and plump, without any signs of return of the disease.

Hypertrophy of Leg. Rare Misplacement of Testis.—J. C., aged 16, was admitted on March 26th, 1886. He was born with the right leg thicker than the left. Nine years ago the foot began to swell after an injury, and the skin on the dorsum broke five years ago, and has never healed.

On admission the legs presented a great contrast; the left was normal, and the right also as far down as the knee. The knee joint contained some fluid. The leg was enlarged, three inches and a quarter more round the calf than the left, with a flabby sort of œdema; no pitting on pressure. The skin is always sweating (left foot) and has erythematous rashes on it every few days, when his temperature rises high. The skin is soft and supple, and contains a few large veins.

The foot is very large, and on its dorsum is a large quadrilateral ulcer with uneven, rough so-called base, irregular, indurated, and elevated margins. There are no sinuses, and no bare bone can be felt. The tibia is smaller than the left, though longer (one inch and a quarter).

Lying at the superior internal angle of Scarpa's triangle, over the saphenous opening, is an oval swelling the size of a pigeon's egg, parallel to Poupert's ligament but one inch below it, and external to the spine of the pubes. It is hard, not very tender, gives rise to a somewhat sickening sensation when squeezed, and is movable. There are several enlarged lymphatic glands lying round it, and there is a hard indurated mass running along its posterior border and ending

above in a rather large "head," very hard. It is evidently the right testis; he says it has been there since he was born, and there is only one testis in the scrotum—the left. After it had been examined orchitis set in, and a sort of cord could be felt running from the testis inwards to the perineum, though whether due to inflamed lymphatics or whether it was the cord was doubtful. Syme's amputation was performed on the foot, and the tarsus found carious. He has never consented to have the testis removed, though he has not infrequent attacks of orchitis.

PRINCE ALFRED HOSPITAL, SYDNEY, NEW SOUTH WALES.

A CASE OF CAISSON DISEASE.

(By G. E. TWYNAM, M.R.C.S.E., Assistant-Surgeon.)

G. H., a strong, healthy man, weighing 14 stone 3 lbs., went to work for the first time in the cylinder at the Iron Cove Bridge on March 6th, 1882, at 9.30 A.M., and came out again at 12.30 P.M. During this time he was working under a pressure of 60 lbs. to the square inch, or four atmospheres.

Whilst in the cylinder he seemed well, and especially did not notice the pain in the ears so often complained of. At 12.30 P.M. he came up into the airlock, and in three minutes the pressure was reduced to the ordinary atmosphere. He left, and shortly after, on the way home, felt a severe pain in the right elbow joint as though he had been struck on the ulnar nerve. Within half an hour his right knee suddenly gave way, and he fell, and in a few minutes became semi-conscious.

In this state he was taken home, when very acute pain set in in both knees and both elbows, but there was no marked swelling in the joints. At 6 P.M. he was almost pulseless and quite chilled. For two days his face was very swollen, and he spat blood slightly for three or four days after the accident; it then ceased, but began again within the month with cough and night sweats. He had shifting pains in various parts of the body for seven days after the accident. From a week to a fortnight after the commencement of the attack the pain suddenly left the other joints and concentrated itself in the right knee, which began to swell and contract. A month later the limb was forcibly straightened under chloroform by Dr. Shewen, and secured on a back splint. Within fourteen days an abscess in the popliteal space appeared, which afterwards proved to be connected with another some inches higher up at the back of the thigh. These were opened early in July and drained, when another swelling with but slight pain was discovered in front of the right trochanter. This was aspirated twice, and about two pints of fluid in all drawn off. The abscess cavity was afterwards drained, and finally in August laid open, when a sinus was discovered leading up to the groin, of which the end was never reached by a probe. At this time the leg again contracted, and remained so during the patient's voyage home to England.

In April, 1883, thirteen months after the injury, he was seen by an eminent surgeon in London, who failed to discover diseased bone, but advised the leg being straightened on a MacIntyre's splint, which was done in nineteen days. He left England May 19th, 1883; during the voyage the leg contracted again, and remained so until I saw him for the first time in November, 1884. He then had two or three sinuses on the outer side of the thigh and one in the popliteal space. I enlarged two old openings, scraped out the sinuses, and followed one beneath the femoral vessels to the inner side of the leg, and up into the pelvis, but could not touch dead bone. This, to my regret, did him no real benefit, for the sinuses continued to discharge, and I saw nothing of him for a year, until October, 1885, when he appeared at the out-patient department of the Prince Alfred Hospital. Dead bone was then detected in the popliteal space, and he was advised to come in.

On October 21st, under chloroform, the sinus was explored, and a probe passed through the condyles.

On October 23th, I amputated by anterior and posterior flaps through the lower third of the femur. On section, the bone looked anything but healthy, being of a greenish colour in the medullary canal and cancellous part, with a smell of sulphuretted hydrogen. I should at once have removed it higher up had I not promised not to do so; however, I scraped out the sinuses near the trochanter thoroughly.

He made a good recovery, his temperature only once reaching 101° F., and that on the second night after operation. He was discharged at the end of November with a sinus at the point of the stump, the old sinus by the trochanter still discharging a little thin pus. He continued thus until the beginning of January, when he

came to be examined again. I then found necrosis when probing the upper sinus, and consequently recommended the removal of the remainder of the femur, as bare bone could be felt at the point of the stump also.

On January 13th, 1886, using a strong india-rubber tube as tourniquet, applied in figure of eight round the limb and pelvis, and held in position by bandages, I removed the bone by Furneaux Jordan's method.

At first the patient was very low, but under opium and brandy he rallied, and the dressings were changed for the first time on the second day. Two openings on the face of the stump were still discharging at the time he left the hospital.

In June, 1886, I found a roughness at the end of one sinus which had not closed. Some new bone deposited from the portions of periosteum left behind; two stout silk ligatures were removed, and afterwards a painful nerve end was excised by Dr. MacCormick when I had left for England. This left him a very good stump or pad, and he has since gained weight considerably, and now weighs 12 stone, 5 pounds.

An examination of the bone after removal showed that the periosteum surrounding the whole bone from end to end was about a third of an inch thick, with a layer of new bone under it closely applied to the old shaft. The compact layer of the old shaft was pale and necrosed, but the cancellous part and medulla were stuffed full of a green coloured fatty material like putty, which no doubt was the original medulla, changed probably by effusion of blood into it. The decomposition of this gave the peculiar colour noticed on section. The surrounding tissues were matted together, and the openings of the sinuses were in such situations that the bone could not be reached by a probe.

REMARKS BY MR. TWYNAM.—The most interesting point of the whole case lies in its causation; for this I must refer you to the Croonian lectures for 1881 by the late Dr. Moxon. Some of his conclusions are, shortly:—1. Having given the anatomical uses of the cerebro-spinal fluid, he goes on to prove that the human brain is capable of withstanding enormous intra-cranial pressure without real damage, provided asphyxia or strangulation be not present. 2. The real danger to the nervous system depends on the pressure being too rapidly removed. 3. Further on he shows how paraplegia is dependent on the poor blood supply of the spinal cord, especially the *corda equina*, in consequence of the great length and small calibre of the spinal arteries. Through the cervical dorsal portions of the cord these arteries are reinforced by small branches which pass in on the nerves, but in the *corda equina*, such as there are, are long and very small. When the pressure is removed rapidly there is a great rush of blood into the tissues of the surface of the body. The spinal cord then being very poorly supplied with blood is in a state of marked anæmia, and I may remind you that anæmia in other cases is an early stage of "white softening," as met with in ordinary paraplegia.

This, then, Dr. Moxon considers the reason why so many men who have been subjected to great pressure have suffered from paraplegia. But there is one factor in this description of which he makes no direct mention as influencing the anæmic state, and which seems to me likely to have considerable bearing on the prevention of these particular symptoms; namely, the prolonged extraordinary pressure of the cerebro-spinal fluid on the cord. It is true that in the earlier part of his anatomical description he shows that as the brain fills with blood, the cerebro-spinal fluid is driven out to press on the cord, and that whilst the brain is gorged with blood the men are lively and work well. One more anatomical fact: in the cord the cavity of the arachnoid is larger below than it is above. Possibly the anæmic condition of the lower end of the cord may in part be produced by the pressure of this fluid, when we consider the hydrostatic relation of the long column of fluid pressing the blood out of the tissues of the cord. Under ordinary atmospheric pressure this effect is not sufficient to damage the cord, as it is met by the emptying of the vessels in the loose tissues surrounding the dura mater. But with the increased blood-pressure in the brain, representing the power, and the lower end of the cord the body to be compressed—lying as it does in that part of the cylinder where the diameter is the larger, and therefore the pressure is the greater—an anæmic condition is produced, and the longer this is continued, the worse for the workman, hence the value of the "short spells," which have been found to be the best preventive under these circumstances. Certain it is that a too long continuance in the air chamber was almost invariably followed by exhaustion and paralysis during the sinking of the caissons for the bridge at St. Louis, whilst this paraplegic condition does not seem to have been met with in any of those who remained under two hours in the cylinder.

If the pressure be taken off at once, instead of the circulation generally being evenly supported by the atmospheric pressure being reduced by degrees, the blood will rush into those parts of the system which have not such long arteries, and into those favoured by gravitation, as shown by Dr. Moxon—so continuing the anæmia. Whereas, if the pressure be taken off gradually, there is more likelihood of all the vessels getting their fair share of nourishment.

With regard to the limb in question, the medullary cavity answers in some degree to the cranium, as the compact bone takes the surface pressure from the medulla, but it had no means for the regulation of its contents, similar to the cerebro-spinal fluid, and I think it highly probable that under the great pressure of the circulation some vessels gave way, and this was the origin of the thrombosis which led to the destruction of the bone, and so to a condition such as Sir James Paget calls "quiet necrosis."

One more point regarding those cases: May not the pains so commonly noticed in the joints be due to an engorgement of the synovial membranes, similar to that found in early joint disease?

[The patient was exhibited at a meeting of the medical section of the Royal Society of New South Wales.]

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 24TH, 1888.

GEORGE D. POLLOCK, Esq., F.R.C.S., President, in the Chair.

BEFORE the papers were read, a very interesting case was shown by Dr. W. R. GOWERS and Mr. VICTOR HORSLEY to the Fellows of the Society. It was that of a gentleman of middle age, who had for more than three years suffered with acute pain in about the middle of the back, just below and inside the lower angle of the left scapula. The spot was very tender as well as painful, but below the region of the fifth nerve there was almost complete anæsthesia as well as complete paraplegia; the accuracy of the delimitation was more distinct on the left side than the right. After some discussion, the diagnosis of tumour of the spinal cord was agreed upon, and Mr. Victor Horsley undertook the operation necessary for its removal. On June 9th, 1887, the spines and laminae of the fifth and fourth dorsal vertebrae were removed without laying bare the cause of mischief; but when the greater part of the posterior part of the third vertebra had been removed, a myxoma about the size of a filbert became visible in the spinal canal, lying on the right side, and compressing the spinal cord. This was shelled out without difficulty, and no further new growth was found. The pain was for a time slightly relieved, but again and again recurred with great severity, and the power of motion was only slowly and intermittently regained during the first three or four weeks. The pressure over the wound was treated by a pad and strong jacket; the local pain gradually diminished; the motor power gradually returned to the lower parts; and, after seven months, the use of the lower limbs, though a little stiff, had become almost natural, and the remains of the laminae had come so near together in the well-healed cicatrix that any further external support seemed unnecessary.

On the Occurrence of Tubercular Disease of the Testis as a Local Affection, particularly with Reference to the Desirability of Early Castration in Certain Cases. By WILLIAM H. BENNETT, F.R.C.S.—The basis of this paper was a record of five cases of tubercular disease of the testis which came under the author's observations amongst his out-patients at St. George's Hospital. The cases were selected with great care from a considerable number of patients suffering from this disease, as they possessed the following important characteristics in common: 1. An absolutely perfect family history, and an entire absence of evidence of privation, excess, or other conditions predisposing to the development of tubercular disease. 2. A perfectly clean bill of health up to the time of the onset of the disease in the testicle. In this respect exception might perhaps be taken to the case of patient No. 5, who had suffered from syphilis twenty-three years previously, but had never been troubled by any symptoms since. 3. The cause of the original inflammation in the scrotal contents was due in all the cases to direct local irritation, traumatic in four, gonorrhœal in one. 4. In each case the spinal column showed evidence of disease before the opposite testis, epididymis, either seminal vesicle, or other parts in the immediate neighbourhood of the testis originally involved. The spinal disease was so insidious that, with the exception of case No. 3, in which it was discovered accidentally, its existence was not suspected by the patient. 5. In neither of the cases did the affection manifest itself in other parts until after the original disease had

broken down. These points were fully discussed, and the following propositions submitted: *a.* Inflammation of the testicle or epididymis, the consequence of injury or direct irritation, might result in tubercular disease of a purely local kind, which, if left to itself, tended surely to generalisation. *b.* The greatest tendency to general infection was at a time subsequent to the breaking down of the original disease. *c.* Parts remote from the testis originally involved might be affected before the opposite testicle, epididymis, or either seminal vesicle. *d.* The rational treatment of cases like those under discussion was castration, upon the appearance of disintegration about the original disease—that is, at the commencement of what the author termed, for reasons stated, the "dangerous period."—Mr. HOWARD MARSH had found the results of his experience different from the cases which Mr. Bennett had brought forward. He could remember no case in which spinal disease was resultant upon tubercular testis, and he was inclined to attribute the symptoms in the back to the infection of lumbar glands. He thought it very rare to find a general tubercular disease spreading from such a focus. Among many cases of tubercular disease of the hip-joint that he had watched there were very few indeed in whom there was any phthisis; it would be correct to say that, as a rule, there was no sign of concomitant disease in the body. He thought we were apt to exaggerate the dangers of dissemination of tubercle, and so he led to the unnecessary excision of some parts, for example, the knee, for local tubercle. It was an operation in which it was difficult to be certain that all the tubercle was removed, and it sometimes happened that an operation merely excited the tubercle to fresh growth, to wider spread, and ultimately caused rather than checked a tendency to general tuberculosis.—Mr. CLUTTON had found most out-patients with tubercle of the testis in a condition quite unfit for operation, inasmuch as both testes were already involved when he first saw them. About nine months ago, however, he saw a patient with a hard nodule in one epididymis and a discharging sinus. The organs of the other side were healthy. The cord seemed healthy, and there was only one morbid mass, which was considered to be an enlarged gland, on the affected side. He tried to remove the nodule without opening the tunica vaginalis; but in the course of the operation the enlarged mass proved to be the cord, so that it became advisable to remove both cord and testis; a sinus remained open leading down to the stump of the vas deferens. The disease, in fact, proved to be too widely spread for unilateral treatment, and in most cases he had found disease on one side accompanied by disease on the other. He had not noticed cases in which it had spread to the spine.—Mr. BARKER remarked that if Mr. Clutton's case could have been treated, as Mr. Bennett wished, by castration before the disease spread up the vas deferens a general tuberculosis would probably have been avoided. Mr. BRUCE CLARK had found diagnosis often difficult, for some cases of chronic inflammation were hard to distinguish from tubercle. Another difficulty was to determine accurately whether there were any other foci. It was not difficult to understand the method of dissemination, for a coloured material such as Berlin blue, if injected into the testis, spread upwards easily into the thoracic duct; and that, as he took it, was sufficient reason to explain why the tubercular disease of the testis spread so much more readily than that of the joint.—Mr. W. H. BENNETT, in reply, observed that he was afraid he had not made his meaning clear to Mr. Marsh. He had not said or meant to imply that what he described was the common course of tubercular disease of the testis, but merely what had actually happened in 5 cases out of about 150, from which he thought there was something to be learnt as to the method of diffusion and the mode of arresting it. The symptoms referred to the spine were beyond what could be caused by inflamed glands. In one case there was carious bone shown at a *post-mortem* examination; in another the spinal curvature was half as large as his fist; in a third the stiffness extended up to the upper dorsal region; in a fourth the spinal symptoms had improved, but relapsed, with spread of the disease to the other testis. Mr. Clutton's case was dissimilar in having a nodule in the cord, whereas his own point had been to advise operation before the formation of a nodule in the cord. It certainly needed some practice on the living and the dead to acquire a thorough practical knowledge of the condition of the vesiculæ seminales and the prostate in health and disease, and he had ventured to bring this subject before the Society as raising the question of the method of diffusion of local tubercle and the opportunities of stopping it.

Case of Intra-peritoneal Rupture of the Bladder; Abdominal Section; Suture of the Bladder; Recovery. By W. J. WALSHAM, F.R.C.S.—C. H., aged 22, was admitted March 1st, 1887, into St. Bartholomew's Hospital under the care of Mr. Walsham. He had been drinking the night before, and in a fight was butted by his opponent in the abdomen, his bladder being full at the time. He passed a night

of great agony, and was brought in a cab to the hospital the following morning, but he was then suffering very little shock, and walked into the surgery with the assistance of two friends. He complained of pain in the lower part of the abdomen, and of having been unable to pass any urine since the blow, although his bladder was uncomfortably full at the time. The perineum was natural, and there was no history of stricture. On passing a catheter no urine flowed, although the point was ascertained to be in the bladder by the finger in the rectum. On depressing the handle the catheter was felt to free itself with a jerk, and its point could be then felt more plainly than natural through the abdominal walls. Bloody urine now escaped, the flow varying with respiration. About twelve hours after the injury Mr. Walsham opened the abdomen, and having discovered an intra-peritoneal rent in the posterior wall of the bladder, sewed it up with nine Lembert sutures. The sutures were passed through the muscular and peritoneal coats only, and one was placed above and below the upper and lower angles of the wound respectively. The bladder having been forcibly injected with eight ounces of boric acid solution and found watertight, the peritoneum was irrigated with about two gallons of warm boric acid solution, and the abdominal wound closed as in ovariectomy. A catheter was left in the bladder for two hours, and the patient subsequently reminded to pass his urine every four hours. There was little shock, and the patient recovered. Daily notes were given at length. The author remarked that there had now been seventeen cases in which abdominal section had been performed for rupture of the bladder, three extra-peritoneal and fourteen intra-peritoneal. Of the three extra-peritoneal cases two died and one recovered. In the successful case the wound in the bladder was secured to the abdominal wall but not sutured. In the fatal cases death was due to shock. The rent in one was found securely sutured at the *post-mortem* examination; in the other the rupture had not been discovered on opening the abdomen. Of the fourteen intra-peritoneal ruptures the rent in the bladder was sutured in eleven, and in three a drainage tube was placed in the wound but no sutures employed. Of these three one recovered and two died, death being due to peritonitis and suppression of urine respectively. Of the eleven cases where the rent in the bladder was secured by sutures five recovered and six died, death being due in three cases to peritonitis, in two probably to shock, and in one to hæmorrhage from a perineal incision employed for exploration. In the three cases of peritonitis the sutures had given way in one, and a leakage had occurred in the lower part of the wound in the other two. In the five successful cases Lembert sutures were employed, and the peritoneum was washed out, and in only one was a drainage tube used. The author discussed: 1, the advisability of early operation; 2, the importance of using a suture which will not become softened too soon, and of ascertaining before closing the abdominal wound that there is no leakage from the bladder; 3, the cleansing of the peritoneal cavity; 4, the inadvisability of a preliminary incision in the perineum, or of a subsequent incision in that region for the purpose of drain; and, 5, the question of tying in a catheter after the operation. A table of the seventeen cases was given, sixteen of which are in Sir William Mac Cormac's table appended to his work *On Abdominal Section*.—Mr. HOLMES took a peculiar interest in the subject, and that, not only because he believed that he had been the first surgeon to suggest this method of treatment. It was a suggestion that must have become obvious as soon as we learnt how freely it was possible to deal with the abdomen. The preliminary diagnosis was sometimes very difficult. He had seen a case in which the *post-mortem* examination showed a rupture, but in which the patient during life had passed water without great difficulty. Dr. Weis, of Philadelphia, had suggested the preliminary injection of the bladder with fluid, but that, he thought, added little to the certainty in doubtful cases. The reason of the retention of the capacity to pass water after rupture was still to seek. If, as he was inclined to think, it might depend on the fact that the rent in the wall of the bladder was incomplete at first, then preliminary injection would be very dangerous. If it was due to the temporary plugging of the rent by the intestines, the safer course would be to cut down upon it early. It was important for diagnosis to make a preliminary exploration with a catheter. In his own case that had been sufficient to render the diagnosis quite plain. He doubted whether it was a good plan to inject the bladder after putting in the sutures; it might help to tear them out, and if they were near enough together it would be probably unnecessary. In all other points he cordially agreed with Mr. Walsham's treatment. Perineal incision had better be avoided; it was the cause of death in Mr. Teale's case, and had been merely vexations in his own. He thought we should come to regard these cases as comparatively easy, so great was the improvement in abdominal surgery, compared to distant days when he could remember seeing a patient with ruptured

bladder, but still looking fairly strong, come under Mr. Cesar Hawkins's treatment, who diagnosed his injury rightly enough, but had nothing further to do than to watch him die of peritonitis.—Mr. BUTLIN said that he had made a *post-mortem* on a case of Mr. Willett's, in which an orifice had been found in a sutured bladder after death, and that had led several who had seen it to make up their minds not to refrain from injecting the bladder after suture in any similar case.—Mr. T. SMITH remarked that the operation could not be called completed until the bladder had been proved watertight, as in cases of vesico-vaginal fistula.—Mr. BARWELL approved of the injections before and after operation, though he had had no opportunity of practising them.—Mr. WALSHAM, in reply, had only a few words to say. He thought the preliminary injection might do a little good and no harm; and the injection subsequent to the sutures, he felt important, for in three fatal cases a leak had been shown to exist.

MEDICAL SOCIETY OF LONDON.

MONDAY, JANUARY 23RD, 1888.

J. HUGHLINGS JACKSON, M.D., F.R.S., President, in the Chair.

CLINICAL EVENING.

Case of Congenital (?) Deformity of Shoulder-Joints.—Mr. BERNARD PITTS showed a child who was brought to the hospital on account of a supposed deformity of the spine, remarked since birth. There was a gap below the acromion processes, and the heads of the humeri could be felt in the subacromial position. No trace of the glenoid cavities could be detected. The muscles were atrophied symmetrically on both sides. He asked the opinion of the Fellows as to whether it was a case of congenital deformity or whether it was due to infantile paralysis.

Naevoid Growth of Tongue.—Mr. PITTS also showed a child with a naevoid condition of the tongue. This had gradually increased in size, until it hung out of the mouth, necessitating the removal of a triangular piece of the tongue to reduce its size. It was still increasing in size, and he proposed to try the effect of multiple applications of Paquin's cautery.

Case of Nervus of the Tongue.—Mr. JOHN MORAN showed a male child, on whose tongue a naevoid growth was noticed when 18 months old. As since that time it had only increased in size *pari passu* with the growth of the tongue, and as he had on several occasions witnessed spontaneous disappearance of similar growths, he had decided to await the result of Mr. Pitts's experiment with Paquin's cautery.

Case of Sporadic Cretinism.—Dr. HADEN showed a child, 3 years of age, with some, but not all, the characteristic signs of cretinism. The child was dull and lethargic; the body was swollen and the skin harsh. The child was a "bleeder," and belonged to a hæmophilic family on the maternal side, and although he was unable to define the exact relationship of the hæmophilic condition with cretinism, he called attention to the fact that in myxedema hæmorrhage was also a common occurrence. He also showed a child, 10 months old, who had various convulsive movements of the head and neck to the right, with nystagmus, the pupils often becoming dilated during the attacks. The child talked and walked well. He did not think it was really a case of epileptiform or functional nature.

Case of Congenital Pemphigus.—A child, who had suffered from bullous eruptions, which first appeared within a few weeks of birth, was shown on behalf of Mr. MALCOLM MORRIS. The eruption began on the dorsum of the hands and feet—never on the palms or soles—but had spread, generally symmetrically. The child had been treated in the first instance on the supposition that the eruption was due to hereditary syphilis; but the sequel had shown that this was not the case, no other syphilitic manifestation having shown itself.—Dr. COLCOTT FOX, under whose care the child had been, had tried mercury and arsenic without success. He attributed the success that had followed the mercurial treatment in other hands to the more favourable hygienic condition of environment as an in-patient. He pointed out the differences between pemphigus due to a specific cause and the idiopathic form.

Case of Epispadias and Partial Extroversion after Operation.—Mr. W. J. WALSHAM exhibited a patient, aged 9, on whom he had operated for complete epispadias and partial extroversion of the bladder. The penis was ill-developed, but had a good glans, and the urethra was open in the whole length on its dorsal aspect, except at one spot, where a thin bridge of skin about one-eighth of an inch wide indicated an attempt at roofing in. The anterior wall of the bladder was partly deficient, but the mucous membrane did not bulge forwards, as commonly occurs in complete extroversion. The open pouch which represented the bladder was about the size of the last joint of the thumb. The scrotum was well developed, the testicles

descended, and there was no hernia. On September 21st Mr. Walsham made an incision around the margin of the opening into the bladder, and continued it at each end on either side of the gutter representing the urethra, as far as the glans. The muco-cutaneous tissues having been dissected up, were turned inwards, so as to bring the raw surfaces into contact, and united with chromicised catgut sutures, after the method of Lembert. An incision was then made transversely through the skin of the scrotum at the root of the penis, and a second incision parallel to the first about an inch and a half lower down. The bridge of skin thus marked out was dissected up, and the penis passed under it. It was then united to the skin around the margin of the bladder and urethra by horsehair sutures. The bladder and urethra were thus provided with a double roof, the raw surface of the lateral flaps being covered over by the bridge of skin taken from the scrotum. The flaps united by the first intention except over the anterior third of the urethra, where, in consequence of the excessive thinness of the tissues they gave way. Mr. Walsham intended at a future time to complete the covering of the urethra, by making use of the abundant skin forming the prepuce. At present, however, he thought it better to wait till the penis had become more developed at the age of puberty, and the restored parts had time to consolidate. The boy could now hold his water for five or six hours, and passed from five ounces to half a pint at a time.—Mr. HURRY FENWICK said that in the only case he had operated on he had been obliged to take a supra-umbilical flap to bring over the bladder, and two flaps from the sides, which united very satisfactorily, although an attack of scarlatina intervened.

Case of Recovery from Chronic Pyæmia.—Dr. CLUTTON showed a lad, 8½ years of age, who was recovering from an attack of what he preferred to describe as a case of multiple purulent synovitis. He had suffered for about a year from a discharge from both ears which latterly had become more profuse. He then had an abscess under the chin, and subsequently the right shoulder-joint and both elbows became filled with pus, the right hip-joint becoming also completely disorganised, with the femur on the dorsum ilii. He remained in a very precarious state for six weeks, but ultimately recovered.

Electric Illumination of the Male Bladder and Urethra.—Mr. HURRY FENWICK showed a series of instruments made by Leiter of Vienna, and Hartwig of Berlin, armed with incandescent lamps for illuminating the male bladder and urethra, and demonstrated their capabilities upon patients and "dummies." He observed that endoscopy had attracted the attention and efforts of the profession since the commencement of the century, but the candle power hitherto used had proved insufficient. Quite recently (1887) however, the smallest Edison lamp had been employed, and the result had been brilliant. Instead of a cumbersome, costly, and fickle instrument like the Nitze-Leiter endoscope of 1880, we now possessed a simple, practical, and safe apparatus by which the bladder or urethra could be examined in as strong a light as if it was viewed by direct sunlight. Every detail of the vesical or urethral surface was discernible, under favourable circumstances, even to the small vessels coursing over the mucous membrane. Mr. Fenwick mentioned certain elements necessary for a successful bladder examination, and explained that the vesical endoscope needed much practice and patience before the observer could become proficient with it. He believed that the value of electric endoscopy could hardly be estimated, and he predicted that it would at once assume a high rank in the diagnosis of obscure vesico-urethral disease, and would become almost as indispensable as the ophthalmoscope or laryngoscope. [Mr. Schall of Wigmore Street (Mr. Leiter's agent for Great Britain) was in attendance, and showed various batteries for working the endoscopes.]—Mr. WALSHAM bore testimony to the ease with which he had been enabled to see a stone in a dummy bladder.—Dr. ROUTH asked whether the instrument had been applied to the examination of the uterus.—Mr. FENWICK in reply said that the instrument would doubtless be applicable to the examination of any orifice of the body.

Case of Unilateral Sweating.—Dr. ANDERSON showed a young man who suffered from profuse perspiration limited to the right side of the head, face, and neck. There was nothing in the man's history to give a clue as to its causation, and no history of syphilis. Two years ago, when on frontier service in Mexico, he had noticed what he called "powerlessness" of the right arm. He was unable to raise his right arm on getting up in the morning, but this generally passed off in an hour or two. The man's general health was good. He (Dr. Anderson) asked for opinions as to the cause of this curious condition and suggestions for treatment.

A BILL for the utilisation of the sewage of Paris in the lower part of the forest of St. Germain has been adopted by the Chamber of Deputies.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, JANUARY 18TH, 1888.

JOHN SMITH, M.D., F.R.C.S.E., President, in the Chair.

Patients and Specimens.—Dr. BYROM BRAMWELL showed a patient suffering from Locomotor Ataxia, where Optic Atrophy had appeared, prior to the more characteristic phenomena of the malady.—Dr. AFFLECK gave details of a case of Progressive Anæmia, with marked corpuscular depreciation, both in respect of number and form, where recovery had been effected.—Dr. BYROM BRAMWELL exhibited a plaster cast of a Thoracic Aneurysm of unusual clinical interest. The aneurysm projected as a considerable tumour from the anterior thoracic wall, and finally ruptured. The patient had declined to have operative interference attempted. Dr. Bramwell expressed the hope that ere long they might discover some natural blood ferment, which, on injection into the sac, would be able to initiate coagulation. They would remember that Dr. Gamgee had conducted experiments in this direction; but unfortunately the result showed that the ferment which he employed induced coagulation, not only within the sac, but in the circulation generally. Dr. Bramwell inclined to the belief that they might yet find some ferment which, when combined possibly with gelatine, might be able to effect coagulation in the sac alone.—Dr. BRAMWELL also exhibited photographs of the brain in a case of Cancer of the Left Lateral Lobe of the Cerebellum and the Lenticular Nucleus. During life, vertigo of a peculiar character had been the most pronounced symptom.—Dr. JOHN PLAYFAIR showed the lungs of a child, with a large pin impacted in the left bronchus. The little patient, of 15 months, was said to have swallowed a pin. Various unsuccessful attempts had been made, at home and in the Royal Infirmary, to determine the whereabouts of the pin. Soon after admission into the Sick Children's Hospital the child was seized with grave dyspnoea, necessitating tracheotomy. This relieved the patient much, and in due time it was dismissed, apparently well. About a year later the resident physician was asked to go to see the child, which he found dead. The cause of death was cancer oris; but on *post-mortem* examination a large pin was found impacted in the left bronchus, not far from the bifurcation of the trachea.—Mr. A. G. MILLER showed a Knee-joint removed for Syphilitic Disease. The joint was so extensively disorganised that, when the patient was admitted, Mr. Miller was inclined to think it must be tubercular. Examination showed, however, an absence of any trace of tubercular disease, while the evidences of syphilitic disease were abundant. Comparison with other surgeons showed that such cases were very rare.—Mr. SYMINGTON showed a beautiful section to illustrate the Anatomy of the Ear and Naso-pharyngeal Connections. Among other points of interest, it demonstrated that the antrum does not communicate directly with the internal meatus, but with that passage through the medium of the infundibulum. The section also gave further support to the view that the Eustachian tube is normally a closed tube.

The Place of Specialism in General Practice, with reference to Diseases of the Eye, Ear, Throat, and Nasal Cavities.—Dr. GEORGE HUNTER (Linlithgow) read an elaborate paper on the above subject. By means of illustrative cases, he showed the value which attached to a fair working knowledge of these diseases, more especially in the case of the general practitioner, and he advanced a strong plea for their fuller study in our medical schools.

SOUTH INDIAN BRANCH.

FRIDAY, AUGUST 5TH, 1887.

Brigade-Surgeon ROBERTS in the Chair.

Intestinal Parasites.—Brigade-Surgeon PORTER, M.D., reported the case of a young Singhalese domestic, aged 16, who died of fever followed by dysentery a few hours after his admission into the hospital at Madras. In the duodenum were found after death several specimens of the *anchylostomum duodenale*, some alive and some dead, adhering to the somewhat congested mucous membrane.—Surgeon J. H. POPE made some remarks on the case of a Hindu who was infested by *tenia mediocanellata*. Six of these parasites were expelled after a single dose (5*ü*) of liquid extract of male fern.

Ainhum.—A paper by Surgeon J. SMYTH, M.D., was read, in which he pointed out that ainhhm had not hitherto been noticed in Southern India. He described a typical case observed in a native aged 30, at the General Hospital, Madras, in June, 1882. The disease appeared to be common in Dacca, where the people call it *sukha pakla* (dry suppuration). Of the causation of the disease, which is characterised by a peculiar annular atrophy affecting the toes, and leading to complete disappearance of all the tissues, tendon, skin, and bone, being

all replaced by a strand of fibrous tissue, nothing was known. Dr. Smyth agreed with other observers in comparing the appearance of the toe to that which would be produced by tying a string firmly round the base and allowing it to ulcerate deeply into the tissues.

Injury to Cervical Spine.—Brigade-Surgeon SIBTHORPE related the case of a Hindu, aged 35, who sustained a strain or perhaps a partial fracture of some of the upper cervical vertebrae. This was followed by spinal meningitis and spastic rigidity of the lower limbs. Complete rest to the injured part was procured by the use of sandbags, and mercury was administered; he slowly improved, and after a year was able to walk without help. He had become liable to attacks of bronchial asthma, and on one occasion there was a remarkable slowing of the pulse.

Lymphatic Tumours of Groin.—Brigade-Surgeon SIBTHORPE related three cases of enlargement of the lymphatics of the groin, which had been under treatment at the General Hospital, Madras, during the previous few months. In one case the glands were excised; in another, several attacks of fever occurred, during which the glands enlarged; in the third, and in that only, though careful search was made in all three, embryos of *filaria sanguinis hominis* were found in the blood.

Mulberry Fibroma.—Brigade-Surgeon SIBTHORPE also showed a drawing of a case of congenital tumour of the right eyelid, observed in a Mahomedan, aged 18. Rapid growth had taken place during the four years before he went to the General Hospital, Madras. The right upper eyelid formed a large pendulous mass of fibro-vascular tissue three inches and a half long; the lower lid was also enormously enlarged, and two pendulous masses were attached to the skin of the face, on each side; the skin behind the tumour, and between it and the ear, was papillomatous. The eyeball was atrophied, having been probably lost from inflammation at the age of 3. The youth complained of neuralgic pains in the course of the fifth nerve; these were relieved by hypodermic injection of morphia.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, DECEMBER 2ND, 1887.

H. STRAK, M.R.C.S., Vice-President, in the Chair.

Abscess between Liver and Diaphragm.—Mr. J. HUGH read the notes of this case, and showed the duodenum removed after death. There was a small punched-out ulcer, which had perforated. The *post-mortem* examination showed an abscess extending up between the liver and diaphragm, in close connection with the ulcer in the duodenum.

Some Forms of Disproportion between the Fetal Head and Pelvis (other than Pelvic Deformity) as a Cause of Protracted and Arrested Labour.—Dr. BOXALL read a paper on this subject.

Congenital Hydrocephalus.—Mr. G. N. BLUETT exhibited a specimen. The mother was delivered on October 20th. The breech presented. The trunk being born, the head would not enter the true pelvis. It was, therefore, perforated behind the ear, and the fluid let out; even then its size was so enormous that it had to be delivered with the cephalotribe. The child was fully developed, having no other deformity; it measured 27 inches long, weighing 15 lbs. The circumference of the head was 27½ inches, and it contained 4½ pints of fluid. The biparietal diameter measured 8½ inches.

Sudden Death in Diphtheria.—Dr. ROPER said a boy aged 12 years was taken ill with sore-throat on October 23rd. He did not seem very ill, and no medical attendance was obtained for him. On November 2nd—the eleventh day—he appeared weak, and on the evening of that day he made an attempt to walk upstairs, but failed, and asked his father to carry him up. It was observed that his voice was nasal. On the following day, November 3rd, his face was pale and slightly livid. The surface of the body felt cold. The tone of voice was nasal, and fluids returned through the nose. The temperature in the mouth was 97.4°; the pulse was 72, small and weak; respiration 16, shallow; the heart-sounds feeble and rather indistinct. He died at 5.30 the following morning, November 4th. On *post-mortem* examination the cavities of the heart were completely distended with clot, especially on the right side. The lungs were healthy, but the left one was attached to the chest walls by old adhesions. The local lesion in this case must have been very slight, as by the eleventh day there was no evidence in the state of the mucous membrane of the previous exudation; and the patient had taken his food well until the paralytic symptoms set in.

Malignant Endocarditis.—Mr. LAURENCE HUMPHRY related this case. The patient, a laundry woman, aged 50, was admitted into Addonbrooke's Hospital on May 4th, under Dr. Bradbury. Physical examination of the chest showed pneumonia at the right apex. The

heart sounds were clear at apex and base; the apex beat was not felt. On May 6th she was evidently better; the temperature was normal, pulse 100, tongue moist and clean, and the physical signs at the apex of the right lung were clearing. On May 8th the temperature suddenly rose to 102.6°, and the pulse to 132, and came down, after a profuse sweat, to 98°. On May 11th she had a distinct rigor. The breathing was very feeble at the right apex, and there were occasional friction sounds, with impaired resonance at the second and third intercostal spaces. The heart sounds were clear and regular. On May 14th her temperature reached 105°, and she had a severe rigor, and gradually sank after becoming unconscious. The *post-mortem* examination revealed a small abscess in the anterior mediastinum, extending chiefly to the right under the mediastinal pleura, and backwards as far as the root of the right lung; it contained about 1½ to 2 ounces of green, offensive pus. The right lung was adherent anteriorly, and the upper lobe appeared to be undergoing resolution after pneumonia. The pericardium was normal. The endocardium of the left auricle was roughened, and on the aortic cusp of the mitral was a patch of the size of a threepenny-piece, rough, ulcerating, and fungating; near the centre was a small perforation. The aortic valves were thickened and atheromatous, and covered with soft fungating vegetations, easily detached. The first part of the aorta was very atheromatous, with projecting calcareous plates, but without vegetations. There was slight hypertrophy of the muscular walls of the ventricles, and several white fibrous patches in their interior. The atheromatous disease of the aorta and valves was evidently of old standing; the ulcer and vegetations recent. There were extensive infarcts in both kidneys, and a small one in the spleen. There was diffuse purulent meningitis of the brain and spinal cord, with yellowish pus surrounding the cranial nerves; also a few patches of inflammatory softening in the brain substance. Mr. Laurence Humphry remarked upon the frequency with which these cases seemed to begin in a pneumonia, and the association of meningitis of the brain and spinal cord. In this case the recent mycotic process had evidently been grafted upon old atheromatous disease of the aortic valves.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, JANUARY 13TH, 1888.

EDWARD ATKINSON, M.R.C.S., President, in the Chair.

Trephining for Compound Depressed Fracture of the Skull.—Mr. LAWFORD KNAGGS read a paper on a case. He advocated a more thorough immediate exploration and cleansing of the injured parts (1) by a large skin flap; (2) by a more liberal removal of bone; (3) by a semicircular flap of dura mater, if that membrane should be injured; (4) by careful cleansing of all the exposed and damaged parts by powerful antiseptic lotions. He pointed out that, in the case related, the dura mater was found completely united by healthy lymph in eighteen hours. The proportion of cases in which severe after-effects occurred would probably be considerably diminished if operative interference at the time of injury was the rule. The experience of members was solicited on the suitability of opium in cases of commencing meningitis. Its power of contracting the cerebral arterioles suggested its employment, quite apart from its anodyne effect.—Mr. MCGILL understood Mr. Knaggs's main point to be the desirability of immediate trephining in all cases of compound depressed fracture, with or without cerebral symptoms. Mr. McGill's experience was entirely opposed to this view, his own views being these: (1) that in cases of simple depressed fracture, without symptoms, surgical interference was not advisable; (2) that if, by asepsis, we could practically reduce a compound fracture to the condition of a simple one, we should treat it on the same lines. If it were impossible to purify the wound without removal of bone, by all means let it be removed.—Mr. JESSOP treated his cases on the lines indicated by Mr. McGill. He attached much importance to the complete arrest of hemorrhage, as he thought that the constantly varying intracranial pressure presented a favourable mechanical condition for the rapid spread of extravasation and inflammation throughout the subdural space. He considered that opium was of great value in many cases.—Dr. RABAGLIATI said, with regard to opium, was it not a congester of the veins, and, therefore, a danger?—Mr. MAYO ROBSON thought much depended on the extent and character of the fracture. When there was much splintering or extensive depression, or when the wound could not be efficiently dressed, he advised trephining; in other cases he trusted to antiseptics. He had found opium of service in lessening hemorrhage.—Mr. PRIDGIN TEALE did not think the case for immediate interference was so strong as Mr. Knaggs argued, as many cases recovered completely and permanently without it. He some time ago came to the conclusion that

the dictum, "opium is dangerous in head cases," was a vulnerable one, and began cautiously to use it, especially in cases marked by extreme restlessness and a rapid rise of temperature.—Mr. LITTLEWOOD argued in favour of the free surgical treatment of these cases.—Dr. S. C. SMITH urged that it should be borne in mind what the trephine did. It provided for free drainage, and he thought that many cases of unexpected recovery from severe cranial fracture were owing to the drainage provided by the severity of the accident itself. On the whole, he advocated waiting for symptoms.—Mr. KNAGGS replied.

Supernumerary Teeth.—Dr. HELLIER showed a cast from the mouth of a child in whom there were six upper incisor teeth belonging to the first dentition.

Optic Neuritis in Chlorosis.—Dr. WARDROP GRIFFITH gave an account of a case in which optic neuritis was associated with chlorosis, and remarked on the difficulty of determining the value of this symptom as an indication of functional or organic disease.—Dr. CHURTON thought that in such cases optic neuritis was a mere coincidence.—Mr. BENDELACK HEWETSON remarked on the difficulty of recognising certain poisons, such as lead, which induced both chlorosis and optic neuritis. In some cases he thought constipation, and consequent fecal absorption, was a cause; and he referred to cases in which otitis, leading to cerebral mischief, and a condition of leucocythæmia, acted as causes.—Mr. HARTLEY thought it was easy to mistake the swollen disc often seen in cases of hypermetropia for true papillitis, and that very accurate observation was required.—Dr. A. BRONNER referred to syphilis as a common cause, associated with anæmia.

Lip Language for Deaf Mutes.—Mr. BENDELACK HEWETSON showed a boy from the school of deaf mutes at Doncaster, who was being taught to speak. He had been three years under treatment, and could read fairly audibly, though in a rather low voice.

Pathological Specimens, etc.—Mr. LAWFORD KNAGGS: (1) Calculus removed by Suprapubic Lithotomy; (2) Makius's Enterectomy Clamp.—Mr. ATKINSON: Tumour removed from Prostate by Suprapubic Prostatectomy.—Dr. BARKS: Malignant Stricture of Descending Colon.—Mr. MAYO ROBSON: a Double Hydrosalpinx, recently removed, the tubes containing four and two ounces of fluid respectively; (2) A Dissection of Intestinal Obstruction, due to an omental band passing from the sac of a femoral lesion.—Mr. P. TEALE: Diverticulum causing Obstruction of Bowels.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THURSDAY, JANUARY 12TH, 1888.

G. H. HUME, M.D., President, in the Chair.

Orbital Aneurysm.—Mr. RUTHERFORD MORISON exhibited a boy into whose orbit there had passed the blade of a clasp knife. The boy could see immediately after the accident; a few weeks afterwards the eyesight was lost. There was no paralysis of the ocular muscles, and there was no atrophy of the optic disc. A well-marked, intermittent *bruit* could be heard all over the head.

Thoracic Aneurysm.—Dr. OLIVER exhibited a woman, aged 30, suffering from a large pulsating tumour in the upper part of the front of the chest. There was no history of syphilis. Three years previously she fell from the first floor of a house. Eighteen months after this she noticed a small pulsating tumour over the manubrium sterni. Within the last few months this had rapidly increased in size, until it now measured $6\frac{1}{2}$ inches longitudinally. Under large doses of sodium iodide she had complete relief from pain.—Professor PHILIPSON remarked upon the sex of the patient, and cited a similar case he had had under observation.

Rheumatic Nodules.—Dr. DRUMMOND exhibited a boy and girl suffering from cardiac disease, and rheumatic nodules were seen to be freely distributed in each. The boy had a tricuspid, and the girl a mitral, systolic murmur. Dr. Drummond regarded the coexistence of rheumatic nodules and cardiac disease as of grave importance.—Dr. MANTLE said he had seen similar nodules in adults.

Psoriasis of Wide Distribution and of Rapid Development.—Mr. COLLINSON exhibited for Dr. FENWICK a case in which the disease had, after beginning at the elbows, extended over nearly the whole of the body in three months.—Suggestions as to treatment were offered by Professor PHILIPSON, Drs. A. CAMPBELL, MANTLE, NEWCOMBE, DRUMMOND, THOMAS WATSON, and JACKSON.

Puff and Dart Needle Removed from Air Passages.—Dr. LYON exhibited specimens partly expelled by and partly removed from a girl, aged 11. Immediately after the insufflation there was no laryngeal distress whatever, but two days after this the temperature rose, and five days after the accident tracheotomy was performed by Dr. Hume, and attempts made to remove the needle, but unsuccessfully. The needle was known to be imbedded at the left apex. An electro-

magnet devised by Mr. Buckmaster, of Oxford, was tried, but to no purpose. Ten days after the use of the magnet the wool of the needle was coughed up, and a week after this, after a fit of coughing and vomiting, Dr. LYON, on examining the throat, saw the needle imbedded in the wall of the pharynx, from which he easily removed it with forceps. The child had made a fair recovery, but there was still dulness at the left apex.—In the discussion which followed, Drs. MURPHY, THOMAS WATSON, CAVE, HUMM, and DRUMMOND took part.

Ulcerative Endocarditis.—Professor PHILIPSON exhibited specimens removed from the body of a young man suffering from pleuro-pneumonia of the left base. The temperature remained high, but oscillated. The patient had a severe rigor when under observation, and a few days afterwards a loud aortic *bruit* was heard. The spleen was noticed to be increasing in size, and blood was found in the urine.—Remarks were made by Dr. OLIVER and Dr. DRUMMOND.

Abdominal Aneurysm.—Dr. VANN exhibited a specimen which was removed from the body of a man, aged 50. He had never complained of pain. The sac had not ruptured. The patient died from exhaustion.

Suprapubic Lithotomy.—Mr. RUTHERFORD MORISON gave details of a successful case in a man, aged 50.

Specimens of Uterine and Ovarian Disease were exhibited by Dr. MURPHY. The series included specimens of pyosalpinx, hydatidiform mole, and a variety of ovarian cysts.

The Galvano-cautery in the Treatment of Diseases of the Nose and Pharynx.—A paper on this subject was read by Dr. WILLIAM ROBERTSON.

REVIEWS AND NOTICES.

THE PRINCIPLES OF ANTISEPTIC METHODS APPLIED TO OBSTETRIC PRACTICE. By Dr. PAUL BAR, Accoucheur to, formerly Interne in, the Maternity Hospital, Paris, etc. Translated by Henry D. FRY, M.D. Philadelphia: P. Blakiston, Son, and Co. 1887.

The author, Dr. BAR, is an enthusiastic advocate of the employment of antiseptics in obstetric practice, and the translator evidently shares his views on the subject. No one would dispute *a priori* the necessity for strict asepsis in obstetrics as in other departments of surgery, but it is necessary to bear in mind that cleanliness is after all the most powerful antiseptic we can employ—cleanliness, that is, of atmosphere, of persons, and of instrument. With it chemical antiseptics, the use of which is not unattended with danger, may be safely dispensed with; without it all such agents are useless, or nearly so. In the hands of the author antiseptics is an aggressive policy, a war of extermination against the hypothetical little organisms whose presence is deemed to be the cause of certain pathological changes. The first chapter is devoted to the discussion of the nature of the infective processes which are apt under certain conditions to follow traumatism—processes which it is clearly shown have a close relationship with the presence of specific organisms. Having discovered the enemy, the next step is to destroy him, or, at any rate, to prevent an invasion. The first point, and the most important, is to place the puerperal patient in perfectly aseptic surroundings, and to keep them aseptic. This advice is excellent, though not always easy of application. Should the object not have been attained, we must "kill the germs which have gained access to the surface of the wound, and if the circulatory apparatus has been invaded, we must destroy the morbid principles which have penetrated therein." This is, no doubt, what ought to be done, but many bacteriologists would shrug their shoulders if asked to advise as to the means of so radical an elimination. The author happily knows no such qualms. He has antiseptics, some of which "fix the germs and prevent them from increasing," and others, much more powerful, which "act upon the germ itself by destroying it." Each genus of microbe requires a special strength of solution to ensure destruction, and consequently "the real value and power of each antiseptic cannot be recognised until a series of experiments have been made upon each known microbe." Luckily we are not obliged to await the reply to so far-reaching a question, since it is always possible to effect one's purpose by a strong solution, on the principle that the whole includes the part. Some elaborate tables are given of the estimated strength of various antiseptic substances, the more important of which are subsequently treated of *seriatim*.

Of late years the mortality returns of maternity hospitals have shown a very marked improvement on those which obtained at an earlier period, due in part to the observance of more scrupulous

cleanliness and the recognition of the danger attending the conveyance of infection from *post-mortem* rooms or the general wards. The author appears to favour recourse to antiseptic vaginal injections even during normal labour—a proceeding which many competent obstetricians do not approve. A good deal of space is given to the various antiseptic measures and the method of their application. While practicable and possibly useful in maternity hospitals, some of them would be difficult of application in private practice, and others would be dangerous unless employed under strict surveillance. The volume is a very complete and well-written monograph on obstetrical antiseptic, and the translation has been very well done.

A HANDBOOK ON DISEASES OF THE SKIN, WITH ESPECIAL REFERENCE TO DIAGNOSIS AND TREATMENT. By ROBERT LIVEING, A.M. and M.D. Cantab., F.R.C.P. Lond. Fifth Edition, Revised and Enlarged. London: Longmans, Green and Co. 1887.

THAT Dr. LIVEING'S handbook on *Diseases of the Skin* fulfils a useful purpose is sufficiently shown by the fact that it has already passed to a fifth edition. This new edition does not, in its arrangements, differ materially from the previous one. New articles have been introduced dealing with those diseases which have in recent years found their place, mostly for the first time, amongst recognised specific affections of the skin.

Erythema serpens, an affection of the hand, which was first, we believe, described by Mr. Morant Baker, and has also been noticed by Continental writers—a form of erythema specially affecting butchers, and evidently due to some specific poison—is noticed, Mr. Baker's description being closely followed.

Dr. Liveing relates four cases of the rare and interesting affection of the skin described by Wagner as colloid millium, and by Besnier as colloid degeneration of the skin, and also well described by Duhring. Dr. Liveing's description refers to small, slightly raised, yellowish tumours, varying in size from a large pin's head to a split pea, somewhat flat, of solid or semi-solid structure, and looking as if they contained fluid. These little tumours undergo change by the formation of a central depression, and, lastly, inflaming, scabbing, and drying up, leaving a marked but not defined scar.

Short notices of rhinoscleroma, mycosis fungoides, xeroderma malignum, scrofuloderma, Paget's disease, leucoplakia, and lymphangioma, in which references to the best descriptions of these diseases are inserted, tend to bring the book up to the level of our present knowledge. The brevity of these notices is, however, probably partly responsible for slight inaccuracies in correcting the proofs. Professor Geber will hardly recognise himself as M. Gaber, of Vienna; nor do we think he will consider his views correctly stated when he is made to assert that "the Aleppo evil is in all cases of syphilitic origin." M. Vidal, surely sufficiently well known to dermatologists at least, after having his name correctly spelt on one page, appears as Vedal four times in three consecutive pages.

In the treatment of that troublesome disease ringworm, Dr. Liveing has no hesitation in saying that the oleate of mercury ointment made by Shoemaker's process is the most generally useful ointment, and he speaks well of Dr. Cavafy's lotion, which consists of a solution of boracic acid in ether and in rectified spirit.

SPUTUM: ITS MICROSCOPY AND DIAGNOSTIC AND PROGNOSTIC SIGNIFICATIONS. By FRANCIS TROUP M.D., St. And. Edinburgh: Oliver and Boyd.

THIS work is not presented as a complete treatise upon the examination of sputum, although its size would lead one to expect that no point in this small department of clinical medicine had been omitted. Nevertheless, the book treats almost entirely of the microscopy of the sputum, and of the application of photography to the recording of its microscopical appearances. The author must forgive us if, in reviewing the work, we give special prominence to its artistic points. It is illustrated by no less than thirty-six photogravure plates and six chromo-lithographs, all executed most beautifully. Microphotography is as yet in its infancy, and while the reproductions in this volume are as perfect as it is possible to make them, it must be admitted that woodcuts or engravings give a clearer idea of the structure. Still, the author must be commended for his painstaking efforts to render his pictures as true to Nature as possible.

While the illustrations form such a marked feature of the volume, it must not be supposed that they overshadow in excellence the real matter of the book. Throughout this bears the impress of careful, laborious work and personal observation. At one part of the work the

author states that he for three years has examined the sputa of every patient admitted into the Longmore Hospital for Incurables in Edinburgh, no matter what his complaint might be, and still further proofs of the author's industry are evident in the volume. The chemical examination of the sputum receives but scant notice, since the author believes it is of little value in practice. He mentions, however, that he himself has never been able to detect sugar in the true sputum of diabetic patients, although it might have been present in the saliva. It is to be regretted that the author did not see his way to insert some account of the researches of Bamberger and of Knssman upon the chemical composition of the sputum, and its relation to that of the lungs. These observations have certainly not proved of practical value, but they are of some importance as indicating the changes going on in the processes of pneumonia and bronchitis.

The author lays great stress upon the search for elastic tissue in the sputum, and considers that we are inclined to overlook its importance in the fascinating hunt for the tubercle bacillus. It may be found, he believes, in cases of tuberculosis, in which the bacillus is absent temporarily or for a length of time. In nine-tenths of the cases in which it is found, its presence is indicative of tuberculosis. For its detection, the author considers Fenwick's method of boiling in a 20-grain to the ounce solution of caustic soda as usually unnecessary and liable to cause solution of the fibre. He examines a particle of the suspected sputum directly, with or without a drop of a 30 per cent. solution of caustic potash. Several photogravure plates are given of substances which may be mistaken for the elastic fibre.

An important and noteworthy chapter is that upon Curschmann's Spirals. These are scarcely mentioned in English works, and but a scanty account of them is given in the Continental textbooks, with the exception perhaps of that of Strümpell. Dr. Troup gives a full account of the work already done respecting them and of his own observations. He showed specimens of them in 1885 in Edinburgh, only two years after the exhaustive paper of Curschmann had appeared. He has found them in asthma and bronchitis, but never in pneumonic sputum, thus differing from von Jaksch and Vierordt. He considers that the spiral is an evidence of bronchiolitis; he finds, moreover, that the central thread is composed of columnar and ciliated epithelium cemented by some fibrinous or albuminous material, and that this core acquires a casing of spirally arranged, round and spindle cells forming an actual cast of the bronchial tubule.

An exhaustive and critical account of the methods of detecting the tubercle bacillus is given. Here the author states—and we agree with him—that Ehrlich's method is the safest, although requiring care in its practice. He also describes and figures a bacillus resembling that of tubercle, but probably of pneumonic origin. It will not be found by any of the nitric-acid methods, but by Gram's method might be mistaken for the tubercle germ. Other chapters are concerned with pneumonic, bronchitic, and pigmented sputa, &c.

The book is good, and the author and his publishers are to be congratulated upon the elegant style in which it is presented to the profession.

NOTES ON BOOKS.

Illustrations to Clinical Surgery. By JONATHAN HUTCHINSON, F.R.S. Fasciculus XIX. Plates LXXI-LXXIV.—Three of the plates in this fasciculus represent different forms of elephantiasis. Plate 72 is a fine drawing of a remarkable case of elephantiasis of the prepuce, simulating elephantiasis of the scrotum. The patient was a negro, and the affected integuments were removed by the author. Filarie were found in the blood. Mr. Hutchinson notes that attacks of inflammatory œdema, repeatedly recurring, are the almost constant precursors and causes of elephantiasis. Plate 71 will be of more general interest. It represents injuries near to the wrist, and fractures and separations of epiphyses. Figs. 2, 3, and 4 illustrate the conditions met with in recent specimens of Colles's fracture, and demonstrate the truth of an important fact often unknown to practical surgeons, namely, the occasional absence of any displacement. Another instructive figure represents complete separation and dislocation backwards of the carpal epiphysis of the radius.

Notes on Inorganic Materia Medica and its Chemistry. By J. SCHÜTZ SHARMAN, M.R.C.S. Second Edition. (London: Edingham Wilson.)—The object of the author in preparing these notes was to explain the elementary chemistry which is connected with the inorganic portion of the materia medica. Under the heading of each compound

the character, manner of preparation, action, dose, and officinal preparations are appended. The principle of the *Notes* is to be commended, as the student should never overlook the essentially scientific or chemical aspect of therapeutic resources, whilst he cannot learn to prescribe without knowing more or less by rote the details of the *Pharmacopœia*. Many a young practitioner, distinguished in his student days as a prizeman in Chemistry and Clinical Medicine, finds with dismay that *Squire's Companion to the Pharmacopœia* is more serviceable to him than his old scientific textbooks. Mr. Sharman's *Notes* demonstrate how far that which is scientific is useful, and how far that which is of direct utility is also a matter of science. The *Notes* are interleaved, so that the reader may add annotations on new drugs or record his own prescriptions, as he may think proper from time to time.

Some Observations on Headaches in Children, and their Relation to Mental Training. Read in the Section of Diseases of Children at the International Medical Congress held at Washington, September, 1887. By WILLIAM HENRY DAY, M.D., M.R.C.P., Physician to the Samaritan Hospital for Women and Children. (London: J. and A. Churchill.)—The author is already well-known for his writings on headaches, and this paper displays his usual accuracy of clinical observation. Dr. Day dwells upon the significance of headache according to its locality, and rightly lays great stress on defective accommodation. We need hardly say that a great deal is said about "overpressure," but the author wisely remarks: "We must admit that enthusiasts are prone to exaggerate when they witness a few cases of breakdown, and fail to remember the thousands of children who pass through their school life happier and better for the regular hours and discipline that is maintained."

The Student's Handbook of Chemistry. By H. LEICESTER GREVILLE, F.I.C., F.C.S. Second Edition. (Edinburgh: E. and S. Livingstone.)—This work is clearly written and accurate in detail, but it does not appear to possess any marked advantages over the mass of chemical textbooks, unless it be the great attention which has been paid by the author to the elucidation of chemical calculations of all kinds. There are printer's errors (which suggest the need of more careful revision), such as we should not have expected to find in a second edition; for example, in a table on p. 97, the boiling point of sulphur is said to be 114° C., a misprint for fusing point.

Handbook of Modern Chemistry: Inorganic and Organic. By Dr. C. MEYMOTT TIDY. Second Edition (Smith and Elder. 1887.)—The second edition of this work is enlarged, but the same general plan is adopted as in the first. The work is written with a special view to the education of students of medicine, but may be read with advantage by all chemical students. In some respects the arrangement of Dr. Tidy differs from that generally followed; for example, hydrogen is described last of the non-metallic elements, instead of first as is usually done. Although some reason for this may be found in the metallic nature of hydrogen considered from the point of view of the chemist, there are so many obvious advantages in introducing the lightest known form of matter to the student's notice at the very commencement of his chemical studies, that the older method of classification will probably be still adhered to. There are no woodcuts or illustrations of any kind in this work, but it abounds in useful and judiciously selected tables.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DUCKER PORTABLE BARRACK AND FIELD HOSPITAL.

THE chief advantage offered in these buildings is the ease of transport of the materials, and the rapidity with which they can be erected by soldiers who have no special knowledge of construction, under the direction of an officer who can superintend the work after a short examination of the system employed.

A very practical proof of the merits of the Ducker system was given on Saturday, January 21st, at the Company's establishment in Parliament Street. Dr. Walter Pearce, of the Artists' Corps, with ten volunteers belonging to ambulance detachments of several metropolitan corps, was able to take down a field hospital 35 ft. by 18 ft.,

arranged for twelve beds, in thirty-five minutes, and to re-erect it in fifty-five minutes. The work could have been done more expeditiously after the first experience. Much rain had fallen, which was a severe test of the jointing of the woodwork. The whole structure is put together in sections which do not require special position except at the two ends. The floor is well raised from the ground, and the roof has a good elevation and incline.

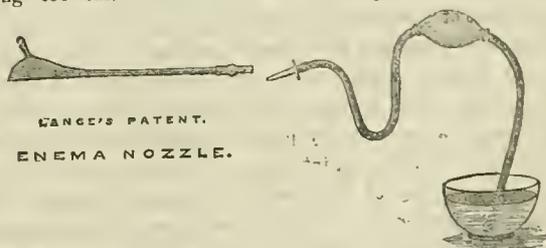
The material (leather board), on wooden frames, is very impervious, and would give great protection in cold climates. Lighting, heating, and ventilation are provided for, but in hot weather it would be necessary to open the sections in the roof, or replace them with canvas.

The portable houses erected in Parliament Street will repay an inspection, and have already received the favourable consideration of the War Office authorities.

PITTROFF'S ALMOND BISCUITS FOR DIABETIC PATIENTS. THESE almond biscuits are prepared by Herr Pittroff, a German baker at Carlsbad. They are a very great improvement on any that we have examined. As a rule, almond bread and almond biscuits prepared for diabetic patients are more or less tough, nauseous, and disagreeable products, and cannot easily be used as continuous articles of diet. The formulæ most in use are those of Dr. Pavy and Professor Seegen, both of which are thoroughly reliable in their freedom from dietetic ingredients likely to be mischievous to diabetics. But the results as to texture and flavour in the hands even of the most skilled bakers, are, as a rule, very unsatisfactory. Pittroff's almond biscuits, prepared with very scrupulous care in respect to their ingredients, have the advantage of being skilfully compounded and admirably baked. They are the only article of the kind strictly suited to a rigid diabetic diet we have yet found which can be recommended without qualification. They are very delicately and slightly flavoured with saccharin, and, strange to say, for an article of diabetic food, they are positively agreeable. We have known cases in which they have been used with satisfaction for many months continuously, and they can be strongly recommended to the notice of physicians who wish to prescribe for their patients almond bread in a form which is agreeable and tolerable for long periods of time. They are forwarded by parcel post as often as desired direct by Herr Pittroff, of Carlsbad, and will be found a great addition to a strict diabetic dietary.

LANGE'S ENEMA NOZZLE.

WITH a view to overcoming the difficulties experienced in the self-administration of an enema by the ordinary apparatus, Mr. H. J. Lange, of 47, Arthur Road, Tollington Road, Holloway, N., has introduced a new enema nozzle. This nozzle, which is simple in construction, can be inserted easily into the rectum with one hand without any fear of its slipping too far. With this nozzle the patient can, using any



apparatus he may happen to possess, sit all the while in a perfectly comfortable position, with both hands free to manage the injecting apparatus or syringe. Experience has proved these nozzles are easy of application and satisfactory in their action. They are made of vulcanite, and sold at a cost of three shillings and ninepence, postage paid.

HARVEIAN SOCIETY OF LONDON.—The following is a list of the names of gentlemen elected as officers of the society for the year 1888, at the annual meeting of the society on the 19th inst.:—President: *William Sedgwick; Vice-Presidents: T. Buzzard, M.D., John Williams, M.D., *Herbert W. Page, *William Ewart, M.D.; Treasurer: G. P. Field; Hon. Secretaries: *M. Handfield-Jones, M.D., *C. B. Lockwood; Council: F. H. Champneys, M.B., J. Hughlings Jackson, M.D., F.R.S., J. Ernest Lane, R. S. Mair, M.D., C. W. Mauzell-Moullin, R. H. Milson, M.D., A. J. Pepper, *Edmund Owen, *Frederick Treves, *Stephen Mackenzie, M.D., *E. Clifford Beale, M.B., *J. H. Drew. An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1888.

Subscriptions to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JANUARY 23rd, 1888.

HERBERT SPENCER ON SANITATION BY
COMPETITION.

It has been the weakness of the philosophers of every age to seek to measure and improve the conduct of the world by the practical application of their own systems and theories, no matter how widely these might be opposed to the common sense of mankind, how injurious their adoption might prove to the welfare of the human race. Herein lies the danger of every system of philosophy except the very wisest, of every theory of causation except the most cautious and enlightened one.

So long, for instance, as Mr. Herbert Spencer was content to occupy himself with the evolution of a theory of religion and life from his own inner consciousness and the writings of M. Comte, he remained a perfectly harmless and more or less interesting and useful thinker; but the moment he began to apply his conclusions to the practical affairs of daily life—the moment he began to formulate laws for the government of society—he became at once a danger to the well-being of the community of just as great dimensions as the extent of acceptance of his views by the rest of mankind.

Dr. Russell, in an able address to the Philosophical Society of Glasgow, has shown how extremely hurtful Mr. Spencer's conclusions on the subject of sanitation, for instance, are; how they attack the whole fabric of our law of public health, seeking to replace it by mere chimerical theories, which could only become operative as rules of life, according to Mr. Spencer's own showing, after the nation had passed through a probationary period of suffering and misfortune of quite incalculable extent and intensity. Mr. Spencer starts from what he designates "a law of right social relationship," namely, "That every man has freedom to do what he wills, provided he infringes not the equal freedom of any other man." From this law comes his conclusion (deemed even by himself "an awkward one") "that either by general government or by local government the levying of compulsory rates for draining and for paving and lighting is inadmissible as indirectly making legislative protection more costly than necessary, or, in other words, turning it into aggression," and, if so, he decides that "it follows that neither the past, present, nor proposed method of securing the health of towns is good."

Having, then, to his own satisfaction, upset the whole sanitary legislation of the last thirty years, he is kind enough to provide a substitute of his own: "How streets and courts are rightly to be kept in order remains to be considered. Respecting sewerage there would be no difficulty. Houses might rightly be drained on the same mercantile principle they are now supplied with water. It is highly probable that, in the hands of a private company, the resulting manure

would not only pay the cost of collection, but would also yield a considerable profit. But if not, the return on the invested capital would be made up of charges to those whose houses were drained, the alternative of having the connection with the main sewer stopped being as good a security for payment as the analogous ones possessed by gas and water companies. Paving and lighting would properly fall to the management of house-owners. Were there no public provision for such conveniences, house-owners would quickly find it to their interest to furnish them, some speculative building society having set the example of improvement in this direction, competition would do the rest. Dwellings without public footways before them and with no lamps to show the tenants to their doors, would stand empty when better accommodation was offered; and good paving and lighting having thus become essential, landlords would combine for the more economical supply of them."

It is nearly as absurd to suppose that to cut off the house drainage from the main sewer would oblige owners to pay a sufficient sum voluntarily for the maintenance of an efficient system of general sewage, as it is to trust to speculative building societies to lead the advance in general sanitary improvements.

The old system of cesspits, still existing in some towns, shows us what landlords would do with the house sewage if there were no stronger law than the laws of competition and convenience to compel them to do their duty. The dangerous sanitary condition of houses run up by speculative building societies, even under the salutary influence of local board inspection, shows how little we can expect "meat from that eater."

It is possible that in the dwellings of the rich and educated, competition and superior knowledge would secure that there was an outward observance of the laws of sanitation, that these houses were, if sepulchres, at least well whitened ones—but in those of the poor there would be no such safeguards. The over-crowding of all large towns, and the consequent struggle to obtain cheap shelter, would make sanitation by competition a mere delusion. A landlord, for whose undrained, ill-built, over-crowded tenements there is keen competition, at rates paying an excessive percentage on his original outlay, must become an enlightened philanthropist before he will expend capital in unremunerative alterations whose sole object is the improvement of his tenants' health.

Even Mr. Spencer allows that in the present condition of general knowledge and education, sanitation by voluntary effort would be imperative. It would only be in a community taught by experience and such masters as plague, pestilence, and famine, that one could hope to find the attainment of this ideal. Meanwhile, mankind must pass through a probationary period of misery and misfortune, to be measured perhaps by years, perhaps by centuries or ages, upon which however, Mr. Spencer looks with much complacency, for he sees in preventable disease left unchecked, not only an education, but also an actual saviour of society and benefactor to the race of man. Like Plato, he censures those who by sanitary reform would keep alive men of crazy constitutions. Diseases, he says, act beneficially, for by them "partly by weeding-out those of lowest development, and partly by subjecting those who remain to the never-ceasing discipline of experience, Nature secures the growth of a race which shall both understand the conditions of existence and be able to act up to them.....Mark how the diseased are dealt with. Consumptive patients with lungs incompetent to perform the duty of lungs, people with assimilative organs

that will not take up enough nutriment, people with defective hearts that break down under excitement of the circulation, people with any constitutional flaw preventing the due fulfilment of the conditions of life, are continually dying out, and leaving behind those fit for the climate, food, and habits to which they were born. Even the less imperfectly organized, who under ordinary circumstances can manage to live with comfort, are still the first to be carried off by epidemics, and only such as are robust enough to resist them—that is only such as are tolerably well adapted to both the usual and incidental necessities of existence remain. And thus is the race kept free from vitiation."

There are here several errors and false deductions of quite astonishing magnitude. Mr. Spencer seems ignorant of the fact that several diseases, such as consumption and cancer, which seldom prove fatal until their victims are well advanced in sexual life, although they destroy the individual, yet tend to infect the race in ever-increasing and widening circles. To numerous offspring the seeds of these diseases are transmitted; from these they pass down to fresh and more numerous generations.

Nor is it true that those epidemic diseases which slay their victims like the blow of the pole-axe and leave no inherited taint behind benefit the race by removing only the weak, the vicious, and the diseased. Take typhoid fever, for instance (that scourge so likely to become prevalent under the competitive sanitation of landlord and speculative building societies). Liebermeister says of it: "It is a fact that can everywhere be demonstrated, that typhoid attacks by preference strong and healthy persons, while it avoids those already suffering from chronic ailments."

Mr. Spencer seems, too, to have studied only one feature of the Darwinian theory, and to understand the lessons even of that very imperfectly. He recognises the selective and destructive phases of natural selection, but he ignores the doctrine of environment, and the phase of improvement under improving conditions.

Under natural conditions suitable for the well-being of any race, its strong and able push the weak and incompetent to the wall, to the benefit of the many; but in environments unfitted for the prosperity of the general organisation, the whole race gradually degenerates and disappears before the advance of some more suitable creation, either of higher or lower type, as the case may be.

In consumption, for instance, it is not isolated diseased beings among a healthy race, who being placed under conditions of life fitted only for the healthy, being unhealthy, die. It is the unsuitable environments which, at least in the first instance, foster and make possible the disease: for consumptives are certainly, either in themselves or their ancestors, the direct result of insanitary surroundings. It is their environments which are or have been incompatible not merely with their own existence, but with any continued existence of healthy humanity at all. Keep the surroundings as they are, and it is not the diseased individual who will disappear, but it is the whole race who will first become feeble, and then vanish. The struggle for existence is not between a healthy and a diseased humanity, but between any humanity and such foes as the tubercle bacillus, under conditions which makes the ultimate triumph of the latter certain.

But if it is true that unsuitable surroundings cause the gradual degeneration and disappearance of unsuitable organisms, it is no less true that the removal of these causes of degeneration not only stops the weeding-out of the weak and feeble, but gradually produces an

improvement in the condition of the whole race. For just as under unfavourable circumstances each generation becomes more and more unfitted for a continued existence, so under fostering conditions each generation will become more and more perfect. Even hereditary disease would gradually wear out and disappear, and our race would emerge from generations of wise sanitary legislation operating in wisest care and forethought—strong, healthy, and vigorous.

But Mr. Spencer's own "right law" that "every man has freedom to do what he wills, provided he infringes not the equal freedom of every other man," is fatal to the sanitary conclusions he draws from it. In no class of cases is the dictum "that no man liveth to himself" truer than in sanitary affairs. One cannot live unhealthily oneself without interfering with the just rights of others to live healthily. Freedom from preventable disease is the condition of life which any citizen has a right to claim. But this can be destroyed by the action of one's foolish neighbours. Carlyle's story of the woman who, starving, went from door to door soliciting help and receiving none, but in return communicated deadliest typhus fever, has another lesson beside that of a common brotherhood. It shows that the consequences of neglect of sanitation, using the word in its widest sense, are not the injury or disappearance of the individual alone who sets its laws at defiance, but a widespread injustice to the community, which only the strong arm of the law can prevent, or, being committed, adequately punish.

IRRIGATION AND AFTER-TREATMENT IN CATARACT EXTRACTION.

THE papers and discussions which we publish on page 176 raise several important questions as to the mode of operating in cataract and the best after-treatment. Improved methods have enabled surgeons to operate without waiting for the condition of the cataract which was formerly considered mature. In the old flap operation it was almost a *sine quâ non* for a successful operation that the lens should escape entire. With the present mode of operating it is by no means uncommon for some of the soft cortex to be rubbed off and remain in the eye as the nucleus escapes. For the removal of this, Dr. McKeown advocates the injection of a stream of water, and he claims for this method not only that cortical matter can be readily removed in cases of moderately mature cataract, but also that it renders comparatively safe the extraction of those which are so little advanced that some would classify them merely as "incipient." The method has now been before the profession for over three years, and does not appear to have come into general use in this country. This may be owing to some extent to the fear of introducing septic agents with the injection unless precautions are taken which are so elaborate as to be to some extent prohibitive, and also to the fact that many of those who have tried the method have not reported favourably of the results. But probably the greatest obstacle of all is the fact that operators generally have not experienced much difficulty in removing cortex by friction, and believe that they obtain results which are at least as good as those claimed by Dr. McKeown. This does not really touch his present position, however, since he claims to remove cataracts successfully at a stage when few surgeons would operate. Many ophthalmologists consider that Dr. McKeown over-estimates the frequency of cases in which, while the fundus is still visible, an operation is desirable because the patient's vision is sufficiently impaired to interfere with his earning his livelihood. In most of these cases the vision can be

considerably improved by using a weak mydriatic; and, although there are some trades for which the patients are incapacitated, it will seldom be found that they can follow them even after a most successful extraction. The introduction of eucaïne has rendered the removal of cortex by friction both safer and more certain. The operator can take his time, and the patient can look down; while the retention of consciousness allows the visual test to detect the presence of residual cortex which otherwise would have been unsuspected.

An iridectomy done two or three weeks before the extraction often hastens the maturation of the cataract, and its effect in this direction can be materially increased by manipulating the lens in the manner recommended many years ago by Förster. At the same time, the cortex can be much more readily removed, and its retention involves less risk when a preliminary iridectomy has been performed. The necessity of giving an anæsthetic twice was an objection to dividing the operation into two parts, but this has of course been entirely met by eucaïne.

As regards the after-treatment of cataract operations there is no doubt that the elaborate precautions that were formerly taken, some of which may have been advisable in the flap operation, are for the most part superfluous. Among such may be mentioned the absolute darkness of the room, and the avoidance of any examination of the eye for ten days or more. The reaction from this, however, may tend to go too far in the other direction, and some surgeons appear to treat their cases as if they considered them less serious than a simple wound of the cornea. It would have seemed obvious, had not recent publications shown that the contrary view is held in some quarters, that movements of the eye must have a tendency to disturb the coaptation of the lips of the wound, and that variations in light, by altering the position and the blood pressure of the iris, must interfere with that perfect rest which surgeons have hitherto thought conducive to the healing of a wounded part. If patients are allowed to go about after a cataract extraction almost immediately it is not likely that they will attach importance to precautions which the surgeon appears to despise; and if this plan of no-treatment comes to be at all extensively adopted we shall before long hear of many cases of escape of vitreous and intra-ocular hæmorrhage. Opinions may differ as to whether one or both eyes should be occluded, as to the amount of light to be permitted in the room, and as to how much support is to be given to the eye; but there ought to be no doubt that the avoidance of sudden movements, and of changes in the blood pressure, and protection from accidents such as may readily happen to a person with defective sight in a strange room, are essential adjuncts to treatment, and these can only be secured, at any rate in hospital practice, by rest in bed and a protective covering to the eye.

MR. THOMAS BEVANT, who was a corresponding member, has been elected a member of the Surgical Society of Paris.

PROFESSOR VIRCHOW will accompany Dr. Schliemann on his archaeological excursion to Upper Egypt in February, and will be absent till May.

ALDERMAN SIR J. WHITTAKER ELLIS, Bart., M.P., has consented to preside at the annual festival on behalf of the Earlswood Asylum for Idiots at the Albion Tavern, on Friday, April 13th.

MR. G. E. ROBERTS, late of Hertford College, Oxford, has been appointed Secretary of the London Hospital, in place of Mr. A. H. Haggard, resigned. There were 179 candidates.

THE Fifth International Veterinary Congress will be held in Paris in September, 1889. Professor Chauveau is President of the Committee.

THE DUKE OF NORTHUMBERLAND has, we learn, withdrawn his name as President of St. John's Hospital for Diseases of the Skin, in consequence of the refusal of the meeting of governors, held on January 18th, to sanction an inquiry into the rules and management of the hospital.

THE injuries inflicted by suicides are often of a very extensive and terrible character, but seldom have they been of a more distressing nature than in the case of Rear-Admiral Versturme, who died at Falmouth this week. Dr. Bullmore found on his arrival that the deceased had thrust the red-hot poker three or four times into his abdomen, inflicting injuries which ultimately resulted in death.

COURT APPOINTMENTS.

THE *London Gazette*, of Tuesday, January 24th, contains the following announcement:—"The Queen has been pleased to appoint Sir Edward Henry Sieveking, M.D., LL.D., Physician Extraordinary to Her Majesty, to be one of Her Majesty's Physicians in Ordinary, in the room of Sir George Burrows, Bart., M.D., deceased. The Queen has also been pleased to appoint Richard Douglas Powell, Esq., M.D., to be one of Her Majesty's Physicians Extraordinary."

SUCCESSFUL TRANSFUSION.

ON Friday, January 13th, Dr. Eustace, a young practitioner at Alresford, Hants, was summoned at midnight, and found the patient suffering from uterine hæmorrhage. This he stopped, but in the morning the patient was almost pulseless and sinking fast. Dr. Eustace, with no one to help him but an old woman, opened a vein in his arm and tried direct transfusion, but lost a quantity of blood, so, allowing over six ounces of blood to drop into a basin, he injected it with a syringe, with the result that the patient after a week had recovered.

COW-POX AND THE PATHOLOGICAL SOCIETY.

DR. KLEIN has written to us with reference to the vaccination of the calf which was exhibited at the Pathological Society on December 15th, and subsequently on January 17th. It will be recollected that Professor Crookshank took exception to Dr. Klein's dealing with this calf, which he evidently regarded as his property. It deserves to be stated that, at the first meeting of the Society, the calf was handed over to Dr. Buchanan by Professor Brown for the purpose of its being tested at the Animal Vaccine Establishment as to its susceptibility to cow-pox. It was, therefore, vaccinated with the lymph of that institution by Dr. Cory, the director, in the presence of Professor Brown, Professor Crookshank, and Dr. Klein, all these gentlemen inspecting it on subsequent occasions.

MEDICAL CLUB PRACTICE IN FRANCE.

THE lot of the French "club doctor" does not appear to be a particularly happy one any more than that of his English analogue. A proposal has recently been made to amalgamate all the clubs in the department of the Seine under the title of "Union Médicale des Sociétés de Secours Mutuel du Département de la Seine." The department is to be divided into a certain number of districts, each of which is to be served by one medical officer, who shall be bound to attend any member of the club living in such district. The yearly subscription is two francs for each adult person of either sex, and one franc for each child under the age of 16. A reduction of from 25 to 50 per cent. must be made when there are four or more children in

one family. Nothing is said as to extra fees for midwifery. For this magnificent remuneration the medical officer is at the beck and call of each individual subscriber, and must obey every summons "*dans le plus bref délai possible*," and look, we suppose, as cheerful as he can for the money. Official statistics are said to show that in such societies in France the medical officer has to visit each adult member of the club on an average five times in the course of the year, and in the case of children the average is considerably higher. In case of illness or absence the medical officer is required to provide a substitute at his own expense. As the *Progrès Médical*, from which we take these details, says, in these so-called benevolent societies all the benevolence seems to be furnished by the medical men. Would butchers, bakers, or shoemakers supply the needs of the members of these clubs on such philanthropic terms as the medical practitioner is expected to be content with? After all, however, the fault lies mostly with the profession itself, which has the remedy in its own hands, if it will only agree to apply it.

THE ILLNESS OF THE CROWN PRINCE.

It is now definitely arranged that Sir Morell Mackenzie will leave for San Remo to-day (Saturday). As we intimated last week, this does not indicate that the Crown Prince's present condition is such as to cause anxiety. The reports from German sources that any special operation for the removal of dead cartilage is in contemplation are, to say the least, premature; and we are authorised to state that no arrangements whatever have as yet been made for another general consultation. As there appears to be a good deal of misconception as to the symptoms which have recently shown themselves, it may be well to point out that they are precisely such as were to be expected—and, indeed, hoped for—on the theory that the disease is perichondritis. A certain amount of disintegrated tissue has been thrown off at the point where the growth was noticed in the early part of November; and it is thought probable that this sloughing process may be connected with disease of the cartilages. It is at present, of course, impossible to say that there is no graver affection underlying the perichondritis, but clinical experience is opposed to the probability of such a complication.

NATIONAL PENSION FUND FOR NURSES AND HOSPITAL OFFICIALS.

THE organisation of this fund is, we are informed, proceeding satisfactorily, and many hundreds of applications for forms and particulars are coming in to the acting secretary, Mr. J. H. Hanning, 38, Old Jewry, E.C., from institutions and individuals who desire to join. A strong council is being constituted, and the deed of incorporation has been settled. Mr. E. F. Coates, of Ewell, Surrey, has given 250 guineas to Mr. Burdett to defray the expenses up to the end of the first year, because he understands from the actuary that that amount will prove more than enough to give the movement an adequate commencement. Lady Rothschild has given her name as a patroness. There are to be not more than thirty vice-presidents, of whom four will be on the Council; their names will be announced shortly.

SCARLET FEVER IN LONDON.

It is satisfactory to note that the epidemic of scarlet fever in London, which recently assumed alarming proportions, shows signs of steady abatement. In the middle of April last, there were 368 cases of the disease under treatment in the Metropolitan Asylums Hospitals, from which date the number rose, week by week, until it reached the formidable total of 2,602 at the end of November. Since that date, however, the epidemic has shown a steady decline, and, as will be seen on reference to the article on the Health of English Towns, page 219, the number of persons suffering from scarlet fever, now under treatment in the Metropolitan Asylums Hospitals amounts to 1,729. The average weekly number of admissions, which had been

294 in October, fell to 223 during November, and still further declined to 148 in December. During the first three weeks of the current year, the admissions have been 147, 143, and 122 respectively.

THE BRITISH MEDICAL JOURNAL.

THE substitution on the front page of the JOURNAL of the figures "over 14,500 copies weekly" for those which previously marked the weekly circulation of the BRITISH MEDICAL JOURNAL as upwards of "14,000 copies weekly" indicates the large addition to the subscribing members which has followed the extra issue to the profession outside of the Association of our number of December 10th. The circulation of the JOURNAL has in plain words once more increased at a bound by nearly 500; the majority of the new subscribers having, after due signature of the certificates and forms with which they have been furnished from this office, and scrutiny by the Council of their credentials, become members of the British Medical Association by election. The continued growth of the circulation of the JOURNAL is phenomenal; its circulation having already some years since reached the limits which it was previously thought possible that a British journal of medicine could attain. It is now estimated that the weekly circulation of the BRITISH MEDICAL JOURNAL is not only larger than that of any other weekly journal by many thousand copies weekly, but very considerably exceeds the combined circulation of all the other medical periodicals published in Great Britain—a circumstance of no small interest to scientific and clinical contributors, as well as to those who desire to discuss departmental, social, and administrative questions in conference with the largest possible aggregation of their professional colleagues. We must, however, once more remind our correspondents and contributors that the difficulties of selection for publication are greatly enhanced by the multiplicity of our readers, which brings with it unfailingly a corresponding increase in the mass of correspondence and contributions. The value of conciseness, brevity, and reticence of style is, therefore, more than ever apparent.

SCHOOL DINNERS: VEGETARIAN VERSUS MIXED DIETS.

THE work of providing dinners for school children in large towns is not only useful; it has become so exceedingly popular that we now see a competition in good works which may lead to the mutual benefit of the various schemes contending in friendly rivalry. We have referred to the difficulties of the economic question in avoiding pauperisation; the competition between vegetarian and mixed diets has been put prominently forward in a report of two conferences held in Manchester on cheap dinners for school children. The Vegetarian Society naturally wish to demonstrate the economical and physiological success of their receipts, while others are not prepared to admit the desirability of excluding animal food. Success or failure in such a matter must be demonstrated by extended experiments. The value of a special diet cannot be demonstrated simply by chemical analysis of the food that ought to be digested, but also must be proved by a prolonged series of observations on the weight and measurements of children, repeated at regular intervals. At present we have no sufficient evidence before us, but we look for such in the future as the outcome of present efforts. It has been found that starving children can eat but little food at these free dinners, and it is said that they digest vegetarian dinners better than animal food. Still many children needing a provision for dinner at or near school are not starving; a separate experience is needed as to the diet most suited to these children, what is best to aid their growth and development, and what do they like best? What diet is followed by most growth and activity in school? Starvation disorders the stomach, producing dyspepsia, loss of appetite, furred tongue, feeble digestion; such is not, we hope, the average condition of children for whom average diets are to be provided. We urge then the desirability of careful and scientific observation of groups of children as to their condition, and as to their

feeding, valuable information may thus be attained. It seems desirable to place the vegetarian and mixed dinners in direct competition, and see how the children like and thrive on each respectively. Let one word of warning be given as to vegetarian diet; it has been amply shown that infants under 7 months in large towns are apt to become rachitic if deprived of their natural supply of milk, or cow's milk as its substitute; vegetable food at this age is highly prejudicial to their growth and future development.

A NEW FORM OF INFECTIOUS PNEUMONIA.

At the recent Medical Congress in Italy, Professor Cantani presented a communication on a new form of infectious pneumonia which had been observed by him. The clinical history showed broncho-pneumonia, which had been preceded by a diffuse bronchitis, with remittent and very pronounced fever, considerable emaciation, and great enlargement of the spleen. The disease was contagious, and was a primary affection of the bronchi, which extended downwards through the lung, and sometimes over the pleura and upwards along the trachea, and even to the larynx and pharynx. Bacteriological examination revealed the presence of numerous diplococci, and especially streptococci, similar to those found in erysipelas. The pure cultures did not, however, produce erysipelas when injected subcutaneously. When they were injected under the skin of a rabbit's ear, only swelling and reddening at the site of puncture were produced. All the cases ran a favourable course.

SEA SICKNESS.

M. OSSIAN-BONNET, on January 10th, read a long paper on Sea-sickness before the Académie de Médecine, Paris. He had studied the subject on board ship for twelve years and had never seen serious results; in this respect his experience differs from that of many British physicians. He believes that sea-sickness is essentially a nerve disease, the gastric symptoms being secondary or accidental. He denies that it is caused by a shaking-up of the cerebro-spinal fluid, or by movements of internal organs, for symptoms identical with those of sea-sickness are sometimes seen in persons who look over a precipice or who stare too long at machinery in rapid motion, although their own bodies are unshaken. Still more important in this respect is the fact that although the movements of the ship are more rapid and violent when she rolls than when she pitches, it is pitching which most readily causes sickness. In rolling, the ship lies against the sea as she heels to port and again lies supported along her own length as she heels to starboard, thus rotating smartly on her long axis, her movements have but a short range, and she is supported evenly on the side towards which she rolls. In pitching, the ship passes across a large wave, her bows descend, she rotates slowly on her short axis over a wide range of movement, and all the time her hull is unevenly supported by the sea beneath. During the several seconds which the ship takes to descend, the sensorium of the sufferer is affected in the way in which it always is affected when the body descends through space, or even when the idea of descending through space is strongly impressed on the patient, as when he looks over an abyss or dreams of falling from the clouds. In this fact lies the primary cause of sea-sickness; the effects are entirely cerebral at first, the head feels empty, then comes a sensation of weight at the temples, and disordered vision of giddiness. A large number of healthy landsmen feel these morbid symptoms mildly or even severely during a short Channel passage, without being sick. But should the head-symptoms exceed a certain limit, especially in the case of a person who has eaten too much or too little before embarking, the stomach soon sympathises and throws up its contents, or if empty undergoes painful contractions, secreting after a time a tenacious, clear mucus. When still longer exposed to irritation, bile is ejected from the stomach. Dr. Ossian-Bonnet has found that antipyrin is the best therapeutic remedy for sea-sickness. Dr. Eugene Dupuy has already spoken in its favour (*Journal*, December 17th, 1887, p. 1356). A dose of from twenty to twenty-five grains is often sufficient to cure a case

when the sea is not very rough and the patient is simply giddy, but thirty grains are needed when sickness is present. Should the first dose in either case fail to produce any effect, fifteen grains should be given half-an-hour later, and this dose may be repeated should the vomiting recur after the temporary relief. Up to ninety grains daily may be given, but such a dose is hardly if ever necessary. Subcutaneous injections of fifteen grains are useful when the stomach cannot retain the dose; this is best done by injecting in immediate succession two doses of seven and a half grains in solution. Surgeon-General Ogilvy, Dr. T. S. Robertson of New York, and Professor Germain Sée have already testified to the value of antipyrin in "bilious headache," migraine and neuralgia. It counteracts "nerve-storms" and hence is useful in neutralising the severe disturbance to the sensorium caused by the pitching of a vessel. Dr. Ossian-Bonnet's opinions will be of interest to the Briton who may still rule the waves, but who certainly cannot always prevent them from making him sea-sick.

HARVEIAN SOCIETY OF LONDON.

THE Annual General Meeting and *conversazione* of this Society took place on Thursday, January 19th, at the Marlborough Rooms, Regent Street. A business meeting for the election of officers for the ensuing year and for the usual complimentary votes of thanks to the retiring officials, was held in the Lower Room; and the retiring President, Mr. Edmund Owen, delivered an address which was heard with close attention by a large audience. Dealing chiefly with the subject of medical education from the point of view of a hospital teacher, Mr. Owen pointed out with considerable force the disadvantages under which students of medicine must labour so long as the preliminary subjects continue to be a part of the hospital course, and showed how impossible it has become for any but the most brilliant to acquire real knowledge, owing to the constant demand made upon his time by periodical examinations which leave no interval in which to assimilate the knowledge thus forced into the mind. He criticised somewhat strongly certain recent enactments of the University of London relating to students failing to obtain honours, which he considered were more advantageous to the examiners than to the students themselves. At the close of the address, which was warmly applauded, he introduced the President for the ensuing year, Mr. W. Sedgwick, who briefly returned thanks for his election on taking the chair. The members and their friends then adjourned to the Upper Rooms, in one of which a *conversazione* was opened, during which, in defiance of ancient traditions to the contrary, smoking was permitted, whilst vocal music was kindly volunteered by Messrs. J. Ernest Lane, A. E. Tietkens, and Orton Bradley. A recitation by Dr. Arthur Evershed, of a scene from *King John*, added greatly to the entertainment of the evening. Exhibits of surgical instruments and electrical appliances, introducing many novelties in electric lighting for medical purposes, were shown by Messrs. Down Brothers, Mr. K. Schall and Mr. G. Bowron, while Messrs. Nelson and Curtiss's photo-micrographic apparatus, specially designed for use with Zeiss projector eyepiece, was lent for the occasion by Mr. C. Baker. The *conversations* which was very well attended, was continued to a late hour.

SPECIAL HOSPITAL SCANDALS.

WE referred recently to the bad impression which could not fail to be produced by the refusal by a partisan vote of a meeting of some of the Governors of St. John's Hospital (whose proceedings were on the whole by no means of a satisfactory character) to assent to the appointment of a Committee of Inquiry into the rules and management of the hospital. It was sufficiently obvious from the admissions made in the official documents put forward at the meeting that such an inquiry is far from being uncalled for in the interests of the public and as a duty to subscribers. The proceedings under which members of the staff who have protested against that management were summarily dismissed by the Board of Managers, the allegations made as to the general financial conduct of the hospital, the admissions

in respect to those allegations in the financial report, the circumstance that the President, the Duke of Northumberland, insisted that such an inquiry should be made, as a condition that he allowed his name to be coupled with the institution as that of its President, and the attitude in support of the Duke of Northumberland's legitimate requirement on behalf of the public of Mr. Hamilton Hoare and Mr. Henry Maudslay ought to have convinced those who were present at the meeting that such an inquiry is absolutely essential before due confidence can be felt by the public and the subscribers. To stifle inquiry under such circumstances is to invite public censure, and is in itself the severest condemnation of the form of management which under such conditions and circumstances refuses the inquiry which the official head of the hospital and its most respected friends consider to be necessary. It is a grave misfortune of small special institutions such as this and the Jubilee Hospital, that they are for ever bringing elements of strife and disparagement into the area of hospital management. Such incidents ought to be a warning to the public against the incessant multiplication of petty institutions of the kind which are so constantly the scene of the struggles of individual interests and small partisan fights, and which become the cockpit of little official contests among those who either professionally or unprofessionally find their interest in establishing little special hospitals, which as often as not, in aspiring, on a small scale to a public character, create at more or less frequent intervals a considerable public scandal. The affairs of the Jubilee Hospital, which is a sort of conglomeration of the specialities, have again figured unsatisfactorily this week in the law courts.

EMMET ON UTERINE DISPLACEMENT.

At the twelfth annual meeting of the American Gynaecological Society, held in New York last September, Dr. Emmet read a "Study of the Causes and Treatment of Uterine Displacement." He maintained that version was a symptom, not a disease. In a case of prolapse, the pulsation of some branch of the uterine artery could be readily detected; but when the uterus was reduced to its natural level the patient felt relief, and after a few minutes the pulsation ceased. If the uterus were raised above that level, distress was again experienced. Anteversion was certainly not an abnormal position; and marked retroversion was often detected accidentally, where it had caused no symptoms. Dr. Emmet referred to the influence of pelvic inflammation in inducing displacement. The only fixed point was in front of the neck of the bladder, where the subpubic ligament bound down the urethra. Any traction on this point led to irritation and a desire to empty the bladder. This often resulted from inflammatory adhesions, the uterus might be retroflexed or anteverted, but the traction would be upon the urethra. Prolapse was, in Dr. Emmet's opinion, the more usual consequence of pelvic inflammation, resulting from the increased weight due to the obstructed circulation. The degree of displacement was usually in proportion to the extent of the cellulitis. In pelvic peritonitis involving Douglas's pouch the uterus was raised; versions always resulted from pelvic cellulitis. In cases where the inflammation was confined to the utero-sacral ligament there would be anteversion. The uterus was, as a rule, comparatively free in backward displacement, so that it could be corrected with the finger if it were then held in its supposed normal position pulsation would soon be detected in some of the neighbouring vessels. Were a pessary introduced under these circumstances, it would soon be necessary to remove it. A similar "correction" of extreme anteversion by any instrument caused traction on the utero-sacral ligaments, and consequent inflammation. Thus in the treatment of cases of displacement following inflammation, pessaries must not be applied, but local applications of iodine, and glycerine pads, with hot water injections were indicated. Dr. Emmet then spoke of the pelvic circulation. Much blood would engorge the tortuous, valveless veins. When the uterus was drawn down to the floor of the pelvis and held there, the cervix and vaginal tissues became congested, through obstruction of

venous circulation; but on increasing the traction till complete proclivencia was produced, the tissues became blanched through the consequent narrowing of the tightly-stretched arteries. A pessary must be so shaped and so applied as just to dispose of the traction whilst relieving the prolapse. The relief which would then follow signified the removal of a cause of congestion, rather than the reduction of the displacement. Under the principles just indicated, and not otherwise, the pessary was beneficial. No attempt should be made to remedy the displacement, so long as any evidences of recent inflammation were present; otherwise, harm might be done, and no good could possibly ensue, as a large number of histories testified. Dr. Emmet had employed cotton plugs soaked in glycerine to support the uterus in suitable cases of prolapse; when the plug was too large, that is to say, more than sufficient to correct the prolapse, irritation was set up. After the discussion on Dr. Emmet's paper, which is fully reported in the *Journal of the American Medical Association*, he replied, admitting that pelvic inflammation was more frequent in America than in Europe. American women went early into society and contracted pelvic inflammation as a result of imprudence in dress. Dr. Emmet had found the effects of pelvic inflammation more common among the single than among the married.

SUCCESSFUL EXCISION OF A TUMOUR OF THE SPINAL CORD.

SURGERY is a science, or perhaps we should say a fine art, which will tolerate no limits to its domain. It has of late taken up the invasion of the brain in earnest; it has just made its first successful dash at a tumour in the spinal cord. Last Tuesday evening, before the meeting of the Medical and Chirurgical Society, a private patient of Dr. Gowers and Mr. Victor Horsley very generously allowed the Fellows and visitors of that Society the opportunity of seeing all that had been done for the improvement of his condition. He had spent about three years in severe pain, which was most intense just below and inside the angle of the left scapula, and was accompanied by absolute loss of motion and sensation of the body and limbs below that level. The upper border of the anaesthesia was distinctly in the region of the fifth intercostal nerve on the left side, on the right it was less accurately defined, but did not extend higher. All the symptoms agreed with those of tumours of the spinal cord, and the intense pain afforded ample justification for making an attempt to excise the tumour. Mr. Victor Horsley accordingly removed the spines and parts of the laminae of the fifth and fourth dorsal vertebrae; but not until the third vertebra had been similarly treated did the tumour come into sight. It was a small oval myxoma compressing and making a deep impression on the left side of the spinal cord below the third vertebra. It was easily shelled out, and under careful antiseptic treatment the temperature did not rise more than 1° F. The wound healed rapidly, except at the uppermost point, where a drain had been left in by which a little cerebro-spinal fluid flowed away very slowly. For three or four weeks the former acute pain did not lessen, and even at times seemed more agonising; but after that it gradually and intermittently decreased, and now, after seven months, is entirely gone; the sensation and motion of the body and legs are almost completely restored. This is, we believe, the first time that such an operation has been attempted, and we must most heartily congratulate both the patient and his advisers on the triumphant character of its success. However far, and however quickly surgery may advance, it will long be a memorable day when it gained its first victory on so new a field and over so formidable an enemy.

THE JURISPRUDENCE OF INEBRIETY.

DR. NORMAN KERR, President of the Society for the Study of Inebriety, delivered his concluding lecture in the rooms of the Medical Society of London on January 25th. The subject was "The Jurisprudence of Inebriety." He said that the old conflict between law and medicine over the insane had now been more vigorously than ever

renewed over the inebriate. By Roman law an allowance was made for intoxication, but there was none under Grecian law. In Pittacus, in fact, for a criminal to have been drunk at the time when the alleged offence was committed, was to receive double punishment. Though inebriety had not been formally acknowledged as a disease by United States law, yet confirmed drunkenness was practically accepted as a fair plea. According to New York State law of half a century back, confirmed drunkards were classed with idiots, lunatics, and persons of unsound mind, as incapable of being entrusted with the conduct of their affairs, and liable to be placed under the control and care of the Supreme Court. By German, Austrian, and Swiss law there was a difference in the punishment for crimes committed during culpable and inculpable intoxication. French law made no difference, but the inveterate French inebriate lost his civil rights. English jurisprudence was characterised by contradictory rulings, and appeared to aim at punishing drunkenness through its effects. It had been laid down that drunkenness was no excuse for crime; that it ought to involve extra punishment, that frenzy from habitual intemperance was a valid plea for exemption. One person was convicted of manslaughter, though he knew nothing of the affair, owing to his drunken unconsciousness, on the ground that his frenzy was brought on by his own indulgence. A recent trial was a reproach to our present jurisprudence. Two men were under the influence of liquor. One met his death; the other was sentenced to death for the murder. The judge subsequently substituted for the capital punishment penal servitude for 20 years. As a rule, an alleged criminal's condition as to liquor did not affect the judicial decision. The remarkable phenomena of inebriate traces ought not to be lost sight of. In this state criminal acts might be committed without conscious volition, no recollection of the act remaining after the termination of the abnormal suspension of consciousness. The following four affections ought to exempt from criminal responsibility: first, the inebriety of insanity, in which the drunkenness was but a symptom of recurrent mania; second, the insanity of inebriety, the admitted and unquestionable mental unsoundness induced by persistent excess in alcohol, morphine, or other narcotic; third, delirium tremens, in the height of which the subject often did not know the effect of his actions, or the nature of the actions, or remember the actions themselves; fourth, *mania a potu*, a common malady of police-court drunkards. During a paroxysm of this form of alcoholic inebriety, consciousness was absent, and violence was done with no knowledge of the deed or after-recollection of it. Many inebriates possessed a minimum of inhibitory power, while others had so potent an innate tendency to excess that, having once tasted an intoxicant, they were impelled to intoxication. An accused person having been proved to have been drunk, no pains were bestowed on inquiring into the condition of the alleged criminal before the drunken act. Yet he might have been a diseased lunatic or inebriate. Our present jurisprudence was constructed on our previous want of acquaintance with the unhealthy state of many inebriate criminals. Science had revealed the existence of a disease of inebriety as of a disease of insanity. The latter, like the former now, had at an earlier period been regarded but as a Divine penalty for the punishment of sinful deeds; but, happily, was at this day seen to be a veritable disease, yielding to remedial treatment. In order that the case of the inebriate accused should be thoroughly investigated, Dr. Kerr suggested the appointment of a mixed commission of legal and medical experts, in the interest of the accused himself, of the bar, of the bench, and, above all, of justice.

SIR SPENCER WELLS AND PROFESSOR BILLROTH.

WE learn from the volume just published of the *Verhandlungen* of the German Society of Surgery, that when, at the Sixteenth Congress of the Society of Berlin, Sir Spencer Wells and Professor Billroth were elected honorary members, 142 members voted. Of these 137 voted for our countryman, and 14 for him only. For Billroth, 123 voted

who had also voted for Sir Spencer, and only one for him only. So that the voting of 142 members resulted in the election of both, as the rules require a majority of two-thirds, with 137 votes for Sir Spencer Wells, and 124 for Professor Billroth.

SCOTLAND.

SANITARY LEGISLATION FOR SCOTLAND.

THE Sanitary Association of Scotland has presented a memorial to the Secretary for Scotland, containing a number of important recommendations as to the necessity for further sanitary legislation for Scotland. It is suggested that, in the event of the Burgh Police Bill being again introduced into Parliament, the section relating to public health should be omitted. It is felt that public health is a matter of sufficient importance to be dealt with in a Bill by itself, when it would have more chance of receiving adequate attention, than forming as it now does a minor part of a large and excessively complicated police measure.

EDINBURGH STUDENTS' SYMPOSIUM.

ON Friday last, in the Drill Hall, Edinburgh, there was assembled a congregation of two thousand students of Edinburgh University for the purpose of doing honour to, and making the acquaintance of, the Lord Rector, the Marquis of Lothian; and also for the social purpose of enjoying a thoroughly good smoking concert. Lord Lothian travelled that day specially from London for the purpose of presiding at the symposium; he was cordially welcomed by his constituents, and addressed them briefly and pleasantly. The evening was spent most happily; the arrangements were conducted by the Amusements Committee of the Students' Representative Council.

EXAMINERS AND EXAMINATIONS IN EDINBURGH UNIVERSITY.

THE following gentlemen were appointed examiners for degrees in Medicine in Edinburgh University by the University Court at a meeting held on Monday: in Practice of Physic, Dr. Alexander Hughes Bennett, London; in Midwifery, Dr. David Berry Hart, Edinburgh; and in Chemistry, Professor W. H. Perkin, jun., Ph.D. The appointment of Examiner in Anatomy was deferred until the next meeting of the Court. The subject of the proposed alteration for the first and second professional examination was also considered, and a letter was read from Professor Sir William Turner withdrawing his appeal against the alteration of the arrangements for the first professional examination, as originally proposed by the Senatus. A letter was also read from the Sub-committee of the Students' Representative Council requesting to be heard on the matter. It was agreed to hear them on Wednesday, February 8th, and also to request Sir William Turner and representatives of the Senatus to attend, the Committee being requested to lodge a written statement of the points they wished to put before the Court. This courteous action to the Students' Representative Council shows the position which has already been obtained by it as a body entitled to make known the grievances and desires of the students.

ROYAL HOSPITAL FOR SICK CHILDREN.

THE work done in the Royal Hospital for Sick Children, Edinburgh, during the past year is summarised in the report presented to the twenty-ninth annual meeting of the contributors held last week. There were treated in the wards of the hospital 756 patients, and in the outdoor department 6,108 patients, while 172 vaccinations had been effected, the total number for all being 7,036. Of new cases treated in the hospital, 386 recovered or were cured, and 142 were relieved. A new feature in the management during the year was the opening of a surgical ward, and Dr. Joseph Bell was appointed to the charge of it as surgeon to the hospital. Great care was now taken in the train-

ing of nurses, and lectures had been delivered to, and classes had been formed for them, six probationer nurses had during the year completed their course of training. The directors draw attention to the necessity that existed for a convalescent home in connection with the hospital, at present convalescent children were sent to the home at Gilmerton, and sixty-nine had that advantage during the year. No surgical cases, however, or medical cases requiring nursing could be received there, as there was no nurse at the Home to look after them. The total income for the year was £3,925, and the expenditure £2,875, this was the first occasion in which the ordinary income had been greater than the expenditure.

IRELAND.

CORONERSHIP OF DUNGANNON.

THIS post is vacant by the death of Dr. David J. Hamilton, and already about nine or ten candidates are in the field. The candidates are pretty evenly divided between the medical and the legal professions. It is to be feared that the contest will be conducted mainly on political lines.

THE OCTO-CENTENARY OF THE UNIVERSITY OF BOLOGNA.

THE REV. DR. HAUGHTON, F.R.S., Senior Lecturer, and Dr. D. T. Cunningham, Professor of Anatomy, have been selected by the Board of Trinity College to represent the University of Dublin at the octo-centenary of the University of Bologna in June next.

DR. CROKER KING.

DR. C. CROKER KING, Medical Commissioner, Local Government Board, has been confined to his house for some time, from an affection of the foot which at one time gave cause for serious alarm. It is stated, however, that he is now much better, the more serious symptoms having abated.

SMALL-POX.

AFTER an interval of some weeks, during which no case of small-pox was reported in Dublin, we regret to learn that two persons have been attacked. Every precaution is being taken to limit the disease.

CHILDREN'S HOSPITAL, CORK.

AN entertainment of an unusual kind was given last week, in aid of this institution. It consisted of a programme of vocal and instrumental music capably rendered by children. One of the most attractive items was a recitation by a juvenile, who was attired in the uniform of the 4th Hussars. The proceeds will be devoted to the purchase of a musical box, for the amusement of the inmates of the hospital.

THE DUBLIN BRANCH.

OUR Dublin correspondent telegraphs that the annual dinner of the Dublin Branch of the British Medical Association was held on Wednesday evening, in the Hall of the College of Physicians. Dr. Mapother, President of the Branch, occupied the chair, and there was a large attendance. The guests included Sir West Ridgway, Under Secretary; Mr. Gray, M.P., Mr. Andrew Reed, Inspector-General of Constabulary, and others. The toasts proposed were: "The Queen," proposed by the President; "The Prince and Princess of Wales, and the rest of the Royal Family," proposed by the President; "The Army and Navy," proposed by the President, and responded to by Colonel Sir J. West Ridgway, K.C.S.I. "The Universities and Colleges of Physicians and Surgeons," proposed by the President, and responded to by the Provost of Trinity College, Dr. A. W. Foot, and Mr. A. H. Corley, President of the Royal College of Surgeons in Ireland. "The British Medical Association," proposed by the President of the Branch, and responded to by Dr. Banks, President of the

British Medical Association, Dr. Duffey, and Mr. Hepenstal Ormsby, Honorary Secretary of the Branch; "The Irish Medical Association," proposed by the President and responded to by Mr. H. G. Croly, President of the Irish Medical Association. "Our Visitors," proposed by the President, responded to by The Rt. Hon. the Attorney General for Ireland, Colonel Frazer, and Dr. Finlay.

NEGLECT OF VACCINATION: WEXFORD UNION.

AT a recent meeting of the Guardians, Dr. Costelloe forwarded a list of 75 children who had not, he believed, been vaccinated in his district. He complained that the people would not give him any information as to whether their children were vaccinated or not. We believe that if the children are vaccinated, the parents are bound to produce a certificate from the medical practitioner who vaccinated them.

BARRINGTON'S HOSPITAL, LIMERICK.

A SPECIAL meeting of the Governors was held recently to select a resident medical officer to this institution. Drs. Hayes, Riordan, and McMahon were candidates, but Dr. Riordan was the only one proposed, and was duly elected at a salary of £100 a year. At the meeting a letter was received from the visiting medical staff requesting the governors to insert an order on the minutes that no one except the physician or surgeon in charge should be entitled to give any information by certificate or otherwise with reference to any patient. This was apparently intended to prevent the resident surgeon being allowed to give evidence or a certificate, and thus obtain a fee, and was refused by the governors, who marked the communication "read."

THE INSPECTOR OF ANATOMY.

THE vacancy caused by the death of Dr. D. F. Brady, Inspector of Anatomy for Dublin, Belfast, and Galway, has been filled by the appointment of Dr. W. J. Martin, Secretary to the Dublin Hospitals Board, Physician to Jervis Street Hospital. No objection is made on personal grounds, for Dr. Martin is very popular, but the daily papers have commented upon what is called the undue haste with which the appointment was made. Dr. Brady died on Monday, and was buried on Thursday, but the vacancy was filled on Wednesday. Mr. Balfour has not added to his popularity with his party by thus piling coals of fire on the head of one who is said to be not one of his supporters. There were many candidates, and the expression of disappointment is correspondingly loud. The duties of the office are very light, and the emoluments are said to be worth £200 or £300 a year.

HEALTH OF BELFAST.

THE death-rate of Belfast still continues abnormally high, the rate for the week ending January 14th having been 37.9 per 1,000. The 165 deaths from all causes included 11 deaths from measles, 3 from scarlatina, 15 from whooping-cough, 1 from "simple" fever, 3 from enteric fever, and 1 from diarrhoea. During the past quarter there have been in Belfast 94 deaths from measles, 39 from scarlatina, 6 from typhus, 29 from enteric fever, 13 from "simple" fever.

A CASE OF ALLEGED STARVATION.

AN inquest was held at Coachford, County Cork, on January 20th, on the body of Mr. Simon D. Croke, who, it was alleged, died of starvation. The deceased was 70 years of age, and the evidence given went to show that he had not been attended to as his condition required, and that he received very little food. Dr. Crowley and Dr. Whyte proved that they had made a *post-mortem* examination, and that, in their opinion, death was caused by starvation in a man previously reduced by chronic pulmonary disease. The jury found a verdict accordingly, and Mrs. Croke was arrested. It is curious to note that she is a cousin of the late Dr. Cross, executed for the murder of his wife on the 10th of January. She has been admitted to bail.

ANNUAL MEETING OF THE DUBLIN BRANCH.

THE eleventh annual meeting of the Dublin Branch of the British Medical Association was held in the College of Physicians, Dublin, on Wednesday, January 25th, at 4 o'clock, Dr. T. W. GRIMSHAW, Registrar General, President of the Branch, in the chair.

Amongst those present were Dr. J. T. Banks, President of the British Medical Association; Sir William Stokes, Sir George H. Porter, Dr. Little, President of the College of Physicians; Dr. Corley, President of the Royal College of Surgeons; Dr. Foot, Vice-President of the Royal College of Physicians; Dr. Fitzgibbon, Vice-President of the Royal College of Surgeons; Dr. J. W. Moore, Professor E. H. Bennett, Professor W. G. Smith, Dr. Myles, Dr. McSwiney, Dr. Kidd, Dr. Nugent, Dr. Ball, Dr. Patton, Dr. King, Dr. Atthill, Dr. Johnston, Dr. S. Gordon, Dr. George F. Duffley, Dr. Nixon, Mr. Thomson, Dr. Cruise, Mr. Wheeler, Dr. Purser, Dr. W. Moore, Dr. Doyle, Mr. Tobin, Mr. Croly, Dr. H. Benson, Dr. W. T. Smyly, Dr. J. A. Scott, Sir Charles A. Cameron, and Dr. Robert MacDonnell, F.R.S.

The HONORARY SECRETARY, Mr. LAMBERT H. ORMSBY, read the report, which referred back at some length to the Dublin meeting of the Association, and to the success which attended it. The following may be quoted:

The subscriptions to the Reception Fund amounted to £1,508 14s 10d., and proved sufficient to defray the various expenses of the meeting, leaving a balance. At a meeting of the subscribers, held November 9th, 1887, it was unanimously resolved:

That the surplus should be applied to procure a portrait of Dr. Banks, the President of the Association, to be hung in the hall of the King and Queen's College of Physicians, as a memorial of the Dublin meeting of the British Medical Association in 1887, and of the able, courteous, and hospitable manner in which he presided over the meeting.

Dr. Walter Smith acted as Honorary Treasurer to the Reception Fund, and the Council cannot sufficiently thank him for the time and labour which he bestowed on the duties of such a responsible post.

In accordance with the resolution adopted by the Branch at its last annual meeting, your Council have had under its consideration the necessity which exists for the provision of systematic instruction in pathology in the various teaching bodies in Dublin. Your Council appointed a Committee, consisting of Sir William Stokes, Messrs. E. H. Bennett, A. H. Corley, William Thomson, and the Honorary Secretary, to consider the subject, and to report to the Council. The Committee made the following report:

The Committee appointed to consider the resolution in reference to the teaching of pathology, passed at the last general meeting of the Branch, have had the question referred to them under discussion. They suggest that, as pathology is now compulsory in the curricula of various licensing bodies, the Council should seek to impress upon the teaching authorities in Ireland the great importance and urgency of this question.

This Report having been submitted to the Council, it was unanimously adopted, and the following resolution passed thereon:

Resolved: That the Council of the Dublin Branch strongly recommend that steps be taken to establish chairs of pathology in the respective Schools of Medicine in Ireland.

The Council, in concluding this report, hope the Branch will continue to progress in the future as it has done in the past. The accounts of the Branch have been duly audited by Sir William Stokes, up to January 24th, 1887, and show a balance in favour of the Branch of £13 4s 11d.

Dr. A. W. FOOT moved and Dr. FITZGIBBON seconded the adoption of the report.

Dr. DOYLE complained of the omission of general practitioners from the honorary offices of the Branch. He wished to know how candidates were nominated.

Mr. ORMSBY explained that anyone could send in his name as a candidate, and that a circular notice was sent to each member a fortnight before the meeting.

The report was then adopted.

The CHAIRMAN stated that the scrutineers had just reported that the following officers were elected for the ensuing year:—*President*: E. D. Mapother, M.D. *President-elect*: W. Moore, M.D. *Vice-Presidents* (two to be elected): J. K. Barton, M.D.; Walter G. Smith, M.D. *Council*: Lomha Atthill, M.D.; John T. Banks, M.D.; E. H. Bennett, M.D.; A. H. Corley, M.D.; George F. Duffley, M.D.; A. W. Foot, M.D.; T. W. Grimshaw, M.D.; E. Hamilton, M.D.; J. W. Moore, M.D.; Sir William Stokes, M.D., F.R.C.S.I.; W. Thornley Stoker, F.R.C.S.I.; H. R. Swanzy, M.D., F.R.C.S.I. *Representatives on the Council of the Association*: George F. Duffley, M.D.; F. W. Grimshaw, M.D. *Representative on the Parliamentary Bills Committee*: George F. Duffley, M.D. *Honorary Secretary and Treasurer*: L. H. Ormsby, M.D., F.R.C.S.I., 92, Merriion Square West.

The chair was then taken by Dr. E. D. MAPOTHER, the now President, who was warmly applauded.

Dr. WILLIAM MOORE then moved and Dr. CORLEY (President of the College of Surgeons) seconded a vote of thanks to Dr. Grimshaw for his valuable services to the Branch.

The motion was passed by acclamation, and Dr. GRIMSHAW replied THE PRESIDENT then delivered his address.

PRESENTATION OF PORTRAIT TO THE PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

AT the conclusion of the meeting of the Dublin Branch, on January 25th, Dr. MAPOTHER unveiled a portrait of the President of the British Medical Association, Dr. Banks, which has been presented to the President and Fellows of the King and Queen's College of Physicians of Ireland, on behalf of the subscribers to the reception fund of the late annual meeting of the Association in Dublin. He said he performed the duty of presenting the portrait with pride and pleasure. Since the first years of his studentship, he had enjoyed the acquaintance of Dr. Banks, and he had conferred upon him many kindnesses. They all recognised in Dr. Banks an elegant scholar and eminent psychologist, and one of the most refined gentlemen that ever adorned their noble hall; therefore they hastened to honour him. They elected him President of the Irish Academy of Medicine for three years, and last year with one voice the profession called him to the first place amongst the twelve thousand members of the British Medical Association. The unexampled generosity and distinguished ability with which he filled the position, were fresh in their recollection. Among the pictures and statues which adorned that hall, the beautiful work of art before them would be the only portrait of a living man. That it might long so represent him was the prayer of them all.

Dr. LITTLE, President of the King and Queen's College of Physicians, said he attended by the will of the College to receive this portrait. He would only assure the Council, in the name of the College, that the portrait was received by them with pleasure, and that it would have an honoured place on their walls. Speaking for himself, he felt that the Council of the Irish Branch had made a very wise and natural selection in asking that College to hang a portrait of Dr. Banks on its walls. Dr. Banks was one of the oldest of its Fellows, and had filled the most distinguished offices which it was in the power of the College to confer. He was for many years King's Professor by the appointment of the College. He afterwards filled the office of President of the College, and discharged his duties in such a way as to merit and receive the cordial thanks of the College. Dr. Mapother had referred to the portraits and statues they already possessed. They were exceedingly proud of them, and they looked on them with pleasure, especially those of their number who were old enough to remember most of the men whose statues stood around, or whose portraits hung on the walls. The penetration of Graves, the energy of Marsh, the self-reliance of Corrigan, the subtle intuition of Stokes, had all been presented to them by the chisel of the sculptor, while in the portraits they were reminded of the industry of Churchill, well known to all English-speaking people by his work; of Dr. Beatty, so ready in his art and so judicious in the advice which he gave at the Council Board of the College, and so cheerful at their festive gatherings; of Dr. Hudson, so unselfish and sincere a friend, so fertile in all the resources of accomplished physicians. Side by side with those distinguished men they would gladly hang the portrait of Dr. Banks, whose many and varied attainments had secured for him an entirely unique position in the social and professional world of Dublin.

Dr. BANKS, who was very warmly applauded on rising, said there were occasions when one felt how feebly words could express the gratitude with which the heart was overflowing, and this to him was such an occasion. To the Dublin Branch of the British Medical Association, and to its distinguished President for the gracious words with which he had presented the portrait, and to the President and Fellows of the College of Physicians who had accepted the gift, his most cordial thanks were due. To find a resting place in that noble hall, adorned as it was by Ireland's most illustrious physicians, was an honour of which any man might feel justly proud. He had already been the recipient of every honour and distinction which his own profession in this city could confer, and to be considered worthy of the mark of respect now paid him by those with whom it had been his lot and his great happiness to be so long and so intimately associated would ever remain among his most cherished memories.

The portrait is by Miss Sara Purser, sister of Dr. Purser, Professor of the Institutes of Medicine in Trinity College. It is one of the best

that has come from her hands, and was generally admired. It represents Dr. Banks seated wearing his uniform as Physician to the Queen, and scarlet robes as doctor of medicine.

ORGANISATION OF THE OUT-PATIENT DEPARTMENTS OF HOSPITALS.

THE latest scheme suggested for organising the dispensing of charitable relief in the out-patient department of our hospitals, with a view to avoid imposition, is that put forward by Dr. H. Burnes, a governor of the Great Northern Central Hospital, contained in a circular issued to the authorities of the various hospitals, which is as follows:

"In each district of which a hospital forms a centre an officer should be appointed, styled the superintendent almoner, with an office in or near the hospital. Here he would receive all applications for admission to the out-patient department, and would make inquiries as to the circumstances of the applicants. He would be able to recommend them either free or on payment of a certain weekly fee, according to their means. Cases in the first place would have to be taken with an order, stamped by the superintendent almoner any one of the extra-mural officers affiliated to the hospitals. These officers would be registered medical practitioners of not less than three years' standing in the district; and a list of such officers would be kept in the office, so that the patients might select whom they pleased. The extra-mural officer would see the case, prescribe for it at once, and should be satisfied that it was of an ordinary nature and required no special treatment, he could continue to undertake the case. Should he, however, think fit, he would at once endorse the order for admission to the outdoor department of his hospital. The fees charged by the almoner would be payable to him, and he would account for the same to the Committee; the extra-mural officer being granted a nominal sum per week (say 1s. to 3s. 6d. for home visitation) for his treatment of the case while it remained in his hands. The superintendent almoner would report every case to the Committee, with the extra-mural officer's report annexed, if the case remained in his hands. Of course it would be provided that such patients should attend at the hospital whenever required for examination, etc., and that the extra-mural officer should make a special report of every case which had been in his hands for more than three weeks. The superintendent almoner would be expected to make inquiries as to the case of each applicant, and to fix the fee to be paid per week (if any), in accordance with the result of his inquiries. Hence, his first order for medical relief would be only a temporary one, to be endorsed or cancelled as might be necessary."

As for the financial part of the matter there would be, on the one hand, the expenses of the superintendent almoner and his office, and also the nominal payments made to the extra-mural officers to cover cost of medicine, etc.; while, on the other hand, there would be the money received by the superintendent almoner in accordance with his decision. In case of a deficit he suggests that a grant be made from the Hospital Sunday Fund in proportion to the number of cases.

ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1885.

(Concluded from page 155.)

THE average strength of the non-commissioned officers and men serving in Bermuda in 1885 was 1,385. The admissions into hospital during the year numbered 654, or 494 per 1,000; the deaths 18, or 13 per 1,000; while the average number of men constantly sick was 38.83, or at the rate of 28.04 per 1,000. Enteric fever caused 29 admissions and 10 deaths, and 27 of the admissions took place at Prospect. The medical officer in charge of Prospect Camp stated, in his report, that the sanitary condition of the station was very good, and that the cause of the outbreak of enteric fever was to be looked for outside the camp; while the Principal Medical Officer, in his remarks on the causation of the disease, observed that, "in almost every case of the fever, the origin of the disease was distinctly traceable to causes—milk supply, aerated drinks, and impure water—furnished from outside the military precincts." The drainage of the neighbouring town of Hamilton is reported to be very defective. Out of an average strength of 63 officers, there were 17 attacks of illness, but no death. One woman, out of an average strength of 96, died from general debility; and among the children, averaging 175 in number, there were six deaths. With regard to the water supply, it is mentioned that there are no springs in Bermuda, but a few wells are sunk here and there, their supply, however, being precarious, and more or less brackish at high tides. Rain water, collected on roofs and stored in tanks, forms the principal source of water for use. The tanks under military

supervision are carefully guarded from contamination, and are periodically emptied and cleaned, whereas among the civil population there exists a great want of care in this respect.

The white troops serving in the West Indies averaged 900 in number during the year under notice. The principal stations occupied by these troops were Barbados, Jamaica, and Trinidad, a few men only being in the Bahamas, Honduras, and Demerara. The number of admissions into hospital was 830; there were 7 deaths, and the average number constantly sick was 38.77. Two of the deaths were due to enteric fever, 1 at Jamaica and 1 at Barbados. An outbreak of yellow fever took place at Jamaica in the last quarter of the year, and 2 men died from this disease. The advantage of removing troops from the infected locality was well illustrated on this occasion. The medical officer in charge at Port Royal, where the 2 deaths just mentioned occurred, reports: "The first death from the disease in this locality occurred on October 9th, in the person of a sailor. On November 3rd a child in garrison was attacked, and died on the 7th. This patient communicated the disease to a younger sister. Next, two boys were attacked on the 13th and died on the 16th. On the 17th, an artilleryman was attacked, and the garrison was evacuated that day. Another man in the same ward as the artilleryman was also attacked. Both cases showed extreme malignancy, and both men died. Next, the two attendants on the sick men were attacked, one case being very severe, the other milder; both of these men recovered." No fresh cases occurred in the garrison after it was removed to the camp of isolation at Papine. There were two cases of yellow fever among the officers, and one of these proved fatal. The disease was confined to the island of Jamaica.

The average strength of the black troops in the West Indies was 1,186. The admissions into hospital numbered 1,166, the deaths 18, and the average number constantly sick was 71.41. Two cases of small-pox occurred in a detachment of these troops at Nassau. It is stated in the report that the two cases were very mild, that the disease did not exist among the civil population at the time, and that the origin of the disease in the two instances referred to could not be traced. Four of the deaths were due to pneumonia, and three resulted from heart disease.

In Western Africa the average strength of the black troops was 422; 282 of this number serving at Sierra Leone, and 140 at Cape Coast Castle. The average strength of European officers was 25, and there were 11 white non-commissioned officers of the West India Regiment. One death occurred among the officers from apoplexy, and 10 were invalided to England, 5 for the effects of remittent fever, 2 for enteric fever, 2 for dysentery, and 1 for hepatitis. The report contains a very unfavourable account of Freetown, the capital of Sierra Leone, as regards neglect of sanitary arrangements. The first principles of sanitation seem to be disregarded there. It contains 23,000 inhabitants, and almost surrounds the low conical hill on which the barracks and station hospital are built. The report adds that no attempt is being made to remedy its insanitary condition. No case of yellow fever occurred among the troops, nor is any reference made to its occurrence among the civil inhabitants of the town, where it was stated to have prevailed in a severe form during the previous year, 1884. There were 109 cases of remittent fever among the troops, but they are described as having been generally mild, and yielding readily to treatment. One man died from remittent fever at Cape Coast Castle. Altogether there were only 6 deaths among the troops during the year in this command.

In the Cape of Good Hope and St. Helena command there were 3,939 troops, and the number of admissions into hospital during the year was 3,472, while the deaths amounted to 35. The ratios of admission were, therefore, 881.4, and of mortality 8.89 per 1,000. The average strength of the detachment at St. Helena was 140, the admissions into hospital 46, and there was 1 death. The ratios of sickness were, therefore, 328.6, and of mortality 7.14 per 1,000. Enteric fever caused in the command 29 admissions to hospital, and 9 deaths. The cases were widely distributed over the Cape Colony; none occurred at St. Helena. At Pietermaritzburg there were 11 cases and 9 deaths; and with regard to these cases it is reported by the medical officer in charge that they were mainly due to the arrival of detachments of Argyll and Sutherland Highlanders from Etshowe. The weather was excessively hot while they were on the march, and the men drank the water from every sluit and source on the road. There were also 7 cases and 1 death at Rorke's Drift, and the Principal Medical Officer remarks that this post was so notorious for outbreaks of enteric fever that the idea of abandoning it was mooted, but was given up on account of the political importance of the place. The admissions for primary syphilis numbered 588, and secondary syphilis 195, showing ratios of 149.3 and 49.5 per 1,000, as compared with

59.0 and 24.4 per 1,000 in 1884. If the cases of gonorrhœa and its sequelæ be included, the total number of admissions for venereal diseases was 1,233, being more than a third, or 35.5 per cent. of the total number of hospital admissions for all causes during the year. More than half the total number of cases of both forms of venereal disease occurred at Cape Town, and the medical officer in charge remarks that a large proportion of the cases of primary syphilis was followed by secondary symptoms of extreme severity. Among the deaths from injuries were 4 from gunshot, all suicidal. In each case a verdict of temporary insanity was returned, no motive for the act being discoverable. There were two cases of enteric fever among the officers, and one of these terminated fatally. Among the improvements carried out during the year, the establishment of a sanitarium in a well elevated position at Wynberg is mentioned.

The average strength of the troops quartered in the island of Mauritius was 358, but this relatively small force led to 898 admissions into hospital, a ratio of 2508.4 per 1,000, and to 6 deaths, a ratio of 16.76 per 1,000. The average number constantly sick was 29.51, showing a ratio of 82.43 per 1,000. The Senior Medical Officer remarks that "the general health of the troops is considered to have been more satisfactory during 1885 than in either of the two previous years, for though the actual number of admissions has been higher, the number constantly sick has been lower. The increase in the admission rate was mainly due to malarial fever, which was more than usually prevalent in the earlier months of the year, both in the civil and military population. The improved state of health is believed to be largely attributable to the removal of the main body of the infantry detachment from Port Louis, and the prompt transfer of sick from that place for treatment at Curepipe." The report states that the increase and improvement in barrack accommodation at Curepipe has been progressing during the year, and that in consequence a further reduction in the strength of the troops quartered in the notoriously unhealthy line barracks at Port Louis has been rendered practicable.

In Ceylon the average number of white troops during the year was 809. The hospital admissions numbered 950, the deaths 8, and the number of men constantly sick was 51.13. These numbers show ratios of 1174.3, 9.89, and 63.20 per 1,000 respectively. They all exhibit improvement as compared with the corresponding ratios in 1884; only 1 case of enteric fever was recorded, but that proved fatal. It is remarked that this disease is common among the civil population throughout the island, owing to the bad water supply. Small-pox was prevalent at Trincomalee early in the year, and later at Colombo, but no case occurred among the military. The officers, women, and children were generally healthy throughout the year. The general health of the native troops, consisting of a company of Gun Lascars and the Ceylon Mounted Orderlies, is also reported to have been good. Only one death occurred among them, the cause being phthisis pulmonalis.

The portions of the report which refer to the health history of 57,000 troops serving in 1885 in India, and nearly 10,000 officers and men in Egypt, have not yet been noticed. Want of space compels us to postpone a digest of these sections to some future opportunity.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

An ordinary meeting of the Fellows was held on Thursday, January 26th, Sir William Jenner presiding. C. J. Arkle, M.D., Lond.; R. A. Jamieson, M.D., Royal University, Ireland; S. Little, M.D., Royal University, Ireland; E. Malins, M.D. Edin.; A. Martin, M.D., Lond.; S. H. Owen, M.D., Royal University, Ireland; T. C. Rylton, M.D. Lond.; and H. R. Spencer, M.D. Lond., were admitted to the Membership of the College.

Licences were granted to 106 gentlemen who had passed the necessary examinations.

The following were elected Councillors: Dr. Handfield-Jones, Dr. Pavy, Dr. Church, Dr. Pye-Smith, Dr. E. Long Fox.

On the motion of the TREASURER, the following resolution was adopted:

"That, in recognition of the protection afforded to this College by the police during the recent riotous proceedings in Trafalgar Square, and of the admirable discipline exhibited by that force under prolonged provocation, the College do vote the sum of twenty-five guineas as a contribution towards the funds of 'The Metropolitan Police Convalescent Home,' or towards any project approved by the Chief Commissioner of Police."

The quarterly report of the Finance Committee and the annual report of the examiners were received and adopted.

A report was received from the Committee of Management recom-

monding that the University of Otago, Dunedin, New Zealand, be recognised as fulfilling the requirements of the Board in regard to professional study for the diplomas of the two Colleges, but that the University of Buffalo, New York, U.S.A., from which an application for recognition had been received, be not so recognised. The Committee also recommended to the two Colleges the insertion of the words "for a degree in medicine" after the word "examination" in line 2, paragraph IX, Section II, of the Regulations of the Board, so that the paragraph may read as follows:

"IX. Any candidate who shall produce satisfactory evidence of having passed an examination for a degree in medicine in any of the subjects of the first and second parts of this examination conducted at a university in the United Kingdom, in India, or in a British colony, will be exempt from examination in those subjects in which he has passed."

These recommendations were adopted by the College.

A report was received from the Colleges Land Committee, consisting of delegates appointed by the two Colleges to report as to the best use to which the unoccupied ground belonging to the two Colleges, in the rear of the Examination Hall, can be applied. The Committee reported that the position and shape of the ground do not admit of any great deviation from the original intention of erecting two lateral blocks in continuation of the wings of the present building with a theatre in the space between them; but in view of the fact that, owing to the height of the houses erected or in course of construction on either side of the building, the light in the lower rooms of the wings would be generally insufficient for the purposes of research work, they recommend to the two Colleges the erection of two galleries of rooms over the back part of the theatre from wing to wing at a sufficient elevation to obtain a good south light.

These two proposed additional galleries would provide eight rooms 20 feet long and 15 feet broad, with excellent light, and would not be overlooked except from the Examination Hall. This plan also admits of the wings being slightly reduced in width from the original design, so as to enable the theatre to be enlarged to accommodate four hundred persons, which, in the opinion of the Committee, would be desirable.

The plans which have now been submitted by the architect, embodying the scheme above indicated, appear to the Committee to be perfectly adapted to the purposes of "investigation and exposition," for which they are intended.

The architect's approximate estimates for the construction of the proposed buildings is as follows:

For two wings of four storeys each containing four large rooms which may be subdivided hereafter, a theatre to accommodate 400 persons, and two galleries containing four rooms each, £26,000.

In recommending these plans to the two Colleges, the Committee desire to add that assuming that the subjects of investigation be restricted to such as relate to medicine and surgery [for example, "researches as to the nature, causes, and prevention of disease, and experimental research on the chemical properties, physiological action, and therapeutic uses of remedies"] they are enabled to state generally that an additional expenditure will be required for internal fittings which need not exceed £5,000, and that the annual expenditure for maintenance would not be less than £500, and need not exceed £1,000.

This report was adopted, and Dr. Burton Sanderson, Dr. Lander Brunton, and Dr. Ralfe, with two others to be nominated by the President, were appointed delegates to form, with delegates to be appointed by the Royal College of Surgeons, a Committee to report on the precise nature of the internal arrangements and fittings required.

A communication was received from the Moxon Memorial Committee, with regard to the proposed Moxon Medal, the consideration of which was referred to the Council.

The SENIOR CENSOR moved the following resolution:

"That it is undesirable that any Fellow, Member, or Licentiate of the College should contribute articles on professional subjects to journals professing to supply medical knowledge to the general public, or should in any way advertise himself, or permit himself to be advertised, in such journals."

Considerable discussion ensued, which by resolution was declared to be part of the "Secreta Collegii." Eventually the debate was adjourned.

RABIES is said by the official veterinary inspector to have again broken out among the deer in Richmond Park. No case has previously been reported since September 24th. It was stated that the deer are still isolated.

ASSOCIATION INTELLIGENCE.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCOIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The next meeting of this District will be held at the Deaconesses' Institution and Training Hospital at Tottenham, N., on the evening of Thursday, February 2nd, at 8 P.M. (Dr. Bridgwater, J.P., Vice-President of the District), when Dr. Dowse will read a paper on Massage, and demonstrate its practice. Several interesting cases will also be exhibited in the hospital.—GEORGE HENTY, M.D., Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Town Hall, Walthamstow, on Thursday, February 16th, at 8.45 P.M. (sharp). The chair will be taken by A. Dnrham, Esq., President of the Branch. A paper on Pernicious Anæmia, and the Diseases Liable to be Confounded with It, will be read by Dr. Bristowe, F.R.S. Visitors will be welcomed.—J. W. HUNT, 101 Queen's Road, Dalston, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

The third meeting of the session was held, by the kind invitation of Dr. Adams, at Brooke House, Upper Clapton, on Thursday, January 19th. Present, Mr. G. WELER in the chair, and between twenty and thirty members and visitors.

Demonstrations.—After the usual formal business, the SECRETARY showed, for Dr. STEPHEN MACKENZIE, some of Dr. Uuna's Preparations for local application in certain Skin Diseases.—Mr. SILCOCK showed a series of patients suffering from Diseases of the Eye, including cases of interstitial keratitis, sclero-keratitis, chronic glaucoma, albuminuric retinitis, exostosis of orbit, pulsating tumour of the orbit, pigmentary retinitis, optic neuritis, and others.—Dr. MAJOR GREENWOOD, jun., showed two cases of Optic Atrophy.—Messrs. PICKARD and CURRY exhibited the Electric Ophthalmoscope.

The room was most efficiently fitted up by Dr. Adams with the electric light and other apparatus for the satisfactory examination of the patients.

Votes of Thanks.—Cordial votes of thanks were passed to Mr. Silcock, Dr. Adams, and to the Chairman.

BATH AND BRISTOL BRANCH.

The third ordinary meeting of the Branch was held at the Grand Pump Room Hotel, Bath, on Thursday evening, January 19th; Dr. G. F. BURDER, President, in the chair. There were also present twenty members and one visitor.

New Member.—W. Cotton, M.B., C.M. Edin., of Clifton, was elected a member of the Association and Branch.

Communications.—1. Mr. ALEXANDER WAUGH read a paper on a case of Puerperal Septicæmia, in which he drew attention to the analogy between erysipelas and puerperal septicæmia; he also laid especial stress on the frequency of *post-partum* hemorrhage after the administration of chloroform for instrumental cases, and asked whether any other anæsthetic, such as the A.C.E. mixture, would be likely to produce the same effect.—Dr. GOODRIDGE, Dr. J. K. SPENDER, Mr. J. H. H. LAWRENCE, Mr. R. J. H. SCOTT, Mr. C. H. COLLINS, Dr. BURDER, and Messrs. CARE, MASON, and BARTRUM joined in the discussion.—2. Mr. C. FLEMING read a paper on the Use of the Glycerium Amyli of the *Pharmacopœia* either by itself or combined with Bichloride of Mercury as a New Surgical Dressing.—3. Mr. J. H. H. LAWRENCE read short notes of two cases: a Burn of the Head, Face, and Hands in a Woman 75 years of age, and an obscure case of Typhoid Fever. 4. Mr. J. HINTON exhibited a case of Feebly United Fracture of the Olecranon treated by Wire Suture. In the unavoidable absence of Mr. Hinton the HONORARY SECRETARY read the notes of the case.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Etiology of Contagious Pneumonia of Pigs.—Action of Antipyrin.—Antipyrin in Labour.—Toxicity of Exhaled Air.—Analysis of St. Lucie Rum.—Changes in Paris Hospitals.

MM. CORNIL AND CHANTEMESSE have made a series of researches on the etiology of contagious pneumonia in pigs, which have led them to the following conclusions. Contagious pneumonia in pigs is an affection which has been mistaken for measles. It has appeared in France within the last few years. It is contagious, it terminates in fibrinous peripneumonia, and almost invariably proves fatal. At the outset the animals are languid, and remain lying down; there is fever, cough, and loss of appetite. The skin on the side and stomach presents a reddish hue; blackish patches, from which the hair is easily detached, appear on the neck. There is whitish, mucous, horribly offensive diarrhoea, which sometimes continues throughout the illness, and at other times is replaced by constipation. The affection lasts from twenty to thirty days. It is distinguished from measles by its duration, by marked pulmonary symptoms, and by the peculiar nature of the micro-organisms which produce it. This affection destroyed a great number of pigs at the pig-rearing establishment at Gentilly during more than a year. The animals were supposed to have contracted the infection at the market of La Villette, to which animals are sent from all parts of France. MM. Cornil and Chantemesse, made the following experiments with fluid taken from the lungs, liver, spleen and blood of a pig which was killed while suffering from the affection. Cultivations with the blood and spleen remained sterile. The lung and the liver gave pure cultivations, which presented the following characteristics. The cultivation did not liquefy gelatine; a transparent patch, clotted in parts and thin in others, appeared on the surface. When the colonies were equally distributed, they presented the appearance of delicate tracery. On gelose, a milky patch with a lace border was observed; with potato, an abundant grey cultivation was obtained. These cultivations contained the same microbe in a pure state, namely, a small oval bacterium measuring 1μ to 2μ long by 0.3μ wide. It is motionless, aerobic and anaerobic, according to different conditions. A young pig was inoculated with portions of a pure cultivation in some broth, with a Pravaz's syringe. The next day the animal was very ill; the temperature was 40° C. (104° F). Diarrhoea subsequently appeared; the animal grew thin, its breathing was accelerated. There were crepitant and sub-crepitant râles in the lungs, at the spot where the injections were made. The skin was covered with black patches. The animal died four weeks after the inoculation was made. At the necropsy the right lung was found to be attacked with generalised broncho-pneumonia. There were hepatised lobules in the left lung; the kidneys were affected with nephritis, the urine was albuminous. The large intestine was covered with solid tumours, from the size of a lentil to that of a small walnut. Most of the lymphatic glands were swollen. The pathogenic microbe was found in the fluid taken from the lungs, glands, intestinal tumours, liver, spleen, kidneys, and in the urine, bile, and blood. It was also found in large quantities in the fæces. Similar inoculations were made in rabbits, guinea-pigs, mice, and pigeons. All these animals, with the exception of the pigeons, died within a few days. The microbe was most abundant in the blood of the mice, in which case it was larger, and when coloured with methylene blue, presented a clear space in its centre. It was found in the plasma of the blood, and in the white corpuscles. The lesions described show that infectious pneumonia in pigs is rather a general infection than a pulmonary disease. The virus usually gains access by the air-passages; this explains the pulmonary symptoms; but the disease may also be contracted through the alimentary canal or through a wound of the skin. MM. Cornil and Chantemesse believe that this affection is analogous to that which has been described in Germany by Loeffler and Schutz as the "Schweine-seuche," and in America by Salmon and Smith, as the "swine-plague."

Dr. Lucien Denian says that the action of antipyrin on the organism is as complicated as the organism itself. In large doses it may produce constipation, and it is supposed to cure diarrhoea and arrest intestinal hæmorrhage. It is rapidly absorbed by the mucous membrane of the intestines, and is eliminated by the kidneys, skin, and intestinal glands. Cutaneous elimination is accompanied by profuse perspiration in most cases, and in a few cases (one out of ten) by a special kind of eruption. In large doses antipyrin dilates the reins

and capillaries; its antipyretic effects are partly due to the increased emanation of heat resulting from vascular dilatation. Antipyrin is said to modify the action of the heart and the circulation, although Professor Robinson, of Chicago, affirms that this substance acts as a tonic on the heart, and slightly increases the blood-pressure. This assertion may be correct as far as mild doses are concerned. Antipyrin does not act directly on the respiratory function, but it has a decided influence on the nervous system. In large doses it produces vertigo, nausea, or drowsiness in certain patients; in others it causes excitement, hilarity, and a general sense of well-being. These last effects are most frequently observed after moderate doses in patients whose digestive organs or special nerve centres are not over susceptible. Antipyrin, when given in large doses at intervals, reduces the quantity of nitrogenous excrementitious products eliminated by the breath or other excretory agents. The doses vary from 60 centigrammes to 4 grammes in twenty-four hours. Antipyrin is soluble in water and alcohol. It may be administered as a draught, in wafers, or in elixir. It may be injected subcutaneously in an aqueous solution; the solution is negative if the methylated oxymethyquinizide is quite pure. The injection should not contain more than 50 centigrammes, and should be administered every half hour or every hour until the temperature is reduced. M. Germain Sée has shown that antipyrin, in doses of 4 or 6 grammes in twenty-four hours, is a valuable remedy for rheumatic symptoms of the muscles, obstinate myalgia, lumbago, peri-articular rheumatic muscular pain, acute or subacute muscular torticollis. The successful results obtained by M. Sée with antipyrin in cases which were unsuccessfully treated with sulphate of quinine, salicylate of soda, massage, liniments, etc., appear to show that antipyrin may be regarded as almost a specific in these cases. M. Sée also obtained excellent results with antipyrin in neuralgia, sciatica, face and cranial neuralgia. Antipyrin cures migraine, from whatever cause it may arise; it appears also to act as a prophylactic against neuralgia of the scalp. Cases of acute torticollis and obstinate migraine have been cured in less than an hour by antipyrin.

In the *Comptes-rendus* of the Société de Biologie of December 30th, 1887, there is an account of the successful use of antipyrin to ease the pains of labour, by Dr. E. Laget, of the School of Medicine of Marseille. Dr. Laget was called to a young lady, who had already several times miscarried, and who was taken with the pains of labour after about five months' pregnancy. The pains, which were very severe, resisted landanized enemata administered at intervals during forty-eight hours. On the third day, the pains continuing almost without intermission, and becoming sometimes insupportable, Dr. Laget, remembering the recent communications of Dr. Chouppe to the Société de Biologie (July 16th and November 19th, 1887), prescribed an enema containing antipyrin (2 grammes in 100 grammes of water). The pains diminished a little, but still persisted with some violence. One hour later another similar enema was given, and a quarter of an hour later the pains diminished most remarkably. The uterine contractions occurred every eight or ten minutes, with slight but supportable pain; the labour continued regularly in this manner for three hours, when the fetus was expelled; the placenta followed shortly afterwards. The patient had no after-pains, and her convalescence proceeded normally. Dr. Netter calls attention to the fact that, although the use of antipyrin diminished the pains, not only did the uterine contractions retain all their force, but that, the exhaustion caused by excessive pain having ceased, each contraction was more effective. The quantity of antipyrin employed was moderate, and it is possible that it might be administered in larger doses without inconvenience, and with more decided effect.

At the meeting of the Société de Biologie of Paris, on December 24th, 1887, MM. Brown-Séquard and d'Arssonval presented a note on some recent experiments made by them to prove the toxicity of the air exhaled from the lungs of man or of mammals. They assert, first, that the air exhaled nearly always contains ammonia; secondly, this air contains, in very minute quantities, organic matter which, if not already putrefied on leaving the broncho-pulmonary passages, has a great tendency to rapid alteration, even at a low temperature; thirdly, confined air charged with pulmonary exhalations is extremely noxious, even when containing only 1 per cent. of carbonic acid, with a corresponding diminution of oxygen, whereas atmospheric air containing the same proportion of CO₂, and a corresponding diminution of oxygen, but containing no pulmonary exhalations, causes hardly any disturbance. It seems probable, therefore, that exhaled air must contain one or several toxic substances, the toxicity of which, however, has not yet been proved. To test this question the authors injected into the circulation of rabbits a small quantity of a liquid resulting from the condensa-

tion in refrigerated glass bulbs of air exhaled from the lungs of several human beings, and also from the lungs of a dog (taken from the trachea). The results were the following: First, more or less marked dilatation of the pupil; secondly, slower respiration; thirdly, rapid decrease of temperature, varying from 1° to 5° C.; fourthly, paralytic weakness, often extreme, of the posterior members. During the first hours after the operation the heart is uniformly affected; in general its frequency is little modified, being sometimes augmented, sometimes diminished. But generally on the following and succeeding three or four days the cardiac pulsations often attain 240, 280, and 320 per minute, without a corresponding elevation of temperature or febrile symptoms. This strange phenomenon may sometimes persist for two or three weeks. As for the respiration, slower during the first few hours, it becomes afterwards rather more frequent than in the normal condition, and remains so for some days or even weeks. It is evident that the water which serves as a vehicle to the injections has nothing to do with the above phenomena, for M. Ch. Bouchard has proved that water injected into the circulation becomes toxic only when the quantity injected exceeds 90 cubic centimètres per kilogramme of the animal's weight, whereas in the experiments of MM. Brown-Séquard and d'Arssonval only a fraction of this quantity was employed (from 4 to 7 cubic centimètres). On injecting double that quantity of liquid produced by condensation of exhaled air of a dog into the carotid of a strong, healthy rabbit, there was violent tetanus, with almost complete arrest of the cardiac movements and of respiration, and the animal died within a minute. It is evident that this noxious action of the exhaled air must be due to certain toxic organic substances, present in very minute quantities, not yet isolated, and the chemical composition of which is yet unknown. The authors add that Dr. Arthur Ransome, who has best studied them (*Journal of Physiology*, 1870, vol. iv, p. 211), estimates the proportion in which they exist in the air exhaled from the lungs of a man in twenty-four hours at not more than about 2 decigrammes. It is not known whether these toxic substances are alkaloids, like the ptomaines, but it is evident that, considering the very minute quantities in which their action becomes appreciable, this action must be very energetic. MM. Brown-Séquard and d'Arssonval propose to continue their researches on this subject.

M. Oeschner de Couinck presented to the Société de Biologie at the meeting of the 24th of December last the following analytical results of his examination of 13 litres of genuine Sainte Lucie (West Indies) rum six months old: Alcohol, 54 per cent.; glucose, 1.03 gr. per litre; cane sugar, 0.40 gr. per litre; dry extract (at 100° C.), 6 grs. per litre; dry extract (*in vacuo*), 6.90 grs. per litre; ashes, 0.205 grs. per litre. This rum energetically reduced ammoniacal nitrate of silver. A solution of permanganate of potash was immediately reduced when cold; when heated, there was an abundant brown precipitate. The residue after distillation of the rum with water (rum = 100 c.c.; water = 300 c.c.) immediately discoloured the permanganate when cold; it was also rapidly reduced when hot. In order to study the superior alcohols, 12 litres of the rum were examined separately by means of Henuinger-Lebel's apparatus, heated by means of a *bain-marie*. The alcohol distilled was examined apart; it all passed over between 78° and 81° C. The watery residue was distilled on an open fire. The liquid, which was at first clear, soon became cloudy towards 100°. This cloudiness was due to a liquid of neutral composition, slightly soluble in water, lighter than the latter, having a peculiar smell similar to that of butylic alcohol. This composition gave the principal reactions of alcohols. There was not enough to permit of elementary analysis, but the presence of isobutylic alcohol seems probable. It appears, therefore, that perfectly genuine rum of agreeable flavour, sweet and mild, with an agreeable bouquet, may still contain a certain quantity of superior alcohols.

Owing to Dr. Cruveilhier having resigned his post of physician at the Beaujon Hospital, the following changes have taken place at the Paris hospitals. Dr. Richelot is transferred from the Bureau Central to the Bicêtre Asylum; Dr. Reclus from the Bicêtre Asylum to the Hôpital Tenon; Dr. Peyrot from the Hôpital Tenon to the Hôpital Saint Antoine; Dr. Marchand from the Hôpital Saint Antoine to the Lariboisière; and M. Benjamin from the Lariboisière to the Hôpital Beaujon.

EPIDEMICS AMONG SAVAGE RACES.—An interesting example of the peculiar severity of zymotic diseases when they attack savage races is given by Dr. Guppy (*The Solomon Islands and their Natives*), who states that there is no reason to doubt that mumps is sometimes a fatal disease among the races inhabiting these islands. We have been unable to find any record of a fatal case of mumps among civilised races.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

A Series of Thirty-eight Hysterectomies.—Hydro-therapeutical Treatment of Spasm of the Glottis.—Pathology and Treatment of Contraction of the Knee-joint.—Hygienic Aspects of the Electric Light.

In a recent number of the *Wiener Medizinische Wochenschrift*, Professor Charles Braun gives an account of thirty-eight cases of hysterectomy for fibroid, performed in the General Hospital, with only six deaths, that is to say, a mortality percentage of 15.5. The results which he had thus obtained were 2 per cent. behind those of Hegar, Kaltenbach, Bantock, and Keith, and about 16 per cent. better than the results obtained by the Berlin gynaecologists. Professor Charles Braun is strongly in favour of the extra-peritoneal treatment of the stump, as both the cases in which it was treated intra-peritoneally ended fatally. According to him, the following are the indications for hysteromyotomy: 1. Attacks of pain during menstruation or in the intervals between the periods, which recur frequently and render the patient unfit for work of any kind. 2. Functional disturbances from pressure on the neighbouring organs (bladder, rectum, kidneys, stomach, or lungs) involving risk to life. 3. Severe metrorrhagia, in which a cure cannot be obtained by any less radical procedure. Instead of the aseptic sponges he in most of his cases uses mull gauze which has been for twenty-four hours before the operation boiled in a 1 per cent. solution of sublimate, and which is afterwards washed in clear water. Immediately before and during the operation the gauze is wrung out of a hot solution of thymol (1 in 1,000), and used for stopping the bleeding from the peritoneal surfaces after ligation of the blood vessels. A solution of sublimate or carbolic acid is never brought into contact with the peritoneum. After the tumour has been brought forward the abdominal wound is temporarily closed by means of hooked forceps. The peritoneum of the abdominal wound is sutured above and below the stump, and the latter is fixed to the peritoneum of the abdominal wound by means of a mattress suture. Both the oviducts and the ovaries are separately ligatured with silk threads. Only after the closure of the abdominal wound by means of silk button sutures the tumour is removed, the stump being touched with the actual cautery and covered with benzoate of sodium. The extra-peritoneal treatment of the stump in cases of hysteromyotomy is specially advantageous when the myomata are situated in the wall of the body and the fundus of the uterus, but less so in those myomata which are situated between the walls of the cervix, the lips of the os, and the broad ligaments.

Dr. Adolphus Schrötter, of Vienna, in a recent number of the *Internationale Klinische Rundschau*, reports the case of a girl, aged 3 years, who suffered from severe attacks of spasm of the glottis, whom he had treated by wrapping the little patient in cold linen for half an hour or an hour, and then by rubbing with linen which had been dipped in water of a temperature of ten degrees. In this way he succeeded in cutting short twenty attacks of glottic spasm.

Docens Dr. Dollinger recently made a communication to the Royal Society of Buda-Pesth, on the pathology and treatment of contraction of the knee-joint. His communication was based on ninety-seven cases, which were all under his observation, and, for the most part, also under his own care, since 1881. Seventy per cent. were due to tuberculous inflammation of the joints. As an occasional cause, he noticed measles in two cases; both the children were of a tuberculous stock, and Dr. Dollinger was of opinion that the measles played, in the outbreak of the inflammation of the knee-joints, the same part as many other pathological processes which weakened the organism. As the longitudinal growth of the lower extremity depended chiefly on the epiphysal cartilages near the knee-joint, an inflammation occurring in the neighbourhood of these cartilages and destroying them must necessarily affect the growth of the limb. No statistics were available from which trustworthy inferences could be drawn as to the degree to which the growth of the extremity was impaired in the various intervals of time which elapsed from the date of onset of the inflammation. Dr. Dollinger, for this reason, made exact measurements of twenty-eight limbs, in which the inflammatory process had begun from one to twenty-three years before. He drew from them the following conclusions: 1. The development of the diseased extremity during the whole course of the acute inflammation quite agreed with that of the healthy one, nay, it even surpassed the latter by from 1 to 1½ centimètres. The shortening did not begin until the acute inflammation had disappeared, and a smaller quantity of nutritive material was conveyed to the epiphysal cartilages, owing to the cicatricial shrinking. 2. The shortening of the extremity was not in direct ratio to the number of years which had elapsed since the

beginning of the inflammation. It seemed that the degree of destruction caused by the inflammatory process in the epiphysal cartilages, or in the parts near them, had also to be taken into account. 3. The difference of length which became established between the lower extremities never became less; further measurements made several years later showed that, though both the extremities had in the meanwhile grown very much, the difference between them remained the same, or had increased up to the time when growth was complete. Dr. Dollinger's measurements also showed that, except in rare cases (2 out of 28), after each attack of inflammation of the joint which had completed its course during infancy, the development of the affected extremity was considerably retarded. The amount of shortening varied from 8 or 10 to as much as 19½ centimètres. This showed that there was a good deal of shortening, even in cases in which the knee-joint was not resected, a fact which proved that the most important objection which had been brought against this operation was groundless. In speaking of treatment, Dr. Dollinger said that massage was of no use in tuberculous inflammation of the knee-joints; he used it, however, with good effect in contraction of the knee-joints dependent on articular neuroses, gonorrhoea, or slight rheumatism. In cases of tuberculous origin he did not stretch the limb by *brisement forcé*, but at first stretched it only to a certain degree, and then fixed it in this flexed position with a plaster-of-Paris bandage. Owing to the tension, hyperæmia supervened in the adhesions, which thus became loosened, so that the complete stretching of the extremity could be easily performed after a week. Dr. Dollinger insists that the patients should begin to walk with the bandage on as early as possible. Some weeks after the complete stretching, he had a plaster cast made of the extremity, and a felt knee-cap made after the model of the cast. The support was connected with the shoes by two rods joined at the ankles. The patients wore this support for a long time, with the view of preventing secondary curvatures.

In the annual report for 1887 the "Stadtphysicus" of Prague, Dr. Zahor, urges the introduction of electric lighting into the public reading rooms. He states that Dr. Fr. Renk, assistant to Professor Pettenkofer, has had the opportunity of making a series of experiments on the utility of the electric light from the sanitary standpoint, in the "Nationaltheater" of Munich, which is supplied with 1,700 Edison's lights. He has thus been able to prove that the electric light had hardly any influence on the deterioration of the air, whereas the gaslight raised the temperature of the room, deprived the air of its oxygen, and rendered it injurious by increasing the carbonic acid, especially in the higher regions. It could also be easily imagined that the elevation of temperature produced by the gaslight, the increase of the carbonic acid, and the diminution of the oxygen in the air reached a much higher degree in confined working rooms than in a spacious, well-ventilated theatre. Considering that when the electric light was used such an increase of the local temperature could never take place as when gaslight was employed, and that in the latter case headaches referred to those parts of the head which were directly exposed to the influence of the rays of light, neuralgias, and local hyperæmias supervened; furthermore, that no carbonic acid was developed, and that no oxygen was consumed by the electric light; and lastly, that, although the electric light was very powerful, its intensity could be diminished by shades—it became evident that the more general adoption of the electric light would be very advantageous from the hygienic point of view.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Glasgow Sick Children's Hospital.—Glasgow Convalescent Home, Lenzie.—Glasgow Eye Infirmary.—Glasgow Asylum for the Blind.—Health of Glasgow in 1887.—Epidemic of Measles at Shotts.—Glasgow Medical Societies.—Glasgow and West of Scotland Branch of the British Medical Association.

The annual meeting of the Glasgow Sick Children's Hospital was held at Glasgow, on the 20th instant, under the presidency of the Lord Provost of the city. The report stated that it had been found necessary to provide increased accommodation, and for that purpose an adjoining building had been purchased, altered to suit the purposes of the hospital, at a cost of £17,000. This expense had been borne by the Chairman, Mr. Carlile, in recognition of whose generosity the ward had been called the Carlile Ward. The Chairman had also agreed to give £200 per annum for three years, for maintenance. The number of beds now available in

the institution was 70—32 for medical and 38 for surgical cases. During last year 470 patients had been admitted, compared with 453 during the previous year. The proportion of surgical cases was 53.4 per cent. No fewer than 205 operations have been performed, as compared with 134 the previous year. The average daily number under treatment was 5.7; the average duration of residence was 44.5. The percentage of deaths was 7, as compared with 7.6 the previous year. Deducting those cases in which death took place before the patient had been 24 hours in hospital, the rate was 6.4 per cent. The ordinary expenditure was £2,320 17s., being £210 in excess of income. A dispensary is at present being built in connection with the institution, at a cost of £2,867.

The twenty-third annual meeting of the subscribers to the Glasgow Convalescent Home, Lenzie, was held at Glasgow on the 17th inst. The report stated that 1,441 patients had been admitted to the Home during the year, as compared with 1,515 in 1886. The average stay had been 18 days. The ordinary expenditure had been £1,702 9s. 4d., which was equal to a cost of £1 4s. 5½d. per patient, or 1s. 4½d. per day, as against 1s. 3½d. in 1886, and 6s. 4½d. in 1885. The annual subscriptions amounted to £902, and the subscriptions from *employés* in works, etc., to £306, as against £254 the previous year.

The number of new cases admitted to the Glasgow Eye Infirmary in 1887 was 2,774, which, with 4,956 on the books at the close of the previous year, made a total of 14,730, as compared with 13,701 in 1886. At the date of December 31st last, of the total treated during the year, 5,506 remained on the books of the infirmary. The financial report showed an ordinary income of £2,532 17s. 11½d., and an ordinary expenditure of £2,804 8s. 11½d.

At the annual general meeting of the Glasgow Asylum for the Blind, held on the 15th inst., the report for 1887 was submitted. Here it appears that 161 blind persons had received the benefits of the institution last year. Employment had been provided for 129, who had earned as wages £2,550 12s. 3d. They also received special allowances to the total amount of £1 087. The sales for the past year amounted to £15,303, less by £767 than the previous year. This was due to the work being hindered by a recent fire. In the school there were 31 children.

Dr. Russell reports that in 1887 12,128 deaths were registered within the city, as compared with 13,039 in 1886, a decrease of 971. This represents a death-rate of 23, instead of 25, per 1,000 living. Comparing simply the absolute number of deaths, it was necessary to go back to 1862 to find a lower figure than that of last year. If the proportion of deaths to population were taken, Dr. Russell found that since the commencement of public registration in 1855, the death-rate in Glasgow had never been so low. Up to last year the lowest was that of 1879, when it was 24.6. The years 1887 and 1879 agreed in both being free from any grave prevalence of infectious disease, and especially in the absence of any severe epidemic of the infectious diseases of children, which nowadays was the chief cause in the oscillations of urban death-rates. Meteorologically the two years were very unlike; in 1879 a severe winter leading to a cold year, and in 1887 a moderate winter extending far into spring, followed by a summer of almost unprecedented warmth and drought.

Measles is prevalent in the district of Shotts, about sixteen miles from Glasgow. In one of the schools, out of 300 children, 200 have been attacked, and the school has been closed. A number of adults are also affected. The disease is said to be of a mild type.

At the last meeting of the Glasgow Obstetrical and Gynecological Society, Dr. Garnett Wilson showed an anencephalic foetus, and Dr. L. Oliphant introduced a discussion on pessaries.

The Glasgow and West of Scotland Branch of the British Medical Association held its annual meeting in the Sick Children's Hospital on January 12th, under the presidency of Dr. Joseph Coats. There was a large attendance. Dr. Finlayson showed cases of paralysis, of considerable interest; and Dr. Cameron showed some children with deformities produced by cancerous sores, on one of whom Eschschsch's operation for ankylosis of the jaw had been performed. Mr. Macneven showed a child from whose brain a small tumour had been removed for epilepsy with an entirely satisfactory result. He also showed a case in which considerable interest was manifested by the members. It was that of a boy with urethral stricture, the result of an injury. Dilatation not being permanently successful, Mr. Macneven decided to operate. He cut down on the site of stricture, and entirely removed that portion of the tube, stitching the separated ends of the tube together by means of catgut. The result was quite successful, the position of the operation being detected as a fine thread only when a large sized catheter was passed.

CORRESPONDENCE.

THE HENDON COW DISEASE.

SIR,—Kindly allow me to remove a wrong impression that must have been produced in the minds of some of those present at the last meeting of the Pathological Society by some expressions used by Dr. Crookshank.

Dr. Crookshank expressed great indignation at my having exhibited at that meeting, "without his permission," "his" calf, that is, the calf which he had exhibited at the extraordinary meeting on December 15th as being affected with alleged cow-pox. When I exhibited this same calf on January 17th it showed the same cow-pox, due to vaccination from a calf at the Animal Vaccine Station, Lamb's Conduit Street, on January 12th. Now, the fact of the matter is that this calf was not Dr. Crookshank's property. It belonged to Professor Brown, and had been sent, with other similar calves, by Professor Brown to the Animal Vaccine Station in order to be tested for their susceptibility to cow-pox. Professor Brown had said to Mr. Shirley Murphy and to myself that, short of killing, we might do with the calves as we pleased—I am, etc.,

E. KLEIN.

19, Earl's Court Square, S.W.

P.S.—I ought to mention that the above experiment of vaccination of the calf exhibited at the Pathological Society was performed by Dr. Cory, in the presence of Professor Brown and Dr. Crookshank; and that Dr. Crookshank had with me inspected the calf on three subsequent occasions.

INTRA-CAPSULAR INJECTION IN THE EXTRACTION OF CATARACT.

SIR,—In Dr. McKeown's recent letter on the above subject (*JOURNAL* for January 21st) elicited by your Annual Report on Ophthalmology (*JOURNAL* for December 31st) he again desires to compare results obtained by his method with results obtained by other methods, to the advantage of the former, and refers to a letter of his published in the *JOURNAL* of September 3rd last, in which he also drew this favourable comparison, and complains that your reviewer has taken no notice of that letter. But, although your reviewer took no notice of it, I felt bound to do so in a letter addressed to you, which appeared in the *JOURNAL* for September 17th last (see also *JOURNAL* for October 1st).

I there pointed out that, amongst the results of other surgeons quoted by Dr. McKeown in his letter as inferior to the results obtained by him with his method were those at the National Eye and Ear Infirmary of eleven and twelve years ago; and, as surgeon to the institution named, I protested against these statistics being employed for such a purpose. As Dr. McKeown now again refers to the same statistics with the same object, I must again protest against his doing so. Does Dr. McKeown mean to say that his method of intracapsular injection is the only improvement, if it be one, which has been made in the operation for cataract since the years 1875 and 1876; and that, if my colleague and I would operate now as we did then, with the addition of his intra-capsular injection, our successful results would be increased by 8 per cent.? Or, does he suppose that we abide by all the operative details of 1876, or would now be satisfied with the results then obtained? But if Dr. McKeown does go so far back for statistics with which to compare his own, why not then to a still more remote period? Very probably the results of operators, say, half a century ago, might show up the intra-capsular injection in a better light than those which he has selected.

I can only repeat what I said in my letter of September 17th, that it is with the methods and results of to-day that Dr. McKeown should compare his method and results, and not with those of 1876 and 1876. It may be replied that no statistics of cataract operations at the National Eye and Ear Infirmary have been published since then. That is so. But other surgeons and other institutions have published their recent cataract results, and I submit it is with the best of these that Dr. McKeown should compare his results, if he desires to place his method of intracapsular injection on a sure footing. A German friend of mine, who does not use this method, recently stated that in the 200 extractions he had performed by the peripheral linear operation in the previous year, he obtained a good result in every eye, and there are many other operators, at home and abroad, who could produce statistics almost, or quite, as good. How do Dr. McKeown's results compare with these?

Dr. McKeown's method may be a good one, but, I venture to think, he has not as yet shown it to be so. His communication at the last annual meeting, far from inspiring confidence in the method, had the

opposite effect, because his percentage of losses were greater than we expect in these days, and because (I speak from memory) those losses were due to events which are now rarely met with—for example, loss of vitreous, suppuration, irido-cyclitis.

Your editorial remarks at the foot of Dr. McKeown's late letter are substantially correct in respect of the objects with which Drs. Panas and de Wecker, to whose practice Dr. McKeown refers, employ intra-ocular injection. Dr. Panas uses it "de penser l'antisepsie jusque dans les profondeurs de l'œil." Dr. de Wecker's object is different. He uses injections into the anterior chamber "de provoquer, par la contraction de l'iris et son étalement régulier, une coaptation aussi exacte que possible de la plaie." If some cortical masses happen to come away with the injected fluid, well and good, but neither of these surgeons seem to wash the anterior chamber free of cortex after Dr. McKeown's method. Dr. de Wecker indeed distinctly states he does not irrigate the anterior chamber in this way, and disapproves of it. He sometimes injects a few drops of fluid into the anterior chamber in order the more readily to get rid of the cortical masses by a proceeding which Dr. McKeown condemns, namely, "avec la paupière inférieure appliquée sur la cornée." Indeed, neither in the object with which these two surgeons use intra-ocular injection, nor in the way in which they use it, does there seem to be much in common with Dr. McKeown's method.

I feel quite sure that Dr. McKeown wishes to introduce into ophthalmic surgery something of the value of which he is himself convinced. And I am also quite sure that any unfavourable criticism with which his proposal has met has been given from the point of view of men who, like himself, are aiming, so far as in them lies, at a high standard of excellence in their profession. I believe, moreover, that Dr. McKeown will readily allow that anyone who proposes a new method, especially a new operative method, in our highly cultivated speciality, must be prepared to submit his proposal to the cleansing fire of fair and reasonable criticism.—I am, etc.,

H. R. SWANZY.

23, Merrion Square, Dublin, January 24th, 1888.

ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.

SIR,—The Right Hon. the Lord Mayor of London has promised to take the chair at the biennial festival of the Royal Medical Benevolent College on April 17th, at the Hôtel Métropole, in Northumberland Avenue. The Council of the Association will meet on April 18th. May I hope that as many as feel interested in the work carried on at Epsom College will favour us with their support, by allowing their names to appear as stewards. If those who do not as yet know how good the work is, either as regards the aged and distressed, or as regards the foundation scholars who are boarded, educated, and clothed, without any charge, will come to the dinner, they will learn how deserving of success the efforts of the Council are, and how urgently the institution is in need of funds.

I am particularly anxious that the members of the profession should be present in good numbers to show how they appreciate the kindness of the Lord Mayor, and of the sheriffs who will support him, in recognising the just claim of the profession on the public.

Gentlemen who are willing to act as stewards, or who desire tickets for the dinner, will kindly communicate with the Secretary, at the office, 37, Soho Square.—I am, etc.,

C. HOLMAN, M.D.,
Treasurer of Epsom College.

RECIPROCITY OF PRACTICE.

SIR,—The case of Mr. White (whose name must be familiar to all English visitors to Montreux) is an illustration of a widespread and increasing inconvenience and injustice.

Many Continental health-resorts owe their very existence to the English and American visitors who go there on the advice of their physicians at home, yet if these who have "helped make the place" venture to advise professionally their patients in their temporary home, they are subject to troublesome and sometimes very unfair restrictions.

I venture to think the time has arrived when there should be perfect reciprocity of practice for all duly qualified practitioners, whilst the law might be made more stringent as regards those who practise backed by no other qualification than their own audacity and presumption.—I am, etc.,

FRANCIS H. PARSONS.

The Hurst, West Worthing, January 14th.

DEGREES FOR MEDICAL STUDENTS: THE CLAIMS OF SCOTCH LICENTIATES.

SIR,—I beg to endorse fully the remarks of Mr. McFadyen, in the JOURNAL of January 21st, and to venture to press upon the Scotch Corporations the desirability of at once applying to the Privy Council for power to confer the degree of M.D. upon the gentlemen who have obtained, and are to obtain, the double qualification of those Colleges. They undoubtedly possess equal rights with their English neighbours on the Embankment, and should not delay a moment longer in seeking those privileges. They will then be able to steal a march on the universities; for, after their students have passed a qualifying examination for registration, as such, they will be able to proceed with their medical studies free from the cares of further examination in general education; and, at the end, after passing the usual examination required by the two Colleges, to assume the title of Doctor of Medicine. In the universities I find, on looking them up, that three of them actually require a man to go to the trouble of possessing a degree in Arts before he attempts to graduate as a simple M.B. London exacts a scientific examination, which entails a year of study before the student enters on his study of medicine, and after having obtained his certificate in general education. The Royal University of Ireland insists upon a preliminary examination; that passed, a year in Arts must be taken before he is allowed into the first University examination in Arts, and this takes place at the expiration of one year after passing the entrance examination known as Matriculation examination. Victoria requires a scientific examination after the preliminary, and, let us take Aberdeen, and see what it requires. I see by the Calendar that this university insists, first, on a knowledge of the subjects required by Edinburgh and Glasgow, and, before commencing medical studies, in at least two of the following subjects—Greek or modern languages, higher mathematics, etc.; and after all this, and four years of medical study, the student, if successful, finds himself only in possession of M.B. and C.M. He has then to wait two years in general or hospital practice, to write a thesis, and also to be examined again in one subject, such as Greek, modern languages, or moral philosophy; and, worse than all, I believe he has to pay £15 into the bargain in order to obtain the degree of M.D.

The new English method will have every advantage to recommend it.

1. A minimum of general education only is required.
2. A short course of only three, or perhaps at the most four, years of study only necessary.
3. The unnecessary worry and work connected with getting up the extra subjects in general education for the universities.
4. The fact of being able to add M.D. to one's name after the ordinary pass examination of the Colleges.

For these reasons, I strongly recommend the Edinburgh and Dublin Corporations to lose no time in asking for powers to enable them to raise the standard of the profession; and by so doing, to increase the value of their diplomas in the eyes of the public and the profession.—I am, etc.,

W. WYLIE.

Skipton, January 21st, 1888.

SIR,—Mr. McFadyen is not the only Edinburgh licentiate who has marvelled at the absence of action, or at least the absence of declared action, on the part of the Colleges. Would it not be possible to affiliate the Edinburgh Colleges with St. Andrews, just as Durham lately affiliated Newcastle? This would give the Edinburgh student an opportunity of obtaining the M.D. degree of one of the oldest universities in the country, and it would at one swoop raise the university to a real place among the medical institutions of Great Britain.

The one-portal system is, however, the real cure for the disease; and I think it was Professor Syme who sketched a plan something like the following: One board of examiners for the whole of the United Kingdom, sitting alternately in London, Edinburgh, and Dublin; the pass certificate to entitle the holder to practise medicine and surgery in any part of Her Majesty's dominions. Those who wished to practise pure medicine would take, in addition, the Fellowship of one of the Colleges of Physicians; those who wished to practise pure surgery, the Fellowship of one of the Colleges of Surgeons. All Fellowships to be obtained by examination only, and the licences and memberships to be abolished. The M.D. to remain as the blue ribbon of the profession. To place this within the reach of everyone, I would suggest that all universities should rescind their conditions as to residence, and that the London University should abolish its foolish restriction about attendance on classes between the passing of one examination and the appearance for another.

No doubt there would be many objections to this scheme, and many difficulties in the way; but then a scheme which has neither difficul-

A LECTURE on "The History and present position of the Germ Theory of Disease" will be delivered by Professor E. M. Crookshank, M.B., at the Parkes Museum, on Thursday, February 2nd, at 5 o'clock.

ties nor objections is not worth considering at all, and no one will deny that it would set the questions about qualifications and degrees at rest at once and for ever.—I am, etc.,
January 21st, 1888.

AN EDINBURGH MAN.

DEGREES FOR ENGLISH STUDENTS.

SIR,—May I be allowed to draw your attention to a statement in a leader in the JOURNAL of January 14th which may be liable to some misconstruction—a statement to the effect that the University of Durham gives its degrees "after a very moderate amount of evidence of preliminary education." As a matter of fact, four subjects at least are required in addition to and independently of those passed for registration as a student, and failure in any one of these entails rejection in all. The examination must be taken not earlier than six months after registration, and its standards, both as regards the extent of the subjects and the percentage of marks required, is much higher than that of the examination for registration, from which it is quite distinct.—I am, etc.,

W. P. MEARS.

University of Durham College of Medicine,
Newcastle-on-Tyne, January 24th.

SIR,—I should be glad if you would kindly allow me to make a few remarks on that passage in a leading article in the JOURNAL of the 14th inst. on which a correspondent from Aberdeen comments; I refer to the one which speaks of the preliminary education required by the Universities of Durham and Aberdeen. 1. Durham University does not admit candidates to the final examinations for degrees in medicine, unless they have passed certain examinations for degrees or otherwise in arts of a somewhat severer type than the ordinary preliminary examination required by the General Medical Council, without passing what is known at Durham as the "extra arts." Now the Senate at Durham allowed till lately candidates to pass an equivalent examination at any of the recognised Universities if they preferred it to the one held at Durham. Now Sir, it was found that the majority of candidates preferred to pass this "extra arts" examination north of the Tweed. In a matter of examination students would appear somewhat peculiar, since clearly if what Dr. Struthers says is correct, they prefer to pass a harder examination in a subject like general education, which would make no difference to their medical career, instead of an examination which is said to be so much easier. The next point; would you allow me to thank Dr. Struthers for the high compliment he has so unintentionally paid Durham when he points out that it is so different from Aberdeen, a point one has no wish to dispute, I can honestly say, as I am sure all *alumni* of Durham could also, that I would not exchange my Alma Mater for that of Aberdeen even were that privilege granted, in spite of what so unbiased an authority as Dr. Struthers of Aberdeen may say as to the merits of that University.—I am, yours, etc.,

DUNELM.

January 24th, 1888.

VEGETARIAN DINNERS FOR SCHOOL CHILDREN.

SIR,—The interesting article in your issue of the 7th inst., under the above heading, suggests an important and interesting inquiry as to the efficiency of the vegetarian dinners in comparison with "the mixed diets supplied, at equally low rates, to the school children in Birmingham," adding, "it does not appear that vegetarian dinners are more economical as to prime cost." I am glad to be able to throw a little light on this subject by extracting two sentences from a pamphlet entitled, "Cheap Dinners for School Children," containing reports of two conferences held in Manchester. At one of these conferences Mr. G. H. Sargent, the able exponent of the scheme of Farthing Dinners originated by him in Birmingham, was asked by the Rev. Joseph Burke, as to the nature of the dinners supplied, in the wards, "were they thoroughly vegetarian and free from all suspicion of animal taint?" To this, Mr. Sargent replied, "The food we give is not nominally vegetarian food, but something very much like it. I put a little animal food in the soup, because I am not a vegetarian myself; and I am afraid our Birmingham friends would not appreciate it if we tried to do without flesh meat. Sometimes a little dripping goes into the soup. It is not much, being, I should think, about half a pound to a hundred children." Much further information of a valuable character was given at these conferences, a record of all—or nearly all—the various efforts made to provide school children with cheap meals—whether on the mixed diet or vegetarian system—being contained in the paper by Mr. William A. Axon, F.R.S.L. It will give me pleasure to send to any of your readers who may be interested in the subject a copy of the report referred to, on receipt

of name and address. I might add that in Mr. Sargent's interesting pamphlet, "Farthing Dinners," are two recipes for soups, each for eleven gallons. The only animal food which enters into these recipes is "Dripping, 6 oz." and that in one recipe alone. In a former edition of the work containing six recipes (five for eleven gallons each, and one for twelve gallons), the animal food ingredients were:—

- A—None.
- B—Dripping, 6 oz. to $\frac{1}{2}$ lb.
- C—Dripping, 1lb.
- D—Meat scraps, 2lbs.
- E—Dripping, $\frac{1}{2}$ lb.
- F—Meat scraps, 2lbs.

That the recipes contain so small a proportion of animal food is the result of a significant experience which Mr. Sargent records. He says:—"The astonishing fact is, that the very poor, or at any rate their children, cannot and will not eat meat; and that the longer they have been on the verge of starvation, the less meat they can eat." These circumstances bring us face to face with the inevitable conclusion that in order to meet fairly the essential of cheapness in producing meals for poor school children, the meals must be practically of a vegetarian character, and that the flesh food used in such cases is in reality little more than a flavouring ingredient.—I am, etc.,

JOSEPH KNIGHT, Secretary of the Vegetarian Society.

75, Princess Street, Manchester, January 12th, 1888.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.

SIR,—As I was not permitted to make my remarks at the special meeting of the Governors of St. John's Hospital held at the Hôtel Métropole on January 18th, I will ask you to give me space in your JOURNAL, so that I may place before your readers a short summary of my action in this matter.

During the time I have been connected with this hospital, I have brought before the authorities several evidences of what I considered bad hospital management. Before I had been on the staff many weeks I objected to the manner in which the patients were admitted into my room, that is, those who contributed most towards the hospital were allowed priority of entrance. The board of management recognised this as unfair, and my patients have since been arranged in the order of their arrival.

I again objected to the sums of money which were collected from the out-patients, as much as five shillings being received for a week's treatment. This objection the board of management again accepted. I will here state it is my belief that the maximum sum now charged, namely, ten shillings a month for attendance as an out-patient of this or any other hospital, is in excess of what a charitable institution ought to ask for.

My next charge is against the nursing of the in-patients. It fell to my share to scrape away a quantity of scrofulous material from the neck and breast of a girl in the autumn of last year; the case required a good deal of special care. On November 19th I received a letter from Miss Ingleby (the matron), stating that she was leaving the hospital on the following day, and that the Secretary had asked her to instruct "the cook" in the dressing, so that she might undertake the case. This the matron objected to do. The Secretary also wrote to the Registrar on the same day, saying: "We shall be without a regular nurse for a few days. I wish you therefore to tell the dispenser that I shall want him, unless the doctor does the dressings, to be present to-morrow (Sunday) when cook dresses Miss K. (my patient), so that he may superintend the complete antisepticising of all dressings."

I replied that I was very much surprised and vexed by his action, and that I failed to see why my patient should be left without skilled nursing. I also added my request that no unskilled or untrained person should be allowed to dress my patient. I may be permitted to add that the dressing was done during the remainder of the stay of the patient in the hospital either by my assistant or myself. The matter came up at the next board meeting. I understand, on Mr. Milton being asked by the Treasurer what he thought of the cook's capacity as a nurse, he said "he considered the cook was quite as capable as Miss Ingleby."

As evidence of irregularity in the management, I may state that in *Whitaker* and the *Hospital Almanac* for this year it is stated that St. John's Hospital has "a matron and two nurses." At our meeting at the Hôtel Métropole a recital of this nursing episode was received with a shout of derision. It is an innovation to my mind that capable nursing is not one of the essential factors in hospital administration.

I pass over a great many subjects which have created friction be-

tween the board of management and myself, not wishing to trespass too much upon your space.

We heard a good deal at the meeting from the authorities of St. John's Hospital as to the advance of the institution, whereas, according to their report, the gross attendance in 1886 was 44,510, against a gross attendance for 1885 of 46,611.

The receipts for the year 1886 amounted to £3,295 5s. 6d., whilst in 1887 the sum was £3,074 17s. 4½d. A comparison of these two years will demonstrate that we have actually lost ground, so far as subscriptions and patients are concerned. Notwithstanding this, the expenso of management for 1887 was much increased.

It is now necessary to state that Drs. Campbell and Bourns and myself have been dismissed by the board of management because of our action, as detailed by us in a communication printed in the JOURNAL of December 31st, 1887. To be definite, it is necessary to state that Dr. Campbell received his *congé* before Dr. Bourns and myself.

The dismissal by the present board of management, or rather the majority of that board, is in no way objectionable to me. I have been congratulated by my professional friends more on this dismissal than I was on my election.

We ask for an independent committee of inquiry, which should have the power to probe all issues, and report thereon. This committee those now in power refused, and proposed a vote of confidence in themselves and by themselves, after a speech from one of themselves, Alderman Gould, which was the most offensive I have ever heard delivered before a public meeting. The vote of confidence was carried as an amendment to Mr. Raymond's resolution.

Here, Sir, the matter now rests. The present action of the board of management has resulted in the dismissal of three members of the staff, the resignation of a fourth (Dr. Harries), and two gentlemen who were recently appointed have since resigned. These facts alone are significant indications of the line of action taken and the results obtained.

The history of St. John's Hospital has been a stormy one. I am not in a position to affirm how many of our profession have joined the staff and afterwards left it. The sole survivors are Mr. Milton and Dr. Dow.

I cannot hide from myself the hope that this painful discussion will take the issues at stake before an unprejudiced tribunal. It is not a question of individuals; it is the question of the life of the hospital which is in the balance. Personally, I would express my conviction that it is only by restoring the confidence of the medical profession and the public in the equity of the management, that it is possible to hope or believe that St. John's has a prosperous future. This confidence can only be restored by a complete and full investigation of all matters connected therewith. For this investigation, I, and those who have acted with me, most earnestly ask; and surely, if a crisis such as the present one arises in the history of any hospital—a crisis which has eliminated the majority of the staff, which has caused three members of the board of management to act antagonistically to the remainder, we have some right to demand such an inquiry; and until this inquiry is granted, we shall be ceaseless in our endeavours to attain this result.

—I am, etc.,
T. ROBINSON, M.D.
9, Princes Street, Cavendish Square, W., January 24th.

THE ERGOSTAT AND LATERAL CURVATURE.

SIR,—My friend and colleague Mr. Freer, in the JOURNAL of January 21st, comments upon my suggestion that the ergostat may prove useful in some cases of lateral curvature of the spine, and were it not that he has entirely misunderstood the bearing of my letter, I should not have deemed it necessary to reply. It would appear from reading Mr. Freer's remarks that he imagines, because I speak approvingly of the ergostat that I think it will revolutionise the treatment of scoliosis, and, therefore, take a prominent place in the treatment of all cases of curvature of the spine, whether of a slight nature or in the existence of marked bony distortion. His introductory remarks, wherein he states that my views coincide so closely with his own, his knowledge of my practice at the hospital, and the valedictory address which I read before the Q. C. M. Soc., and which was afterwards published in the *Birmingham Medical Review*, prove that he is not warranted in arriving at that conclusion.

In my original letter I was careful to state that "amongst the various callisthenic exercises I recommend to patients suffering from lateral curvature of the spine is that which has received the appellation of the 'top-sawyer' movement." This was supplemented by the statement that I proposed the substitution of the ergostat for the elastic bands, etc., employed in this particular exercise. Having so written, how came Mr. Freer to conjure up in his own mind that I was about to advocate certain stereotyped measures, and would not, in the

future, study and treat cases upon their own special conditions. Another remarkable feature in the letter under consideration is that Mr. Freer obviously declines to criticise or raise any objection to the ergostat *per se*. He is, I know, a strong upholder of kinesipathy, and follows Dr. Mathias Roth, Mr. Bernard Roth, and the system of Swedish gymnastics in every particular. I append an example of one exercise from each of the above authors, and wish to point out that the muscles which are brought into action during the drill are exactly the same as those exerted in using the ergostat, the only difference being that in one case the medical attendant resists, and in the other the apparatus. I believe with Dr. Kjoelstad that the will-influence is very important in retaining the normal form; and as the revolution of the ergostat "must be executed very slowly," it gives ample time for the body to receive from the mind the desired impressions.

Exercise 1.—"Rack, crooked, thigh, opposite, clossa, standing, trunk, back, flexion (G. R.)" (Mathias Roth).

Exercise 2.—Forwards lying, heels fixed, trunk extension and flexion (Bernard Roth).

Exercise 3.—Hips firm. Trunk backwards and forward bend. (Ling's system).

I may conclude by saying I strongly deprecate any attempt, however slight, at stereotyped rules in the treatment of scoliosis; but at the same time consider the ergostat a wise addition to our armamentarium, and that when its use is properly supervised, it cannot be otherwise than useful.—I am, etc.,

AUGUSTUS CLAY,

Assistant Surgeon, Orthopædic and Spinal Hospital.

133, Steelhouse Lane, Birmingham.

A HOAX.

WESTERN SUBURB states that, on January 6th, a respectable looking woman, styling herself Mrs. Ferguson, called to engage his professional services to attend a young lady, the wife of Mr. Alfred Davis, a rich gentleman who had returned from Australia. Before leaving the consulting room, he writes, mention was made of fifteen hundred pounds having come to one of her little girls, which it was desirable should be settled on the child; could I recommend a solicitor to be depended on for drawing up a deed? I was induced to write an address on my card.

On arrival no such people were known at the residence, nor at the same number in Holland Villas Road. Nothing was stolen from my rooms, but thinking some trick was being played and a thief had called, I wrote at once to my solicitor to caution himself and staff. It was, however, too late, as legal advice had been taken in the meantime under the pretence of obtaining a divorce. It was said she had been a patient of mine for years, and I could substantiate the base falsehoods. The plausible tale and introduction given imposed on a kind gentleman, who offered legal opinion and granted a loan of thirty shillings.

I regret having to inform you the woman referred to is continuing her designs in the neighbourhood, and called on a surgeon on Thursday, January 19th, with a similar tale.

Nothing was stolen from the surgery nor from the solicitor introduced, although doubtless fraud was intended.

* * * The trick is a common one. The heaver is still at large.

REGISTRATION OF FOREIGN DEGREES.

J. HERD-WOOD, M.D. Edin., L.R.C.P. Edin. (Leatherhead) writes: I notice in a letter from Mr. William Donovan, on the registration of foreign degrees, the statements that "it is too absurd in this age to allow the monopoly in degrees to remain vested in a few old-fashioned universities, and that every legally qualified physician and surgeon should possess the right to the title of Doctor of Medicine."

Now, why should the medical profession, which is already low enough in the estimation of the general public, be the only one where the possession of money and time enough to graduate at a university bring no corresponding advantage, but that any man who is content or obliged to take the lower diplomas, as, for example, the L.R.C.P. Edin., should be allowed to usurp a title for which he has not worked, and call himself a Doctor of Medicine? Having passed both examinations, I can say with truth that it is too absurd to expect the one to take the same professional status as the other; as well might the man who has passed a preliminary in arts claim to be called M.A.

If the L.R.C.P.'s persist in claiming the title of Dr., I should suggest that it become usual for the one to be simply Dr. A. B., the other Dr. A. B., M.D., as with knights and baronets.

SOCIAL PROGRESS IN SPAIN.—The eminent statesman, Señor Canovas, has just completed the elaboration of a Bill to be brought before the Spanish Cortes, for the purpose of rendering employers of labour responsible for accidents to their workpeople, unless the same be due to the carelessness or recklessness of the latter. Employers will also be made responsible for accident resulting from the execution of orders given by their managers or foremen. If the workman be incapacitated from work, the employer will be required to pay him his wages until recovery takes place; and if the disability be of a permanent character, in addition to the cost of maintenance and attendance, he will have to pay an indemnity of from 600 to 1,000 days' wages. In case of death a like indemnity is to be paid to the family of the deceased workman. It may appear surprising that legislation of this kind should still remain to be done; but as a matter of fact, even in this country, the protection of the working classes against the accidents of their calling have only recently been undertaken.

NAVAL AND MILITARY MEDICAL SERVICES.

THE NAVY.

The following appointments have been made at the Admiralty:—SAMUEL JOHNSON, Surgeon, to the *Pembroke*; S. E. H. HOORS, to be Surgeon and Agent at Douglas, Isle of Man; WILLIAM J. COLBOURNE, Surgeon, to the *Excellent*; J. H. SPENHOUSE, Surgeon, to the *Boscawen*; JOSEPH A. MOON, Surgeon, to the *Excellent*; GEORGE WILSON, Surgeon, to the *Britannia*; D. J. P. M'NABB, Surgeon, to the *Impregnable*; JOHN E. WEBB, Surgeon, to the *Indus*; the last six additional, for disposal; GEORGE HEWLETT, Surgeon, to Plymouth Hospital; CHARLES S. WOODWRIGHT, Surgeon, to the *Asia*, additional; SAMUEL KEAYS, Surgeon, to Devonport Dockyard; CHARLES W. SHARPLE, Surgeon, to Plymouth Hospital; JOHN CASHIN, Surgeon, to the *Cambridge*; JOHN ANDREWS, M.D., to the *Mutineer*.

Fleet-Surgeon ALEXANDER McDONALD, M.D., died in London on January 14th at the age of 46. He entered the service December 8th, 1863; became Staff-Surgeon April 14th, 1877; and Fleet-Surgeon April 1st, 1884; he retired from the Navy September 2nd, 1884.

THE MEDICAL STAFF.

SURGEON-MAJOR GEORGE PERRY, of the Coldstream Guards, is promoted to be Brigade-Surgeon to the Brigade of Foot Guards, *vice* W. R. LANC, retired. Brigade-Surgeon PERRY entered the Army Medical Service as Assistant-Surgeon January 29th, 1855; became Surgeon March 1st, 1873, and Surgeon-Major February 26th, 1876. Beginning as Assistant-Surgeon 2nd Scots Fusiliers, he was soon afterwards transferred to the 1st Battalion, with which he remained till 1874, when he returned to the 2nd Battalion till November, 1878, when he was made Surgeon to the 2nd Coldstream Guards; in 1886 he joined the 1st Battalion, and now becomes Brigade-Surgeon. He served with the Scots Fusilier Guards in the Crimean war from June 16th, 1855, and was at the siege and fall of Sebastopol (medal with clasp, and Turkish medal). He was with the 2nd Coldstreams during the war in Egypt in 1882, and was in the actions at Tel-el-Mahuta, and Tel-el-Kebir (medal with clasp, and Egyptian bronze star).

Surgeon-Major C. S. CLOSE is promoted to be Brigade-Surgeon, ranking as Lieutenant-Colonel, *vice* H. C. HERBERT, M.D., F.R.C.S.L., retired. Brigade-Surgeon CLOSE entered the service as Assistant-Surgeon October 1st, 1862; became Surgeon March 1st, 1873, and Surgeon-Major April 25th, 1876. The *Army Lists* do not assign him any war service.

Surgeon-Major D. G. W. HEATHER is granted retired pay. His commissions are dated:—Assistant-Surgeon, October 1st, 1867; Surgeon, March 1st, 1873; and Surgeon-Major, October 1st, 1876. He was engaged in the Ashantee war in 1873-74 (medal), and in the Zulu war in 1879.

Surgeon S. L. DEERLE, who joined the service May 30th, 1855, is placed upon temporary half-pay on account of ill-health.

Surgeon S. H. CARTER, M.B., who is serving in Bengal, is appointed to the charge of the civil medical duties at Barrackpore, in addition to his other duties.

Surgeon-Major G. B. HICKSON, who is serving in Burma under the Madras Government, is appointed temporarily to the civil medical charge of the Toungoo district.

Surgeon H. E. DEANE, serving in the Bombay command, is transferred from the Presidency district to general duty Sind district.

INDIAN MEDICAL SERVICE.

SURGEON D. G. CRAWFORD, M.B., is appointed to act as Civil Surgeon of Backergunge, during the absence on deputation of Surgeon-Major C. J. W. MEADOWS.

Surgeon-Major A. BARCLAY, M.B., Bengal Establishment Secretary to the Surgeon-General with the Government of India, has leave of absence for one year on medical certificate.

Surgeon L. F. CHILDE, Bombay Establishment, is directed to officiate in medical charge of the 12th Native Infantry.

Surgeon G. E. FOGGA, Bombay Establishment, is ordered to officiate in medical charge of the 16th Native Infantry.

THE VOLUNTEERS.

SURGEON AND HONORARY SURGEON-MAJOR W. C. WISE, of the 2nd Kent Artillery, has resigned his commission, which dates from April 26th, 1877; he is allowed to retain his rank and uniform.

M. C. R. ELWOOD, M.D., is appointed Acting-Surgeon to the 1st Cinque Ports Rifles, and Mr. H. A. DES VERRS to the Queen's Westminster's.

SURGEONCY VACANT.

THE Senior Surgeoncy of the 22nd Middlesex Rifle Volunteers (Central London Bakers) has fallen vacant by the retirement of its Surgeon, after a lengthened term of service, and the commanding officer would have much pleasure in nominating a surgeon of suitable position for the commission who would be willing to undertake its duties. Further information is obtainable of the Adjutant, Head Quarters, 22nd Middlesex Rifle Volunteers, South Square, Gray's Inn.

INDIAN MEDICAL SERVICE: A WARNING.

INDIAN SERVICE writes: Considerable surprise has been excited in India by the announcement that 160 surgeons are to be immediately added to the Indian Medical Service, 45 being required for service in the Bombay Presidency. Though the annexation of Burma and the opening up of Baluchistan have necessitated the employment of extra surgeons, the number of new appointments mentioned far exceeds the requirements on these counts.

It would seem that some attempt to play off the Indian Service against the Medical Staff is contemplated. There is an erroneous impression that this "no rank" agitation has not degraded the Indian Service. The truth is that the position of a senior medical officer in a Native regiment has always been far from satisfactory. Though a regimental officer, he is junior to the last-joined probationer in the mess and at regimental entertainments. Men in civil employ are naturally not influenced by any regulations affecting the military service.

Our medical schools and intending candidates should be on their guard that men are not induced to enter the Indian service with a view of being employed in the place of Medical Staff men. Regarding the Indian Service I would strongly advise any European not to think of entering it unless he will powerful

interest. If a man wants a military career the Medical Staff is the only service he should think of. Few honours are given to Indian men, and not a single member of the Service has ever gained the Victoria Cross; a man can live on his pay in the British Service.

MEDICO-LEGAL AND MEDICO-ETHICAL.

"DOCTORS' BILLS."

SIR RICHARD HARRINGTON, County Court Judge, in his court held at Droitwich on January 11th, had before him two cases of interest to members of the medical profession. The plaintiffs were Messrs. S. Batten and E. Elliott, who formerly were in partnership as general practitioners. The actions were brought to recover sums due for medical attendance and medicine. In the first case, brought against a farmer named Arnold, the claim was for a sum of £2 5s. 6d. for professional attendance and medicine. The defendant had formerly been attended by Mr. Batten, before he entered into partnership with Mr. Elliott; and in the year 1884, soon after the commencement of the partnership, he paid him a sum of £12 16s., which he swore was in settlement of all sums due up to that date, while Mr. Batten stated that it was on account only of what was due to him before the partnership. The judge decided in favour of the defendant, and we cannot say that he was wrong, as it lay upon the plaintiff to prove his case; and, in the conflict of evidence which was presented to him, he might well hold that the plaintiff had failed to do this. He went on, however, to make comments on the claim, which, as he had already dismissed it, were quite unnecessary, but are nevertheless instructive. Part of the claim was for medicines supplied; and these had been charged for at the rate of 3s. 6d. per bottle, irrespective of the cost of the drugs used. The judge said that "the practice of surgeons charging for medicines in this way was unsatisfactory. A registered practitioner was entitled to charge for his attendance, and there was no reason for charging more than their value for medicines. The practice of so charging would not be allowed to stand in his court, and, if cases of this kind came before him, he should have to inquire into the cost of the drugs supplied." The practice thus condemned is one which no doubt is common, and in many cases has been found to be convenient; and it certainly has often come incidentally under the notice of judges of the High Court—especially in claims for personal injuries, where the cost of medical attendance is one of the items of the damages—without eliciting condemnation. As a matter, however, of strict law, where the "doctor's bill" is disputed, Sir Richard Harrington is apparently right. Where a medical practitioner supplies medicines, he does so not as a member of a learned profession, but as an apothecary; and, like other tradesmen, in the absence of an agreed price, he is only entitled to charge what is reasonably the value of his goods. In ascertaining that value, the liability of the goods to deteriorate through keeping, the skill of the dispenser, and other considerations which considerably enhance the price beyond that of the wholesale cost of the drugs used, must, of course, not be lost sight of; but they apply equally to medicines purchased at a chemist's shop, and a medical practitioner who supplies medicines cannot in law claim to make higher charges for them than would be paid to a chemist. It may be a hardship, in the case of patients who object to pay proper charges for visits, that the practitioner should be unable to make some extra profit from his medicines; but the law clearly will not enable him to recover such profit. It is well for those members of the profession who supply medicines to be aware of this fact, and to regulate their scale of fees and charges accordingly. A professional man may, in law, estimate the value of his personal services at any figure he likes, and may refuse to accept less for them than he considers due. If, however, he contemplates the necessity of having to sue for his fees, he must make his client know at the time what their amount will be, otherwise a court will be sure to hold that the only contract is to pay such fees as are usual, and award a much smaller sum than the plaintiff considers due. He may also, as a tradesman, charge what price he likes for his medicines, if he tells his customers of it at the time he supplies them, and so makes the price charged an agreed price. What the law will not sanction is a plaintiff putting a fancy price on his goods or his services after they have been given and when the defendant has no longer an option of declining to have them. If there has been no agreement, it is always open to a defendant to dispute the amount claimed from him, and courts in such cases must decide as best they can as to the amount really due, and often, no doubt, inflict considerable hardship on members of the medical profession in so doing.

In the second case, tried at the same court, the plaintiffs claimed payment from a Mr. Lamb for attendance on his grandchild in March

and April, 1884. The defendant denied having asked Mr. Batten to attend the child, whose parents would, of course, be the persons primarily liable to pay for such attendance; and Mr. Batten, though positive that he had been sent for by the defendant, was unable, after the lapse of four years, to remember the words of the conversation in which he was engaged. This failure of memory was quite natural, but it lost the case, for the judge had no option but to decide against a plaintiff who failed to prove what was necessary in order to support his action. The case is, no doubt, an example of what is constantly occurring. Medical practitioners, and other creditors too, are often reluctant to press a debtor of whose ultimate intention and ability to pay they have no doubt, and constantly omit to press their claim till it has become stale and the material facts are partly forgotten. Eventually they find, when too late, that their money is irrecoverable. We have often pointed out that promptitude, at any rate in sending in accounts, greatly improves the chance of enforcing their payment in case of need. We fear, however, that the practice of not asking for payment at the time debts are incurred is too firmly established to be easily altered. The fate of Messrs. Batten and Elliott ought to be a warning to the profession; but we doubt not that in the future, as in the past, we shall have from time to time to record instances where medical practitioners fail to recover their dues because they have delayed too long.

THE LETTER OF THE LAW.

Dr. T. writes: On going to see a patient of mine whom I had been attending regularly on the morning of December 26th, 1887, I was told a medical gentleman living about fifty doors from me had been called in during the night, and prescribed for the patient. I told the friends I could not see the patient. On returning home I found a letter awaiting me from the medical man in question, of which I send you a copy. I saw the patient at 9 P.M. the previous evening, and was at home until the morning. The patient is now being attended by this medical man. Your opinion on the professional etiquette of the case will be valued.

. Although a careful consideration of the several points involved in the respective notes of Dr. T. and Mr. S. leaves no doubt upon the mind that the latter erred in consenting to visit the patient in question, it is, we think, equally clear, from the courteous note of explanation spontaneously addressed by him to Dr. T. on the morning of the occurrence, that the proceedings arose not from deliberate purpose, but from a regrettable lack of moral courage and determination to resist the earnest entreaties of the apprehensive personal friend to return with him and see the "furiously delirious" patient.

At the same time, we cannot but think that Dr. T. is somewhat to blame in the case, in that, and notwithstanding that the patient was seriously ill and himself altogether blameless in the matter, he (Dr. T.), on paying his morning professional visit and hearing that another practitioner had seen him in the night, thereon refused to see him. Ere declining further attendance he should, in our opinion, have listened patiently to the reasons assigned by the family, and, sifting the alleged facts, have at once sought an explanation from Mr. S., which indeed, as admitted, he found "awaiting him on his return home," and which we are clearly of opinion that Dr. T. would have done well to accept. We apprehend, moreover, that the patient's intimate friend, and not the family, is especially responsible for the untoward incident by which our correspondent would appear to have lost a patient, and at the same time unheededly ignored the friendly spirit of a well disposed, though, mayhap, a somewhat irresolute brother practitioner.

RAISING THE FEES WITHOUT NOTICE.

A MEMBER writes: A. is a practitioner who is called in to attend a patient B. A. in due course renders his account and receives payment, but is asked by B. to specify his charge per visit in future, which A. accordingly does for some years, at a certain figure, practically a nominal sum for a patient in B.'s position. During a recent illness A. is asked to discontinue his attendance, and another practitioner is called in. Is it legal for A. to double his fee, which is still moderate, without first giving previous notice to B. to that effect?

B.'s solicitor asserts that there was an "implied contract" at the former charge, and that A. was not entitled to change the rate without previous notice to B.

Information regarding the above will be esteemed a favour.

. The solicitor's contention appears to be well founded. Unless A. can show that there was something in the nature of the illness, or of the attention demanded by the patient, to render the latter visits more valuable than the earlier ones, no court would be likely to award a larger fee in respect of them than that which A. demanded formerly. If it could be shown that the latter visits occupied twice as long as the earlier ones, or anything of that sort, it would be reasonable to ask for increased fees, but unless this can be done they would not be recoverable.

SOLICITORS' LIABILITY.

Dr. J. BAIN SINCOCK writes: Some two years since, a solicitor of this town consulted me respecting the death of a client of his whom I had attended; the question was whether his death could be ascribed to accident or natural causes. I gave my opinion advising the solicitor to compromise the matter with the office in which the man was insured, by accepting their offer. In February, 1887, I sent in my bill to the said solicitor, charging him one guinea for advice. He denied his liability. There the matter rested till last month, when, having

to pay the solicitor a small sum, I deducted the guinea. He refused to accept the amount I tendered him, and brought an action against me to the county court for the whole amount. There was no question of fact in dispute. On the point of law the judge decided that the plaintiff came to me as agent for his client, and consequently he was not personally liable.

If this is the law, I trust my experience may be of benefit to others. I have made up my mind not to trust a solicitor acting as agent again, unless I have written instructions from his principal.

I think, Sir, I have seen in the JOURNAL the report of a similar case, where the judge decided in favour of the medical man. If this is so, and you could help me to find the report of the case, I should feel much obliged.

. We have no reference to the report mentioned. Such cases turn on questions of fact, and not of law; and one decision would be no guide by which to determine another, unless the facts could be shown to be precisely similar. The law is clear, that the person liable is the one who employs the medical man. Who that person may be is a question of fact in each particular case. The only way to avoid disputes is to give no credit, or else to have a definite promise to pay, given at the time.

FORM OF AGREEMENT WITH ASSISTANT.

A.W.B. writes: There are two important objections to "the usual bond," so often required with assistants: first, that an assistant, if he have money at command, may find it to his advantage to pay the penalty and become an opponent to his former principal; secondly, that if the assistant be without means, he may break the bond and become bankrupt if the penalty be sued for, the bond being, *ipso facto*, null and void. This occurred in a case of which I know. Now the object of the principal is to prevent his assistant becoming a rival—not to get the penalty named in the bond.

A better way to attain this end seems to be that mentioned to me by a magistrate (not a lawyer). It is that an agreement be drawn up somewhat as follows:—

"A.B. hereby agrees to pay, and C.D. to accept, the sum of £— per month, on the following conditions, namely:

"First. That C.D. shall assist the said A.B. as he shall require in his practice as physician and surgeon by visiting patients, dispensing and, attending midwifery.

"Secondly. Such duties to terminate at any time by a month's notice on either side; and

"Thirdly. That the said C.D. shall not at any time, either during the time he is assisting A.B. or afterwards, whether for himself or for any other practitioner of medicine or person, act as physician, surgeon, or accoucheur, within a radius of five miles from the residence of A.B., at X—, except with the written consent of the said A.B.

"(Signed) A.B. and C.D."

If this agreement be broken the principal may, I am informed, obtain a perpetual injunction restraining the assistant from practising as a rival.

1. Would the above agreement be legally binding?
2. If so, would it be equally binding on an unqualified assistant?
3. What would be about the probable cost of obtaining an injunction?
4. Would a 6d. stamp be required?

. 1. and 2. Such an agreement as suggested, if properly drawn up, would be binding on the parties to it, and might be enforced against an unqualified assistant just as much as if he was properly qualified. There have been cases before the courts in which injunctions have been granted.

3. It is impossible to say beforehand what the cost of litigation would be. It is not necessarily an expensive process to obtain an injunction, but if the application be resisted costs will, of course, be increased.

4. A 6d. agreement stamp seems to be the one required.

ARE MEDICAL PRACTITIONERS "TRADERS"?

NON-TRADER writes: It may be interesting to some of your readers to know that a similar point arose a few years ago in a sister profession, in which it was held that a solicitor was a "trader," because it was proved that he was in the habit of making a profit on the parchments on which his deeds were engrossed. It appears, therefore, to be a question of fact whether medical practitioners care to make themselves "traders" or no.

. We agree with "Non-Trader" that the question whether or not any person has been carrying on a trade is one of fact rather than of law. As we have pointed out, its practical importance is now much less than it was formerly.

TOKELAU RINGWORM.—Tokelau ringworm is an inveterate form of body ringworm observed among the natives of the Pacific Islands; it was first identified by the late Dr. Tilbury Fox under the name of *tinea circinata tropica*. It spreads very extensively over the body, probably owing to the moist and warm climate, so that the whole of the skin, with the exception of that of the face and scalp, may be covered with wavy desquamating lines. Dr. Guppy states, in his interesting work on *The Solomon Islands and their Natives*, that sulphur ointment is used by the government agents on the labour ships, and that they report that when the remedy is thoroughly and systematically applied, the skin can be freed from the eruption before the ships reach Queensland or Fiji.

Dr. MURRELL'S *Massage as a Mode of Treatment* has been translated into French by Dr. Oscar Jennings, and will shortly be published with a preface by Dr. Dujardin-Beaumez, of Paris, under the title of *La Pratique du Massage*.

MEDICAL AID FOR THE WOMEN OF INDIA.—The third annual meeting of Lady Dufferin's Association will be held on February 8th, when steps will be taken to have the Association incorporated.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON DISTRICTS DURING THE FOURTH QUARTER OF 1887.

In the accompanying table will be found summarised the vital and mortal statistics of the 39 sanitary districts of the metropolis, based upon the Registrar-General's returns for the fourth quarter of last year. The mortality figures in the accompanying table relate to the deaths of persons actually belonging to the respective sanitary districts, and are the result of a complete system of distribution of deaths occurring in the institutions of London among the various sanitary districts in which the patients had previously resided. By this means the precise number of deaths of persons actually belonging to the respective sanitary districts is known, as all deaths occurring in institutions of persons who had previously resided in another district have been excluded from the total number of deaths in the district in which the institution is situated, and credited to the districts from which they came. By this means alone can trustworthy data be secured upon which to calculate reliable rates of mortality.

The births registered in London during the fourth quarter of 1887 were equal to an annual rate of 31.2 per 1000 of the population of the metropolis, estimated at 4,216,192 persons. In the corresponding periods of the three preceding years 1884-5-6, the London birth-rate was 33.3, 32.8, and 31.4 per 1000 respectively. The birth-rates in the various sanitary districts last quarter showed the usual wide variations,

the age and sex distribution of the population differing greatly. In Kennington, St. George Hanover Square, and St. James Westminster, where a large proportion of the population consists of unmarried females, chiefly domestic servants, the birth-rates were considerably below the average; while in Fulham, St. Luke's, Bethnal Green, and St. George-in-the-East, where the population contains a large proportion of young married persons, the birth-rates showed a marked excess.

The 20,732 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 19.7 per 1,000, which, though exceeding the exceptionally low rate recorded in the corresponding period of 1886, was considerably below the mean rate in the fourth quarter of the ten preceding years 1877-86. The lowest death-rates among the thirty-nine sanitary districts last quarter were 12.4 in Hampstead, 15.0 in Kensington, 15.3 in Plumstead, 16.1 in Paddington, and 16.7 in Hackney; in the other districts the rates ranged upwards to 26.3 in Fulham, 26.4 in St. George-in-the-East, 26.5 in Bethnal Green, 29.2 in St. Giles, and 29.7 in Holborn. During the quarter under notice 2,580 deaths resulted from the principal zymotic diseases in London; of these 828 were referred to whooping cough, 656 to scarlet fever, 328 to measles, 326 to diphtheria, 254 to different forms of "fever" (including 4 to typhus, 241 to enteric or typhoid fever, and 9 to ill-defined forms of fever), 185 to diarrhoea, and 3 to small-pox. These 2,580 deaths were equal to an annual rate of 2.5 per 1000, which slightly exceeded that recorded in the corresponding quarter of 1886. The lowest zymotic death-rates during the quarter under notice were recorded in Hampstead, London City, Paddington, Kensington, St. Martin-in-the-Fields, Marylebone, and Westminster, in each of which sanitary districts it was below 1 per 1,000. The zymotic death rate ranged upwards in the other districts to 3.7 in Holborn,

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after complete distribution of Deaths occurring in Public Institutions, during the Fourth Quarter of 1887.

Sanitary Areas.	Estimated Population 1887.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.											
LONDON	4,216,192	32,316	20,732	31.2	19.7	2.5	2,580	3	328	656	326	828	4	241	9	185	145
<i>West Districts</i>																	
Paddington	111,965	724	449	25.9	16.1	1.5	41	1	9	13	3	4	—	4	—	3	117
Kennington	190,357	934	711	19.7	15.0	1.5	71	—	15	19	10	14	—	3	—	10	161
Hammersmith	93,793	765	455	32.7	19.5	2.7	42	—	4	8	14	23	1	7	—	4	152
Fulham	58,896	724	386	49.3	26.3	3.9	57	—	15	12	6	12	—	6	—	6	149
Chelsea	99,887	794	569	31.9	22.9	2.6	65	—	15	12	6	11	—	19	—	8	157
St. George, Hanover Square	88,102	417	381	19.0	17.4	2.0	45	—	5	22	6	3	—	3	—	6	153
Westminster	55,942	360	303	25.3	21.7	1.9	26	—	5	6	—	11	—	3	—	2	197
St. James, Westminster	27,840	127	132	18.3	19.0	2.7	19	—	10	3	—	1	—	2	—	3	189
<i>North Districts</i>																	
Marylebone	150,468	1,703	765	29.4	20.4	1.7	63	—	11	16	4	18	—	7	—	2	142
Hampstead	55,629	326	172	23.5	12.4	0.4	6	—	—	2	2	—	—	—	—	—	2
St. Pancras	243,125	1,841	1,242	30.4	20.5	2.2	195	—	35	33	24	23	—	9	—	11	162
Islington	325,907	2,393	1,410	29.5	17.4	2.0	163	—	22	26	11	79	—	14	—	11	153
Hackney	231,903	1,643	964	28.4	16.7	2.3	134	—	18	32	11	50	—	17	1	5	114
<i>Central Districts</i>																	
St. Giles	40,663	319	296	31.5	29.2	4.2	43	1	5	18	14	8	—	1	—	1	157
St. Martin-in-the-Fields	16,420	69	77	18.0	20.0	1.6	6	—	—	3	—	—	—	—	—	1	101
Strand	29,708	172	142	23.2	24.6	2.0	15	—	1	4	1	2	—	5	—	2	157
Holborn	31,052	226	230	29.2	29.7	3.7	29	—	6	7	6	6	—	3	—	1	239
Clerkenwell	69,745	611	388	35.2	22.3	2.4	41	—	1	9	3	16	—	9	1	3	165
St. Luke's	52,000	475	282	36.7	21.8	1.9	24	—	2	3	3	3	—	6	—	2	145
London City	40,061	200	250	20.0	25.0	0.9	9	—	1	2	4	4	—	1	—	—	180
<i>East Districts</i>																	
Shoreditch	125,452	1,120	751	35.8	24.1	3.4	107	—	3	25	2	62	—	9	—	6	189
Bethnal Green	130,619	1,271	693	39.1	26.5	4.3	139	—	13	53	9	67	—	12	—	3	192
Whitechapel	67,865	624	426	30.9	25.2	2.9	40	—	3	11	3	19	—	4	—	9	173
St. George-in-the-East	46,316	459	305	39.8	26.4	2.8	32	—	2	1	4	16	—	4	—	5	143
Stepney	58,716	485	379	33.2	25.9	3.3	55	—	4	17	3	17	—	4	1	4	227
Mile End Old Town	113,017	549	34.6	19.5	3.8	107	—	5	16	5	73	—	7	—	1	130	
Poplar	182,706	1,437	854	31.6	18.8	2.6	118	—	7	17	10	66	—	10	—	11	144
<i>South Districts</i>																	
St. Saviour, Southwark	27,377	238	175	34.9	25.7	2.3	16	—	4	7	—	1	—	2	—	2	168
St. George, Southwark	59,596	533	373	35.9	25.1	3.3	49	—	3	30	5	5	—	3	—	3	176
Newington	118,991	1,001	593	33.8	20.2	2.8	83	—	6	40	11	19	—	3	—	4	128
St. Olave, Southwark	10,275	90	62	35.2	24.2	2.0	5	—	—	2	—	2	—	1	—	—	233
Bermondsey	89,434	800	506	35.9	22.7	3.3	73	—	10	28	2	13	—	2	1	8	129
Rotherhithe	41,863	350	232	33.6	22.2	3.3	34	—	2	12	3	10	—	5	—	2	171
Lambeth	280,235	2,258	1,270	32.4	18.2	2.5	175	1	15	55	26	34	—	16	1	17	111
Wandsworth	277,029	2,268	1,119	32.9	16.2	2.3	156	—	9	41	27	54	1	8	—	6	114
Camberwell	246,514	1,909	1,057	31.1	17.2	2.3	141	—	13	53	20	29	—	17	—	9	120
Greenwich	132,072	1,340	779	35.4	20.6	2.0	77	—	19	12	15	11	—	10	1	9	135
Lewisham	68,410	416	259	28.6	19.9	3.4	49	—	21	7	7	11	—	3	—	—	135
Woodwich	36,981	323	195	35.1	21.2	2.1	19	—	3	—	1	12	—	2	—	1	152
Plumstead	60,211	696	306	34.8	15.8	2.1	42	—	3	2	11	19	—	4	—	3	101

3.8 in Stepney and in Mile End Old Town, 3.9 in Fulham, 4.2 in St. Giles, and 4.3 in Bethnal Green. Compared with the preceding quarter the fatality of each of the principal zymotic diseases, except measles and diarrhoea, showed an increase. Only 3 deaths from small-pox were recorded in London during the last three months of 1886, of which 1 belonged to Paddington, 1 to St. Giles, and 1 to Lambeth sanitary districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been but 2 at the beginning of October, steadily increased to 15 before the end of November, after which it declined, and was 7 at the end of the year; the admissions were 30 during the quarter, against 7 in the preceding three months ending September last. Measles showed the highest proportional fatality in Bermondsey, Fulham, St. James Westminster, and Lewisham; scarlet fever in St. George Hanover Square, Bethnal Green, Rotherhithe, Stepney, St. Giles, Newington, St. Olave Southwark, Bermondsey, and St. George Southwark; diphtheria in Lambeth, Wandsworth, Hammersmith, Holborn, and St. Giles; whooping cough in Plumstead, Hammersmith, Islington, St. George-in-the-East, and enteric fever in Chelsea, Clerkenwell, and Strand. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 1,596 at the beginning of October, had risen to 2,602 by the end of November, and afterwards steadily declined to 2,049 at the end of the year. The admissions to these hospitals of persons suffering from scarlet fever, which had been 531, 475, and 688 in the first three quarters of 1887, rose to 2,186 during the three months ending December last.

Infant mortality last quarter, measured by the proportion of deaths under one year of age to births registered, averaged 145 per 1,000, against 136, 135, and 144 in the corresponding period of the three preceding years, 1884-5-6. Among the various sanitary districts the rates of infant mortality were lowest in St. Martin-in-the-Fields, Plumstead, Hampstead, Hackney, and Wandsworth; whereas they showed the largest excess in Bethnal Green, St. James Westminster, Shoreditch Westminster, Stepney, St. Olave Southwark, and Holborn.

THE RECENT APPOINTMENT OF MEDICAL OFFICER FOR THE CALDICOTT DISTRICT OF CHEPSTOW UNION.

WE learn from the *Chepstow Weekly Advertiser*, and from other sources, that there has been a sharp fight for the appointment of District Medical Officer of the Caldicott portion of the Chepstow Union. The successful candidate, though non-resident, has held the position for twenty-seven years, having been subjected to triennial re-election. Recently a Mr. Slatters, who is described in the *Medical Register* and in the *Medical Directory* as M.R.C.S.E. only, being resident in the parish of Caldicott, has applied for the position, and at the election in the middle of December ran a tie with his opponent, which Mr. Slatter duly advertised in a letter of the 24th ultimo to the *Chepstow Advertiser*, in which this gentleman claims to possess a qualification in medicine and surgery, and as such of taking and holding a poor law appointment, though he very prudently subscribes himself as a Member of the College of Surgeons only. This time he failed to score so many votes as his antagonist had, viz., 31, whilst he had but 19—majority, 12. It should be known that the possessor of only one qualification cannot hold a poor law appointment however well qualified he may be in his own estimation to practise medicine and surgery, unless there is no doubly qualified gentleman resident within a reasonable district to be got, and then the nolder must be subjected to annual re-election.

DIPHThERIA AT ENFIELD.

AT the last meeting of the Enfield Local Board, a letter was read from the Local Government Board, requesting the Enfield Urban Sanitary Authority to instruct their medical officers of health to prepare a report upon the outbreak of diphtheria at Enfield, with a statement of the measures taken for checking the spread of the disease.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, January 21st, 6,016 births and 4,145 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 23.8 and 23.3 in the two preceding weeks, further declined during the week under notice to 23.0. The rates in the several towns ranged from 17.0 in Brighton, 18.1 in Hull, 18.2 in Bristol, and 18.5 in Oldham, to 25.3 in Nottingham, 25.5 in Plymouth, 26.3 in Manchester, and 28.8 in Portsmouth. The mean death-rate in the twenty-

seven provincial towns was 21.9 per 1,000, and was 2.5 below the rate recorded in London, which was 24.4 per 1,000. The 4,145 deaths registered during the week under notice in the twenty-eight towns included 481 which were referred to the principal zymotic diseases, against 493 and 476 in the two preceding weeks; of these, 195 resulted from whooping-cough, 35 from scarlet fever, 56 from measles, 50 from "fever" (principally enteric), 26 from diphtheria, 30 from small-pox, and 29 from diarrhoea. These 451 deaths were equal to an annual rate of 2.7 per 1,000; in London the zymotic death-rate was 3.1, while it averaged only 2.3 per 1,000 in the twenty-seven provincial towns, among which it ranged from 0.4 in Brighton and in Hull, to 5.0 in Nottingham, 5.5 in Bolton, and 6.3 in Sheffield. Measles caused the highest proportional fatality in Plymouth, Wolverhampton, Nottingham, Blackburn, Derby, and Bolton; scarlet fever in Derby, Blackburn, Bolton, Cardiff, Preston, and Birkenhead; and whooping-cough in Salford, London, Wolverhampton, and Leicester. The 36 deaths from diphtheria in the twenty-eight towns included 22 in London, 4 in Nottingham, and 3 in Liverpool. Of the 30 fatal cases of small-pox recorded during the week under notice in these towns, 25 occurred in Sheffield, 3 in Bristol, and 2 in Nottingham. The number of small-pox patients in the Metropolitan Asylums Hospitals was 5 on Saturday, January 21st, of which 1 was admitted during the week. These hospitals also contained 1,729 scarlet-fever patients on the same date, against numbers declining from 2,602 to 1,792 in the seven preceding weeks; there were 122 admissions during the week ending Saturday, January 21st. The death-rate from diseases of the respiratory organs in London was equal to 7.2 per 1,000, and slightly exceeded the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 821 births and 588 deaths were registered during the week ending Saturday, January 21st. The annual rate of mortality in these towns, which had been 27.1 and 24.0 per 1,000 in the two preceding weeks, further declined during the week under notice to 23.3, but slightly exceeded the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Leith and Greenock, and the highest in Aberdeen and Dundee. The 588 deaths in these towns during the week under notice included 66 which were referred to the principal zymotic diseases, equal to an annual rate of 2.6 per 1,000, which almost corresponded with the mean zymotic death-rate during the week under notice in the large English towns. The highest zymotic rates were recorded in Aberdeen, Edinburgh, and Leith. The highest proportional fatality of whooping-cough occurred in Aberdeen and Glasgow; from measles in Edinburgh and Leith; and from "fever" in Edinburgh. Three deaths from diphtheria were recorded in Glasgow. The mortality from diseases of the respiratory organs during the week under notice in these towns was equal to 6.5 per 1,000, against 7.2 in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, January 21st, 525 deaths were registered in the sixteen principal town districts of Ireland, equal to an annual rate of 31.4 per 1,000. The lowest rates were recorded in Armagh and Londonderry, and the highest in Limerick and Sligo. The death-rate from the principal zymotic diseases in these towns averaged 4.8 per 1,000, and was highest in Cork and Newry. Measles was fatally prevalent in Belfast, Cork, and Newry; and whooping-cough in Belfast. The 216 deaths registered in Dublin during the week under notice were equal to an annual rate of 31.9 per 1,000, which showed a further decline from the high rates recorded in recent weeks. The 216 deaths included 29 from the principal zymotic diseases (equal to a rate of 4.3 per 1,000), of which 8 were referred to "fever," 7 to scarlet-fever, 5 to whooping-cough, 4 to diarrhoea, 3 to diphtheria, and 2 to measles.

WORKHOUSE MASTERS AND MEDICAL OFFICERS.

A MEMBER writes: I am medical officer to a country workhouse, and wish very much to know how to act under the following circumstance:

1. I wish to make a *post-mortem* examination on a deceased pauper, who has no friend to object, but the master of the workhouse suggests that it is illegal, and shows me the regulations of the Local Government Board.
2. I take a pupil to see some cases at the workhouse; the master gives me a hint that the pupil cannot come without his leave.
3. An outside pauper proposes coming into the workhouse hospital in order that I may operate on him for cataract; but the master hints that no other surgeon can be admitted to help at the operation without the permission of the guardians.

How long will strife be permitted to continue between the master and the medical officer?

* * * As regards the first question, application should be made to the board for permission to make the *post-mortem* examination, pointing out that it is not the

province of the master to give or withhold his assent where a pauper dies without friends, but the board's only, and that it is customary for a board to permit a medical officer to do so.

Secondly. It is customary in almost every union that the medical officer be allowed to take his pupils with him when going round the infirmary.

Thirdly. It would be advisable to write to the board for the necessary permission, again stating what is the custom. Before writing to the board it would be well to see the chairman or some influential member of the board, and ask him to support the application.

OBITUARY.

SAMUEL HEY, F.R.C.S. ENG.

Is the death of this, one of the best known of her professional men, whether as a surgeon or a citizen, Leeds has sustained a heavy and enduring loss. Samuel Hey was the fourth link in a chain which has stretched in unbroken strength from 1759 till now, and which has bound together the name of Leeds and the practice of surgery in inseparable communion. To his predecessors in the surgical world Leeds owes much of the great surgical reputation which she enjoys all the world over, and in Mr. Samuel Hey they were followed by a not unworthy successor.

He was the son of the Rev. Samuel Hey, Vicar of Ockbrook, in Derbyshire, and grandson of "William Hey (Primus)," of Leeds, and was born on August 22nd, 1815. His mother was Margaret, daughter of Mr. William Gray, of York. His early education was of the ordinary character of the day, and from his twelfth to his sixteenth year was conducted by the Rev. Joseph Cox at Gainsborough. At the age of 16 he went to Leeds, and entered upon his professional career by pupillage under his uncle, William Hey (the second), and throughout his whole life he maintained that this was the most useful part of his professional education. His later training was conducted in London, and at University College and at St. George's Hospital he had the advantage of studying under Sir Benjamin Brodie, Sharpey, Cooper, and other of the men most distinguished in their day as physicians, and surgeons, and teachers. His London life over, he spent three further years in perfecting his education by attendance at the various schools and clinics of the highest reputation on the Continent, in Paris and in Germany; and he thereby acquired a knowledge of the French and German languages, both of which he spoke fairly well, and which proved of great value to him in after-life.

In or about 1840, he joined his cousin, William Hey (the third), in his practice, and therein became one of the best known men in the profession, in the town and country. At about the time at which Mr. Samuel Hey settled in Leeds, the subject of the institution of a medical school was taking form in the minds of his cousin and other leading men in the profession, such as Thackeray, Teale, Williamson, Price, and others, and into this project Mr. Samuel Hey entered with most lively satisfaction. He used to boast that he attended the first lecture formally delivered in the "Leeds School of Medicine," and in later life, as a lecturer on physiology—as one of the surgical staff of the infirmary, and as, in consequence, the teacher of surgery in the school—his interest in it as a Leeds institution never flagged; his best services were ever at its disposal, and for many years he acted as its treasurer.

In 1851 he was appointed surgeon to the infirmary, and in this capacity he will probably be best remembered by the many pupils to whom he endeared himself by the kindness and gentleness with which he fulfilled his duties—virtues which he also sought to impart to them and which he never failed to inculcate as among the highest attributes of a surgeon and a gentleman.

Those who knew him best, say a warm personal friend of the deceased, will remember how carefully and with how great a sense of responsibility he was wont to ponder over all his cases, whether in hospital or in private, and how earnestly he sought at all times to master them in their minutest details. Socially, Mr. Hey, in the days of his activity, loved nothing so much as entertaining his friends. To see his table well spread and surrounded by guests whom he delighted to honour was supreme happiness to him, and as a guest himself, on public occasions, the making of an after-dinner speech was unalloyed pleasure. In all the relations of life he was the soul of honour, and nothing caused him greater grief than the story of unworthy conduct or behaviour on the part of anyone with whom he had been connected. He was a sincerely religious man, and his religion was of a strictly practical and fruitful character.

Mr. Hey, who was 73 years of age, was twice married, and leaves four children—one son and three daughters.

WESLEY M. CARPENTER, M.D., NEW YORK.

We regret to notice the death of Dr. Wesley M. Carpenter, Professor of Clinical Medicine in the Medical Department of the University of New York. Dr. Carpenter was largely occupied in journalistic pursuits. The full report of the meeting of the International Medical Congress at Washington, published by the *New York Medical Record*, was prepared under his supervision. Dr. Carpenter was born at Erieville, New York, in 1839, and received his medical education at Ann Arbor University, Michigan, and at the College of Physicians and Surgeons, where he graduated in 1863. He established himself in New York in 1872, and soon after became connected with the Bellevue Hospital. He served the Pathological Society, the Academy of Medicine, the Practitioners Society of New York, and the Medical Society of the County of New York, in a secretarial capacity. He was the author of an *Index Medicus*, contributed to the *International Cyclopaedia*, and was the editor of the *Epitome of American Medicine and Surgery*.

Dr. Carpenter died very suddenly, of kidney disease. He went to bed, apparently in his usual health, on January 6th, and was found to be dead the following morning.

Dr. Carpenter had more than once visited Europe, and was well known in medical circles in London, where his intelligence, tact, and kindness were much appreciated. He was one of the ablest of the medical journalists of America, and dealt with difficult questions in a spirit which aimed at the best interests of medicine.

THOMAS GODART.

We regret to announce the death of Mr. Thomas Godart, late Librarian to St. Bartholomew's Hospital. Mr. Godart was known not only as an excellent performer of his official duties but also as a skilful artist. He assisted Mr. Luther Holden by engraving the lithographs for that surgeon's *Osteology*. The best samples of Mr. Godart's skill, however, were his coloured pathological drawings. We all know how unsatisfactory are the majority of productions of this kind, repulsive and un instructive even, if not displaying a sensational appearance savouring of quackery. Mr. Godart possessed the art of imitating the delicate though unpleasing shades of colour which are seen in diseased structures, with great faithfulness, therefore his drawings are of real service for purposes of instruction. Mr. Godart died on November 5th at Sydney, New South Wales, having left England on account of ill-health. Before leaving this country he received a testimonial, towards which a large number of past and present students of St. Bartholomew's Hospital contributed.

ROBERT RATHIERAM STILWELL, M.D.

Dr. STILWELL, of Beckenham, whose death it becomes our duty to announce, was the second son of the late Mr. George Stilwell, a general medical practitioner of Epsom. He was educated at the Tonbridge Grammar School, and subsequently entered Guy's Hospital, where he pursued his medical studies. He took his M.R.C.S. degree in 1856, and two years later passed the examination for M.D. at St. Andrews. In 1857 he commenced practice at Beckenham, where he resided up till his death. He was consulting medical officer of the Beckenham Cottage Hospital (which was founded at his suggestion), and divisional surgeon to the local police. Dr. Stilwell had a wide circle of attached friends, by whom his loss will be much felt.

INDIA AND THE COLONIES.

INDIA.

Dr. CHARLOTTE ELLAEBY, who, in conjunction with Dr. Edith Peckey has been doing such excellent work at the Cama Hospital, has left for Hyderabad, Sind, where the municipality is about to open a women's dispensary.

FEMALE MEDICAL AID TO THE WOMEN OF INDIA.—The first of the silver medals presented by His Excellency the Viceroy to the Countess of Dufferin's Fund for supplying female medical aid to the women of India, has been claimed by the authorities of the Grant Medical College, Bombay, for presentation to Miss B. Bradley, the most successful student during the past year at the first examination in the certificated practitioners class. Sir Walter de Souza, whose liberality has enabled many female students to study at the Calcutta Medical College, has placed a cheque for 2,400 rupees in the hands of the Central Committee, being his final donation to the De Souza Trust Fund, which has conferred so much good on scholars and sick in the Indian metropolis. A list of contributors to the Jubilee collection is being prepared for presentation to Her Majesty.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following vacancies are announced:

- BELGRAVE HOSPITAL FOR CHILDREN**, 79, Gloucester Street, S.W.—House Surgeon. Applications by January 31st, to the Honorary Secretary.
- BIRKENHEAD BOROUGH HOSPITAL**.—Senior House-Surgeon. Salary, £90 per annum. Applications by January 30th, to the Chairman of the Weekly Board.
- BIRMINGHAM GENERAL HOSPITAL**.—Two Assistant House-Surgeons. Applications by January 28th, to the House Governor.
- BOURNEMOUTH FRIENDLY SOCIETIES MEDICAL ASSOCIATION**.—Resident Medical Officer. Salary, £200 per annum, with residence and fees. Applications to Mr. F. A. K. Hounseth, Trinity Chambers, Bournemouth.
- BRIGHTON, HOVE, AND PRESTON DISPENSARY**.—Two House-Surgeons. Salary, £140 per annum, with apartments, etc. Applications by January 31st to the Assistant Secretary.
- BRISTOL ROYAL INFIRMARY**.—Dental Surgeon. Applications by February 18th, to the Secretary.
- CLAPHAM GENERAL DISPENSARY**.—Medical Officer. Application by February 3rd, to the Honorary Secretary, 42, Manor Street, Clapham.
- DOWNPATRICK UNION**.—Medical Officer, Killyleagh Dispensary. Salary, £105 per annum and fees. Applications to Mr. James Heron, Tullyvery House, Honorary Secretary. Election on January 30th.
- DURHAM UNION**.—Medical Officer of Health. Salary, £100 per annum. Applications by February 3rd to the Clerk.
- FOREST HILL PROVIDENT DISPENSARY**.—Medical Officer. Applications by February 15th to F. J. Marriott, Esq., 2, Perry Villas, Perry Vale, Forest Hill, S.E.
- MENSTON ASYLUM**, near Leeds.—Medical Superintendent. Salary, £400 per annum, with board and residence. Applications by February 15th, to W. L. Williams, Esq., West Riding solicitor, Wakefield.
- NATIONAL DENTAL HOSPITAL**, Great Portland Street, W.—Anæsthetist. Applications by January 27th to the Secretary.
- NATIONAL DENTAL HOSPITAL**, Great Portland Street, W.—House-Surgeon. Applications by January 27th, to the Secretary.
- NORTH-WEST LONDON HOSPITAL**, Kentish Town Road.—Assistant-Physician. Applications by February 10th to the Secretary.
- ROYAL NATIONAL HOSPITAL FOR CONSUMPTION**, Ventnor.—Assistant Resident Medical Officer. Applications to the Secretary, 34, Craven Street, W.C.
- ROYAL SURREY COUNTY HOSPITAL**, Guildford.—House-Surgeon. Salary, £80 per annum, with board, etc. Applications by February 15th, to the Assistant Secretary.
- RUBERY HILL ASYLUM**, Bromsgrove, Worcester.—Clinical Assistant. Board and residence. Applications to Dr. Lyle.
- ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN**, Leicester Square.—Two Assistant Medical Officers, Applications by February 8th, to the Secretary.
- ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN**, Quay Street, Manchester.—Honorary Surgeon. Applications by February 10th, to the Chairman of the Board.
- WESTERN GENERAL DISPENSARY**, Marylebone Road, N.W.—Junior House-Surgeon. Salary, 60 guineas per annum, with residence. Applications by February 1st to the Secretary.
- YORK DISPENSARY**.—Three Resident Medical Officers. Salary, £130 per annum, with furnished apartments, etc. Application to T. W. North, Esq., Micklegate, York.

MEDICAL APPOINTMENTS.

- ARNOLD, F. S.**, M.B., M.R.C.S., appointed House-Surgeon to the Radcliffe Infirmary, Oxford, *vice* G. H. Redman, M.D., M.R.C.S., resigned.
- AVERILL, C. M.**, M.R.C.S., L.S.A., appointed Senior House-Surgeon to the Macclesfield Infirmary.
- BARTON, G. P.**, appointed Senior House-Surgeon to the Charing Cross Hospital.
- BEDFORD, C. H.**, M.B., C.M., appointed Resident Medical Officer to Gesto Hospital, Isle of Skye, for five months, *vice* Dr. McNeill, granted leave of absence.
- BENNETT, A. H.**, M.D. Edin., F.R.C.P. Lond., appointed Examiner in Practice of Physic to the University of Edinburgh, *vice* T. Barlow, M.D., F.R.C.P. Lond., whose term of office has expired.
- BURTON, Fred. W.**, M.R.C.S., L.R.C.P., appointed House-Physician to Addenbrooke's Hospital, Cambridge.
- CORDER, E. H.**, L.R.C.P., L.R.C.S. Edin., appointed Assistant Medical Officer to the Worcester Amalgamated Friendly Societies Medical Association.
- COURTEN, R.**, M.B., M.R.C.S. Eng., appointed Resident Medical Officer to the City of London Hospital for Diseases of the Chest, *vice* J. O. Harsant, M.B., B.S., resigned.
- CULLINOWORTH, C. J.**, M.D., M.R.C.P., appointed Obstetric Physician to St. Thomas's Hospital, *vice* H. Gervis, M.D., F.R.C.P., resigned.
- GOSSE, W.**, appointed Junior House-Surgeon to the Charing Cross Hospital.
- HART, D. B.**, M.D., F.R.C.P. Edin., appointed Examiner in Midwifery to the University of Edinburgh, *vice* J. H. Croen, M.D., F.R.C.P. Edin., whose term of office has expired.
- LARCOMBE, S. S.**, appointed Senior House-Physician to the Charing Cross Hospital.
- LINWOOD, E. H.**, appointed Resident Obstetrical Officer to the Charing Cross Hospital.

- PENROSE, F. O.**, M.D., M.R.C.S., appointed Curator of the Pathological Museum to St. George's Hospital, *vice* R. Sisley, M.B., M.R.C.S., resigned.
- PERKIN, W. H.**, iun., Ph.D., appointed Examiner in Chemistry to the University of Edinburgh, *vice* Dr. A. P. Aitken, whose term of office has expired.
- SNAPE, E. A.**, appointed Junior House-Physician to the Charing Cross Hospital.
- SWABY-SMITH, C.**, M.R.C.P. Ed., M.R.C.S., etc., appointed an Honorary Medical Officer to the Brixton Dispensary.
- TAYLOR, A. E.**, M.B., B.S. Lond., M.R.C.S. Eng., appointed Senior Surgeon to Out Patients at the Poplar Hospital for Accidents.
- THACKWELL, J. B.**, M.B. and C.M., appointed Medical Officer for the parish of Portul, Isle of Skye, *vice* Dr. Ross, deceased.
- WALKER, P. H.**, M.B., C.M., appointed Medical Officer and Public Vaccinator to the Faringdon Union, *vice* J. B. Miller, M.B., C.M., resigned.
- WELLS, A. P.**, L.R.C.P., L.M. Edin., appointed Medical Officer to the Bromley Union, No. 5 District, *vice* A. Piggott, L.R.C.P., L.M. Edin., deceased.
- WHITWELL, James Richard**, M.B. and C.M. Edin., Honours, appointed Pathologist to the South Yorkshire Asylum, Wadsley, near Sheffield.
- WYNNE, E. T.**, M.B., M.R.C.S., L.R.C.P., appointed Resident Clinical Assistant to the City of London Hospital for Diseases of the Chest.

BRITISH MEDICAL BENEVOLENT FUND.—The annual general meeting of subscribers to this fund was held on Thursday, January 12th, at the residence of the treasurer. The chair was taken by Dr. Jenson, Chairman of Committee, and the first business which came before the meeting was the election of a president, in place of Sir George Burrows, Bart., M.D., F.R.S., deceased. Dr. Broadbent, the Treasurer, proposed the election of Sir James Paget, Bart., F.R.S., an old subscriber and warm friend to the fund, and at the present time a vice-president and trustee. His distinguished advocacy of the claims of the fund, and the successful outcome of his exertions at the celebration of the Jubilee, on which occasion he presided at the banquet, would be fresh in the minds of subscribers, and the committee would find it difficult to select a better president. This was seconded by Mr. J. F. France, J.P., also a vice-president, and carried unanimously. The Treasurer then presented his financial report and the balance sheet for 1887, from which it appeared that in the donation department £704 6s. 6d. had been received, and as subscriptions £1,266 0s. 5d., together £1,970 6s. 11d.; while returned grants and other items made the income for the year £2,139 2s. On the other side, grants to 166 applicants had been made, amounting to £1,791 10s., and the expenses had reached the sum of £137. There was a larger balance than usual at the bank, accounted for by the fact that the last meeting of the committee had been held on December 21st, and also that some of the local secretaries had paid in their collections before the close of the year. In the annuity department the investments had realised £1,233 13s. 2d., and there was an item to be noticed in the payment of £5,000, duty free, by the executors of the late Sir Erasmus Wilson. The annuitants number 64, and the sum distributed amounted to £1,260, which distribution is carried out by the Chairman of Committee, Dr. Jenson, the cost being very trifling considering the large number of instalments. The Report of the Committee noticed that the fund had laboured under some disadvantage, owing to the fact that a special effort had been made during 1886, and also on account of the counter-attraction of Her Majesty's Jubilee. The income of the fund has thus somewhat fallen off, so that the money for disposal was often insufficient, but it was hoped that the subscriptions and donations during the coming year would show an increase, and maintain the average improvement which had taken place up to the present. In the committee, two vacancies had occurred which were filled by the election of Drs. M. Baines and Cooper Rose. It was a matter of regret that there had been no addition to the number of honorary local secretaries, a most useful portion of the machinery of this fund, as, by their means the committee is enabled to ascertain directly, and with the least amount of publicity, the *bona fides* of applicants in the country. Subscriptions to the fund to be specially noted, were £21 from Sir William Jenner, £200 from Mr. Wiater, of Brighton, £100 from "A. O. A.," £50 from the Faculty of Physicians and Surgeons, Glasgow, through Sir G. H. Macleod, £25 from John Morgan, Esq., £21 from Dr. Cumberbatch, £20 from Dr. Frank, of Cannes. The death of Sir George Burrows, President, was felt as a great loss to the fund, which he had joined as a Member of Committee in 1851, becoming Vice-President in 1859, and President in 1869, continuing to serve in that capacity until the date of his death, a period of eighteen years. The characteristics of this fund are—no institution, no salaries, no rent; the only expenses being those for printing and postage, and a small commission to a collector. Applicants have only to send in a form, authenticated by a subscriber, and two or three letters, one of which must have come from a medical man, when, if the case be otherwise suitable, a grant is made at once, and distributed either in one sum or by instalments, according to the judg-

ment of the committee; then, if the applicant's age be over 60, and his income low enough to justify it, the name is placed upon the list of candidates eligible for annuities, from which list annuitants are selected twice a year as vacancies occur.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly Court of Directors of this Society was held on Wednesday, January 11th, Mr. Tegart, V.P., in the chair. Two new members were elected, the deaths of five were reported, and the resignation of two others accepted. Grants were made to the amount of £1,402 10s., to 64 widows, 7 orphans, and 3 orphans on the Copland Fund. An application was read for a grant from a widow for herself and two children, and assistance was given. The expenses for the quarter were £61. A resolution was passed expressing the deep regret felt by the directors at the death of their late president, Sir George Burrows, and their grateful sense of the eminent services which he had rendered to the Society during 35 years in which he was a member of the Court, for 17 of which he was its president. The treasurer announced that the small sum of £10, left to the Society by its first secretary, Mr. Chamberlaine, now reached the desired amount of £100, and in accordance with the terms of the bequest, the interest would now be devoted to providing a frugal supper for the treasurer, auditors, and secretary, at the half-yearly audits.

OBSTETRICAL SOCIETY OF LONDON.—The following are the names of the officers recommended by the Council for election at the ensuing annual meeting of the Society on Wednesday, February 1st, at 8 p.m.: *President:* John Williams, M.D. *Vice-Presidents:* * F. H. Champneys, M.A., M.B.; W. F. Claveland, M.D.; Robert Cory, M.D.; C. J. Cullingworth, M.D., Manchester; W. Stephenson, M.D., Aberdeen; * J. Knowles Thornton, M.B., C.M. *Treasurer:* A. L. Galabin, M.A., M.D. *Chairman of the Board for the Examination of Midwives:* J. Watt Black, M.D. *Honorary Secretaries:* Percy Baulton, M.D.; * Alban Doran. *Honorary Librarian:* * Peter Horrocks, M.D. *Other Members of Council:* * R. Boxall, M.D.; J. Matthews Duncau, M.D., F.R.S.; * W. Duncan, M.D.; * A. T. Gibbings, M.D.; W. S. A. Griffith, M.B.; * F. B. Hallows, Redhill; * E. Hollings, M.D.; J. B. Hurry, M.D., Reading; Evan Jones, Aberdare; M. Handfield-Jones, M.D.; * A. E. Aust Lawrence, M.D., Clifton; A. H. N. Lewers, M.D.; G. Lowe, Burton-on-Trent; * O. C. Maurice, M.D., Reading; W. A. Meredith, M.B., C.M.; J. Phillips, B.A., M.B.; A. Roper; A. J. McC. Routh, M.D. Those gentlemen to whose names an asterisk is prefixed were not on the Council, or did not fill the same office last year.

METROPOLITAN HOSPITAL SUNDAY FUND.—A meeting of the Council of the Metropolitan Hospital Sunday Fund was held on Monday last at the Mansion House, under the presidency of the Lord Mayor. It was reported that the total amount available for distribution, after allowing sufficiently for liabilities and the annual current expenses, was £39,125. Of this total £37,525 was now recommended to 107 hospitals and 50 dispensaries. Four per cent. of the total collected (£1,600) had been set apart for the purchase of surgical appliances. The committee acknowledged with thanks the receipt from Mr. Hankey of a cheque for £200, being a further donation to the funds of the institution. The retiring members of the various committees, together with the officers of the fund, were then duly re-elected.

THE SMALL-POX EPIDEMIC AT SHEFFIELD.—At a meeting of the guardians of the Sheffield Union held on Monday last, it was decided to appoint a number of assistant officers to make a house-to-house visitation with the view of ascertaining the number of vaccinated and revaccinated persons, and of persuading people to take all precautions to prevent the spread of the disease. Arrangements were made for the medical officers to attend at their respective centres as often as possible, and in every way to facilitate revaccination. Similar steps will be taken in the Ecclesall Union.

THE METROPOLITAN HOSPITAL.—At the annual meeting of this charity, held on Monday last, reference was made to the great success which had attended the provident department of the hospital since it had been opened in November last. In three months upwards of 300 books had been issued, representing, in round numbers, 1,400 lives. The new hospital affords accommodation for 160 beds, of which 40, placed in a separate block, will be reserved for members of Jewish persuasion. An appeal is being made for funds towards the £10,000 required annually to carry on the work of the charity.

PRIZE ESSAYS ON MEDICO-LEGAL SUBJECTS.—The Medico-Legal Society of New York announces three prizes of the value of 100, 75, and 50 dollars respectively, for the three best essays on any subject within the domain of medical jurisprudence or forensic medicine. The essays are to be sent to the President of the Society by April 1st, with a motto, the author's name being sent under separate cover. Candi-

dates are required to join the society as honorary, corresponding, or active members. Further particulars may be obtained from the President, Clark Bell, Esq., 57, Broadway, New York.

THE EXTERMINATION OF RABBITS.—M. Pasteur's plan of exterminating rabbits by the spread of fowl cholera has been tried in a walled field near Rheims, where both gun and ferrat had proved ineffectual. M. Loir, nephew of M. Pasteur, went down and poured on a truss of hay some broth full of the microbes of chicken cholera. The next day nineteen dead rabbits were found, and two days later twelve more. In some of the burrows were discovered families of dead rabbits, and not one living rabbit has since been seen.

FIFTH CONGRESS OF POLISH PHYSICIANS AND MEN OF SCIENCE AT LEMBERG.—Towards the end of May, 1888, the Fifth Congress of Polish Physicians and Natural Scientists, together with a medico-hygienic and scientific exhibition, will take place at Lemberg.

NEW TEACHERS IN THE VIENNA MEDICAL FACULTY.—The following *Docentes* have recently been appointed: Drs. Nensser (Medicine); Hochstetter (Anatomy); Kolisko and Paltanof (Pathological Anatomy); Ehrmann (Dermatology and Syphilis); v. Hacker (Surgery); Unger and Fröhwald (Diseases of Children).

THE "holiday colonies" organised by the municipal authorities of Paris have already led to some interesting observations as to the growth of children. The girls gained on the average 2 and the boys 1½ kilogrammes in weight. They continued to increase in weight at a still greater rate for about a month after their return. The boys gained on the average 2 centimètres in chest-girth.

THE will of Mr. John George French, F.R.C.S. Eng., of Cunningham Place, St. John's Wood, has been proved, the personalty being upwards of £24,000.

CHARLES COUPER CRIPPS, M.D., B.S., M.R.C.S., has been awarded the gold medal for the best essay presented at the examinations for the degree of Doctor in Medicine of the University of Durham during the year 1887.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 p.m.—Lectures by Mr. Reginald Harrison. Lecture III: The Operative Treatment of Stone and Tumours of the Bladder in Relation to some recent Views and Practices.

THURSDAY.

PAKES MUSEUM, 5 p.m.—Professor E. M. Crookshank: The History and Present Position of the Germ Theory of Disease.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, 8.30 p.m.—Patients and specimens at 8 p.m. Mr. Percy Dunn: 1. Large Hydatid Cyst of Liver. 2. Secondary Deposit of Scirrhus in Liver. 3. Metastatic Abscess in Liver. Mr. C. R. B. Kettleby (President) will show two cases of Nerve Suture. Dr. Herringham will show a case of Peripheral Neuritis. Papers.—Dr. Richard Paramore: On Insomnia. Mr. Jonathan Hutchinson, jun.: Syphilitic Disease of the Liver and Spleen and its Symptoms.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

FLETCHER.—January 20th, 1888, at Bathwick, Uttoxeter, the wife of W. H. Fletcher, L.R.C.P., L.R.C.S., L.S.A., L.M., of a son.
MYDDLETON-GAVEY.—On the 24th inst., at 64, St. Matthew's Street, Ipswich, the wife of E. H. Myddleton-Gavey, M.R.C.S. Eng., of a son.

MARRIAGES.

HERRING—RISHOP.—On January 25th, at St. Mary's Church, Atherstone, by Rev. James Edwards, John F. Herring, L.R.C.P., L.R.C.S. Edin., C.San. Sci. Cantab., to Hettle, eldest daughter of the late William Bishop, Esq., of Atherstone.
SPROTT—ARMITAGE.—On the 24th inst., at Pendleton, Manchester, by the Rev. J. W. Kiddle, assisted by the Rev. Herward J. Snell, M.A., B.Sc., W. J. Sprott, M.D., of Beeston, Nottingham, and Bromore, County Down, to Helen Corina, younger daughter of Benjamin Armitage, Esq., of Choulea, Pendleton.

DEATHS.

BOOKEY.—On the 11th inst., at the Terrace, Devonport, William John Brownrigg Bookey, Surgeon R.N., aged 36, Resident Medical Officer of H.M. Dockyard, Devonport.
MARSH.—On the 18th inst., at 15, Fitzroy Square, London, W., Lory Marsh, M.D. M.R.C.P., of 49, Sackville Road, Hove, Brighton, aged 64 years.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY --- 10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY --- 0 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department).

WEDNESDAY --- 10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—8 to 4 P.M.: King's College.

THURSDAY --- 10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-west London; Chelsea Hospital for Women.

FRIDAY --- 9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY --- 9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 9; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 3.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p. W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45 S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.40; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.O., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.O., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.O.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

TO CORRESPONDENTS.

OUR correspondents are reminded that prolixity is a great bar to publication, and, with the constant pressure upon every department of the JOURNAL, brevity of style and conciseness of statement greatly facilitate early insertion. We are compelled to return and hold over a great number of communications, chiefly by reason of their unnecessary length.

QUERIES.

CAUSE OF LEAD-POISONING.

M.O.H. writes: I should be glad if any of the readers of the JOURNAL could give information as to the likely source of plumbism in a rural district. Adults affected. Water free from lead. Home-made wines, etc., not used in many cases. Beer in only one instance was found to contain lead. Articles of consumption, such as bread, tea, etc., etc., from different vendors. More men are affected than women, and to a greater extent. In no case is there any apparent cause.

AMBULANCE LECTURES TO LADIES.

M.D. has been asked to give a course of ambulance lectures to a class of ladies, and would be glad to have a list of the works recommended for reference, guidance, and textbooks.

* The best books for a ladies' ambulance class are: *First Aid to the Injured*, translated from the German by H.R.H. Princess Christian; *Accidental Injuries*, by James Cantlie.

M.D. DEGREE WANTED.

GOVERNMENT MEDICAL OFFICER writes: I am a Licentiate of the Royal Colleges of Physicians and Surgeons of Edinburgh, of five years' standing; at present holding an appointment in one of Her Majesty's colonies, and intend proceeding home to England this year on one year's leave.

I am desirous of obtaining a British university degree (M.D., if possible). Can I do so in the time (one year)? Perhaps some of your readers would inform me, if so, what universities, and under what conditions? I should be willing to put in one year's residence.

SPRAY DIFFUSER.

W.R.M. asks to be recommended a spray diffuser for disinfecting air in hospital wards, to be constantly going.

SOFTENING WATER.

DR. S. T. GWYNN (Whitchurch, Salop) asks whether there is any process by which the water supply of a moderately large house in the country can be softened, as it is done by Clarke's method on a large scale?

HAIR-WASH.

MEMBER asks for a prescription for a hair-wash for falling out of hair after scarlet fever.

ANSWERS.

ROMAN CATHOLIC BOARDING SCHOOL.

We are informed that M.S.C. may obtain all the information he requires by communicating with M.A., Chester House, Cambridge.

F.R.C.S. EDIN.

IN reply to a correspondent who asked what were the best books to be read for the final examination of the Fellowship of the Royal College of Surgeons of Edinburgh, Mr. R. Deinson Pedley recommends for the general subjects Erichsen's *Surgery*, Cornil and Ranvier's *Pathology*, Quain's or Gray's *Anatomy*, Heath's *Operative Surgery*. For the special subjects, he must choose for himself. Another correspondent prefers Bell's *Operative Surgery*, MacLachlan's *Surgical Anatomy*, Treves's *Surgery*. Optional subject, if medicine, Carter's *Medicine*.

M. PASTEUR'S TREATMENT OF HYDROPHOBIA.

T.M.R. asks where he can obtain the best authoritative details of the experiments conducted by Pasteur, and his deductions therefrom on the subject of rabies, with a view to preparing a paper to be read at a Natural Science Society.

* In preparing such a paper, our correspondent would do well to make himself acquainted with M. Pasteur's previous work in the same direction. This may be conveniently studied in the article "Attenuation," prepared by Dr. Dawson Williams, for Mr. Watson Cheyue's *Micro-Parasites in Disease* (New Sydenham Society, 1886). This article contains the earlier work on hydrophobia. The report of the Committee on Hydrophobia, appointed by the Local Government Board, contains a review of M. Pasteur's investigations on hydrophobia, with statistics to a later date.

NOTES, LETTERS, ETC.

HERMAPHRODITISM OR HYPOSPADIAS.

WILLIAM TIBBLES, L.R.C.P., L.S.A., L.M., M.O.H. (Nottingham) writes: I have read with interest the case of hermaphroditism, reported in the JOURNAL of January 14th, p. 91, and doubt whether the being so described is a true hermaphrodite, as I am sceptical as to the existence of such freaks of Nature in the human species. A true hermaphrodite would possess the organs of generation of both sexes—would, in fact, be bi-sexual, having a penis and testicles capable of secreting a fertile semen containing spermatozoa; and also possessing a vagina, uterus, and ovaries discharging ova capable of fecundation. I am inclined to the belief that reported cases of hermaphroditism are hypospadias of various extent, and fail to see in the report any evidence that Dr. Lukomsky's case was any other than an aggravated case of that description. But what evidence of the female sex does Dr. Lukomsky report? Merely an opening in the perineum, which corresponds to the vagina, with a short urethra, the lips of the opening corresponding to the labia minora and majora. But have the ovaries and uterus been made out? Has "she" ever menstruated? Has "she" a female pelvis, or well developed breasts? There is no positive evidence of these feminine characteristics; and the mere existence of a perineal opening is not physiological evidence of the

female sex. But, on the contrary, such an opening must exist in males in certain cases of hypospadias, for normally in the male the genital furrow and folds close at the third or fourth month of fetal life to form the spongy portion of the urethra and the scrotum; but in the female they remain open and form the orifice of the vagina and the labia majora and minora. If, therefore, a male be undeveloped and left in the condition of hypospadias, if the furrow does not develop to form the spongy urethra, and the urethra stops short at the membranous portion, there is of necessity a cleft involving to a greater or less extent a separation of the lateral halves of the urethra and scrotum, or even perineum, and giving rise to an appearance resembling the vulva. Is this the condition of Dr. Lukomsky's case?

On the other hand, what are the evidences of the male sex and of hypospadias? 1. A penis, small, without urethra or urethral orifice. 2. Complete erection of penis during sexual excitement. 3. Two testicles of size of pigeon's eggs in scrotum. 4. During coition with women a whitish fluid is ejaculated through the vaginal (perineal) slit. 5. Other evidences of male sex: Powerfully built; absence of rounded contour seen in women; hair on lip and chin; voice rough and deep; Adam's apple prominent; ill-developed breasts; male configuration of pelvis; absence of menstruation; fondness for male occupations. The closure or non-closure of the median raphe must be a source of great perplexity in hypospadias, for the male organs must of necessity closely resemble those of a female, the smallness of the penis and the absence of the penile urethra, especially if the halves of the urethra and scrotum be separated, adding to the difficulty. In any such case, a search per rectum should be made for the ovaries and uterus, and confirmed by means of uterine sound, for these, of course, if found, are positive proof of the feminine qualities. In Dr. Lukomsky's case no such examination is reported, and their absence is negative evidence of the female part of the "being."

On the other hand, we have positive evidence of the male sex in the existence in the scrotum of two testicles, whose function appears to be active, even if imperfect, as proved by the ejaculation of a whitish fluid per urethram during coition with women.

The existence of a perineal opening is not, to my mind, positive evidence of either one sex or the other, and, apart from that fact, the evidences of the male sex preponderate.

A similar case was reported in the JOURNAL of July 9th, 1887, under the title of "A Sexless Being," which I at the time considered was a case of hypospadias, but not having the JOURNAL at hand I cannot just now refer to it.

SUNSHINE AT UNDERCLIFF (ISLE OF WIGHT) AND KEW IN 1887.
MR. J. B. MARTIN (VENTNOR) SENDS US THE FOLLOWING:

Monthly Summary of Clear Sunshine at the Undercliff, Compared with the Record of Kew during 1887.

	Undercliff.		Kew.	
	Hrs.	Ms.	Hrs.	Ms.
January	52	35	35	—
February	52	10	43	30
March	184	33	125	—
April	231	25	157	—
May	196	55	181	—
June	255	35	260	—
July	234	9	251	—
August	306	30	179	—
September	156	8	158	—
October	131	45	97	—
November	78	22	63	—
December	42	—	35	—
	1,916	16	1,579	30

The foregoing tables contain the record only of clear sunshine, and do not include days which might otherwise come under the head of bright sunny days, haze, mist, or the passing of a light cloud arresting the power of the recording instruments.

With regard to the Undercliff, some allowance must also be made in consequence of its falling into shade between six and seven o'clock in the evening during the summer months, depriving the instrument of a considerable amount of sunshine which would otherwise be recorded in fine weather. There is also the same loss from the sun rising in the morning behind the high ground of Dunnoose.

The excess of clear sunshine during 1887 has been very remarkable at the Undercliff.

	Undercliff.		Kew.	
	Hrs.	Ms.	Hrs.	Ms.
1882	1,709	18	1,444	—
1883	1,694	24	1,476	—
1884	1,561	8	1,311	30
1885	1,704	12	1,476	30
1886	1,679	10	1,415	—
1887	1,916	16	1,579	30

COMMUNICATIONS, LETTERS, etc., have been received from:

Surgeon Hickman, Chatham; Dr. P. H. Miles, Bowdon; Mr. W. J. M. Fletcher, Utoxeter; Mr. W. H. Stevens, Droitwich; Mr. F. H. Davis, Dawley; Dr. A. Sandberg, London; Mr. S. T. Deeble, Matlock Bridge; Dr. J. Hard Wood, Leatherhead; The Rev. H. E. Henden, Rothbury; Mr. R. Marsh, Hove; Mr. G. S. Bigg, Dover; Dr. Clippagdale, London; Mr. A. Gouillet, London; Dr. Hobson, Harrogate; Mr. H. Page, London; Mr. R. W. Burke, Jubbulpore India; Mr. W. A. Ellis, London; Sir Morell Mackenzie, London; Mr. C. G. Wheelhouse, Leeds; Dr. Norman Kerr, London; Mr. E. Danell, London; J. P. Henry, M.B., Dublin; Dr. P. Brown, Bradford; Mr. E. Dillway, Chelmsford; Mr. C. B. Kestley, London; Mr. A. J. Johnston, Liverpool; Mr. G. S. Johnson, London; Mr. J. Brown, Whitechurch; Mr. B. D. Pedley, London; Dr. C. Swaby Smith, London; Mr. J. Wright, Aberdeen; Dr. F. Fitch, Kidderminster; Mr. A. Clay, Birmingham; Messrs. Street and Co., London; Mr. H. K. Lewis, London; Mr. W. Fowler, London; Messrs. Watkins and Osmond, London; Messrs. Thomas Christy and Co., London; Mr. G.

P. Atkinson, Pontefract; G. R. Griffith, M.B., Carnarvon; Mr. E. A. Holwell, Leeds; Mr. J. T. Gwynne, Whitechurch; Messrs. Haddon and Son, Wellington; Mr. J. Iredale, Golcar; Mr. W. R. Maguire, Dublin; Mr. H. Bigg, London; Mr. J. Gibson, West Vale; Dr. Haslam, London; Dr. Maguire, London; Mr. A. Wigglesworth, Liverpool; Mr. C. W. Dean, Lancaster; Messrs. Woodhouse and Rawson, London; Dr. E. Klein, London; Dr. Andrews, London; Surgeon R. N. Buiat, Pelemedia Camp, Cyprus; Mr. W. A. Dickson, Baerbiel, British Guiana; Miss Price, Enfield; R. F. Rand, M.B., Mineauque, Jamaica; Mr. C. Roberts, London; Dr. T. Oliver, Newcastle-on-Tyne; Mr. A. H. Benson, Dublin; Mr. F. Mulliner, Liverpool; Dr. G. Stell, Manchester; Dr. A. Ayres, Brighton; Mr. H. W. Hoblen, Reading; Dr. Maxwell, Woolwich; Dr. C. Masterman, Stourport; Mr. R. Greene, Northampton; Dr. Luke Armstrong, Newcastle-on-Tyne; Dr. Hunter, Nottingham; The Johannis Company, Limited, London; Mr. C. H. Massiah, Mahaica, British Guiana; Mr. G. Davison, London; Mr. W. Wylie, Skipton; Messrs. Maconochie, Brothers, Lowestoft; Dr. P. O'Connell, Chicago; Mr. W. Tibbles, Nottingham; Mr. H. W. Stevens, Droitwich; Mr. F. W. Clark, Croydon; Surgeon-Major Keelney, Hyderabad; Mr. J. B. Martin, Ventnor; Mr. T. Browning, Manchester; Brigade-Surgeon E. Leyton, Aden; Dr. W. Sykes, Mexborough; Dr. Goyder, Bradford; Dr. R. H. A. Hunter, London; Mr. R. J. H. Scott, Bath; Mr. W. Soper, London; Dr. M. Rooke, Cheltenham; Mr. J. Odling, London; Mr. J. McFadyen, Edinburgh; Dr. Lewis Marshall, Nottingham; Mr. Hurry Fewick, London; Mr. H. G. Myles, Abbeysrable; Mr. E. Whisher, London; Mr. Blackett, London; Mr. O. W. Andrews, Bedlington; Mr. C. Averill, Macclesfield; Dr. C. Sajous, Philadelphia; Dr. W. P. Mears, Newcastle-on-Tyne; Mr. H. Rennay, M.B., Sunderland; Dr. J. Hutchinson, Shawlands, Glasgow; Mr. W. E. Thomson, Northampton; Mr. C. E. Abbott, Braintree; Mr. T. Robinson, London; Dr. G. G. Bantock, London; Dr. Savage, London; Dr. Tatham, Salford; Dr. Ruxton, Blackpool; Dr. R. Irvine, Steyning; Dr. Langmore, London; Mr. R. Lovett, London; Mr. S. Snell, Sheffield; Mr. J. A. Francis, London; The Secretary of the Vegetarian Society, London; The Secretary of the Sanitary Assurance Association, London; Mr. J. B. Browne, London; Mr. T. F. H. Smith, Farningham; Messrs. Calvert and Co., Manchester; Dr. J. C. Clendinnen, Bilston; Dr. J. H. Scott, Camberley; Mr. W. S. Low, Kirkbank; Mr. St. G. C. Reid, Thornton Heath; Dr. A. W. McFadyen, Lochinver; Mr. E. White Wallis, London; The Matron of the Royal Portsmouth Hospital; Messrs. Pridham, Piper, and Co., London; Mr. Armitage, Pendleton; Messrs. W. W. Bush and Co., Woolwich; Dr. Barnardo, London; Mr. F. W. Burton, Cambridge; Mr. J. P. Crean, Bangor, Erris; Justitia; Miss M. Colbeck, Teddington; Mr. H. Collins, London; Mr. F. Whitwell, Shrewsbury; Mr. T. M. Watt, Hovingham; Dr. W. S. Reade, Bristol; Surgeon O. L. Anderson, Netley; Mr. Shirley Murphy, London; Dr. H. F. Burnes, London; Dr. H. R. Swanzy, Dublin; The Income Tax Repayment Agency, London; Dr. G. G. Bantock, London; Dr. Robert Boxall, London; The Secretary of the Volunteer Medical Association, London, etc.

BOOKS, ETC., RECEIVED.

The Year-Book of Treatment for 1888; Diseases of the Breast. By Thomas Bryant, F.R.C.S. London, Paris, New York, and Melbourne: Cassell and Co.
Hospital Prayer Book, Containing Prayers for Daily and Occasional Use. Arranged by E. J. Waring, C.I.E., M.D. Second Edition. London: J. and A. Churchill.
Gout, and Its Relation to Disease of the Liver and Kidneys. By Robson Roose M.D. Fifth Edition. London: H. K. Lewis.

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AN ADDRESS ON DIPHTHERITIC AND RELATED FORMS OF PARALYSIS.

Read before the Thames Valley Branch.

By J. S. BRISTOWE, M.D., LL.D., F.R.C.P., F.R.S.,

Senior Physician to St. Thomas's Hospital.

DIPHTHERITIC paralysis is so interesting in itself, and has such interesting clinical relations with other paralytic affections, that I need make no apology for introducing it for discussion, or for plunging at once *in medias res* by giving brief details of a very instructive case of it which was under my care some years ago.

CASE I.—H. A., a clergyman, aged 36, came into St. Thomas's Hospital on November 6th, 1879. He had had in the previous June a bad sore-throat, attended with enlargement of the glands behind the left angle of the jaw. But, although he had felt feverish and ill, he had not consulted any medical man, and could therefore give no trustworthy information as to the nature of his attack. Doubtless he had then suffered from diphtheria. The first evidences of paralysis had shown themselves early in October, and were impairment in the quality of his voice and a tendency for fluids when being swallowed to return by the nose. Towards the end of the month he had further observed that he was getting weak in the legs, that he had numbness in the tips of the fingers and in both feet, and that there was loss of tactile sensation in the tongue and lips, and impairment of taste.

On admission he was a healthy-looking man, complaining of various paralytic symptoms. The tips of his fingers were numb, but he had no obvious loss of power in the hands. His feet were numb, especially the left, so that he could scarcely feel the ground; and he walked with a feeble uncertain gait and with a tendency to fall over to one side. His eyesight would fail (words appearing misty) after reading for a minute or two; and there was some degree of loss of accommodation, but the pupils were equal and contracted to light, and there was no squint. He had numbness of the lips, tip of the tongue, and point of the chin, and was unable to distinguish between pepper, mustard, and salt placed on the tongue. The soft palate was pendulous, and did not contract when irritated; moreover, when he swallowed, the food was apt to pass into the nose, and also to lag about the level of the thyroid cartilage. His voice was nasal. Smell was much impaired. In all other respects he seemed fairly well.

During the next ensuing ten days several changes in his condition were recorded; and careful special examinations were made. The anaesthesia in the fingers gradually disappeared, first on one side and then on the other; but while sensation was returning weakness of the fingers and hands came on. The numbness became more profound in the feet, and extended up the legs, and the lower extremities grew weaker. At the same time he complained of pain and soreness in the feet. The numbness of the chin, lips, and tongue diminished, and he recovered to some extent taste and smell. His eyesight also improved, but his defective voice and deglutition continued. It was about this time also that he complained of numbness of the tip of the nose, of the glans penis and scrotum, and about the anus, and also that he was unable to strain at stool, owing to the fact that during the effort the air imprisoned in the chest escaped explosively through the rima glottidis. Mr. Nettleship's examination confirmed the fact that there was weakness of accommodation in the eyes, but that they were otherwise healthy. Dr. Kilner ascertained that there was some impairment of electric sensibility in both forearms and both hands, increasing from above downwards; but that the only arm-muscles whose electric contractility was impaired were the extensors of the first and second joints of the thumbs; that there was increasing loss of electric sensibility from the knees to the feet, where the strongest current could scarcely be felt; and that, while none of the muscles of the left leg below the knee responded to the induced current, the only

ones that responded on the right side were the tibialis anticus, the peronei, and the extensor brevis. They were all unduly responsive to the continuous current. Dr. Greenfield's laryngoscopic examination gave the following results: There was partial paralysis of the muscles moving the vocal cords, mainly of the abductors, and slightly more on the right than on the left side, and considerable (though not absolute) anaesthesia of the epiglottis and of the soft parts around the vocal cords, but not of the cords themselves. In deep inspiration the cords separated to about one-third of the normal amount, and tended constantly to approximate; in phonation there was complete closure; and the voice (excepting that it was slightly nasal and a little hoarse, owing to slight catarrhal swelling of the parts) was unimpaired.

Subsequently to November 17th the changes were very gradual. The hands and legs became more and more numb, and the patient progressively lost power in them, so that, about the middle of December, he could scarcely use them for any purpose, and his grasp was extremely feeble. Towards the latter end of the month, also, it was noted that all the fingers except the first were flexed, more or less, into the palms, and could not be straightened. The numbness still extended up the legs, and became so profound in the feet and ankles that he could not there feel the prick of a pin. The loss of power also increased, so that by December 9th or 10th he was unable to walk, or even to stand, without assistance. He still also complained of pain and tenderness in the feet. On December 20th he first manifested some difficulty of breathing, and had to sit up in bed. It was thought that the respiratory muscles were weak; but there was no absolute paralysis of either the intercostal muscles or the diaphragm. This difficulty lasted a few days, and then subsided. The impairment of accommodation, and the loss of taste and smell, together with the anaesthesia of the tip of the nose, lips, tongue, and chin subsided gradually shortly after admission. The nasal quality of voice and the dysphagia, as also the difficulty in straining at stool, were not observed after the first week in December. The improvement in the state of the hands and legs took place later, the hands recovering first. He left the hospital well on March 10th.

The case was obviously a typical and an interesting example of the paralysis which supervenes after diphtheria. The nervous symptoms tended to be symmetrical, and spread from region to region, affecting the hands and legs in larger proportion than other parts. The paralysis of the extremities was attended with the so-called "reactions of degeneration," and the anaesthesia of the feet with a sense of soreness and pain. In addition, also, to defective accommodation and to weakness of the soft palate; there was anaesthesia of certain circumscribed tracts occupying the middle line of the body, including among others the epiglottis and parts about the rima glottidis; and some paralytic failure of the muscles of the larynx, which contributed to render straining difficult, and of the muscles of respiration causing dyspnoea.

CASE II.—In 1880 I was not aware that any interest attached to the condition of the tendon reflexes in diphtheritic paralysis. My personal attention was first drawn to the fact that the knee-jerks tend to disappear in this affection, by being called into the country to see in consultation a lady who was partially paralysed, and who was supposed, on account of the absence of knee-jerk, to be suffering from locomotor ataxy. The patient was a middle-aged widow, who had been accustomed to somewhat excessive indulgence in alcohol, but on the whole had had very good health.

On close inquiry I ascertained that just two months previously (under the care of another practitioner) she had been attacked with sore-throat, which had laid her up for two or three weeks, and left her somewhat enfeebled in health. The affection had been declared not to be diphtheritic. A fortnight before my visit she had noticed a little numbness across the upper lip, which disappeared in the course of a day or two. Four days later she had been attacked with numbness in the fingers and hands, not confined to the region of the ulnar nerves, but of general distribution. The anaesthesia was not absolute, for she could still feel, and was unattended with loss of power. Three days later she had noticed impairment of feeling and of muscular power in the feet, and this had since then reached the knees.

She was, when I saw her, a healthy-looking woman. Her hands were still somewhat numb, but they had much improved in this respect, and were not weak. The numbness in her lower extremities reached the thighs, and the weakness in her legs was so great that she could not stand or walk without assistance. The affection of the legs was still increasing. The knee-jerks were wholly wanting.

It was clear (even though a diphtheritic origin had been denied) that the case was really one of diphtheritic paralysis, and, in confirmation of the view that it could not be due to ataxia, I may add that the eyes were healthy in all respects, and that there had never been any gastric, rectal, or urinary trouble, or lightning pains. She recovered.

About the time at which this patient came under my notice, the abolition of the tendon reflexes in diphtheritic paralysis was recognised also by other physicians; and since then it has been generally observed in this affection, and has come to be regarded as one of its distinctive features.

Lately, however, Dr. Herringham first, and subsequently Drs. Money and Barlow, have shown that, although the tendon reflexes do disappear in these cases, their actual disappearance is generally, if not always, preceded by a period of several days' duration, in which they presented excessive briskness. The fact had probably not been earlier recognised, because such patients are apt first to come within medical observation only after the symptoms have been in existence for a few days, and after the stage of exaggerated reflexes has passed.

The case I shall next narrate is interesting, because, not only was there this excess of tendon reflex, but it was maintained practically throughout the whole of the patient's illness, and was only replaced by its abolition after paralysis and numbness had disappeared, and the patient seemed to be in good health.

CASE III.—M. O., a married woman, aged 29, came under my care on February 18th, 1887. She had had what was supposed to be quinsy in the previous December. Her illness had begun with feverishness and shivering; she had had lumps in the neck; and her throat had been "covered with a sort of skin." She had recovered by Christmas, but had continued weak ever since. Her present illness had been coming on for two or three weeks. She had first observed some difficulty in swallowing; that, if she were not careful, fluids would return through her nose; and that often two or three efforts had to be made before even solids could pass from the pharynx into the oesophagus. Soon afterwards she had observed numbness and pins and needles in the fingers, and at the same time similar sensations across the upper lip. According to her recollection, weakness of her eyes had come on a little later. This had comprised loss of distinct vision for near objects, with inability to read, and some degree of diplopia. A week or two before admission numbness had come on in the feet, with a feeling as if of treading on cotton wool; and the hands had become weak, but had since improved. The legs, which had been similarly attacked somewhat later, had continued to lose power. Her friends had noticed some change in the quality of her voice ever since the beginning of convalescence.

She was a weakly-looking person, complaining mainly of defective sight for short distances, numbness in the toes and finger tips, and inability to walk without assistance. Her eyes were in most respects normal; but the power of accommodation for near objects was impaired, and there was slight weakness of both external recti, with double vision on looking to the extreme right or left, or at distant objects in front of her. The facial muscles, the tongue, and the fauces appeared natural, and she swallowed without difficulty, but her voice was still slightly nasal. There was no absolute anaesthesia, but the tips of the fingers and the toes and the front of the left leg were obviously numb. The grasp of the hands was feeble, and the movements of the left arm generally were relatively weak. She could move her legs freely; but in standing or walking (which she could only do with assistance) her knees were bent and inclined to give way, and she tottered on them. The abdominal and thoracic organs were all healthy. The knee-jerks were much exaggerated, the plantar reflexes were normal.

On February 21st it was noted that she complained of stiffness and a sense of twitching in the left arm; that the hand trembled when held out, and especially when carrying a glass of water to her lips; and that the hand and arm of this side remained weaker than her fellows; that there was slight horizontal nystagmus, and still slight diplopia as at the time of admission. Also the left pupil was a little larger than the right. During the next few days she regained the power of accommodation, and lost her diplopia and nystagmus; moreover, the numbness disappeared from her fingers, and there was some improvement in the sensibility and strength of her lower extremities. But the knee-jerks continued unusually brisk.

On March 1st, she was able to stand for the first time without

assistance, and with her eyes shut; but the feet were still numb; the knee-jerks were about normal. She continued to improve, and on the 10th was discharged, apparently well. At this time she had no anaesthesia or obvious loss of muscular power, but the knee-jerks had become much less active than on admission, and were, if anything, less brisk than natural.

I assumed that the case would prove an exception to the rule with respect to the abolition of reflexes in diphtheritic paralysis. But the patient, who still continued in somewhat weak general health, came up periodically to see me at the hospital for some few weeks after her dismissal, and to my surprise, the knee-jerks (although apparently she had completely recovered from her sensory and motor paralysis) disappeared absolutely at the end of a week or two, and had not returned when she finally ceased attendance.

Although as a general rule the paralytic phenomena of diphtheria are remarkable for their tendency to symmetry of distribution, as is illustrated in the foregoing cases, not merely by the condition of the extremities, but also by the patches of anaesthesia distributed along the middle line of the body; the symmetry is not absolute; and already in two of the cases hints are afforded that local paralyses due to implication of single nerves are likely to be met with. The next case illustrates this fact.

CASE IV.—Mr. S., a gentleman, about 32 years of age, had had a sore-throat about a month before I saw him. He had not been sufficiently ill to lie up, and did not know he had had diphtheria, but had looked down his throat and seen a white patch on each tonsil. Within the previous week or two paralysis had been coming on, first in the left leg, then in the right leg, and later in the arms.

I saw him in consultation with Dr. Mennell, in April, 1884. At that time he was confined to bed. Feeling was impaired in his legs, from the knees downwards; he had very little motor power at the knee-joints, and could scarcely move the feet or toes at all; the muscles below the knees were tender, and the tendon reflexes were absent. He had numbness of the hands and forearms, and much impairment of muscular power in them. He also had numbness of the upper lip, tip of the tongue, and in a circumscribed area at the back of the neck. He complained of slight difficulty of swallowing, and he presented well-marked general paralysis of the left portio dura, which had only come on within the previous two or three days. There was no obvious affection of the eyes, no dyspnoea, no implication of the rectum or bladder; and in all other respects he seemed healthy. I did not see him again, but learnt that he recovered perfectly in the course of a few weeks.

I add the following case, because it is typical, and because it contains an exhaustive account of the electrical condition of the paralysed muscles by Dr. Kilner.

CASE V.—R. O., a school girl, aged 12, came under my care on March 12th, 1883. In the middle of December last she had diphtheria and was in bed for several days. This was followed by some difficulty of swallowing (fluids especially returning through the nose); by loss of visual accommodation, so that she could not see near objects distinctly; and, somewhat later, by loss of power and numbness, first in the arms, and then in the legs. The muscles of the trunk also became feeble, and before long her weakness grew so extreme that she not only was confined to bed, but could not even turn in bed. During the last month her symptoms had greatly improved; she had recovered the power of swallowing and the use of her eyes, and the paralysis in her limbs had diminished.

On admission she was a healthy-looking girl. She was unable to stand, and only able to flex the legs at the knee-joints. She could move her arms pretty freely, but these limbs were obviously much weaker than natural; and the hands, when extended, assumed a claw-like form, the wrists drooping, the first phalanges being extended and the last two phalanges flexed. The muscles were not noticeably wasted, but they were limp and flabby; and there was a total absence of tendon reflexes in the arms and legs. But all the muscles were irritable, and contracted on being sharply struck. No loss of feeling. No loss of control over the emunctories. There was no paralysis of the facial or ocular muscles, or of the palate, and the eyes now acted to accommodation. Thoracic and abdominal organs healthy, excepting that the urine presented a trace of albumen.

A few days after admission Dr. Kilner tested electrically the muscles of the arms and legs, and found them generally

to present the reactions of degeneration.² The patient gradually improved, and left the hospital at her own wish, before she was well, on April 8th; but she could at that time walk with tottering gait, and the patellar tendon reflex was just showing itself in the left leg.

The foregoing cases are all of them typical, and afford between them excellent illustrations of most of the more interesting incidents of diphtheritic paralysis. They show how the affection comes on some little time, usually a few weeks after, the acute illness has subsided; how the paralysis (which involves sensory and motor nerves alike) tends to be of symmetrical distribution, to creep from part to part, and to subside in one region as it invades another; how the sensory disturbances are not limited to the extremities, but are apt to involve districts situated in the middle line of the body, including the tongue and mouth, and senses of taste and smell; how, also, the paralysis is liable to affect not only arms, legs, respiratory muscles and muscles of the trunk, muscles of accommodation, and of swallowing, but also the vocal cords, and even single nerves; how the tendon reflexes in the legs are first exaggerated, then disappear, and the affected muscles acquire the characteristic reactions of degeneration; and how, finally, while many of the phenomena are such as would seem to be best explained on the assumption that they are due to spreading neuritis, others (such as the sensory affections along the middle line, the early undue briskness of the knee-jerk, and nystagmus) seem rather due to some spreading central lesion. I am inclined to believe that, in diphtheritic paralysis, a wave, so to speak, of slight inflammatory mischief, spreads not only through the medulla oblongata and cord, but along the nerve trunks also.

This brief recapitulation leads me on to speak of some of the diseases of the nervous system which present a resemblance to diphtheritic paralysis, and may even, under certain circumstances, be confounded with it.

I have already shown how the association of numbness in the feet, loss of voluntary power over the legs, and abolition of tendon reflexes (in a case which occurred when the condition of the tendon reflexes in diphtheritic paralysis had scarcely begun to be investigated, and was certainly not as yet generally known), led to the fear that symptoms, which were undoubtedly diphtheritic, might be due to tabes. I do not think such mistakes can often be made now. Yet it is well to recollect that paralysis in diphtheria often follows so mild an attack of the acute disorder, that the patient forgets to volunteer any remark as to the previous occurrence of sore throat; and, on the other hand, that occasionally, in tabes, the paralytic symptoms are, or seem to be, of almost sudden onset.

But the cases most likely, I think, to be thus misinterpreted are those of multiple neuritis of other, and especially, perhaps, alcoholic, origin. It will be recollected that the lady whose case was thought to be one of tabes had been what is called a free liver.

CASE VI.—On November, 19th, 1886, a policeman, aged 39, came under my care. He had been a thoroughly healthy man, and had never had syphilis; but, though he was not a drunkard, or even

in the ordinary sense of the term intemperate, it was ascertained, and admitted by himself, that for a long time he had been in the habit of taking a very large quantity of beer in the course of each day. Twenty-six days before (being at the time quite well) he got repeatedly wet through, and was in wet clothes nearly the whole of the day. On the morrow he went to his work, but complained of sore-throat, aching pain in his limbs, vomiting, diarrhoea, and general sense of illness. These symptoms seem to have been the beginning of a severe attack of quinsy, which, first attacking one side and then the other, kept him continuously ill, but without any special change in his symptoms until June 13th. On that day he first complained of tingling in the arms and legs, attended with some loss of power; and, in fact, on trying to walk his knees yielded under him, and he fell down. The muscular weakness increased upon him day by day, until, on the sixth day, of his paralytic symptoms, he entered the hospital.

He was a spare, but well-built, and not unhealthy looking man, complaining of sore-throat and weakness in the arms and legs. The tonsils, especially the right, the soft palate, and uvula were still swollen and congested. He complained of a sense of numbness and tingling in the hands, but could feel. The grasp on both sides, and more particularly on the right, was extremely feeble, and although he could move his arms at the elbow and shoulder joints, their motions could be arrested by the mere pressure of the finger. There was no numbness in the legs, but he complained of pain in them, and their movements were extremely defective. He could not raise them from the bed, though he could bend his knees; his feet were extended, and he could not flex them. The muscles of the upper and lower extremities, and chiefly those of the fore-arms and hands, legs, and feet were exceedingly tender and irritable; the tendon reflexes were wholly absent.

The case was a very long one, and the patient remained continuously under my care for the next nine months, and has lately again been a tenant of one of my hospital beds. The history, however, can be summed up in a few sentences. The throat affection rapidly got well. The muscles of the upper and lower extremities, but mainly those of the forearms and legs, hands, and feet, rapidly lost power, and wasted to an extraordinary degree, and remained exceedingly tender. These conditions continued for the first few months of treatment, at the end of which time almost every trace of muscle had disappeared from the parts above specified; the forearms and legs apparently at length consisting of little more than the bones with the skin stretched tightly over them; the thenar and hypothenar eminences and the interossei being completely wasted, and the fingers bent so as to give the hands a clawlike form; and the feet being in essentially the same condition, but extended at the ankles, while the toes were flexed into the soles. About the end of this time amendment began to take place. The patient, whose bodily health had only been moderately good, began to recover the aspect of health, and flesh and strength. The muscular tenderness slowly disappeared, and the muscles of the upper arms and thighs began to regain bulk and power. Unfortunately, however, no beneficial restoration of the muscles of the forearm, legs, hands, and feet followed; and (with the exception that a few fibres of the muscles of the hands, sufficient only to cause almost imperceptible flickering of some of the fingers, have been spared) the distal parts of the limbs remain to the present time as much emaciated, as absolutely void of muscular tissue, and as useless as they were at the end of the acute stage of disease.

It may be added that, shortly after admission, the muscles of the trunk became weak, so that he could not turn in bed, but recovered comparatively early; that the affected muscles soon showed the reactions of degeneration; and that the patient presented no other indications of nervous disorder besides those above detailed, and no evidence of the presence of any visceral disease.

I suppose it is arguable that the case just cited was really one of diphtheritic paralysis. That view is one which I considered and discarded. The following are the reasons which influenced me. I came to the conclusion from due inquiry that the patient's primary attack had been one of tonsillitis and not of diphtheria; the paralysis came on while the primary disease was still acute, instead of a few weeks afterwards; and the general symptoms and progress of the disease corresponded with what one generally observes in cases of that form of paralysis which his habits had fairly earned for him. I have never known of a case of diphtheritic paralysis in which (if the patient do not die of it) ultimate recovery was not attained.

² (a) With induced current a much more powerful current was required to cause contraction than in health; (b) with constant current.

	Right Arm.		Left Arm.	
Deltoid	2.375-	1.200+	1.725-	1.625+
Triceps	2.800-	2.800+	1.525-	2.150+
Biceps	2.250-	2.275+	2.500-	1.000+
Extensors F.	1.950-	2.025+	1.950-	2.800+
Flexors F.	2.200-	2.000+	2.125-	2.150+

	Right Leg.		Left Leg.	
Quadriceps	2.800-	3.000+	2.200-	2.000+
Adductors	3.000-	3.000+	2.250-	2.250+
Extensors of leg ...	1.800-	2.200+	1.225-	1.825+
Flexors of leg	1.800-	2.250+	1.225-	1.500+

Normal reaction with constant current.....1.500- 3.500+

I quote one other case of so-called "alcoholic" paralysis, because it presented two features which bear some relation to phenomena, also observed in diphtheritic paralysis—namely, loss of power in the respiratory muscles, and a curious kind of dilluculty in swallowing.

CASE VII.—The patient was a married woman, aged 2, who came under my care on September 20th, 1886, and was discharged convalescent on August 19th of the following year. She had indulged excessively in drink, especially of ardent spirits, for some years, and had been suffering from loss of appetite, sickness, and increasing weakness in the arms and legs for three months. She was fairly well nourished. There was some degree of numbness in both arms and legs; the arms were weak, and the weakness increased towards the fingers, which could not be straightened; the legs were so feeble that she could not stand on them, or even raise them from the bed. Her ankles were extended, the toes flexed towards the soles, and she had no power of moving them. The muscles of the forearms and legs were exceedingly tender, emaciated, and irritable, and the tendon reflexes were absent. There was also slight nystagmus. The symptoms were in progress at the date of admission, and within a few days it was found out that she had difficulty of breathing, liable to paroxysmal aggravation, and difficulty in the swallowing of fluids. As regards the dyspnoea, it was observed that there was a rapid expenditure of breath, so that she could only utter a few words at a time, that she had complete paralysis of the diaphragm, so that her breathing was wholly intercostal, and that she was liable to attacks of suffocative cough (induced mainly by swallowing fluids), in which she became livid in the face, and seemed in serious danger of dying. She had no paralysis of the mouth or soft palate, her voice was not nasal, and, as before stated, she could swallow solids without difficulty; but whenever she took even a mouthful of fluid, it was ejected within a few seconds with the symptoms of choking. She had no difficulty in carrying the fluid to the back of the mouth, and performing the act of deglutition; and it was not until a second or two had elapsed after the performance of the latter act, until the fluid had presumably passed some distance along the oesophagus, that the choking came on, that she coughed, and brought up with coughing the fluid she had swallowed. I confess I was puzzled to explain these attacks, and seeing that they did not occur until the swallowed fluid had had ample time to reach the lower end of the oesophagus, I was inclined to associate them with the diaphragmatic paralysis. The dangers which attended her paroxysmal attacks of choking and cough were manifestly due to the mechanical difficulty in the way of effective coughing, occasioned by the paralysis of the diaphragm.

The affection of the respiratory muscles and of swallowing, which had only come on recently, subsided gradually and disappeared in the course of a few weeks. The numbness, wasting, and tenderness of the muscles of the limbs increased progressively for some months; and then, after a period of apparent quiescence, convalescence slowly took place. The arms improved, even while the disease was still in progress in the legs. When she left the hospital her general health was re-established; she had complete use of her upper extremities; and, although the movements at the ankles and knee joints remained much enfeebled, she could walk in clumsy fashion, but without assistance.

I will trouble you with yet one other case, not so much because it has any direct bearing on the subject of my paper, as because it throws suggestive light on the difficulty of swallowing which was observed in the last case, and shows how a similar difficulty might have arisen in my first case, in which it will be recollected there was loss of power in the laryngeal muscles and impairment of sensation in the laryngeal mucous membrane.

CASE VIII.—J. H. A., a clerk, aged 44, was sent to me by my colleague, Dr. Semon, on December 7th, 1886. He had had syphilis ten years previously, followed by secondary symptoms. But otherwise he had had good health up to March last, when he was attacked with sore-throat, the nature of which remains somewhat uncertain. However, during its continuance, he experienced some impairment of voice, and some difficulty in swallowing both fluids and solids. When the soreness of throat had subsided, his voice was left impaired, and he found that, although he could now swallow solids with perfect ease, fluids invariably caused choking. After a time he placed himself under Dr. Semon's care, who recognised some small growths below the vocal cords, and that there was paralysis of the arytenoid muscle, in consequence of which the arytenoid cartilages were not approximated when the vocal cords

were brought into apposition, and a triangular chink remained unenclosed at the posterior extremity of the rima glottidis. This fact, however, though it explained the huskiness of voice, did not seem fully to explain the difficulty in swallowing fluids; for in recorded cases of this form of paralysis such choking had seemingly not been observed. The manner of choking was very peculiar. There was no doubt that the patient could swallow solids with perfect freedom. He could also, when drinking, perform the act of deglutition without any hitch. But invariably, within a second or two after a mouthful of fluid had been swallowed, and at a time, therefore, when it had presumably passed beyond the larynx and reached the lower part of the oesophagus, he began to choke, and presently coughed up some of the swallowed fluid. The phenomena were just what might be expected to happen, and what I have witnessed, when there is a communication between the oesophagus and trachea. And I at first thought that such a communication existed in this case. That, however, was disproved; for Mr. C. Evans, my house-physician, in my presence tested the suggestion, by feeding the patient with milk through an oesophagus tube, first passed into the stomach, and then gradually withdrawn, and thus found that no choking occurred until the lower orifice of the tube reached the level of the larynx. He ascertained, also, on further examination, that there was distinct impairment of sensibility, and of reflex excitability in the laryngeal mucous membrane, more especially in the inter-arytenoid fold—an observation which was confirmed by Dr. Semon. The explanation of the choking was now clear; at least so it seemed to me. I assumed that, in consequence of the non-approximation of the arytenoid cartilages during deglutition, the portion of the laryngeal cavity situated above the vocal cords remained incompletely cut off from the tube along which food was passing; that, in consequence of their ready diffusibility, fluids, while being urged on wards into the oesophagus, were also driven through the inter-arytenoid chink into the space above the vocal cords; and that actual choking was induced by this fluid remaining there up to the moment when the inspiration which naturally follows the act of swallowing sucked it into the windpipe. The obtuse sensibility of the mucous membrane of course explained the absence of irritation due to the presence of the foreign matter in this unwonted locality. I tested the truth of this hypothesis by making the patient drink, and hold his breath as long as he could after swallowing. And although he was apt to choke after a time, even before he inspired, there was no doubt that, by holding his breath, choking was retarded, and that choking always came on, or was aggravated with the first inspiration. The most interesting confirmation of the truth of my hypothesis, however, was furnished later. After he had left the hospital and passed from under my care, he continued to attend as an out-patient of Dr. Semon's; who one day sent him up to me to show me how, though his paralysis remained, he had learnt to circumvent the difficulty in swallowing fluids. He had discovered that, when standing, and at the same time stooping so as to put his head between his legs, he could drink without difficulty; whereas still, if he drank in the ordinary way, choking followed. I expressed my surprise at his having thought of this manoeuvre; when I was reminded that just prior to his leaving the hospital I had, in talking to him and to the students, remarked that, if his affection should not be cured, he would have to swallow (if he wanted to enjoy drink) while standing on his head; and thus learnt that he had simply put into practice the suggestion I had half-jokingly made. My reason for making the remark was that it seemed to me that if the patient's choking were due to the inhalation of fluid accumulated above the vocal cords, it would be obviated if by any means this fluid could be made to escape thence before the patient could draw a breath, and that if he stood on his head while drinking, it would, from the effects of gravity, at once trickle back into his mouth.

I do not know to what my alcoholic patient's difficulty in swallowing fluid was due, but it was so exactly like that presented by the case just given, that I cannot doubt that she also suffered from a combination of anaesthesia with some paralytic affection of the muscles which cut off the communication between the oesophagus and larynx during the act of swallowing. I am sorry that his larynx was not examined at the time.

DR. ROMOLO GRIFFINI died at Varese on January 9th, aged 63. He was for some years editor of the *Annali Universali di Medicina*, and took a leading part in the management of several medical charities at Milan.

LETT SOMIAN LECTURES

ON

SOME POINTS IN THE SURGERY OF
THE URINARY ORGANS.*Delivered before the Medical Society of London, January, 1888.*

BY REGINALD HARRISON, F.R.C.S.,

Surgeon to the Liverpool Royal Infirmary; and Lecturer on Clinical Surgery
in the Victoria University.LECTURE III.—THE OPERATIVE TREATMENT OF STONE AND
TUMOURS OF THE BLADDER IN RELATION TO SOME
RECENT VIEWS AND PRACTICES.

THE surgery of the bladder during the last ten years will, under all circumstances, occupy a conspicuous position in the history of our art by the introduction of litholapaxy, the revival of the suprapubic or high operation under somewhat altered conditions, and by an approach to a more systematic method of treating tumours and growths connected with the interior of the viscus. It has been my privilege to watch the progress of these several procedures, not merely as a passive critic, but as an active participator with others in all the advantages these measures have proposed to confer. Within the period mentioned a vast amount of experience has already been obtained bearing upon these various proposals, and I think the time this evening cannot be better occupied than in drawing some conclusions in regard to them which seem to me may now be fairly and advantageously done; and, in referring to these several procedures, I will endeavour, in speaking of each, to indicate what appears to me to be their strong as well as their weak points, and to what extent our present experience tends to show they have justified the anticipations with which they were promulgated. In the course of these remarks I shall not trouble you with statistics relative to operative procedures, as I do not attach much importance to them. It seems to me that in drawing conclusions from figures of this kind, gathered from various sources, we are putting ourselves much in the same position as the individual who, to make sure about the weather, consults three different kinds of barometer, and is rewarded by finding them respectively indicating at the same time "stormy," "rain," and "very fine." From such variations as these most persons would be disposed to conclude, not that it was safe to go out without an umbrella, but that at least two of the instruments must in some respect be faulty. On the other hand, to the collective work of individuals carefully recorded, with all failures and successes, the greatest importance is to be attached, as indicating not only results, but how these were obtained.

In the first place I will take a brief survey of the position that the crushing operation seems to occupy at the present day. Since the procedure which is justly associated with the name of Dr. Bigelow, of Boston, was brought under notice, exactly ten years ago this month, it has been applied to almost every condition under which stone in the bladder is met with in males, females, and children. Without entering into the history of the modern crushing operation for stone, or referring to discussions as to what led up to the important changes it represents, I think most persons will be inclined to admit that the lithotripsy of to-day occupies a very different position compared with what it did ten years ago. At the latter there appeared to be a tendency to limit its application considerably, whereas now we have rather to fear its extension to conditions for which it could hardly have been intended. The removal of a stone at a single sitting, without leaving behind any cause either for its reproduction or for cystitis, represented such a desirable combination of objects as at once to place the matter before surgeons in a light which it had not previously done. Let me stop for a moment to inquire how far this has been realised. In the case of stones of a moderate size, occurring in adults in other respects healthy, I think it will be generally admitted that to these lithotripsy may now be applied with a degree of success which prior to this decade had never been obtained in the history of either the cutting or crushing operations. Nor can there be any doubt, excepting in children perhaps, that by far the larger number of stone cases requiring operation occur under these

circumstances. But this, unfortunately, does not represent the whole truth, as lithotripsy has and is being applied to a class of cases where the anticipations formed in reference to it in its most modern form have not been realised; and this brings me to notice what I would speak of as the weak side of this proceeding. In corroboration of this, let me read a passage from a recent address by Mr. Cadge (Hunterian Lectures, Royal College of Surgeons, 1886). "Although," he observes, "the immediate and direct mortality of lithotripsy is small, the recurrence of stone is lamentably frequent. In my own list of 133 cases there were 18 in which recurrence one or more times took place, being about 1 in 7. Sir Henry Thompson, with a much larger number of cases, gives about the same proportion. I am disposed to infer, however, that recurrence is more frequent than this, because it is not likely that all who get relapse apply to the same surgeon again. Patients may, and frequently do, apply to the same operator once or twice; but after a time they either apply to their own surgeon or they decline further treatment, and too often their subsequent history is one of painful endurance of chronic bladder disease and gradual exhaustion. If, moreover, there be added to the list those numerous cases of phosphatic deposit or concretions, so frequently noticed after lithotripsy, the relapses would, I believe, reach to nearly 20 per cent. This seems a heavy indictment to bring against lithotripsy, but I am afraid there is no gainsaying it; and, if so, it would be wrong to pass it over or to make light of it." Though, with a very much less experience of lithotripsy than that to which I have just referred, I became impressed some years ago with the conviction that in certain cases we could do something more than merely remove the stone from the bladder.

It will, I believe, be generally admitted that the state of the interior of the bladder relative to its shape, its power of contraction, and the presence or absence of inflammation has, without being precise, a determining influence in the production of stone. In the majority of instances this is merely a matter of experience deduced from observation, whilst in not a few this tendency is not discovered until, as it were, the experiment of removing the stone by crushing and aspiration has been tried and failed. And, in connection with this observation, I think we have been rather too much disposed, if I may judge from a good deal of literature relative to this subject, to allow the physical properties of the stone to determine for us, as it were, the selection of the operation, irrespective of the relative conditions to which I have referred. Though a large hard stone is, as a rule, best treated by lithotomy, this by no means implies that some small and soft ones are the less advantageously removed by a similar proceeding.

Let me take, for instance, the case of a stone in the bladder occurring in an adult, with some chronic cystitis and enlargement of the prostate. The probabilities are that for many months, if we look at the section of such a stone after its removal, the bladder has been engaged in encasing it in a mould of phosphates just as completely as if it were done by plaster-of-Paris. Now is it reasonable to suppose that you can suddenly stop this stone-forming process without leaving behind any contributing cause for its continuance. In connection with the subject more particularly of prostatic hypertrophy, I have examined a very large number of bladders, and, having regard to the distorted or pouched condition of the viscus, which so frequently accompanies this change, as well as the condition of the mucous membrane relative to the presence or absence of phosphatic deposit upon it, it has often struck me, not that lithotripsy has its failures, but that, under these circumstances, its successes are so numerous.

Reflections such as these induced me, some years ago, gradually to alter my mode of procedure in cases of this kind, where either it was clear that the stone was the effect rather than the cause of disease, or where this fact was demonstrated by the failure of lithotripsy. I could not help feeling that the bladder, under these circumstances, was not unlike in many respects, a chronic abscess with a stone in it, and that it was just as necessary to open and drain the one as the other. Let me briefly illustrate this by one of my earliest cases. It was that of a man of 60 years of age, who submitted to lithotripsy on three occasions in two years, when large masses of phosphatic stone were readily removed. In the intervals between the operation, he never was free from vesical irritation. He could not empty his bladder completely without a catheter, the urine was more or less ammoniacal, and, in spite of careful catheterism, he suffered much from urinary irritability. He had some degree of prostatic enlargement, and some pouching or sacculation. Two years after the first crushing, I performed lateral lithotomy for him, and removed more phosphatic calculus

of recent formation. I put a large drainage-tube into his bladder, and he was drained and washed for eight weeks, until he voided normal acid urine, when the tube was removed, and the wound allowed to heal, which it did in the course of a month. This patient has now been perfectly well for over three years. I would refer to this and similar instances, not as being merely examples of successful lithotomy, but of successful drainage.

Three years ago I brought this subject (*Annals of Surgery*, June, 1885) under the notice of the profession, and described at length my mode of operating and of draining; and to these points I would now briefly direct attention. So far as the method of operating is concerned, my object has been to remove the stone by such an incision as will permit the bladder to be readily and efficiently drained; hence the proceeding stands much in the same light as evacuating matter from a chronic abscess does to the important part of the treatment by drainage that is to follow.

In the performance of lithotomy in cases of this description, my aim is to make a wound into the bladder which is not likely to close up before the interior of the viscus is ready for the reception and continence of the urine. Hence I am an advocate for lateral lithotomy, which best fulfils the conditions that are required. But though the mode of opening the bladder is important, the process of draining, where the condition of the viscus or of the parts above it is such as to require this, is still more so. As a rule, cases of this kind require drainage to be continued from four to eight weeks. I have drained them as long as ten weeks before the state of the bladder, as evidenced by the urine, was such as to allow the wound to heal up. The drainage-tubes I employ for this purpose are larger than those which have been used temporarily by some surgeons after lithotomy, and some care is required in fitting them to each case. [Mr. Harrison showed some specimens of his drainage-tubes.] By their use, with the exception, perhaps, of the first few days after the operation, when some urine may escape by the side, I have been able to keep patients absolutely dry during the whole process of treatment, whilst, at the same time, antiseptic dressings have been applied to the perineum; but I do not attach much importance to the latter, so long as the urine drainage is perfect.

Let me illustrate this practice by another case of somewhat recent date. It was that of a gentleman, 70 years of age, who, for over four years had never passed one drop of urine except through a catheter, and who had for the last two years of this period absolutely lived with the instrument in his bladder, both day and night. I examined him in October last, and found that he had a stone in his bladder, but one that I could have quite easily removed by crushing and aspiration. However, in the presence of the symptoms mentioned, and guided by other experience of the kind to which I have referred, I elected to perform perineal lithotomy, and to drain. My colleague, Mr. Mitchell Banks, held the staff for me, and I removed three uric acid calculi of moderate size, coated with phosphates. I made, as I usually do, a very free opening into the neck of the bladder, and put in one of my largest-sized drainage-tubes, with two or three superficial sutures in the wound to keep it in position. He was drained continuously for eight weeks, when it was found, co-incidentally with a much improved state of the urine, that the latter was, occasionally forced out spasmodically through the normal channel of the penis. The drainage-tube was then removed, and the wound allowed to heal. Though the function of the bladder had been in abeyance for four years, he has now complete control over his urine, and can expel it spontaneously without any assistance from the catheter, which he has entirely discarded since the operation. At present he has to pass his urine more frequently than is desirable, a circumstance which is probably due to the empty state the bladder has been in ever since he commenced to use the catheter continuously, day and night, two years ago. Notwithstanding this inconvenience which, I believe, will improve in time, it is remarkable that the bladder should have entirely recovered its power after such a long period of inaction as four years. Had I crushed, as I could have easily and safely done in this case, I feel sure that the power of the bladder would not have returned in the way that it has.

My friend, Mr. Cadge, in referring to recurrences after lithotomy, seems to think that in the matter of treatment we are placed somewhat on the horns of a dilemma, that is to say, if we crush there is a considerable probability of the stone recurring; whereas, if we cut, we adopt a harsh proceeding, and one more immediately perilous to life. As I have said before, I do not attach much importance to statistics, for putting aside what may

be due to the accidents of lithotomy, to which we are all more or less liable, and which are really responsible for no inconsiderable amount of the mortality following this operation, the results will be largely determined by the attending circumstances of the individual case. If a patient comes to be treated for a stone in his bladder with dilated ureters, and with only about one-fourth to one-tenth of his normal amount of kidney tissue, and the balance made up of pus cavities, I do not think it makes much matter what you do to relieve the suffering caused by the stone, as the result will be the same whether you cut or crush. Putting cases of this kind aside as being entirely outside the question, just as they are beyond repair, and taking instances where the only objection against lithotomy is that the stones are likely to return or have been proved to do so, I have not observed that the perils of lithotomy are very great.

In analysing my experience of lithotomy, I can refer to fifteen cases where the process of opening the bladder was followed by a more or less prolonged system of drainage and irrigation, such as I have just described. Of this number, three terminated fatally in the course of from three to five weeks, by reason of the far advanced suppurative condition the kidneys were in. This was considered as probable at the time of operation, and was proved by *post-mortem* examination. I had no desire to operate at all in these instances, but the patients were in such a painful condition that I had no alternative but to do as they wished, and run my chance. However, as drainage was employed after the stones were removed, I must in fairness include them. In addition to observing the relief that was thus afforded to these persons, I would further remark how importantly they illustrate the disastrous consequences that may ensue, when stone and cystitis are complicated with obstruction, or anything that interferes with the process of natural urine drainage, prior to the removal of the stone. In two of these cases, there was some enlargement of the prostate, whilst the third was complicated with an old urethral stricture. Further, they clearly point to the importance of drainage as a necessary part of the process connected with the removal of some stones. The remaining twelve persons so treated recovered, and remain well, or did so up to the time that I had cognisance of them. I think I should be pretty sure to hear of them if they had any recurrence. Three of these cases had been previously treated by crushing; to one of which I have already referred more in detail. In determining how long it is necessary to continue the drainage, I attach considerable importance to two points—first, to the condition of the urine, and, secondly, to certain muscular actions of the bladder, which become more apparent in those cases where atony pre-existed. So long as a patient goes on discharging ammoniacal or very purulent urine, so long must the drainage be continued, as to close the bladder under these circumstances is certainly to favour the reproduction of those local causes which contributed to the formation or growth of the stone. When the urine is becoming normal, one of the earliest indications that the drainage-tube may be withdrawn is the voluntary, or, I should rather say, the spasmodic, expulsion of urine along the natural passage. After three or four weeks' drainage, according to circumstances, I have allowed patients to get up for a little, and sit in a chair, with a clip on the edge of a drainage-tube, directing them to remove it when they feel desirous of urinating. It is under these circumstances that urine is sometimes expelled independently of the tube along the natural passage. This I have found a sure indication that the power of the bladder will be restored in those instances where it had been lost to a greater or lesser degree. And it not only applies to cases where a stone is present as I have illustrated, but to others.

This was evidenced in a remarkable way in the following case, which much impressed me at the time, in reference to what opening and draining are capable of doing. It was that of a man aged 68, who was under my care in the Royal Infirmary in 1883, for an atonied bladder and retention of urine, where the regular use of the catheter had become, in the course of time, extremely difficult by reason of the obstruction. After three weeks' trial of various plans of treatment, I performed perineal cystotomy, divided the prostate, and put in a drainage-tube. This was worn for eight weeks, when it was noticed that a certain quantity of urine forced its way along the urethra. The tube was then withdrawn, and the wound gradually closed. After this the patient never had any further difficulty in urinating, though the power of the bladder had been entirely suspended for some months prior to the operation and drainage. Six months subsequently he was seized with hemiplegia, which confined him to bed for the rest of his life, but

I ascertained from his medical attendant that it had never been found necessary again to make use of the catheter. Other cases of the kind might be adduced in support of the practice I am now advocating.

In two instances where the stones were very large I had to divide both sides of the prostate. I could not help observing that these cases made very rapid progress. It is of much importance that the wound should invariably be made clean and straight, and that the relations of the parts be not unnecessarily disturbed with the finger, as thus pouches are made in which urine may lodge. I should also mention that in one case the progress towards recovery was somewhat retarded by two or three attacks of secondary hæmorrhage, necessitating the use of a plug outside the drainage-tube. However, it was not sufficient to be of much importance. In another instance the patient had two or three slight attacks of orchitis, which was probably due to some imperfection in the drainage apparatus; where the prostate is very irregular this may happen, unless care is taken in making the incision into the neck of the bladder.

In these remarks I have thus endeavoured to illustrate what appears to me to be the weak aspect of lithotripsy, and what alternative seems to me, from some practical experience specially directed towards this point, best adapted to meet the difficulty. Fortunately, I believe these cases are not now so frequent as they used to be, owing, no doubt, in a great measure, to the better means we possess of detecting stone in the earlier periods of its formation, when it can be dealt with by crushing with the most complete success. To eliminate the cases which are not adapted for crushing is worthy; I am sure, of our most careful attention, and as a contribution towards this I must ask you to accept these remarks.

Turning to another debatable point, I would refer to the application of lithotripsy to male children. Some valuable records relating to this operation have been furnished by surgeons practising in India, amongst whom I may mention Dr. Freyer and Dr. Keegan. The latter gentleman has more particularly demonstrated the great success that may be obtained in boys by the crushing operation, and his testimony has been to a considerable extent corroborated by Mr. Walsham and other surgeons. Having regard to the great success of lithotomy in male children, I should not feel disposed to extend the crushing operation in this direction materially, except in the case of very small stones. It has, I know, been alleged that lithotomy means emasculation, but I am not aware that sufficient proof of this has been afforded. If this were proved to be an occasional and unavoidable consequence, the reasons for crushing in boys would be materially strengthened.

The suprapubic operation for stone owes its recent revival in a large measure to the observations of Garson, the practice of Petersen, of Kiel, and the advocacy of Sir Henry Thompson. The fact that the bladder is usually uncovered by peritoneum immediately above the pubes has for a long period been rendered available by surgeons for tapping with impunity in cases of retention of urine. To increase this area, and to permit the bladder to be opened and stones removed without injuring or wounding the cavity of the peritoneum is the chief feature in Petersen's method of performing the high operation. Since the introduction of this method of operating, considerable discussion has been excited in reference to the circumstances under which it is applicable, and much variety of opinion has been expressed. If, however, we merely content ourselves with taking the experiences of surgeons where this measure has been practically tested, we shall have no difficulty in determining its value.

In the first place I do not think that anyone would attempt the removal of a very large stone from the bladder by any other proceeding. We have already had several examples where large masses have in this way been successfully removed; which, judging from previous experiences of the kind, could not have been safely accomplished, even if it had been possible to effect their removal at all. And this applies equally to some cases of distorted pelvis, where the outlet is so contracted as to render perineal lithotomy impossible. I should have been very glad to have availed myself of this method of operating in one of my earliest stone cases some twenty years ago, where I performed lateral lithotomy for a boy with his hip ankylosed in an extended position.

In the second place, experience has already shown us that the suprapubic operation is well adapted for the removal of certain foreign bodies from the bladder more or less coated with phosphates, where it is necessary that we should be able to see as well as to feel, and direct what we are desirous of doing. Perhaps one

of the best illustrations of this practice will be found in a case recently recorded by Dr. Gillon (JOURNAL, July 30th, 1887), where a penholder, over five inches in length, encrusted with phosphates, was removed from the bladder of a man through a suprapubic incision. Not only was the foreign body extracted in this way, but the operator was enabled to satisfy himself that no perforation of the bladder into the peritoneal cavity had occurred.

Thirdly, the suprapubic incision may prove serviceable in some cases of stone in the bladder complicated with a protruding pro-lapse, where the removal of some portion of the latter may be further contemplated.

In the fourth place, the high operation will prove to many practitioners an easier and, therefore, a safer access to the bladder than the lateral perineal route, and thus, for this reason, and in the best interests of their patients, many will avail themselves of it under almost all circumstances. Are not these sufficient reasons for finding a place in surgery for this method, irrespective of the value that most of us, I believe, still attach to perineal lithotomy? I have no belief in the decline of perineal lithotomy, as it seems to me to possess advantages as a ready means of entrance to, as well as exit from, the bladder which no other method possesses.

In the controversy that has been recently raging in reference to the relative advantages of suprapubic and perineal lithotomy, I cannot help thinking that much of the difficulty which some have associated with lateral lithotomy, or Cheselden's operation, is, in a measure, due to a wrong conception of the way this operation should be performed. The point where it seems to me some surgeons are at variance with the description laid down by authorities on this subject is in reference to the employment of dilatation with the finger as a means of entering the bladder. I contend that such a process, whether there are grounds for its adoption, so far as the literature of the subject is concerned, or not, is not only unnecessary, but dangerous. It is unnecessary, because the opening into the bladder can be safely made with the knife, sufficient to permit of the finger being put, and not pushed, into the viscus; it is dangerous, because the risk is not inconsiderable of wrecking the operation by rupturing the urethra; especially in young children, and by destroying with the finger the natural relations of the parts. It is a misconception of this kind which alone imports an element of danger, so far as the mechanism of perineal lithotomy is concerned. Of the advantage that the latter operation affords as a means of draining the bladder I need not again speak.

But though, as I have incidentally hinted, suprapubic cystotomy will probably commend itself to some practitioners, by the comparative facility with which it can be accomplished, we must not be unmindful that experience has already shown us that it, like other procedures having the same object, has its own difficulties and dangers. Instances have been recorded where a weakened bladder, under the pressure of distension, has given way, and death has then followed; and similarly the rectum has suffered in a corresponding manner, but without producing any serious consequences. To most of us the simplicity and ease with which lateral lithotomy can usually be performed is such as strongly to prejudice us in its favour, in the absence of any special reason to the contrary, as I have indicated. Still, on the other hand, as I have already said, there are places for both the high and the low operations in the practice of surgery, which they can fill with relative advantage, and without fear of clashing.

In the last place, let me say a few words in reference to the treatment of tumours and growths connected with the interior of the bladder. And I would take this opportunity of acknowledging the important services Sir Henry Thompson has rendered, in both adding to and applying our knowledge in reference to this subject. In surveying the literature relating to the operative treatment of tumours of the bladder, and comparing it with some little experience of my own in cases of this kind, it seems to indicate the great caution that is necessary in the selection of cases suitable for operation.

Malignant growths connected with the interior of the bladder are, I believe, just as much beyond the reach of surgery as those which are occasionally seen involving the cavity of the nose; I have, in a few instances, opened the perineum and explored them with the finger, but, beyond giving vent to offensive urine, mixed with blood, and the debris from the growth, I cannot say that I have seen any permanent good follow, and I am disposed to think with others they had best be let alone. If exploration with the

finger from the perineum indicates, by reason of the limited connections of the growth, the expediency of attempting its complete removal, or if the mass is considerable, the suprapubic incision may with advantage be proceeded with. The value of the perineal incision for drainage has already been demonstrated in several instances of this kind. Still, on the whole, the less intravesical malignant growths are interfered with the better, so far as concerns both the comfort and life of the patient. Of the curable forms of intravesical tumour of the bladder, the simple papilloma or villous growth furnishes us with an example, and this has undoubtedly within the present decade been brought within the reach of surgery. In the cases of this kind where I have operated, I have been able to accomplish all that I desired by a perineal incision. The following instances illustrate some of the difficulties connected with the diagnosis and treatment of tumours of the bladder. The first was that of a young man I saw in 1883, who was suffering from hæmaturia. I opened his bladder from the perineum, and removed a villous growth, which seemed to occupy the orifice of the left ureter; he was temporarily relieved, but in the course of a month he died of exhaustion in consequence of repeated attacks of hæmaturia. After death, the left ureter was found dilated; the pelvis of the left kidney was also dilated, and contained a villous growth resembling that which I had removed from the bladder.

The other case was that of a middle-aged man, who presented all the symptoms of calculous pyelitis of the left kidney. The pain was so severe that I determined to open and explore the kidney, which I did in the early part of December, 1887. I found the kidney not much larger than natural, but it was simply a bag of pus. I could find no stone or other cause for the renal obstruction. The bladder was examined, but nothing abnormal was detected. The patient had a good deal of hæmaturia after the operation. He got gradually weaker, and died about four weeks after the operation. At a *post-mortem* examination, a small epithelioma of the bladder was found, which had completely occluded the left ureter, and had thus led to the disorganisation of the corresponding kidney. Such are illustrations of some of the difficulties which attend the diagnosis of tumours connected with the interior of the bladder; they certainly seem to indicate the great caution that is necessary in coming to a conclusion that their extirpation should be attempted.

I have now completed the task which you, in your kindness, have imposed upon me. It only remains for me to thank you for the patient and attentive hearing you have given me.

A CASE OF CIRRHOSIS OF THE LIVER, WITH CHRONIC CEREBRAL SYMPTOMS DEPENDING UPON THE CIRCULATION IN THE BLOOD OF DIGESTIVE IMPURITIES.¹

By DAVID DRUMMOND, M.D.,
Physician to the Newcastle-on-Tyne Infirmary, etc.

I HAVE ventured to invite the attention of the members interested in the Medicine Section for a few moments to a case, which I confess puzzled me not a little when attempting to interpret its clinical features. In addition to throwing some light upon certain nervous phenomena that have given rise to difference of opinion from time to time—I refer to some of the nervous symptoms of acute yellow atrophy of the liver, so-called bilious attacks, and allied conditions—it exemplifies the manner in which an organic lesion of one portion of the economy may be responsible for symptoms referable to another that practically mask and overshadow those of the primary lesion; just as in winter the scion mistletoe may usurp the importance of the apple by concealing with its evergreen leaves the naked branches of the stock. I regret that the early history of the case I am about to relate is not as accurate as I could wish, owing to the fact that the patient's memory was considerably impaired, and in consequence we were dependent upon his wife, who lived at a distance, for the major portion of the details. It is also a matter of regret that some of the points were not more exhaustively worked up; but we are all wise after the event, and I suspect a *post-mortem* examination suggests to the minds of a good many of us errors of

omission which good resolutions prompt us to avoid in the future.

J. W., aged 39, a sailor, an American by birth, was admitted into the Newcastle-on-Tyne Infirmary on September 9th, 1886. His previous history, as far as it could be ascertained, was as follows. For eighteen years he had sailed from English ports, and during that time he was much exposed to malarial influences, chiefly in New Orleans. There was no history of syphilis or of alcoholic excesses. Nine years previously he had suffered from a severe attack of intermittent fever, and some time later was admitted into Guy's Hospital for jaundice. On recovering he returned to sea, and remained in good health until the beginning of 1886, when he began to complain of weakness, loss of appetite, etc. He continued to perform his duty, though with difficulty, until February 2nd, when he was obliged to leave the ship on account of illness. On his return home his wife remarked that his skin was sallow, that he looked ill, and that his mental condition was altered. He was fitful, for example, and was inclined to wander about the streets in an aimless way, which he did for two or three days, when an attack of excitement with delirium occurred, and it was with difficulty his friends could restrain him in bed; indeed he occasionally eluded their vigilance, and rushed into the streets in his nightshirt. For some weeks this condition continued, though the excitement became more controllable, and his mental state gradually improved.

On March 30th (1886) he was admitted into the Middlesbrough Infirmary, having presented himself in the first instance as an out-patient for right inguinal hernia, when an enlargement of the spleen was detected. During his stay in the Middlesbrough Infirmary, which was for upwards of four months, his speech and sight were noticed to be impaired, and his mental condition peculiar; his memory was defective, and he was as a rule markedly apathetic, though occasionally emotional. The tendon jerk was increased in both arms and legs.

Whilst under treatment in hospital his general health improved, but his nervous symptoms remained unaltered. He then returned home for some weeks, when his wife found it very difficult to manage him. He took a dislike to his children, and made free use of the most foul language, a practice that was foreign to him. He would lie for hours at a time taking no notice of the surroundings, and then break out into a state of wild excitement. He now rapidly became weaker, and at the same time more unmanageable, so that his wife was glad to transfer him to the Newcastle Infirmary.

On admission he was observed to be a dark-complexioned man, fairly well nourished, with a peculiar earthy sallow pallor of the skin, and looked older than his age. His speech was slow, drawing, and deliberate, and strongly suggested the speech of a general paralytic. His memory was decidedly weakened, though at times he appeared to have accurate glimpses of his past life. He was highly emotional, laughing or crying easily. The sclerotics were tinged yellow. The tongue was clean and was protruded tremulously; there was, however, no tremor of the lips. The arms shook on muscular exertion, as, for example, when he lifted a cup to his mouth. A similar tremor affected the head on sitting or standing. The gait was unsteady, swaying, and tremulous. The tendon-jerk phenomenon was decidedly increased in both upper and lower extremities. The plantar reflex was absent. The limbs were much stronger on the right side than the left; in fact, there seemed to be a slight degree of left-sided hemiplegia. There was no anaesthesia, but, on the contrary, a certain degree of general hyperaesthesia was remarked. The spleen was considerably enlarged, rounded, and firm, and reached to the level of the umbilicus and to within an inch of the middle line. The liver dulness was diminished. The urine was passed in considerable quantities, the daily amount being rather above the average, varying from 50 to 80 ounces in the twenty-four hours. It was the colour of Madeira, bright and clear, and contained more than a trace of bile, but no albumen or sugar.² Several specimens were sent to Dr. Bedson, the Professor of Chemistry in the College of Physical Science, who was asked to examine it for iron, and he kindly furnished me with the following report:

"Several determinations of the iron in the first sample of urine received in December, 1886, were made, and the most reliable give 38 milligrammes of iron per litre. I had some trouble with this sample, some of the iron determinations appearing excessively high. The second sample was examined two weeks later, and

² The test for sugar was only made once by the clinical assistant, and his observation was not verified.

¹ Read in the Section of Medicine at the Annual Meeting of the British Medical Association, held at Dublin, August, 1887.

found to contain 39.6 milligrammes of iron per litre; this sample was examined for bile, and found to contain bile acids. The third sample was received on December 23rd, and was found to contain 10.34 milligrammes of iron per litre. These amounts, expressed in grains per ounce are as follows:

- I.—0.016 grains of iron per ounce.
 II.—0.0173 " " "
 III.—0.0045 " " "

"No. III represents, it would appear, the normal amount of iron found in the ash of urine, whilst in Cases I and II the amounts are between three and four times this quantity."

An examination of the blood showed a diminution in the number of red corpuscles; some appeared to be crescent-shaped, and many were below the average in size. In a cubic millimetre there were 3,460,000 red and 6,600 white, or about 1 white to 520 red corpuscles. There were no changes detected with the ophthalmoscope. For some weeks little or no alteration was apparent in his condition. He took food fairly well, and the bowels were opened regularly every day. The temperature and pulse maintained an even line of health, though as time wore on it was observed that the thermometer in the axilla seldom indicated more than 97.4° F. in the morning. The nervous symptoms gradually increased. The speech became less distinct, more drawling, and syllabic; the sight appeared to grow more and more dim; muscular power diminished generally, and inco-ordination increased, so that he found it impossible to stand or walk alone. His mental obliquity became more decided, and occasional attacks of excitement varied an otherwise monotonous state of helpless apathy. The bilious coloration of the skin developed slowly, and the urine became darker, though the aspect of the patient was more one of profound anæmia than jaundice.

The note on February 12th, 1887—five months after his admission to hospital, and some time after the diagnosis of cirrhosis of the liver was definitely made—is as follows:

Since last observation the patient has been going down the hill steadily; the speech is thicker, and even more suggestive of general paralysis. Is very drowsy, quiet, and inoffensive; the conjunctivæ are more deeply tinged. He trembles very much when he attempts to stand, and is quite unable to walk alone. No ascites. Liver dulness is reduced to one inch of dull area in the neighbourhood of the sixth interspace in the anterior axillary line. Well-marked systolic murmur in the tricuspid area. Temperature normal; pulse 70. Reflexes the same as before.

On February 24th the nurse reported that during the previous few days she had observed that the patient had become more irritable and excited. He was now delirious and wildly excited; the pupils were dilated and fixed; the tongue was dry and brown.

On February 26th, as the delirium still continued, one-sixtieth of a grain of hyoscyamine was injected hypodermically, but with very little effect. Next day, spasmodic attacks, chiefly of the muscles of the back, arms, and face, were observed. During a spasm the back was arched (opisthotonos), and the mouth was twisted to the right side, and in the interval between these attacks, choreiform movements of the head, trunk, and limbs, with marked horizontal nystagmus, occurred. The urine now contained a considerable quantity of blood, and coarse crepitations were audible in the lungs. These irregular choreiform movements, affecting chiefly the legs and fingers, continued until March 9th, when they subsided in great measure, and consciousness partially returned. The jaundice was now pronounced, and, rapidly becoming more and more prostrated, he died on March 16th, fifteen months from the date that was supposed to fix the origin of the symptoms.

Necropsy.—Rigor mortis pronounced; right leg œdematous; universal jaundice, though not of a deep tint.—Heart: Both ventricles dilated; the right contained a quantity of *ante-mortem* clot; aortic valves competent; mitral and tricuspid orifices dilated, their valves normal. Lungs: Right adherent; lower lobe congested and œdematous; muco-pus exuded from the cut ends of the bronchial tubes; a number of patches of catarrhal pneumonia; the left lung presented similar appearances. Abdomen: No effusion; a large tortuous vein, the size of the middle finger, ran in the course of the round ligament of the liver, and, passing on to the right side of the abdominal wall, it descended, covered by peritoneum, in the position of the deep epigastric vein, to join the right external iliac just above Poupard's ligament. On tracing this abnormal vein down the round ligament, it was seen to enter the left branch of the portal about an inch from the bifurcation;

in fact, it was practically the direct continuation of the left division of this vein. The liver was small, granular, and decidedly cirrhotic. It weighed 40 ounces, and on section the substance was seen to be broken up into small yellow islands or nodules, varying in size from a pin's head to a split pea. The larger branches of the portal vein in the liver were filled with firm blood-clot (thrombosis). The gall-bladder contained about 2 ounces of thick, tar-like bile. The larger bile-ducts were not obstructed. The spleen was enlarged, and weighed 39 ounces. It was soft and pale, and a section disclosed a large number of dilated veins. The trunk of the splenic vein was dilated to about twice its normal size. The kidneys were slightly enlarged, but, beyond a somewhat adherent capsule, presented nothing abnormal. The hæmorrhoidal and œsophageal veins were much enlarged. The brain was pale, soft, and œdematous, but otherwise seemed quite healthy; the membranes, grey matter, and vessels showed no morbid changes.

The view taken of the case in the light of the *post-mortem* examination was that the cerebral symptoms resulted entirely from the poisonous effects of digestive impurities circulating in the brain. It was quite obvious that the portal blood entered almost directly into the systemic circulation, without passing through the liver, and therefore was not subjected to the purifying influences of that organ, but passed at once to the brain, whose functions were consequently disturbed. The occurrence of nervous symptoms in the course of a case of hepatic cirrhosis is no new observation, but as a rule they have intervened towards the end of the case, and I am not aware of any cases entirely parallel with the one I have just related, though Frerichs cites the case of a boy, aged 10, who, along with cirrhosis, suffered from difficulty of speech, paralysis of the facial muscles, and general muscular weakness, but without mental symptoms until shortly before death. He has observed, however, noisy delirium with spasmodic muscular contractions; and Dr. Hilton Fagge refers to a man with cirrhosis who lay for two or three weeks in a semi-comatose condition.

The symptoms in my case resembled very closely those of a case of general paralysis. The attacks of excitement, the tendency to melancholic depression, the slow, drawling speech, and the muscular inco-ordination furnished a picture that could not fail to suggest that disease. On the other hand, the noisy delirium and extreme restlessness towards the termination of the case brought forcibly to one's mind the features of a case of acute yellow atrophy. The accessory portal vein running in the round ligament has been met with by Sappey, and Rindfleisch describes a case in which the portal blood passed directly into the cava through a number of dilated anastomoses between the mesenteric and spermatic veins, but I am not aware that there is any record of the symptoms in these cases.

ON ADDISON'S DISEASE AND THE FUNCTION OF THE SUPRARENAL BODIES.¹

By C. A. MACMUNN, M.A., M.D. DUB., Wolverhampton.

No satisfactory explanation has yet been given of the bronzing of the skin and of the peculiar train of symptoms which frequently accompany disease of the suprarenal bodies, and this is not surprising since anatomists and physiologists can give us no idea as to the function of these organs.

In this paper I have collected certain bits of evidence which may help to advance the inquiry a stage, even if my arguments should fail to convince the critical.

I propose to consider the subject under the following heads: 1, the comparative anatomy and development of the adrenals; 2, their physiological chemistry; 3, theories as to their function; 4, results of spectroscopic examination of the adrenals and of the urine in Addison's disease; and 5, teachings of pathology.

Comparative Anatomy and Development of the Suprarenal Bodies.—The great use of the adrenals in the life of animals is proved by their wide distribution among vertebrates; since they are found in mammals, birds, reptiles, amphibians, and fishes.

In fishes they lie on the anterior or posterior surface of the kidneys as small paired or multiple bodies, varying in size from that of a pin's head to that of a bean (Eberth).² In elasmobranchs

¹ Read before the Pathological Section of the Birmingham Branch of the British Medical Association, January 27th, 1888.

² Stricker's *Histology*.

They form a double row of bodies, arranged segmentally, lying on the right and left of the vertebral column, and consist of a mesoblastic and a sympathetic part. They may be wanting in some teleostei, but when present they sometimes represent the metamorphosed anterior (lymphoid) part of the kidney, and sometimes are closely united with the kidneys. It is probable that in all vertebrates they arise in connection with the pro- or mesonephros (Wiedersheim).³

In amphibians they form small yellowish granules, and lie either on the ventral side (Anura) or on the inner side (Urodela) of the kidneys, receiving their blood supply both in amphibians and reptiles from the renal-portal vein (Wiedersheim).

In reptiles the adrenals are of a bright yellow colour, of an elongated or lobulated form, and lie in close contact with the genital glands (Wiedersheim). In batrachians, saurians, chelonians, and birds, the cortical and medullary substances are placed side by side, in rounded heaps or in branched cords or columns (Eberth).

In birds "the weblike arrangement of the branched cortical and medullary columns is still more distinctly marked" (Eberth).

In mammals the suprarenal of each side forms a definite and uniform mass, lying close to the corresponding kidney, and in it an ectodermal (that is, sympathetic) medullary, and a mesodermal cortical substance can always be recognised, the two elements here being closely united together (Wiedersheim).

As we ascend the vertebrate scale the adrenals become gradually better developed; the same remark applies to the respiratory pigments. In fishes and amphibians the muscle hæmoglobin, and the myohæmatin are badly developed, in reptiles better, while in birds and in mammals they reach their highest point of development.

It is not my intention to refer to all recent work on the development of the adrenals. I will merely briefly refer to Balfour's researches on the development of the elasmobranch fishes; they are well known. He showed that in these there are "(1) a series of paired bodies derived from the sympathetic ganglia, and (2) an unpaired body of mesoblastic origin. In the amniota these bodies unite to form the compound suprarenal bodies, the two constituents of which remain, however, distinct in their development. The mesoblastic constituent appears to form the cortical part of the adult suprarenal body, and the nervous constituent the medullary part." Mitsukuri⁴ has confirmed Balfour's views by studying the development of the adrenals of the rabbit and the rat, and finds that the medullary part arises from the sympathetic ganglia, and the cortical part is of mesoblastic origin; the former at first is outside the cortical part, but becomes gradually enclosed by it, but still retaining some connection with the neighbouring ganglia. Hence we know that the bulk of the adrenal is not of nervous but of mesoblastic origin, for in the adult (mammal) the thinner parts of the organ consist entirely of cortical substance (Schäfer),⁵ so that the adult suprarenal may be considered a glandular organ.

Physiological Chemistry of the Adrenals.—Hoppe-Seyler (*Physiologische Chemie*) shows that the medulla of the adrenal contains a substance which is easily changed (by decomposition) after death, and besides albuminous bodies, a substance which is coloured dark blue to blackish green by ferric chloride; carmine-red by oxidising substances such as tincture of iodine, chlorine- or bromine-water; and red by the sub-chlorides of manganese, cobalt, and nickel. The watery extract assumes, by standing exposed to the air, especially if exposed to sunlight, a red colour. On extracting the adrenals with dilute hydrochloric acid, and adding ammonia to the extract, a beautiful red colour is produced. The substance giving these colour changes is soluble in very dilute aqueous acid solutions, insoluble in ether, alcohol, chloroform, bisulphide of carbon and benzol; it has not been isolated, and belongs, according to Virchow, to the fluid bathing the tissue elements. [Krukenberg considers that several chromogens are present in the adrenals.] Cloëz and Vulpian have found hippuric and taurocholic acids and calcium chloride in the adrenals of the sheep, and Seligsolin found benzoic acid and taurin, the latter having also been found by Holm. Kulz found inosit in them. I think it is highly impro-

bable that these constituents could have found their way into the organ "by imbibition;" they must be produced in the organ itself. If so very active downward metabolism must be taking place there.

Theories as to the Function of the Adrenals.—The textbooks agree in stating that we know nothing of the function of the adrenals. In Carpenter's *Physiology* (ninth edition, 1881) it is stated: "Although Brown-Séquard found that ablation of the suprarenals was found uniformly fatal, yet others—for example, Phillipeaux—" have shown that this effect is rather attributable to hæmorrhage and the unavoidable injury to the nerves, and especially to the semilunar ganglia, attendant upon the operation, than, as Brown-Séquard believed, to the retention of some poisonous substance in the circulation, which it is the office of these bodies to remove." But of late Tizzoni has produced bronzing of skin and mucous membrane by artificially removing the adrenals, so that the above statement may be set aside. The idea that the adrenals are concerned in the elaboration of nutrient material is negated by the result of chemical examination, and that of their being nervous ganglia by the results of recent studies on their development.

The view of Dr. Harley, lately supported by Spämann,⁶ that the adrenals are merely persistent foetal structures—even if true—would prove nothing, nor add to our knowledge of their function in adult life. But we have on the other side the opinion of Professor Wiedersheim, who says: "Their extraordinary richness in blood vessels, which is seen throughout life, points to the important function of these organs; but it is impossible to say at present what that function is." Besides, the distribution of the lymphatics of the adrenals, which Klein has studied, shows that these vessels must be concerned in carrying away some product of the metabolic activity of the gland, as Klein, indeed, assumes, a view recently confirmed by Stilling,⁷ who shows that the pigment formed in the adrenals is carried away by the lymphatics to those lymphatic glands which lie along their path.

The fact that the adrenals are relatively large in foetal life—at the end of the third month as large as the kidneys—proves nothing. The thyroid gland is of relatively large size during foetal life also; and although a remnant "of one or more diverticula of the ventral wall of the pharynx or floor of the mouth," and "an ancient glandular organ," speaking from a phylogenetic point of view, "the secretory function of which in relation to the alimentary canal was of great importance in the ancestors of existing vertebrates,"¹⁰ yet we know it must be of importance physiologically, for its atrophy from disease or its extirpation surgically leads to the production of myxœdema.

We ought not to lose sight of the fact that during foetal life the liver has to manufacture red blood-corpuscles, and as the adrenal seem to be supplementary to the liver in one, at least, of its functions even in adult life, it may possibly be concerned in foetal life with the removal of certain waste products instead of the liver.

Results of Spectroscopic Examination.—When carrying out an investigation of the spectra of the organs and tissues of vertebrates and invertebrates, I came upon the interesting fact that the suprarenals show the presence of the bands of hæmochromogen or reduced hæmatin, which I found to be especially well-marked in their medulla. In man, dog, cat, rabbit, rat, guinea-pig, ox, and sheep the result was practically the same. Wherever I had previously detected hæmochromogen in the fluids or organs of the body it had been excretory. There was indeed one exception—namely, in a beetle (*Staphylinus oleus*); as its testes seem to contain this substance mixed with hæmoglobin, but this fact does not bear on the matter under discussion. In the liver¹¹ and in the bile hæmochromogen had been detected previously by me; hence, when I found it in the adrenals, I concluded that here also it must be excretory. Moreover, the appearance of the spectra differed in some cases in such a manner as to lead me to conclude that the substance which was being changed into hæmochromogen was found in different stages of metabolism, and the bands of the latter were certainly made fainter when the blood-vessels of the animal were washed out with salt solution. I subsequently found that it is highly probable that not only hæmoglobin, but also the histohæmatins may furnish hæmochromogen; and one frequently

³ *Comparative Anatomy*, Eng. trans., p. 161.

⁴ Researches on Myohæmatin and the Histohæmatins, *Philosophical Transactions*, Part I, 1886.

⁵ *Treatise on Comparative Embryology*, vol. 2, p. 547-549. Cf. Weldon, *Quart. Journ. Microsc. Sc.*, 1881 and 1885.

⁶ On the Development of the Suprarenal Bodies in Mammalia, *Quart. Journ. Microsc. Sc.*, 1882.

⁷ Quain's *Anatomy*, 9th edition. See also Klein's *Atlas of Histology*, p. 436.

⁸ *Gazz. degli Ospitali*, Nos. v and vi; *Lond. Med. Record*, vol. xiii, p. 103.

⁹ "Zur Anatomie der Nebennieren," *Virchow's Archiv*, Band cix, Heft 2, p. 224.

¹⁰ Wiedersheim, *loc. cit.*

¹¹ It also occurs, as I have proved, in the "bile" of snails, slugs, crayfish, and common limpot. *Proc. Roy. Soc.*, No. 226, 1883.

can detect a histohæmatin, especially in the cortical part of the adrenals. Hence I drew the obvious conclusion that in the adrenals a downward metamorphosis of worn-out pigments—hæmoglobins and the histohæmatins—is taking place, and the function of these organs is to pick out of the circulation these worn-out or effete colouring matters with their accompanying proteids; for if the coloured constituent be present, so also must the proteid, which together originally built up the molecule of a hæmoglobin or a histohæmatin. If then the adrenals discharge this function, we ought to find evidence of the presence in the excretions of incompletely metabolised pigments, when these pigment-metabolising organs are unfitted by disease for the performance of their function. And that is exactly what is found. I have detected, by means of the spectroscope, in the urine of Addison's disease, such a pigment, which I named "urohæmatin,"¹² but, subsequently, I changed its name to "urohæmatoporphyrin," since it is a kind of hæmatoporphyrin. The urinary pigments traceable back to bile and hæmatin are two in number—namely, normal and febrile urobilin, but the above pigment is, as I have shown, produced only from hæmatin by the action of such reducing agents as zinc and sulphuric acid and sodium amalgam. In the JOURNAL for 1883 (December 1st) I showed that it occurs in the urine of acute rheumatism, but subsequent investigation has convinced me that it is present in various febrile conditions, and to sum the matter up, it may be said to be present in urine under at least two conditions: (1) when an excess of effete hæmoglobin or histohæmatin¹³ is present in the circulation, the blood-metabolising glands being healthy, but incapable of dealing with the excess of effete pigment; or (2) when the amount of effete pigments may be not in excess, but the blood-metabolising glands are diseased. In the urine of cirrhosis of the liver, where the secretory cells are encroached upon by connective tissue, it is present, and in the urine of Hodgkin's disease, when the skin had become bronzed, owing to disease of the adrenals, it has been found. In a case of this kind Dr. Saundby actually labelled the specimen "urohæmatin," suspecting its presence from what I had told him, and it was present. In Addison's disease I have found it several times. In the later stages of that disease, when the blood has become deteriorated from the presence in it of various poisonous products of incomplete metamorphosis, of course we may have to acknowledge two sources of this urohæmatoporphyrin—namely, effete pigment present from disease of the adrenals, and effete pigment due to subsequent excessive destruction of the red blood-corpuscles. In many cases the simple addition of a mineral acid to the urine will bring out the bands of acid urohæmatoporphyrin; in other cases it may be necessary to precipitate the urine with neutral and basic acetate of lead, decompose the precipitate with rectified spirit acidulated with sulphuric acid, and filter; this filtrate then shows the bands of acid urohæmatoporphyrin well marked, and from this it can be isolated by agitation with chloroform, as I have elsewhere described. C. Nobel has lately confirmed my conclusions with regard to this pigment, and proposes calling it "isohæmatoporphyrin."¹⁴ Its presence, however, in the urine lends support of a substantial kind to my theory, and teaches that other conditions being absent, it may be due to disease of the blood-metabolising glands; and since in many cases where I have found it the only glands diseased were the adrenals, these must be blood-metabolising glands.

The discovery by Krukenberg¹⁵ of the presence of pyrocatechin, or a nearly related substance, in the alcohol extract of the adrenals of herbivorous animals, has led some to suppose that his results contradict mine. Krukenberg never said so; he only stated that it was incomprehensible to him that I should have found hæmochromogen in perfectly fresh organs, but he does not deny its occurrence. It must be remembered, as Krukenberg himself says, that several chromogens are present in the adrenals, and the one which Krukenberg investigated was soluble in alcohol, whereas hæmochromogen is not. Possibly the adrenals of carnivora may

not contain pyrocatechin, for in the blood serum of herbivora and in their urine various "aromatic" substances are present which, as Hoppe-Seyler has shown, are peculiar to them; but even if present in the adrenals of flesh-eating animals, it would lend support to my theory. We know that other aromatic bodies such as indol, skatol, kresol, etc., are produced from proteids by the action of ferments; and although putrefaction seems necessary for the production of some, yet with our present knowledge we cannot say that they are not produced within the body in the absence of putrefaction; indeed, skatol does not owe its increased production in diabetics, in all probability, to putrefaction. Therefore, the presence of pyrocatechin in the adrenals would merely show that proteid metabolism is taking place there, which is one of the points I wish to prove.

Teachings of Pathology and General Summary.—I do not propose considering the question whether there is a specific disease of the adrenal, such as a "strumous" or tuberculous condition present in that class of cases known now as Addison's disease, or whether Dr. Addison wished after he had published his views to narrow the pathology of that disease to disease of the sympathetic ganglia.¹⁶ Because many believe with Virchow that the peculiar train of symptoms (with bronzing of the skin, which are characteristic of Addison's disease, may be brought about by various morbid conditions of the adrenals, and a perusal of recently recorded cases shows that we must extend our view so as to include such morbid conditions. Nor should I consider the occurrence of diseased adrenals without bronzing of the skin, or bronzing of the skin without disease of these organs, an argument against the theory adopted here, because the adrenals being supplementary organs, other organs may do duty for them to a great extent, under certain unknown conditions. Besides, if Addison's disease were to occur in a patient in whom by previous disease the hæmoglobins and the histohæmatins had been diminished in amount, we should not expect to meet with much effete pigment in that case.¹⁷ And even if the adrenals are apparently healthy, we cannot always say whether there has not been some interference with their nervous (or arterial) supply sufficient to prevent the discharge of their functions. Looking over the recent literature of this subject, one finds some very interesting cases of Addison's disease described. In the case recorded by Dr. Wickham Legg,¹⁸ there were shortness of breath, giddiness and vomiting, bronzing of skin, and paroxysm of fever. In Monti's¹⁹ case there were several febrile attacks during the course of the case, drowsiness and heavy sleeps, excitement, delirium, and loss of consciousness, and death took place in a convulsion. In Rauschenbach's²⁰ case there were rigors and "heat" at the beginning of the illness, restlessness, delirium, and various nervous symptoms. In Cacciola's²¹ case febrile attacks were also noticed, and the patient became delirious before death, and died in a convulsion.

In some of these cases the nervous symptoms and the hyperthermia are very remarkable (especially as it has been said the temperature is subnormal in Addison's disease, which is a very doubtful statement), and these symptoms are explicable only on the assumption that some toxic substance or substances must have been present in the blood. That such is the case seems more than probable from the experiments of Foa and Pellacani,²² which have not met with the attention which they deserve. These observers injected an aqueous filtered extract from certain organs, namely, the brain, the testis, and the adrenals, into the veins of rabbits; and found that death ensued, which was due to coagulation of the blood in the heart and lesser circulation. They proved that a fibrinogenous ferment, both chemically and physiologically active, was present in the solutions, which is due not to the blood circulating in these organs, nor to destruction of white corpuscles in them, but to a substance present in the organs; and when the solutions injected were little active, marasmus was produced, from which the animal died. But here is the most important result; they found that aqueous and alcohol extracts of the adrenals had a most toxic

¹² See Dr. Goodhart's able summary in New Sydenham Society's *Atlas of Pathology*, and compare Addison's works, New Sydenham Society's edition, 1868, p. 214.

¹³ In the adrenals from a case of pernicious anemia sent me by Dr. W. Rossell, of Edinburgh, the bands were extremely faint.

¹⁴ *Lancet*, June, 1885, p. 1027. *Med. Rec.*, vol. xiii.

¹⁵ *Archiv für Kinderheilkunde*, Band vi, Heft 4.

¹⁶ *Archiv für Kinderheilkunde*, No. 1, 1886.

¹⁷ *Gazz. Med. Ital. Prov. Venet.*, No. 5, 1881; *Giornale Internaz. delle Sci.*

Med. Fasc., viii, 1884.

¹⁸ *Arch. per le Sc. Med.*, vii, 9, 1885; and Schmidt's *Jahrbücher*, Band 210, 1886.

²² *Proc. Roy. Soc.*, vol. xxxi, p. 26, and vol. xxxv, p. 394; *Journ. Physiol.*, vol. vi, p. 22, et seq.

¹³ Hæmatoporphyrin is present in the integument of invertebrates in which no hæmoglobin can be found. (*See Journ. Physiol.*, vol. vii, No. 3; and vol. viii, No. 6.) Hence, and since it can be artificially prepared from myohæmatin, I concluded it might be a metabolite of the histohæmatins.

¹⁴ *Chem. Centralblatt*, 1887, p. 538. Original in *Arch. f. d. Ges. Physiol.*, xi, 11 and 12, p. 501.

¹⁵ Virchow's *Archiv*, 101 Band, 1835, s. 542-571. Krukenberg describes some chromogens got by the artificial digestion of fibrin which bear some resemblance to those of the adrenals, but are different. "Zur Charakteristik, etc." *Verh. der Phys. Med. Gesell. z. Würzburg*, 1884, band 18, No. 9.

effect, an effect peculiar to the extracts of these organs. The poison present in the adrenals is more like an organic acid or a "ptomain" in its action; it paralyses the spinal cord, etc., and causes death by paralysing the "bulbar centre," and especially the respiratory centre. In this, then, the product of proteid disintegration which it is the province of the adrenals to pick out of the circulation and metabolise into a harmless substance, and which, when these organs are diseased, accumulates in the blood, and produces nervous symptoms and hyperthermia; for Foa and Pellacani found that it also produced increase of temperature?

We know that the poisonous alkaloids of animal origin, the ptomaines and leucomaines,²² are products of "proteid disintegration." The poison of the adrenals is, however, probably neither the one nor the other, but a nitrogenous, non-crystallisable substance akin to Panum's septic poison; such bodies produce hyperthermia, whereas the ptomaines and leucomaines produce hypothermia. The bodies which are nearer proteids, or themselves of a proteid nature, appear to be even more poisonous than their lower metabolites. As is well known, Wooldridge²⁴ obtained a proteid poison from serum which prevents shed blood from coagulating for several hours; and another proteid poison²⁵ from the testis and thymus of the calf, which, injected into the blood vessels of an animal, causes instant death, due to wide-spread intravascular clotting. Wolfenden,²⁶ too, has shown that the poison of the Indian cobra (*Naja tripudians*) and the Indian viper are of a proteid nature.

The presence of urohæmatoporphyrin in the urine of Addison's disease led me to hope that I should find this or some other metabolite of hæmoglobin in the skin of patients sufficiently bronzed for the examination, but in this I have been disappointed. Professor Victor Horsley and Dr. Dingley kindly procured some skin, and the latter some slate-coloured mucous membrane from the mouth, from patients suffering from Addison's disease; but although I detected traces of iron, I could not see any bands. But this is not surprising, seeing how quickly blood becomes altered in those situations.

Dr. Riehl²⁷ and Dr. Ernest Kummer²⁸ have made some observations on the distribution of pigment in the skin in these cases. Dr. Riehl concludes that the pigment is extracted from the blood by the cutis cells, and that it is not produced *in situ* by metabolic processes in the cells of the rete; he also found thrombi in the blood vessels of the skin. Kummer confirmed these results, and thinks that we may assume a disease of the blood as a cause of Addison's disease. But it seems to me that the pigment primarily deposited in the skin is different in its origin from that deposited later, when the blood itself has become deteriorated from the presence in it of the products of incomplete metamorphosis. It is interesting to compare with Dr. Riehl's statement that of Wiedersheim²⁹ on the pigmentation of the skin of lower vertebrates; he shows that the derma is permeated by leucocytes, especially in fishes. These leucocytes penetrate to the superficial layer of the epidermis, and carry pigment granules. Here they take on amoeboid movements, and break up into numerous small, pigment-containing particles, which are taken up by the epithelial cells.

It would appear, then, that comparative anatomy and comparative embryology, physiological chemistry, the evidence supplied by the spectroscope and by pathology, all point to the same conclusion.

Just as there has been a progressive development of vertebrata in time, the fishes appearing in the upper silurian, the reptiles in the carboniferous, the birds in the triassic, and mammals in the jurassic, or even in the triassic systems,³⁰ so has there been a progressive development in their organs. As the animal body became more complex, and a greater abundance of respiratory pigments had become necessary for internal and ordinary respiration, certain organs had to be set apart, or had to take on a new function, in the increased "division of labour." This function in the case of the adrenals was the removal from the circulation of useless and worn-out pigments and their accompanying proteids.³¹

When the adrenals are diseased, these effete pigments and effete proteids circulate in the blood; the former, or their incomplete metabolites, producing pigmentation of skin and mucous membrane, and appearing often in the urine as urohæmatoporphyrin; the latter producing toxic effects, and leading to further deterioration of the blood with its consequences.

NOTES ON A CASE OF TRAUMATIC EPILEPSY SUCCESSFULLY TREATED BY TREPHINING.¹

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Two years and a half ago I admitted A. T., a boy aged 16 years, into the Newcastle-upon-Tyne Infirmary, suffering from fits. He was a healthy looking and well nourished lad, but somewhat of a reserved disposition. It appears that until four months before I saw him he had never had a day's illness, and the history I got was as follows. On a certain day he joined some boys of his own age in the game of tug-of-war. When pulling with all their might, some of the boys suddenly let go; and, as a consequence, the patient fell violently upon the side of his head upon the ground. For a few moments he was stunned, but he soon regained consciousness without vomiting, and was able to go home apparently none the worse for the injury. For ten days he was quite well. One morning, after getting out of bed and whilst in the act of dressing himself, he had his first convulsive seizure. It was extremely sudden in its onset, without any prodromata, and was accompanied by unconsciousness. He was put to bed, and on regaining consciousness complained of pain in the right side of his head. From that day he suffered from several fits daily—each series more severe than the preceding—and followed by an alteration in his disposition; moroseness and sullenness replacing a character previously noticed for its liveliness.

His father is a healthy man, his mother, though the subject of mitral stenosis, enjoys good health; one sister, at the age of 9, suffered from fits which were regarded as epileptic, and which suddenly disappeared after a severe fall, which she had in her twelfth year, after the closure of an extensive scalp wound, the consequence of the fall.

When I saw him, his one complaint, in addition to the fits, was severe pain localised over the right temporal bone, over an area, an inch in diameter, located at a point almost midway between a line drawn from the outer angle of the right orbit to the ear, and about one inch and a half superior to it. He could not bear any pressure applied to this point. Before, and immediately after a fit, the pain over this small localised area was increased in severity, but no fit was ever induced by pressure made upon it. There was nothing to be seen or felt here, the skin was perfectly healthy, it had never been broken at the time of the fall. Whilst the fits were of a purely epileptic character, there are yet one or two points that call for attention. An aura was now felt before nearly all the fits, particularly those that became severe, and were accompanied by unconsciousness. He thought he saw a cat, the picture of which was still present in his mind, even after all his motor disturbance had subsided, and while yet in the transitional stage from coma to complete consciousness. It was noticed that in many of the severer fits the left arm and leg were much more convulsed than the right, and that as regards precedence, they were the first to be affected, the two sides of the face suffering equally. In addition, not only were the left arm and leg frequently the seat of marked paresis, which lasted for several days after the fit; but occasionally they were the subjects of choreiform movements over which he had no control, and which at times passed over to the right arm and leg, but were never of the same extensive range as on the left side where they originated. Frequently, after a severe fit, the stage of stupor was very protracted; for two or three days the patient would lie speechless and deaf, able to take liquid food when brought to him, but never asking for it. On regaining consciousness, and whilst yet deaf, he always at first made known his wants to us in writing. I had been told frequently by the nurses of the great difficulty which they had of keeping him in bed during and immediately after the fits, and happening to be in the wards one night when he was seized with

²² Cf. A. M. Brown, *A Treatise on the Animal Alkaloids*, 1887; also Sir W. Altker's little volume on the same subject.

²⁴ *Proc. Roy. Soc.*, xlii, 230-232.

²⁵ *Ibid.*, xl, 134-135.

²⁶ *Journ. Physiol.*, vii, 327-370.

²⁷ *Zeitschr. f. Klin. Med.*, x, 5 and 6.

²⁸ *Corr. Bl. f. Schweiz. Aerzte*, xvi, 16, 18, 1866.

²⁹ *Comp. Anat. Vertebrates*, Eng. Trans., p. 18.

³⁰ *Gelkie's Textbook of Geology*, p. 664, 2nd ed., 1885.

³¹ *Philos. Trans.*, Part I, 1886.

¹ Read in the Section of Medicine, at the Annual Meeting of the British Medical Association, held in Dublin, August, 1887.

a severe fit, I asked the nurses, after the excessive muscular movements had subsided, to leave him alone so as to see what he would do. Whilst thus unconscious, he made an effort to get out of bed, but in doing so he slightly fell towards his left. With a little difficulty he pulled himself together and began to walk down the ward. It was all he could do to keep on his feet, owing to the drooping and want of power in his left arm and leg, and yet whilst thus unable to move his left leg easily, he at once set off half running, the gait being extremely awkward, from the causes that I have mentioned. He suddenly stopped at the foot of one of the beds in the long ward, knelt down and scanned closely the whole of the floor under the bed. With a little difficulty he got on to his feet again, walked to the other end of the ward, to the table where the wash-hand basin and jug were kept, and attempted to raise the jug to his mouth; the accomplishment of which was prevented by the marked feebleness of the left as compared with the right hand. On coming to himself, though quite aware of having had a fit, he knew nothing of all that I have described. He told me, however, that he had seen a cat, the image of which had lasted a long time in his memory.

On ophthalmoscopic examination, beyond perhaps the slightest hyperæmia, the discs presented nothing unusual; the lungs and heart were healthy; urine was quite normal before, after, and during the intervals between the fits; knee-jerk was generally more marked on the left than on the right side; no ankle-clonus was present, but it was noticed that the push of the left foot and the grasp of the left hand were much enfeebled compared to the same on the opposite side of the body.

Painting with iodine, and blisters were applied locally, bromide and iodide of potassium, liq. hydrarg. bichlor., tinct. bellad. were tried alone and in combination, and in increasing doses without the least benefit.

Failing thus to relieve the patient, a general survey of the history and symptoms of the case—namely, a healthy lad meeting with an injury to his head, this followed in a fortnight by a convulsive seizure, recurrence of fits, now accompanied by unconsciousness, and associated with an excess of movement on the left as compared with the right side of the body, lingering left-sided paresis and choreiform movements, these attended by a localised painful spot on the right temporal bone, pain at which was said to be more severe just before or after a fit—led me to entertain the belief that the epileptic seizures were due to a localised irritation, possibly in the membranes lying upon the motor areas in the convolutions of the right side of the brain. The absence of any break in the skin dissipated any feeling that I might have had of fracture of the inner table of the skull. I suggested trephining as the only likely method of dealing successfully with the fits. My surgical colleagues saw the case with me, and agreed as to the advisability of the operation, recommending, however, the application of the trephine over the painful spot, rather than upon that part of the skull lying upon those portions of the brain now recognised as concerned with the initiation of the movements of the arms and legs—I mean the ascending frontal and parietal convolutions. The painful spot, as I have already mentioned, lay anterior and somewhat inferior to these two convolutions. The operation was performed by Dr. Hume, under antiseptic precautions. A piece of bone, the size of a shilling, was without difficulty removed. The bone was quite healthy, and was easily lifted from its bed, being in no way adherent to the underlying membranes. The dura mater was healthy, in no wise thickened. As the dura mater was healthy it was debated for a few seconds as to the advisability of opening it. By degrees, however, it was noticed that the dura mater was becoming tense, and shortly after this membrane was shot out through the opening beyond the level of the bone, the tension now being very great. Accordingly a crucial incision was made into it, and in a few seconds there escaped from the wound several teaspoonsful of serum, containing a few flakes of lymph. The arachnoid and pia mater seemed healthy, as did also the surface of the brain and the small blood vessels which lay upon it. A very small drainage-tube was inserted, the cut ends of the dura mater were drawn together with delicate catgut, the skin flaps were gently drawn together, a sponge applied, and the ordinary antiseptic dressings placed over all. That evening the dressings were found to be soaking, and on removal a few teaspoonsful of serous fluid were squeezed out of the sponge. More than two ounces of serous fluid escaped that day. The dressings were renewed, and never afterwards required to be changed on account of the escape of fluid. The patient had one or two minor fits on coming out of the

chloroform, and also for two or three days after the operation, but after this they became separated from each other by the interval of a day, then two days, a week, a fortnight, and so on, until no fit occurred during a period of six months. The wound had healed kindly and quickly, without even the least rise of temperature. The patient having long left the infirmary, feeling quite well, no longer having any localised pain in his head, followed for a time the occupation of a telegraph boy, but latterly became the cash boy in a confined counting house. Here he was much harassed by the push of business, the one monotonous call which was made upon him, and by the long hours spent in a wretched atmosphere, and the result was that after being free of fits for six months, he had again to be admitted into the infirmary, where he was placed under my care. The fits were now quite changed in character, the muscular movements were slight, and were never attended by loss of consciousness; the visual aura of the cat was no longer present. The fits were rather those of hysteria, and with rest in bed, iodide of potassium and iron, his general health soon improved, the fits disappeared, and for several months have ceased to trouble him.

Trephining, as a method of treating epilepsy, is only applicable to those cases where there is the history of an injury to the head followed by localising symptoms or by convulsions, either unilateral or more pronounced on one side of the body than the other, or where an injury to the head has been followed by a depressed fracture or separation of a portion of the inner table of the skull. Macewen, of Glasgow, has operated successfully on cases of epilepsy due to injury of bone, and in one case of Dr. Ralfe's—a patient who had been trephined for depressed fracture, and who years afterwards was found suffering from epilepsy—an absolute cure was only effected by the cicatrix due to the trephining operation being again opened up and allowing of the removal of a small portion of necrosed bone evidently belonging to the inner table. As soon as this was done the fits ceased. Gowers speaks of having seen or heard of 65 cases of epilepsy owning a traumatic cause, and of trephining as the only line of treatment likely to be successful, and that, be it remarked, as in my own case, where neither disease of bone, membrane, or surface of the brain was found at the time of the operation. Relief comes either from the operation acting as a strong counter-irritant lasting all through the period of healing, or from the reduction of tension consequent upon the escape of pent-up serum.

It is several months since this paper was written and read, but the last account that I had of this patient from his mother was that he was still keeping free from fits.

ON PUERPERAL APHASIA.¹

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APHASIA, as a complication of the puerperal condition, does not find a place in our classical treatises on midwifery, and the literature of the subject is so scant that, in the course of my reading, I have only met with one observation recorded in this country, although it has been made the subject of a most elaborate essay by a continental observer, to which I shall have occasion to refer after the detailing of my own case, which I desire to head as follows:

CASE OF LOSS OF SPEECH OCCURRING AS A PUERPERAL SYMPTOM; LACTEAL DERANGEMENT; RIGHT HEMIPLEGIA; FATAL TERMINATION.

On September 7th, 1886, I was requested to see, in consultation with Dr. Watson, of Norwich, Mrs. S., aged 23, who had given birth to her second child eight days previous to my visit. Upon inquiry I ascertained she had never been the subject of any cardiac or rheumatic affection, that she had never suffered from any nervous disorder, and, in fact, that she had always enjoyed good health during her single life, with the exception of a disposition to occasional headaches. Her mother was insane, and died in the Norwich City Asylum, but beyond this fact there was no neurotic tendency in the family.

She was delivered of her first child in July, 1885, and at the

¹ Read in the Section of Medicine at the Annual Meeting of the British Medical Association held at Dublin, August, 1887.

seventh month of her first pregnancy she had some obscure symptoms with some embarrassment of speech, which lasted about a month. Her first confinement passed off quite naturally, and she nursed her child for nine months, at first with both breasts, but in one breast (it is believed to have been the left) there was galactorrhœa for some weeks, and then the supply ceased entirely in this mamma.

Mrs. S. continued quite well till three months before her second confinement, when a gradual loss of power occurred in the right arm and leg, but principally in the arm. A month before her confinement embarrassment of speech was noticed, which culminated in complete aphasia six days after delivery, which was quite natural, and unattended by any straining or unusual effort; there was no hæmorrhage, and the lochia were quite natural. The total loss of speech was sudden, for on the evening of the fifth day, although her speech was embarrassed, she could converse and make herself understood; but on the morning of the sixth day it was observed that she was completely aphasic; there was no loss of consciousness, and her general appearance was as usual, the only difference being the total suspension of articulate language. This sudden exacerbation of her symptoms could be attributed to no apparent cause; she had not been exposed to any mental shock or disturbance of any kind, but a thunderstorm of very unusual severity occurred the evening before.

On the second day after her delivery there was a sudden turgescence of the breasts, with an unusual quantity of milk, the lacteal secretion being so abundant that, although the child sucked vigorously, the milk had to be removed artificially; the supply was equal on both sides. This lacteal overflow was but of short duration, for the next day the quantity diminished perceptibly, and on the fifth day the child had to be weaned because the supply was gone.

At my visit on the eighth day after parturition, I found her with right hemiplegia and aphasia, and I observed that she was unable to protrude the tongue. There was no pyrexia; the temperature was normal; the pulse was 74, and there was no cardiac trouble of any kind; there was no pain or swelling of the body, and no abdominal or pelvic complication whatever; there was, however, retention of urine, but nothing abnormal in the secretion itself.

Although unable to speak she evidently understood all that was said, and seemed annoyed, and became angry when too many questions were put to her, and to every question, whatever it might be, she invariably said, "The other day." I asked her how many children she had, she replied, "The other day." I asked her what she had taken for her breakfast, she replied, "The other day." She could say nothing else, and this recurring utterance, whether appropriate or not, she repeated on all occasions; it was a stock phrase, and, of course, had no intellectual value.

Without developing any fresh symptom Mrs. S. gradually became weaker, and sank from exhaustion six weeks after her confinement; and within an hour of her death, in answer to an inquiry as to how she felt, she replied, "The other day," which was the only phrase she had uttered since the commencement of her attack.

The above case is interesting from the association of aphasia with the puerperal condition. Hemiplegia is not an uncommon symptom connected with pregnancy and childbirth. Churchill has recorded twenty-two cases of paralysis during pregnancy collected by him from various sources, but although difficulty of articulation may have been noticed in some of these cases, it was simply due to paralysis of the tongue and the muscles which are concerned in the articulation of words, without any real disturbance of the faculty of language.

Aphasia as a complication directly connected with the puerperal condition seems to be rare, at all events, it has escaped the observation of the writers on obstetrics, for, amongst 8,000 cases of midwifery recorded by a French authority, M. Sirey, not a single instance of the coincidence of aphasia is mentioned. The only case that I have met with in my reading is one recorded by Dr. Leith Napier, the subject of which was a lady who, seventeen days after her confinement, on being subjected to considerable vexation, suddenly became speechless; this was followed in three days by partial paralysis, which culminated in complete hemiplegia two days later. Dr. Napier attributed the above symptoms to occlusion of the left middle cerebral artery from embolism. The patient slowly improved, and eventually recovered.

It is only quite recently that prominent attention has been called to the association of aphasia with the puerperal condition by a most interesting and exhaustive article by M. Poupon in

L'Encéphale for July, 1885, entitled "Des Aphasies Puerpérales," under which name he comprises the divers varieties of disturbance of speech which occur either during pregnancy or during the period of lactation, observing, however, that the occurrence of aphasia under the above condition is extremely rare, although he says that the traumatic and moral shock which recently delivered women may experience cannot but seriously influence the nervous system. This important communication is based upon a case observed by the author at La Charité, in the ward of Professor Laboulbène. The subject of it was a woman, aged 24, J. M., who, on the second day after a perfectly natural delivery, was seized with right hemiplegia and aphasia, her vocabulary (as in my own case) being limited to three or four words in answer to all questions, the expressions used being, "Eh bien," "Oui, oui," "Mais jamais." She was also the subject of word-blindness, but not of word-deafness.

This patient is described as having had an attack of articular rheumatism some years before, and as there was hypertrophy of the heart with mitral disease, the author makes the diagnosis of embolism of the left middle cerebral artery, due to a mitral constriction, upon which was superadded an endocarditis, caused by her puerperal condition; he explains the fact of the sudden occurrence of the symptoms of embolism on the third day, by the hypothesis that the embolus might have been nearly detached during the labour, but that a fresh effort was necessary to complete its separation, and as she was suddenly taken speechless whilst at a meal, he thinks the change from the recumbent to the sitting posture may have been sufficient to complete the detachment of the embolus. M. Poupon enters at considerable length into the pathology of the above case, and also gives a short analysis of others that have fallen under his notice, in two of which he says there was an evident relation between the lacteal secretion and the appearance of the aphasia; in one instance, however, the lacteal disturbance preceded the cerebral accidents, and in the other it followed them; in the latter case (which was one of exceptional interest, from the fact of the subject being left-handed, and the paralysis being on the left side) it is stated that from the moment the left hemiplegia and aphasia were observed, the lacteal secretion ceased in the right breast, whilst in the left (the paralysed side) it appeared to increase, and was much more abundant than usual. According to the statement of the patient, the temperature of the left or paralysed side, as well as that of the corresponding breast, was higher than on the right side; the perspiration was also much more copious on the left than on the right side.

In commenting upon this last observation, M. Poupon calls attention to the increase of the lacteal secretion, under the influence of the paralysis, and he considers the pathological condition was probably vasomotor paralysis of the breast, resulting in dilatation of the vessels, and a more abundant secretion of milk. He adds that women who have experienced a first attack of aphasia as a sequel of delivery should avoid a second pregnancy, and he quotes a case occurring in the practice of M. Gignoux, of Lyons, in which aphasia occurred in two consecutive pregnancies. It will be remembered that this was the case in the history of the lady who formed the subject of my own observation. We know but little of the effect of lacteal disturbance on the nervous system; and in a recent interesting discussion at the Obstetrical Society of London, Dr. Matthews Duncan commented upon the neglect of the scientific investigation of the process of lactation, and the deficiency of literature connected with this important department of practice.

On reviewing the symptoms manifested by the patient whose clinical history I have described, it will be noted that Mrs. S. never had any rheumatic affection, or cardiac complication of any kind; the labour was quite natural, and there was no feature in her condition to suggest the idea of septicæmia, or of blood dyscrasia. The only unusual symptom was anomalous lactation, for it will be remembered there was great turgescence of the mammae, and an excessive flow of milk—quite a galactorrhœa for twenty-four hours—and then a somewhat sudden disappearance of the secretion. From the comparative rarity of the association of loss of speech with the puerperal state, I hesitate to venture upon any decided opinion as to the pathology of the above case. The symptoms could scarcely be due to any merely transient cause, for they had existed in a modified form for three months before parturition, and became intensified a few days after labour; the absence of any cardiac lesion, and the gradual development of the nervous symptoms, would rather point to cerebral thrombosis than to embolism.

ON THE ETIOLOGY AND CURABILITY OF PHTHISIS.¹

By W. R. THOMAS, M.D., M.R.C.P.,

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PHTHISIS is one of the most prevalent diseases in Sheffield; one therefore has opportunities of treating it on a very large scale, especially in hospital practice. There are several factors which act conjointly in its production among the working classes, so that one cannot be surprised at its frequency.

Many of the men, and women too, have to assume a stooping position when at work, which does not permit of proper expansion of the lungs, and in this way predisposes to disease. They have to work in shops where a number of others are present, and where, consequently, from this cause alone, the air is the very reverse of pure. The workshops and works are situated in parts of the town where the atmosphere is very prejudicial to health during a great portion of the year; for it is moist, it holds in suspension a large quantity of dust, grit, soot, etc., which are inhaled, cause irritation, and are coughed up frequently during the day; and it also is, in fact, composed of different deleterious gases derived from various sources. The inhalation of such an atmosphere must necessarily be injurious to the internal surface of the lining membrane of the tubes and air cells of the lungs, with which it comes in contact.

Drinking to excess has, according to my experience, done its share of work in the production of this disease. Strong men in this way bring on a diseased state of liver and stomach. Such men, generally speaking, die of hepatic or renal diseases, or other diseases, as those of the nervous system; but, not infrequently, phthisis comes on and rapidly carries the patient off.

Amongst the poor, the habit of drinking tea is a very prevalent one. The women have tea with every meal. This is a pernicious habit, which does an infinite amount of harm; the tea being an astringent, and almost constantly present in the stomach, acts upon its glands and mucous membrane; the secretions become depraved; imperfect and often painful digestion follows as a matter of course; anemia is the result, with general malnutrition, and phthisis. These poor persons drink tea because they cannot afford better food often, and think that they are taking nutritious food, little knowing that they are taking a remedy which is so injurious to the gastric mucous membrane, and ultimately destroys the appetite.

I consider that many cases of phthisis may be traced in a great measure to improper clothing. In winter all persons should wear woollen clothing next to the skin, and in summer the same custom should prevail, but the material should be much thinner, and this should extend from neck to toe. I have seen working men in the third stage of phthisis glorying in the fact that they have never worn any warmer clothing than cotton shirts. Ladies, as a rule, do not wear sufficient clothing. Their undervests, bodices, and other underclothing hardly extend high enough to cover the upper part of the chest. The lower classes are very careless, especially when suckling; you frequently see the chest uncovered more or less for hours. I often find delicate ladies who ought to be warmly clad—much more so than I am—going about in the middle of the winter with no close covering to the lower extremities but a pair of loose linen drawers and stockings. The outer loose clothing in the shape of dress, etc., gives comparatively little warmth. Such ladies, in my opinion, should always wear flannel or woollen clothes closely applied to the skin. Children we see daily, delicate little things, running about with hardly any covering to their lower extremities, nothing but short dresses and petticoats hardly reaching their knees, and thin linen drawers, and yet the parents wonder how they catch cold. Improper and insufficient clothing is a very great factor in the production of phthisis. Want of exercise has much to do with its causation. I find that it is a difficult matter to persuade patients, especially ladies, to take outdoor exercise. They will go out shopping, and they will undergo severe exertion for hours in a ball-room, but will not walk into the country. I believe that much of the benefit derived from residence at some of the places recommended for resort is often owing to

the patient taking plenty of exercise, tempted to do so because the weather permits of it, and the cares of home do not detain within doors. I have after much persuasion often succeeded in getting my patients to take exercise when at home, and have always been well satisfied with the result. By such treatment the appetite has been improved, digestion has been rendered less difficult, and owing to the increased circulation through the lungs healthy changes have taken place. I have always endeavoured to prevent the patient from remaining all along within doors, closely confined to one room perhaps, with medicine bottles on the table, by their side, moping and thinking of their ailments; and I think that we might much more frequently make use of the places of resort in our own country, in England, in Scotland, in Ireland, and Wales, at different periods of the year, than we do, instead of sending them away out of reach of relatives and friends.

In no disease is hereditary predisposition more evident than in this. I have simply in this short paper mentioned a few of the most ordinary causes that I have met with, most of them preventable.

Although, as I have shown, there are so many factors which assist in giving rise to phthisis, still I have been astonished at the number of cases which recover. Fully seven-eighths of those I have had under my care have received decided relief—many would say been cured. The patients have gained flesh, a most important sign; the cough has disappeared; there has been entire absence of expectoration; the appetite has been good, and they have been able to attend to their ordinary duties. Many of them I have watched for years, and have had to treat for other complaints. Many—I may say the majority—I have lost sight of after a time.

Certain physical signs generally more or less remain, as no doubt the lungs have been permanently injured; but I have frequently seen all the physical signs met with in the first stage entirely disappear; those indicative of the second stage recovered in a great measure, and vomicae closed by agglutination of their walls, I presume, leaving no physical sign whatever indicative of a cavity, but of other changes having taken place which have been permanent and harmless.

With regard to the treatment of such cases, I have found no local application to the lung in the first or second stages answer much better to begin with than a small blister, say 2 by 2 inches, applied to the infra-clavicular region, or wherever the necessity seems to be. I believe I have seen in some hundreds of cases the cough relieved, the local signs disappear, and the general symptoms much alleviated by such local treatment. Of course it is very difficult to judge, when general treatment is adopted as well, whether improvement should be attributed to this one application; but still I have often adopted a similar general treatment in other cases without as beneficial a result, and, at the same time, in many cases done but little else than apply this local irritant for a time, and yet seen good results ensue.

I have tried the inhalation treatment pretty extensively, have used many of the inhalers generally recommended, and have had patients placed in a room containing a medicated atmosphere. Many patients have stated that they have derived much benefit from such treatment, that the cough has been ameliorated and the quantity of expectoration diminished by it. Others, again, and I believe the majority, although they have been pleased with the treatment at first, have at length given it up, finding that they have not derived the slightest benefit from it. I believe that in many cases it does diminish the amount of expectoration, and feel sure that it makes the expectoration and breath when offensive less so, and I trust that, as our knowledge increases, treatment by inhalation will be productive of more good every year.

I have reason to be well satisfied with the success of my treatment of the cases of phthisis which I have to take charge of, and consider that that success has been dependent not upon any special mode of treatment adopted. I believe every case ought to be specially studied. The medical gentleman who gives cod-liver oil, a tonic mixture and a linctus to every patient, will not be successful as a rule in his treatment. As I said before, about seven-eighths of my patients have practically recovered. In all these cases I have first of all endeavoured to remove the cause, if found. The patient who had lived in an impure atmosphere has been removed from it. A constrained position when at work has been avoided. The working in a close room has been prevented if possible. The habit of taking alcohol or tea to excess has been put a stop to. Daily exercise has been recommended whenever the weather has permitted of it, and good nourishing diet recom-

¹ Read in the Section of Medicine at the Annual Meeting of the British Medical Association, held in Dublin, August, 1887.

mented to be taken at regular hours. A blister has been applied to the chest, and certain medical treatment, as indicated by the symptoms, adopted, and under the influence of this treatment the patient has frequently got well. Quinine I have found to be one of the most useful remedies; it improves the appetite, it tends to check the nocturnal perspirations, and acts as a general tonic; but many patients cannot take quinine, especially those who suffer from gastric derangements, which have to be specially treated before it is administered. Iron in some form or other is indicated at some time. The perchloride I hardly ever prescribe, as it destroys the teeth in time, however careful the patient may be. I prefer the syrup of the phosphates, the citrate of iron and quinine, or of ammonia and iron, or dialysed iron.

I think in the present day there is a great tendency to ride hobbies. One gentleman does little else except recommend the use of certain inhalers, another prescribes a particular remedy. I believe that the physician who is most likely to cure his patient is the one who, having satisfied his mind as to the exact condition of his patient, does his utmost to find out what has brought on the complaint, and having found out the cause, is firm, and if possible compels his patient to avoid it. By avoiding the cause of a disease much is done toward the cure. We should always keep in mind that great benefit is frequently derived from the great altitude treatment of phthisis in suitable cases, as by such treatment the patient is supplied with air pure and rarefied, and receives many other benefits. Sea voyages are also beneficial in certain cases, but at present I am not dilating on these two modes of treatment, but am endeavouring to prove that the physician who makes good use of the knowledge which we already possess of the treatment of phthisis may feel pretty confident of success in the majority of cases, even without sending any away from our own country. Meanwhile, whilst utilising this knowledge, we should watch with care the discoveries which are constantly being made by our friends the bacteriologists and others, and earnestly hope that some day a method will be found by which this disease may be stamped out, as small-pox can be now, and thus the lives of thousands may be saved.

THE ELECTRIC ILLUMINATION OF THE MALE BLADDER BY MEANS OF THE NEW INCANDESCENT-LAMP CYSTOSCOPE.

By E. HURRY FENWICK, F.R.C.S.

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From the very commencement of the century, endoscopy has attracted the attention and the efforts of the medical profession. Since Barrini, of Frankfurt, introduced his "light conductor" in 1805, various instruments have been invented for examining the interior of the bladder and urethra. Practically, however, the attempts have hitherto proved unsatisfactory, for all endoscopes have failed from insufficiency of illuminating power. Twenty-five years ago Bruck, of Breslau, a dentist, conceived the brilliant idea of utilising a loop of platinum wire, maintained at a white heat by means of a galvanic battery, as the source of light. The conception was carried out, and a monograph written upon it. The instrument was tried at the Vienna Hospital, but proving a failure, it was discarded, and the attempt forgotten. In 1877 Dr. Nitze grappled with the same problem, and Leiter, the well-known instrument maker of Vienna, was entrusted with its solution. After ten months of expensive and indefatigable labour, Leiter constructed an electric endoscope, by means of which the bladder could be effectively examined.¹ The instrument was, however, encumbered by the necessary apparatus for conveying currents of cold water around the endoscope to prevent overheating. It was hampered by a large Bunsen battery and rheostat, and it was, furthermore, complicated, costly, and capricious. On the introduction of the incandescent lamp, Dr. Nitze and Mr. Leiter proceeded to work independently of each other, and the result has been, in each case, the production of endoscopes simplified by the employment of the smallest Swan or Edison lamp ("mignon" lamp) as the illuminating power. These

instruments were finished in 1887, and were brought by their respective makers before the German Surgical Congress at Berlin.² Having used both varieties upon a series of normal and pathological bladders, I have brought them here this evening to show how simple, safe, and successful these cystoscopes are as compared with their progenitors of 1862 and 1879-1880. Moreover, as they have not as yet, I believe, attracted the attention of the profession in England, I venture to describe their construction, to demonstrate their capabilities and defects, to lay down a few rules for their use, and to critically compare the merits of each.

The Construction.—The three essentials of the construction of both varieties of the electric cystoscope (Nitze's or Leiter's) are practically identical: 1, a catheter (Fig. 1 A K) of No. 22 gauge (French) in size, with a sharp elbow; 2, a terminally placed incandescent lamp (Fig. 1 L); 3, a window (Fig. 1 P or F), closed by a prism, placed near the bend of the elbow to refract the entering rays, so that they pass along the tube (Fig. 1 T) to the observer's eye.

These points are worthy of a detailed description.

1. In Leiter's cystoscope the catheter is built up of two insulated metal tubes slipped one inside the other. The inner ("telescope") tube (Fig. 1 T) terminates abruptly at the prism P. Both tubes serve as the conductors of the current between the battery and the incandescent lamp.

2. The smallest incandescent lamp ("mignon" lamp) (Fig. 2 L) occupies the end or tip of the cystoscope. It is enclosed in a screwed-on silver hood (Fig. 2 a), which has on one side an elliptical aperture (Fig. 2 CF) fitted with a plate of rock crystal for the transit of the rays of light. But here notable and important differences exist in the two varieties: (a) in Leiter's cystoscope (Fig. 2) the carbon filament burns within its small glass globe, and is protected moreover by the windowed hood (Fig. 2 a). In Nitze's instrument the carbon filament burns within the hood and lacks a globe; (b) the lamp which Leiter uses is a removable and a cheap globe (three shillings) (Fig. 2), which, if it is burnt through, can be replaced in a minute by another, by merely unscrewing the hood. But the lamp which Nitze employs is an integral part of the instrument, being permanently enclosed in the end or tip. If, then, the filament be burnt through, the entire cap must be unscrewed and be sent back to the maker for repair, at an outlay of ten shillings; (c) moreover, in Leiter's lamp the filament is longer, and gives a brighter and larger source of light; (d) the elliptical window (Fig. 2 CF) is larger and affords a greater egress to the light.

3. The window (Fig. 1, P or F) in the bend of the elbow has an arrangement of reflectors and a prism.

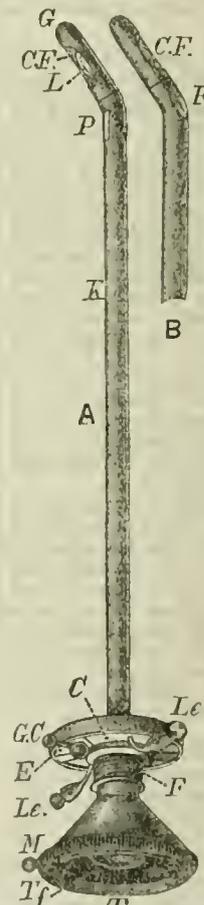


Fig. 1.—The two forms of Leiter's electric cystoscopes, A and B.

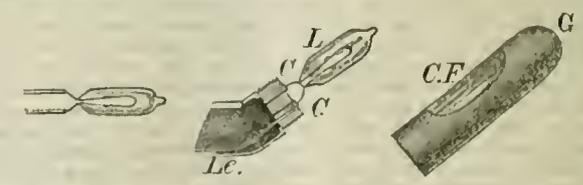


Fig. 2.—Shows (1) the lamp; (2) the lamp (L) adjusted; and (3) the silver hood (a) for the lamp (in Leiter's cystoscope).

4. Each instrument possesses a "key" or "kick-over" (Fig. 1 GC) for turning on or off the current.

5. A small portable four to six-celled battery with carbon-zinc

¹ Abstract of a demonstration of the instruments before the Medical Society, January 23rd, 1886.
² *Wiener Med. Presse*, 1879, No. 27.

³ Dr. Nitze, *Verhandlungen der Deutschen Gesellsch. für Chirurgie*, Congress, xvi, 1887, p. 177; Dr. Breßner (for Leiter), p. 89, *ibid.*

plates and chrom-sulphuric acid, supplies a current of four to six volts intensity.

This is the construction of the electric cystoscope which will prove most often of use, but another form (Fig. 1 B) is made, both by Nitze and Leiter, for examining the posterior upper wall of the bladder. In this, both the light and the window are placed upon the convexity of the bend, and not in the concavity.

Certain objections might reasonably be made to the use of the cystoscope.

1. *Breakage of the Lamp.*—It might be supposed that the mere contact of the urine with the lamp would crack the glass. Such an accident as that would be fatal to the use of the instrument; but happily it is rendered impossible by the closure of the aperture in the hood by means of a plate of rock crystal 2 millimetres thick. These lamps have burnt for thirty hours under water without a flaw. I have tested these plates with over-anxious roughness, and have only succeeded in cracking one by forcible finger and thumb pressure. Such violence could never be encountered in the bladder.

2. *Burning of the Mucous Membrane.*—The cap or hood, with its contained lamp, becomes very hot if exposed to the air; but when it is under water the heat is rapidly absorbed and the cap remains quite cool. This is exactly what happens in the bladder, for the urine carries off the heat of the lamp as fast as it is formed. When I first began to use the instrument my patients complained of a subsequent burning sensation, which I attributed correctly to awkward manipulation of the end, in keeping the lamp resting on or pressed against the bladder wall. "They may be burnt for an hour in a male bladder, holding 7 ounces of fluid, without perceptibly raising the general temperature" (Brenner).

Capabilities.—By means of the electric cystoscope every part of the vesical wall can be examined in as brilliantly illuminated a condition as if it were viewed in direct sunlight. Figs. 3 and 4 show the light thrown upon the floor and anterior wall of the bladder, and represent fairly well the direction of the rays emitted from the end of the instrument.⁴

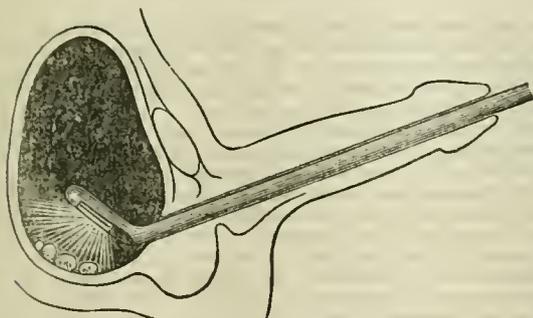


Fig. 3.

As an example of the power of the light, I quote from my notes of a case of right renal hæmaturia which I examined with the cystoscope. "The trigone and base of the bladder appear of

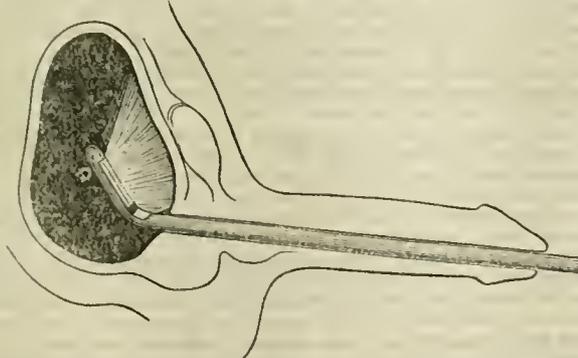


Fig. 4.

⁴ From Leiter's catalogue, as are the other diagrams. In Figs. 3 and 4 the black area is incorrect; it is introduced for the sake of contrast. The entire bladder is lighted up more or less.

straw or sandy colour; and not, as one would suppose, of a rosy or reddish hue. The slit-like orifices of the ureters are clearly visible, and a drop of blood would be apparent if it were entering the bladder. Here and there, this sandy-shore-like surface is relieved by a maroon coloured vessel which courses arborescently across the field; the entire picture reminds one of the optic disc.

A fair number of cases are already recorded in the literature of electric cystoscopy. Dittel has examined cases of chronic cystitis. Finger has investigated gonorrhœal cystitis. Foreign bodies, stones, vesical tumours (16 cases); diverticula, and other obscure vesical diseases, have been discovered by its means, and subsequently verified by operation; but this is not the place either to discuss or add to these results.

What advance has the cystoscope of 1887 made upon that of 1880?

1. The water-cooling apparatus is dispensed with.
2. The cumbersome Bunsen battery is replaced by a small plunge battery of four cells.
3. Little accumulators which slip into the pocket may be used (these are not always reliable).
4. The instrument is one-third cheaper.
5. It is not complicated, and requires no special knowledge for its manipulation.

What are the deficiencies of the electric cystoscope?

1. It cannot be used in irregularly enlarged or carcinomatous prostatic cases.
2. It is difficult to work in contracted bladders.
3. Hæmaturial urine causes a red fog to appear around the light and obscures everything.
4. Stricture of the urethra arrests its introduction until dilatation has been effected.

Rules and Directions for the use of the Cystoscope.—Place the patient on his back with his legs bare. Cocainise the urethra and bladder, or anaesthetise the patient. Make certain that the bladder contains at least six fluid ounces of clear urine; a greater quantity is better. If the urine be bloody, wash out the bladder, and substitute clear water for the murky medium. Regulate the light of the lamp so as not to fuse the filament with an unnecessarily strong current. Do not start the light until the lamp and elbow are well within the bladder. Let the manipulation be gentle and purposive. Do not keep the cap in contact with the wall. Let the instrument remain for half a minute after the current has been shut off, in order to cool the hood completely before you withdraw.

That the cystoscope of either maker will become rapidly popular, and be largely employed in the diagnosis of urinary diseases, may be argued from the simplicity, safety, and success of the instrument; but it is indeed difficult to predict accurately its future rank. It will obviously replace the large collection of instruments or procedures which attempt the diagnosis of the source of hæmaturia and pyuria; for the ureteral orifices are clearly exposed to view. Its use will tend to limit the size and number of vesical papillomata by enabling us to detect and remove these and other growths in their very infancy. It will, moreover, afford us a clearer insight into the physiological and pathological conditions of the vesical mucous membrane, and allow us to control our clinical observations and speculations by direct visual research.

In conclusion, I can only regret that the conception and embodiment of this brilliant innovation emanate from our Austrian confrères, rather than from an English source. I must gratefully acknowledge the kindness of Mr. Leiter, and his agent in London, Mr. Sehall, of Wigmore Street, for their prompt and courteous assistance.

The Annual Report of the Imperial Navy of Japan, compiled by Takaki Kanehiro, F.R.C.S. Eng., the Director-General of the Sanitary Bureau of the Navy Department, shows that the authorities have learned to appreciate the economy and the value of sanitation. A large proportion of the navy effective suffered, until very recently, from kak'ke, due, it is believed, to the bad quality of the food supply. Since improvements have been introduced into the commissariat department, cases of sickness among the sailors have decreased to the extent of 1.37 per 1,000 men—a very considerable saving, amounting in the aggregate to a daily average strength of 708 men, and an economy of 73 lives. Some very elaborate tables are given of the diseases and of the results of treatment, some of which bear favourable comparison with our own.

HYDRONEPHROSIS: NEPHRECTOMY: DEATH FROM ACUTE PERITONITIS AT THE EXPIRATION OF THREE MONTHS.

By R. H. A. HUNTER, M.R.C.S., etc.,
Battersea.

F. J., aged 24, height 5 feet 11 inches, weight 13 stone, a clerk, was seized with a pain in his left loin in May, 1885, when rowing on the river. The pain continued, and in February, 1886, he first discovered a swelling on his left side. Thereupon he went into hospital, and he remained four days, when, after a brisk aperient, the swelling disappeared, although the pain continued. In November, 1886, the tumour returned, and again disappeared at the expiration of ten days under laxative treatment. From that time until the last illness he suffered slight attacks. In August, 1887, the enlargement reappeared, and continued to increase in spite of treatment, until, at his urgent request, I decided to endeavour by operation to remove the disease entirely.

On September 27th, 1887, the date of operation, the following was the condition of the patient. Occupying the whole of his left side was a fluctuating tumour, which extended two inches across the middle line; below, its lower border was sharply defined in the pelvis; above, it extended under the ribs; behind, as far as the spine. The whole of this space was dull on percussion, with the exception of a small part just below the spleen. Along the outer surface of the cyst, and extending from above downwards perpendicularly, was an elevated ridge, which I diagnosed as colon. His urine was normal, and other organs healthy.

Having placed a stout pillow under the patient's loins and administered chloroform, I performed the operation as follows. I made an incision four inches in length along the outer border of the left rectus muscle down to the peritoneum. After securing all bleeding points, this membrane was opened to the same extent as my incision. Upon introducing my finger the ridge proved to be colon, which was firmly adherent to the cyst wall. In order to reach it safely, I was obliged to make another incision three inches long from the centre of the first and at right angles to it outwards into the loin. Having carefully separated the gut and drawn it inwards (in doing which I was compelled to leave a large portion of the peritoneum attached to the cyst), I tapped and drew off about five pints of fluid. Finding that inflammatory adhesions were the cause of the obstruction, I proceeded to remove the kidney. This was done by enucleating it from its capsule, the tissue surrounding it being so dense. When the kidney was brought to the surface I secured the pedicle in two parts with a double silk curbolised ligature, passing another around all, and dividing it with scissors, leaving a small portion of the gland attached. After tying the ureter with a couple of ligatures, I divided it between them. With much difficulty the cyst was freed from its attachments, and, when secured by a double ligature passed close up to the pedicle, was removed. The separation of the cyst proved the most troublesome part of the operation, several vessels requiring to be tied. The cavity was then well washed out with pints of warm water and sponged dry, the pillow under the loin preventing any fluid entering the general peritoneal cavity. The external wound was then carefully closed with silk sutures, and dressed with gauze strapping, gauze bandage, and daniel roller; and the patient placed in bed.

For the first few hours he suffered a great deal from shock, but gradually rallied under the administration of enemata of beef tea, brandy, and opium. During the night he slept well, and suffered but little from sickness, at the same time passing water freely. From this time to the seventh day, when I removed the stitches, he appeared and said he felt better than he had done for months. When the stitches were removed the wound was well united, with the exception of a small part of either extremity of the transverse incision, the intervening portion of the superficial tissues afterwards sloughing and leaving the obstinate ulcer, which had not healed when the fatal event occurred. With this exception all went well until the evening of the tenth day, when, for the first time, the temperature rose to 100° F., pulse 88. On the thirteenth day the temperature was 101°; fourteenth day, 102°; fifteenth, 103°; yet I was unable to detect fluctuation. During the next five days, the temperature 101° was the highest point reached. On the night of the twenty-first day about two ounces of sanious pus

burst through the lower extremity of the incision in the loin. A large drainage-tube was then passed through the opening and out through the back. With the finger in the abscess cavity, while introducing the tube, the examination proved that the general cavity of the peritoneum was firmly closed. During the first few weeks this cavity was syringed out three times daily with carbolic water, afterwards with a solution of iodine, and occasionally with sulphate of zinc lotion. Pus continued to drain away daily to the extent of an ounce and a half. On November 25th the patient was allowed to get up for the first time, wearing a Martin's elastic bandage over the dressing. On December 16th symptoms of pneumonia of the lower lobe of the left lung set in, and, as the sinus still continued to discharge, I laid it open on the 18th. The same evening peritonitis set in, which proved fatal on the 23rd, or three months and three days from the date of operation.

I should remark that, although tapping is the usual treatment recommended in such cases, in this it would have proved unsatisfactory, for the reason that my patient was in constant pain from the commencement of his illness, which, to use his own expression, "made his life a misery." The only position in which he was at all free from pain was on his back. He was also more or less an invalid during the whole time, which necessitated his resigning more than one situation. Again, tapping at most would have only given temporary relief, as the cause of obstruction was permanent; and although, after much suffering and loss of time, the whole kidney tissue might have been absorbed, he strongly objected to the delay, preferring the risks of operation.

In reporting this case I wish to thank Dr. Barkwell and Dr. Grigor, local practitioners, for the invaluable assistance rendered during and after the operation.

TREATMENT OF ALCOHOLISM BY NUX VOMICA.

By C. ROBERTS, F.R.C.S.

It is very remarkable, seeing how quickly new methods of treatment are adopted in these days, that so little attention has been directed in this country to the treatment of conditions of the body due to the excessive use of wine, spirits, and beer, by nux vomica and its preparations, as advocated for some time past by certain Italian, French, and Russian physicians, and incidentally referred to in a note in the *JOURNAL* for January 14th. When I was a student, cases of delirium tremens were treated in the surgical wards, and as a dresser I assisted the late Mr. C. Hunter—then house-surgeon—in his original experiments of treating this class of cases by the subcutaneous injection of morphia—a kind of treatment which first led to the use of subcutaneous therapeutics, and which made all the forms of alcoholism of special interest to me. The treatment of the common forms of drunkenness by nux vomica is not by any means new. Many years ago a medical friend used to treat such cases by full doses of the tincture of nux vomica combined with rhubarb, soda, and full doses of carbonate of ammonia with great success, and I have been equally satisfied with the results of the nux vomica in combination with alkaline solutions of bismuth, hydrocyanic acid, and carbonate of ammonia for the more acute cases, and of the acid solutions of strychnine with iron and quinine in chronic ones. I do not believe, however, with Drs. Popoff, Tolvinski, and Professor Manassein, that strychnine is an antidote to alcohol in the ordinary meaning of the word, and I have been very much disappointed in the few cases in which I have tried the subcutaneous injection of strychnine, as recommended by the Russian physicians. Indeed, I think it is a great error to speak of the various conditions of the digestive and nervous systems resulting from the excessive or injudicious use of alcohol as a specific disease, as they are similar to those which result from the excessive use of other foods, nervous excitement, and mental and physical excesses of all kinds. The setting apart of the treatment of these diseases as a speciality is one of the greatest evils of the prevailing evil of specialisms, as is obvious by the nonsense which is talked by such specialists as to the hereditary character of the disease, and the incurability of some cases. At present we have no evidence that acquired habits are transmissible from parent to child, and moreover there are no definite and uniform lesions resulting from the use of alcohol to be transmitted, if such transmission were possible. That the child of a drunken mother should have feeble health is likely enough, as its nutrition has been inter-

ferred with; and that the children of intemperate parents should acquire their habits from imitation and the facilities for falling into them is likely enough also. But this is not heredity, even in the very loosest way in which the word is used by medical men.

As to the incurability of drinking habits and the disease they engender, they are, I think, just as curable and as incurable as rheumatism or gout, diabetes or Bright's disease, or the hundred and one forms of the diseases of the digestive system. The real difficulty in the treatment of alcoholisms arises from the theory that they are of a specific nature, and require specific remedies, and the forgetting, or perhaps I ought to say the ignorance, of the long time the intemperate habits have been going on before they come under the notice of the medical man, and the obstinacy of the patient and his friends in acknowledging their true beginnings. Chronic diseases require chronic treatment; and nervous sensations of a periodic nature, the result of long habits, cannot be cut short by the sudden removal of the stimulus which caused them. They can only be surely eradicated by the substitution of other and better habits; hence the advantage in the treatment of habits of intemperance of all kinds by travelling and intellectual pursuits, and the removal of the patient from all former associations. As a confirmed disease, alcoholism is, I think, more nearly related to gout than any other constitutional condition, and in its more chronic states it is most successfully treated by iodide of potassium and bark.

THERAPEUTIC MEMORANDA.

IDIOSYNCRASY WITH REGARD TO ANTIPYRIN:

A WARNING.

A MEMBER of my family liable to migraine was attacked in the ordinary way a few days ago, and I administered for the first time a dose of 5 grains of antipyrin in powder, with the following curious result: Five minutes after taking it, the "deadly sickness" which was previously present seemed to give way, and an "expanding sensation" was felt, rising from the stomach upwards. Almost immediately she sneezed violently for about twenty times running without pause. The face and eyes became deeply suffused; tears began to flow; quantities of mucus flowed from the nose; the breathing became hard and laboured, accompanied by a feeling of suffocation; there was complete inability to lie down. A violent cough shortly came on, and large quantities of mucus were expectorated; at the same time there was very profuse sweating.

After these phenomena had lasted for about half an hour, intense itching was felt on the insides of both thighs, and on examination there was found a thick outcrop of urticaria, which soon extended on to the abdomen. There was also a strong coppery taste in the mouth—not continuing, but coming on in violent bouts—and an equally strong smell of the same metallic nature, also intermittent. There was loud singing in the ears, which felt intensely congested. The pulse was quick and very full.

After the symptoms had lasted about three-quarters of an hour from the commencement, they gradually disappeared, some tightness of the chest and running at the nose remaining for four or five hours longer. The sickness accompanying the migraine disappeared completely as soon as the drug had begun to work; the headache also disappeared for a time, but came back slightly about four hours afterwards.

As antipyrin is now being so largely prescribed, I thought the above account might be of use to the readers of the JOURNAL, as showing the necessity for caution when prescribing it for a patient who has not previously taken it.

Nice.

W. ALLEN STURGE, M.D.

GENERAL SYMPTOMS SOMETIMES PRODUCED BY NASAL SPRAYS OF COCAINE.

IN applying sprays of a 4 per cent. solution of cocaine to the nasal cavities, I have not infrequently noticed an accelerated action of the heart as an almost immediate result. I have thus noted a pulse which, prior to the application, was beating at the rate of 86 pulsations to the minute, increase to 110 pulsations in five minutes, after spraying into the nose 30 minims of a 4 per cent. solution, while its volume and strength were for the time increased. This amount

would represent a little over 1 grain of cocaine; but, allowing for a certain amount of waste resulting from the dripping from the nostrils, less than 1 grain probably would have been absorbed. This increased activity of the circulation was attended by a very appreciable sense of exhilaration of spirits associated with a feeling of increased vigour and capacity for mental effort. Cocaine applied in this manner, in the quantity I have mentioned, has had the effect of distinctly rousing the individual; and I have seen the same results in more moderate degree from smaller amounts. Indeed, I have met with rarer instances, where repeated spraying of 10 minims of a 4 per cent. solution to allay nasal irritation has resulted in insomnia, and sometimes in active restlessness lasting for several hours. So far as I have seen, all these effects have been generally quite transient, though a moderate sense of stimulation may persist for an hour or two.

In using stronger solutions I have on two occasions seen their application followed by vertigo and threatened syncope. A gentleman, in whose nose I applied a 20 per cent. solution upon a plug of cotton wool, and also in spray, prior to removing a polypus, complained of vertigo, nausea, and faintness. These symptoms subsided quickly, after he had rested a few minutes on the couch, and he was well enough to undergo the operation before the local anæsthetic effect of the cocaine had passed off. I saw similar effects in a lady after the application of 10 per cent. solution followed by a spray of the same strength. Although I have constantly made these applications of cocaine prior to operations in the nose and as a local sedative, these are the only two cases I have to record where depressing effects have resulted. It has been more especially after using a spray, by which the solution is forced high up in the nasal fossæ, and is more widely diffused, that I have noted the exhilarating effects that I have referred to. From experiments made on myself I have found that the stage of exhilaration, when induced, is of comparatively short duration, but if, after the first effect has subsided, the spray be repeated once or twice in the course of an hour or two, these further applications may be followed by somewhat more rapid action of the heart, producing more or less disagreeable palpitation, while the sense of buoyancy is apt to be less than at first, though some nervous excitement may still remain.

Notwithstanding these experiences, I should say, after long trial, that limited applications of strong solutions of cocaine in the nose as a local anæsthetic do not, unless very exceptionally, produce general symptoms. Spray solutions of a strength not exceeding even 4 per cent. are more liable to do so, and should not, as a rule, be applied in greater quantity than ten minims, especially if used by the patient as a topical remedy in acute nasal catarrh; and then this application should not be often repeated. With such restrictions all risk of harm would be avoided. It is easy to foresee, however, that an agent which can exert the primary stimulating effects, which it has been found to do, would appeal to some; and that the unrestrained habit of resorting to nasal sprays of cocaine by patients may lead to deleterious results.

W. MCNEILL WHISTLER, M.D.

Physician to the London Throat Hospital.

FORENSIC MEMORANDA.

SUICIDE BY HANGING: A CASE IN WHICH THE SUICIDE SECURED HIS OWN HANDS.

A FEW days ago I received a warrant to examine the body of a young adult negro, which had been found hanging in the woods not far from his dwelling. The spot chosen by the deceased was a romantic one, at the mouth of a shallow limestone cave, from whose roof numerous stalactitic masses hung. The overhanging ledge at the cave's mouth was topped by thick, heavy vegetation, from which numerous cordlike withes hung dangling; some of these the man had used for his purpose. These cordlike suckers, sent down so profusely by parasitic plants and others in the tropics, will be familiar to all acquainted with tropical vegetation. A strong coffee-shrub, capable of sustaining a man's weight, stood some few feet off from the mouth of the cave. I found the body lying upon the ground, fully clothed. When just discovered, it was still hanging, but the withes sustaining it gave way a little later of their own accord. A slip knot, made with three of the depending withes, intertwined into a naturally-formed rope, tightly encircled the neck, the loop of the slip knot being under the right ear. The hands were fastened down to the sides and

slightly behind by a piece of short withe, which bore a loop at each end, and through these loops the hands had been passed up to the wrists. The straight piece of withe connecting the two loops passed behind the body, and was about a foot in length. The loops and straight connecting piece were made out of a single piece of strong withe. On trial, the loops were found to pass over the hands quite readily.

A probable interpretation of the sequence of events in this un-witnessed tragedy would seem to be that the deceased first made the loop arrangement for his wrists and placed it within reach. Thereafter he seems to have climbed into the coffee-shrub, mentioned above as standing at the entrance to the cave, and whose bark, chafed and dirt-stained at the forks, and newly broken twigs showed it to have been recently occupied. From this tree it was possible to make the slip knot for the neck from the dependent withes. This being made, and its noose arranged around his neck, he must have slipped his hands within the loop arrangement for the wrists, and have gradually eased himself clear of the tree; this last of necessity, as the withes were not strong enough to have stood the strain of a sudden jerk.

Hard by, in evidence of a previous and unsuccessful attempt, lay another cord of withes. Its upper end, attached to one of the stalactites above, had broken off short by the roof; its lower end lay below, abandoned; and inside it there was another arrangement of loops for the wrists, precisely similar to that found upon the body. A boulder standing beneath the stalactite had served as a platform and enabled him to reach it.

With the exception of the bruising at the neck, the body bore no trace of injury or of struggle. The clothes were not disordered. Dissection showed the appearances usually seen in death from asphyxia. There was also a diseased condition of the aortic valves. The heart troubles had given much pain, and had rendered him unfit for work. He seems often to have suffered acute distress at night-time. He had recently lost his wife, and this, with his bodily suffering, seems to have driven him to an act planned with much forethought and carried out with singular determination. He left his hut at some time during the night, a bright moonlight one; and it was only at daybreak that his nurse, an old negress, upon awakening, missed him and gave the alarm.

R. FRANK RAND, M.B. Edin., F.R.C.S. Eng.

Moncague, Jamaica.

OPHTHALMOLOGICAL MEMORANDA.

OPHTHALMIA NEONATORUM: TREATMENT BY ALCOHOL AND CORROSIVE SUBLIMATE.

I PUBLISH this plan of treating ophthalmia neonatorum in the hope that members of the profession will at least try what I hope may prove to be a distinct advance in the treatment of this very unpleasant affection.

Evert the lids to the back fold; dry them with a soft piece of clean rag; wash them freely with ethylic alcohol—a soft camel-hair brush; and flood with 1 to 2,000 of corrosive sublimate watery solution.

The reason for the treatment is; Roux demonstrates that pure alcohol removes all loose gonococci. Pure alcohol has an extraordinary affinity for water, so that it displaces the watery fluid of the lid by alcohol making it intensely hygroscopic. The alcohol is in turn displaced by solution of corrosive sublimate, so that every possible nook and cranny is searched by the germicide. I think this plan would answer equally well with any other germicide, but corrosive sublimate is convenient and cleanly. Our cases have been too few at present to form an opinion. So far we find the discharge arrested, but the granular condition of the lid is not so rapidly reduced as by silver. I take it that that is a small matter, compared to the prompt removal of the infecting organisms. The alcohol has no apparent effect upon the cornea. For home use we order 1 to 4,000 of corrosive sublimate with weak boracic acid solution.

P. H. MILES, M.D.

20, St. John Street, Manchester.

CLINICAL MEMORANDA.

SPONTANEOUS DETACHMENT OF LARYNGEAL POLYPUS.

THE paragraph in the JOURNAL for January 21st, headed "Spontaneous Detachment of Laryngeal Polypus," reminds me of a case similar to the one related, which occurred when I was resident medical officer to the Manchester Royal Infirmary. A patient

presented herself with laryngeal symptoms, and, on examination with the laryngoscope, I clearly saw a polypus in the larynx. I advised her to come into the Infirmary as an in-patient, in order that she might have the growth removed, which she consented to do. A few days afterwards she returned with her laryngeal trouble practically gone, and produced a bottle containing a small mass, which she stated she had coughed up. On re-examining the larynx with the laryngoscope, the tumour was found to have disappeared, and microscopical examination of the substance coughed up revealed the ordinary structure of a polypus.

Manchester.

GRAHAM STEEL, M.D.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

EYE, EAR, AND THROAT INFIRMARY OF EDINBURGH.

CASE OF CHRONIC LARYNGITIS, PROBABLY TUBERCULAR, TREATED BY TRACHEOTOMY AND BY ENDO-LARYNGEAL REMOVAL OF GROWTH.

(Under the care of Dr. HUNTER MACKENZIE.)

J. D., aged 27, commenced attendance as an out-patient on February 4th, 1887, on account of hoarseness and shortness of breath, which had been of gradual onset, and had existed for a year and a half. There was no history of previous illness, and no phthisical taint in the family.

His general condition was poor, with a tendency to cyanosis of cheeks and fingers. Inside the larynx there was marked general swelling, especially over the arytenoid cartilages, which had a markedly globular outline and a somewhat ashy appearance. The vocal cords were reddened and irregularly thickened; the left was completely fixed in the middle line, and the mobility of its fellow was impaired. There was no ulceration anywhere. Some medium moist sounds were audible at the infra-clavicular region, and rhonchi were present over both apices posteriorly. Tubercle bacilli were sparsely present in the sputum.

In spite of appropriate local and general treatment, the patient became worse, and was admitted as an in-patient in the beginning of April. On the 6th of that month tracheotomy was performed by Mr. Maxwell Ross. The patient rapidly improved after the operation, and in ten days left the infirmary. He continued as an out-patient during the remainder of the year, and was submitted to a course of local treatment, first by lactic acid, and secondly by menthol. It could not be said that either of these remedies had any effect upon the intra-laryngeal condition, for, although this had greatly improved, the amelioration took place whether the remedies were applied or not. A small, warty-looking growth, which had been slowly growing for some time from the posterior third of the left vocal cord, and was now appreciably diminishing the glottis, was, on January 6th, 1888, removed by Dr. Mackenzie with laryngeal forceps, in the presence of Mr. Maxwell Ross and the members of the clinic.

On January 25th, 1888, the tracheotomy tube, which had been plugged for about four months, was removed. The patient's condition at this date was fairly satisfactory. The general intra-laryngeal swelling, as well as the infiltration over the arytenoid cartilages, had greatly subsided, and the range of movement in the right vocal cord had increased. The patient was consequently able to breathe with tolerable comfort *per vias naturales*. Some dry rales were present at the right pulmonary apex. There was no expectoration.

REMARKS BY DR. HUNTER MACKENZIE.—This case is undoubtedly an example of chronic laryngitis which had either undergone or was about to undergo tubercular degeneration. Whilst there was no evidence that this change had actually taken place, the well-marked laryngoscopic appearances and the state of the lung, along with the bacillary sputum, warrant us in assuming that, to say the least, this specific degeneration was not far off. (Unless the laryngoscope be supplemented by the microscope, it is frequently impossible to say whether a given lesion of the larynx is tubercular or not.) Tracheotomy was beneficial in two ways. 1. It relieved the breathing, which, from the amount of swelling and infiltration in the larynx, was greatly embarrassed, and, by

doing so, benefited the lungs by promoting their ventilation. 2. It reduced the irritation of the larynx caused by the acts of breathing and coughing. The inefficacy of local applications of lactic acid and of thymol was seen by alternating periods of their application with others of abstinence from treatment. Iodoform, formerly so much in vogue in this disease, has of late been largely supplanted, especially in the ulcerative forms, by these two remedies. By themselves they are all equally ineffective in this malady. In judiciously selected cases, surgical measures, either on the lines now indicated or by thorough removal and cauterisation of the affected parts after thyrotomy or by endo-laryngeal means, appear to be the only method of radical treatment which promises satisfactory results.

GERMAN HOSPITAL, DALSTON.

TREATMENT OF ULCUS CRURIS IN THE OUT-PATIENT DEPARTMENT.

(By F. A. PHILIPPI, M.D.)

DURING a period of about eight months, the treatment of ulcers of the leg and allied affections was carried out according to the principle laid down by Dr. Unna, of Hamburg, at the Dublin meeting of the British Medical Association. The subjoined table shows the results obtained in a series of sixty patients, taken indiscriminately as they came under treatment.

Nature of Disease.	Healed.	Discontinued Attending.	Unsuccessful.	Total.
Callous ulcer	14	6	2	22
Varicose ulcer	7	—	—	7
Healthy ulcer	7	—	1	8
Sloughing ulcer	2	—	1	3
Indolent ulcer	1	—	—	1
Syphilitic ulcer	—	—	2	2
Diabetic ulcer	1	—	—	1
Inflammatory ulcer	4	1	—	5
Eczematous ulcer	4	1	—	5
Eczema cruris	5	—	1	6
Total	45	8	7	60

The manner of applying the dressing may be briefly described as follows: On the carefully cleaned and shaven leg a moderately thick layer of warm zinc-gelatine (prepared according to the subjoined formula) is applied by means of an ordinary brush up to the limits of the ulcer, which receives a sprinkling of powdered iodoform or any other pulverised antiseptic; for instance, subnitrate of bismuth, boracic acid or naphthaline; this latter being especially serviceable in reducing the offensive smell of many ulcers. A small pad of medicated cotton-wool is then added as a covering for the sore, and a gauze roller (Lister) wound firmly round the whole, care being taken to cause the traction to work in the direction towards the centre of the ulcer. When no more of the zinc-gelatine penetrates through the meshes of the gauze, the dressing may be considered to be completed. It is allowed to cool and become dry, whereupon the patient can be dismissed without further precautions. In some cases, and especially in the latter stages of treatment, the zinc-gelatine can be painted over the whole circumference of the leg, including the ulcer.

This dressing should be removed at the end of three or four days. In the cases on the above list, however, it was mostly allowed to remain unchanged for a week, on account of the patients not being able to attend more frequently, and although it seemed evident that it would have been generally advisable to renew the dressing at shorter intervals, still the progress made was, as a rule, satisfactory enough to permit of the longer period being adhered to.

The dressing can always be very easily removed with a pair of blunt-pointed bent scissors and, in case of need, a little warm water. It is of great advantage, for easy removal, to have shaved the leg before applying the dressing; the gauze which forms, with the zinc-gelatine, quite a compact casing, can then be pulled off the skin as readily as the peel from an orange. If the discharge should penetrate the bandage before the end of the week, a sprinkling of iodoform may be applied to the soaked spot, or a piece of clean linen simply applied as a covering, to be renewed when it becomes soiled. The zinc-gelatine is thus prepared: Oxide of zinc, gelatine, aa 5 parts; aq. dist., 6 parts; glycerine pur., 8 parts; all by weight.

The gelatine is first dissolved in the water at a moderately high

temperature, the loss of water by evaporation being compensated for. When the whole is reduced to a perfectly uniform and even mass, the oxide of zinc, finely powdered and mixed with as much water as is sufficient to produce a thin paste, is added, with the prescribed quantity of glycerine. The whole is well stirred, and after making up for evaporated water, poured out into cakes on a cool porcelain slab. It will be found to be of the consistency of common glue, of a pure white colour, and devoid of stickiness. For application, a sufficient quantity is placed in a small pot, which stands in a sauceman of boiling water, in the same manner as carpenters' glue is treated. When dissolved it would not be thicker than thin syrup or common oil-paint. It generally requires the addition of a little water, especially when the same pot-full has been treated a few times.

The chief advantage derived from this method of treatment is the possibility of curing the ulcer without confining the patients to their beds. Indeed, with the aid of this dressing, even large ulcerations were rendered perfectly painless, so that our patients could perform all kinds of work, even long before the sores were healed. It will likewise be found to be a great advantage that the treatment is not entrusted to the patients themselves, who often lack patience and sagacity enough accurately to carry out the instructions given them. The uniform and firm compression it exercises on the leg will be found to be most serviceable in the treatment of varicose veins. Further, the discharge arising from the sores is effectually prevented from coming into contact with the healthy skin, while, on the other hand, it is able to penetrate freely enough to the surface of the dressing. It was often also noticed that the discharge of pus from the ulcers was considerably reduced, and the disagreeable odour almost entirely removed. The simplicity and cheapness of this dressing are likewise greatly in its favour.

The duration of treatment varied from about three to sixteen weeks, which, it must be confessed, does not seem to indicate a very rapid recovery; but, taking into consideration that some of the patients had suffered for several months and even years from their ulcers, and further that whilst under treatment the patients were not incapacitated for work, I think the results will appear fairly satisfactory.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

SPASMODIC TORTICOLLIS, FOLLOWING INJURY TO THE CERVICAL SPINE: SUCCESSFULLY TREATED BY STRETCHING THE SPINAL ACCESSORY NERVE.

(Under the care of FREDERICK PAGE, Honorary Surgeon to the Infirmary, Newcastle-on-Tyne.)

In the year 1866, the late Mr. Campbell de Morgan published, in the *British and Foreign Chirurgical Review*, an exceedingly interesting case of spasmodic wry-neck, following injury to the cervical spine, treated by excision of a quarter of an inch of the spinal accessory nerve. The spasms were cured, but the sterno-mastoid and trapezius remained permanently paralysed. In 1880, a carefully prepared paper, by Dr. Sturge and Mr. Godlee, was read before the Clinical Society, entitled "Stretching of the Facial Nerve for the Relief of Spasm of the Facial Muscles." On April 26th, 1887, D. L., aged 24, a strong muscular labourer, was admitted, under my care, with the following history: While engaged last December in a rough game of football, he was thrown, and fell heavily on his back, twisting his neck violently to one side. He was unable to rise, and had to be carried home, having lost the use of his limbs. He was not unconscious. His head was twisted to the right side. During the night he regained the power of using his legs. In two days the wry-neck had passed off, but his arms remained paralysed for a fortnight. For some days the bladder required to be relieved with a catheter. In the course of a few weeks he recovered sufficiently to be able to resume duty. While at work, about March 19th, the patient struck his head violently against an iron pipe. He fell backwards to the ground, and, on rising, found that his neck was twisted as it had been for two days after his former accident. On admission, the patient was in the following condition: When at rest the right shoulder was elevated, and the face turned to the right side. The deformity was evidently due to tonic contraction of the right sterno-mastoid and trapezius muscles. Any attempt made to straighten his head, a touch or movement, produced clonic spasms of the muscles named, by which the right side of the face and shoulder were almost brought in contact, his chin being at the same time drawn slightly towards the left side. Considerable pain accompanied the spasms. Rest

in bed, counter-irritation, and drugs produced no effect upon the deformity. Adopting the conclusions arrived at by Dr. Sturge and Mr. Godlee "as to the class of cases in which the operation of nerve-stretching is likely to prove efficacious," namely, those where "the spasm is confined to the muscles supplied by one nerve only," this seemed a typical case for treatment by nerve-stretching. Accordingly, on June 21st, six months after the first and three months after the second accident, I cut down upon the right spinal accessory nerve, where it emerges from the sterno-mastoid on its path to the trapezius muscle, passed my finger beneath, and stretched it with considerable force. Not feeling sure that it might not be necessary, ultimately, to resort to Mr. Morgan's expedient, I adopted a plan suggested to me by my friend, Professor Annandale, and surrounded the nerve with a silk thread, so that, should section be found requisite, I could reach the nerve easily without opening up the wound. The next day, though the tonic contraction was unaffected, the patient expressed himself as feeling much more comfortable—freer from clonic spasm and from pain. The wound healed readily, and, fourteen days after operation, the silk thread was withdrawn. On July 21st, the patient was discharged, all clonic spasm having ceased entirely for some time. There was still, however, some tonic contraction of the sterno-mastoid, but it was decidedly less, and gradually decreasing. To-day (January 14th), the patient is free from deformity, in good health, and able to do his ordinary duty without inconvenience.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON. FRIDAY, JANUARY 27TH, 1888.

W. H. BROADBENT, M.D., F.R.C.P., President, in the Chair.

So-called Idiopathic Dilatation of the Colon.—Dr. ANGEL MONEY and Mr. S. PAGET contributed a paper on this case. Mr. M., aged 55, an habitual drunkard, suffered from enormous distension of the colon, with dyspnoea and bronchitis; the girth was over sixty inches, and the measure from the ensiform cartilage to the pubes twenty-six. There was albuminuria. He was treated first by Mr. Paget at St. Thomas's Home by repeated punctures. These gave great relief; he improved so much that he refused further treatment, and returned to his drunken habits. He was admitted into University College Hospital a week later under Dr. Angel Money, with the same enormous distension, lividity, and dyspnoea. He was much relieved with the long rectal tube, but sank and died a week after admission. At the necropsy all the signs of habitual drunkenness were found, including typical "hobnail" liver. There was enormous distension of the colon, principally of the sigmoid flexure, which formed two huge sacs extending right across the abdominal cavity. There was no organic stricture. Dr. Money was of opinion that a twist of the sigmoid flexure or a spasmodic stricture might have been present, or else that some morbid state of the blood, or else the mere presence of an excess of gas, might have started the disease. The bowel was hypertrophied as well as dilated. He referred to Dr. Gee's paper in the *St. Bartholomew's Hospital Reports*, and to Dr. Goodhart's case (*Clinical Society's Transactions*, vol. xiv).—Dr. HADDEN asked if the patient had had habitual constipation. He referred to cases which Drs. Bristowe and Peacock had published, and described two cases seen by himself. The first was that of a girl, aged 17, who had severe pain in the abdomen, with constipation lasting ten days, and unaffected by purgatives. The abdomen was opened, but no obstruction detected. At the *post-mortem* examination the sigmoid flexure was found enormously distended, its circumference measuring twelve inches. There had been no chronic constipation. The second case was that of a woman, aged 20, who had a copious mucous discharge from the bowel, so that she complained of diarrhoea. No faeces were passed, however, and the sigmoid flexure was found to be distended with motion. She recovered under treatment.—Sir DYCE DUCKWORTH referred to the case of a girl who had enormous dilatation of the caecum, with tympanites and constipation, and in whom the rest of the intestinal tract seemed to be normal. Dr. SWART asked if there was any adhesion of the omentum in Dr. Money's case. He had seen cases in which adherent omentum, or its invagination into the canal of a hernia, had seemed to cause distension of the colon. One such patient who recovered from acute obstruction died a few days later of pneumonia. She was then found to have an old hernia, and the

transverse colon was dragged down at its middle to the pelvis and there fixed, so that it was V-shaped, and no longer transverse. He objected to the term "idiopathic" as applied to Dr. Money's case, and thought the distension was due to some adhesion, causing obstruction, and then paralysis of the bowel. In such case, if gas were formed, very acute distension would occur. He would ask again if there was any displacement of the omentum or an omental hernia.—Dr. PEARSE thought the dilatation in such cases as that described by Dr. Money was due to the formation of gas, caused by the imperfect digestion of food.—Dr. MORISON thought that no case should be termed "idiopathic" unless that diagnosis were verified by *post-mortem* examination. He mentioned the case of a gentleman whose supposed idiopathic distension was relieved by abdominal puncture. When obstruction occurred a second time it was treated with opium and belladonna, but without success. After death a stricture was found between the sigmoid flexure and the rectum, which might have been relieved by colotomy.—Dr. K. FOWLER asked if the meso-colon of the sigmoid flexure was so long as to allow the colon to be misplaced and obstruction produced.—The PRESIDENT had seen a case some years ago in which great distension of the abdomen was produced by congenital elongation of the sigmoid flexure, which started in its proper position, thence extended up to the liver, and then passed down again to join the rectum. It was full of gas, and so gigantic that it filled the abdomen. In another case the transverse colon was still more distended; it occupied almost the whole of the front of the abdomen, the distension being apparently due to chronic constipation. This had led to the bending down of the transverse colon, and, after a time, to obstruction of the left flexure. There was vomiting, especially after aperients were given. The obstruction could only be reached by enemata whilst the man was on his hands and knees. Little by little the obstruction was overcome, and was afterwards treated in the same manner.—Dr. B. O'CONNOR referred to cases of constipation caused by the abuse of mineral waters.—Mr. STEPHEN PAGET said that his punctures were made into the colon where the abdomen was most prominent and tympanitic. The gas that escaped was at first foetid, then less so; and the needle was then drawn up as if the colon were regaining its normal position. The patient, who was a drunkard, had had constipation for months, and passed only gas and liquid while under the speaker's care.—Dr. ANGEL MONEY, in reply, said there was considerable alteration in the omentum, which had lost all its sharp outline, and was thickened and tough, though not displaced into a hernial sac. The meso-colon was not unusually long. If Dr. Pearse's suggestion were adopted, the cause of the distension was not much advanced. Dr. Gee's cases, and others which had been published, were apparently similar to those mentioned by the President. Professor Hirschsprung, in the *Archiv für Kinderheilkunde*, had published an interesting paper on the subject in the new-born.

Tricuspid and Mitral Stenosis in which Physical Signs of Pulmonary Arterial Reflux were present.—Sir DYCE DUCKWORTH, M.D., described this case. M. S., aged 23, a married woman, without family, was admitted into St. Bartholomew's Hospital under his care in May, 1887, suffering from general dropsy and dyspnoea. She had had scarlet fever in early life, but there was no history of rheumatism or chorea. She had suffered from dyspnoea from the age of 14, and been worse for the last twelve months. Dropsy set in in the legs three months previously, and then became general. On admission she was very dusky and bloated. The pulse was 128, barely perceptible. The cardiac impulse was diffused, the apex beat outside the left nipple line. There was a presystolic thrill over the left ventricle, with an extended area of cardiac dullness in all directions. At the apex was a presystolic, followed by a systolic murmur. The systolic murmur was over the right ventricle, and there was accentuation of the second pulmonary sound. The liver was enlarged, and felt to within two inches of the navel. There was dullness at the base of both lungs, and crepitation. The urine was scanty and one-fourth albuminous. The legs were much swelled, dusky, and purpuric. She was treated with digitalis and nitrous ether, and two ounces of brandy. Compound jalap powder was occasionally given. Improvement set in after a few days, and the pulse fell to 88. The albumen greatly diminished in the urine. Later on a regurgitant murmur was heard in the area of the pulmonary artery. A second point of presystolic thrill was detected over the right ventricle, and a presystolic murmur was faintly heard in the tricuspid area. The temperature was usually subnormal. In three months the patient left the hospital. Three weeks later she was readmitted in as bad

a condition as formerly, having spat some blood. On this occasion she did not respond to treatment. She was made worse by prevalent fogs in October. The signs of pulmonary arterial reflux passed off. After increasing dropsy, dyspnoea, and jaundice, she died on November 8th. At the necropsy the heart was found much enlarged in all its chambers, weighing 24 ounces. Dilatation and hypertrophy of the right ventricle were found. The tricuspid valve was stenosed, barely admitting two fingers, its edge being thickened. The pulmonary valves were not markedly altered. There was decided dilatation of the pulmonary artery. The mitral orifice was in a state of button-hole contraction, with thickened chordæ tendinæ. Hypertrophy of the left ventricle existed. There was some hepatisation at the base of the right lung, but no infarctions in the pulmonary artery. The liver was enlarged and "nutmeggy." The kidneys and spleen were engorged and hard. The points of interest related to the etiology of the case and the interpretation of the physical signs on the right side of the heart. Sir Dyce Duckworth had several times noted accentuation of the second pulmonic sound along with tricuspid reflux. The signs of tricuspid obstruction were explained by the state of the valve after death. The pulmonary arterial reflux was probably explicable by the dilated state of that vessel, and the disappearance of the murmur was coincident with increasing low blood pressure, as the vital powers failed towards the last. It was surmised that the disease began after scarlet fever, but the author believed that in the great majority of cases of mitral stenosis, so common in women, the disease had a rheumatic origin, often in early life, the attendant articular symptoms being but slight and commonly overlooked. (The heart was exhibited.)

Embolism of Right Axillary Artery connected with Mitral Stenosis. Gangrene of Fore-Arm: Amputation: Subsequent Embolic Pleuro-Pneumonia and Death.—Dr. BURNEY YEO related the case of a woman who was admitted under his care into King's College Hospital in December, 1886, with great pain and loss of power in the right hand and arms, which came on suddenly, accompanied with giddiness. The fingers, hand, and forearm on the right side rapidly became white, and motion and sensation were completely lost. She had had acute rheumatism, and suffered from dyspnoea on exertion. No pulsation could be felt in the radial, ulnar or brachial arteries in the right side; pulsation could, however, be felt in the subclavian. The cardiac action was rapid and irregular, the impulse and sounds were very feeble. The patient also suffered from cough, dyspnoea and great restlessness. In a few days the forearm became blue and mottled, subsequently black, and dry gangrene set in. Opium was given to allay the severe pain and restlessness, and iron, quinine and digitalis to improve the cardiac tone. As the ventricular contractions improved in force and regularity, a distinct, though feeble murmur could be detected which appeared to precede the impulse. After consultation with Sir Joseph Lister it was determined, as soon as the cardiac tone had sufficiently improved from the administration of digitalis, to amputate. This was done, about the middle of the upper arm, by Sir Joseph Lister, under chloroform, on January 14th. The patient recovered well from the operation, but two days afterwards pneumonia with pleuritic exudation occurred on the right side, and she died somewhat suddenly on the 19th. *Post-mortem* examination showed considerable constriction of the mitral valve, and a large, old and firm clot in the left auricular appendage, from which, no doubt, the embolus in the axillary artery proceeded. Hæmorrhagic infarctions were found in the right lung, and considerable effusion of serous fluid and lymph in the pleural cavity, and on the surface of the lung. The kidneys also contained old, small white infarctions. Examination of the stump showed the primary clot to be situated just at the beginning of the axillary artery. Dr. Yeo added some comments on this case and its management.

Disease of the Aortic and Mitral Valves of Long Duration.—Dr. J. KINGSTON FOWLER described this case, which was that of a man, aged 66, a wood turner, working a treadle lathe. Physical examination of the chest gave the following results:—There was a systolic recession of the epigastrium; the cardiac apex was in the fifth interspace in the nipple line; the impulse was forcible, indicating a moderate degree of hypertrophy of the left ventricle; at the apex the first sound was accompanied by a systolic murmur; at the base, in the aortic area, there was a short systolic *bruit*, and the second sound was replaced by a rough diastolic murmur; there was evidence of some hypertrophy of the right ventricle; the valves on the right side of the heart were judged to be competent. The pulse was 84, small and collapsing. The urine was free from

albumen. The interest of the case centred in the fact that in 1834 the patient, then a boy aged 13, was admitted into the Middlesex Hospital, under Dr. (afterwards Sir) Thomas Watson, with acute rheumatism, for which he remained under treatment nearly nine months. During the early part of the illness leeches were applied to the præcordium on more than a dozen occasions, and subsequently blisters were frequently used. The evidence upon which it was concluded that the valve lesions now present occurred during the attack of acute rheumatism in 1834 was entirely circumstantial, no written evidence of the case having been found. It might be summarised as follows: 1. The statement of the patient that on a certain occasion two gentlemen accompanying Dr. Watson on his visit, having auscultated the patient's chest, the one remarked that he heard a sound "like an old woman blowing a bellows in a back room;" the other said the sound was more "like to the whistling of a steam engine." 2. The fact that Dr. Watson told the patient's mother on his discharge from the hospital that he was never to leave home without telling her where he was, going. 3. That for three years the patient carried a card with his name and address upon it, so that "if anything happened to him suddenly it might be known who he was and where he lived." 4. That he had had no return of the rheumatic attack, and had scarcely been absent from work for a single day during the last fifty-four years. The case was reported as being a rather remarkable example of a stationary lesion of the cardiac valves of rheumatic origin, in which compensation having been established, it had remained perfect for fifty-four years, and now showed no signs of failure. The patient had been shown at a previous meeting of the Society.—The PRESIDENT thought that in this case, which he himself had examined with much interest, there was satisfactory evidence of valvular disease and of adherent pericardium through all these fifty-three years. He had seen cases having a distinct history of heart disease for thirty or forty years, who were yet leading an active life and doing good work. In Dr. Yeo's case he thought that death had been rightly attributed to the pulmonary embolism and pleuro-pneumonia consequent on dislodgment of clot from the axillary vein during the manipulation of the limb at the time of the operation. He considered it remarkable that there should have been gangrene in that case. He had seen nearly all the big arteries of the body plugged by embolism, and yet there was sufficient collateral circulation to keep the parts alive. The mitral valve, too, in Dr. Yeo's case, would admit the points of two fingers. The great rapidity of the pulse was probably due to the old plugging of the basilar artery; and the confusion in the heart's action, probably so produced, led to gangrene of the hand and arm. As to Sir Dyce Duckworth's case he thought the physical signs could only have arisen from pulmonary reflux. Whatever the degree of mitral stenosis might be, he did not think it ever gave rise to the purple condition of the limbs without there was tricuspid stenosis as well. The recognition of this latter symptom he based on the same signs as those Sir Dyce Duckworth had described.—Mr. BOWLBY described two cases of gangrene which he had lately seen. In one there was gangrene of the hand and of the forearm up to the elbow; in the other the thigh was implicated. In the former case the aorta was diseased, and clots extended from it into the smaller vessels. The second patient was an elderly gentleman, who had dry gangrene of the thigh and leg, with mitral disease. At the *post-mortem* examination vegetations and clots were found on the valve, and there was a plug in the femoral artery which was also atheromatous. In the first case the smaller vessels were plugged as well as the main ones. This, perhaps, caused the gangrene, or that was due to the atheromatous state of the vessels and the embolism.—Dr. D. DREWITT described the case of a girl at the West London Hospital, admitted with typhoid, wild delirium, and a high temperature. She was delirious for four weeks. She then had a dark patch on the left foot, and the whole limb below the knee became gangrenous. No pulsation of the femoral artery could be felt. Probably a clot from the heart plugged the iliac artery, as the heart was acting very feebly. The limb had been amputated by Mr. Bruce-Clarke, and the patient was on a fair way to recovery.—Dr. DE HAVILLAND HALL described the case of an old gentleman suffering from asthma, and sent to San Remo. After being there four weeks he had pneumonia, with intense pain in one thigh and leg, coming on suddenly at night. In the morning the leg was quite blanched and cold. A line of demarcation formed, but he sank and died.—Dr. PERCY KIDD referred to the combined signs of mitral and tricuspid stenosis. In one case there was lividity, with a presystolic murmur over the right ventricle at the lower part of the

sternum. The diagnosis was verified at the *post-mortem* examination. Another case, however, which he mentioned, seemed to be opposed to this opinion. It was that of a young man who had no marked cyanosis, but marked mitral and tricuspid stenosis, probably of congenital origin.—Dr. YEO, in reply, said that no detailed dissection of the vessels of the limb had been made in his case, but no disease of arteries had been found anywhere.—Dr. FOWLER said that in four cases of mitral and tricuspid stenosis he had found all the signs mentioned by Sir D. Duckworth. In some cases of mitral stenosis the pulmonary artery might become so dilated that the valves might in consequence become incompetent and not close the opening accurately. He thought that this hypothesis would also explain the variability of the murmur.—Sir DYCE DUCKWORTH quite agreed with the explanation.

Living Specimens.—The following were exhibited: Dr. DE HAVILLAND HALL: A Large Nevus on the Back.—Mr. PARKER: An Infant Presenting Symptoms of Struma and of Syphilis Concurrently.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JANUARY 26TH, 1888.

PRIESTLEY SMITH, M.R.C.S., Vice-President, in the chair.

A Case of Subretinal Effusion in Chronic Nephritis in a Child.
—Dr. JAMES ANDERSON read notes of this case. The patient was a girl, aged 9 years, admitted into the London Hospital on March 14th, 1887, under the care of Dr. Samuel Fenwick, who kindly allowed the publication of the case. The child complained of sickness and headache, was extremely pale and wasted, but showed no œdema of face or limbs. She passed 50 to 65 ounces of urine in 24 hours, 1010 to 1012 specific gravity, with one-fourth of albumen, some free blood discs and casts of various kinds. The heart was hypertrophied and the arterial tension was high. The ophthalmoscope showed double neuro-retinitis. The child had been healthy till 18 months of age, then had an attack of measles, and was never subsequently well. In November, 1886, she was noticed to have frequent nocturnal micturition, and five weeks before admission she complained of headache and sickness, and that she could not thread a needle. A fortnight before admission into hospital, she had a severe fit, was universally convulsed, and then lay unconscious for three days. When she recovered consciousness, she was practically blind, but partly recovered vision. He first saw the child on April 10th, and found severe neuro-retinitis with numerous hemorrhages and considerable pale exudation in the papilla and retina, best seen with +4 D. On the nasal side of each fundus there was extensive detachment of the retina, greyish pink and glistening, the vessels seen climbing over it with +9 D. The surface of the detachments oscillated freely but slowly when the head was moved. The child was almost quite blind, but mentally clear. The retinal detachments rapidly increased. Drawings of the fundi were exhibited. That of the left eye showed numerous bladder-like bulgings round the lower and nasal periphery. That of the right eye showed four large detachments almost meeting in the middle, leaving only a narrow quadrangular chink, at the bottom of which the fundus could be seen. The child rapidly got worse, the face and limbs got very slightly puffy, the urine diminished in quantity and became almost pure blood. Treatment had no effect. She became more drowsy, had vomiting, epistaxis, and bleeding from the bowel, and died comatose on April 24th, about three months from the first complaint of visual defect. The necropsy showed advanced fibroid contraction of the kidneys, the left weighing only three-quarters of an ounce and being much distorted by a deep fibroid scar at its upper part, the right weighing two ounces and a half, not so severely affected, but both showing (microscopically) marked fibrosis with hemorrhages. The mucous membrane of the pelvis of the kidneys, the ureters, and the bladder was infiltrated with blood, and that of the bladder was raised into soft polyp-like growths. The retinae were separated from the choroid by a clear straw-coloured fluid. The brain and other organs showed no gross lesions. Detachment of the retina from any cause, and fibroid kidney were both rare in children. One similar case in a girl, aged 14 years, had been published in the *Transactions*. The rarity of such cases and the absence of œdema might very readily cause them to be overlooked until declared uræmic symptoms appeared. An exanthem such as measles or scarlet fever was probably the starting point in the great majority of such cases.

On the Prognosis of Neuro-retinitis in Bright's Disease.—Dr. MILES MILNEV, after referring to a case which first attracted his attention to the subject of the paper, explained the method of obtaining his statistics. The names of all the cases occurring in the London Hospital Medical Register under the headings of "Acute" and "Chronic Renal Disease" for the years 1884, 1885, and 1886 were taken, and the notes examined and extracted, in all 447 entries. This number was reduced by 26 for readmissions of patients, and by 46 for acute scarlatinal cases, so that the total number of cases under consideration was 375. In 211 of these, no separate statement regarding the eyes had been made, but there were good grounds for the assumption that the number of eyes examined and the number of eyes examined and found normal were both smaller than they should have been. Of the remaining 164 cases, 105 were stated to be normal, 3 were affected with other changes, 5 from the nature of the notes were rejected, and 51 were definitely stated to have had the eyes affected. The mortality was as follows: 1. Total number of renal cases considered, 375; total number of deaths in hospital in 1884-5-6, 144. 2. Number of cases in which the eyes were unaffected, 105; number of deaths in hospital in same period, 28. 3. Number of cases in which the eyes were affected, 51; number of deaths in hospital in same period, 27. The mortality of the affected cases was, therefore, in hospital double that of the unaffected cases. The 51 affected cases were then separately considered. By various means, including inquiries at Somerset House, 45 deaths out of the 51 affected cases had been traced. The 6 cases unaccounted for were all admitted into the London Hospital for the first time in 1886; and, since the Somerset House indices were only available up to the end of the first quarter of the past year, they could not be traced with any certainty after March, 1887. Sex: males, 38; females, 13. Age: under 20, 2; 20 to 30, 13; 30 to 40, 10; 40 to 50, 16; 50 to 60, 6; 60 to 70, 4. *Duration of Life.* As the majority of the 51 cases were already affected with neuro-retinitis when admitted into the hospital, it was possible only to give the length of life after the first note was taken. One case lived nearly eighteen months, and two nearly fourteen months; all the rest died within the twelve-months. It was further stated that, if all the 6 untraced cases were alive at the "present date," not one would have lived eighteen months from the time the eye changes were first noted. The following 9 cases were quoted as of special interest, because the eye changes occurred while the patients were under observation in the hospital.

Name.	Age.	Sex.	Duration of Life in days after last note of "Fundus Normal."
R. B.	47	M.	51 days.
E. C.	25	M.	195 "
T. D.	62	M.	162 "
G. O.	51	M.	52 "
G. A.	31	M.	150 "
G. C.	49	M.	145 "
J. W. G.	51	M.	Now in hospital; has lived fifteen months since first note of changes.
E. C.	63	F.	361 days.
H. D.	23	F.	60 "

In order to be on the safe side, the enumeration was made from the date when the eyes were last stated to be normal, not from the date when the changes were first recorded. The duration of life, therefore, amongst these nine cases had not averaged more than six months. Regarding the eye changes themselves, the hospital notes were not generally sufficiently full to admit of accurate conclusions being drawn. The first recorded change was in some cases a slight haze, in others a papillary exudation, and in others again one or more hæmorrhages. The only paper that the author could find which had any bearing on the question of prognosis was referred to, namely, that by Dr. C. S. Bull, in the June half-yearly number of the *American Ophthalmoscopic Society's Transactions*. It was stated that, in the discussion following that paper, a case was quoted by Dr. Webster of a clergyman who, ten or fifteen years previously, had had this condition of the fundi recognised, and who was still living at the time of the meeting of the Society. This case was quoted as showing the importance of comparing private with hospital practice. The following conclusions as regards the experience in the London Hospital were then submitted as being justified by the statistics: 1. That the retinal

changes occur late in renal disease. 2. That their presence appears to affect the prognosis very materially for the worse, the mortality in hospital amongst the affected cases being at least doubled. 3. That the prognosis is so bad that not one has lived eighteen months after the changes have been noted. 4. That therefore the ophthalmoscope affords a most valuable index as to the course any given case of Bright's disease is taking (except, perhaps, in pregnancy cases), unless, indeed, it be supposed that the mortality of the cases considered happened to be exceptionally high, independently of the causes at work which produced the coincident neuro-retinitis.—Mr. SIMON SNELL (Sheffield) also read a paper on this subject. He held that the subjects of retinitis albuminurica that came before the ophthalmic surgeon were to be regarded as having, generally speaking, a tolerably defined, or a short limit, to their existence. This referred to cases at all ages. He did not think that the retinal changes ever preceded the kidney diseases, as some asserted they might do. He referred to Dr. C. S. Bull's observations before the American Ophthalmological Society in 1886. Out of 103 cases 86 had died, 57 in the first and 12 in the second year; of the 17 living 14 were seen during the last six months; 1 had been seen seven years previously. Dr. Gruening reported of 100 cases that none had lived over two years. Mr. Snell alluded to the frequency with which the diagnosis of renal disease was made through patients seeking advice respecting sight, and notwithstanding the numbers that thus passed before the ophthalmic surgeon, his knowledge of the cases was for so brief a period, that the final results were not easily noted. He could only just now trace eight cases to the end. The respective ages were 37, 34, 56, 59, 31, 66, 23, 39; and the periods of death after the retinal mischief was diagnosed 6 weeks, 4½ months, 5½ months, 10 months, 2½ months, 5½ months, 8 weeks, 14 months. Reference was made to the better prognosis in the retinitis associated with pregnancy.—Mr. CRITCHETT thought that all ophthalmic surgeons now recognised the gravity of the prognosis in these cases. He recalled three instances occurring in medical men who lived for five, thirteen, and ten months respectively after the discovery was made; in the first mentioned patient only one eye was affected.—Mr. MCLARDY thought a distinction must be made between hospital and private cases. He had only known one hospital patient live for two years after the condition was discovered. In young persons, in those in whom it was associated with excessive drinking and in association with pregnancy, the prognosis was not so bad.—Dr. W. J. COLLINS had seen one case of subretinal effusion in acute nephritis preceded by blindness and severe neuro-retinitis. He remarked that Dr. Miley's paper necessarily only dealt with those who were ill enough to come into a hospital, and concluded by discussing the proximate cause, with especial reference to hypertrophy of the left ventricle, and the hydramic condition of the blood.—Dr. VAN MILLINGEN had seen one case eight years previously where only one eye was affected; the patient was still living.—Dr. ANDERSON, in reply, doubted whether there was much difference in prognosis between hospital and private cases; the prognosis was very bad, though exceptional cases were occasionally met with. He believed it was sometimes impossible to distinguish between cerebral and renal neuro-retinitis.

Toxic Amblyopia.—Dr. VAN MILLINGEN read a paper on this subject. During fifteen years' experience in Turkey and the Levant he had not met with a single instance of alcoholic or tobacco amblyopia in a Turk male or female. As regarded the tobacco this could not be attributed to the kind smoked, for Turkish men and women used such a large quantity, that the amount of nicotine would correspond with the amount in the smaller quantity of stronger tobacco used in this country. He therefore attributed the exemption to the mode of smoking, and believed that poisonous symptoms resulted from the juice of the tobacco being allowed to come into contact with the mucous membrane of the mouth in a moist state. Turkish women did not drink at all; some of the men drank *raki* to excess, but he had never known an instance of alcoholic amblyopia from this cause. On the other hand he had met with eight instances of alcoholic and two of tobacco amblyopia in foreigners resident in Turkey.

Living and Card Specimens.—Mr. CRITCHETT: New Instruments (new Fixation Forceps and Linear Knife).—Mr. HIGGINS: Result of Operation by Caustery for Conical Cornea.—Mr. GUNN: Growth of New Lens Fibres after Spontaneous Absorption of Traumatic Cataract.—Mr. DOYNE: Condition of Retina Suggestive of Cysticercus.—Mr. HARTWELL: Iridæmia with Congenital Dislocation of Lenses.—Dr. WELLS: Case of Frontal Mucocele.—Mr. JULER: (1) Albuminuric Retinitis. (2) Persistent Hyaloid Artery.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, JANUARY 25TH, 1883.

ARTHUR W. EDIS, M.D., President, in the Chair.

The following specimens were exhibited by Dr. G. GRANVILLE BANTOCK:

Hæmatosalpinx with Cystic Disease of the Ovary.—The patient, aged 30, married, had given birth to a five months' fœtus five years previously. Recovery after the confinement had not been satisfactory. She had suffered from uterine hæmorrhage ever since, which had not been checked by the usual methods of treatment to which she had been subjected. The uterus had been dilated and curetted, but the hæmorrhage persisted. The diagnosis of the case was by no means easy; it was supposed that there was a fibroid tumour. He decided to open the abdomen to find out what really was the matter. It was found that the left ovary formed a blood cyst of considerable size, while on the right side there was a large hæmatosalpinx, the ovary also being much enlarged. These were very adherent, and the peritoneal cavity had to be washed out and drained. The progress of the case after the operation was eminently satisfactory, but he was disappointed to find the patient had not got rid of the hæmorrhage. Menstruation had returned and was very excessive. The tubes were removed as close as possible to the uterus. He alluded to the observations of Dr. Johnstone, of Danville, Kentucky, in which it was shown that the application of the ligatures close to the uterus was likely to check hæmorrhage. He thought the failure in this case might be due to the imperfect application of the ligatures, although he had endeavoured to apply them as near to the uterus as possible, or it might be due to some condition of the uterus. This the future would show.

Blood-Cyst of the Ovary and Hydrosalpinx.—In this case the left ovary constituted a blood-cyst, which in the recent state had contained five or six ounces of liquid blood, and was very adherent. On the right side there was a hydrosalpinx with enlarged ovary. In this case also it had been necessary to wash out the peritoneum and drain. The result of the operation, which was performed on November 20th, had been perfectly satisfactory.

Removal of Appendages for Fibroid Tumour and Hæmorrhage.—The case was interesting from the condition of the Fallopian tube. The appearance of the specimen gave no idea of its appearance at the time of removal. The sacculated left tube exactly resembled a knuckle of intestine, greatly distended, with semi-transparent walls. Adhesions added greatly to the difficulty of the operation. On the other side, the ovary was large and contained a cyst, and the tube was thickened and tortuous. The patient had had a number of children, and was 45 years of age. The hæmorrhage was troublesome, and he could suggest nothing but the removal of the appendages to check it. He had not anticipated finding anything of the kind he saw on operating. The tumour filled the cavity of the pelvis and rendered it very difficult to provide for drainage. He was obliged to put a tube down on the right side of the uterus, and this he removed three days later. The patient did well.

Cystic Disease of the Ovary.—The history of this case was that of an extra-uterine pregnancy. Eight years previously Dr. Savage, of Birmingham, had removed an ovarian tumour of small size. She was then 17 years of age. A year ago she married, and three months ago menstruation ceased. On lifting a weight one day she felt a sharp pain and became ill, being obliged to keep her bed, and having a high temperature. On admission a tumour was found on the right side of the uterus, dipping down into Douglas's pouch behind. It could be distinctly felt over the pubes, and there was a clear resonant note over the tumour, rendering the diagnosis somewhat obscure. This was subsequently accounted for by the discovery that the cæcum was adherent to the front of the tumour and over the right half of the fundus uteri, and had to be separated during the operation. The cyst, which was the size of a goose's egg, burst whilst separating the adhesions; it contained a quantity of hard blood clot. At the bottom of Douglas's pouch the fingers slipped into a cavity. The adhesions forming this were broken down, and the pelvis cleared out with a stream of water. A drainage-tube was then inserted. The patient was convalescent.—Dr. ROYD pointed out that hæmorrhage occurring in cases of fibroid tumour was often due to the presence of small mucous polypi. The cavity of the uterus should always be examined before proceeding to the abdominal operation. This was the probable explanation of the favourable results of electrical treatment

in such cases. Mr. BLAND SUTTON, Dr. MANSELL MOULLIN, Dr. R. T. SMITH, and the PRESIDENT, took part in the discussion.

Cysts from the Labia Minora.—Dr. R. T. SMITH exhibited two cysts which he had removed from the labia minora of a woman aged 28, who had had one child eleven years previously. They were placed symmetrically on either side within a third of an inch of the clitoris. The contents were mucous.

President's Address.—The PRESIDENT then delivered his address.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

PATHOLOGICAL SECTION.

FRIDAY, JANUARY 13TH, 1888.

C. B. BALL, M.D., President, in the Chair.

Dysentery. Mr. CONOLLY NORMAN made a communication as to the cause of the outbreak of dysentery with which he had to deal in the Richmond Lunatic Asylum, Dublin. Mr. Norman stated his belief that the outbreak was due to defective drainage, and laid down the following as probable general laws that regulate the appearance of dysentery: 1. Dysentery is communicated through exhalations from a soil saturated with the products of organic decomposition. 2. The incidence of dysentery at particular times and seasons is due to the increased moisture of the soil at such times. 3. When dysentery breaks out there is commonly a concurrent outbreak of severe diarrhoea. 4. Dysentery appears where dysentery has been before. 5. When dysentery appears over a large area, including its own haunt, it appears in the latter situation in its worst form and to the greatest extent. 6. Like other malarial affections, dysentery attacks by preference those who are not acclimatised to the conditions that have produced it.—Mr. FRAZER believed that dysentery was and could be contagious, for he remembered making a *post-mortem* examination in the Richmond Hospital from which he got a most severe attack of dysentery, and which he believed to have been produced by contagion. He was not satisfied with Mr. Conolly Norman's observations upon malaria. From the most remote times dysentery had been epidemic in Ireland. In the battles during the reign of Elizabeth the soldiers were decimated by it; the same thing occurred during the wars of Cromwell and William III; and yet Ireland had always been remarkably free from malaria. But that dysentery might be associated with malaria, on the other hand, was possible. Malaria, as such, was confined to very limited districts in Ireland. He knew that it existed along the Dublin river; but there had been no coexistence of dysentery in those spots. Another remarkable fact was that it occurred at certain seasons of the year. It was well known to break out in autumn, especially after the first frosts, which was accounted for in former times by persons drinking water containing animal and vegetable material in a state of decay. As for its mortality, he was resident in the hospital during the years 1847, 1848, and 1849, and had to attend specially upon fever and dysentery; and the mortality in cases of dysentery—of which only the very bad were admitted—was three times as great as in the worst fever cases; it amounted at one period to one out of every four cases. Dr. Cheyne used the remarkable expression that dysentery was "fever turned in on the bowels." His preparations illustrative of the disease were in the Richmond Hospital, and were described in the series of the Dublin hospital reports.—Mr. NORMAN replied.

Sclerosis of Brain and Spinal Cord.—Mr. WALTER BERNARD, of Londonderry, read a paper upon an obscure case of cerebro-spinal disease, and exhibited microscopic sections of portions of the spinal cord and central nervous system. The case in some points resembled one of insular sclerosis.—Professor PIRSER said three specimens taken from the subject of the case had been submitted to him by Mr. Bernard. The first was a section of the upper part of the medulla oblongata, and he had been unable to satisfy himself that there was any sclerosis in it. There was a spot in the centre which appeared unstained; but that might have been owing to a defect in the staining. Another spot looked somewhat as if the nerve tissue had gone, and had been replaced by connective tissue. Another specimen was from the middle part of the cervical spinal cord, and the anterior cornu on one side of this had disappeared. He could not satisfy himself that there was any increase of connective tissue; it looked more like atrophy. The third specimen was a section of the optic nerve, and in this there was an accumulation in some places of

round cells, which seemed to indicate neuritis to be [the pathological expression of the optic neuritis which Mr. Bernard saw.—Dr. FINNY made some remarks, and Mr. BERNARD replied.

Suicidal Wound of the Heart with a Pin.—Mr. WILLIAM THOMSON communicated a case of suicidal wound of the heart with a pin. The head of a pin was discovered in the fifth intercostal space, two inches and a half from the nipple—downwards and inwards. The pin had traversed the pericardium, and wounded the anterior wall of the left ventricle. The pericardium contained seventeen ounces and a half of bloody fluid, and there was a small rent in the wall a quarter of an inch in diameter, which was filled by blood-clot. The surface of the ventricle in contact with the pin was torn to the extent of nearly an inch; a small vein was also wounded.—Dr. FOOT referred to the case of Admiral Villeneuve, who commanded the French fleet at Trafalgar, and who some time afterwards pierced his heart with a long needle. A case came under his (Dr. Foot's) notice of a child into whose heart a needle went from its mother's dress as she was clasping it to her breast. She immediately ran with the child to the Meath Hospital. He distinctly saw the oscillations of the needle caused by the action of the heart, and drew it out with a rotatory motion, in order to lessen the chance of hæmorrhage. The woman brought the child to him next day, nothing further happened. In Warsaw the latest treatment for cholera was puncturing the heart with a needle to stir up vitality.—Mr. FOX mentioned a case of a nobleman of Turin—a courtier of King Amadeo—who was killed while asleep by his wife, who drove a golden needle into his chest at a spot ascertained from anatomical plates to be over the heart. Fischer collected 453 cases of wounds of this sort, in the majority of which death resulted from the pericardium becoming filled with blood. In a case by Dr. Moxon, exhibited before the Clinical Society of London, a large pin was seen sticking in the chest of the patient, and moving with each motion of the heart, but apparently causing no trouble whatever to the patient. In another case a knitting-needle, shot from a toy pistol, perforated the right ventricle of a boy's heart, went into the auricle, and transfixed the valves, and yet the boy lived for a considerable time. In another case a boy lived for five weeks after his heart had been pierced by a wooden peg three inches long. In the case of the woman who drove the thirty needles into herself, death resulted from a wound inflicted by only one of them upon the superior vena cava. In another case a pin found its way into the thoracic duct, and the patient bled to death. A most remarkable case was that of a medical student, who, while on a "sprece," passed some pins into his heart. His pericardium was opened, and the head of a pin was found outside the wall of the right ventricle. It was grasped, and a slight incision was made in the ventricle to facilitate its removal; but the systolic action of the heart carried it in, and the pin was still in the young man's ventricle, and occasioned him no trouble. Professor Christison recorded a case of a man wounded by a bullet, which found its way into the right ventricle of his heart, and it remained there for two years, occasioning him no trouble, and he eventually died of pleurisy.—Dr. FINNY said these cases showed how tolerant the heart was of injury, provided certain portions of it were not injured. The walls of the heart were tolerant of injury so long as there was no hæmorrhage to stifle the heart's action. But there were cases of death immediately occurring from very small injuries to the nervous ganglia.—Mr. FRAZER said that amongst the Japanese puncturing of the heart was a primitive mode of treatment for the cure of certain affections. He had a note of a *post-mortem* examination made while he was a student, in which he found a needle an inch and a half long in the surface of the heart, inside the pericardium, the surface of it being covered with old lymph.—Dr. WALTER SMITH mentioned a case of suicide which came within his knowledge. It was a young lady who became insane. One day, while two nurses were in the room with her, she drove a hair-pin, which she had secreted, into her abdomen through the umbilicus, uttering no sound whatever or expression of pain. She told the superintendent next day that "she had done it." He looked at her abdomen, saw no mark, and disbelieved her; but symptoms of peritonitis soon appeared, and she died, and on a *post-mortem* examination the hair-pin was found lying amongst the coils of the intestine.—Mr. MOLONY mentioned a case of a person who attempted suicide by working a hole in the abdominal wall, about an inch on the left side of the umbilicus, with the end of a lucifer match.—Mr. COX gave a case of a man who, while suffering from delirium tremens in an asylum, wounded himself over the heart.

and in the arm with the sharpened end of a spoon.—Mr. THOMSON briefly replied.

Multiple Abscesses of the Liver and Lungs.—Dr. FINNY exhibited specimens illustrating pyæmic multiple abscesses of the liver and lungs, which had run a rapid course of about ten days, and in which jaundice and the expectoration of pus had occurred but five days before death. The patient, who had been admitted under Dr. Finny's care into Sir Patrick Dun's Hospital on November 16th, 1887, gave a history of having been treated for pain and suffering referred to the left side of the abdomen, over four years previously, and of the question being discussed as to the existence at that time of cancer of the stomach. He died on December 21st, and on *post-mortem* examination, in the situation to which pain had been referred, there was found an abscess, shut in by firm and old adhesions of the peritoneum, and limited by the left kidney, the lower third of the spleen, the tail of the pancreas, and the superior surface of the splenic flexure of the colon. The abscess contained a couple of ounces of grumous, cheesy matter. The points of interest were (1) the long duration (over four years) which had elapsed between the primary inflammation of the peritoneum and its subsequent conversion into an abscess; and, as a corollary to this, the danger, remote as well as immediate, attendant on peritoneal inflammations; (2) the mode by which the secondary abscesses of the liver and lungs were developed, namely, by the pus directly entering the portal circulation through the communication with the spleen, and thence again by the hepatic veins it was carried into the lungs; and (3) the short time which elapsed between the direct infection of the blood and the occurrence of lung abscesses, a period which may be set down as under five days; (4) the formation of the multiple abscesses was embolic in its nature, and accounted for the number and small size of the hepatic abscesses.—Dr. WALTER SMITH made some remarks, and Dr. FINNY replied.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

DECEMBER MEETING.

T. W. HIME, B.A., M.B., President, in the chair.

Mesenteric Cyst.—Mr. HORROCKS, Surgeon to the Bradford Infirmary, showed a mesenteric cyst imbedded in the meso-colon. Above it was adherent to the great curvature of the stomach, at its lower border the transverse colon was attached. It extended a short distance between the layers of the gastro-splenic omentum. The cyst was thick-walled, and lined by a smooth membrane, which was shreddy at points. On its posterior wall near the lower part it communicated freely with the stomach. It contained pus. The clinical history was notable in the fact that the pus had never been vomited but passed by the bowel. Its origin was considered doubtful, as suppuration destroys the distinguishing features. Possible origin from mesenteric cyst, hydatid tumour, suppurating mesenteric gland, or localised peritonitis following gastric ulcer was discussed. The patient had been under the care of Mr. W. L. Roberts.

Purulent Ophthalmia of Infants.—Dr. BELL read a communication on some destructive diseases of the eye, in the present case with special reference to the purulent ophthalmia of infants. After having dealt with the symptoms and progress of the disease, he showed by means of figures the great frequency of the affection and of blindness consecutive to it. He urged the necessity of early treatment, which should consist of frequent washings of the eye with warm water dropped from cotton wool at some height above the face, and the application of a solution of sulphate of zinc, gr. xx to ℥ viij, or of sublimate of mercury, gr. j to ℥ viij, or of nitrate of silver, gr. j to 5j. He had for some time been trying to find a thorough means of spreading the requisite information among the poorer classes, and he was glad to be able to inform the Society that he had been able to secure the assistance of the vaccination officer, who attached the following instructions to each vaccination form sent out in Bradford:

Instructions regarding New-born Infants.—If the child's eyelids become red and swollen, or begin to run with matter within a few days after birth, it is to be taken without a day's delay to a doctor. The disease is very dangerous, and if not at once treated may destroy the sight of both eyes.

Dr. Bell added that he hoped this mode of conveying information would in a short time be extended, and adopted throughout the kingdom. He had observed that the application of solution of nitrate of silver to all cases of new-born infants in some lying-in hospitals had reduced the cases of purulent ophthalmia from 5 to 2 per cent.

Cerebral Tumour.—Dr. HERBERT MAJOR showed a specimen

from a case of cerebral tumour. The patient was a man, aged 31, who had suffered from headache and at times giddiness. Temperate; no history of syphilis. About five weeks prior to admission he had an epileptic fit, which was followed by slight weakness of left arm and leg. A week afterwards there was a second fit of greater severity, with a further loss of power in the left limbs. In this, as in the subsequent fits (seven in all) the sequence of the convulsive movements was said to have been: left forearm, left arm generally, left leg, left side of neck, head being drawn to left side; right side of body not convulsed. He complained of very severe headache, and had a dazed expression when admitted. Speech was somewhat slow. There was no definite paralysis of the face, lips, or tongue, but marked paralysis, with rigidity, of the left arm and (somewhat less) of the left leg. The superficial reflexes on the paralysed side were lowered, but the knee jerk was increased, as also the wrist jerk, and ankle clonus was present on the paralysed side. Sensibility apparently unaffected; the special senses normal, and there was no optic neuritis. He was treated with bromide of sodium in 20-grain doses, but grew steadily worse, and died about one month after admission. At the *post-mortem* examination a caseous nodule was found in the upper part of the right ascending frontal convolution. The pia mater over it was thickened, congested, and adherent. The other parts were apparently healthy. The case was brought forward as one in which the growth might possibly have been successfully removed by operation.—Mr. SAMUEL LODGE, jun., detailed a somewhat similar case in which, from failure to observe the significance of certain facial symptoms, trephining had failed to relieve the patient, who *post-mortem* was afterwards proved to have died of cerebral abscess.

Post-Nasal Growths.—Dr. ADOLF BRONNER said that post nasal growths or lymphoid papillomata were a "local hypertrophy of the normal pharyngeal tonsil or retinoid tissue situated at the vault of the naso-pharynx." Post-nasal growths were of great importance in their relation to diseases of the throat and ear. They were often the cause of bronchitis, pharyngitis, asthma, and of diseases of the middle ear. Of 98 cases of diseases of the middle ear in children under 15, seen by Dr. Bronner in the last twelve months, 52 cases, or 55 per cent., had post-nasal growths. Of 81 cases of post-nasal growths 70, or 87 per cent., had diseases of the middle ear. The growths occurred mostly in children under 15. In adults other diseases of the naso-pharynx and also diseases of the nose became more frequent, and were in their way just as important for the treatment of diseases of the middle ear as post-nasal growths were in children.—Dr. MAJOR drew attention to the effect of post-nasal growths in causing contracted chest in children.—Mr. R. H. MEAD and Dr. GOYDER commented on the paper.

PATHOLOGICAL SOCIETY OF MANCHESTER.

WEDNESDAY, JANUARY 18TH, 1888.

A. W. STOCKS, M.R.C.S., President, in the Chair.

Cystoma of the Ovary of a Fœtal Cat.—Dr. A. ROBINSON showed sections of a cystoma obtained from the left ovary of a cat at about the seventh week of fetal life. The cysts were two in number, communicating with each other by a narrow neck; and both were lined by a low cubical epithelium. They were situated close to the hilus, and were developed from the tubules of the Wolffian body.

Adenoma Sebaceum.—Dr. BROOKE showed sections of an adenoma of the sebaceous ducts, which had been excised from the scalp of an infant. It was said to have been noticed very shortly after birth, but had grown somewhat rapidly of late. It measured one inch by three-quarters, and was exceedingly like a xanthoma in its outward appearance. The surface was smooth, bald, slightly raised, and yellowish. Histologically it was found to consist of a pure hyperplasia of the gland, causing atrophy of the neighbouring hairs and sweat ducts by pressure.

Infantile Paralysis.—Dr. ASHBY showed sections of the spinal cord of an infant aged 9 months, suffering from acute atrophic or "infantile" paralysis. The paralysis occurred about six weeks before its death, which was caused by pneumonia. The onset of the paralysis, according to the parents, was somewhat sudden, and accompanied by muscular twitchings and convulsions. The paresis of the legs was noticed first, then arms as well as legs; later she could not sit up, and there was complete loss of voice. The paresis of the limbs continued with but little improvement till death. An examination of the cord showed extensive changes

in the cervical and dorsal enlargement, being well marked in the dorsal and upper cervical region. The vessels entering the anterior horns were gorged with blood and surrounded by many leucocytes. The grey substance contained fatty granules, and detritus, which was very friable. The caudate nerve cells had in many places completely disappeared; in other places they were undergoing degeneration. In the pons and medulla the perivascular spaces were enlarged, and the vessels gorged with blood.

Specimens.—Dr. HILL GRIFFITH showed preparations illustrating the Anatomy of the Suspensory Ligament of the Lens.—Other preparations were exhibited as card specimens.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, JANUARY 19TH, 1888.

M. M. DE BARTOLOME, M.D., President, in the Chair.

Nerve Section for Wry-Neck.—Mr. PYE-SMITH showed a man, aged 39, in whom he had divided the right spinal accessory nerve for severe convulsive wry-neck. The movements had almost entirely ceased, enabling the man to resume work. The sternomastoid and trapezius were much wasted.

Laparotomy.—Mr. PYE-SMITH related a case of successful laparotomy for acute intestinal obstruction caused by a Meckel's diverticulum from the ileum in a boy, aged 13. The patient was shown at the meeting.

Cases.—Mr. SNELL introduced the following patients: 1. Man with chancre of upper eyelid (healed). 2. Man with piece of steel in lens for nineteen years, lens remaining clear except at the situation of foreign body (encapsuled) at the posterior part; the vision was good. The case was described in the *Ophthalmic Review* of 1884. 3. Staining of conjunctiva with nitrate of silver.

Myradema.—Mr. W. MAKEIG JONES showed a case of myxœdema in a married woman, aged 50. The disease had been gradually coming on for the last four or five years. The symptoms were great anæmia, with limited rosy patches on both cheeks, centre of forehead and lips; swelling of cutaneous surfaces, which did not pit on pressure; commencing atrophy of both optic discs; pupils sensitive to light; systolic *bruit*; exaggerated patellar reflex; urine about a pint in twenty-four hours; specific gravity 1014-1020; full of phosphates but not albuminous (it contained albumen eighteen months ago); temperature in mouth 96°; pulse 48-60; general lethargy, slowness of speech, and stammering; slowness of movement and sensation; unpleasant taste but not smell; the thyroid was larger, especially in its left lobe, than in women of the same age; the hands had the characteristic spade-like appearance. Although speech was slow she could read fluently.

Disease of Femur.—Mr. GARRARD showed a thigh bone which had been acutely inflamed, much thickened, and the medullary canal filled from end to end with cheesy pus, which he had amputated at the hip-joint three weeks previously; the patient had made a rapid recovery.

Colotomy.—Dr. GWYNNE gave the notes of a case where he had performed left colotomy for obstinate constipation of several months' standing relieved by occasional attacks of diarrhoea. The patient was a woman, aged 46, unmarried. The case gradually got worse, with great distension of abdomen, and frequent vomiting. The patient now (a year and a half after the operation) enjoyed good health. There was no history of syphilis. The pain was always referred to the left groin, and since the operation she occasionally suffered from pain in the same region.

HARVEIAN SOCIETY OF LONDON.—The following is a list of the names of gentlemen elected by the Council as officers of the Society for the year 1888:—President: *William Sedgwick. Vice-Presidents: Dr. T. Buzzard; Dr. John Williams; *Mr. H. W. Page; *Dr. William Ewart. Treasurer: Mr. G. P. Field. Honorary Secretaries: Dr. M. Handfield-Jones; *Mr. C. B. Lockwood. Council: Mr. F. H. Champneys, M.B.; Dr. J. Hughlings Jackson, F.R.S.; Mr. J. Ernest Lane; Dr. R. S. Mair; Mr. C. W. Mansell-Moullin; Dr. R. H. Milson; Mr. A. J. Pepper; *Mr. Edmund Owen; *Mr. Frederick Treves; *Dr. Stephen Mackenzie; *Dr. E. Clifford Beale; *Mr. J. H. Drew. Those gentlemen to whose names an asterisk is prefixed were not on the Council or did not fill the same office last year.

SUCCESSFUL VACCINATION.—Dr. J. R. Irwin has received the Government grant, amounting to £41 17s., for successful vaccination in the Whitehaven district.

REVIEWS AND NOTICES.

ARE EPIDEMICS CONTAGIOUS? By JOHN PARKIN, M.D., F.R.C.S., formerly Her Majesty's Medical Inspector for Cholera in the West Indies. Popular Edition. London: Sampson Low and Co. 1887.

THE author, who died in 1886, at the ripe age of 86, had, during his life, seen a great many cholera epidemics, and had evidently pondered over the subject. At the same time, the information contained in the editorial note by the author as to the conclusive results obtained on a "crucial test" of his discovery of the antidotal properties of carbonic acid gas in cholera, gives rise to a feeling of diffidence on the part of the reader. If, as the editorial note would lead one to suppose, his successful treatment of cholera in different parts of the world was "so notorious," that Her Majesty's Government again appointed him Medical Inspector, one can only express surprise that so useful a method of treatment has not become general. The introductory chapter is a very interesting, if somewhat highly coloured, picture of the progress and nature of the epidemics which have devastated the habitable globe.

The author points out that far back in history, when human intercourse was extremely restricted, the idea of contagion did not and could not have existed, since the inhabitants of one town being ignorant of the fact that the disease with which they were afflicted also prevailed in another, must have considered all diseases as endemic or sporadic. Even if this were the case, it is a feeble argumentative weapon with which to overthrow the accumulated evidence of the contagiousness of epidemics. Scarcely more to the point is the contention that, according to the contagion hypothesis, those most exposed to its influence ought logically to suffer most. No allowance is made for the other factors which influence the conveyance and course of any given disease.

The author combats the circumstantial evidence in favour of the dissemination of cholera through a contaminated water supply, in opposition to which he quotes isolated instances in which the water supply does not appear to have been implicated. A great deal of space and argument is devoted to discussing the spread of the plague—a matter which, if interesting, is not possessed of present importance.

It would be tedious and unprofitable to analyse in detail the individual arguments advanced, which for the most part are based on apparent exceptions to the generally observed method of disease conveyance. While the work shows that the author has had an exceedingly extensive experience of epidemics, and had, moreover, carefully read up the subject, it also proves his judgment was warped by a preconceived idea.

A TEXTBOOK OF MIDWIFERY. By the late OTTO SPIEGELBERG Professor of Obstetric Medicine in the University of Breslau. Translated from the second German edition by J. B. HURRY M.A., M.D. Cantab. Vol. I. London: The New Sydenham Society. 1887.

PROFESSOR SPIEGELBERG begins his work, as is usual, with the description of the female pelvis and of its contents, but that of the embryo and its appendages is relegated to the second volume, on the ground that, as it assumes at several points a knowledge of the changes in the uterus brought about by pregnancy, the subject cannot well be discussed earlier. It is, however, a decided advantage to the student to consider the foetus in connection with the canal through which it has to pass, even at the risk of forestalling some of the details. The pelvic measurements given are smaller all round than those generally taught in England, and the same remark applies to the vagina, though the latter is not of much importance.

Leaving the topography of the pelvic cavity, which is very thoroughly gone into, we come to Part II. This section deals with the physiology and hygiene of pregnancy, parturition, and the puerperal state. The vexed question of the relationship of ovulation and menstruation is hardly settled by the author, the two phenomena being described as "closely connected but not necessarily both present," so that we are left in doubt as to what the relationship is after all.

The subject of the development of the ovum, of the budding

up of the embryo, and its several organs, is not discussed, and the reader is referred for information on this point to textbooks on Embryology. Further on, however, the usual explanations are given of the development of the ovum. The description of the physiological development of the uterus during pregnancy does not differ in any essential point from that generally received. The calculation of the duration of pregnancy is made in lunar months and not in calendar months as is usual with us.

The translator obscures his meaning occasionally by the employment of unfamiliar expressions. Thus, on page 131, we are told that the foetus, till about the seventh month, always occupies the pelvic "lie." The author's explanations of the position assumed by the foetus are not altogether conclusive, though given somewhat dogmatically.

Some practical hints are given for the care of the new-born infant, but the author falls into the common error of advising that the milk for artificially-reared children should be drawn from the same cow, although it has been pointed out that much greater uniformity of standard is likely to be obtained from an average dairy supply, in which individual variations are neutralised by the mixture of the milk of a number of animals. The direction to warm the milk "until it no longer causes an unpleasant sensation when applied to the eye" is a trifle inconvenient of application.

The remainder of the volume is devoted to the pathology and therapeutics of pregnancy, parturition, and the puerperal state, and comprises disorders due to a morbid intensity of physiological phenomena; complications due to intercurrent diseases; anomalies of the sexual organs; diseases of the ovum; and hæmorrhage from the uterus.

A copious bibliography is given at the end of each chapter. No index is furnished with this, the first volume, the only guide being the table of contents. The illustrations are fairly numerous, and, besides the stock engravings, there are a number of drawings which will be new to the English reader.

A MANUAL OF VETERINARY HYGIENE. By FRED. SMITH, M.R.C.V.S. London: Baillière, Tindall, and Cox. 1887.

THE appearance of a manual of veterinary hygiene marks one more step in the progress of veterinary science in this country. There has long been a need of a thoroughly scientific work of this character to place in the hands of students.

The author considers that sanitary reform is not bearing fruit in civil life so luxuriantly as in the army, but it is impossible that sanitary measures should be so uniformly applied to civilian animals as to military ones; nevertheless, civil life affords many brilliant examples of veterinary hygiene applied to large studs, under far more disadvantageous circumstances than are found in the army. Quoting from p. 57, we read: "Their healthy state (speaking of army horses) is entirely due to the amount of pure air allowed them, for in no other circumstance of life do they differ from their predecessors of sixty years ago." This seems to amount to an admission that in no other circumstances of the life of the army horse are improvements advisable or possible.

In his further studies we commend one point to the author's notice: that whenever a civilian attempts to feed his horses upon the army "pattern," and work them as civilian horses are worked, they are very soon in a very weak and debilitated condition, and we should infer that if suddenly called upon for work demanding stamina civilian horses would prove greatly superior to army horses, and that such an athletic condition of body as will enable a horse to work well, and continue at it, needs plenty of good food, and is the outgrowth of many months, not weeks, even after he has arrived at maturity.

The first chapter of the book is upon Water, and is excellently written, no point of scientific interest being missed. The succeeding chapters upon Air and Ventilation are also very perfect; they exhibit much painstaking application on the part of the author, and, although written in a too scientific form to be easily assimilated by the general reader, they will at least rouse the well-educated horse-owner and veterinary surgeon to a sense of the high importance of the purity of air in stables, and explain the principles which control that purity. The author does not go so far, but he may have well added that urban stables should be inspected by a properly qualified officer of the local authority, and licensed as to the number of horses they should accommodate; this would cause a cessation of that cruelty of denying horses which work all day adequate room to lie down at night—a form

of cruelty by no means extinct. A law to this effect would do almost as much as the Contagious Diseases Animals Act in diminishing glanders and farcy in large cities, while it would prevent much real cruelty.

The chapters on Stables, Removal of Excreta, Soils, Disinfection, are valuable, and well repay close study. The chapters on Labour and Individual Hygiene especially are too short, and the subjects are treated too superficially. The book closes with chapters upon the Eradication of Epizootic Diseases, Elementary Meteorology, and remarks upon Statistical Inquiry—a matter of considerable importance.

The author must be congratulated upon having produced a work of great value, and exhaustive from the scientific point of view.

MANŒUVRES ET OPERATIONS A L'AMPHITHEATRE. Par le Dr. CROUZAT, Préparateur des Cours d'Accouchement à la Faculté de Médecine de Paris. Paris: Delabaye et Lecrosnier. 1887.

IN this handbook the author describes the various operations which may become necessary in difficult or abnormal labour. After a preliminary dissertation on the fundamental principles of obstetrics and the course of spontaneous delivery, the author goes through the practical instruction given to students in Paris with the aid of the "dummy." This is taken up in French schools with a thoroughness and completeness which we have not so far attempted to imitate. We then come to the question of forceps, and these the author divides into three types: (1) that of Chamberlen (1600); (2) that of Levret (1747); and, (3) finally, that of Tarnier (1877). It is almost incredible that French obstetricians should hold so obstinately to the cumbersome and unwieldy forceps of Levret, instead of adopting the English lock and something of the English gradations in size. From the historical point of view the chapter is poor, and from its being narrowed to the consideration of Tarnier's forceps, which are never likely to come into general use, its value is limited. The directions for the use of the instrument are clear and explicit. They are, of course, for patients in the dorsal position, and are, therefore, hardly available for English readers, who probably prefer that on the left side. The necessary details follow for diagnosing the position of the foetus and the presentation; and in this the student is always well drilled. The various landmarks are gone over, and their significance pointed out. The different methods of effecting version are explained, and the operation described in detail. The book is profusely illustrated with well-executed woodcuts, which add very greatly to its lucidity and value. It is clear that a student who has conscientiously gone through this course—and it is compulsory—must be in possession of an amount of practical knowledge which will enable him to go about his midwifery work with well-grounded confidence.

We can recommend the work to students who propose taking out this course, and by its aid they can familiarise themselves with the technical terms in French, and generally with the Continental methods of procedure.

ROYAL COLLEGE OF PHYSICIANS.

THERE was a large attendance of the Fellows at the adjourned Comitia held on Thursday last to consider the resolution moved by the Senior Censor:

"That it is undesirable that any Fellow, Member, or Licentiate of the College should contribute articles on professional subjects to journals professing to supply medical knowledge to the general public, or should in any way advertise himself or permit himself to be advertised in such journals."

An animated discussion ensued, in which considerable difference of opinion was manifested; but, as the debate was declared to belong to the "Secreta Collegii," we can only record the fact that the motion was, on a division, adopted by the majority.

FEMALE SANITARY INSPECTORS.—At a recent meeting of the Newcastle Sanitary Committee, one of its members suggested the appointment of women inspectors, as they would be far more valuable for going among the housewives, and pointing out what had to be done; to which another member replied that, if females were appointed, some of the members' houses might be kept dirty.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 420, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 4TH, 1888.

THE BRITISH MEDICAL ASSOCIATION.

THE minutes of the last meeting of the Council of the Association include items of much promise for the usefulness of the work of the Association during the year, and indications of its continued progress and still rapidly increasing growth. Included in the business of the day was the formal election of 254 new members, following on the recent issue of a special number of the JOURNAL, an unusually large contingent, and one which promises well for the total increment of the year just opened. Another gratifying duty was the formal acceptance of the proposals of the Perthshire Medical Association to constitute itself a Branch of the British Medical Association. The incorporation as a Branch of the Association of the members of this influential local medical society will have the good effect of aiding the general organisation of the profession, so as to give effect to their opinions and wishes.

By taking up a position among the Scottish Branches of the British Medical Association, the members of the Perthshire Medical Association, while retaining all the advantages of social communion and of scientific interchange of thought and experience, join hands with the great fraternity of upwards of 12,000 medical men who are represented in its local and central Councils. They establish a claim for representation of their opinions in the Council of the Association, and acquire a vote in its proceedings. The autonomous powers of the Branches enable each to modify its times and places of meeting and its general proceedings in such a manner as best suits its convenience or its circumstances.

Quite apart from any considerations of addition to the numerical strength of the Association—which is not necessarily much affected by the formation of Branches—there is reason to welcome heartily every accession to the Branch organisation of the Association. Decentralisation is the essential condition of healthy, vigorous, and independent growth. In proportion as the Branches are numerous, active, well-organised, and well-nourished will the whole organisation thrive and flourish. Every thoughtful well-wisher of the Association is fully conscious of this.

The accession of this new Branch is peculiarly welcome and significant in connection with the forthcoming meeting

of the Association in Glasgow, in August next, and testifies that the preliminary arrangements announced have been made with judgment and capacity, and that they meet with the approval and will have the co-operation of our Scottish brethren outside the limits of the city. It affords thus a fresh earnest of the success and the popularity of our forthcoming meeting on Scottish soil, which is looked forward to on all sides with so much hopeful interest.

Another part of the business of the Council was to receive and consider the report of the Subcommittee which it had appointed in August last, to consider the important question of the rank of army medical officers. At that meeting a somewhat dramatic incident had occurred. Sir Thomas Crawford, the Director-General of the Army Medical Department, rose on the presentation of the report of the Parliamentary Bills Committee, and declared with great emphasis that he had no reason to believe that the discontent alleged to exist in the Army Medical Department as to the deprivation of relative rank, or the grievances which had followed upon that measure, had any real existence, and he threw doubt upon the existence of any extensive demand for titular military rank. In the presence of this declaration from so highly authoritative a source, the Chairman of the Parliamentary Bills Committee readily consented that the paragraph of the report thus impugned should be referred back to the Council of the Association for further investigation and report. That course was accordingly taken.

The Council appointed a Subcommittee, consisting of many of its most experienced and judicious members, for the purpose of such inquiry. The result is seen in their report, which was presented to the Council at its last meeting and unanimously adopted. The opinions which Sir Thomas Crawford had thus challenged of upwards of nine hundred medical officers of all ranks, including many of the highest, were obtained. Official rule prohibits them from any collective expression of opinion; so much so, that when a large number of medical officers, present in Dublin at the time of the meeting of the Association, proposed to meet and make a statement on the subject to the Committee, protesting against the statements of Sir T. Crawford, it was forthwith intimated that such a meeting would be considered a breach of military discipline, and the meeting was stopped. The result of the inquiry of the Subcommittee, after a laborious analysis of the facts had been made, was, it will be seen, wholly opposed to the conclusions which Sir T. Crawford had urged upon the meeting. They have reported in some detail, and their report will be forwarded to the Secretary of State for War. Such a report, coming after the intervention of Sir T. Crawford, and as the result of patient and laborious inquiry, can hardly be considered as anything else than conclusive. Armed with all possible information, after having heard all that can be urged against it, and with a fuller knowledge of the whole matter than could be obtained by any other machinery than that which this Association and this JOURNAL command, with the whole mind of the department before them, and speaking in the name of 12,000

medical men, of whom they are directly representative, the Council of the British Medical Association earnestly call upon the Secretary of State for War to give to the surgeons of the Army Medical Department such substantive and titular rank in the army as shall leave their position plain and unequivocal, both to soldiers and civilians. If the War Office does not grant this, the responsibility will rest with them for disregarding in a very flagrant and very indefensible manner the sentiments of the medical officers of the army, now expressed with overwhelming unanimity, and supported by the most influential body of civil medical approval and endorsement which could possibly be arrayed on their behalf. The consequences of such an attitude on the part of the War Office would be far-reaching, and could not fail to make not only the most painful impression on the department itself, and thus to affect injuriously the organisation of one of our most important military departments, but also to influence most unfavourably opinion in the medical schools and colleges, and seriously to injure the prospect of efficient recruiting for the Medical Service of the army. There is no question of finance involved. We may, therefore, hope that the Minister for War will deal with the demands made in a liberal and statesmanlike spirit, unbiassed by the petty prejudices which appear to have hitherto been appealed to in order to influence his judgment unfavourably. The efforts of the Association to obtain a full and clear view of the facts, and its deliberate and carefully considered verdict in favour of the medical officers of the army, will, we feel sure, not only cheer these medical officers by the assurance of well-considered sympathy and the substantial aid which it will afford them in the redressal of their grievances, but it will be also highly satisfactory to the profession at large.

APPLICATION OF THE SCOTTISH LICENSING BODIES FOR POWERS OF GRADUATION.

WE publish in another column a petition from the licensing bodies of Scotland who constitute the Conjoint Medical Board for Scotland, namely, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, for a charter under the Privy Council to enable them to confer degrees in medicine and surgery on such persons as may from time to time pass the examinations of their Medical Board. It is similar to the petition of the Royal College of Physicians of London and the Royal College of Surgeons of England. The petitioners state that they had no desire to disturb the existing arrangements whereby the Universities alone had the privilege of granting degrees in medicine, but in consequence of the action of the Royal College of Physicians of London and the Royal College of Surgeons of England, they have been constrained to apply for powers similar to those sought by these Royal Colleges. In one important respect the application from these Scotch Colleges differs materially from that of the two English Colleges. It has already been pointed out that the constitution of the new degree-

giving body which the two English Colleges seek, is in the highest degree autocratic, unconstitutional, and non-representative, seeing that it is to be constituted wholly out of the self-elected Council of the Royal College of Physicians and the Council of the Royal College of Surgeons, which is representative only of a very small minority of that corporation, and is, in its mode of election and in its general relation to its constituents, open to most serious objections. The whole of the body of graduates of the new university and teaching bodies generally are to be wholly unrepresented on this self-imposed governing body. The Edinburgh Colleges and the Glasgow Faculty have taken a much more constitutional view of the proper construction of the Senate for a new governing body. They propose that it shall include nominated representatives of each of the Faculties, and in addition to them representatives to be elected by the recognised teachers of medicine in Edinburgh and Glasgow, and also by representatives of the graduates of the new body, so soon as the number of graduates of the Senate to be so incorporated shall have attained to 200.

Such a constitution possesses in it the elements of just representation and of equitable and wise government. No doubt the Scotch universities will object to the appointment of any such new degree-giving body in Scotland, and it cannot be said that the difficulties of graduation in Scotland are such as to compare with the disabilities of metropolitan candidates, who have at present no other body to which to apply than the University of London. On the other hand, it would be difficult for the Royal College of Physicians of London and the Royal College of Surgeons of England to show that their examinations differ in any material degree from those of the Scotch examining body, or that their diplomates have any inherent claim to a degree which the diplomates of the licensing bodies referred to do not equally possess.

This application of the three great licensing bodies of Scotland introduces a new and important element into the discussion, and one with which the Privy Council will have seriously to reckon. We have already repeatedly pressed that the whole subject is one of so much national importance and so much complication that it can only properly be solved by reference to a Royal Commission.

It would be regrettable in many ways if the application of the London Colleges were granted in its present form, or if it were to be totally rejected in consequence of its defects in form. Some remedy needs to be applied to the present state of things, which is one of great hardship to the students of metropolitan schools. It is much to be regretted that the remedy which the two Colleges propose should be so framed as necessarily to arouse indignation and antagonism by reason of its crude, imperfect, and autocratic form. But difficulties in form should not obscure the essential equity of the principle involved, and on these grounds we earnestly hope that the Privy Council will cause the whole question to be thoroughly sifted, when an equitable result will, we doubt not, be attained—a result consonant alike with the true constitutional development of university teaching and

graduation and with the pressing and legitimate requirements of the metropolitan medical schools and graduates.

MEDICAL AID IN OUTLYING DISTRICTS IN INDIA.

ALL reasonable people must sympathise with the efforts of the Government of India in the cause of administrative economy. But there is such a thing as false economy, and this kind of economy is often as cruel and unjust as it is false. A striking example of this has caused a good deal of unpleasant comment in India. We notice it to show the authorities there that, although the tragedy occurred in a remote district, it cannot be allowed to pass without grave notice at home.

Backerganj, in the Sunderbunds, is an exceedingly populous but very unhealthy district; the population varies from 700 to 900 per square mile. This being so, it cannot be wondered at that the administrative and judicial work of the collector and magistrate severely taxes the powers of the civil servant charged with the administration of the district. The late Mr. H. I. Fasson had the misfortune to have to discharge, single-handed, the onerous duties of this position. This gentleman contracted a malarious fever in the jungles of Chittagong, which he was unable to shake off. He was frequently prostrated by this fever, and, while labouring under the racking headaches and other depressing symptoms of this depressing malady, went on performing his daily duties, involving great mental exertion.

It will not surprise our readers to hear that he broke down, and in a fit of utter despondency died by his own hand, "sacrificed to the miserly spirit that pervades the present Government in its dealings with its servants." "Will it be believed," says a writer in the *Calcutta Englishman*, that an important district like Backerganj has been without a European surgeon for upwards of a year? Yet so it was. Had a competent medical officer been within reach, this valuable public servant would, long ere matters reached such a pass as we have described, have been properly cared for, struck off harassing duty, and removed to a better climate.

This is not a solitary example of the consequences of this pitiful economy. Another civil servant, not much more than a year ago, was cut off by an attack of fever, which under rational treatment would, in all human probability, have had a happier issue; but as the Government could not afford to give the needful help in the shape of a European medical officer at the station, this unfortunate gentleman, whose legal acquirements were such as to mark him out for the highest honours of his service, was cut off after a brief illness. Appointments in the Indian Civil Service are much coveted, and able and highly educated men strive for them, often to the permanent injury of their health. It does not appear from the above that the Government they serve sets a high value on their lives. Such a narrative as we have related is calculated to cool the ardour of competitors.

It is not only in the manner we have indicated that false and

unjust economy is being carried out in India. The members of the Medical Service are always among the first victims when money is to be saved. Under a new rule recently promulgated doctors are mulcted a hundred rupees per mensem when they go on privilege leave; and this often when they are driven by ill-health and the pressure of work to seek a little relaxation. This rule applies to medical officers only.

We have already called attention to the fact that the Medical Service of India is kept so short-handed that, unless on sick certificate, furlough to Europe is suspended. There are numerous officers whose regulation leave has been due for eighteen months or two years who cannot get it. In time of war no one complains of this; in time of peace it is a flagrant breach of faith. How long is this persistent ill-treatment of an indispensable and most useful and hard-working class of officers to go on? We suppose until the "worm turns," and the Government of India knocks in vain at the doors of the various schools of medicine in the kingdom for candidates for commissions in a service where such treatment awaits them. That day will come soon, and the sooner the better.

HER Royal Highness the Duchess of Albany has graciously consented to become patroness of the Parkes Museum, of which H.R.H. the Duke of Albany was President until his decease.

A MEETING of the Executive Committee of the General Medical Council has been summoned for Monday, February 27th, at 1.30 P.M., for the discharge of ordinary business.

SMALL-POX is said to be completely stamped out in the island of Tasmania, and the temporary small-pox hospitals and quarantine stations broken up.

OBSTETRICAL SOCIETY OF LONDON.

ON Wednesday evening the annual meeting of this Society, for election of Fellows, was held. After some specimens had been shown by Drs. W. Duncan and Carter, and Mr. Meredith, a paper by Drs. Herman and Fowler was read, and the President, Dr. John Williams, gave the annual address. The officers for the ensuing year, whose names were given in last week's JOURNAL, were elected by ballot, and the proceedings terminated by votes of thanks to the retiring officers.

OUTBREAK OF TRICHINOSIS.

AN outbreak of trichinosis is reported from Cunewalde, near Liebau, in Silesia. Up to January 17th, no less than thirty persons had been attacked. The sufferers were all persons who had partaken of some small smoked sausages at a local *fête*, some of which were found, on examination, to swarm with trichinae. The butcher who furnished the sausages is one of the sufferers, and affirms that all the pigs killed by him had been examined and passed by the sanitary authorities.

ALUM IN TYPHOID FEVER.

DR. PAOLETTI has treated sixty cases of typhoid fever, with excellent results, with crude alum alone. He remarks that this drug had formerly been used only as a styptic and an astringent, but now that its antiseptic properties had been recognised it was clearly indicated as a remedy for abnormal fermentations in the intestinal canal.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

THE annual meeting of the Association of Members of the Royal College of Surgeons of England took place on January 31st, at the Holborn Restaurant, when the annual report and balance sheet were received and adopted, and a resolution passed in favour of continuing the action of the Association for obtaining the representation of Members on the Council of the College of Surgeons. The meeting, which was not numerously attended, was followed by the first Association dinner, over which Dr. Collum presided, the guests being Mr. Tweedy, Mr. Atherley Jones, and Mr. Richard Davy. A cordial vote of thanks was passed to the secretaries for their energy and perseverance in carrying on the movement.

THE RELATION OF HOSPITALS AND MEDICAL SCHOOLS.

THE next evening meeting of the Hospitals Association will be held in the Board room of St. George's Hospital, on Wednesday, February 8th, at 8 P.M., when Mr. Timothy Holmes, F.R.C.S., will read a paper on the Relation of the Medical School to the Hospital. Dr. Bristowe, F.R.S. (President) will preside. All members of the medical profession, and others interested in this question, are cordially invited. Cards can be obtained, on application, from Mr. Howard Collins, Secretary, the Hospitals Association, Norfolk House, Norfolk Street, W.C.

NURSES FOR THE SICK POOR.

THE Committee appointed by the Queen to advise Her Majesty as to the disposal of the surplus of the Women's Jubilee Fund are desirous of receiving information from all the various institutions for nursing the sick poor in their own homes throughout the United Kingdom. Reports and other information should be forwarded to Grosvenor House, London, W., addressed to the Secretary, the Duke of Westminster.

THE LATE MR. GEORGE GODWIN, F.R.S.

MR. GEORGE GODWIN, F.R.S., who died in London on January 27th, at the age of 73, was one of the pioneers of sanitary science in this country. As the editor for many years of the *Builder*, he did much to awaken his brother architects to the importance of such subjects as drainage and ventilation. As the author of several popular works, he took an honourable share in laying bare the terrible defects in the houses of the poor, describing in forcible language the evil effects thus produced on life, health, and morals.

REDUCTION OF FEES FOR THE OXFORD M.D. DEGREE.

ON January 24th these fees, which have hitherto amounted to £40, and, by their relatively large amount compared with those at other universities, have certainly acted prohibitively, were reduced by Convocation to £25. It is hoped that large numbers of graduates will avail themselves of the opportunities thus offered.

NATIONAL PENSION FUND FOR NURSES.

WE are officially informed that this fund, so munificently inaugurated by the donation of £20,000 by four of the great City merchant princes, is making rapid progress towards the commencement of practical work. The Government authorities have sanctioned its incorporation under the above title. The trust deeds have been approved and settled, and are now in course of signature. The Society having thus received incorporation by Act of Parliament, its Council will hold its first meeting for the despatch of business next week at the office, 48, Old Jewry, E.C., when the actuarial tables and other business preliminaries are to

be completed. Another handsome donation has, we are informed, been made to the Pension Fund of £250 by Mr. John Norbury. The Countess of Rosebery has added her name to the list of patronesses of the fund. The hospital officials and nurses who wish to join can forward their names to the acting secretary, who will furnish any desired information.

THE ILLNESS OF THE CROWN PRINCE.

FROM special telegraphic information which we have just received from San Remo, we are pleased to be able to confirm on the highest authority the favourable reports as to the condition of the German Crown Prince which have appeared during the last few days. The slough which, as we mentioned last week, came away on January 17th from the site of the growth which excited so much alarm in November was more than two centimètres long. The raw surface left by the separation of this piece of disorganised tissue has now almost entirely healed, and the condition of the neighbouring parts is highly satisfactory. There is, however, some thickening about the right side of the larynx; and though the present appearances seem almost to negative the theory that the disease is malignant, a dangerous amount of narrowing of the breath-way may be caused by simple inflammatory swelling. Under these circumstances it is thought not improbable by the physicians in charge of the case that tracheotomy may become necessary, possibly at no very distant date. This contingency, however, while requiring to be kept in view, need not cause any special anxiety as to the prolongation of the life of the illustrious patient.

PROVISION BY MEDICAL MEN AGAINST TEMPORARY OR PERMANENT DISABLEMENT.

A SUMMARY of the general results of the work of the Medical Sickness, Annuity, and Life Assurance Society for 1887, referred to in another column, has just been prepared under the Friendly Societies Act for transmission to the Chief Registrar. The results are in many respects remarkable, and of great interest, as showing the singular success with which this Society has achieved an object which had hitherto baffled the leading assurance societies, namely, the provision of a sickness fund making adequate payments to the professional classes for permanent or temporary disability from sickness and accident, as well as the customary provision for annuity and life assurance. From this it appears that the Society commenced this, its third year of active operation, with an available membership of 728; 122 members had joined during the year; 3 had died, and 18 lapsed or withdrawn, leaving a net membership of 829, or an increase of 101 in the year. The total income to the benefit or assurance fund (including £491 16s. 7d. interest on reserves) was £8,083 13s., as against an expenditure of £2,010 19s. 8d., showing an increase for the year of £6,072 14s., and a total reserve to these funds at the end of the year of £19,118 1s. 5d. The annual income for management purposes had been £911 17s. 6d., of which, however, only £404 17s. 4d. had been expended, leaving a gain placed to the credit of the general assets of £507 on the year, and a balance of saving in the management for the three years of £1,703 10s. 8d. The total expenditure for management during the year had been a little over 4 per cent. The net result, therefore, of the financial work of the year was £6,579 14s. 2d., leaving a gross capital (the whole of which is the property of the assured) of £20,821 12s. 1d. These results are, so far as is known, unparalleled in the insurance world in respect to the remarkable economy of management, the rapid and satisfactory growth of assets as against liabilities, and the complete demonstration which they afford of the success with which the organisation provided under the Friendly Societies Act can be worked when due economy

and efficient management are applied for the benefit of the professional classes.

THE WATER SUPPLY OF LONDON.

THE Bill which the Grand Junction Water Works Company contemplate promoting during the coming session is one of especial interest to Londoners, inasmuch as it may constitute the first step towards securing to the metropolis generally a purer supply of water than that which is at present drawn from the Thames, and which, after a more or less imperfect system of filtration, is distributed to some two-and-a-half millions of persons. The Company seek powers to construct an "intake," and other works at Dorney Common, midway between Windsor and Bray, whereby they would be enabled to utilise the pure water to be found in the chalk in that locality. In 1884 a report showing that it is practicable, and would be economical, to render available for London the vast quantity of pure water to be found in the neighbourhood of Dorney, was made by Mr. J. Thornhill Harrison, one of the engineering staff of the Local Government Board, and was laid before Parliament. But, like many another Parliamentary paper, this valuable and important report has never received the attention which it deserves. As long ago as 1881 Professor Frankland reported that the Thames and Lea were becoming year by year less suitable for domestic purposes, and that opinion has been amply verified by subsequent experience. So long as the crude sewage of Staines, Guildford, and other towns above the intakes of the metropolitan water companies finds its way into the Thames, Londoners cannot feel happy in their water supply. Any indication, therefore, that the ample supply of pure spring water which is obtainable in the neighbourhood of Dorney, and (since no filtration works would be needed), could be substituted for the present Thames supply at little, if any, increased expenditure will in time be made available for the whole metropolis, deserves to be cheerfully welcomed and fostered.

LEGISLATION FOR DRUNKARDS IN ITALY.

WE commend the clauses of the new Italian penal code which relate to drunkards to the attention of Sir Wilfrid Lawson. Such enactments seem to us to be based on a sounder principle, and to be much better calculated to mitigate the evils of drunkenness without undue interference with individual liberty, than sweeping measures of restriction which weigh heavily on the just as well as the unjust. The following are the regulations to which we allude. Anyone found in a condition of complete and manifest drunkenness in a public place shall be fined a sum not exceeding thirty francs. If the drunkenness can be proved to be habitual, imprisonment from six to twenty-four days may be inflicted. If the offender is under 15 years of age, the father or guardian is to be reprimanded, and directed to look after the youth, under penalty, in case of neglect, of imprisonment for a period not exceeding ten days. Anyone who, in a public place or in a place open to the public, maliciously causes the drunkenness of another person, or supplies drink or other inebriating substances to persons already intoxicated, shall be imprisoned for a period not exceeding ten days. If the person to whom the drink is supplied is under the age of 15, or is obviously in an abnormal state, owing to weakness or disorder of intellect, the punishment shall be imprisoned from ten days to a month. If the offender is a person whose trade it is to sell the said liquors and inebriating substances, he shall, in addition to the above mentioned punishment, forfeit his licence. When a person who has been guilty of a criminal act has the penalty remitted on the ground that he was drunk when he committed the offence, he shall nevertheless be liable to imprisonment for a period not exceeding one year or to a fine, in such wise that the punishment shall be, either in its length or its amount, equal to two-thirds of that which would have

been inflicted had he committed the same offence when in the full possession of his senses. It may be remarked that the expression "drinks or other inebriating substances" (*bevande od altre sostanze inebrianti*) might possibly be made to cover a much wider field than "intoxicating liquors."

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

THE lecture arrangements for 1888 are officially announced by the Secretary, Mr. Trimmer, as follows: The lecture hour will be 4 P.M. precisely each day. Professor John Bland Sutton, F.R.C.S.: Three lectures on Evolution in Pathology, on Monday, Wednesday, and Friday, February 13th, 15th, and 17th. Professor William Watson Cheyne, F.R.C.S.: Three lectures on Suppuration and Septic Diseases, on Monday, Wednesday, and Friday, February 20th, 22nd, and 24th. Professor Walter Hamilton Hylton-Jessop, F.R.C.S.: Three lectures on the Physiological and Pathological Conditions of the Pupil and Accommodation, on Monday, Wednesday, and Friday, February 27th and 29th, and March 2nd. Professor Charles Barrett Lockwood, F.R.C.S.: Three lectures on the Development of the Organs of Circulation and Respiration, including the Pericardium, Diaphragm, and Great Veins, on Monday, Wednesday, and Friday, March 5th, 7th, and 9th. Professor Charles Stewart, M.R.C.S.: Six lectures on Locomotion and Allied Phenomena, on Mondays, Wednesdays, and Fridays, March 12th, 14th, 16th, 19th, 21st, and 23rd. Robert Marcus Gunn, F.R.C.S., Arris and Gale Lecturer, in June; dates and subject will be announced. Professor Arthur Edward James Barker, F.R.C.S.: Three lectures in June; dates and subject will be announced. Professor Thomas Bryant, F.R.C.S.: Three lectures in June; dates and subject will be announced.

ANTIPYRIN AND IDIOSYNCRASY.

PRESCRIBERS who have made much use of antipyrin as an analgesic have been for some time aware that it was liable every now and again to give rise to symptoms of an extremely disagreeable kind. The graphic account by Dr. Allen Sturge, of Nice, of a case in which this idiosyncrasy was very marked, published at page 213, will be read with great interest, because it is, we believe, the first instance in which pulmonary symptoms have been carefully watched from the commencement by a skilled observer. The symptoms referable to the air passages and lungs—the sneezing, coryza, and copious bronchial secretion—which formed so alarming a combination, made their appearance in five minutes; they seem to point to a serious disturbance of the vasomotor system, a surmise which is strengthened by the sudden development of urticaria on the thighs and abdomen. The only cases at all comparable which we at present recall are two recently mentioned in the *New York Medical Record*. In one case related by Dr. C. T. Barber, of Brooklyn, a man took fifteen grains immediately before going to bed; he was no sooner in bed than intense itching, starting from the face and extending over the whole body, began to annoy him; the whole body was soon covered by an erythematous blush, which quickly resolved itself into characteristic urticaria. The face was so markedly swollen that the patient's features were entirely obliterated. The urgent symptoms quickly disappeared after the administration of an emetic, and after mild purgation the patient was again restored to his usual health. Dr. Barber does not state how soon after the onset of the symptoms he saw the patient, so that we cannot do more than surmise that the pulmonary symptoms noted by Dr. Sturge were not present, or at least not very marked. In the other case Dr. Whitehouse, of Santiago, gave seven and a half grains to a child; in two minutes there was intense pain in the stomach, followed by general urticaria, and finally by loss of consciousness; one-seventieth of a grain of atro

pine was administered, and in a few minutes the child was well. Like most other remedies, the action of antipyrin in migraine is very capricious; in some cases it acts like a charm, whenever resorted to, for months at a time, while in other cases it will succeed in one attack and utterly fail in another; that these differences in its action are not due to accidental impurities has been shown by taking care to use in making up the prescriptions antipyrin from the same sample. It will be noted that the dose taken in Dr. Sturge's case was a small one, and only one-third of that taken by Dr. Barber's patient.

CARDIAC VALVULAR DISEASE OF LONG DURATION.

A CASE exhibited by Dr. Kingston Fowler at a former meeting of the Clinical Society, related by him at the meeting on Friday evening last, and reported at page 247, was remarkable from the fact of the long continuance and stationary condition of the cardiac lesion, which was of rheumatic origin. The case may well take its place by the side of the examples described by Sir Andrew Clark and other observers during and since the discussion on the subject at the Brighton meeting in August, 1886. Dr. Fowler's patient was a man, aged 66, a wood turner, accustomed to work a treadle lathe, who had disease of the aortic and mitral valves, which was probably of fifty-three years' duration. In 1834 he had been admitted to the Middlesex Hospital suffering from acute rheumatism, for which he remained under treatment by Dr. (afterwards Sir Thomas) Watson for nearly nine months. The evidence that the valvular lesions now present occurred during the illness in 1834 was circumstantial, but seemed reliable. At any rate, the patient had had no return of the rheumatic attack since that former illness, and had scarcely been absent from work for a single day during the last fifty-four years. His heart was described as still showing no signs of failure.

THE TENTH INTERNATIONAL MEDICAL CONGRESS.

WE have received from Dr. A. L. Gihon, Medical Director United States Navy, a communication in which he takes, as it will seem to most readers, unnecessary pains to refute a statement of the *Journal de Médecine* of Paris, with regard to the next International Medical Congress. Our esteemed contemporary is reported to have said that American physicians had "bent under the Prussian yoke," and that "the next meeting will not be an International Congress, but merely a German reunion." This rhetorical flourish Dr. Gihon sets himself seriously to refute. Congresses have been held in Paris (1867), Florence (1869), Vienna (1873), Brussels (1875), Geneva (1877), Amsterdam (1879), London (1881), Copenhagen (1884), Washington (1887). Germany and Russia are thus the only European countries of the first rank in which a Congress has not been held, unless the recent elevation of Spain in the diplomatic hierarchy entitles her name also to be mentioned. What more natural, therefore, than that the next Congress should be held at Berlin? At the meeting of the Committee appointed at Washington to select the next place of meeting, Dr. Semmola, the representative of Italy, proposed, and Dr. Gihon, the representative of the United States, seconded a resolution naming Berlin as the place where the Congress should meet in 1890. Professor Reyher, representing Russia, supported the proposal, claiming at the same time that the Eleventh Congress (1893) should be held in St. Petersburg. Dr. Cordés, the representative of Switzerland, proposed that the next Congress should be held in Paris in 1889, during the centennial celebration; but, on being put to the vote, the proposal to hold the meeting in Berlin in 1890 was carried, with only one dissentient voice (Dr. Cordés's). The *Berliner Klinische Wochenschrift* of January 23rd remarks: "French men of science—we cannot answer for the press in France—will participate without any objections in the unification of international investigation, and the eminent medical men of France,

with few exceptions, are not disposed to bring national antipathies to bear upon science. Unfortunately, the influence of public opinion (so-called) is paramount in France. It will be a praiseworthy task in the cause of science to lead this opinion in the right direction."

THE EXEMPTION SCHEDULE IN BOARD SCHOOLS.

CONSIDERABLE differences of opinion exist on the subject of exempting children in primary schools, from the operation of the educational code, and, naturally, different views of the matter from those held by the teachers are sometimes taken by Her Majesty's inspectors when reporting on the school work. A list of such exemptions was recently presented to an inspector, and considered unsatisfactory. Of 67 boys in the first standard, 29 were withdrawn from examination. The causes stated were the common ones—"dull," "backward," "delicate," "ill-fed." Of the 67 boys, only 3 were under 8 years, and 1 was said to be over 15 years and an idiot. To speak precisely, it appears that the head teacher reported those boys not as incapable of being prepared for examination—we suppose the idiot was an exception—but as a list of boys who in the opinion of the teacher were likely to break down in health if the ordinary work of the school routine were pressed on them. As to these cases, what is wanted is some impartial authority who, after looking at the children presented by the teacher or school managers as specially feeble in body or in brain power, may decide upon competent knowledge who are unfit for the ordinary school routine. Such points cannot be satisfactorily determined by the teacher, and this duty is hardly a fair responsibility to throw upon any layman; what is needed is that every large school should be visited a few times in the year by a medical inspector, who may then decide such questions upon professional knowledge. Distinctions would thus be made between feeble and exhausted children and those who were merely lazy. It is very desirable that the feeble children, even if they cannot follow the routine work, should still be kept in school; even the idiot is better off there than in the streets, if no better provision can be made for him. We have urged many times that School Boards are bound by their duty to the public to see that feeble children are trained in school, and not deprived of the benefits of such training as may save them from mental and moral degradation in after life. Children below a certain physical standard cannot pass through the code work without harm; when it is known on competent authority that a child is feeble, he should be exempted from examination but not from school training. It cannot be too strongly insisted on that national education is intended for the improvement of the nation, not simply for the advancement of the brightest and best. It is among these children for whom exemption from the routine of the educational code is asked, that we find many who will probably fail in after life if neglected in childhood.

TABETIC ARTHROPATHY.

THE special bone and joint lesions met with in a certain small proportion of cases of locomotor ataxy were, as is well known, attributed by M. Charcot, who was the first to describe them, to neurotrophic influences; the absence of any adequate cause in the majority of the cases, and the extraordinary extent of the destruction of the articular surfaces of the bones without pain, or any of the ordinary signs of inflammation, afforded strong evidence of the accuracy of Charcot's view. It has not, however, met with universal acceptance, partly, no doubt, because it has been found that the implication of the anterior horns, to which he attributed it, has not been always present. During the discussion at the Clinical Society in 1885, Mr. Jonathan Hutchinson and the late Dr. Moxon were among the opponents of M. Charcot's theory. It was urged that the condition might be due to chronic osteo-

arthritis occurring in a joint so completely anæsthetic as to permit of free motion. This suggestion is strengthened by the fact that though destruction of bone is the main characteristic, new formation does also occur. This was the case in a very interesting specimen shown to the Pathological Society of London at its last meeting, by Dr. Collier, of Oxford. It was the knee-joint of a woman, aged 41, who had died in the Littlemore Asylum from general paralysis following on locomotor ataxy. Enormous loss of bone had occurred; the external condyle of the femur had entirely disappeared, and the crucial ligaments had been destroyed, yet a large amount of new bone had been formed in the immediate neighbourhood of the destruction. All this had occurred in about six months. When the patient left the Radcliffe Infirmary in January, 1887, there was some general swelling of the limb, but no alteration of the joint beyond fluid effusion. When she was admitted into the Oxford County Asylum at Littlemore in August, 1887, Mr. Pilkington found that the bones were freely movable in every direction, movement causing no pain, but being accompanied by marked grating. The point of special interest is that in the interval between leaving the Radcliffe Infirmary and entering the Littlemore Asylum, the patient was absolutely unable to move about, owing to the extreme ataxy, so that the rapid disorganisation which had taken place could not be due to the free use of a joint affected by osteo-arthritis. In this case the joint affection commenced at a very much later period than in the cases observed by Charcot. The patient had well marked ataxy two years and a half before she died, and was then quite free from joint disease, which began about eleven months before she died, and had reached its maximum in about six months.

SCOTLAND.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE fourth meeting of the current session was held in the Faculty Hall on Wednesday, January 25th. The following gentlemen were duly elected Fellows, namely, John P. Meeklem, L.R.C.P.E., and I. C. Edmiston, L.F.P. and S.G. Dr. Garnett Wilson showed an anencephalous fœtus, a twin of the seventh month. A discussion followed, from which it appeared that most of the Fellows present had had experience of such cases, but none in a twin pregnancy, and nearly all occurred in multiparæ. Dr. Oliphant then introduced a discussion on the action of pessaries, in the course of which the mechanism of the various kinds was debated.

GLASGOW ROYAL INFIRMARY.

IN Glasgow Royal Infirmary last year there were treated 4,790 indoor patients admitted during the year, as compared with 4,817 in 1886; the total number of cases treated by the staff in 1887 was 41,765, as compared with 39,250 in 1886. Like most of the medical charities in Scotland, the ordinary income had fallen off during the year; this was, however, more than compensated for by the unusually large sums of money received as legacies; these amounted to £20,732, which not only made up for the deficiency in the ordinary income, but which allowed a large sum to be added to the capital account of the institution.

IRELAND.

STEEVENS'S HOSPITAL.

IT is stated that Dr. Robert McDonnell is about to retire from the surgery to Steevens's Hospital. The appointment of his successor lies in the hands of the Board of Governors.

THE BOWMAN LECTURE.

MR. H. R. SWANZY, Surgeon to the National Eye and Ear Infirmary, Dublin, who was President of the Ophthalmological Section at the annual meeting in Dublin last year, has been invited to deliver the "Bowman" lecture before the Ophthalmological Society of the United Kingdom. This is a well-merited compliment. Mr. Swanzy is a distinguished ophthalmologist, and will justify the honour which has been conferred upon him.

THE PROFESSORSHIP OF SURGERY IN QUEEN'S COLLEGE, GALWAY.

IT is announced that the Lord Lieutenant has appointed Mr. W. W. Brereton to the chair of surgery in Queen's College, Galway, vacant by the death of Dr. J. V. Browne. The appointment is for seven years. There were about ten candidates for the office from various parts of Ireland. The direct emoluments are very small, but practice is supposed to result. As usual, there is much outcry. Mr. Brereton, who is surgeon to the Oughterard Workhouse Hospital, is objected to, first because he is not a university graduate, secondly because he is a Protestant, while Catholics were passed over. It certainly does not seem in the least necessary that a professor of surgery should have graduated in a university, although it is desirable; and it may be said that Mr. Brereton held office in the College many years ago as demonstrator of anatomy under Professor Cleland, now of Glasgow. The religious question is one with which we will not deal. It is right to state, however, that two candidates—Dr. Mahon and Dr. Eagleton, old students of the College and gold medallists of the University—were candidates; and the name of one of these at least was sent forward by the President as one of three from whom a selection might be made. The President, who is a man of great liberality of sentiment, is roundly censured, as if he had made the appointment. It by no means follows, however, that he is in any degree responsible, as the Government is not bound to accept the first name on the list, and, as a matter of fact, does not do so in all cases. We cannot help expressing some sympathy with those old pupils of the College who are disappointed. Their university career was unusually distinguished, and they naturally look to the Alma Mater for approval of their work.

BELFAST MEDICAL STUDENTS' ASSOCIATION.

THE second annual *conversazione* of this association took place at the Queen's College on January 26th, and proved highly successful. About 500 persons attended, including nearly all the professional staff, a large and influential representation of the medical profession, and many visitors. The decorations were on a very elaborate and artistic scale, and in the Examination Hall an excellent stage was erected for the performance of the *tableaux vivants*. Tea was served at 7.30, and at 8.30 a demonstration of chemical experiments was given by Professor Letts. The rest of the evening was occupied by a series of *tableaux vivants*, music, and a comic lecture by Professor Fitzgerald, on The First, Second, and Third Bridges. The *tableaux vivants* left nothing to be desired in point of completeness and artistic finish, and were loudly applauded. Among the scenes represented were: Medical Students 1848 and 1888, The Penance of the Duchess of Gloucester, Othello and Desdemona, The Rape of the Lock, The Princess, Tweedledum and Tweedledee, and Ferdinand and Miranda. The music was supplied by an excellent orchestral band under the direction of Mr. Edgar Staines, of the Theatre Royal, and by a number of amateur vocalists. An interesting feature of the evening was afforded by three scenes of an Ambulance at Work. The company separated at midnight, after a most enjoyable evening.

APPLICATION OF THE SCOTTISH LICENSING BODIES FOR POWERS OF GRADUATION.

The following petition has been presented to the Privy Council:—

To the Queen's Most Excellent Majesty in Council.

THE PETITION OF THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW, UNDER THEIR RESPECTIVE COMMON SEALS,

HUMBLY sheweth,—That your petitioners, the Royal College of Physicians of Edinburgh, are a corporation erected by Royal Charter granted by His Majesty King Charles the Second, 30th November, 1681, ratified 16th June, 1685; and of new incorporated by Royal Charter granted by your Majesty 16th August, 1861.

That your petitioners, the Royal College of Surgeons of Edinburgh, are a corporation erected by Seal of Cause granted by the Town Council of Edinburgh 1st July, 1505, confirmed by Royal Charter granted by His Majesty King James the Fourth of Scotland 13th October, 1506, ratified by Acts of the Scottish Parliament passed on 17th November, 1641, 22nd August, 1670, and 17th July, 1695, of new incorporated by Royal Charter by King George the Third, dated 14th March, 1778, confirmed by Act of Parliament 27 George III, cap. 65, as altered and amended by Act of Parliament 53 George III, cap. 76, and incorporated with new and additional powers, privileges, and immunities by Royal Charter granted by your Majesty on the 11th March, 1851, under the provisions of the Act of Parliament 13 Victoria, cap. 23.

That your petitioners, the Faculty of Physicians and Surgeons of Glasgow, are a corporation erected by Royal Charter granted by His Majesty King James the Sixth of Scotland, under the Privy Seal of that Kingdom, on 29th November, 1599, ratified by an Act of the Scottish Parliament passed on the 11th September, 1672, confirmed and amended by an Act of the 13th year of your Majesty's reign, chapter 20, passed on 10th June, 1850, entitled "An Act for better regulating the Privileges of the Faculty of Physicians and Surgeons of Glasgow, and amending their Charters of Incorporation."

Your petitioners, under the provisions contained in Clause XIX of the Medical Act made and passed in the Session of Parliament of the twenty-first and twenty-second years of your Majesty's reign, united and co-operated in a scheme constituting an Examining Board of the two Colleges in Edinburgh and of the Faculty in Glasgow, and in making regulations for conducting the examinations required for the purpose of qualifications to be registered under the same Act, which scheme and regulations were approved and adopted by your petitioners, the Royal College of Physicians of Edinburgh, on 18th March, 1884, and by your petitioners the Royal College of Surgeons of Edinburgh on March 11th, 1884, and by your petitioners the Faculty of Physicians and Surgeons of Glasgow on 7th January, 1884, and received the sanction of the General Medical Council on 31st March, 1884.

Your petitioners had no desire to take any step to disturb the existing arrangements, whereby the universities alone had the privilege of granting degrees in medicine, but in consequence of the action of the Royal College of Physicians of London and of the Royal College of Surgeons of England, they have been constrained to apply for powers similar to those sought by these Royal Colleges. Your petitioners are therefore desirous, and it is expedient in order to encourage proficiency in the sciences of medicine, surgery, and midwifery, that your petitioners should be enabled to unite and co-operate not only in conducting examinations for the purposes of the Medical Act, but also for the purpose of conferring degrees in medicine and surgery on persons who shall pass such examinations as may from time to time be prescribed by the Colleges and Faculty, and on persons who have already passed the examinations of the said Colleges and Faculty, and who shall have complied with such further regulations or undergone such further examination as it may be deemed proper to impose or require from time to time, and that for this purpose a Senate of physicians and surgeons should be constituted and incorporated, composed of an equal number of Fellows of each of the said two Colleges and Faculty and of persons chosen by all teachers of medicine in Edinburgh and in Glasgow who shall have been recognised as teachers of medicine by either of the said Colleges or Faculty prior to the establishment of the said Senate, who are not members of the Senatus of any university, and by all

teachers of medicine in Edinburgh and in Glasgow who thereafter shall be recognised by the said Senate, who are not members of the Senatus of any university, and also of persons chosen by the graduates of the Senate when the number of such graduates shall have attained to two hundred; also of the Lord Provosts of the cities of Edinburgh and Glasgow for the time being, and the Chairmen for the time being of the School Boards of said cities.

Your petitioners are desirous that they should have power to apportion whatever surplus funds may remain after defraying all expenses of carrying on the business of the said Senate, and of conducting the examinations for degrees as follows, that is to say, five-twelfths to the Royal College of Physicians of Edinburgh; three-twelfths to the Royal College of Surgeons of Edinburgh; and two-twelfths to the Faculty of Physicians and Surgeons of Glasgow, for the purposes of providing and maintaining such buildings, libraries, museums, etc., as may by these bodies be deemed necessary; and one-twelfth to be expended in the aid of medical teaching in Edinburgh, and one-twelfth to be expended in the aid of medical teaching in Glasgow.

Your petitioners therefore humbly pray that Your Majesty will be graciously pleased to incorporate the President for the time being of the Royal College of Physicians of Edinburgh and six other persons, to be elected by the Fellows from among the Fellows of the said College; the President for the time being of the Royal College of Surgeons of Edinburgh and six other persons to be elected by the Fellows from among the Fellows of the said College; the President for the time being of the Faculty of Physicians and Surgeons of Glasgow and six other persons to be elected by the Fellows from among the Fellows of the said Faculty; the Lord Provosts for the time of the cities of Edinburgh and Glasgow, and the Chairmen for the time of the School Boards of said cities; two persons to be elected from time to time by the recognised teachers of medicine in Edinburgh as defined above, from their own number, at meetings of the said teachers to be convened by the Presidents of the Royal Colleges of Physicians and Surgeons of Edinburgh; and two persons to be elected from time to time by the recognised teachers of medicine in Glasgow as defined above, from their own number, at meetings of the said teachers to be convened by the President of the Faculty of Physicians and Surgeons of Glasgow, with the addition (as soon as the number of Graduates of the Senate to be so incorporated shall have attained to two hundred) of five persons to be elected from time to time by such Graduates from their own number, under the name and style of "The Senate of Physicians and Surgeons of Scotland," with perpetual succession and a Common Seal, and with power to grant to persons who have complied with the regulations and passed the examinations prescribed by the Senate degrees in medicine and surgery, and with power to sue and be sued in their corporate name, to take, purchase, and hold lands, buildings, and property, both heritable and movable, and with such further powers, and subject to such provisions as Your Majesty may think proper to grant or impose, and your petitioners will ever pray.

Signed in name and by authority of the Royal College of Physicians of Edinburgh,

ROBERT PEEL RITCHIE, M.D., President.

Signed in name and by authority of the Royal College of Surgeons of Edinburgh, JOSEPH BELL, President.

Signed in name and by authority of the Faculty of Physicians and Surgeons of Glasgow,

JAMES MORTON, M.D., President.

VICTORIA by the Grace of God of the United Kingdom of Great Britain and Ireland, Queen, Defender of the Faith, TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING, WHEREAS The Royal College of Physicians of Edinburgh are a Corporation erected by Royal Charter, granted by His Majesty King Charles the Second, bearing date the 30th November, 1681, ratified 16th June, 1685; and of new incorporated by Royal Charter bearing date 16th August, 1861, in the 25th year of Our Reign; AND WHEREAS The Royal College of Surgeons of Edinburgh are a Corporation erected by Seal of Cause, granted by the Town Council of Edinburgh on 1st July, 1505, confirmed by Royal Charter granted by His Majesty King James the Fourth of Scotland, bearing date the 13th October, 1506, ratified by Acts of the Scottish Parliament, passed on 17th November, 1641, 22nd August, 1670, and 17th July, 1695; of new incorporated by Royal Charter granted by His Majesty King George the Third, bearing date the 14th March, 1778, confirmed by Act of the British Parliament, made and passed in the 27th year of His said Majesty, King George the Third, Chapter 65, as altered and amended by another Act of the British Parliament made and passed in the 53rd year of the reign of His said Majesty, King George the Third, Chapter 76, and incorporated with new and additional powers, privileges, and immunities by Royal Charter bearing date 11th March, 1851, in the 14th year of Our Reign, and granted under the provisions of an Act of the British Par-

liament made and passed in the 13th year of Our Reign, Chapter 23; AND WHEREAS The Faculty of Physicians and Surgeons of Glasgow are a Corporation erected by Royal Charter granted by His Majesty King James the Sixth of Scotland under the Privy Seal of that Kingdom, and bearing date the 29th November, 1599, ratified by an Act of the Scottish Parliament passed on 11th September, 1672, confirmed and amended by an Act of the British Parliament made and passed in the 13th year of Our Reign, Chapter 20, intitled "An Act for better regulating the privileges of the Faculty of Physicians and Surgeons of Glasgow and amending their Charter of Incorporation"; AND WHEREAS by the Medical Act made and passed in the Session of the 21st and 22nd years of Our Reign it was among other things enacted that any two or more of the Colleges and Bodies mentioned in Schedule A to the said Act (which Schedule mentioned along with others The Royal College of Physicians of Edinburgh, The Royal College of Surgeons of Edinburgh, and The Faculty of Physicians and Surgeons of Glasgow) might with the sanction and under the directions of the General Medical Council constituted by the said Act unite or co-operate in conducting the examinations required for qualifications to be registered under the said Act; AND WHEREAS The Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow have, with the sanction of the General Medical Council under the provision of the Medical Act united and co-operated in a Scheme constituting an Examining Board of the two Colleges in Edinburgh and of the Faculty in Glasgow, and in making regulations for conducting the examinations required for the purpose of qualifications to be registered under the said Act, which Scheme and regulations were approved and adopted by the Royal College of Physicians of Edinburgh on the 18th day of March, 1881, by the Royal College of Surgeons of Edinburgh on the 11th day of March, 1881, and by the Faculty of Physicians and Surgeons of Glasgow on the 7th January, 1881; AND WHEREAS it is expedient in order to encourage proficiency in the sciences of Medicine, Surgery, and Midwifery that the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow should be enabled to unite and co-operate, not only in conducting examinations for the purposes of the Medical Act, but also for the purpose of conferring Degrees in Medicine and Surgery on persons who, by passing the Examinations formerly held by the said two Colleges, and by the said Faculty separately, or by passing the Examination held by the Examining Board of the said two Colleges and the said Faculty or by passing any other Examination to be held by the two Colleges and the Faculty jointly or separately, have already acquired or may hereafter acquire the qualifications for registrations under the Medical Act, and who shall have also complied with such further regulations or undergone such further examination as it may be deemed proper to impose or require from time to time, and that for this purpose a Senate of Physicians and Surgeons should be constituted and incorporated, composed of an equal number of Fellows of each of the said two Colleges and Faculty, and of persons chosen by all Teachers of Medicine in Edinburgh and in Glasgow who shall have been recognised as Teachers in Medicine by either of the said Colleges or Faculty prior to the establishment of the said Senate, who are not members of the Senatus of any University and by all Teachers of Medicine in Edinburgh and in Glasgow who thereafter shall be recognised by the said Senate who are not members of the Senatus of any University, and also of persons chosen by the Graduates of the Senate when the number of such Graduates shall have attained to two hundred, also of the Lord Provosts of the Cities of Edinburgh and Glasgow respectively for the time being, and the Chairmen for the time being of the School Boards of said Cities respectively, with all such powers as are hereinafter conferred on such Senate.

NOW KNOW YE THAT WE by virtue of Our Royal prerogative, special grace, certain knowledge, and proper motive, at the humble petition of the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, do by these presents for Us, our Heirs, and Successors, will, ordain, constitute, grant, and declare in manner following, that is to say:—

1. *Incorporation of Senate.*—The following persons, namely:—First, The President for the time being of the Royal College of Physicians of Edinburgh, and six other persons to be elected from time to time for the purpose by the Fellows from among the Fellows of the said College; Second, The President for the time being of the Royal College of Surgeons of Edinburgh, and six other persons to be elected from time to time for the purpose by the Fellows from among the Fellows of the said College; Third, The President for the time being of the Faculty of Physicians and Surgeons of Glasgow, and six other persons to be elected from time to time for the purpose by the Fellows from among the Fellows of the said Faculty; Fourth, The Lord Provosts for the time being of the Cities of Edinburgh and Glasgow respectively, and the Chairmen for the time being of the School Boards of the said Cities respectively; Fifth, Two persons to be elected from time to time from their own number by the Teachers of Medicine in Edinburgh, recognised as before mentioned, at meetings of the said Teachers to be convened by the Presidents of the Royal Colleges of Physicians and Surgeons of Edinburgh, and two persons to be elected from time to time from their own number by the Teachers of Medicine in Glasgow recognised as before mentioned, at meetings of the said Teachers to be convened by the President of the Faculty of Physicians and Surgeons of Glasgow; And Sixth, When the number of Graduates of the Senate shall have attained to two hundred, Five persons to be elected from time to time by such graduates from their own number, as hereinafter provided, shall become and for henceforth for ever hereafter shall be and remain by virtue of these presents one body politic and corporate by the name of "The Senate of Physicians and Surgeons of Scotland," hereinafter in these Our Letters Patent called "The Senate," and by the name of "The Senate of Physicians and Surgeons of Scotland" shall and may have perpetual succession and a common seal, with power to break, alter, and make anew the said seal from time to time at their will and pleasure, and by the same name shall and may sue and be sued in all courts and in all manner of actions and suits, and may take, purchase and hold lands, buildings, and property, both heritable and moveable, and sell and dispose of the same, and may also exercise the other powers hereinafter mentioned.

2. *Election of Members of Senate by Graduates.*—When the number of Graduates of the Senate shall have attained to two hundred, the President of the Senate for the time being, or any other person whom the Senate may from time to time appoint, shall be Returning Officer for the election by such Graduates of five of their number to be members of the Senate, and such Returning Officer shall, not less than two months, and not more than six months, after the Graduates shall have attained the number of two hundred, intimate by public advertisement that nomination of Graduates will be received by him on or before a day to be specified in such advertisement. The election shall be conducted in such manner

as may be provided for by Regulations made from time to time by the Senate, provided always that the nomination shall be in writing, and the election conducted by voting papers, and that any person entitled to vote at such election may vote for as many candidates as there are persons to be elected. The persons so elected to be Members of the Senate shall enter on office on the first day of November succeeding such election.

3. *Dismissal of Office by Members of Senate.*—Of the six persons elected from the Fellows of the Royal College of Physicians of Edinburgh, of the six elected from the Fellows of the Royal College of Surgeons of Edinburgh, and of the six elected from the Fellows of the Faculty of Physicians and Surgeons of Glasgow, one from each of the aforesaid bodies shall go out of office in 1889, and one in each of the following years till the whole have gone out of office, and thereafter the member from each College and the Faculty longest in office shall go out of office in each year. Of the two members first elected by the Teachers of Medicine in Edinburgh, and of the two first elected by the Teachers of Medicine in Glasgow, one respectively shall go out of office in 1890, and one in 1892, and thereafter the longest in office shall respectively go out of office each alternate year. The period for which any member is first elected shall be determined at the time by the electing body. The five members elected by the graduates shall hold office for the period of five years, and shall be elected together in the manner hereinafter provided for. The date of entering on and going out of office for Members of the Senate shall be the first day of November.

4. *Members of Senate eligible for re-election.*—Any member of the Senate going or about to go out of office shall be capable of re-election, and any member of the Senate may resign his office of Member of the Senate by letter, addressed to the President of the Senate, and upon the going out of office, resignation, or death of any of the elected Members of the Senate other than Members elected by the Graduates, or any other vacancy in their number, including such a vacancy as may be caused by the appointment of any of such elected Members to any office, the holder of which is *ex officio* a Member of the Senate, some other Fellow of the respective College or Faculty, or some other teacher of Medicine in Edinburgh or Glasgow, shall be elected in his place by the Fellows of that College or Faculty, or by the Teachers of Medicine in Edinburgh or Glasgow, as the case may be, and shall hold office for the remainder of the term of office of the person in whose place he is so elected where such term of office has not expired. In the event of a vacancy occurring by death, dismissal of office, or otherwise as aforesaid among the Members of the Senate elected by the Graduates, it shall be filled up by the Senate, and the Graduate so appointed shall hold office till the next quinquennial period of election by the Graduates.

5. *President.*—The President for the time being of the Royal College of Physicians of Edinburgh shall be the first President of the Senate, and shall hold office until the first day of November, 1888, and on the first President going out of office, the next President of the Senate shall be the President for the time being of the Royal College of Surgeons of Edinburgh, who shall hold office for such period not exceeding two years as the Senate shall have determined at a special meeting held previously to his entering upon office, of which meeting not less than twenty-one days' previous notice in writing shall have been given to each Member of the Senate, and on the second President going out of office, the next President of the Senate shall be the President for the time being of the Faculty of Physicians and Surgeons of Glasgow, who shall hold office for such period not exceeding two years as the Senate shall have determined at a special meeting held previously to his entering upon office, of which meeting not less than twenty-one days' previous notice in writing shall have been given to each Member of the Senate; and thereafter the President for the time being of each of the said Colleges and the said Faculty in rotation shall be President of the Senate for such period—not exceeding, in each case, two years—as the Senate shall have determined in manner aforesaid.

6. *Vice-Presidents.*—The President for the time being of the Royal College of Surgeons of Edinburgh, and the President for the time being of the Faculty of Physicians and Surgeons of Glasgow, shall be the first Vice-Presidents of the Senate; and thereafter each of the Presidents of the aforesaid Colleges and Faculty who is not for the time being President of the Senate shall be a Vice-President of the Senate.

7. *President may resign.*—The President may resign his office by a writing under his hand addressed to the Senate, and delivered to the Secretary of the Senate, and in the event of his resignation the then senior Vice-President shall be President of the Senate during the remainder of his term of office.

8. *Chairman in absence of the President.*—At any meeting of the Senate the President, if in attendance, and if not, then one of the Vice-Presidents who is in attendance, shall take the chair, and in the absence of the President and both the Vice-Presidents some other member to be chosen from the members present shall take the chair and act as President.

9. *Meetings of the Senate.*—The Senate shall hold their first meeting within six calendar months from the date of these Our Letters Patent in such place and at such time as shall be appointed by a writing under the hand of the President for the time being of the Royal College of Physicians of Edinburgh.

10. *Rules as to Meetings may be made.*—The Senate may make such Rules and Regulations as to the times and places of subsequent meetings and the mode of summoning the same as to the Senate may seem proper, which Rules and Regulations shall remain in force until altered at a subsequent meeting, and in the absence of any rule or regulation as to summoning a meeting, the President for the time being, or either of the Vice-Presidents, may by a writing under his hand addressed to each other member of the Senate, summon a meeting at such time and place as he may think proper.

11. *Votes of Majority present to be decisive.*—All acts of the Senate shall be decided by the votes of the majority of members present at a meeting of the Senate, and the Chairman shall, in addition to his vote as a member of the Senate, have a casting vote in case of equality of votes.

12. *Quorum of a Meeting.*—No business shall be transacted at any meeting of the Senate unless there are at least twelve members of the Senate present at such meeting.

13. *Proceedings valid notwithstanding Vacancy.*—Notwithstanding any vacancy in the number of the members of the Senate, the Senate may exercise all powers conferred on them by these Our Letters Patent.

14. *Officers may be appointed.*—The Senate may appoint a Treasurer and Secretary and such other officers as they think necessary.

15. *Power to confer Degrees.*—The Senate shall have power to confer on any person who, by passing the Examinations formerly held by either of the said two Colleges or the said Faculty separately, or by passing the Examination held by the Examining Board of the said two Colleges and Faculty conjointly, or by passing any other examinations to be held by the two Colleges and Faculty

jointly or separately, shall have already acquired or may hereafter acquire the qualifications for registration under the Medical Act, or any Act amending that Act, and who shall have also complied with such further regulations and undergone such examination as the Senate may from time to time see fit to impose or require as a qualification for a Degree, both, or such one as the Senate may think proper, of the following Degrees, namely, the Degree of Bachelor of Medicine, and Bachelor in Surgery, and also on those who, having acquired both or either of the Degrees of Bachelor of Medicine and Bachelor in Surgery, shall have also complied with such further regulations or undergone such further examinations as the Senate may from time to time see fit to impose, all, or such one as the Senate may think proper of the following Degrees, namely, the Degree of Doctor of Medicine, Master in Surgery, and Doctor of Sanitary Science.

16. *Fee for Examinations.*—The Senate may demand and take from each candidate for examination the following fees—namely, for the Examination required for the Degrees of Bachelor of Medicine and Bachelor in Surgery, singly or both, a fee not exceeding ten guineas, and for the Examinations required for all or any of the Degrees of Doctor of Medicine, Master in Surgery, or Doctor of Sanitary Science, a fee not exceeding five guineas in respect of each of the said Examinations, but shall not demand or take any fee for granting any Degree. Any stamp duties chargeable on Diplomas shall be paid by the Graduate.

17. *Apportionment of Surplus Fees (if any).*—Any surplus funds which may remain after defraying all expenses of carrying on the business of the Senate, and of conducting examinations for degrees, shall be apportioned as follows, that is to say, five twelfths shall be paid to the Royal College of Physicians of Edinburgh, three twelfths to the Royal College of Surgeons of Edinburgh, and two twelfths to the Faculty of Physicians and Surgeons of Glasgow, for the purposes of providing and maintaining such buildings, libraries, and museums as may by the said Colleges and Faculty respectively be considered necessary; one twelfth shall be expended in such manner as the Senate may consider proper in aid of medical teaching in Edinburgh, and one twelfth shall be expended in such manner as the Senate may consider proper in aid of medical teaching in Glasgow.

18. *By-laws may be made.*—The Senate may from time to time make and alter any By-laws and Regulations (so as the same be not repugnant to the Laws of the Realm, or to the terms and general objects of these Our Letters Patent) touching the qualifications for Degrees and the granting of the same, and any other matters to be done under the provisions of these Our Letters Patent, and all such By-laws when reduced to writing, and under the Common Seal of the Senate, and approved of and countersigned by one of Our principal Secretaries of State, shall be binding on Candidates for Degrees, and for all other purposes within the provisions of these Our Letters Patent.

19. *By-laws to be approved.*—Provided that any By-law or Regulation to be made by the Senate shall not be of any force until our approval thereof shall have been signified to the Senate under the hand of one of Our principal Secretaries of State, or the same shall have been otherwise approved in such manner as shall be directed by Us with the advice and consent of the Lords Spiritual and Temporal and Commons of Our Realm in Parliament assembled.

General Confirmation Clause.—And we do hereby for Us, Our heirs, and successors further grant unto the Senate that these Our Letters Patent, shall be in all things good, firm, valid, sufficient, and effectual in law according to the true intent and meaning thereof, and shall be construed in the most favourable and beneficial sense for the Senate notwithstanding any non-recital, mis-recital, or imperfect recital, or any other omission, imperfection, or defect whatsoever in these Our Letters Patent. AND WE DO FURTHER will and command that this Charter do pass the Seal appointed by the Treaty of Union to be kept and used in Scotland in place of the Great Seal thereof, *per saltum*, without passing any other Seal and Register, for which these presents shall be as well to the Director of Our Chancery for writing the same, as to the keeper of the said Seal for causing the said Seal to be appended thereto, a sufficient warrant.

Given at Our Court at the day of _____, 1888, in the Fifty-first year of Our reign.

By Her Majesty's command.

DEGREES FOR LONDON MEDICAL STUDENTS.

PETITIONS TO THE PRIVY COUNCIL.

THE PETITION OF THE ASSOCIATION FOR PROMOTING A TEACHING UNIVERSITY IN LONDON.

THE Association for Promoting a Teaching University in London, which came into existence in May, 1884, has devoted a great deal of time to the study of the very complex questions involved in the organisation of university education in London. We say organisation for want of a better word to express the objects of the Association, which has perhaps suffered in its appeal for public support, owing to the difficulty of precisely describing to persons who have not previously given attention to the movement the means which it is proposed to take to remedy the evils which all collegiate teachers in London admit to exist. The main contention of the Association is that there already exist in London institutions giving university instruction, but that they suffer from the want of a common centre, such as a university would supply, and that the severance from the work of teaching of the work of examination for degrees, and the assignment of examination to the existing University of London as its sole function has had an injurious effect upon university education in London.

We have from time to time so fully reported and commented on the useful work which the Association has done that it is not now necessary to repeat the whole of the petition which it has recently presented to the Queen in Council. The petition sets forth the opinion that the evils above mentioned cannot be fully remedied except by the establishment in London of a teaching university—that is to say, a university which (1) provides for the student in all

the subjects included in its faculties the best attainable teaching with the necessary aids and appliances; (2) requires a regular course of attendance on such teaching as a preliminary to graduation; and (3) secures to the teacher a direct and adequate representation in its councils and a due share in its administration. The objections urged to the scheme proposed by the Senate of the University of London as a solution of the difficulty are (1) the absence of a curriculum in the faculties of arts and science; (2) the admission of collegiate bodies outside London; (3) the absence of any sufficient conditions for securing that the associated colleges shall be doing effective university work; (4) the want of any provision for the direct representation upon the governing body of the associated institutions, or of university teachers; (5) the granting of an unduly large representation to the graduates of the university. Referring to the proposed Senate of Physicians and Surgeons, the Association deprecates any severance of the machinery for granting degrees in London from academic influences, many serious defects of university education in London being in its opinion due to such a severance. With a view to avoid multiplication of bodies conferring a diploma or a licence to practise, the Association advises that the possession of the joint diploma of the two Royal Colleges should be a preliminary condition for obtaining a medical degree in the university, the conferring of such diploma remaining, as at present, the function of the Royal Colleges.

The Association suggests that the constitution of the governing body of such a university as is proposed should be, in addition to a Chancellor appointed by the Crown, members appointed by (1) the Crown, (2) the governing bodies of colleges associated with the university, (3) the Councils of Legal Education and of the Royal College of Physicians and the Royal College of Surgeons, (4) by the teachers. The conditions to be fulfilled by a college would be as follows:—(1) that the institution is giving instruction of a university character; (2) that it has established a complete curriculum, and possesses a sufficient teaching staff in at least one of the recognised faculties; (3) and that it has furnished proofs of its means and appliances for teaching being established on a satisfactory basis.

It is explicitly admitted that this scheme has the same general effect as that presented by the Councils of University and King's Colleges to the Privy Council last autumn. It has many points in its favour. It meets the objections which have been urged with some force against the creation of a university of one, and that a professional faculty, for it would practically include the scheme of the Royal Colleges as a part of a larger scheme. That it will be viewed with approval by those corporations is impossible, for its realisation would somewhat detract from their dignity, though it would not diminish the beneficial influence which they exercise on medical education.

The same objection may, we regret to notice, be urged against this scheme as has already been forcibly raised against the scheme of the two Royal Colleges; in both the rights of the future graduates are entirely ignored. All through the teachers have the air of graciously presenting something to their pupils; the pupils, it is assumed, exist to increase the dignity and to line the pockets of the teachers. Once the state of pupilage is over then all connection between university and pupil is to cease. This is not a new form of pedagogic arrogance, but it is at the present day more offensive than ever before; no precedent can be found, in this country at least, for such a proposal. The University of London has been called a stepmother; the heart of this proposed university would be harder to her sons than the nether millstone.

THE PETITION OF THE UNIVERSITY OF CAMBRIDGE (in opposition to the Petition of the Royal Colleges of Physicians and Surgeons).

The Vice-Chancellor has published to the Senate the following form of petition proposed by the Special Board for Medicine for adoption and presentation by the Senate; it will be taken into consideration at the meeting of the Senate on this day (Saturday), at 2.15 P.M.

To the Queen's Most Excellent Majesty in Council.

The humble petition of the Chancellor, Masters, and Scholars of the University of Cambridge humbly sheweth—

That your petitioners have been informed that a petition has been addressed to your Majesty in Council by the Royal College of Physicians of London and the Royal College of Surgeons of England, in which the said Colleges acting jointly request that the Presidents and a certain number of Fellows or Councillors of

the said Colleges be incorporated under the name of "The Senate of Physicians and Surgeons," and that the said proposed Senate be empowered to grant degrees in medicine and surgery;

That your petitioners desire to represent that the power of granting such degrees has heretofore been entrusted to universities only;

That your petitioners believe it to be an advantage that in universities the granting of degrees in medicine and surgery is controlled by the opinion of a body of men interested in various subjects, whereas the said proposed Senate would represent a single faculty only;

That there is already in London an examining body, the University of London, which grants its degrees to all whose knowledge is sufficient to enable them to pass its examination;

That in the absence of any arrangement for university teaching, residence, or discipline in connection therewith, the proposed Senate would constitute a second merely examining body in London, which would grant one class of degrees and on easier terms;

That the distinction at present attaching to the degree of Doctor of Medicine granted by this and other universities has enabled your petitioners to require of candidates a longer and wider course of medical study than that hitherto required by the licensing corporations, and your petitioners are of opinion that the science and practice of medicine have thereby been advanced;

That they therefore deprecate any proposal such as that made in the said petition as tending seriously to diminish the distinction of this degree;

That for these and other reasons your petitioners submit that it is contrary to public policy and to the interests of medical and surgical science that the said proposed Senate should be invested with the power of granting degrees;

Your petitioners therefore humbly pray that your Majesty in Council will be graciously pleased to hear them by counsel or otherwise in support of the allegations in this their petition.

And your petitioners will ever pray, etc.

G. E. PAGET.	M. FOSTER.
ALEX. MACALISTER.	CHARLES S. ROY.
OCTAVIUS SPURGES.	GEORGE WHERRY.
DONALD MACALISTER.	LAURENCE HUMPHRY.
A. S. LEA.	M. M. PATTISON MUIR.
ALEX. HILL.	JOHN CLELAND.
G. D. LIVEING.	GERALD F. YEO.

REFORM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Reply of the Council of the College to the Statement presented to the Lord President on behalf of the Association of Fellows.

THE Royal College of Surgeons of England consists of about 18,000 Members, of whom about 1,200 are Fellows. The governing body of the College consists of a Council of twenty-four Fellows, elected by the Fellows as directed by the Charters of 1843 and 1852. Three members of the Council retire every year, and are eligible for re-election.

The Fellowship Examination was instituted in the interest of surgical education, and to constitute a body from whom and by whom the Council should be elected. The Fellowship represents a higher grade than the Membership. In order to obtain the Fellowship, a longer time must be devoted to professional study than is required for the Membership, and a further and more difficult examination must be passed.

In reply to the complaint of some Members that certain privileges are exclusively in the hands of the Fellows, it should be understood that it is open to Members of the College to become Fellows. Access to the Fellowship Examination has been facilitated to such an extent that any Member of two years' standing, who has been engaged in the study (or the study and practice) of the profession during that period, may present himself for it without any further special curriculum of professional study involving additional expense.

It has of late been repeatedly affirmed that the Members have no privileges within the College. But such a statement is not correct. The Members have the privileges of admission to the Museum, to the Library, and to all lectures delivered within the College walls, of competing for the College prizes, and of being eligible for certain Examinerships and Lecturerships. These

privileges (which include all those of the Fellows with the exception of the election of and the being elected to the Council, and of being eligible as Examiners for the Fellowship) may compare favourably with those of the graduates, not Members of Convocation or the Senate of Oxford or Cambridge respectively.

The authors of the statement to the Lord President appear to complain of the appointment of a number of Fellows by election; but in the first instance this was necessary, as the leading surgeons of England could hardly have been subjected to examination. The present proposal of the Council to obtain power to extend the number of Members annually elected to the Fellowship without examination from two to ten, as a maximum, was mainly to meet the view of some that certain Members of the College were entitled to the honour of the Fellowship by distinguished services in their profession, and yet were too advanced in life to be subjected to any further examination.

The proposal on behalf of the Association, that Members of ten years' standing should take part in the election of the Council, and that Members of twenty years' standing should be eligible as councillors, would substitute mere seniority for professional distinction, as proved by examination or by distinguished professional merit.

If no by-law could be made or modified without the consent of a general meeting of Fellows and Members, the delay and difficulty would be so great as seriously to interfere with the efficient conduct of business. The process by which alone a by-law is made or modified is already a very elaborate one, and affords, in the opinion of the Council, ample safeguard against its abuse, and, in fact, every proposal for such a change is made public before it is submitted to the Secretary of State for his sanction.

To the suggestion that the election of the President should be in the hands of the Fellows at large, the Council submit the following objections, namely:—

(a) That there is no evidence that the great body of the Fellows themselves desire this change.

(b) That no arrangement by which it could be carried out has been suggested that would not be in itself objectionable, and in many instances so disagreeable to the candidates themselves, as to deter some of the most distinguished from coming forward.

(c) That the Council, who are chosen by the Fellows, must of necessity be better judges of the qualification of any one of their number for the office of President than the general body of Fellows.

(d) That election by the Fellows might in some instances tend to interfere with the independent action of those members of the Council who might aspire to the office of President.

(e) That it might lead to contested elections, and thereby encourage the practice of personal canvassing, of extorting pledges, and of holding out promises.

(f) That it would practically place the election, not in the hands of the body of Fellows generally, but of a comparatively small number who would make themselves active in the business of the election.

(g) That the system of annual election by seniority merely, which until recently prevailed, and against which strong objection has existed in the Council itself, has been discontinued, the present President being now in his third year of office.

The Council would submit that the College is a scientific, educational, and professional institution, and not a political one. Their earnest desire is to uphold surgical education, and, with this object in view, to encourage Members to take the Fellowship.

The great purpose for which the College exists being the promotion of the science and art of surgery, the chief means at present at its command for effecting this purpose would be seriously impaired if changes such as those proposed were carried out.

The results of the inquiries made by the Council show that the majority of the Fellows are opposed to the claims set up on behalf of the Members, and there is no evidence before the Council that the majority of even the Members themselves are in favour of them.

The Council think it right to point out the following instances, among others, of inaccuracy in the statement which has been drawn up on behalf of the "Association of Fellows."

It is stated that the necessity for some control over the actions of the Council is shown "by the arbitrary way in which the Council settle such questions as the amalgamation for examination purposes with the College of Physicians, and the exclusion from that Scheme of the Society of Apothecaries," and also "by the scheme now in progress for acquiring powers along with the College of

Physicians to grant degrees in medicine, a scheme which may or may not be acceptable to the general body of the College, but on which they have never been consulted, though the matter is one which touches their interests most nearly."

At a meeting of the Fellows and Members at the College on March 24th, 1884, the following resolution was passed, namely:—

"That this meeting of Fellows and Members of the Royal College of Surgeons of England begs most respectfully to recommend that the Council of the College do obtain a Charter to enable the Council to combine with the Royal College of Physicians of London, with a view to the amalgamation of the two Colleges into one great College of Medicine, to be endowed with authority to examine and grant licences to practise in all branches of medicine and surgery, and to confer on its licentiates the degrees and titles of Doctor of Medicine and Master of Surgery."

The scheme proposed by the two Colleges is in accordance with this resolution.

So that, in taking the steps complained of, the Council are acting in harmony with the desire expressed by the Fellows and Members at their general meeting, and since confirmed by a memorial presented to them containing over six hundred signatures.

Again, it is affirmed that "no longer ago than last year a proposal was attributed to an eminent member of the Council to admit, by a vote of the Council, fifty Members each year to the Fellowship—a measure which, if it had been carried out, would have destroyed the academic value of that diploma. This proposal was vigorously resisted by the Association, and did not pass the Council."

The question here alluded to has never been discussed by the Council.

Should the Lords of the Council desire any further information, the Council of the College will wait on their Lordships.

January 19th, 1888.

WILLIAM S. SAVORY, President.

THE RANK OF ARMY MEDICAL OFFICERS.

REPORT OF RESOLUTIONS OF THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

THE Council of the British Medical Association having had before them the report of the Parliamentary Bills Committee of the Association referred to the Council by a resolution moved at the general meeting of the Association in Dublin on August 2nd by Sir Thomas Crawford, K.C.B., Director-General of the Army Medical Department; and also an analysis of the statements of 922 medical officers of the army, many of them of the highest rank, have unanimously adopted the following report and recommendations, which will be officially forwarded to the Secretary of State for War.

Report of the Committee of Council on the subject of the Rank of Army Medical Officers.

Your Committee in considering this subject have had before them:

1. The paragraphs of the Report of the Parliamentary Bills Committee on the subject of army medical rank, referred to them for consideration.

2. The replies of 922 army medical officers at home and abroad, to a series of questions issued by the Chairman of the Parliamentary Bills Committee with the view of ascertaining precisely what are the sentiments of the individual army medical officers of all grades, in reference to the question of rank, whether honorary, relative, or substantive.

3. An immediate mass of correspondence from officers of all ranks expressing in detail the grounds and arguments by which they support their views.

An analysis of the above documents has been printed for the use of the Committee, and copies are submitted with this report.

Without entering into any prolonged statement or discussion, it may be stated that the abolition of relative rank by the Warrant of January, 1887, was the immediate cause of the present dissatisfaction, and that subsequent steps taken by the War Office have not had the effect of giving satisfaction to the Army Medical Service generally.

From an examination of the documentary evidence submitted to this Committee it results:

(a) That the abolition of relative rank has, in the almost unanimous opinion of those interested, inflicted a grave injury on the status of the Medical Department in the army by leaving the officers without any definable or namable army rank.

(b) That, to an army like ours, serving in every climate and all parts of the world, a thoroughly organised, efficient and contented medical service is essential for the health, discipline and physical well-being of the soldiers; and that, therefore, the present anomalous position of the medical officers in the army is indefensible, an evil to the troops, and against sound policy.

(c) That, as both officers and men of the Medical Department equally share with their combatant brethren the risks of climate, the dangers and privations of field service, and are not infrequently killed and wounded in battle, the deprivation of *bona-fide* rank, title and status in the army is not only unjust and ungenerous, but an administrative reproach.

(d) That namable and definable rank should be accorded to medical officers, whether of a substantive, honorary, or relative nature.

(e) That, should it be determined to give medical officers a hybrid professional and military title, such should clearly indicate the actual rank of the holder by affixing the military title to the professional designation.

(f) That, when medical officers are gazetted, on appointment or promotion, their military rank should be fully stated.

(g) That the substantial military rank and status should be stated in commissions of all medical officers.

Your Committee recommend to the Council to submit these conclusions to the Secretary of State for War, and to urge upon him these considerations, seeing that the efficiency of the Army Medical Department and the prospects of recruiting it in the future from the abler sections of the younger members of the medical profession cannot but be seriously and prejudicially affected by the present anomalous position held by medical officers in Her Majesty's Army, and the general dissatisfaction arising therefrom. It should be pointed out that 75 per cent. of the army medical officers whose communications to the extent of 922 have been received regard the concession of army titular rank to medical officers as essential to the efficiency of the Medical Department.

1 "We cannot conclude the retrospect of the year without once more inviting attention to the fact that it is a much safer thing to serve in the Artillery and Engineers on the general staff than on the medical staff in our little wars. The percentage of deaths to strength in the

Artillery in Egypt was	...	...	...	0.00
Engineers	"	"	"	0.00
General Staff	"	"	"	4.43
Commissariat Department	...	...	...	0.00
Medical Staff	"	"	"	6.93
Pay Department	"	"	"	0.00
Veterinary Department	...	...	...	0.00

—BRITISH MEDICAL JOURNAL, Dec. 31st, 1887.

CENTENARIANS.—The death is announced in Dublin of Mrs. Bridget Dempsey Coolehan, at the advanced age of 106 years. On the family tombstone is recorded the death of her grandfather in 1821, at the age of 126 years.—Mrs. Elizabeth Stillman has died at Newbury within two months of reaching her 102nd year. She was in good health and retained her mental faculties till a short time ago.

The annual report of the City of London Truss Society shows that no fewer than 9,311 patients of both sexes and ages, varying from a few weeks to ninety years, were relieved.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, and a further portion of the Report upon OLD AGE have been completed, and will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has just been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Town Hall, Walthamstow, on Thursday, February 16th, at 8.45 P.M. (sharp). The chair will be taken by A. DURHAM, Esq., President of the Branch. A paper on Pernicious Anæmia, and the Diseases Liable to be Confounded with It, will be read by Dr. BRISTOWE, F.R.S. Visitors will be welcomed.—J. W. HUNT, 101, Queen's Road, Dalston, Honorary Secretary.

GLoucestershire BRANCH.—The next ordinary meeting will be held on Tuesday, February 21st, 1888, at 7.30 P.M., at the Infirmary, Gloucester, under the presidency of Dr. CURRIE. Agenda: 1. A petition will be laid on the table for signature by members in support of the Architects and Engineers Bill, a Bill to be presented in Parliament next session by Colonel DUNCAN, R.A., C.B., M.P. 2. A discussion will be opened by Dr. CURRIE on the Present Position of Homœopathy in Relation to Regular Medicine. 3. Cases of Interest in the Infirmary.—G. ARTHUR CARDEW, Honorary Secretary.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, February 24th, at 6 P.M. Dr. BYRON BRAUNWELL, of Edinburgh, will read a paper and introduce a discussion on the Process of Compensation and its Bearing on Prognosis and Treatment. The Secretary will be glad to receive notices of papers for reading, and patients or morbid specimens for exhibition. Supper in the hotel at 9 P.M.—H. A. LEDIARD, Honorary Secretary, 41, Lowther Street, Carlisle.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—A meeting of this Branch will be held at 195, Union Street, Aberdeen, on Wednesday, February 15th, at 8 P.M., the President, Dr. SMITH, of Kinnairdy, in the chair. Business: 1. Minutes, nomination of new members, etc. 2. Ballot for the admission of Dr. J. Marshall Lamb, Banff. 3. Motion of Dr. WIGHT to memorialise the Town Council of Aberdeen that the appointment of medical officer of health at present vacant be filled up by a qualified medical practitioner, who shall be excluded from private practice, and whose whole time shall be devoted to the duties of the office, in terms of the memorandum on the duties of the medical officer of health of the city of Aberdeen, of date March 15th, 1886. 4. Case of Pyloric Obstruction, with great Hypertrophy of the Stomach, by Dr. BALKIE SMITH. 5. Exhibition of Specimens: (1) Ram's-horn Toe-nail, by Dr. GARDEN; (2) Specimen of Compound Dislocation of Ankle-joint, by Dr. GARDEN. 6. Communication by Dr. BARCLAY, Banff.—ROBERT JOHN GARDEN and J. MACKENZIE BORTH, Honorary Secretaries.

Dr. S. L. CRANE, Surgeon-General of Trinidad, has been nominated Companion of the Order of St. Michael and St. George.

METROPOLITAN COUNTIES BRANCH: WESTERN DISTRICT. The second meeting of the session was held (by kind permission of the medical staff) in the library of St. Mary's Hospital, Paddington, on Friday, January 27th. The chair was taken by Dr. CHARLTON BASTIAN, F.R.S., the Vice-president of the district, and about forty members and visitors were present.

Disease of Knee-Joint.—Mr. EDMUND OWEN, F.R.C.S., surgeon to St. Mary's and the Children's Hospitals, gave a very interesting and practical description of certain chronic diseases of the knee-joint in young children. Mr. Owen exhibited several patients, and showed the adaptation of certain apparatus, such as Thomas's and plaster-of-Paris splints, etc. Mr. Owen also showed a case of synovitis, which he treated by aspiration and the immediate application of a plaster-of-Paris splint.—A discussion ensued, in which Dr. BASTIAN, Mr. NOBLE SMITH, and Dr. CAMPBELL POPE took part.

Disease of Spinal Cord.—Dr. LEES, physician to St. Mary's Hospital and assistant physician to the Children's Hospital, then described certain points connected with different kinds of chronic disease of spinal cord, subsequently illustrating his remarks by the exhibition of patients suffering from locomotor ataxia in various stages, infantile paralysis, spastic paraplegia, hemiplegia, etc.

Votes of Thanks.—The proceedings ended by cordial votes of thanks being passed to Mr. Owen, Dr. Lees, and the Chairman.

NORTH OF IRELAND BRANCH.

A GENERAL meeting of the Branch was held in the Royal Hospital, Belfast, on Thursday, January 26th, 1888. Dr. PALMER (Armagh), President of the Branch, occupied the chair, and there was a good attendance of members.

Communications.—The minutes of the previous meeting having been read, the following communications were brought forward: The PRESIDENT (Dr. Palmer) showed a young woman on whom he had performed excision of the knee-joint.—Dr. NELSON read notes of an Ear case, in which perforation of the mastoid and trephining of the skull had been performed for septicæmia, and showed the specimen.—Dr. DEMPSEY showed an Ovarian Cyst and a Sub-mucous Fibroid removed from the Uterus, and read notes of the cases.—Dr. BYERS showed a new Antiseptic Confinement Sheet, and a Multilocular Cystic Tumour of the Ovary, which he had successfully removed by abdominal section.—Professor DILL introduced a discussion on Puerperal Fever, and Dr. BYERS read a short paper on the Local Treatment of the Uterus (illustrated by instruments, etc.) in Puerperal Septicæmia. A discussion followed, in which several members took part, and Dr. DILL replied.—Dr. O'NEILL showed two patients on whom he had performed amputation of the thigh by Sédillot's method, and also a patient treated for severe Wry-neck.—Professor SINCLAIR exhibited a Segment of the Small Intestine removed by Enterectomy for Artificial Anus, of eighteen months' standing; also a Cancerous Tumour of the Rectum removed for excision.

New Members.—At a meeting of council held previous to the general meeting, the following were elected members of the North of Ireland Branch: Dr. Sproule (Saintfield, co. Down), Dr. Hunter (Armagh), and Dr. McAlister (Carrickfergus).

OXFORD AND DISTRICT BRANCH.

An ordinary meeting was held at the Radcliffe Infirmary, Oxford, on January 27th; Mr. CHEATLE, President, in the chair; twenty-four members were present, and one visitor.

New Members.—Thos. O'Kelly, M.D., Q.U.I., Chipping Norton; Bertram Hunt, M.B., Oxon., Oxford; F. S. Arnold, M.B., Oxon., Oxford, were elected members of the Association and Branch. Seven gentlemen were proposed for election at the next meeting.

Alteration of By-law.—Dr. DARBISHIRE gave notice of proposing an alteration in By-law 1 at the next meeting.

Communications.—Dr. BYWATER WARD read a paper on a case of Papilloma of the Bladder, and showed a specimen.—Mr. BLOX-SOME read notes of a case of Anthrax, and showed microscopical preparations of the Bacillus Anthracis.—Mr. MORGAN read notes of a case of Primary Chancre on the Lip, and showed specimens of Disease of the Knee-joint.—Mr. WINKFIELD read notes of a case of Lithotripsy, with specimens of Calculi, and showed a case of Sarcoma of the Shoulder, and of Syphilitic Eruption on the Hands.

Dr. COLLIER showed a specimen of Ligature of the Carotid Artery for Thoracic Aneurysm, and (for Mr. PILKINGTON) a specimen of Charcot's Disease of the Joints.

Vote of Thanks.—A cordial vote of thanks was passed to the President.

THE GLOUCESTERSHIRE BRANCH.

AN ordinary meeting was held on Tuesday, January 17th, 1888, at 7.30 P.M., at the General Hospital, Cheltenham, under the presidency of Dr. Currie. Letters of apology were read for non-attendance from Messrs. Bower, Fowler, and Wilton.

President's Address.—Dr. CURRIE delivered his presidential address, taking as his subject "Scepticism in regard to Medical Treatment."

It was proposed by Dr. WILSON, and seconded by Dr. BATTEN, that a cordial vote of thanks be given to Dr. Currie for his able address, with a request that he should publish it in the JOURNAL. Carried by acclamation.

PROCEEDINGS OF COUNCIL.

At a meeting of the Council, held in the Council Room of the Association, 429, Strand, London, on Wednesday, January 18th, 1888; present:—

Dr. T. BRIDGWATER, President of the Council, in the chair,	Dr. James Hardie, Manchester
Dr. C. Holman, Reigate, Treasurer	Dr. G. F. Hodgson, Brighton
Dr. J. S. Bristowe, F.R.S., London	Professor G. M. Humphry, F.R.S., Cambridge
Mr. H. T. Butlin, London	Mr. W. D. Husband, Clifton
Dr. A. Carpenter, Croydon	Mr. T. R. Jessop, Leeds
Surgeon-General W. R. Cornish, London	Mr. Evan Jones, Aberdare
Dr. J. Ward Cousins, Portsmouth	Mr. H. R. Ker, Halesowen
Dr. G. W. Crowe, Worcester	Dr. W. G. V. Lush, Weymouth
Dr. P. M. Deas, Exeter	Dr. J. McIntyre, Odiham
Dr. J. L. H. Down, London	Mr. F. Mason, Bath
Dr. G. F. Duffey, Dublin	Dr. C. Parsons, Dover
Mr. George Eastes, London	Dr. R. Saundby, Birmingham
Dr. W. A. Elliston, Ipswich	Mr. S. W. Sibley, London
Sir B. Walter Foster, M.D., M.P., Birmingham	Dr. E. M. Skerritt, Clifton
Dr. J. H. Galton, Upper Norwood	Mr. T. Sympton, Lincoln
Dr. C. E. Glascott, Manchester	Dr. T. W. Trend, Southampton
Dr. Bruce Goff, Bothwell	Dr. E. Waters, Chester
Dr. W. C. Grigg, London	Mr. A. Winkfield, Oxford

The minutes of the last meeting having been printed and circulated, and no objection raised, they were signed as correct.

Read letters of apology for non-attendance from Dr. Bryan, Dr. Sheen, Mr. Vincent Jackson, Dr. Withers Moore, Dr. James Taylor, Dr. Needham, Mr. Pranker, Mr. Wheelhouse, Dr. J. Barnes, Dr. Bartolomé, Mr. J. Wright Baker, Mr. Arthur Jackson, Dr. Jones Morris, and Dr. W. Russell.

Read letter from Dr. Gowans, Perth, of which the following is a copy:—

6, St. Leonard's Bank, Perth, January 16th, 1888.
DEAR SIR,—I have much pleasure in forwarding the enclosed petition (signed by 25 members of the Perthshire Medical Association), desiring to be recognised as a Branch of the British Medical Association. Although only 25 signatures are exhibited, still a number more could have been obtained had time permitted and had it been necessary.

I should feel much obliged by your kindly letting me know the result after Council meeting.—I am, yours faithfully,
F. Fowke, Esq., London.

W. B. GOWANS, M.D., Secretary.

To the Council of the British Medical Association.

GENTLEMEN,—We, the undersigned, members of the Perthshire Medical Association, and also members of the British Medical Association, hereby make application to be recognised as a Branch of the latter Association, undertaking that, said application being granted, we shall conform in all respects to the by-laws now existing, or which hereafter may be made, regarding the formation and regulation of such Branches:—

R. M. Bruce Trotter, President.
A. R. Urquhart
John McNaughtan, M.D.
J. Holmes Morrison, M.D., F.R.C.S.E.
D. Sinclair Kennedy, M.B., C.M.
James P. Bramwell, M.D., L.R.C.S.
George Findlay, M.B., C.M.
Leigh Hunt, M.B., C.M.
David Fleming.
Jas. Ferguson, M.B., C.M.
Thos. H. Melkie, M.D.
A. Thom, F.R.C.S. Ed.
Alex. Thom, jun., M.D., C.M. Ed.

John Haggart, M.B., C.M.
Wm. S. Irvine, M.D., F.R.C.S.E.
George W. Dickson, M.B., C.M. Ed.
Joseph H. Keay, M.A., M.B., C.M. Ed.
John Lowe, M.B., C.M. Ed.
J. Begbie Laing, M.B., C.M., L.R.C.P. and S.E.
Thomas Brown, L.F.P.S.
Andrew McMillan, M.D.
Colin MacIver Campbell, M.D.
Robt. Robertson, L.F.P.S.
Peter McCullam, L.F.P.S. G.
Wm. Bruce Gowans, M.D. Edin.

Resolved: That the Council of the British Medical Association has much pleasure in recognising the Perthshire Branch of the British Medical Association, subject to the confirmation by the next meeting of Council, when the members be requested to send a copy of the proposed by-laws of the Branch for consideration and approval.

Read letter from the Registrar-General in reply to the one of

the Council of October 26th last, of which the following is a copy:—

General Register Office, Somerset House, November 19th, 1887.

SIR,—I am directed by the Registrar-General to acknowledge the receipt of your letter of the 10th instant (date of receipt as letter was undated), and to say that he regrets that, after giving the matter full consideration, he is unable to accede to the request that he shall cause the deaths from malignant diseases, which are now tabulated in his Annual Report under a single heading, to be tabulated for a series of years under separate headings, according to the part of the body affected.

Probably the gentlemen who with you signed that letter are not aware of the great and regrettable lack of precision with which very many members of the medical profession state causes of death in their certificates; the result of which is that these certificates can only be tabulated with utility under wide and general headings, and are quite unsuited to serve as materials for precise pathological inquiries. In a very large proportion of the deaths ascribed to malignant diseases, neither the part of the body affected nor the precise character of the malignant structure is stated on the certificate; so that an attempt to break up the heading "Malignant Diseases" into numerous smaller sub-divisions would be practically of little use. But even were it not so, the Registrar-General would be unable to accede to the request now made to him. The headings under which the causes of death are at present tabulated are no fewer than 173; and the labour of arranging the deaths under these is such as to tax to the utmost the clerical force which the Registrar-General has at his disposal for statistical purposes. If any alteration were made in this list of headings, it would be to diminish their number; and a proposal to increase them, and this so considerably, as is involved in the request now made, is one that the Registrar-General regrets that he cannot possibly entertain. He would venture to suggest, however, that returns gathered from the numerous hospitals of this country, in which full and precise records of causes of deaths are kept; or collected, as your letter at its close seems itself to suggest, from the medical practitioners who belong to the Association in all parts of the country, would furnish you with a much more suitable basis for your proposed investigation than a compilation from the very imperfectly filled-in certificates in the possession of this office.

As regards that considerable portion of your letter in which it is argued that the increase in the deaths ascribed to cancer corresponds to a real growth of the diseases so designated, and is not due to improved diagnosis and statement, the Registrar-General cannot of course think of putting any opinion of his own on such a subject in opposition to that of medical men of wide experience and long practice. He would, however, point out that the numerical arguments adduced in your letter are based upon the erroneous assumption that the headings in the Annual Report for 1867 correspond completely to the similar headings in the present Annual Reports; whereas this is not the case, a great change having been made in the classification in 1881, as is fully explained in the Report for that year. And, secondly, he would point out that your letter appears to imply that the Registrar-General has expressed an opinion in his reports that the whole of the increase under the heading "Cancer" has been due to improved diagnosis and more careful statement. This, however, is a mistake. All that the Registrar-General has done is as follows. Finding that the deaths from cancer were year by year increasing in number, and more rapidly than the population; he has in several reports called the attention of medical men to the fact; but, in so doing, has also pointed out that much of this increase—how much he cannot say—is almost certainly due to improved diagnosis and more precise statement of cause; and if it be admitted—and the Registrar-General scarcely supposes that the British Medical Association will not admit—that medical diagnosis has, as a fact, been improving, and that medical certificates are now given with greater care than formerly, it appears to follow almost as a necessary consequence, that at any rate some part of the increased mortality under the heading "Cancer" must be so caused. It may possibly be that the Registrar-General is inclined to attribute too large a share of the increase to this cause; but this is a question simply of degree; and that some part of the increase has been thus caused is in his judgment indisputable.—I am, Sir, Your obedient servant,
W. OGLE, M.D., Supt. Stat. Dept.

The President, British Medical Association.

Also suggested letter in reply, of which the following is a copy:

To the Registrar-General of Births, Deaths, and Marriages in England.
SIR,—We have to acknowledge and thank you for your letter of November 19th, signed by Dr. William Ogle.

In reference to the several parts of it, we may state that we were perfectly aware that the lack of precision in the existing certificates would render them useless in framing statistics for the years that are passed. It is for the future that we hope for more detailed statistics, and we trust that sufficiently precise certificates will be forthcoming when the purpose for which they are needed has been made known.

Your letter speaks of "precise pathological inquiries." We hasten to assure you that we have no intention of asking for such an inquiry. We do not even ask for a division of the cases of malignant disease into their different varieties, but only for a division according to the part of the body affected.

In reply to your suggestion that we should gather returns from the hospitals of the country, we may say that such returns would be incomplete, and might even be misleading. They would deal only with poor people. They would vary according to the relation of each individual hospital to the surrounding population, and to its attraction in cases requiring operation, etc. Moreover, comparatively few of the patients who are treated for cancer in the hospitals die there. Although, then, hospital statistics are of value in showing the comparative frequency of cancer in the different organs of the body, and the various forms which it assumes in different localities, the statistics from this source are valueless as indicating the proportion of the population attacked by the disease.

With regard to the last paragraph, we fully informed ourselves of the changes which had been made in the Annual Reports, and used those tables which most nearly correspond and which contain similar headings of disease in the Reports of different years. In relation to this point, we venture to quote two paragraphs in your Report for 1881. The first paragraph runs as follows:—"One of the most important uses of a classification of deaths by their alleged causes, when it has been carried out year after year for a considerable period, is that it enables those who are engaged in preventive medicine, or who are studying the natural history of diseases, to compare the mortality from each cause in successive years," etc., etc. (page xix). The second paragraph is:—"If these considerations (i. e., caprice of medical nomenclature, improvement in diag-

mosis, etc.) as to the limits within which comparisons can be fruitfully made between the mortality figures of successive years be borne in mind, the changes of classification now introduced will be found to offer no material hindrance to such comparisons" (page 33).

While we quite admit that a part of the increase observable in the mortality from cancer is probably due to more precise statement of cause of death and improved diagnosis, we cannot think that these things account for more than a small proportion of the increase. We, therefore, beg once more to direct your attention to the vast increase in the mortality due to this disease, and to express our hope that you will see your way to provide us with more detailed statistics on the subject, and of a kind which cannot be obtained from any other source. —We remain, Sir, your obedient servants.

Resolved: That the letter be received and approved, and forwarded to the Registrar-General, signed as the last one, and that a deputation consisting of the signatories be appointed to meet Dr. Ogle, if necessary, to discuss the subject with him.

Read letter from the Honorary Secretary of the Reading Branch, requesting that the proposals of a special general meeting of the Reading Branch to change the name of the Branch to the Reading and Upper Thames Branch, and that an annual meeting and dinner be held in the first week in July in each year, and that the Council shall have power to arrange for further meetings if considered desirable, be approved and confirmed by the Council.

Resolved: That the proposals contained in Dr. Heygate Phillips's letter relative to the alteration in the name of the Reading Branch and the annual meeting of the Branch be approved and confirmed.

Read letter from Surgeon J. J. Lamprey, suggesting that in those districts in the Colonies which are too sparsely populated and the medical men live too far apart to form a Branch, a Member of the Association should be appointed as Honorary Secretary for the District.

Resolved: That the letter be referred to the Journal and Finance Committee for consideration.

Read letter from Mr. Nelson Hardy asking for the occasional use of the Council Room for the Metropolitan Police Surgeons Association.

The consideration of the letter was postponed till the reading of the minutes of the Premises and Library Committee.

Resolved: That the 254 Candidates whose names appear on the circular convening the meeting be, and they are hereby, elected members of the British Medical Association.

Resolved: That the Minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect, with the exception of the recommendation relating to the increase of salaries of the officers.

The Minutes of the Journal and Finance Committee contain the accounts of the quarter ending December 31st, 1887, amounting to £6,927 13s. 8d., auditors' quarterly certificate, Recommendations for the investment of £2,000, and the increase of officers' salaries.

Resolved: That the recommendation on the increase of salaries of officers be referred back to the Journal and Finance Committee, and reported upon to the Council at the next meeting.

Resolved: That the Minutes of the Habitual Drunkards Committee of the 17th inst. be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Habitual Drunkards Committee contain a recommendation that the Hon. Secretary be requested to receive a deputation of the Committee upon the subject of further restrictive legislation for Habitual Drunkards.

Resolved: That the Minutes of the Therapeutics Committee of the 17th inst. be received and approved, and the recommendations contained therein carried into effect.

The Committee met to consider resolutions passed by the Therapeutic Section at the annual meeting at Dublin in August last, and to take such steps to carry into effect the suggestions for Therapeutic Reform made in the sectional President's address.

Resolved: That the Minutes of the Premises and Library Committee of the 21st day of November last and of the 17th inst. be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Premises and Library Committee contain several offers of loans, the Report of Dr. Alfred Carpenter relative to the improvement in the ventilation, and recommendations with certain conditions upon which scientific associations may have their meetings in the Council Room.

Resolved: That the Minutes of the Relative Rank Committee of the 25th of October last and of the 17th inst., together with the Report of the Committee (see page 265), be received and approved, and the recommendations contained therein carried into effect.

Resolved: That the Committee be requested to continue their services, and to take any further steps that may be necessary.

Resolved: That the Minutes of the Fees to Witnesses Subcom-

mittee of the 17th inst. be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Fees to Witnesses Subcommittee recommend that the question be placed before the Branches of the Association for evidence as to the practice of the courts in the various parts of the United Kingdom.

The further arrangements for the annual meeting at Glasgow were then considered.

SPECIAL CORRESPONDENCE.

SAN REMO.

[FROM OUR OWN CORRESPONDENT.]

AFTER a week's confinement to his room owing to a catarrhal attack and some change in the laryngeal condition reported elsewhere in your columns, the Crown Prince is again to be seen taking daily drives, apparently none the worse. There has been no suggestion here of any fresh consultation taking place. Sir Morell Mackenzie continues to enjoy the most absolute confidence of his august patient and that of the Crown Princess and the family generally. Sir M. Mackenzie arrived here on Sunday afternoon, being met at Ventimiglia by Dr. Freeman.

On Wednesday and Thursday the annual bazaar in aid of the poor of all nationalities was held here, under the patronage of the Crown Princess, who contributed two terracotta plaques painted by herself, Prince Henry also sending a sketch. The royal party lunched at the buffet, which was kept and served entirely by the English. The room and tables were most tastefully decorated, and the young ladies attired as waitresses and the gentlemen as cooks made an effective scene. In the evening a dance was held, at which Prince Henry thoroughly enjoyed himself, dancing until 3 A.M., when he left by the early morning train for Milan, to meet his future bride, the Princess Irene, who, with her father, the Grand Duke of Hesse, have arrived to stay for some time.

On Wednesday, the thirtieth anniversary of the Crown Prince and Princess's wedding-day, addresses and bouquets were presented, and a display of fireworks with illuminations of the hotels took place in the evening.

On Wednesday next a subscription ball in aid of the Ophthalmic Institute is to be held, and it is expected it will be a great success, Prince Henry and the Princesses having promised to be present.

There have been many visitors to San Remo and to the Villa Zirio the last week or two, amongst others, the Princess Louise and Lord Lorne, the Marquis of Hartington, and Sir Henry and Lady Layard.

Mr. Edward Lear, the eminent water-colour artist, and the author of the famous books of *Nonsense*, long resident here, died on Sunday last.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Vacant Chairs in Owens College.—Ship Canal and the Pollution of the Irwell.—Small-pox.—University Clubs.

So far no official intimation has been made of the vacant Chairs of Obstetrics and Surgery in Owens College. We believe that the authorities of the College are seriously considering how they can most efficiently fill these important posts with most benefit to the medical students of Owens College. The Owens College is now so large and important a centre of medical instruction (the average number of students attending classes during the winter session on purely medical subjects being about three hundred), that its authorities are bound to secure for these posts the very best available men, men who will throw themselves into their work with vigour and enthusiasm. The following local gentlemen are, we believe, likely to be candidates for the Chair of Obstetrics, namely, Dr. William Japp Sinclair, Dr. Walter, and Dr. Lloyd Roberts. As to the candidates for the Chair of Surgery, rumour is busy with the names of several local surgeons, but, so far, nothing is definitely decided on this matter.

The Ship Canal is likely to have far-reaching effects, apart from its commercial advantages, on the Manchester district. At a conference of local authorities the question as to what means can be taken to prevent the pollution of the Mersey and Irwell was discussed last week. The canal will depend upon the waters furnished by these rivers; and if the water be allowed to remain pol-

luted with sewage and the refuse of manufactories which these rivers and their tributaries pass, then the canal will become the main sewer of the greater part of South Lancashire instead of the great waterway of the county. The rivers must be cleansed, and the directors of the Ship Canal and the various local bodies of Lancashire have taken steps to see how this can best be accomplished.

The Manchester Board of Guardians have adopted suggestions drawn up by their medical officer in view of a possible outbreak of small-pox in Manchester.

The members of the Edinburgh and Aberdeen University Clubs have just held their annual reunions. At the dinner of the former, Dr. Little presided; at the latter, Dr. Sinclair. Dr. Paterson, of Owens College, was elected Secretary of the former, *vice* Mr. Hardy, who has resigned. Mr. Hardy has been Secretary since the formation of the Club.

NEWCASTLE - UPON - TYNE.

[FROM OUR OWN CORRESPONDENT.]

College of Medicine.—Death-rate of Newcastle.—Annual Report of the Dispensary.—The Clinical Society.

THE Council of the College of Medicine have instituted a series of lectures on anatomy and physiology, intended for artists, art students, and others interested in higher education; these will be held in February and March annually, the lecturers being Dr. Oliver, Lecturer on Physiology at the College of Medicine, and Dr. Mears, Lecturer on Anatomy. The course comprises in the anatomical part:—The construction of the skeleton, showing use made of arch, girder, buttress, spring, wedge, and buffer; the formation of the various kinds of joints, the mechanism of the muscles, and the internal mechanisms connected with respiration, circulation, etc. In the physiological part, the forces in action in the human body and their relations to the phenomena of life. Examinations will be held at the end of the course, and certificates awarded to the successful candidates.

The mortality returns of the city of Newcastle have for some time been unusually high; there is reason, however, to believe that the returns have been estimated on a lower population than exists in the city; the Registrar-General has intimated that in future he will deal with the health statistics on the assumption of an increase of 20,000 inhabitants. This alteration will bring the mortality returns more in keeping with the actual state of things, and will enable Newcastle to compare more favourably with the other large towns of the kingdom.

Dr. Ridley, the resident medical officer at the dispensary, presented his annual report to the committee of the institution this week; it is the report for the 110th dispensary year, and shows an increase of 1,973 cases over that of the previous year; there has been an increase of 2,024 in those cases recommended by a subscriber's letter, and a slight decrease in the number of casual patients; the letter-patients are, in the majority of cases, attended by the visiting assistants at their homes; Dr. Ridley ascribes the increase as largely due to an epidemic of measles which occurred in the spring. The report gives a table of the cases attended at home, tabulating them in their proper districts; in each district the work has been much heavier than in past years, and it seems probable that an increase in the number of visiting assistants will be required if the work goes on increasing and is to be properly carried out. During the past year, Dr. Ridley says, he has instituted a series of investigations into the circumstances of patients under the dispensary through the medium of the Charity Organisation Society, and in no case was it found that the charity was being abused. The number of casuists treated during the year was 15,083, the largest number treated in one year, the increase being probably due to the closing of the casual department at the infirmary. The mortality returns for all the patients amount to 2.5 per cent.; amongst the home patients it is 9.4 per cent. The highest death-rate occurs in children under 1 year and from 1 year to 5 years of age, the former being 19.0 per cent. and the latter 10.4 per cent.; 1,314 cases of zymotic disease were treated during the year, with a mortality of 7.3 per cent.; measles was responsible for 733 cases, with a death-rate of 5.6; scarlet fever, 159 cases, death-rate 1.8 per cent.; 15 cases of typhus fever occurred, but were removed to the fever hospital. The report concludes with special reports from the special departments—aural, skin, and dental. Dr. Atkinson, in his report of the aural department, says the cases cannot well be grouped, owing to his ignorance of the condition of many of the patients treated prior to his receiving the care of

this department; he also suggests the inclusion of diseases of the throat in this section. The reports of the dental and skin departments are meagre in the extreme, the total number of cases alone being given, without any attempt at classification; it would be a great improvement if the reports of these departments were treated in the same exhaustive manner as that of the resident medical officer.

The annual dinner of the Clinical Society will be held on February 16th, 1888, the President in the chair; representatives from nearly all the learned societies in the district have been asked, and I understand the evening will be even more successful than that of last year; the January meeting of the society was held last week. Dr. Ridley showed a stone removed by lateral lithotomy successfully, also a case of varicocele cured by subcutaneous ligature. Dr. Limont showed a well-marked case of pseudo-hypertrophic paralysis in a little boy. Dr. Hardie showed two cases of abdominal tumour, one renal the other splenic. Dr. Robertson (Gateshead) read a paper on infantile diarrhoea, which gave rise to an interesting discussion.

CORRESPONDENCE.

THE HENDON COW DISEASE.

SIR,—I had hoped that the Hendon cow discussion would have been allowed to rest for a while. I must, however, ask you to kindly permit me to reply to Dr. Klein's letter in the *JOURNAL* of January 28th. Dr. Klein writes:—"Dr. Crookshank expressed great indignation at my having exhibited to that meeting 'without his permission,' 'his' calf. Now, the fact of the matter is that this calf was not Dr. Crookshank's property. It belonged to Professor Brown, and had been sent with other similar calves by Professor Brown to the Animal Vaccine Station, etc."

The protest which I made, Sir, was a firm but not an indignant one, and is expressed in the *JOURNAL* of January 21st, p. 135, as follows:

"It was one of those calves which had been vaccinated at the National Vaccine Establishment which Dr. Klein had brought to the meeting. He, Professor Crookshank, thought that if this was to have been done it would only have been fair to have shown one of the first calves that had not taken when revaccinated. He thought that for one observer to publish part of the, as yet unpublished, researches of another, and to show one of his animals without his having been consulted, and to be allowed to give his version of the results, was an event unparalleled in the history of the Pathological Society of London."

It was not a question of the actual ownership of the calves. Strictly speaking, they are the property of the Agricultural Department of the Privy Council. But they were handed over to me for my experiments, and I could therefore surely speak of them for the time being as mine. It was I myself who, on the morning of the special meeting, arranged that the calf which was to be exhibited should go straight on to the Animal Vaccine Station, and I (not Professor Brown) further arranged for two more to follow afterwards from the Royal Veterinary College. I did this under the distinct impression that the experiments to be done were to be jointly done; and I distinctly understood at the time that Mr. Murphy would co-operate with me. Mr. Murphy had expressed himself as most anxious to work with me at the cow-pox aspect of the question, and he accepted my invitation to visit the Wiltshire farm and to cross-examine the milkers. He was greatly impressed with what he had seen and heard, and on the journey back even went so far as to say that, if it was not vaccination, he did not know what it could be. Yet his co-operation fell through. Why?

I attended very regularly at the Animal Vaccine Station until the calves were ready. The first inoculation I made jointly with Dr. Cory; the second inoculation I made jointly with Mr. G. W. Collins, Dr. Cory being away at the time; the third and fourth inoculations were made by Dr. Cory, and in each animal in about forty places, and in the presence of Professor Brown, Dr. Klein, and myself.

Now, Sir, my protest was directed to the fact that, although Professor Brown and I met Dr. Klein, and we together inspected the calf on the very morning of the meeting at the Pathological Society, yet Dr. Klein gave us no intimation of his intention to exhibit it at the meeting. Had the proposal been made to me to show the calf, I should willingly have acquiesced; but I should

have shown also the other calf (the first remove from the boy's thumb) which had resisted the test of revaccination. To keep this calf back, and to show only the second remove or pustular calf, which did take, will hardly commend itself to anyone as fair criticism or impartial co-operation for the advancement of science.

The second part of my protest was directed to the fact that Dr. Klein endeavoured to explain away certain experiments of mine which are not yet published, and at which he was not even an onlooker. From some rough notes of these experiments which I sketched out for the benefit of those interested in watching the revaccinations, Dr. Klein presented to the Society a pedigree, with certain comments, which was printed in leaflet form and distributed by an attendant to members of the Society as they entered. I am surely justified in taking exception to this when I have promised that all these experiments will shortly be published in full.

In conclusion, Sir, the subject of cow-pox has been pressed to the front; but it must be remembered that the main question which is at present before the profession is, whether a certain vesicular disease of the teats of cows at Hendon—a disease communicated from animal to animal by the hand of the milker—was the very disease which we in man call scarlatina? In other words, was the Hendon cow disease a disease new to science, which might be called the Hendon or scarlatinal pox? The results of my investigation have forced me to very different conclusions, and these it was my duty to lay before the profession.—I am, etc.,

January 30th, 1888. EDGAR M. CROOKSHANK.

HERBERT SPENCER ON SANITATION BY COMPETITION.

SIR,—Will you allow an admirer of the writings of Mr. Herbert Spencer to point out that your article in the JOURNAL of January 25th does him injustice?

You say: "Mr. Spencer seems, too, to have studied only one feature of the Darwinian theory, and to understand the lessons even of that very imperfectly." Now all that you quote from Mr. Spencer is in *Social Statics*, published in 1850; while the joint paper by Darwin and Wallace on Natural Selection was read at the Linnean Society in 1838, and the *Origin of Species* appeared in 1859.

In the preface to the American edition of *Social Statics*, published in 1864, Mr. Spencer says: "During the fourteen years that have elapsed since the original publication of the work, the general theory which it enunciates has undergone, in his mind, considerable further development and some accompanying modifications." And, again: "In restating the doctrines he would bring into greater prominence the transitional nature of all political institutions, and the consequent relative goodness of some arrangements which have no claim to absolute goodness."

You say, "So long, for instance, as Mr. H. Spencer was content to occupy himself with the evolution of a theory of religion and life from his own inner consciousness and the writings of M. Comte," etc. Nothing could be more unlike than the religious views of Auguste Comte and of Mr. Spencer. The object of Comtist worship is "Humanity"—past, present, and future. Mr. Spencer says: "No such thing as a 'religion of Humanity' can ever do more than temporarily shut out the thought of a Power of which Humanity is but a small and fugitive product—a Power which was in course of ever-changing manifestations before Humanity was, and will continue through other manifestations when Humanity has ceased to be" (*Study of Sociology*, chapter xii).—I am, etc.,

ALFRED R. HALL.

Sunnybank, Shoot-up Hill, N.W.

* * * We must decline to accept our correspondent's apology on behalf of Mr. Herbert Spencer. In the light of Darwin's publications, Mr. Spencer has permitted at least one new edition of *Social Statics* to be published without any modification of his objectionable theories in the text. Nay, so far from that (and this is a proof of that ignorance of the complete bearing of Darwinism with which we charged him), in a publication (*The Man versus the State*) issued thirty-three years later than *Social Statics*, Mr. Spencer refers specifically to Mr. Darwin's doctrine of natural selection as strengthening his objectionable position, and expresses surprise that, despite the general acceptance of this doctrine by cultivated people, "now more than ever before in the history of the world are they doing all they can to further survival of the unfittest."

As to the extent to which Mr. Herbert Spencer is indebted to

Auguste Comte for his Theory of Religion and Life, we must refuse to enter into a controversy unsuited for our pages. We are aware that Mr. Spencer has denied his indebtedness to Comte for any of his doctrines; we are also aware that this was in answer to those who held, on what they deemed to be irrefragable proof, that without the previous existence of Auguste Comte, Mr. Spencer's doctrines would never have seen the light.

DR. CREIGHTON ON COW-POX AND VACCINAL SYPHILIS.

SIR,—The reviewer of a small work of mine on cow-pox has allowed two or three errors in matters of fact to creep into an otherwise learned, witty, and pertinent criticism. I send the corrections, both on account of your habitual care in reporting upon books, and from a natural unwillingness that those who may have read the review, but may never see the book, should go away thinking the thing which is not.

1. "He gives us no assistance towards reducing whatever risk there may be in the operation (of vaccinating) as nowadays practised." Can the reviewer have read the book through? There are numerous examples in it of what follows from neglecting Jenner's "golden rule" (see especially p. 117). In more than a dozen places I advert to the danger of using late lymph. I adopt and endeavour to elucidate the practical teaching of the late Dr. E. C. Seaton, as to the avoidable causes of the great, vaccinal disasters which have occurred mostly abroad, as well as the corresponding teaching on the no less obnoxious than misleading doctrine of invaccinated syphilis. I endeavour to illustrate the folly of vaccinating from a child, with an eruption on its arms by reference to the well-known case of a vaccination inspector, and by reference to the same case, to show the convenience of knowing the date after vaccination at which lymph is proposed to be taken. One of my principal themes, illustrated from the writings of Ceely, Estlin, Bousquet, and Jenner, himself, is the peculiar and even surprising properties of primary lymph; I point out the danger of "going back to the cow," and I may here remark that what I had to say on that point had acquired special relevancy within the last few weeks. Doubtless the author of a set of directions or instructions for vaccinators would have fallen into a more didactic turn of style; but I shall be surprised if my reasoned statement of the natural history of cow-pox does not help vaccinators to understand how and when the risks arise.

2. "Of evidence we have none." This is said of the substance or main contention of the book, which occupies the greater part of it, and to which every part of it leads up. I will charitably suppose that the reviewer here speaks in some non-natural, Pickwickian, or constructive sense. The book is pretty nearly all evidence; it is so compact with evidence, as any ordinary person will understand the word, that it needs close reading to apprehend it. Not more than an eighth or tenth part is taken up with comments; all the rest is a relation of evidence, collected and put together at the cost of much time and pains. The evidence is constantly authenticated by full and precise references in the notes; it is summarised in several pages of contents; it is alphabetically registered in an index; and if the Agricultural Department had only been a few months earlier with its shocking revelations of recent cow-pox, the evidence would have been corroborated in an appendix, dealing also with the humanitarian aspect of cow-pox in the cow, with the contamination of milk by seabs, pus, and blood, and with the scarlet fever traceable to such sources.

3. The word "falsehood," which I am accused of using along with "sophistry," does not occur in the book, nor any equivalent of it.

4. "Readers will do wisely to verify each statement of our author before accepting him"—whatever accepting "him" may mean. In form this is not a misleading assertion like 1 and 2; it is merely a gentlemanly insinuation; it is the sort of caution that one might give, in a parallel case, against a habitual liar or a detected impostor. Readers of this book, as the reviewer pathetically tells them, may have scant means of going to original sources of information; and, in the very same breath, he throws upon them a task which he has thus far declined to take upon himself. Perhaps the simplest way to deal with this gentleman will be for me now to challenge him to point out one single misstatement of fact (for it is to matters of fact that his sweeping innuendo relates)

in those chapters of my book against which he specially cautioned your readers.

In giving a challenge of that sort I know that I am inviting a closer scrutiny than a writer's work is ordinarily subjected to; but I give the challenge deliberately, and I shall feel obliged to you, Sir, if you will undertake to deliver the cartel to the person who has to answer it.—I am, etc.,

C. CREIGHTON, M.D.

January 16th, 1888.

MEDICAL EXAMINATIONS.

SIR,—The address by Mr. E. Owen which appears in the JOURNAL of January 28th refers to several points to which my attention has been oftentimes called during the past few years, and which are so important that they should not, I think, be allowed to pass without comment. With your permission I will refer to them in order.

1. The Conjoint English Board's examinations in chemistry and materia medica. I suppose the experience of every teacher of anatomy must be somewhat similar to my own on this point. I constantly, at the commencement of the winter session and during the month of October, find myself engaged in some such conversation as the following: "Mr. So-and-So, I don't see you dissecting." "No, sir, I am reading for my examination in materia medica" or "in chemistry," as the case may be. "How is that?" "Oh, I got ploughed in July," or "I didn't think I knew enough to go in last summer."

Now the Conjoint Board is careful to fix the examinations in these subjects towards the end of October, the result being that a certain number of first year's students are irregular at lectures, and dissect little or not at all until November begins, thus handicapping themselves more than they are aware in their anatomical work. It is natural that students should wish to clear off their materia medica and chemistry before going on to other subjects, and the Conjoint Board should see that this may be done without interference with other work. If it were compulsory that a student should pass in these subjects prior to registration, as Mr. Owen suggests, the difficulty would be most easily surmounted; but if this is impossible, then surely the examination might be held in the latter part of September, or at least early in October.

2. The subjects of materia medica and therapeutics may now be studied prior to registration and passed in immediately afterwards. Surely it is ridiculous that a student who is or may be totally ignorant of physiology and anatomy should be expected to know the physiological action of drugs, and that he should learn the theory of the administration of medicine before he has made any acquaintance with the diseases for which they are given. If materia medica is to be taught at all, one would think that it might form a primary subject, therapeutics being entirely relegated to the final examination, as is or was the rule in the University of Dublin when I was a student there.

3. I fully agree with Mr. Owen as to the absurdity of permitting students to pass in physiology and anatomy at different times. A man ought reasonably to be expected to know enough of both subjects at one given time to pass in them, or he is certainly not fit to become a medical practitioner.

4. I also endorse every word which he says as to the recent regulations with regard to the honour examinations of the University of London. If the present scheme has been devised solely for the purpose of lightening the labours of the examiners, there is nothing more to be said about it. Its devisers may at least, however, congratulate themselves on having discovered an infallible method for cutting down the number of students competing for honours to the minimum.

It has sometimes occurred to me that if the Deans and Honorary Secretaries and others concerned in the management of medical schools had the opportunity of meeting annually, matters such as these might be considered, and possibly a joint remonstrance or recommendation from such a meeting might have its effect upon the rulers of our licensing bodies.

This is perhaps too much to hope for, but I trust that Mr. Owen's admirable address will not be allowed to pass without some expression of opinion from those directly interested in teaching.—I am, etc.,

BERTRAM C. A. WINDLE, M.A., M.D.,

Professor of Anatomy and Honorary Secretary,
Queen's College, Birmingham.

NAVAL AND MILITARY MEDICAL SERVICES.

RED CROSS ASSOCIATION.

HER MAJESTY the Empress of Germany has placed at the disposal of the International Conference of the Red Cross Association, which met at Carlsruhe in September last, a sum of 6,000 marks, as well as three gold and nine silver medals bearing her effigy. The object of this generous gift is to offer the Conference an opportunity of introducing something calculated to promote the interests of the International Institution of the Red Cross, and more especially the relief of the wounded. The Conference has consequently decided on devoting Her Majesty's gracious gift to a competition on the best interior arrangement for a portable lazaret (hospital), that is to say, the indication of the most suitable objects and the best means of procuring them, for arranging and working a portable hospital intended for a certain number of sick and wounded. Inquiries or particulars as to taking part in the competition should be addressed to the "Comité Central des Sociétés Allemandes de la Croix-Rouge, Wilhelmstrasse 73, Berlin." All correspondence in reference to space in the exhibition should be addressed to the executive committee in Brussels, Rue du Palais 22.

VOLUNTEER MEDICAL ASSOCIATION.

WE are asked to state that the inspection of the class now being held under the auspices of the Volunteer Ambulance Department will take place on Saturday, February 18th, at 5 P.M., at the Guildhall, when the Lord Mayor and Sheriffs will attend in state. The members of the Association and their friends will dine together at the Holborn Restaurant at 7 P.M. the same evening, after the inspection. The Council will be glad to see any army or volunteer medical officer either at the Guildhall or at the subsequent mess meeting, and such gentlemen are invited to communicate with the Honorary Secretary, Mr. Alfred Lingard, at once.

THE NAVY.

The following appointments have been made at the Admiralty: GEORGE S. SMITH, Surgeon, to the *Kingfisher*; JOHN S. FOGERTY, M.D., Surgeon, to the *Reindeer*; GRAHAM E. KENNEDY, Surgeon, to the *Orwell*; H. W. MACNAMARA, Surgeon, to Malta Hospital; ALEXANDER J. J. JOHNSTON, Surgeon, to the *Surprise*; JAMES M. ROGERS, Surgeon, to the *Duke of Wellington*; DUNCAN HILSTON, Deputy Inspector-General of Hospitals, to Bermuda Hospital; R. R. SICCAM, Deputy Inspector-General of Hospitals, to Chatham Hospital; JOHN M. HUTCHIN GILL, to be Surgeon and Agent at Ramsey, Isle of Man.

Staff-Surgeon JAMES BOOTH died at Montrose on January 21th. He entered as Surgeon June 1st, 1825; became Staff-Surgeon, August 15th, 1838; and retired in 1857.

THE MEDICAL STAFF.

DEPUTY SURGEON-GENERAL W. M. WEBB is promoted to be Surgeon-General (ranking as Major-General), *vice* H. T. Reade, V.C., C.B., granted retired pay. His previous commissions are dated: Assistant-Surgeon, March 24th, 1851; Surgeon, January 15th, 1864; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; and Deputy Surgeon-General, July 6th, 1881. He served with the 19th Regiment throughout the Crimean war in 1854-55, and was at the battles of the Alma and Balaclava and at the siege and fall of Sebastopol. He has the medal with three clasps and the Turkish medal.

Brigade-Surgeon F. W. WADE is made Deputy Surgeon-General (ranking as Colonel), *vice* W. M. Webb. He entered as Assistant-Surgeon, September 28th, 1857; became Surgeon, October 5th, 1872; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, February 1st, 1883. He has no war record.

Surgeon-Major C. A. MAUNSELL, M.D., is promoted to be Brigade-Surgeon (ranking as Lieutenant-Colonel) *vice* F. W. Wade. Brigade-Surgeon Maunsell entered as Assistant-Surgeon, October 1st, 1862; became Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. He was with the Royal Artillery during the Bhootea campaign in 1864-65, and was at the capture of Fort Buxar, the Bala Pass, the Tuzgaon Stockade, and Fort Chamoorchee (medal with clasp). He was also engaged in the war in Egypt in 1882, and has the medal and the Egyptian bronze star for that campaign.

Brigade-Surgeon F. P. STAPLES is granted retired pay. His commissions are dated: Assistant-Surgeon, April 1st, 1861; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1876; and Brigade-Surgeon, September 20th, 1887. He served with the 1st Battalion of the 19th Regiment in the Hazara campaign in 1868, and took part in the expedition against the tribes on the Black Mountain (medal with clasp).

THE INDIAN MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL R. F. HUTCHINSON, Bengal Establishment, has retired from the service, which he entered as Assistant-Surgeon December 3rd, 1853, attaining to Deputy Surgeon-General December 9th, 1882. He was engaged in the Afghan war in 1879, and has the medal therefor.

Surgeon A. R. EDWARDS, Bengal Establishment, is appointed to the officiating medical charge of the 1st Sikh Infantry, *vice* Surgeon A. SILCOCK, who has been posted to Belaspore as Civil Surgeon.

Surgeon-Major C. W. CALTHROP, Bengal Establishment, Medical Officer 4th Native Cavalry, has leave of absence on medical certificate for one year to the Kangra Valley and adjacent hills.

Surgeon-Major A. H. C. DANE, Bombay Establishment, in medical charge of the Bhopal Battalion, has leave to Europe for eighteen months on private affairs.

THE VOLUNTEERS.

ACTING-SURGEON J. M. CAMERON, M.B., 1st Dumbarton, has resigned his appointment, which bore date October 4th, 1884. Mr. J. R. F. CULLEN, M.B., is appointed Acting-Surgeon in his stead.

Mr. J. A. JONES is appointed Acting-Surgeon to the 2nd Volunteer Battalion Welsh Regiment (late the 1st Glamorgan).

MEDICO-LEGAL AND MEDICO-ETHICAL.

UNQUALIFIED MEDICAL ASSISTANTS.

A LEGAL correspondent writes:—A case of very considerable interest to those practitioners who employ unqualified assistants has recently been reported. The case is a most useful one, as showing and defining in a fairly distinct manner the duties which are within the scope of an unqualified assistant, and those duties which should only be performed by a duly qualified medical man.

The action was one brought by the trustee in bankruptcy of Louis Fitzmaurice for fees for services rendered and medicines supplied by an unqualified assistant to the defendant. Fitzmaurice carried on business in Bury, and had a branch business in a neighbouring village, which was conducted by Joseph Alphonso Fitzmaurice, who was unqualified. At the trial it was admitted that Louis Fitzmaurice had not rendered any services personally to the defendant, and that Joseph Alphonso Fitzmaurice who had rendered the services had no qualification at all. The judge of the Salford Hundred Court on these facts, and relying on the thirty-second section of the Medical Act, 1858, non-suited the plaintiff, who appealed to the Divisional Court, and it was contended on his behalf that the only effect of the Act was to incapacitate the unqualified person from suing, the Act containing no provision rendering the employment of a qualified person compulsory, as in the Apothecaries Act (55 George III. c. 194). These arguments, however, did not prevail with the Court, and Lord Coleridge, in his judgment, defined very reasonably the sphere that an unqualified assistant should occupy. It is not necessary that the services should be rendered personally by the qualified practitioner, if he really directs the attendances and prescribes the medicine. The unqualified person may be, under certain circumstances, "the hand employed and guided by the directing brain of the qualified person." In this case, however, the action was for services which the qualified person did not render, and it was found at the trial that the qualified person rendered no services at all, either by directing the services of the unqualified assistant or in any other way.

Mr. Justice Denman said, in the course of the argument, that if the plaintiff was right, a medical man could send his butler to visit his patients and yet recover his charges, and the contention of the plaintiff practically did amount to this.

Mr. Justice Denman's judgment was so clear and concise that the following extract may be useful:—"Here an action has been brought by a qualified medical practitioner for services rendered and medicines supplied, and he must make out he has rendered such services and supplied such medicines. This he does not do, but shows that another person has done the work for him without consultation with him. Can it be urged that this is a compliance with the 32nd section of the Medical Practitioners' Act, 1858? Looking at the provisions of that Act, I do not think it is competent to a medical man to give a roving commission to another, and, in this instance, an unqualified person, to do work in his own name, and then sue the patient so attended. To permit such a state of things to go on would be contrary to the clear intentions of the Act. Again, so far as this case is concerned, it would be a mockery and a misuse of the words 'master and servant' to hold them to be applicable under the circumstances detailed."

Practitioners cannot, therefore, be too careful not to leave cases in the hands of unqualified men, but should carefully superintend and oversee everything entrusted to them to do; otherwise, and rightly so, not only will the fees be irrecoverable, but practitioners may lay themselves open to most serious claims for negligence.

CUMBE v. HANSON AND BRODHURST.

THIS was an action to recover moneys, being the balance due for medical attendance, medicine, and board and lodging. Mr. Coumbe, M.R.C.S., practising at Twyford, was called on September 6th to Colonel Brodhurst, who had been thrown from a carriage, and sus-

tained a fracture of the thigh and other injuries. Being at the time on a visit to Sir R. Hanson, who was going away in three weeks' time, Colonel Brodhurst asked to be taken into Mr. Coumbe's house. Sir R. Hanson told Mr. Coumbe that he would hold himself liable for the expenses incurred. Colonel Brodhurst remained under treatment in Mr. Coumbe's house for eight weeks; his wife and a hospital nurse from Reading were also in the house. He was then removed to Brighton, Mr. Coumbe going with him, for which a charge of £21 was made. A fortnight later Mr. Coumbe again went to Brighton, for which a fee of fifteen guineas was charged. A sum of £89 was charged for medical expenses, and £10 a week for board and lodging of Colonel and Mrs. Brodhurst and nurse. The plaintiff stated that he charged 10s. 6d. a visit. He sent a bill for £210 to Sir R. Hanson, who tendered £100 in payment.

The jury found a verdict for the plaintiff for £55 beyond the £100 paid by Sir R. Hanson and the £25 paid into court by Colonel Brodhurst.

Mr. Justice Stephen gave judgment for the plaintiff, with costs.

DISPENSARY CHARGES.

DR. JAMES LEATHAM, a physician in practice in Rodney Street, Liverpool, sought in the Liverpool County Court, on January 31st, to recover the sum of £22 for medical and surgical attendance from a butcher named Dunbar. The defence was that Dr. Leatham's services were sought through his dispensary in Seacombe Street, and that it was anticipated that the charges would be at the low rates obtaining there, namely, 2s. 6d. a visit, and the defendant had paid into court £5 14s. 6d. in settlement of the claim. Dr. Leatham stated that the defendant was informed that his charge was 10s. 6d. for each attendance, and he made no demur.

The jury held that Dr. Leatham was called in as a dispensary medical man, and gave a verdict only for the sum paid into court, and awarded the defendant his costs.

ETIQUETTE FOR NEWCOMER.

IGNORAMUS asks; Which is the correct etiquette? Should the newcomer call on the resident or the resident on the newcomer, or does one follow the rules of ordinary society?

"* If 'Ignoramus' had been an observant reader of the JOURNAL, he could not well have failed to note that the question he submits has been repeatedly answered therein. At the same time we have pleasure in responding thereto by quoting from the *Code of Medical Ethics*, second edition, page 90, the following extract; and, for further information on the subject, we would refer him to the *Code* itself:

"The custom or etiquette (diverse from that pursued in ordinary social life in relation to new residents) expected from members of the profession on commencing or changing the locality of practice in town or country entails on each newcomer, young or old, an obligation to call, with as little delay as may be, upon every duly qualified legitimate medical practitioner resident within a reasonable distance of his own selected place of abode, and courteously announce his intention to practise in the locality."

ETIQUETTE OF CLUB PRACTICE.

FAIR PLAY asks for an answer to the following: A. has for three months regularly attended a club patient who was suffering from a chronic disease; a brother of the patient called in a local practitioner (B.), who prescribed for the case, and continued in attendance till death without informing A. A., however, saw the patient once more, and informed him that he would not call again as B. was in attendance. A. and B. have never met, and there has not been any communication between them. Has B.'s conduct been contrary to medical etiquette?

"* Assuming that B. was cognizant of the fact that A. was, and had been for some time past, in attendance on the patient in question, his conduct, as related by 'Fair Play,' was contrary to medical etiquette, and should, moreover, have been strictly governed by the following Rule 91, extracted from the *Code of Medical Ethics*, second edition, page 70, to which we may refer our correspondent: "When a practitioner is called in to or consulted by a patient who has recently been, or still may be, under the care of another for the same illness, he should on no account interfere in the case, except in an emergency, having provided for which he should request a consultation with the gentleman in previous attendance, and decline further direction of the case except in consultation with him," etc.

UNQUALIFIED ASSISTANTS: ANOTHER DIFFICULTY.

B. writes: A. and B. are the only medical practitioners in a small town, and have been accustomed to attend for each other in case of absence from home or emergency. A. is also B.'s substitute as district medical officer. Some months ago A. procured an assistant, and informed B. he was a qualified man. B. could find no name corresponding with the assistant's in the 1868 *Directory*. On the first opportunity B. mentioned this to A., who said the assistant was not registered, but had a certain qualification. After examining the regulations of the university referred to, B. came to the conclusion that this could not be correct, and wrote to A. pointing this out; also saying that unless the assistant could satisfy him he possessed a diploma, B. objected to his seeing patients for him. A. replies that he cannot see what B. has to do with the qualifications of his assistant, and as B. objects to the assistant seeing his patients, A. declines to act as B.'s substitute. A. is the senior of B., and though B. is quite independent of A., and can find another substitute,

he has no desire to seek a quarrel. Both are members of the British Medical Association. Should A. have satisfied B. that the assistant was legally qualified, or had B. nothing to do with it as A. contends?

* * * If the above statement correctly represents all the material facts of the case, it is, in our opinion, to be regretted, and especially under the circumstances of the reciprocal professional arrangement between the parties, that either should fail to recognise the expediency, to say the least, of mutual frankness; if, therefore, it be that the assistant in question is not legally qualified, we should in no wise (notwithstanding the convenience of such an arrangement as has hitherto existed between "A." and "B.") be induced to dissuade "B." from severing all connection with the assistant; for it is desirable that the "assistant" should be a duly qualified practitioner to enable his principal to recover his professional charges in case the account for his attendance be disputed. "A." should, therefore, in our opinion, "have satisfied 'B.' that the assistant was legally qualified."

MEDICO-CHIRURGICAL TARIFFS.

M. D. DURHAM.—In response to "M.D.'s" query as to whether "any small book exists containing information on medical tariffs," we are informed on inquiry that the corrected proof sheets of the fourth edition (revised and enlarged) of the *Medico-Chirurgical Tariffs*, issued by the Council of the late Shropshire Ethical Branch, are now in the hands of the printer, and will shortly be published; and, moreover, that he will find therein all the information necessary to guide him in making his professional charges. The Manchester Medico-Ethical Association has also published a tariff of medical fees.

COVERING UNQUALIFIED PRACTICE.

BAGNAL writes: A man who lives about a mile from here, and who is in practice duly qualified, has taken a house here and put in an unqualified man, who practises under his name. On the door of this unqualified man appears the plate of his "cover," Dr. Q. S., M.D., so that strangers imagine when they consult him they are having advice from a duly qualified practitioner. Can anything be done to stop this disreputable conduct?

* * * If proof were furnished to the Society of Apothecaries of the unqualified man himself prescribing for or visiting patients, the Society would at once institute a prosecution against him. There is necessarily, however, great and obvious difficulty in obtaining convictions where a qualified medical man "covers" an unqualified one, conduct justly described by "Bagnal" as "disreputable."

A. W. (Liverpool).—If the solicitor's opinion which has been had on the case is not sufficiently authoritative, the proper course is to take counsel's opinion. The case is not one which we can take upon ourselves to decide.

"CHANGING THE DOCTOR."

A. N. G. writes: 1. Mrs. A., the mother of two children, the younger aged six months, who has been attended hitherto by Dr. B., a leading accoucheur, but who also takes family practice (he was last in attendance about two months previously), requests Mr. C., a junior practitioner living near, to call and see her child. Mr. C. does so, and is told by Mrs. A. that she does not like Dr. B., that his fees are high, and she would like to leave him. Mr. C. prescribes and says he will call again two days later to see the child. On that day Mr. C. receives a note from Mrs. A. saying the child is much better, but she would like Mr. C. to call to see her and give her a tonic. What should Mr. C.'s course be? Should he simply attend as requested, or must he first require Mrs. A. to write to her late medical man and tell him that she has called in Mr. C.?

2. Also what is the etiquette to be observed when a patient wishes to change the family medical man, supposing the late medical man not to have been in attendance for some time, and a fresh illness to break out in the family?

* * * In reply to our correspondent's first question, there can, in our opinion, be no doubt that, under the circumstances related, it is not necessary for Mrs. A. to write to her late medical attendant (B.), and inform him that she has called in Mr. C., inasmuch as such a notification is only required (from a professional point of view) when a family, for some reason or other, are desirous to supersede the practitioner in actual attendance on a case. When, however, such attendance has terminated, consequent on the recovery or death of the patient, or in the event of a new case of illness, the family would, in either event, be justified in changing their medical adviser should such be their wish. The preceding remarks are also applicable as a reply to our correspondent's second question.

PARTNERS' SHARES OF SPECIAL FEES.

A. and B. are partners; one of the partners receives a large fee for attendance during several days at an important case at the Royal Courts of Justice for giving evidence at the trial, and for services connected therewith. Is there any rule which enables you to say whether such a fee is to be considered a partnership asset or not? Or, to enable you to decide the point, must the facts of the case be more fully stated to you? The partners have agreed to refer the matter to you, and to accept your decision.

* * * Fees paid to medical witnesses are paid to them personally as a solatium for the time and trouble devoted to attending the case and giving evidence. Whether the partner of the witness is entitled to a share of fees so paid depends on the partnership agreement. If "all fees received" are to be shared, such fees would be included, but otherwise they would belong to the partner who attended as a witness. If this answer does not solve the difficulty a copy of the material part of the partnership agreement should be sent.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons, 6,106 births and 4,056 deaths were registered during the week ending Saturday, January 28th. The annual rate of mortality per 1,000 persons living in these towns, which had declined from 23.8 to 23.0 in the three preceding weeks, further fell during the week under notice to 22.5. The rates in the several towns ranged from 14.3 in Brighton, 15.2 in Derby, and 15.9 in Bradford, to 29.0 in Norwich, 29.4 in Blackburn, 31.3 in Wolverhampton, and 31.9 in Manchester. In the twenty-seven provincial towns the mean death-rate was 22.8 per 1,000, and exceeded by 0.7 the rate recorded in London, which was 22.1 per 1,000. The 4,056 deaths registered during the week under notice in the twenty-eight towns included 214 which were referred to whooping-cough, 61 to scarlet fever, 47 to measles, 46 to diphtheria, 39 to fever (principally enteric), 39 to small-pox, and 32 to diarrhoea; in all, 478 deaths resulted from these principal zymotic diseases, against 476 and 481 in the two preceding weeks. These 478 deaths were equal to an annual rate of 2.7 per 1,000; in London the zymotic death-rate was 3.3, while in the twenty-seven provincial towns it averaged only 2.2 per 1,000, and ranged from 0.0 and 0.5 in Hull and Cardiff, to 3.7 in Bolton, 3.8 in Nottingham, and 6.6 in Sheffield. Measles caused the highest proportional fatality in Blackburn; scarlet fever in Norwich and Blackburn; whooping-cough in Birkenhead, London, Derby, and Wolverhampton; and "fever" in Brighton and Nottingham. Of the 46 deaths from diphtheria recorded during the week under notice in the twenty-eight towns, 29 occurred in London, 3 in Manchester, and 3 in Oldham. The 39 fatal cases of small-pox included 37 in Sheffield, 1 in Bristol, and 1 in Leeds, but not one in London or in any of the twenty-four other large provincial towns. The number of small-pox patients in the Metropolitan Asylums Hospitals was 9 on Saturday, January 28th, of whom 5 had been admitted during the week. These hospitals also contained 1,641 scarlet fever patients on the same date, against numbers steadily declining from 2,602 to 1,729 in the eight preceding weeks; there were 135 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 6.5 per 1,000, and was slightly below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, January 28th, 830 births and 567 deaths were registered in the eight principal Scotch towns. The annual rate of mortality in these towns, which had declined in the three preceding weeks from 27.1 to 23.3 per 1,000, further fell to 22.4 during the week under notice, and almost corresponded with the mean rate during the week in the twenty-eight large English towns. Among these Scotch towns, the lowest rates were recorded in Greenock and Leith, and the highest in Aberdeen and Perth. The 567 deaths in these towns during the week under notice included 65 which were referred to the principal zymotic diseases, equal to an annual rate of 2.6 per 1,000, which was slightly below the mean zymotic death-rate during the week under notice in the large English towns. The highest zymotic rates were recorded in Aberdeen, Dundee, and Edinburgh. The highest proportional fatality of measles occurred in Edinburgh; from scarlet fever in Dundee; and from whooping-cough in Aberdeen, Greenock, and Glasgow. Four deaths resulted from diphtheria in Glasgow, and 3 in Aberdeen. The mortality from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 6.0 per 1,000, against 6.5 in London.

HEALTH OF IRISH TOWNS.—In the sixteen principal town districts of Ireland, the 517 deaths registered during the week ending Saturday, January 28th, were equal to an annual rate of 30.9 per 1,000. The lowest rates were recorded in Sligo and Dundalk, and the highest in Kilkenny and Cork. The death-rate from the principal zymotic diseases in these towns averaged 5.2 per 1,000, and was highest in Kilkenny, Cork, and Newry. Measles showed fatal prevalence in Cork and Newry. The 224 deaths registered in Dublin during the week under notice were equal to a rate of 33.1 per 1,000 (against 35.8 and 31.9 in the

two preceding weeks), the rate for the same period being only 2.1 in London, and 2.2 in Edinburgh. The deaths included 33 from the principal zymotic diseases (equal to an annual rate of 4.9 per 1,000), of which 10 resulted from scarlet fever, 8 from whooping-cough, 6 from diphtheria, 4 from typhoid fever, 3 from diarrhoea, and 2 from measles.

USEFULNESS OF BY-LAWS AS TO NEW BUILDINGS, ETC.

Our correspondent, "L.R.O.P. London," has undoubtedly given his sanitary authority sound advice in recommending them to adopt a proper code of by-laws for their district. The provisions of the Public Health Act are very comprehensive, but in some respects are permissive and not compulsory. Thus, under Section 157, "every urban authority may make by-laws" with respect to the construction of new streets and buildings, "to the drainage of buildings, to water-closets, earth-closets, privies, ashpits, and cesspools in connection with buildings, and to the closing of buildings, or parts of buildings, unfit for human habitation, and to prohibition of their use for such habitation;" and under Section 44 they may make by-laws as to the cleansing of footways and pavements, the removal of house refuse, the cleansing of earth-closets, privies, ashpits, and cesspools, and for the prevention of nuisances arising from snow, filth, etc. Unless, therefore, the sanitary authority exercise these permissive powers, and supplement the provisions of the Act by adopting by-laws applicable to the particular circumstances of their district, their sanitary powers remain so far defective. As a matter of fact, the adoption, and enforcement under penalty, of adequate but reasonable by-laws, based on the models issued by the Local Government Board, is one of the most effective ways of securing wholesome conditions, especially in growing localities.

As regards water supply, the Public Health Act, 1875, gives sanitary authorities power to provide proper supplies; but where a public supply is not provided and surface wells are depended upon, by-laws prescribing the minimum distance to be allowed between new cesspools, ashpits, etc., and sources of water supply are imperatively necessary. It should also be remembered that although the Public Health (Water) Act, 1873, concerns primarily rural sanitary authorities, Section 11 provides that "the Local Government Board may, if they think fit, by order invest any urban sanitary authority with all or any of the powers and duties which are by this Act given to a rural sanitary authority, and such investment may be made either unconditionally, or subject to any conditions to be specified by the Board as to the time, portion of the district, or manner during, at, or in which the powers and duties are to be exercised;" but we believe this course has not often been taken.

As regards the powers of sanitary officials to enter private premises, such powers are given by Section 102 of the Public Health Act, but are severely circumscribed.

APPOINTMENT OF INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

MEMBERS.—The medical inspectors of the Local Government Board are appointed by the President of the Board. The salary begins at £500, and, of course, each has before him the prospect of becoming medical officer to the Board. There is the usual pension on retirement from office.

SMALL-POX AT SHEFFIELD.

DR. L. J. HOBSON (Harrogate) writes: In the interesting note upon Sheffield and its epidemic in the JOURNAL of January 21st appear some rather misleading deductions as to proportionate mortality in vaccinated and unvaccinated cases at all ages. It is first stated that of the 2,198 cases of small-pox in the vaccinated and of the 382 in the unvaccinated, the deaths are 157 in the former and 97 in the latter. This should make the mortality in the vaccinated at about 1 in 14 instead of "1 in 22," and in the unvaccinated at about 1 in 4 instead of "2 in every 5." Moreover, the chances of survival of the vaccinated over the unvaccinated in case of small-pox would then be deduced at three and a half times instead of "ten times" greater.

The figures 157 and 97 would seem to have been transposed in making the erroneous calculations, but, with the above corrections, the facts should remain sufficiently striking to the "antivaccinationists."

"Dr. Hobson is correct in his criticisms. Our correspondent gives first figures taken from the report of the medical officer of health—namely, 2,198 vaccinated with 157 deaths; 382 unvaccinated with 97 deaths. Later he quotes from the *Sheffield Daily Telegraph*, which transposes the figures thus: 2,198 vaccinated with 97 deaths; 382 unvaccinated with 157 deaths.

SANITARY REGISTRATION OF BUILDINGS BILL.

A PUBLIC conference will take place at the Society of Arts on Saturday, February 4th, at 4 o'clock, when an introductory address will be given by Sir Joseph Fayrer, K.C.S.I., F.R.S. Short papers will be read by Mr. Mark H. Judge, A.R.I.B.A., and Sir Vincent H. Kennett Barrington, who will propose and second the following resolution:—

A. That it is desirable that the law should forbid any building being used for public or semi-public purposes, unless and until the arrangements for the water supply, drainage, and ventilation of such building have been certified as satisfactory by some properly qualified person, and that the provision of a public sanitary register for the voluntary registration of private houses would be instrumental to promoting sanitary improvement.

B. That in the opinion of this Conference, the Sanitary Registration of Buildings Bill, 1888 will, if passed into law, have a great influence for good on the health of the community, and, without pledging itself to all the details of the measure, this Conference authorises the Chairman to sign petitions, asking Parliament to pass the Bill into law, with such modifications as consideration in Committee may show to be desirable.

MEDICAL OFFICER OF HEALTH FOR ABERDEEN.

DR. J. WIGNOT writes: This office is vacant just now by the removal to Sheffield of Dr. Thomson. During the past six or seven years the medical officer of health has had to devote his whole time to the duties of his office, and has been disallowed private practice. The present chairman of the Public Health Committee—a medical man—has, it is said, proposed a scheme by which a small salary would be given to a regularly qualified practitioner, but allowed to take private practice, or to get a young man to attend the "City Hospital," for infectious diseases alone, and as a sort of consultant, one of the medical men of the city to consult with the sanitary inspector when he had any difficulty. Compulsory notification obtains here.

As Chairman of the Parliamentary Committee of our Branch here, I brought this matter before my Committee. Did I do right? Is it competent for me to do so? As some objected I agreed to bring it before the Branch at its first meeting, but this does not take place until the middle of February. In the meantime the battle may be fought and won. A representation from us as a Committee might have influenced the matter either way, and as it is the Branch meeting will take place only two or three days before the Town Council meet to decide the matter. Kindly say if I did right, and express your opinion on the whole situation.

"Certainly every effort should be made to prevent the Town Council of Aberdeen from adopting a course so prejudicial to the health interests of the town."

INDIA AND THE COLONIES.

HEALTH OF TROOPS IN CHINA AND STRAITS SETTLEMENTS.

The Army Medical Department Report for 1885 states that the troops serving in China and the Straits Settlements consisted of European and Asiatic troops. The average strength of the white troops during the year under notice was 2,188. The hospital admissions from this force were 2,454 in number, the deaths 25, and there were 94 men constantly ineffective from sickness. The ratios per 1,000 of strength were, consequently, hospital admissions, 112.6; mortality, 11.43; and for constantly sick, 42.95. The ratio of admissions into hospital was much higher in the Straits Settlements than at Hong Kong, but that of mortality was considerably less. The average strength of the troops quartered at Hong Kong was 1,114, the number of admissions into hospital 987, and the total number of deaths 18; while in the Straits Settlements, out of an average strength of 1,074, the number of admissions into hospital was 1,467, but the total number of deaths only 7. This difference in the proportions of mortality in the two divisions of the command is explained by the occurrence of an outbreak of cholera at Hong Kong, while no cases occurred among the troops in the Straits Settlements. The epidemic of cholera at Hong Kong took place in June; it was fortunately of a limited character; altogether only 19 cases were admitted, but of these 12, or 63 per cent., proved fatal. It is stated that cholera was known to be prevalent in Tonquin, Annam, and the Philippine Islands for some time prior to its appearance among the troops at Hong Kong. As soon as the disease manifested itself, the troops among whom it occurred were placed under canvas at Kowloon, on the opposite side of the harbour, and were subsequently moved to Stanley, on the other side of the island. It was here the last case of the outbreak occurred; this case recovered. It is remarked in the report that "with most of the conditions necessary for the development of the disease present, it nevertheless did not get a firm hold on either the civil or military population, and it is presumed that there was some condition wanting either in the atmosphere, soil, or climate that gave the locality an immunity from a severe epidemic. In the Chinese quarter of the town there was overcrowding and every insanitary condition necessary to favour the spread of the disease, yet the number of cases reported were comparatively few." Fevers of various types appear to have been prevalent at Hong Kong, and especially at Tanglin in the Straits Settlements. Enteric fever caused 4 admissions and 1 death. Three cases of typhoid fever, 1 with a fatal result, are reported to have occurred at Tanglin. Other continued fevers returned 419 admissions, and of these 322 were shown in the returns from Tanglin alone; they were attributed chiefly to climatic causes, heat and exposure. Under paroxysmal fevers there were 349 admissions with 1 death; of these 301 were ague and 48 remittent fever, many of the latter being described as very severe, and followed by cachexia, anaemia, and debility. Of the ague, 156 cases, and of the remittent fever, 34 cases, occurred at Hong Kong. It was supposed that the malarial emanations from the rather disintegrated granite of which the soil in Hong Kong is composed, some of which had been freshly upturned, had a share in the production of these fevers. It is remarked in the report that, in cases of debility consequent on fever, change to the sanitarium was found beneficial; but when malarial cachexia was established, a complete change of climate was necessary to restore

health. The average strength of the officers was 91, and among them were 2 deaths; one of the deaths resulted from hepatic abscess, the other from hydrophobia; in the latter case the officer had been bitten by a rabid dog some months previously at Tanglin, but so slightly, the injury being only a scratch, that he did not think it necessary to have it cauterised. Among an average strength of 75 women, there were 67 attacks of illness and 1 death, and among 134 children the number of cases of illness treated was 53 and there were 10 deaths. The Asiatic troops in the command, consisting of the headquarters and two companies of Gun Lascars, were 188 in average strength; among them were 208 admissions into hospital and 8 deaths. The principal cause of sickness among them was malarial fever. Various sanitary defects in the command are referred to in the report, but appear to be in progress of amelioration.

OBITUARY.

PROFESSOR ASA GRAY, M.D.

By the death of Professor Asa Gray, which occurred on Monday last at Cambridge, Massachusetts, from paralysis, America has been deprived of its greatest botanist, and the world of science mourns the loss of one of its most eminent teachers. Born at Paris, in the State of New York, in 1810, he graduated M.D. at Fairfield Medical College at the age of 21. His intense love for botany, however, soon decided his future career. In 1834 he was offered the position of botanist on the United States Exploring Expedition under Captain Wilkes. Though he declined this appointment, he afterwards worked out the botany of the expedition on its return, and the results were published in 1854. In 1842 he was elected Fisher Professor of Natural History at Harvard College, a position he held until 1873. He twice visited Europe—first in 1838-9, and again in 1850-51. He spent many months at a time in England, where he made many friends. He was one of the earliest to give a somewhat qualified support to Darwinism, and stoutly defended it against great opposition in his own country. He was one of Darwin's most constant and esteemed correspondents. He was in 1874 chosen a Regent of the Smithsonian Institute, and in 1878 was elected by the Académie de Sciences of Paris a Corresponding Member in the Section of Botany. Dr. Gray was a prolific writer, and in the Royal Society's List the titles of his contributions to science occupy something like seven columns. Among his best known works are his *Elements of Botany*, published in 1836, subsequently enlarged into the *Botanical Textbook; Structural and Systematic Botany; Manual of Botany*; and other textbooks. In 1838 he began, with Dr. Torrey, *The Flora of North America*; and in 1884 he published the *Synoptical Flora of North America*.

DR. JOHN THOMAS IRVINE BOSWELL.

The eminent botanist, Dr. J. T. I. Boswell, died on January 31st, at Balmullo, Fifeshire. Dr. Boswell was for many years Curator to the Botanical Society in London, and was a lecturer at the Charing Cross and Middlesex Schools of Medicine. His largest work was the rewriting of Sowerby's *Botany*, consisting of twenty volumes, a task upon which he was engaged for twenty years. Dr. Boswell's family has been located at Balmullo in one successive line since the reign of David II, and his mother was the daughter of Lord Balmullo, one of the Lords of Session. He leaves a widow and several children.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

DR. HUMPHRY, Professor of Surgery, has been nominated an Examiner for the Winchester Reading Prizes in 1889. Lord Rayleigh has been nominated a member of the Board of Electors to the Jacksonian Professorship of Natural Philosophy.

On Thursday, January 26th, F. C. Servaes, M.A., King's College, was admitted to the degrees of M.B. and B.C.

PROPOSED SMALL-POX HOSPITAL FOR DERRY.—The corporation have agreed to pay half the cost of a hospital for small-pox cases.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following candidates for the College Licence, having conformed to the by-laws and regulations, and passed the required examinations, were granted the Licence to Practise in Physic:

Name.	Medical School.	Name.	Medical School.
Anderson, G. R.	...St. Thomas's	Lakeman, T.	...St. Bartholomew's
*Andrews, L. W.	...St. Bartholomew's	*Langley, R. J.	...St. Thomas's
Ashley, S. D.	...London	*Laying, H.	...Westminster
Benson, A. H.	...Bristol	Lissaman, T.	...St. Bartholomew's
*Bowman, R. O.	...Manchester	*Lucas, A.	...St. Bartholomew's
*Bray, G. A. T.	...King's College	Maberley, J.	...Middlesex
*Bromhead, F. H.	...London	Maisey, C. T. B.	...Guy's
Brooks, R. P.	...King's College	*Marriott, E. B.	...Guy's
*Brown, W. G. S.	...St. Bartholomew's	*Miller, A. D.	...Birmingham
Browne, R. H. J.	...Guy's	*Mothersole, E. D.	...Guy's
BuenodeMesquits, S.	...Guy's	*Mould, G. T.	...St. George's
*Caldar, F.	...Bristol	Nannmann, J. C. F.	...Charing Cross
*Carter, W. J. B.	...St. George's	Ordlivie, F. M.	...St. George's
Castle, B.	...St. Bartholomew's	Ord, W. T.	...St. Mary's and Bristol
*Cantley, E.	...St. Bartholomew's	Ovens, T.	...Toronto
Caven, W. P.	...Toronto	Pedler, W. F.	...St. Bartholomew's
*Clark, C. M.	...St. George's	Pettingill, A. E. A.	...St. Bartholomew's
*Clarke, G. S.	...St. George's	Phillips, J. N.	...Guy's
Cleveland, H. F.	...University College	*Randall, E. B.	...University College
Cokerill, J. W.	...St. Bartholomew's	Raywood, J. R. I.	...Guy's
*Collier, H. S.	...St. Mary's	Rees, J.	...Middlesex
*Cotton, W. M.	...University College	*Rees, J. L.	...London
Cox, C. A. S. B.	...St. Thomas's	Reeves, J. K.	...Guy's
Cree, J. D.	...Middlesex	Roberts, A. C.	...Guy's
*Da Costa, F. X.	...Bombay	*Robinson, T.	...St. Bartholomew's
*Daniell, E. P.	...University College	Rossall, J. C.	...St. Mary's
*Darrall, W. B.	...London	*Salisbury, C. R.	...Leeds
*Davey, W. H. H. C.	...Charing Cross	*Sapp, J. G. V.	...Charing Cross
*Devis, H. F.	...Bristol	Scadding, H. C.	...Toronto
Drapper, J. W.	...University College	Scott, A.	...Guy's
Drew, H. V.	...University College	Scott, H. J. H.	...Melbourne and King's College.
Drew, H. W.	...Guy's	Seagrove, H. A.	...University College
Duckett, C. A.	...University College	Shaw, W. R.	...Toronto
*Durrant, T. A.	...St. Thomas's	*Shipton, H.	...King's College
Eccles, G. H.	...St. Thomas's	*Smeeton, C. W.	...Leeds
*Edwards, C. S.	...St. Bartholomew's	Somerset, E.	...King's College
*Elphick, H. W.	...University College	Spencer, H. A.	...St. Thomas's and Bristol
Ferrahy, G. A.	...Birmingham	*Spink, C. P.	...Leeds
*Forster, J. E.	...Westminster	*Starling, E. H.	...Guy's
*Francis, T. W.	...St. Bartholomew's	*Stratfield, P. W.	...Guy's
Freeman, C. D.	...Charing Cross	Symonds, H.	...St. Bartholomew's
Gadge, A. J.	...London	Thomas, T. N.	...London
Gough, H. E.	...Manchester	*Thompson, R.	...Guy's
Graham, W. A. S. J.	...St. Mary's	*Tyacke, N.	...Middlesex
*Greenfell, W. T.	...London	Tyrrell, A. F.	...Middlesex
*Guiselin, F. W.	...St. Mary's	Wadhams, F. J.	...St. George's
*Hardy, W. E.	...St. Bartholomew's	Walker, J. H.	...University College
*Heaton, G.	...St. Bartholomew's	*Wayte, J.	...St. George's
Heffernan, H. H.	...St. Thomas's	*Weekes, C. J.	...University College
*Holland, C. T.	...University College	Weatherly, A. J.	...Oxford, Middlesex and Bristol.
Holt, A. K.	...St. Bartholomew's	White, F. J.	...Montreal
*House, F. M.	...St. Thomas's	*Wise, H. W.	...Edinburgh
Jeeves, F.	...Charing Cross	Woodyatt, J. F.	...Manchester
*Jermaine-Lulham	...F. S.	Wyatt, W. L.	...Middlesex
F. S.	...St. Bartholomew's		
Jones, R.	...St. Bartholomew's		
Kershaw, E. E.	...Middlesex		
Kirkhouse, G.	...St. Bartholomew's		

* Approved by the Examining Board.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS, GLASGOW.—The Quarterly Examinations in Edinburgh for the Triple Qualification took place in January, with the following results:

First Examination. Of the 58 candidates, the following 37 passed:

- P. F. O'Hagan, Longford; G. S. Pope, Madras; G. T. Tuke, Edinburgh; A. H. Barstow, Spofforth; J. F. Roden, Edinburgh; G. A. Ings, Canada; E. V. Eames, Donegal; T. J. Tonkin, London; T. S. Allan, Glasgow; J. Stevenson, Dundee; W. H. Walker, Ripon; F. J. Flavin, Doncaster; J. F. Curry, Limerick; T. H. Hosford, County Cork; R. R. Workman, County Derry; H. Stedman, London; H. Shaw, Enniscorthy; H. A. Holmes, Manchester; P. R. Crofton, Ireland; C. J. A. Coates, County Cork; W. Yeates, County Down; R. S. Jaques, Scarborough; A. E. Douglas, Newcastle-on-Tyne; D. C. Caraduff, Berhampore; R. Milling, County Down; G. G. Sinclair, Hamilton; W. W. Margenout, Ceylon; G. Maingot, Trinidad; R. Love, County Antrim; A. Burns, Chatham; Miss Beatrice Mary Harrison, Brighton; C. E. Dodd, Cheshire; F. C. Rogers, Cheshire; N. J. Newbold, Cambridge; J. H. Hart, Yorkshire; A. H. Dubourg, London; and C. E. G. Bateman, Norwich.

Second Examination. Of 63 candidates, the following 34 passed:

- J. Round, Dudley; J. P. McLaren, Glasgow; R. Aldous, Norfolk; C. J. Milligan, Belfast; T. S. Hogg, County Derry; S. W. Wolfe, County Cork; C. L. Strangman, Waterford; C. E. Dodd, Minshill Vernon; N. H. Newbould, Cambridge; F. C. Rogers, Cheshire; W. C. Lancaster, Dublin; E. Trehanne, Glamorganshire; R. W. Morrow, County Down; J. B. Griffiths, Stroud; J. H. Carson, County Down; W. W.

Margenout, Ceylon; K. R. Carroll, County Cork; J. L. Smith, County Limerick; T. S. MacMahon, Longford; T. B. Brooke, Cambridgeshire; J. Mackenzie, Sutherland; H. E. Wright, Oldham; J. Stobo, Bothwell; J. C. Thompson, Yorkshire; J. Quigley, Londonderry; J. O'Sullivan, Dublin; A. Ramage, Kilmarnock; A. M. Ford, Glasgow; T. F. Southam, Cheshire; R. J. Stirling, Peebles; J. Maher, Waterford; W. S. Crawford, County Down; J. B. Meredith, Queen's County; and A. H. Duhourg, London.

Final Examination. Of 86 candidates, the following 40 passed, and were admitted L.R.C.P.E., L.R.C.S.E., and L.F.P. and S.G.:

A. A. Jervis-Pereira, India; J. Hoy, Ashby-de-la-Zouch; Miss Mary Crowley, Northampton; S. Evans, Madras; W. A. Gibson, Dublin; R. L. Caunter, Cornwall; A. J. Ryan, County Limerick; M. J. O'Connell, Cork; K. J. Courtenay, Sheerness; E. Brooks, Blackburn; W. J. France, Shrewsbury; J. H. Lloyd, Aberystwith; J. M. Crawford, India; J. C. Scotchburn, Yorkshire; C. Mattel, Malta; J. C. Paloner, Melbourne; T. S. Hogg, County Kerry; J. Stoddart, Dumfries-shire; J. C. MacDiarmid, Argyleshire; M. H. Spencer, Tavistock; J. Cotter, Cork; J. McDowell, Newry; M. McLaughlin, County Donegal; J. C. Heynsbergh, Ceylon; M. B. Leicester, London; R. K. Mitter, India; A. W. Douglas, Aldershot; M. T. Casey, County Limerick; A. S. Taylor, Walker-on-Tyne; B. J. E. Wright, London; J. C. French, County Durham; G. E. Rawlinson, Oxford; J. T. Kennedy, Kerry; C. Doherty, County Donegal; J. P. Ferguson, Ireland; W. K. Lockhead, New South Wales; J. W. Kelly, Queenstown; C. Beasley, Southsea; T. Ireland, Germany; and G. F. Hilliard, Ireland.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—During the January sittings of the Examiners, the following gentleman passed the Final Examination, and was admitted L.R.C.S.E.:

W. G. Sym, Edinburgh.

For the Licence in Dental Surgery, the following gentleman passed the First Professional Examination:

A. Turner, Aylesbury.

The following gentlemen passed the Final Examination and were admitted L.D.S. Edin.:

E. A. White, Stoke Holy Cross, Norwich; and J. Turner, Edinburgh.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen having passed the Qualifying Examination in Medicine, Surgery, and Midwifery have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society.

Bamptlyde, James, Malabar House, Bexley, Kent.
Blacklock, John, East Bank, Haslingden.
Bryden Francis Wm. Augustus, Beech House, Uffculme, Devon.
Garvey, Henry Patrick, 11, Thorne Terrace, Barnes, Surrey.
Hancock, George, Leathley Lodge, Hunslet, Leeds.
Killeck, Charles Rowe, 33, London Road, Dover.
Modlin, Isaac Gibson, 5, Featherstone Street, Roker, Sunderland.

The following gentlemen passed the Surgical portion of the examination.

C. R. Adams, of St. Thomas's Hospital; W. S. Brown, of Guy's Hospital; W. Marris, of the Middlesex Hospital; T. W. Mead, of St. George's Hospital; C. F. Stovin, of the London Hospital; W. Watkins, of St. Bartholomew's Hospital; J. Westwood, of Queen's College, Birmingham; T. C. Winn, of the London Hospital.

The following gentlemen passed the Medical portion of the examination.

W. Metcalfe, of St. George's Hospital; H. C. Sugden, of Edinburgh University.

The following gentleman passed the Primary Examination.

B. S. Snell, of University College.

The following passed the first part of the Primary Examination.

P. P. Baly, of Queen's College, Birmingham; C. A. Threlgate.

The following passed the second part of the Primary Examination.

A. C. Baes, of St. Bartholomew's Hospital; E. C. Curtis, of Aberdeen University; W. M. Keal, of St. Bartholomew's Hospital; W. O. Lattey, of St. George's Hospital; F. H. Lazenby, of University College; H. B. T. Symons, of the Charing Cross Hospital.

MEDICAL VACANCIES.

The following Vacancies are announced:

BIEMINGHAM BOROUGH ASYLUM.—Clinical Assistant. Application to H. B. Whitcombe, Esq.

BOURNEMOUTH FRIENDLY SOCIETIES MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £200 per annum, with residence and fees. Applications to Mr. F. A. K. Hounseth, Trinity Chambers, Bournemouth.

Bristol Royal Infirmary.—Dental Surgeon. Applications by February 15th to the Secretary.

CANCER HOSPITAL, Brompton.—Pathologist. Honorarium of £80 for twelve-months. Applications by February 21st to the Secretary.

FOREST HILL PROVIDENT DISPENSARY.—Medical Officer. Applications by February 15th to F. J. Marriott, Esq., 2, Perry Villas, Perry Vale, Forest Hill, S.E.

MENSTON ASYLUM, near Leeds.—Medical Superintendent. Salary, £400 per annum, with board and residence. Applications by February 15th to W. L. Williams, Esq., West Riding solicitor, Wakefield.

NATIONAL ORTHOPEDIC HOSPITAL.—Surgical Registrar and Anesthetist. Honorarium, £20. Applications by February 21st to the Secretary, Great Portland Street, W.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Assistant-Physician. Applications by February 10th to the Secretary.

OLDCASTLE UNION.—Medical Officer. Oldest Dispensary District. Salary, £135 per annum and the usual fees. Applications to William Harman, J.P., Honorary Secretary, Crossdrum. Election on February 13th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Assistant Physician. Application by February 11th to the Secretary.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor.—Assistant Resident Medical Officer. Applications to the Secretary, 31, Craven Street, W.C.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—House-Surgeon. Salary, £80 per annum, with board, etc. Applications by February 15th to the Assistant Secretary.

RUBERY HILL ASYLUM, Bromsgrove, Worcester.—Clinical Assistant. Board and residence. Applications to Dr. Lyle.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.—Leicester Square.—Two Assistant Medical Officers. Applications by February 8th to the Secretary.

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN, Quay Street, Manchester. Honorary Surgeon. Applications by February 10th to the Chairman of the Board.

YORK DISPENSARY.—Three Resident Medical Officers. Salary, £130 per annum, with furnished apartments, etc. Application to T. W. North, Esq., Micklegate, York.

MEDICAL APPOINTMENTS.

ABBOTT, Charles Edward, L.K.Q.O.P.I., M.R.C.S.Eng., reappointed Medical Officer of Health for the Braintree Rural Sanitary District, Essex, for one year.

BRIGHT, Eustace, M.B., M.R.C.S., appointed Resident Clinical Assistant to the Hospital for Consumption, Brompton, vice B. de B. Carey, M.B., M.H.C.S., L.S.A., resigned.

BLOMFIELD, Arthur G., M.D., appointed Physician to the Devon and Exeter Hospital.

DALY, J. P., M.D., House Surgeon, North Infirmary, Cork, appointed Medical Officer to one of the Dispensary Districts, Cork Union, vice Dr. Riordan, resigned.

DAVIES, A. T., B.A., M.B., M.R.C.P., appointed Physician to the Royal Hospital for Diseases of the Chest, vice J. J. Pringle, M.B., resigned.

EDWARDS, P., M.R.C.P., L.R.C.S., appointed Assistant Medical Officer to the Manchester Royal Infirmary (Moussal Fever Hospital), vice H. L. Williams, M.R.C.S., L.R.C.P., resigned.

FOX, R. G., M.B. and C.M. Edin., appointed Junior Assistant Medical Officer to the Sussex County Lunatic Asylum, vice M. O. Manson, M.R.C.S., L.R.C.P., resigned.

SAUNDERS, C. E., M.D., M.R.C.P., M.R.C.S., appointed Medical Superintendent to the Sussex County Lunatic Asylum, vice S. W. D. Williams, M.D., resigned.

STRUGNELL, W. T., M.B., M.R.C.S., appointed Senior House Surgeon to the Royal Hospital for Diseases of the Chest, vice P. G. Lewis, L.S.A., resigned.

TREVELYAN, B. R. T., M.R.C.S.Eng., L.R.C.P.Lond., appointed Assistant Physician to the Bristol General Hospital, vice J. B. Webb, M.R.C.S.Eng., L.R.C.P.Lond., resigned.

WALKER, P. Hunter, M.B., C.M., appointed Medical Officer to the Lechlade District, Faringdon Union, vice J. B. Miller, M.B., C.M., resigned.

WALLACE, A., M.A., M.D. Oxon., M.R.C.P.Lond., appointed Physician to the Essex and Colchester Hospital.

WETHERED, Frank, M.B., M.R.C.S., appointed Resident Clinical Assistant to the Hospital for Consumption, Brompton, vice W. A. Evelyn, M.B., M.R.C.S., resigned.

THE METROPOLITAN ASYLUMS BOARD.—The return presented to the Board on January 28th, with respect to fever and small-pox, showed that at the beginning of the half-year (the end of June) there were 528 cases of fever in the hospital. During the quarter ending September, 2,095 cases were admitted, of these 1,921 were scarlet fever, 147 enteric, and 8 typhus. During the quarter ending Christmas there were admitted 3,215 cases, of these 2,943 were scarlet fever cases, 4 typhus, and 244 enteric cases. At the end of the Christmas quarter there were 2,205 cases under treatment, of which 2,045 were scarlet fever cases and 146 enteric cases. The returns up to Thursday midnight (January 26th) showed that in the fortnight there had been 297 cases admitted, as against 362 the previous fortnight. There had been discharged 505 in the last fortnight, as against 519 in the previous period, and there remained on Thursday under treatment 1,833, as against 2,083 a fortnight since. With regard to small-pox, 7 cases had arisen within the fortnight, as against 4 in the previous fortnight. In the same period 6 had been discharged and 10 remained under treatment—an increase of one since the last return.

A MEDICAL CLUB.—A club, called the Circolo Medico Milanese, has been established at Milan, and many of the medical men in the town have joined it. Its objects are stated to be to provide a place of social intercourse, together with the ordinary conveniences of a club for its members, and to promote a feeling of professional brotherhood among them.

REQUESTS AND DONATIONS.—Colonel Machen has bequeathed £1,000 to the Warneford, Leamington, and South Warwickshire Hospital.—The British Home for Incurables has received £380 8s., being the balance of share of "residue" under the will of Dr. G. G. Gardiner, one of the physicians.—Mr. Christopher James Corbally has bequeathed £100 each to the Dispensaries, the Royal Infirmary, the Infirmary for Children, the Northern Hospital, and the Southern Hospital, all of Liverpool.—Miss Clara Frances Gladstone, of Bowden Park, Chippenham, has bequeathed the "residue" of her estate to her sister Alice, but with the request that she would give £200 to the West of England Sanatorium at Weston-super-Mare, and £100 to the West London Children's Hospital and Dispensary for Women at Shadwell.—The Worcester Infirmary has received £200, less duty, and the Dispensary £100, less duty, under the will of Mrs. Eliza Woodward; and the former has received 100 guineas, and the latter 50 guineas, from Mr. J. Waldegrave Stone.—The Northampton General Infirmary has received £100 under the will of Mrs. R. Pell.—Miss Elizabeth Norman has bequeathed £100 to the Adelaide Hospital, Dublin.—Lord Burton has given 100 guineas for the second time to the British Home for Incurables.—Mr. Henry Brown has given £100 to the Victoria Hospital, Southend.—The Doncaster Infirmary Ball realised £67 5s.—"G. W. C." has given £30 for the third time to the Convalescent Home Fund of the Chelsea Hospital for Women.

THE Third Report of the Medical Mission at Tai-Yuen-Fu, Shansi, North China, for 1887, shows an amount of practical work which is creditable to the workers both as medical men and missionaries. Altogether, about six thousand patients (including 298 in-patients) came under treatment, and the diseases varied from typhus fever to dyspepsia, and from phimosia to ulceration of the cornea. They are enabled to record a successful case of operation for strangulated hernia, and twenty-three cases of successful restoration of sight after cataract. It is easy to understand that surgical work in these distant regions is hampered by the lack of efficient assistance, and the want is one not easily remedied. Dr. E. H. Edwards may be congratulated on his zeal and ability in compiling a report amid the absorbing duties of his responsible position.

ROYAL METEOROLOGICAL SOCIETY.—At the monthly meeting of this Society, held on January 18th, the following officers and council were elected for the year 1888:—*President:* William Marcell, M.D., F.R.S., F.C.S. *Vice-Presidents:* Francis Campbell Bayard, LL.M.; William Ellis, F.R.A.S.; Charles Harding; Richard Inwards, F.R.A.S. *Treasurer:* Henry Perigal, F.R.A.S., F.R.M.S. *Trustees:* Hon. Francis Albert Rollo Russell, M.A.; Stephen William Silver, F.R.G.S. *Secretaries:* George James Symons, F.R.S.; John William Tripe, M.D., M.R.C.P. Ed. *Foreign Secretary:* Robert Henry Scott, M.A., F.R.S., F.G.S. *Council:* Hon. Ralph Abercromby; Robert Andrew Allison, M.P.; Edmund Douglas Archibald, M.A.; William Morris Beaufort, F.R.A.S., F.R.G.S.; Henry Francis Blanford, F.R.S., F.G.S.; Arthur Brewin; George Chatterton, M.A., M.Inst.C.E.; William Henry Dines, B.A.; Henry Storks Eaton, M.A.; Baldwin Latham, M.Inst.C.E., F.G.S.; Edward Mawley, F.R.H.S.; Charles Theodore Williams, M.A., M.D., F.R.C.P.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—At the annual meeting of this Association the report of the Committee showed continuous prosperity, with a steady increase of funds. The following gentlemen were elected office-bearers and members of Committee for the year:—*President:* H. Simpson, M.D. *Vice-Presidents:* J. Foster, Esq.; T. N. Dean, Esq.; J. Broadbent, Esq.; and A. Emrys-Jones, M.D. *Treasurer:* D. Lloyd Roberts, M.D., F.R.S. Edin. *Secretaries:* A. Wahltsch, M.D.; and F. H. Collins, M.D. *Committee:* R. Crean, M.D.; A. Denholm, Esq.; F. M. Pierce, M.D.; C. Holmes, M.D.; H. P. Iderton, Esq.; E. Jackson, Esq.; W. Lauder, M.D.; W. Y. Martin, M.D.; S. H. Owen, M.D.; T. C. Railton, M.D.; R. C. Smith, M.D.; and W. Walter, M.D.

PROSTITUTION IN BRUSSELS.—The Royal Academy of Medicine of Brussels have unanimously passed a resolution to the effect that "the regulation of prostitution is necessary to check the propagation of venereal diseases." Other resolutions were passed, with few dissentient voices; in favour of prohibiting prostitutes from frequenting "streets, promenades, and public places," and providing for the periodical medical examination of recognised prostitutes.

MANCHESTER WATER SUPPLY.—The Manchester water supply is said to be lower in quantity than it has been for many years

past. The consumption is upwards of 2,000,000 gallons a day in excess of what it was in 1879, when the stock fell very low, but this year the water in stock is even less than in that year.

SUCCESSFUL VACCINATION.—Mr. C. Hayercroft, of Bow, North Devon, has obtained a Government grant for successful vaccination in his district.

The Ormskirk Guardians have increased the salary of Dr. Moore, medical officer for the Southport District, from £60 to £100 per annum.

DR. WILLIAM H. FITZPATRICK, the late medical officer for the rural district of the West Derby Union, has obtained a superannuation allowance of £80 per annum.

DR. C. E. SAUNDERS, medical officer of Health for the Middlesex and Herts combined sanitary districts, has been appointed medical superintendent of the Sussex County Asylum. Dr. Saunders has discharged his duties as medical officer of health with ability and assiduity, and has had some experience in lunacy as medical visitor of the private asylums in the eastern division of Sussex.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON.—Dr. Churton, of Leeds: Empyema. Mr. Pearce Gould: Four Cases of Thoraco-Plastic Operation for Empyema. Dr. F. de Havilland Hall and Mr. J. Astley Bloxam will relate Similar Cases.

ODONTOLOGICAL SOCIETY. 8 P.M.—Casual communications by Mr. Storer Bennett: Dilaceration in the Incisor of a Porcupine; and Dr. St. George Elliott: A System of Crowns. Papers by Mr. J. Bland Sutton: Odontomes; and Dr. Harlan, of Chicago: The Management of Pulpless Teeth from the Standpoint of Daily Practice.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON.—Mr. E. H. Fenwick: Etiology of Vesical Growths. Mr. R. W. Parker: Specimens of Bone Disease. Mr. Eve: Specimens of Dry Caries. Mr. Spencer: Deformity of Sternal Ends of Clavicles in Rickets. Mr. Treves: Melanosis of the Skin. Mr. E. Owen: Anomalous Appendages in a Case of Spina Bifida. Mr. Shattock: Imperforate Urethra. Mr. D'Arcy Power: Parosteal Lipoma. Card Specimens—Mr. Eve: Bilharzia Hamatobia. Mr. Treves: Tumour of Spermatid Cord. Mr. D'Arcy Power: Angioma of Cerebral Membranes. Mr. J. H. Morgan; Femur from Case of Pyæmia in an Infant. Mr. Mansell Moullin: Transverse Fracture of Patella United by Bone. Mr. W. K. Sibley: Double Intussusception in a Baboon.

WEDNESDAY.

BRITISH GYNÆCOLOGICAL SOCIETY. 8.30 P.M.—Dr. James Aveling: The Diagnosis and Electrical Treatment of Early Extra-Uterine Gestation. Adjourned discussion on Mr. Lawson Tait's Cases of Ruptured Tubal Pregnancy, successfully dealt with by Ligation of the Broad Ligament. Specimens will be exhibited by Mr. Lawson Tait, Dr. G. Granville Bantock, and others.

EPIDEMIOLOGICAL SOCIETY OF LONDON. 8 P.M.—Justin F. Donovan, M.D., Surgeon R.N.: Yellow Fever and the Microbian Doctrine.

ROYAL MICROSCOPICAL SOCIETY. 8 P.M.—Annual Meeting. President's Address. Rev. Dr. Dallinger, F.R.S.

HUNTERIAN SOCIETY. 7.30 P.M.—Annual General Meeting. 8 P.M. The Annual Oration: R. Clement Lucas, B.S.

FRIDAY.

CLINICAL SOCIETY OF LONDON. 8.30 P.M.—Mr. Mayo Robson: Cases of Ruptured Intestine without External Wound, Diagnosis and Treatment. Mr. Bennett: Case of Intestinal Obstruction, in which the Colon Gave Way outside the Peritoneum. Mr. Walsham: Case of Intestinal Obstruction; Nelon's Operation; Death; Volvulus of Cecum; Malposition of Ascending Colon. Living Specimen.—Mr. Bernard Roth: Case of Arrested Growth of Ulna.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 6s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

ADAMS.—On January 27th, at 184, Aldersgate Street, E.C., the wife of John Adams, L.R.C.P. Lond., of a daughter (Mary Dora).

DAVIDSON.—At 2, Bon Accord Square, Aberdeen, on January 28th, the wife of James McKenzie Davidson, M.B., C.M., of a daughter.

DEATHS.

MURPHY.—On January 23rd, at Aspatry, Cumberland, William Ponsonby Murphy, L.R.C.S. Ireland, aged 68 years.

PALMER.—On January 28th, at Putney, Caroline Margaret Palmer, recently of Barnwood, Eastbourne, Sussex, widow of Henry Smith Palmer, M.R.C.S., of St. Leonards, Mortlake, Surrey, aged 65.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....	10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.
TUESDAY.....	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department).
WEDNESDAY.....	10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M. St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.; London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.
THURSDAY.....	10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—3 P.M.: Charing Cross, London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.
FRIDAY.....	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.; West London.
SATURDAY.....	9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.
GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Bar. Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.
LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.
MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 8.
ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.
ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p., Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu., S., 9, Th., 1.
ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F., 8, 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 2.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.
ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th., F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 4; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

TO CORRESPONDENTS.

OUR correspondents are reminded that prolixity is a great bar to publication, and, with the constant pressure upon every department of the JOURNAL, brevity of style and conciseness of statement greatly facilitate early insertion. We are compelled to return and hold over a great number of communications chiefly by reason of their unnecessary length.

QUERIES.

G. R. G. asks as to the suitability of the climate of Melanesia and Norfolk Island for a patient in the first stage of phthisis.

TREATMENT OF TINNITUS.

MR. FRANCIS W. CLARK, L.R.C.P.L., M.R.C.S. (East Croydon), asks for suggestions for the treatment of the following case. A man, aged 46, of neurotic temperament, has been suffering from ringing noises in the ears of varying intensity, and alternating from one to the other aide for the past three months. About a month prior to the onset of this trouble he suffered from detachment of the retina, necessitating complete rest for two months, and it was during this period that the noises suddenly developed. The heart and blood vessels are normal, and so also is the urine; and the patient has never suffered from gout. After excluding local causes, such as concretions in the meatus and blocking of the Eustachian tube, the following remedies were successively tried, but all without success: Colchicum, hydrobromic acid, bromide of potassium, and faradism. The patient is at present taking small doses of salicylate of soda.

TREATMENT OF PROFUSE SWEATING.

MR. J. E. CLENDINNEN (Coseley) asks for advice in the treatment of the following case. A lady, aged 46, not having yet reached the menopause, suffers from profuse perspiration on awaking in the morning, generally lasting from 4 to 8 o'clock. The sweating is preceded by a hot burning condition of the skin, and is so profuse that her bed cannot be made until it and the bedclothing have been dried. It does not occur every morning, but about two or three mornings in the week. She has been nervous, but is now in excellent health, looks well, eats well, and sleeps well till the sweating begins. The following remedies have been tried: Belladonna, bromide of potassium, strychnine, oxide of zinc, valerianate of zinc, and hot sponging. Most relief has been derived from the zinc valerianate.

CONVALESCENT HOME WANTED.

DR. E. L. ARCHER (Kensington) wishes to hear of a convalescent home at Bournemouth where a young man, who is probably in the early stage of consumption, would be admitted on payment of a moderate fee for a few weeks.

DISINFECTING CHAMBER.

M. O. H. wishes to learn the name and address of the maker or agent of the Schummel Steam Disinfecting Closet of Berlin.

MESSAGE.

NOVICE, having gathered, from *Massage as a Mode of Treatment*, by Dr. William Murrell, that the art can only be acquired after at least two years' practice, and only by practical instruction, asks if this is really the case, as he had hoped to be able to use it after studying the subject from books?

ANSWERS.

H. E. MATTHEWS.—Obviously the proper course is to pursue the necessary treatment, and not to violate professional confidence, which, under the circumstances, is sacred.

HAIRWASH.

DR. MYRTLE (Harrogate) writes: The best application for falling hair or promoting growth of hair is a quinine hairwash made by Schütte and Co. Widmore Quinine Works, Bromley, Kent.

TREATMENT OF STAMMERING.

M.R.C.S. writes: In reply to Mr. E. regarding a publication likely to be of service in the training of a little boy who stammers, I can recommend the *Grammar of Elocution*, by John Millard, Professor of Declamation in the Royal College of Music (fourth edition), which contains, embodied as an appendix, directions and exercises to assist in the removal of stammering. Having been for years, when a child, a stammerer myself, I am able to judge to some extent of their worth, besides having had practical proof of their efficiency. The book referred to is published by Longmans, Green and Co.

TEACHING THE DUMB TO SPEAK.

MR. A. J. JOHNSTON (Nethway, Kingsley Road, Prever's Gates, Liverpool) writes: I am much interested in a girl of about 18 years of age who, through some malformation of the mouth or tongue, has never been able to speak, with the exception of a few words. I believe she has all her faculties and, though small for her age, is undeformed. I am trying to persuade her friends to send her to school, so that she may at least be able to talk with her fingers. My object in writing is to ask if you know of a suitable school where she would be kindly treated.

* It would be a mistake to teach the girl to talk on her fingers, and thus divert her from lip-reading and natural speech. Dr. E. Symes Thompson, to whom we have referred the question, recommends that the friends should pay a visit to the Training College for Teachers of the Deaf, Castlebar Hill, Ealing, W.; the Principal of which, Mr. Kinsey, would be able to give much useful information.

L'HOMME-FEMME: Our correspondent is probably right in his surmise. A certain American writer has stated the percentage of "cultivated" married (American) women who do not possess any sexual feeling to be as high as fifty-six. It should be clearly recognised that the absence of such feelings in a woman does not imply sterility.

NOTES, LETTERS, ETC.

REPAYMENT OF INCOME TAX.

THE INCOME TAX REPAYMENT AGENCY (25, Colville Terrace, W.) write: Allow us to mention in your columns a most important point we have just carried. A medical man in the north of London was last year assessed at £350; this year the notice came in for £400. We made out his statement on our forms, and his assessment was reduced to £300, not only a saving of tax on £100, but giving him a right to abatement on £120, consequently 26 ss. 4d. in pocket this year. But the following is the point we wish to call attention to. We advised our client to make a claim for repayment of tax overpaid last year, basing his claim on the fact that he had paid on £350, whereas he had now proved to the satisfaction of the General Commissioners that his average was only £300. We have just heard from him that he has received a post office order for the amount. We shall be glad to assist others in the same way. Our being able to cite the case to surveyors is a great advantage.

DIPHTHERIA DURING PREGNANCY.

DR. P. O'CONNELL (Chicago) writes: The following may possess points of interest to merit record in the JOURNAL. On December 21st, 1885, I saw Mrs. McQ., aged 29. Both tonsils were so enlarged as almost to meet, and were covered with well-marked, characteristic exudation. Temperature 102° F. The attack was a sharp and severe one. She was out of danger on the seventh day, and sat up for an hour on the eighth day. The urine was albuminous until January 6th, 1886.

When told on the third day of her illness that she was two months pregnant with her fourth child, I was startled, and expected an abortion, with probably fatal termination. During her illness, besides topical applications, she took internally iron with two grains of quinine every four hours. On July 29th, 1886, I delivered her, at full term, of a healthy female child of average size.

Here permit me to ask: Has quinine any action on the gravid uterus? Four or five years ago, if I correctly remember, some of the Indian medical officers said it was dangerous to give quinine for intermittent fevers during pregnancy, as it was pretty certain to induce labour. During the annual meeting of the British Medical Association at Dublin last year, Dr. T. More Madden (*vide* JOURNAL, November 12th, 1887, p. 1045) advised the use of quinine, with iron and chlorate of potash, during the last two months of pregnancy, as a good prophylactic to puerperal fever. I frequently employ it with ergot, strychnine, and capsicum in cases of subinvolution of the womb: also to rouse the uterus to action on sudden cessation of pains during the progress of labour, and always with success. I cannot say, however, if alone it would induce contractions, since I always used it in combination with one or more of the drugs mentioned.

DRUMINE.

JOHN REID, M.A., M.D. (Melbourne) writes: In consequence of the publication in the JOURNAL of Professor Alex. Ogston's report on Drumine, and also of reports published elsewhere, I instituted inquiries as to the action of rectified spirit solutions. I may preface by stating that I have used weed obtained in Victoria (*euphorbia drummondii*), and that I have obtained the alkaloid by boiling the weed in dilute acetic acid, percolating and precipitating with sodium bicarbonate. Solution of the acetate was then made and employed. I have not been so successful in obtaining so well formed crystals of this salt as of the hydrochlorate obtained from South Australia (E.D.).

Substantaneously a solution in boiling rectified spirit has produced the smarting of sp. vin. rec. modified, but no after-effects. Similarly a solution of the alkaloid or salt (previously decolorised by animal charcoal), applied to the scrotum on an eczematous patch, from which the scab was removed, caused first slight smarting and afterwards no pain. Subsequent applications were not felt. Compare the action of rectified spirit alone, in which subsequent applications are very painful. In addition, the disease is cured, scabs, etc., disappear, the intolerable itching and annoyance vanish, and a life of ease succeeds. One or two applications to the nostril cure a common cold. In tonsillitis a single application caused pain and annoyance by swallowing to vanish. Solution in rectified spirits is well preserved, and acts well enough when not used hypodermically; the transitory smarting is not very great excepting where the patient is over-sensitive. A fresh aqueous solution is, of course, preferable.

Recent observation has brought to light that when drumine is heated strongly (to ebullition) with glycerine (as I did in order to obtain solution needlessly), it is evidently in part decomposed, emitting the odour of burnt feathers, or transmitting to the solution, as a friend on whose gun I applied some for toothache said, the flavour of urine. This is interesting only in so far as pointing to a chemical reaction, and ought not to occur if the solution is made at a proper temperature. Some was no doubt decomposed. The fact that the alkaloid causes a precipitate with phosphomolybdic acid has not as yet been reported in the JOURNAL.

This year has been very fatal to the growth of *euphorbia drummondii* on account of the excessive wet; but in all probability it will soon be possible to place drumine in the market, and to allow the profession an opportunity of testing its qualities for themselves. Were it only used for "common colds" and "eczema of the scrotum," its value could scarcely be estimated.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN.

A LATE MEMBER OF THE STAFF writes: As the existing Board of Management of this institution has again advertised for two assistant physicians, I think it only fair to candidates that they should know something about the system of management and the circumstances which have brought about the present vacancies.

It is important to know in the first place that these appointments are made by the Board of Management and not by a meeting of governors, and that this board, though supposed to be elected periodically, has not been reformed for some time; moreover, two members of this board can form a quorum. It is doubtful, therefore, whether it has the right to appoint. The appointment again is for no certain period, and the medical officer is liable to instant suspension or dismissal. The vacancies created a few weeks back were filled up, but two of the gentlemen elected finding out the state of affairs and the circumstances under which their predecessors were dismissed, almost immediately sent in their resignations.

The matter appears in reality to come to this. If you do not act with two or three members of the Board of Management, who have, practically,

uncontrolled sway, you will find your position rendered unsatisfactory, and you will sooner or later either feel yourself obliged to resign, or you will be summarily dismissed.

The financial affairs of the institution will probably be investigated before long by an independent inquiry, but the staff of the hospital will never take a high place in the profession nor be respected unless its election, tenure of office, and general course of action are altered.

MR. MORRIS OF ST. BARTHOLOMEW'S HOSPITAL.

MESSRS. ANTHONY A. BOWLBY (St. Bartholomew's Hospital, E.C.) and JOSEPH MILLS (15, Henrietta Street, Cavendish Square, W.) write: A circular has recently been distributed to old students of St. Bartholomew's Hospital stating that it has been resolved to present a testimonial to Mr. Mark Morris, the Steward. It is suggested that the testimonial should take the form of a portrait or bust, to be placed in the hospital; and it is to be hoped that the funds subscribed will be sufficient to allow of some personal gift to Mr. Morris in addition. The precise form, however, of the testimonial will be left to the decision of the subscribers. Mr. Morris's connection with the hospital and school extends over a period of forty-seven years; and although it is hoped that he may long continue to fill his present post, it is felt by many that the time has arrived when his long and valued services should be thus formally recognised. All who have been brought into contact with Mr. Morris must be well aware of the tact and judgment he has always displayed. His kindly consideration for others, his constant good nature, and unvarying willingness to render assistance must be especially well known to those who have held office on the resident staff. Subscriptions, which should not exceed two guineas, may be sent to either of the Honorary Secretaries.

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* Members of the Executive Committee.

COMMUNICABILITY OF SYPHILIS THROUGH THE SALIVA.

DR. P. M. CARLETON, Surgeon M.S., in reply to Mr. Cooper's question with regard to the ease of communication of syphilis by the saliva, published in the JOURNAL of December 24th, writes: The tattooer contracted the primary sore some years ago, and before he became a soldier. At the time he was admitted to hospital, which was a few days after the tattooing was performed, he had painful nodes on the frontal bone, and one on the left clavicle extending to and implicating the sterno-clavicular articulation. There was rather obstinate enlargement of one testicle. There was no lesion of the mouth, but there was a mucopurulent discharge from one nostril, and other symptoms of post-nasal mischief were present. This may no doubt have been the source of contagion.

With regard to the other man, who has been discharged from hospital, he had a characteristic copper-coloured rash distributed in patches over his whole body about the time that the sores on the forehead had healed. In this stage he was seen several times by a civilian professional friend.

I have no doubt (1) this man contracted syphilis as the result of the tattooing; (2) that it was through the saliva of the operator. But, that the saliva *per se*, and not as the vehicle for some other discharge, has the power of conveying the virus from a syphilitic patient, the evidence is not quite conclusive.

HOW SHOOTING ACCIDENTS ARE TO BE AVOIDED.

DR. JOHN RUXTON, late Leicestershire Regiment, recommends, as means to prevent shooting accidents:

1. Impose a tax on all firearms except sanctioned by Government, and on all who use or borrow them, besides their owner, levying a heavy fine in case of non-compliance.

2. Make the very act of pointing a firearm at, or in the direction of, any person, a criminal offence.

3. In cover-shooting, the head of a party ought to call both shooters and beaters together, and obtain their sanction to the rule "that anyone using a gun who is seen interfering with trigger or hammer while the gun is pointing in the direction of any person, either when walking in line or crossing a fence, should be at once disarmed, and become a heater for the rest of the day." The discipline of keeping in line must be very strict; the gunners who walk with heaters should halt 120 yards from end of beat; heaters advance, leaving all winged game going forward to guns placed in front, and all going backward to those behind, neither firing till bird has risen well; ground game to be shot only when it has passed either set of shooters. After beat is completed, the forward guns and beaters may again drive back to other guns, observing similar rules of shooting. Excitement will thus be minimised, and a good average of game bagged.

4. To grouse driving the butts must be sufficiently low in front to allow free scope for shooting game coming towards one, and sides so high that shooter cannot fire into butt at either right or left, even if wishful to do so. To accomplish this, the floor of the butt must be excavated, and trenches dug at the lowest parts to allow escape of water. The back of the butt must be open to give full swing at game which is passing low, or has passed. The keepers and beaters to whistle loudly when within 150 yards of butts, after which no forward shots may be fired. The shooter on no account to leave his butt till heaters have passed him.

THE PARASITIC ORIGIN OF MALIGNANT GROWTHS.

DR. HARRY CAMPBELL, M.D., B.S. (Lond.) writes: The following is an abstract of a paper which was prepared some time ago independently of any published writings on the parasitic theory. As much has been recently written on this subject, it is unnecessary to give more than an abstract of my paper. I shall dwell chiefly on such points as have hitherto received little or no attention.

Malignant tissue is of inferior value to that of the surrounding parts; the change is retrogressive; it is not, as in development, a change from the homogeneous to the heterogeneous, but the reverse. Herbert Spencer, indeed, especially singles out the malignant growths as exceptions to his great principle of evolution, assuming that the change is from the homogeneous to the heterogeneous. A careful study of their structure and mode of growth would seem to show that this is not so. The tissue of sarcoma is of a very elementary order, but the carcinoma have no such simple structure, but there can be little doubt that, in their case also, the change is a backward one. In the squamous epitheliomata the epithelial cells dip down as in the development of all open glands, but the down-growing cylinders never become hollowed out. The glandular tissue is therefore of a very crude immature form. In the cylindrical-celled variety a more perfect variety of tissue is approached; for the cylinders contain a distinct lumen; nevertheless, the process is disorderly and the gland tissue, taken as a whole, is decidedly imperfect. In the acinous form of cancer the glandular type is maintained, but it is of an erratic kind. Wherefore we may say that the carcinomata consist of an immature and disorderly form of gland tissue. But the malignant change is not of the nature of a simple degeneration, for along with the deterioration in structure there is an actual increase in tissue activity.

In considering the etiology of malignant growths, it is very necessary to decide how far the malignant tissue is due to a simple transformation of the affected tissue, and how far it results from a multiplication of the few cells initially constituting the tumour. Although primary carcinoma is largely a transformation, yet it is certain that many of the cells are derived by a multiplication of the cells already constituting the tumour. Elements are everywhere present to share in the formation of the growth; for when it spreads to tissues in which there are no epithelia, the growth is evidently solely by a multiplication of the cells already belonging to the tumour.

My view of the matter is this: Under the bacterial irritation the tissues are unable to keep at their normal level, and revert to a tissue of a lower order, thus exhibiting some one or other of their many potentialities. The type of morbid tissue thus produced depends (1) upon the nature of the tissue primarily affected, (2) upon the nature of the parasite. We have seen that the secondary growths are not always due to the transformation of the affected tissues, wherefore the theory of reversion cannot apply to such cases. Such secondary growths depend, I believe, upon the transference of tissue cells *plus* the bacteria from the seat of the primary affection. Under the specific parasitic stimulus these transported cells take on the same morbid action as at the primary seat of infection by virtue of their potentialities. It is impossible, however, to deny that cells of the tissue secondarily affected take some share in the process. There are probably several varieties of "malignant" bacteria; the carcinoma parasite must be quite different from that causing sarcoma.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. L. M. Myers, London; Messrs. J. F. Edisbury and Co., London; Dr. Hunter Mackenzie, Edinburgh; Dr. Abrath, Sunderland; Dr. Lambert, Sunderland; Dr. J. Braxton Hicks, London; Miss H. E. Brown, Buxton; Mr. M. C. Rimmer, London; Dr. Goyder, Bradford; Dr. R. Rentoul, Liverpool; Mr. J. Robertson, Edinburgh; Dr. J. Wallace, Greenock; Mr. H. N. Peddie, Edinburgh; Lord Wantage, London; the Secretary of the Royal College of Physicians of Edinburgh; Mr. C. L. Williams, Liverpool; Sir James Paget, Bart., London; Mr. A. R. Hall, London; Dr. A. G. Blomfield, Exeter; Dr. Raiton, Manchester; Professor B. C. A. Windle, Birmingham; Mr. J. R. Irwin, Whitehaven; Dr. T. Partridge, Stroud; Mr. R. J. Pye-Smith, Sheffield; Dr. Myrtle, Harrogate; Mr. F. W. D. McGachen,

Bletchley Station; Mr. L. A. Mott, Cheltenham; Messrs. Sell, London; Dr. Cuff, Scarborough; Mr. Crocker, Bingley; Mr. R. P. Grace, Anerley; Dr. Barnardo, London; Dr. E. D. Magothier, Dublin; Mr. Page, London; Mr. W. J. Bebb, Burton-on-Trent; Theodore Richards, M.B., Birkenhead; Deputy Surgeon-General J. Watts, London; Dr. J. D. Gillespie, Edinburgh; Mr. G. King, London; Mr. T. Vincent Jackson, Wolverhampton; Mr. J. Willing, jun., London; Dr. J. F. J. Sykes, London; Dr. Otto Hehner, London; Mr. G. H. Hardie, Manchester; Dr. Adams, Malling Place, Kent; Our San Remo Correspondent; Dr. Rotton, London; Dr. C. R. Illingworth, Acerrington; Dr. Gerard Smith, London; Mr. H. Trueman Wood, London; Mr. H. E. H. Matthews, Levensholme; Messrs. Stevens and Howell, London; A. McCulloch, M.B., Tarporley; the Board of Management of the Chelsea Hospital for Women; Dr. G. Cowen, New Malden; Mr. E. Brooke, Durham; Mr. G. P. Atkinson, Pontefract; Mr. A. K. Benson, Dublin; Dr. W. Galletly, Elgin; Dr. Coates, Streatham; Mr. E. Owen, London; Dr. T. Robinson, London; Mr. W. J. Walsham, London; Messrs. Burroughs, Wellcome, and Co., London; Mr. J. West, London; Our Manchester Correspondent; Dr. R. Park, Glasgow; Mr. J. H. Bebb, Bradford; Mr. W. F. Sheard, London; Dr. M. Handfield-Jones, London; Dr. F. S. Palmer, London; Our Newcastle-on-Tyne Correspondent; Dr. P. J. Freyer, Morabad; the Secretary of the Hospitals Association, London; Dr. J. W. Moore, Dublin; Mr. P. Turner, London; Mr. T. L. Wilkinson, Birkenhead; Mr. Churchown, Daventry; Dr. E. R. Nicholson, London; Dr. Major Greenwood, London; Dr. Chestnutt, Howden; Mr. A. Faulkner, London; Mr. J. B. Coumbe, Twyford; Dr. W. Wylie, Skipton; Mrs. A. M. Hubbard, London; Mr. J. Kelland, Salisbury; Mr. F. T. Simson, London; Mr. E. M. MacIaverty, Oxton; Mr. Alexander Anderson, London; Mr. W. Adams Frost, London; Mr. P. G. Lee, Liverpool; Mr. T. F. Pearse, London; J. M. Smith, M.B., London; Mr. C. J. Boyd Wallis, London; Dr. W. D. Spanton, Hanley; Mr. Traill, Edinburgh; Dr. J. Hedley, Middlesbrough; Dr. F. C. Turner, London; Dr. Cosgrave, Dublin; Mr. E. A. Waterworth, Newport; Mr. G. M. Dent, Southport; Dr. Tatham, Salford; Dr. A. Wahl-tuch, Manchester; Mr. J. Kirkley, South Shields; Mr. W. Sykes, Moxborough; Mr. G. W. Homan, Lickfield; Surgeon-General McKinnon, London; Mr. T. A. Jones, Aberavon, Port Talbot; Mr. W. H. Day, Norwich; Dr. Davies, Swansea; Dr. Thin, London; the Secretary of the Sanitary Assurance Association, London; G. B. Todd, M.B., Glasgow; Mr. J. Poland, London; E. Baily, M.B., Ohan; Dr. More Madden, Dublin; Mr. W. W. Shrubshall, Edinburgh; Mr. Shirley Murphy, London; Mr. W. S. Elliott, Donaghadee; Mr. J. Arthur, Llandaff; Messrs. Mayer, Meltzer and Co., Leeds; "Brigade Surgeon" Mr. Kenneth Millican, London; Mr. E. Knight, London; Mr. Josiah Williams, Sheffield; Dr. Burton, Stonehouse; Mr. J. Chapperton, Winchester; Dr. J. Brown, Baeup; Dr. George Harley, London; Mr. Sinclair White, Sheffield; Dr. J. Mackenzie Booth, Aberdeen; Mr. E. White Wallis, London; Dr. Gream, Hore; "A Member B.M.A.," Mr. W. A. Bonney, London; etc.

BOOKS, ETC. RECEIVED.

Practical Physics for Schools. By B. Stewart, M.A., and W. W. H. Gee, B.Sc. Vol. 1. Electricity and Magnetism. London: Macmillan and Co. 1888.
Shepherd's First Aid to the Injured. Revised and rearranged by Robert Bruce, M.R.C.S. St. John's Ambulance Association, St. John's Gate, Clerkenwell, E.C.
The Student's Manual of Psychology. By E. D. Drought. London: Swan Sonnenschein, Lowrey and Co. 1888.
The Trance of Fitzerse, a Tale of Two Centuries. By Alfred Fitzerse. London: The London Literary Society.

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AN ADDRESS ON OUR HOSPITALS AND THE INTERESTS OF PATIENTS AND PUPILS.

*Delivered at the Annual Meeting of the Dublin Branch of
the British Medical Association, January, 1888.*

By EDWARD DILLON MAPOTHER, M.D.,

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DURING the past year our Branch has been moved towards the provision in Dublin of proper opportunities for pathological study, and a Blue Book of extreme value, touching the curative and educational facilities of our hospitals, has been presented. On these topics I propose to briefly comment, being, of course, solely responsible for any suggestions offered. The financial points, and the modes of government and of election of officers, will not be dealt with, having regard for your patience and my own unfitness.

The teaching of pathology, macroscopic and microscopic, is at a low ebb in Dublin, a city in which an active society originated an interest in the former. The number of hospitals, general and special, will bar all progress unless consolidation or, at least, association is brought about. The physicians and surgeons cannot, and I fear their pupil assistants will not, give time to a full examination of all the organs, and the decent re-arrangement of the cadaver. The proceedings will occupy from one to two hours, even when, after removal of the viscera, the spinal cord is taken out by cutting the bodies of the vertebrae from the pedicles by chisels, spurred for each side—a quick way I lately saw worked in Vienna. It is usually thought better that the officers of lying-in hospitals should not undertake *post-mortem* examinations. In each of the ten general and six special hospitals there could not be a teacher of pathology. It seems to me that the two great bodies in Dublin which alone have pathological museums should found chairs. In one there is a great teacher of the most cognate subject, whose competency is unquestionable, and who might find time; in the other there is an officer of good promise; but teaching has been forbidden, although a hundred years ago the system of demonstrating such specimens was there in vogue. The stipends should come from the conjoint bodies and the University, on condition of free admission to all candidates who had passed the first half of their examinations; and from the usual school fees from others. The physicians and surgeons would give notice of any case desirable for examination, and of course they will rejoice to have their diagnosis tested by a pathologist who only sees the specimens. The rough duty should be done by trained workmen who would bring the valuable parts for full examination and preservation to those colleges respectively.

As such specimens would be varied and irregularly supplied, it is only in these museums that systematic courses could be given. A line drawn north-west to south-east from the Midland Bridge, North Circular Road, to Leeson Street Bridge, fairly bisects the city. The hospitals which might thus group with Trinity College would be the Mater, Rotunda, Jervis Street, Sir Patrick Dun's, Baggot Street, St. Joseph's, the Adelaide, and Mercer's; and with the College of Surgeons, the Richmond, Stevens's, Combe, Meath, Cork Street, and St. Vincent's, each group containing about 550 beds occupied, but let the selection be by fitness, affection, or in any other way. The pupils of each hospital would attend the necropsies in it, but only those franked by the colleges or by the special fee would be present in the museums at the systematic courses, including pathological histology.

As children's bodies are not procured as dissecting subjects, examinations of them in some of these dead-houses would supply a want in anatomical science. Hereafter changes in the Royal University might demand readjustment of the project.

It could not be contended that in three of the schools of Dublin, as at present constituted, a full course of pathology could be delivered, or that the teacher could be fairly paid for exhaustive labour in this most expanding of our sciences. The same being

true of many other subjects, especially the purely scientific ones, wherefrom the stipend cannot exceed £100 a year, so that earnest and original work cannot be hoped for, is it not time that individual interests and sentiments should be merged towards an amalgamation of schools? Amongst other great things then attainable would be the establishment of a residential hall. However, these topics are to be discussed in a practical way elsewhere.

Post-graduate courses have long been popular in America and on the Continent; for instance, three hundred often attend the Polyclinic in New York. In the great hospitals of that city the ordinary clinics are very thinly attended—examination instead of education being in view—and the better class, after passing, either work in their own hospitals or come to Europe to adapt themselves for immediate scientific practice; but some may trespass on the public field without fitness.

Our licensing bodies could encourage clinical and pathological work by setting those studies alone for the final year's examinations; but do our hospitals give opportunities? If an officer of a few years' standing in the army, navy, or dispensary services hopes to refresh or to mark his fitness by passing for the Fellowship of the Royal College of Surgeons, he can in Dublin efficiently study the diseases of the eye, of the female organs, and of children; but in the present subdivided way, groups of diseases of skin, heart, lungs, joints, digestive and urinary organs could not be presented in number and variety for the three or four weeks' course which the practitioner could attend. Several hospitals could unite in giving instruction for a common fee. The Fellowship examinations will now be held at three stated periods, and the courses might be fixed accordingly. In London and in English provincial towns, Leeds for example, large hospitals have afforded these opportunities.

In Dublin it would seem that, with an examination ahead, none but the old lines will be voluntarily followed. For a fee of five shillings, third and fourth year students can attend the splendidly instructive meetings of the Royal Academy of Medicine—a privilege unknown elsewhere—but of some six hundred students who could do so six have entered. Attendance should be made compulsory for fourth year students, if pathological courses cannot be arranged.

In the winters of 1852-53 such masters as Crampton, Corrigan, Stokes, O'Ferrall, Mayne, R. W. Smith, Adams (omitting the living), taught in the Pathological Society pupils of my day, and, besides the knowledge we could imbibe, they filled us with pride that our country had such grand exponents of medical science. As a sanitarian, twenty years ago, in my Lectures on Public Health, and in my Carmichael Essay, I urged that fever wards, or even adjoining buildings, should not be connected with general hospitals; otherwise, despite all efforts, infection will be spread by nurses or students. Still less should they be parts of our work-house hospitals. I never tire in quoting Corrigan's axiom, laid down in 1846, regarding this point—"Sickness should not be made a chain to drag a man into a poorhouse." Convalescence from fever being slow, such patients would be necessarily associated with paupers; Cork Street Hospital, come the money, whence it may, must be supported as a well-sited and admirably worked institution, having separate buildings, all extensible for epidemic pressure of any variety. It largely serves the adjoining townships, Rathmines and Kilmainham. So also is the Hardwicke needed for the north half of the city and suburbs. Its site is very good, sufficiently isolated from the union buildings and from houses. If there was not accommodation enough on the north, the south side would have to bear the expense of its patients, which is plainly unjust to the taxpayers there.

But surely there is wanted for the east, and for the Pembroke Township, a fever hospital. If Sir Patrick Dun's be not fully available and a new site be wanted, the waste ground on the Pigeon House road, either east or west of the Coastguard Station would suit; and so infectious cases—small-pox and cholera especially—reaching us by sea could be easily intercepted. The new road, running from near Irishtown Church, makes the place easy of access, and after disinfection there is a safe outlet for the excreta by the main of the Rathmines and Pembroke Townships to near Dublin Bar.

The two late small-pox warnings (for happily they were no more) give some hints of value. On August 20th, 1887, a Dublin shopman stayed with an officer of an institution in Ulster who had visited a small-pox patient, he being safe, so that our citizen suffered through a middle person. He lay ill for five days, and on September 1st, when the rash had been three days very largely out,

was admitted to the Hardwicke. Vaccination and very complete isolation of the eight inmates of his house, burning of their clothes and bedding were instantly carried out, and thence no other case has arisen.

In October a foreign sailor, with some unrecognised rash, lodged in Grant's Row, and the illness of an unvaccinated child was afterwards concealed for days. On the 26th she was removed to Cork Street Hospital to die, that being the only fatal case. From this focus nine cases were traced. One came to hospital well smeared with sulphur ointment. Oh for the diffusion of dermatological knowledge!

The only case arising far off was that of a lad who sent his washing to that district, and he produced the disease in Portobello. After seven weeks' freedom a child with the disease was unnotified from this district, and up to the present five cases are traceable to this nest. Small-pox being palpably enthetic, and cholera being as clearly importable, any person, peer or pauper, suffering therefrom should be forced to go to hospital, if he happened to be one of the first ten cases after an absence of the contagion for three months. So many foci would have been then set up, and the preventive steps would be so expensive—for instance, £20 was demanded for loss of clothes by one of the recent patients—that the ordinary steps for stemming epidemics must suffice.

After many years of freedom some imported cases were, in 1872, concealed in Malpas Street, and thence arose an outbreak (the word "epidemic" has no meaning here, if, indeed, it has anywhere), and over 20,000 cases were recorded for Ireland. In 1885 a case taken into a general hospital, Montreal, infected many patients; by them outside it spread, 3,000 deaths occurring in a few months. We are not sure that other zymotics may not in like way be scattered.

In Cheltenham all classes submit to isolation in hospital, and thanks to this, after six separate introductions of the disease, it has never gained a footing. Some of our hospitals which admit other zymotics refuse small-pox, as it has nearly always burst the bounds.

The Public Health Act, 1878 (sect. 141) authorises the removal of an infectious case improperly lodged to hospital, but does not enforce its retention there. However, any unsafe patient leaving could be punished under the next section, or arrested for larceny of hospital clothing, if such had been supplied. A hospital for treating children with infectious diseases is most desirable, but Dr. Gairdner, our President-elect, reported in 1864 (being then Medical Officer of Health for Glasgow) as to the difficulties in its way:—

"As a general rule, the habits and traditions of the family life, even in the most poverty-stricken and degraded classes, oppose an insuperable barrier to the removal of very young children; nor, even if the consent of parents could be obtained, are the means of treatment in hospitals adapted to such cases. It is, therefore, with a feeling of complete helplessness that the sanitary officer sees such diseases as measles, whooping-cough, and scarlet fever running riot in the houses of the poor; he feels that in most instances nothing can be done beyond a general instruction to open the windows, and attend, if possible, to cleanliness. In some instances he is paralysed in the face of greater emergencies; he has no power to enforce removal, even should an infected family settle in a crowded neighbourhood hitherto free from disease; he cannot disperse a school in which cases of infection have occurred, and any attempt even to give publicity would only result in their more careful concealment. Even, as has repeatedly happened within our observation, provisions are publicly sold from infected apartments. In one instance a woman with the eruption of small-pox actually on her hands was found selling sweetmeats to the children of a school in her neighborhood. In this instance a threat, partly of exposure and partly of legal consequences, put an end to the scandal; but legal remedies can have a very limited application, and self-interest will often be much too strong for all suggestions proceeding merely on public grounds. In truth, the spread of epidemic disease among children can hardly be met otherwise than by the gradual diffusion of enlightenment, and by the improved habits which may arise from the remodelling of the dwellings of the poor over a long course of years."

Every general hospital should have observation wards in which cases indefinable for two or three days could be lodged, and there the students would learn much, but only in great special hospitals would they see enough of all infective maladies. Let us, however, restrict the attendance at fever hospitals to third or fourth year

men. Fresh country youths take infection most readily, and cannot profit in exchange for the risk. When they have worked at such subjects as the non-infective lesions within the thorax and abdomen, the ordinary rashes, the treatment of bed-sores, distended bladder, and the like for three months, or at most six months, they should acquire the power of applying such information in the fever hospital, where such complications arise. An equal period usually suffices for the gain of ophthalmic and aural, and of obstetric knowledge. The fee should be subtracted from that of the general hospital, and on hygienic grounds the fever months should never tally with those of work at midwifery. Kept at fever alone students will master the subject in a few months; but, reaching the hospital after earnest work at a general hospital for a couple of hours, their receptivity of learning would be very much less.

In this country fevers are fortunately becoming less endemic, and our graduates who go abroad will have to learn what they could not study here of other localised pests.

The hospital which Surgeon George Doyle founded in 1755, the Lock, was the most difficult which the Commissioners had to deal with. However, every benevolent citizen will feel that such a separate refuge must exist, as it would be grossly wrong to mix the fallen with the virtuous poor, and to put them into separate wards would be equal to branding them with "the scarlet letter." The dress and manner of their female visitors, decently as they might strive to act, must be objectionable. There should be power to keep these patients till cured, or at least contagionless, provided they had signed on entering an agreement analogous to that by which the drunkard can imprison himself for twelve months.

But surely the cases in the Lock can be studied by senior students, or at least by post-graduates, without fear of moral contagion. In other hospitals venereal diseases, except those in the female genitals, can be freely seen, and there can be no objection to carry suitable patients, with faces fully veiled, to the theatre, the students having access there alone. The small fee which should be charged should be allowed in the total expense of hospital education. If surgeons are not taught the mode of recognising chancres in females who subsequently become mothers, racial degeneration must ensue, and wrong diagnoses in family practice may ruin many a household.

Two facts point towards a change to be wished for as regards the eye and ear hospitals, and against their specialisation; they are but 370 yards from each other, and four of their six officers teach in general hospitals. In two other hospitals there are ophthalmic surgeons, so that in Dublin we have eight eye clinics. What can be the objection to attach all their strength in the latter places consolidated, as vastly more available to patients and pupils, all appliances being, of course, fully provided in place of those generously supplied in the present special institution?

Again, is it not regrettable that so many orthopedic cases are diverted from the general hospitals, where students could profit by them, to the one special institution; the more so as the specialist there would be so remarkable a gain to the staff of any large hospital which established such a department?

Since Evory Kennedy's great paper in 1869, with a most exhaustive debate for seven nights, I have felt that lying-in hospitals ought to be limited to cases in which difficulties had been foreseen, or in which very special circumstances compelled the removal of the expectant mothers. In the normal state of any community, surely the home, be it ever so humble, is the fit place for the function of childbirth; affectionate aid is assured for the mother, and she is able soon to direct at least the care of the household. Removed from it, her anxieties must tell against her well-doing. When Mosse founded the most famous lying-in hospital in the world, the rooms of the poor were so filthy and crowded that removal of the parturient was necessary. White-law's survey in 1798 showed great density of population. For instance, in St. Luke's Parish, 15.95 per house; in St. Michan's, 12.56; and in Plunkett Street, over 28. Half a century before, when Mosse began his enterprise, the population was, it is believed, 200,000 in much fewer houses. Now our working class are better housed, and every year improvement goes on; so that we hope for better things, even in this poor-laden town. Take the cases of the two healthiest English towns: in the lying-in hospital of Brighton, with about 120,000 inhabitants, twenty-five deliveries yearly take place; and in Hastings, with 60,000 people, there is no such institution at all. I do not urge the crippling of such general hospitals as the Rotunda or Coombe, but that they should tend toward spreading their functions as hospitals for diseases of women, and

by their maternities succouring those who lie-in at home by the best medical and nursing skill, and by food and clothing. The Bill of last session would disendow them unless they had at once 80, and after five years, 100 occupied beds, although the Commissioners waived that point in their favour.

In 1854 the Master of the Rotunda, at the House of Commons' Committee, was asked: "Do you afford any external relief to lying-in women?" He replied: "Not ordinarily; in an extreme case, if they send to the hospital for assistance, we send one of the senior pupils or assistants."

Since then changes have gradually tended towards using hospitals for the troubles of parturitive science. Is not the adjective just used better than that perversely derived word "obstetric?"

I still warmly favour the plan which Earl Spencer conceived, and which mainly moved him in appointing the Commission—namely, the abolition of the Richmond Hospitals (a title far better than their usual inclusive appellation or separate names), and of Steevens's Hospital, and the erection of a new medico-chirurgical building, Cork Street, to be the fever hospital in connection. Some degree of unfitness of the Richmond surgical block, and the sites of all on the edges of the city remote from medical schools, were good reasons for the change. A site near Christ Church has been proposed, and Steevens's would be 1,370 and the Richmond 900 yards distant therefrom. A large, cheaply available space in and about Meath Market, Thomas Street, would give a healthier site, more convenient to the terminus, the great breweries, distilleries, and barracks, and the Kilmainham township. Even greater advantages would result by the clearance of ruinous tenements. The Richmond, Steevens's, and Cork Street Hospitals would be respectively 1,150, 840, and 660 yards distant.

This Western Hospital, as it might be named, could be built on the most modern hygienic principles without extravagance, and the sums got by the sale of the Richmond and Whitworth (that the North Union wants these premises is only an enhancement of their value), and Steevens's would go a good way. The great manufacturers and merchants who abound in the district would be generous towards a building fund. For maintenance, surely institutions which for over a third of a century have been well earning half the Government grant would be still worthy a large share, and the properties of Dr. Steevens and Edward Cusack (the larger donor, whose name is so usually ignored), although now depressed, are of considerable value. The financial fact just stated appeals against any sentimental objection to the abolition of a name. In olden times the remoteness of Steevens's, although its teachers were illustrious, kept away a class except that resident—now the staff is strong and progressive, but their energies are wasted for want of learners.

If there was any hospital at all contiguous in which the governors and officers (if these designations were there separable) did not form a happy family, perhaps an adroit peacemaker might bring about a union more or less complete. No hospital should be "an incompatible," to use a pharmacist's expression.

In contrast to the medical staff domination just hinted at stand out the charters of Sir P. Dun's and Jervis Street, which exclude the medical officers from their committees.

If the fusion of the Richmond Hospitals and Steevens's be not favoured, surely the former tried friend of the poor need not be wiped out because the adjoining workhouse covets its premises. Rather let the guardians send their serious acute medical and surgical cases on fair payment, as at present they do their fever patients; the pauperising point would not arise, as State funds would be still available; or let them buy one or two of the buildings, when the remaining could be converted into an improved medico-chirurgical hospital. The facilities for taking grounds for hospitals should be at least equal to those under Railway Acts, and thereby the persistently noxious dairy yards in front of the Whitworth Hospital would be cleared.

If the Richmond Hospitals be abolished or consolidated in the south-west, north Dublin could be hospitalised by the Mater Misericordie, of great available capacity, and by Jervis Street Hospital, also of great capacity. They are 1,370 yards asunder, and they are distant from the Richmond 1,150 and 800 yards respectively. Then as a North Fever Hospital, the Hardwicke or the Whitworth (which slight changes would make a more suitable building) should be maintained. It would serve for the classes of the Mater and Jervis Street, and fever might be ex-

cluded from the former. The Sisters of Mercy nurse these hospitals and those of the North Union, and we may feel sure that these devoted ladies would gladly extend their ministrations to the adjoining fever hospital, funds for the patients' support being derived from the State, the Corporation, or the North Dublin Union, or all proportionately.

Both the Commissioners and the framers of the Bill of last session propose to deal justly with the officers of the Richmond Hospitals, and doubtless the Treasury will do so if a Government Bill be introduced. To deprive these eminent physicians and surgeons of their clinical facilities would be somewhat like closing law courts to some leading Queen's Counsel, and our brethren should get as ample compensation as the latter assuredly would in a like case. The agitation for change during the past three years has, of course, lessened the classes, and the suspense has injured the interests of the officers.

On the south side two institutions, which are but 700 yards asunder, showed symptoms of conjunction—Sir P. Dun's and the City of Dublin. To avoid costly building, surely they could join their classes, and keep one hospital for surgical, the other for medical cases; or let Baggot Street be enlarged to accommodate both these classes, and let Dun's be the great Eastern Fever Hospital. If, as urged, infectious cases be treated apart, poor patients thus afflicted should not be carried to the Hardwicke and Cork Street Hospitals, across two-thirds of the city from the eastern edge and the Pembroke District. Of course that wealthy township should be roused into greater generosity than appears in Dr. Haughton's justly indignant evidence.

The Meath Hospital is of good size, and is just completing considerable additions, and serves a most extensive area. If its fever cases, which mainly come from country districts where they should be treated, were diverted to Cork Street, and the £600 a year it has received for their treatment was applied to general cases, this old and famous clinical institution should be regarded as a large hospital.

Of St. Vincent's, with which I have been connected nearly thirty years, I will only say that, although it is large as regards occupied beds and paying pupils, the managers desire to acquiesce in any conditions which may increase its usefulness to the sick poor and to the cause of medical education. Its distances from neighbouring hospitals are, to Mercer's 740, to Meath 1,000, yards.

Here a *précis* of South's separate report, which has not been brought enough to the front, perhaps because two large hospitals had not been then founded, and others have been enlarged. He would lessen our general hospitals as follows:—North side: Move the hospital at Jervis Street eastward to a larger building on a better site, and leave the House of Industry for the north-west. On the south side of the Liffey, combine, as regards funds, management, and staff, Steevens's and Cork Street—the former as the surgical house, the latter as the medical and fever departments. Such would be the south-western hospital, and the south-eastern he would constitute of "Sir Patrick Dun's, the Meath, and Mercer's, or, in its stead and united with it, the City of Dublin Hospital." The first to be the medical, the second the fever house, and the surgical building to be provided by the enlargement of Baggot Street buildings, that in Mercer Street being abandoned. Mercer's and the Adelaide are within 340 yards of each other, and the latter is 500 yards from the Meath.

His views were, however, dominated by the erroneous idea of having the scientific medical schools necessarily combined with hospitals—a system not to be thought of here.

There is only one piece of evidence in the Blue Book to which strong language might be applied. It is as follows:—"The police have instructions to bring all cases (accidents) occurring on the south side of the city to (blank hospital), except those occurring near the steps of another hospital, and to (blank hospital) on the north side of the city." The instructions always have been to bring accidents and other cases wanting prompt relief to the nearest hospital.

It may be well to state very briefly some of the advantages which would follow the reduction, say by half, of the general hospitals, by consolidation or otherwise.

Clinical positions are too numerous—twenty-five physicians, thirty-eight surgeons—beds being, therefore, relatively too few. Mr. Thomson's evidence on this point is exhaustive. With wider fields, greater additions would be made to medical knowledge. Although Dublin has done her duty in the training of practitioners, her original observers and positive additions to science might have been more numerous. Thus may be partly explained the striking

fact that not one Dublin practitioner holds a British or foreign honorary degree. Last year alone our licensing bodies conferred thirty-three upon strangers. Such distinctions here would tend towards checking party and personal favouritism, which is extinguishing the ambition of honest scientific workers. In England, and still more on the Continent, every year hospital and Governmental medical posts are becoming more assured as the rewards of special fitness.

A large hospital could afford a resident physician and a resident surgeon, either to be present at all hours to instantaneously meet emergencies.

If in an enlarged institution the class becomes unwieldy it could, and indeed in any case should, be divided amongst different teachers, according to the four years' curriculum now definitely settled.

Some patients are over-treated, or often treated, as they have so many hospitals or dispensaries close by and free, and are trained to become the veriest hypochondriacal bores.

Amalgamation will be justly brought about if the general hospitals must show, seven years hence, a minimum of 150 occupied beds. It is always well to quote points which may be cited against as well as for an argument. On November 4th, 1811, the College of Surgeons decided not to recognise any hospital which had less than twenty beds. How grateful should the poor patients and pupils of Dublin be that they do not live under the system of "the good old times." The application for recognition was from a building in Peter Street with twelve beds, the property of the surgeon.

It is clearly just that the Corporation grants, reaching £5,000 a year, should be in favour of citizens only, and that other authorities, townships, poor-law guardians, and the like, should contribute to the support of patients from a distance. This is already done with us in the ophthalmic hospitals, and in the case of a few fever patients, and is universal in Continental hospitals.

If the hospitals be governed by a board for the allotment of the public funds, the Continental system of a central bureau whence applicants would be drafted to the several institutions seems inadvisable, as the poor as well as the rich should have the power to seek advice from any physician or surgeon whose fame had attracted them. Our city is too small to need such a system.

That Dublin has a right to the grant every one of the State reports show, especially for the support of the education of public medical officers; that it has a need for it was most forcibly expressed by the House of Commons' Committee (numbering fifteen), in 1854. "It is a metropolis for the poor, but not for the rich. The value of its property has within the last fourteen years decreased, while local taxation, population, and pauperism have increased." How sadly intensified does the statement apply today, the only statistical fact changed—smaller population—telling for the argument; year by year our higher class go, the poorer crowd in.

All the suggestions in this brief address are made with due humility when so great a topic has to be faced, and if any one of them shall prove of value it will not have been written in vain. Incidentally, approval of the report of the Commissioners has been noted, but it is right to say that this Blue Book, unanimously signed, is, from that astounding circumstance and its own merits, a gem.

BEQUESTS AND DONATIONS.—Mrs. Hannah Sarah Chadwick, of Balham, bequeathed £1,000 each to the Earlswood Asylum for Idiots, the Royal Free Hospital, the Hospital for Consumption and Diseases of the Chest, the Charing Cross Hospital, the Middlesex Hospital, and the Western Dispensary, and £600 to the London Fever Hospital, all free of duty, and £26,966 13s. 4d. consols subject to the life interest of her sister, and to the payment of legacy duty, to the Westminster Hospital.—The Bolton Infirmary has received £3,500 under the will of Miss Alice Lowe, of South Shore, Blackpool. Mr. Francis Deakin, of Eastbury, Watford, Herts, bequeathed £100 each to the General Hospital, the Free Hospital for Sick Children, the Eye Hospital, and the Queen's Hospital, all at Birmingham. Mr. Thomas Mack, of Seabank, bequeathed £200 to the Kilmarnock Infirmary.—The Sheffield General Infirmary has received £100 under the will of Mr. Edward Hudson, of East Cliffe.—The annual report of the Committee of the Northern Hospital, Liverpool, acknowledges the receipt of £1,000 under the will of Mr. G. H. Thompson, £900 under that of Mrs. A. M. Heywood, £500 under that of Mr. Roger Lyon Jones, and £200 under that of Mr. Robert Little.

A LECTURE

ON

THE THIRD STAGE OF LABOUR.

Delivered at the Post-Graduate Course in Edinburgh.

By A. H. FREELAND BARBOUR, M.D., F.R.C.P.E.,

Lecturer on Midwifery in the Edinburgh Medical School; Junior Assistant-Physician to the Maternity Hospital; Assistant-Physician for Diseases of Women to the Royal Infirmary, Edinburgh.

THE third stage is undoubtedly that part of normal labour which is of the greatest interest and importance to those of us who are engaged in midwifery practice. While with regard to the management of the first and second stages there is not room for much difference of opinion, each of us has his own ideas with regard to the third and has formulated for himself rules for its management.

To turn this demonstration into a vigorous and interesting discussion, I should only need to propound the question, What would you recommend as the best mode of managing the third stage? But if we were asked on what basis our principles of management rest, we should have some difficulty in replying. Probably, we should not venture to say more than that our midwifery experience has taught us that it is best to do so-and-so; in other words, our management of the third stage is not yet scientific, for our knowledge (or science) of this stage is as yet in its infancy.

Let me suggest some very elementary points which we do not know. 1. When is the placenta separated? 2. By what means and in what way is it separated? 3. How are the membranes separated? 4. How are the placenta and membranes expelled? 5. What is the natural mode of stopping bleeding from the placental site?

And I need only mention, in passing, a number of more remote questions, questions bordering more on pathology, which start up at the same time. What is adherent placenta? Why are membranes most often adherent round the lower portion of the uterus? Why should a bit of retained placenta in one case endanger the patient's life, immediately from hæmorrhage or after a day or two from septicæmia, and in another be apparently harmless? What is the relation of endometritis to retained fragments of membranes?

I should like this morning to say something with regard to a few of these questions; not so much, perhaps, in the way of answering them as of seeking to define the present state of our knowledge.

1. First with regard to the time at which the placenta is separated. And here we must frankly admit that we know at present nothing definitely as to when this occurs. It has been taken for granted by many that the placenta begins to be separated during the second stage; that is, when the child is being born. Of this no proof has been advanced. The only clinical fact apparently supporting it is the appearance of asphyxia in the child if it lies for a little with only the head born. But the interference with the placental circulation which this asphyxia implies, may be due to compression of the cord, or to disturbance in the circulation of the placental site from uterine contraction and retraction.

We shall see when we have discussed the mode of separation that there is reason to believe that the placenta is usually not separated until, at least, the commencement of the third stage.

2. By what force, and in what way is the placenta separated? Though I have thrown these two into one question, they are quite distinct; and the non-recognition of the difference has led to great confusion. When we are asked, "What is the cause of the separation of the placenta?" we have, like the proverbial Scotsman, to answer with a question, What do you mean by "cause?" Do you mean the forces which effect the separation or the mode in which they do so?

There can be no hesitation, I think, in answering the first of these queries: the force is labour pains or uterine contractions; not the pains of the second stage but those of the third, the evidence for which we shall refer to later on. Gravity, which is the only other efficient force in labour, scarcely deserves serious con-

sideration, from the small weight of the placenta relatively to its extent of attachment and from the patient's being recumbent.

As to the second part of this question, "In what way is it separated? How do the pains act?" The old view was that they operated by diminishing the area of the placental site. The placental site diminished in area; the placenta was unable to follow it, and hence it separated. In the German school, of midwifery, effusion of blood between the placenta and its site has been held to play an important rôle. Baudelocque speaks of the occurrence of blood-effusion, but it was Schultze who formerly taught that it was an important factor in separation. Most of you will be familiar with his drawing, which has passed into many of our textbooks; in it the uterus is represented like a thick walled inverted bell-glass, and the placenta at its mouth like an inverted sucker with a large blood-clot behind it.

While still asserting the importance of this retro-uterine hæmatoma, German writers are changing their standpoint, as to its mode of production. From Ahlfeld's account of it, we should gather that the uterine contraction made the placenta spring up and aspirate blood between it and the uterine wall. But this implies that there is bleeding during a contraction. Cohn, a more recent writer on this subject; makes the placenta sink down by its weight in the interval between the pains, and thus draw blood in. Further, a fall in the intra-uterine pressure, consequent upon the emptying of the uterine contents, has been brought forward by another recent German authority (Stratz), as explaining why the placenta, which should (if the German view be correct) separate during the second stage, does not as a matter of fact do so till the third.

And here let me warn you against the fallacious view of regarding the placenta in the uterus as a piston in a pump—the placental site of course being the marshy ground, in which the sinuses are like springs. It is a fascinating theory, and I could construct a beautiful picture from the similitude; but the analogy breaks down at every point. For the placenta has not the consistence of a piston; the genital tract is not like an iron cylinder. The pump theory will not work. In fact, the physics of the third stage offer so many pitfalls to the unwary, that a man would need to know his ground well before we could accept as a guide either him or his new hypothesis.

With regard to this question of how the pains act, let me give you two facts:—

(a) That the placental site can diminish to an area of $4\frac{1}{2}$ in. by 4 in., or until the uterus has nothing in it but placenta, without the placenta being separated; (b) that there is no cavity in the post-partum uterus.

These are facts the demonstration of which you will find in the first pamphlet¹ put into your hands this morning. These are facts. Now let me give you my view of the production of separation. You will find it stated in detail in the concluding paragraphs of the third pamphlet.² "Diminution in area beyond that (4 in. by $4\frac{1}{2}$ in.)+the action of the uterus as a whole on the placental mass, I regard as the formal cause; the pains of the third stage as the efficient³ cause of separation." "The third stage I regard as a second labour in miniature. After the pain that expels the child comes a pause, during which the placenta is still as a whole or in great part attached; then labour comes on again, and the placenta is first detached and then expelled. This second labour is not always marked off by a distinct interval from the first; sometimes one long pain expels the child, and then detaches and expels the placenta." Note that it is the "action of the uterus as a whole," not merely "contraction."

3. How are the membranes separated? In one word, by crumpling up and stripping off. What I am about to describe is what happens in the Porro uterus, as we have not yet seen the process in the normal uterus. When the uterus is emptied of its contents in Porro's operation the different layers of its walls behave differently. You will find the detailed account of how they behave in the second pamphlet (page 4).⁴ Here we have only time to mention that the chorion with decidua is thrown into folds, and

the decidua tears through, so that a portion of it is left on the muscular wall. In what plane exactly it tears through is of histological interest; the practical point for the obstetrician is to examine the membranes as well as the placenta after delivery, to see that the decidua has come. Not that, supposing we find a portion of it absent, we should think of passing our hand into the uterus to remove it; lest in steering clear of the Charybdis of endometritis we might be dashed on the Scylla of septicæmia.

4. How are the placenta and membranes expelled? Here, again, gentlemen, is a double question: By what power, and in what manner, are the placenta and membranes born?

A. By what power? And here we must keep before us the differentiation of the uterus into two parts which occurs in labour. It would take us too much aside to bring forward the anatomical and physiological proof of this. We must content ourselves with stating the proposition, that the uterus in labour becomes differentiated into two parts: an upper, which is active and shortens and thickens; and a lower, which is passive, elongates, and thins. A glance at these frozen sections (See Figs. 1 and 2) of the uterus



Fig. 1.

Frozen Section made immediately after Delivery (1).

The section shows the pelvis and lower part of the abdomen. The body is in the dorsal posture, with the promontory of the sacrum to the right and below, and the symphysis pubis to the left and above. The genital canal falls into two portions at the line a (see text). U is on the firm, thick, contracted portion; c on a fold of canal below; v on vagina. Note the folding and doubling up of the canal at and below a, showing its limpness. The small diagram to the left, representing the genital tract alone, is intended to make clear the special point.

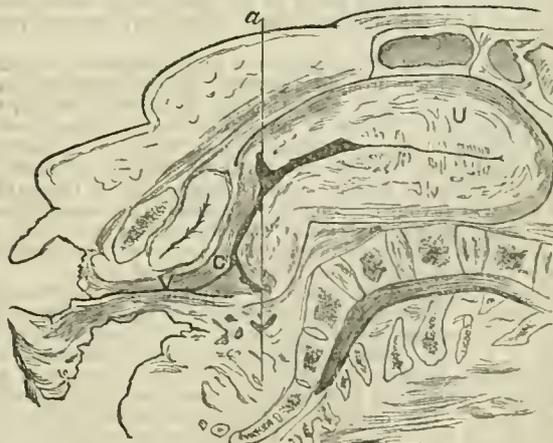


Fig. 2.

Stratz's Frozen Section made immediately after Delivery.

Position of pelvis and letters as in Fig. 1. Note the thinness of the walls of the canal below a. The horizontal direction of the vagina (vertical, of course, were the body erect) is abnormal, being due to the fact that the projection of the rickety promontory has kept the uterus high in the abdomen and the walls of the canal below taut.

¹ The Anatomy and Relations of the Uterus during the Third Stage of Labour and the First Days of the Puerperium. Reprint from *Edinburgh Medical Journal*, September and October, 1884.

² The Sectional Anatomy of the Third Stage. Reprint from *Edinburgh Medical Journal*, October and November, 1887.

³ It may not be polanitic to recall the Aristotelian distinction between the efficient and the formal cause. The former is the force or agency by which a result or effect is produced; the latter the manner in which or the instrument with which it is produced.

⁴ Some Practical Points with regard to the Membranes in the Third Stage of Labour. Reprint from the *Edinburgh Medical Journal*, June, 1885.

immediately after delivery shows the difference between the firm, contracted, upper portion of the body, and the thinner, flabby, lower segment and cervix folded below it. This proposition is not only of scientific, but of practical importance; it has a wide bearing in pathology, for example, on rupture of the uterus and on placenta previa.

Look now at the third stage of labour in the light of this proposition. The lower segment, in its passiveness, is more allied to the cervix and vagina than to the active part of the uterus above it. The genital tract falls into two parts through a line corresponding to the upper end of the lower uterine segment (*a* in the woodcut). Above that line the muscular wall of the genital tract is able to force on a body lying in it, while, below, it is unable to do so.

Now for the practical bearing of this. The placenta can be driven out of the upper portion of the uterus by the action of the walls alone, that is, by the pains of the third stage. But once it has passed that line, some other force must operate—either increase of intra-abdominal pressure, gravity, or artificial interference.

(*a*) Increase of intra-abdominal pressure is the first force we think of. The pinch of snuff which the old wives gave to bring away the after-birth is quite sound treatment. It rests on this scientific basis: the placenta will be born (expelled from the lower segment, cervix, or vagina) by any action of the abdominal muscles which suddenly increases the intra-abdominal pressure, for example, the forced expiration of sneezing; and there is no more effective stimulant of the centre for sneezing than snuff. In fact, whatever makes the patient bear down favours the birth of the placenta. In this respect, the lower segment, cervix and vagina resemble the bladder after delivery, and an interesting parallel might be drawn between them. May not the difficulty of emptying the bladder *post-partum* be due, not, as is often said, to the removal of the weight of the pregnant uterus, which allows the bladder to expand, but to the removal of the volume of the pregnant uterus, which makes it more difficult for the elongated abdominal muscles to increase the intra-abdominal pressure sufficiently to force the urine out of the bladder? The change in intra-abdominal pressure by the substitution of a volume of ten cubic inches for one of eighty-three (I estimate the bulk roughly from two frozen sections I have made of the uterus at the commencement and at the completion of labour) is considerable, and its effect on the abdominal circulation and the action of the viscera is well worthy of study.

(*b*) Gravity will be brought into play by the patient's being made to sit up.

(*c*) Artificial interference belongs to the management of the third stage, which lies beyond our present paper. Will you just note in passing that the Dublin method assists the natural mode of expulsion; and the Credé one, also, in its two parts (first grasping the uterus antero-posteriorly, then pushing downwards in the axis of the pelvis) adapts itself to the two stages of expulsion, corresponding to the placenta being in the active or passive portions of the canal.

4. In what manner are the placenta and membranes expelled? Two views have been brought forward: one by Schultze, that it comes foetal surface first; the other by Matthews Duncan, that it comes edge first. There is no doubt that it comes out in both these ways. My own observations, recorded in the third pamphlet, make me believe that Duncan's way is the more frequent; but we must remember that the presence of the hand in the uterus will favour that mode. Champneys has recently made a much more extensive series of observations on this point; and his tables show that in 85 per cent. (59 out of 69) the presenting part was either the edge or within two inches of it.

5. What is the natural mode of stopping bleeding from the placental site? Though this is a question of the most immediate practical importance, involving often directly the life of the mother, it has not been specially investigated. We know that strong contractions stop bleeding—a cricket-ball uterus and *post-partum* hæmorrhage are incompatible—but how they operate we do not know. The question is a more complicated one than appears at the first glance. We know of at least three factors which operate: the change in the muscular wall of the uterus in uterine contraction and retraction; thrombosis within the vessels, which occurs "spontaneously" even before separation of the placenta begins, and is a very important factor during and after the third stage; the condition of the blood itself. All of these must be taken into account, and their action is different; the

first compresses the vessels, the second chokes the channel, the third is subordinate to the second. Free bleeding from a firmly contracted uterus, noted in a case of phosphorus poisoning, shows, I think, that this last has an important, though as yet unrecognised, action.

THE MANAGEMENT OF ANTERIOR AND POSTERIOR DISPLACEMENTS OF THE UTERUS.¹

By J. HALLIDAY CROOM, M.D., F.R.C.S.E.,

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I AM fully alive to the responsibility which anyone incurs in venturing to lay down definite lines of treatment concerning anterior and posterior displacements of the uterus, for I believe I am safe in saying that upon no subject in gynaecology has greater diversity of opinion existed, and upon none have more opinions been expressed with equal confidence. This subject has been the bone of contention between different schools of gynaecology for many years. That this should be the case is easy of explanation, and that for various reasons: 1. Because many teachers and practitioners have regarded the conditions as merely mechanical, and directed their treatment accordingly; 2. Others have considered the conditions as the result of inflammatory action, and their treatment has been in strict accordance with their views; 3. Others, perhaps the largest class of all, have regarded symptoms alone, and treated the conditions empirically; 4. It must be further kept in view how frequent are deviations in the position of the uterus, and how prone we are to seize any seemingly pathological condition as an explanation of symptoms and to treat it vigorously when the condition is all the time only a coincidence, not a cause.

Now, in venturing to offer to you a sketch of the treatment of the displacements under consideration, I would have it clearly understood that anterior and posterior displacements occur in two great groups:

1. Displacements in virgins or nulliparæ.
2. Displacements in parous women.

In regard to the first class I am inclined to look upon them, speaking generally, as being congenital conditions; the ante-flexion being in the direction of non-development, and the retro-flexion in the direction of deformity. These conditions in virgins are not infrequently associated with diseased conditions of the annexa, and when they are it is the inflammatory condition of the annexa which requires treatment, and not the congenital deformity or non-development. A well-marked illustration of this came under my observation lately when a patient had for eight years been under treatment with pessaries for an ante-flexed undeveloped uterus. Her distress was so great and persistent that I removed the ovaries, which were extensively diseased, and the woman has had comfort ever since, the uterus still remaining ante-flexed. The progress which gynaecology has made in recent years in advancing our knowledge of the uterine annexa has shown conclusively that many cases of pain and dysmenorrhœa which were formerly attributed to uterine displacements are due entirely to conditions of the ovaries and tubes independently of a concurrent displacement which may mean nothing. Deviations in the position of the uterus of minor degree give rise in the single woman to no symptoms, and require, therefore, no treatment. Marked versions uncomplicated with some pathological condition, such as a fibroid, are rare in single women, and when uncomplicated give rise to very slight symptoms, and need no mechanical interference. When the flexion backward or forward is very acute, I do not deny that it may be associated with severe dysmenorrhœa. Even admitting that these displacements in virgins give rise to some discomfort, what treatment is at our disposal? Vaginal pessaries are seldom if ever curative, and intra-uterine pessaries are surrounded with such risk in the direction of inflammation, hæmatocele, and ovaritis, that so far as I am concerned I have discarded their use altogether. Let it be distinctly understood that I by no means wish to say that, in the hands of an

¹ Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

experienced gynaecologist, there are not cases, especially of retroflexion in virgins, in which the pressure symptoms from hypertrophy and enlargement are to be remedied in no other way than by stem pessaries, but these cases are, so far as my experience goes, extremely few, and do not fail to be discussed in a general view of the case. It is only fair to say that intra-uterine stem pessaries have within my knowledge, in some exceptional cases, rendered benefit; but on looking back over an experience of nearly twenty years I mean to say that I have known them do more harm than good, and as a teacher of gynaecology I have found it my duty to warn students and practitioners against their use.

But the question naturally arises as to the cure of dysmenorrhœa, which unquestionably is often associated with, although not necessarily dependent on, these displacements. Is no mechanical treatment to be adopted? Now, upon this point there seems to be too great a tendency to local interference for dysmenorrhœa in virgins. I should withhold local treatment altogether unless its severity be such that, after all other means failed, it interferes with a rich woman's social engagements or a poor woman's means of livelihood, for it must always be kept in view that dysmenorrhœa is but a relative term. When, however, local examination and treatment become necessary, then vaginal pessaries are of little avail, and intra-uterine stem pessaries are unsafe. Dilatation of the cervix with a dilator bougie or an occasional passage of the sound, with the persistent use of the hot vaginal douche, will often effect a cure both effectively and safely. Here I must enter a caveat against the indiscriminate use of the sound and dilators, unless accompanied by careful precautions; and these are (1) that there be no recent or remote peri-uterine inflammation; (2) that the greatest care be taken as to the perfect cleanliness of the instrument.

Much as we owe to the sound, yet I feel sure that its indiscriminate and routine use has been a fertile source of uterine mischief.

In a word, then, in unmarried women and nulliparæ, with some exceptions too few to affect the general statement (the conditions being usually congenital), vaginal pessaries are of no avail, and intra-uterine are always dangerous and usually hurtful. When aggravated dysmenorrhœa is concurrent with a simple displacement, then the use of a sound, bougie, or dilator, along with hot water, will often effect a cure. If there be the least pathological condition to be found in the annexa, there should be no mechanical treatment, but only the hot douche.

With regard to parous women, the case stands differently. In them, unlike the others, the displacements are usually, if not always, acquired. In the case of ante flexion and anteversion, which in parous women are so often induced by various forms of peri- and parametritis, and by inflammation of the utero-sacral ligaments specially, mechanical treatment in the shape of pessaries is seldom indicated. The sphere for anteversion and ante flexion pessaries in parous women—if, indeed, they have a sphere at all—must be when the displacement does not depend upon any inflammatory condition outside the uterus, but is solely due to an increase in its weight. Even in such cases, which are rare, the trouble and annoyance to both physician and patient attending their use is more than sufficient to outweigh their temporary comfort. Of stem pessaries in forward displacements of the uterus in parous women, I have no experience, and I have yet to see the case in which I consider their use desirable. The majority of these anterior displacements give rise to very unimportant symptoms. When they do, the symptoms are due to some inflammatory products outside the uterus, and the treatment is to be directed to its removal (1) by the hot vaginal douche; (2) by blisters; (3) by iodine applied to the vaginal roof; and (4) by small doses of iodide of potassium and perchloride of mercury internally. Sometimes a soft glycerine ring pessary, by relieving tension and elevating, may do good, but as a rule even this is contra-indicated.

Coming now to posterior displacements in parous women, namely, retroversion and retroflexion, we are bound to recognise the fact that they are specially prone to arise mechanically. This will appear obvious if we consider the frequency with which these conditions occur after pregnancy as a result of imperfect involution, dorsal decubitus, increase in weight, and too early rising.

The origin of these parous posterior displacements being usually, though not always, mechanical, and the symptoms to which they give rise, such as sterility, leucorrhœa, menorrhœgia,

and pressure, to a greater or lesser extent being well recognised, their treatment must be mainly based on mechanical principles.

1. Tone must be given to the uterus by the use of ergot and hot-water douching.

2. The uterus must be carefully adjusted in one of several ways: (a) by pressing up the fundus; (b) by pressing back the cervix; (c) by the genu-pectoral position; (d) by dragging down the lip of the cervix with a volsella; and lastly, by the sound. In any case, accurate and careful reposition of the uterus in any of the ways I have mentioned is essential. I place the sound last because I really think that the bimanual replacement of the uterus is the safest and most thorough, and because the introduction of any body into the cavum uteri is always to be avoided when practicable.

3. The uterus must be retained in position by a pessary. In the case of a well-marked retroversion, a well-adjusted Hodge, or some of its many modifications, will be found to act efficiently, whereas in the case of a well-marked retroflexion the ordinary ring pessary will act better than the Hodge. The Hodge in such circumstances is inapplicable because of the difficulty of adjusting it so as to act with much advantage on the fundus, and it is apt to get into the sulcus between the cervix and uterus, and so aggravate the condition it was intended to cure. In such cases the ordinary ring pessary, by elevating the whole uterus, will give most relief.

In some aggravated cases of acute flexion with hypertrophy, stem pessaries may, under exceptional circumstances, be required, but this must always be regarded as a *dernier ressort*.

In that class of cases—which is exceedingly frequent—where there is some degree of flexion and version combined, the Hodge will most frequently meet the requirements of the case. Should there be any adhesions or any ovarian prolapse the soft india-rubber glycerine ring will be most generally serviceable.

Dr. LOMBE ATHILL expressed his disbelief in ante flexion as a disease, or even as a condition demanding treatment. If it occurred in connection with dysmenorrhœa in a multiparous woman, and depended on uterine causes, those causes would generally be found to be a conical cervix and a contracted cervical canal. The virgin uterus being naturally ante flexed, pessaries in such cases were useless, and stems most objectionable. Cases of retroflexion were always acquired, and in many of them a pessary, such as a Hodge, was very useful, and a great aid in curative treatment, but it must never be looked on as being itself curative; in some cases the retroflexed fundus pressed against the rectum, and interfered with defecation. In these a well-adjusted pessary often gave marked relief; but the mere fact of the uterus being retroflexed, provided that it caused no discomfort or symptom, did not necessarily demand treatment.—Dr. BARNES said Dr. Halliday Croom objected to Hodge's pessary in extreme retroflexion, because it got between the cervix and the retroflexed body, and resorted to the ring pessary. Now he (the speaker) contended that all depended upon a proper choice of pessary. The true idea of a good pessary was Hodge's; it must act as a lever, and, therefore, the uterus must be movable, and the pessary must move with it, forming, as it were, part of it; and for this it must be well adapted to the particular case. The ring pessary had become to him an abomination; it stretched the vagina, weakened the natural supports of the uterus, and thus left the patient worse than before. On the other hand, by first reducing the uterus, the patient lying on her hands, a gentle touch of the finger would push the fundus over to the left side of the promontory, where it would easily rise to its position, and then a glycerine-pad pessary passed in would keep the fundus from falling back. Dr. Barnes believed that cases of distress from ante flexion were quite rare, and he had seen good from Graily Hewitt's cradle pessary, but great care was required in adapting the pessary to the case. With reference to the statement that, before applying a pessary, you must reduce the congestion or swelling of the uterus, that was attempting what could not be done. The removal of congestion depended on keeping the uterus *in situ*. All depended upon judgment in selecting the pessary.—Dr. JOHN A. BYRNE said that whilst he had learned a great deal from Dr. Barnes, he could not agree with him about the non-necessity of previously replacing the uterus. (Dr. BARNES here explained that he did not mean to assert this.) He (the speaker) had a good deal of experience of uterine affections, and he was of opinion that retro-displacements were very frequent, whilst anterior displacements were extremely

case. No doubt this displacement was sometimes observed in those cases where the uterus and appendages were bound down by old inflammatory products; but as an originally abnormal displacement, it was in his opinion extremely rare. He could not agree with Dr. Atthill, even in cases where a retroversion or flexion was observed, and where no urgent symptoms were manifested, that still he should not attempt replacement; the reposition and retention could not by any possibility do any harm. We should do all in our power to remove any hyperplastic uterine condition, although he was of opinion that too much importance was attached to this so-called metritis; and in an organ like the uterus we should expect that there must be occasionally engorgement and, perhaps, hyperplasia; but he thought that there was a good deal of exaggeration on this subject. He entertained a very strong objection to the use of the stem pessary. There was one circumstance that occasionally accompanied retro-displacement, namely, sterility; when in consequence of the curvature the woman did not conceive, the replacement had in his hands been attended by the most beneficial results.—Dr. MORE MADDEN said the importance of flexions in relation to the causation of sterility was a subject brought daily under his observation, and one which could not be too strongly insisted on; for in the great majority of cases of sterility and dysmenorrhoea, whether there was stenosis of the cervical canal or not, he was firmly convinced that any operative treatment would generally be useless unless the coexisting displacement or flexion were at the same time remedied, as either might be by a properly adjusted, well-fitting Hodge lever pessary.—Dr. WILLIAM DUNCAN said it always seemed to him remarkable that, when gynecologists discussed uterine displacements, some considered all cases required mechanical treatment, and others deprecated any treatment whatever. Dr. Duncan, whilst admitting that cases sometimes required local treatment, considered the majority of cases of versions or flexions caused *per se* no trouble, and required no treatment. He thought that it was bad practice to introduce a vaginal or stem pessary in any case of antelexion, but that the raising up of the uterus in the pelvic cavity by a Hodge or ring pessary in cases of backward displacement relieved the circulation in the uterine and ovarian veins, and thus did good. He did not believe that a pessary ever cured a version or flexion. He thought that a grave responsibility rested on teachers who practised and advised the frequent use of pessaries in the treatment of versions and flexions.—Dr. ROUTH said no one would think of treating a case which had no symptoms. Patients came to us when they had severe symptoms which required treating; but even here pessaries were not always to be at once applied. Simple measures, such as local depletion, purgatives, etc., should first be tried; if these failed, then pessaries might be tried. As to stem pessaries, they were condemned mostly by those who had never used them, or only to a very small extent. If proper measures were taken at first to prevent inflammatory complications, and the stem pessaries were not too long, and rest were insisted on for some days after their application, accidents were few and far between.—Dr. HANCOCK endorsed Dr. Barnes's remarks upon the importance of the mechanical treatment of uterine displacement, and bore testimony to the value also of the stem pessary, and particularly to that form invented by Dr. Gordon Black, of Harrogate. He had used this in two cases, which had only been partially relieved with Hodge's pessaries, but which were rapidly relieved by this form of stem.—Dr. M. CAMERON said cases of displacement did not remain as when first met with, but went on from bad to worse unless properly treated. He would also like to state that satisfactory results had been obtained in Glasgow from shortening of the round ligaments, the use of the tampon, and hot-water injections. He had every confidence in the use of pessaries.—Dr. W. J. SMYLY said the uterus was maintained in position by intra-abdominal pressure, but its displacement was prevented by the ligaments. When the latter were subinvolved, then they could not perform their functions when the uterus was replaced, so that the intestines came to press upon the posterior surface; a Hodge's pessary, by practically shortening the utero-sacral ligaments, would prevent its displacement. When the uterus was in position, and the pessary acting properly, the fundus was about three inches removed from the posterior bar, and therefore to speak of supporting the fundus was erroneous, and to invent soft pessaries filled with glycerine, so as not to hurt it when tender was unnecessary.—Professor A. WALLACE said he agreed almost entirely with Dr. Halliday Croom's methods of treatment. There

was one plan which had not been noticed—namely, the use of tampons, which were first used by Marion Sims. These were made by saturating cotton-wool with glycerine, which might be medicated by various substances, as astringents, antiseptics, etc. He had used this method for many years as a preliminary to the use of a pessary. The pessary which he always used for cases of posterior displacement requiring mechanical support was the Albert Smith's modification of Hodge's, made of soft, pliable metal which could be bent and fitted according to the requirements of the individual case.—Dr. J. WALLACE (Liverpool) referred to the difficulty of discussing this large subject in the short time permitted. As a teacher and practitioner he had been guided by certain principles. First, the pathological conditions, and secondly, the mechanical, were to be observed and treated as stated *seriatim*. But no case could be scientifically put under treatment unless its etiology as well as its morbid conditions, pathological as well as mechanical, were determined. In virgins displacements were often produced by straining at stool, by prolonged standing, as in shop girls, schoolmistresses, and in ladies who followed fashion in tight lacing, dancing to excess, and a relaxed muscular system and health generally. Antelexion of cervix, the os uteri pointing forward to the pubes, slight procidentia of the body of the uterus, and retroversion of the fundus uteri, often retroflexion—in short, the sigmoid uterus. This form did not always give rise to symptoms, but they came at last, local or reflex, and required treatment. These might be cured by constitutional and local treatment without pessaries. In married women with sterility, posterior section of cervix would frequently cure. In women who had had numerous children in a few years, sub-involution of the uterus and of the Fallopian tubes and ligaments, with diseased conditions of the endometrium, was common. Dr. Wallace drew particular attention to the open Fallopian tubes, which he had found to be almost the rule in these *post-partum* cases of displacement. Engorgement might depend upon flexion, but he felt sure it arose from displacement. Local treatment such as the hot douche, applications to the cervix according to the intensity of the morbid conditions, and sedative pessaries would relieve the local tenderness, after which a pessary adjusted to the requirements of the individual case might be safely placed. He confessed that he was surprised at the statement that pessaries did not cure. They certainly did, provided the pathological conditions were also cured.—Dr. GRIGG stated he quite agreed with all that fell from Dr. Wallace and Dr. Smyly with reference to the important function the ligaments performed in relation to the retention of the uterus in its proper position, and instanced cases of primiparous women, whose uteri were perfectly normal antecedent to pregnancy, recovering from the puerperium with retroversion, coupled with the descent of the whole pelvic organs. With regard to Dr. Wallace's statement that he could pass a uterine sound through the Fallopian tubes shortly after delivery, this Dr. Grigg controverted, and stated he had never succeeded in passing even a probe through the Fallopian tube in the cadaver of women confined within a few hours to three or four weeks.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE ENDOMETRIUM.¹

By W. J. SMYLY, M.D.,

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I KNOW of one method only by which the diseases of the uterine mucous membrane can be diagnosed with accuracy, and that is by the microscopic examination of portions removed by means of the curette. In the majority of cases a fairly correct diagnosis may be arrived at without resorting to the microscope, but not with certainty. When, for example, a medium-sized curette can easily pass into the uterus, and is there found to be freely movable in an enlarged cavity, and over a soft and velvety but irregular surface; and when its cutting edge is used long strips of hyperplastic membrane come away, we should probably be correct in supposing the case to be one of fungous endometritis, but it might be one in which the decidua had been retained, or a simple or malignant adenoma; for the appearances of these to the naked eye present a very close resemblance to each other, but microscopically they differ very widely. Should only a few small shreds of

¹ Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association held at Dublin, in August, 1887.

thin membrane be obtained, even after very vigorous scraping, we believe the case to be one of atrophy, but could not tell to what variety of this condition it appertained. Small, friable, whitish particles are strongly suggestive of cancer, but even then the microscope will be necessary; and here we meet with the most important, and often I believe the most difficult, problem, namely, to determine with certainty from specimens obtained the malignancy of the disease. I must confess that I never have done this myself, but I do not think that during the four years since I have adopted this method such a case has come under my care. It has, however, been done by others; the uterus excised in consequence, and the diagnosis confirmed by the subsequent examination of the specimens obtained, and it is a very remarkable fact that, considering how few are the recorded cases of malignant disease limited to the body of the uterus, so many as eleven should have been diagnosed during the last seven years by a single individual, namely, Dr. J. Veit, of Berlin. This is to my mind strongly suggestive of the belief that a large proportion of such cases are not detected until after the disease has involved the cervix or the neighbouring organs, because of imperfection in the methods of diagnosis usually employed; and that were the curette and microscope used more systematically, we should more often succeed in discovering this terrible malady at a time when its removal would offer a reasonable prospect of permanent relief.

This method of diagnosis was introduced by Récamier about forty years ago, and it is from it that most of our knowledge of the diseases of the uterine mucous membrane has been derived. He devised the curette by means of which he removed "*fongosités*" or vegetations, and subsequently applied some caustic to the denuded surface. The particles removed were examined microscopically by Robin, who gave a very exact description of their structure, corresponding with what is now generally known as fungous endometritis. De Sinéty and Rugé have distinguished in the same way three distinct forms of endometritis, according to the relative development of the glands and inter-glandular tissue; but as all these forms may occur simultaneously in the same uterus, this division appears to be rather too artificial. If, however, Martin's opinion that the more the glandular development predominates, the more liable is the disease to assume a malignant character, and Wyder's that the more the interstitial tissue is developed, the greater is the hemorrhage, prove to be correct, then it will be a very important one.

Retention of the decidua after abortion is one of the commonest affections of the uterine mucous membrane. When examined microscopically it contrasts very strongly with fungous endometritis, owing to the absence of glands, and it will, I believe, always be found in a state of inflammation. Whether this is the cause or the result of its retention, I am unable to say; but, in either case, it indicates the advantage of its early removal. Of the atrophic forms of endometritis, two appear to me of especial interest—first, that described by Schroeder as dysmenorrhœal endometritis, in which there is a development of the inter-glandular tissue leading to the obliteration of the glands themselves, and a subsequent cirrhosis or atrophy of the membrane; and secondly, a condition described by Zeller as "*psoriasis uterina*," in which the uterine cavity is lined with scaly epithelium. I mention these forms especially, because it was by the microscopical examination of particles obtained by means of the curette that they were discovered. The curette and microscope are accordingly most efficient means of diagnosis, but their use is, in this country at least, generally regarded as advisable in exceptional cases only, and after the ordinary methods, by means of the sound and introduction of the finger after dilatation of the cervix, have failed. Now, as regards the latter method, it is not only more painful, and involves greater risk to the patient and a much greater expenditure of time on the part of the practitioner than curetting, but, what is of more consequence, it seldom yields much useful information. Only gross pathological changes can be distinguished by the finger, and in proof of this I would refer you to the writings of those who practise either method exclusively. There you will find that by those who advocate the curette and microscope not only are definite pathological conditions described and figured, but there is a remarkable unanimity in their opinions as to the nature of these conditions, whilst amongst those who do not employ them we find such vague and unsatisfactory terms as "*granular conditions*," "*pulpy states*," "*irritable membranes*," etc., expressing not the nature of the condition present, but only the impressions which they conveyed to

their fingers; whilst in such conditions as are not palpable in this way only two courses are open to them, either to deny their existence altogether, or use some indefinite term such as "*intra-uterine disease*," without any attempt to define it more exactly. Let me quote an example from the work of such an eminent gynecologist as Dr. Emmet, who speaks of the curette as "*an instrument which has proved a most objectionable one*;" and as regards the instrument of Dr. Sims, "*he honestly believes that the ingenuity of man has never devised one capable of doing more injury*." His knowledge, therefore, we may assume, has not been derived from the use of this instrument. He mentions four forms of disease to which the uterine mucous membrane is liable. First, a form of disease usually the result of pregnancy, and characterised by hemorrhage, which, he says, "*is common but little understood, microscopists not having, to his knowledge, fully investigated the subject*;" a second condition is frequently met with, "*which some writer has compared to granular conjunctivitis*;" and a third "*resembles the pile of velvet, and when floated in water it seems to consist of prolongations of blood-vessels from the muscular tissue*;" and lastly, "*a thickened condition of the membrane, which could be easily detached in long strips like the skin which has been scalded, and is blanched in appearance*." Now I would point out that in not one of these cases is the real nature of the disease described. In the first he says it is unknown, the second is like granular lids, the third like velvet, and the fourth like scalded skin; but what we want to know is, not what a disease is like, but what it is. What should we think of an oculist who described granular ophthalmia as a disease resembling decidual endometritis? I have selected Dr. Emmet's work in order to show that no matter how brilliant and observant a man may be, ignorance and confusion must result from the rejection of the only source of knowledge.

In spite of the obvious advantages of the curette as a means of diagnosis, its advance towards general acceptance has been but slow. Récamier's results were very brilliant, and although he perforated the uterus in a few cases, I believe that no evil resulted therefrom. However, its introduction met with such a storm of opposition that, in spite of the advocacy of Sir James Simpson, Olshausen, Marion Sims, and others, it made but little way until about four years ago, when a revulsion of feeling in its favour occurred. Certain dangers naturally suggested themselves as likely to follow its use, and especially that the mucous membrane having been thoroughly removed, it would be replaced by cicatricial tissue, and thus sterility would result. Reasoning from analogy we should expect this to occur, but analogy does not hold good in this instance. The uterine mucous membrane differs from every other in its rapid and complete regeneration, as was clearly proved by Dr. Martin, of Berlin, and his assistant Dr. Düvelius, and it was the publication of the investigation of this subject by the latter which marked the epoch to which I have already referred, since which this method of diagnosis and treatment has rapidly gained in popularity. The most remarkable cases recorded by Dr. Martin, were those of two women who had been repeatedly curetted and cauterised for adenoma of the mucous membrane; but were at last reduced to such an anæmic condition that as a last resource the uterus was removed. In one of these cases the last scraping took place two months, in the other four months, previously. The microscopic examination of the organs after extirpation showed that the newly developed membrane was related to the muscular and inter-muscular connective tissue in the usual manner, nor was a cicatrix to be found anywhere in the mucous membrane, or between it and the muscle. Theoretically there is no reason why pregnancy should be interfered with, but on the contrary it should rather be favoured by the removal of a diseased membrane, and its replacement by another which we have every reason to hope may prove a healthy one. Now as a matter of experience this has been found to be the case. Dr. Düvelius found that out of the patients operated upon by Dr. Martin and himself between 1879 and 1883, 60 were known to have subsequently become pregnant, and of my own cases I know of six, but as I could not trace all my patients, the number is probably greater. It is therefore evident that, no matter how thoroughly the curetting may be carried out, the membrane will be regenerated, that this new membrane is not cicatricial in structure, and that the operation favours rather than hinders the occurrence of pregnancy.

Let us now consider the treatment of these diseases. The chief indications are, first to remove the diseased membrane

as completely as possible, and then endeavour to induce a healthy growth in the new one. These two indications are best fulfilled by the use of the eurette, and by subsequent injections of strong solution of iodine or iodised phenol. Why should we spend months and years in making applications to a membrane which may be removed in a few minutes, with the certainty of its being speedily replaced by at least as good, but probably a better one? That the new membrane may be diseased is true, but this objection will apply to every form of treatment, and speaking generally we may say that the success which has attended any therapeutic agent has been in direct proportion to its power of destroying the diseased membrane. This explains to us the marked benefit derived from the use of powerful caustics, especially the fuming nitric acid. In Dublin we have had remarkable success with this agent, but it is inferior to the eurette in three ways. 1. It necessitates previous dilatation of the cervix. 2. Its action is rendered uncertain by hæmorrhage and other discharges. 3. It destroys the tissues upon which we depend for diagnosis. My present practice is to eurette in every case of disease affecting solely or chiefly the uterine mucous membrane, which does not yield to attention to general health, douching and astringents, and I can strongly recommend it to others as having the following advantages, which I may briefly recapitulate. (1). It is efficacious both as a diagnostic and as a therapeutic agent; and (2) its employment is safer and simpler than any method which involves the dilatation of the cervix.

ON MARTIN'S METHOD OF DEALING WITH THE PLACENTA AND SAC IN LAPAROTOMY FOR EXTRA-UTERINE PREGNANCY.

By ERNEST ANNACKER, M.D. BERLIN, M.R.C.S.,

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ONE of the most interesting questions in connection with the treatment of advanced extra-uterine foetation by laparotomy is the method of procedure in regard to the placenta, upon which the failure or success of the operation is believed largely to depend. My object in this paper is to draw attention to the plan proposed, and successfully adopted by Dr. A. Martin, of Berlin, according to which it becomes possible to remove the placenta with the foetus, at any period after its formation, without any serious risk of hæmorrhage.

Most recent writers on this subject, including Thomas, Hicks, Barnes, Keberlé, and Tait, are agreed that the placenta should in most cases be left behind on account of the severe hæmorrhage which frequently attends its removal, instances being indeed very numerous where death has resulted from this cause. That it is a point on which the experience of competent observers differs very widely may be gathered from the fact that Schroeder removed the placenta as early as three weeks after the death of the foetus without experiencing any untoward result, while Depaul, on the other hand, removing the organ four months after the activity of the placental circulation had had time to diminish by reason of the death of the foetus, had the misfortune to lose his patient from hæmorrhage. This is a by no means isolated experience.

The disadvantages of leaving the placenta behind are (1) the tedious and protracted convalescence; (2) the danger of death from hectic and exhaustion owing to long-continued suppuration of the sac and its contents during the process of disintegration and throwing off; (3) the possibility of secondary hæmorrhage such as occurred, for example, in a case related by Braxton Hicks.

Parry, of Philadelphia, writing in the year 1876, states that the frequency of secondary hæmorrhage after spontaneous separation of the placenta, as compared with that after its forcible separation, is as one to five.

Most authorities are agreed that the organ may be safely removed some months after the death of the foetus, when the vessels traversing the placenta have atrophied and contracted, the venous sinuses having become thrombosed, and the whole organ very much diminished in size; but it was reserved for Dr. Martin to devise a means by which the placenta may be removed at any period with hardly any greater risk of hæmorrhage than attends an ovariectomy or an extirpation of the uterus.

The reasons which led Dr. Martin to work at this subject may be given in his own words, quoted from a communication read before the International Medical Congress held at London in 1881. He says: "It is, however, evident to all that convalescence is considerably endangered by this procedure (avoidance of the placental site) for even if the sac, as such, were closed, and the diligent irrigation of the sac should prevent stagnation of the secretions in the cavity, still it is clear that the recovery is thus retarded greatly, and the patient liable to such dangers as accompany the processes, even with strictest antiseptic precautions." He acknowledges that the ligation of separate bleeding points on the placental site is not feasible, but by ligation *en masse* "large bleeding surfaces can be tied quickly and safely, so that we need not fear secondary danger from the hæmorrhage."

It might be objected that the placenta may be fixed to the intestines, or some part from which it is irremovable; but to this Martin replies that it is more of theoretical than practical importance; not that he denies the possibility of its occurrence, but, not having met with a single case of this nature in eighteen laparotomies for extra-uterine foetation, he comes to the conclusion that, in discussing the question broadly, too much stress must not be laid on these rare and exceptional cases, in which, if necessary, and if the placenta cannot be removed without danger of fatal hæmorrhage, it may be left *in situ* and allowed to disintegrate.

I had the privilege of being present at the operation on the following case of Dr. Martin's, in which the successful removal of the placenta, which I wish to emphasise, is well illustrated, as well as the method of treating the sac by partial resection, a procedure generally employed by Dr. Martin in these cases. For the notes of the case I am indebted to Dr. Czempin, house surgeon at Dr. Martin's clinic.

The patient was a married woman, and sterile up to last March. Since that time she had complained of pain in the hypogastrium, especially on the left side. She had menstruated regularly for fourteen years; but in March, after menstruating at the commencement of the month, there was again some loss a fortnight later, while throughout the whole of April she did not menstruate at all. In May there was slight hæmorrhage on two occasions, but none between that time and her admission to the hospital in July.

The vagina was fairly capacious; the cervix behind the symphysis pubis; the body of the uterus was short, and behind the uterus a tumour, rather larger than a man's fist, was felt on the left side, and diagnosed as tubo-ovarian.

On July 7th the operation for removal of the tumour was undertaken. Chloroform was administered, and the abdomen opened by an incision four inches long in the middle line, when the peritoneal cavity was found full of recent and old blood-clot—the tumour having evidently burst. The intestines were spread out on the wall of the abdomen, and covered with a damp cloth, after which the clots were easily removed from the pelvic cavity with sponges. To the left side of and behind the uterus was seated a tumour corresponding to the one felt on examination; on attempting to loosen the latter from its connections a rent occurred in the anterior wall, and through it a four-month-old foetus and some blood-clots escaped. The foetus was still attached by the umbilical cord to the placenta, which remained in the cyst. Introducing the hand into the cyst it was possible to remove the whole placenta without any severe hæmorrhage. A large portion of the sac was next resected, and the remainder stitched together with continuous catgut suture, after introducing a drainage-tube through the pouch of Douglas into the vagina, so as to shut off the sac as much as possible from the abdominal cavity. The abdominal wall was then united by silk sutures. The operation lasted eighteen minutes. The patient recovered without a bad symptom, the temperature never rising above 38.2° C. The tube was removed on the thirteenth day after the operation, and on the sixteenth day the patient left the hospital convalescent.

In another case upon which Dr. Martin operated at the end of the sixth month of pregnancy, the placenta was seated upon the anterior wall of the sac, which was formed by the back wall of the uterus and the left lateral ligament. After the removal of the foetus hæmorrhage took place in spurts, quickly filling the sac. As soon as Dr. Martin recognised the nature of the case he cut off the communication with the uterus by three deep sutures, carried by means of curved needles through the broad ligaments, and embracing the left side of the uterus. The placenta was then removed and found to be very friable, but entire; no hæmorrhage followed its removal. The sac was treated by resection, and the

operation was concluded in an hour and a quarter. The patient made a perfect and speedy recovery.

The method of dealing with the sac of an extra-uterine foetation employed by Dr. Martin is different from that of many operators. Instead of stitching the sac to the abdominal incision, he removes as much of the walls as possible, drains through the pouch of Douglas into the vagina, and unites the edges together at the highest part of the sac, thus being enabled to close the abdominal wound entirely. By this means healing by first intention is possible, drainage is obtained through the most dependent portion of the sac, and recovery is much more speedy.

During the last six months I had an opportunity of examining a patient on whom Dr. Martin had operated some months previously for extra-uterine pregnancy in the manner here described. The uterus was fairly mobile, and the only remains of the patient's abnormal burden was a thickened cicatricial band, about the size of the little finger, extending backwards from the cervix, on the left side of the uterus.

Three years ago Dr. Martin described his method in a paper read before the Copenhagen Congress, but it was the opinion of Werth and most of the authorities present that time was needed to test its efficiency.

Dr. Martin has now had nearly twenty cases in which he has put in practice his method of dealing with the placenta and the sac, and he considers that the results quite justify him in maintaining its superiority over the methods hitherto in vogue.

ABSTRACT OF AN ADDRESS

ON

THE RELATIONS OF GYNÆCOLOGY TO GENERAL THERAPEUTICS.

Delivered before the British Gynæcological Society.

By ARTHUR W. EDIS, M.D., F.R.C.P.

President of the Society; Obstetric Physician to the Middlesex Hospital;
Physician to the Chelsea Hospital for Women.

AFTER thanking the Fellows most cordially and sincerely for the honour they had conferred upon him, the President proceeded to make a few suggestions as to the objects of the Society.

He drew attention to the importance of avoiding the error of cultivating this specialism to the exclusion of a more general consideration of the subject, asserting that a specialist, in the only true sense of the word, was one who was a good all round surgeon and physician, and something besides—one who paid special attention to the study of gynæcology, and who consequently attained superior knowledge of it, and possessed greater skill in dealing with it.

He referred to the narrow views of specialism held by some, whose opportunities of studying disease from a general standpoint should guard them from that fallacy, citing instances of menorrhagia, which, without sufficiently inquiring into the probable causes, and endeavouring to ascertain the conditions which led up to this result, the practitioner was too apt to treat empirically by some accredited formula, such as sulphuric or gallic acid, ergot, or hazeline.

Stress was laid on the importance of ascertaining the condition of the heart, liver, kidneys, and other organs, so that we should not overlook the existence of some mitral incapacity, hepatic congestion, or renal degeneration which possibly might account for the menorrhagia, and necessitate general in place of local treatment. A few grains of calomel, some saline aperient, abstinence from alcohol, and attention to simple hygienic details often proved of more service in checking any inordinate menstrual flow than the most elaborate prescription for uterine hæmorrhage.

So with dysmenorrhœa, which was but a symptom of many and various conditions, not only of the uterus and its so-called appendages, but also of the general health. In place of gravely recommending patients to submit to some surgical operation for the relief of pain, all that was necessary, in many instances, was to relieve the anæmia, due often to imperfect nutrition, improper clothing, and neglect of ordinary hygienic precautions.

The tendency of gynæcology for many years past had been to advance in a surgical direction, and unquestionably much had been gained by this. Cases which scarce a generation ago were regarded as hopeless, over which medicine had no power, were now rescued from their impending fate, and restored to health and usefulness. The triumphs of abdominal surgery were still the wonder of the age. Ovariectomy alone had been the means of saving countless thousands of lives. Removal of the uterine appendages—whether in the case of bleeding myoma, or of chronic incurable diseases of the ovaries or tubes—had enabled the surgeon to convert useless, suffering, and miserable invalids into useful members of society, able to earn their own living, or to fulfil the duties of their station, with comfort and freedom from suffering. The treatment of extra-uterine gestation by abdominal section, bold in its conception and successful in its issue, appealed alike to the profession and the public.

Shortening of the round ligaments, raising the prolapsed ovaries and attaching them to the parietes by a plastic operation, repairing the ruptured perineum, removing the hypertrophied cervix uteri, or restoring it to its normal condition, when extensively lacerated, by the operation of trachelorrhaphy—all these and numerous other operations of a like nature might well be quoted as evidence of what surgery had accomplished in the domain of gynæcology. Might we not hope that in time, when gynæcology was systematically taught in our medical schools as an integral part of medical education, we should be enabled to prevent the development or retard the progress of numerous conditions which now inevitably eventuate in surgical interference?

Our practice, in many instances, did not keep pace with our knowledge. As a fact, we knew that the process of involution of the uterus, subsequent to delivery, took at least six weeks under favourable circumstances, and still longer in anæmic, underfed, or unhealthy patients, where the hygienic surroundings were unsatisfactory; and yet we kept still to the traditions of the past, and allowed our patients to get up after the ninth day, provided there was no hæmorrhage or elevation of temperature to suggest a more prolonged recumbency.

Could it be doubted that we had here a most potent factor in the production of uterine disorders? The heavy, subinvolved uterus not only dragged upon the already weakened and distended ligaments and supports, giving rise to prolapsus uteri and other displacements, but the ovaries also, in place of remaining in a position of safety, became prolapsed, and gave rise to considerable discomfort.

Even the growth of uterine myoma, apart altogether from the more direct methods of treatment, might be lessened or retarded by attention to numerous details as to diet and hygienic management, such as abstinence from alcohol, lessening the amount of nitrogenous food, preventing congestion of the pelvic organs by wearing appropriate clothing, and refraining from unnecessary fatigue or exertion at the ordinary monthly periods, regulating the bowels, and improving the tone of the general health by means of such remedies as quinine, arsenic, strychnine, and other agents of this class.

The extreme importance of forming a correct diagnosis was then insisted upon. We should at all times endeavour to ascertain the truth, the whole truth, and nothing but the truth. It was not sufficient to detect a retroflexed uterus and treat this, when possibly some old-standing pyosalpinx or cirrhotic condition of the ovary was in reality the chief cause of the patient's suffering. Instances were not infrequently met with where the ovaries and tubes had been removed, and rightly so, for some well-marked pelvic trouble, and yet the condition of the patient some months afterwards was not anything like as favourable as we were led to predict—and why? Because some chronic uterine trouble, coexistent with the ovarian mischief, had been overlooked or not attended to, and now interfered with the perfect convalescence of the patient, thus robbing the gynæcologist of his full measure of credit, and, in some cases, unquestionably bringing the operation of removal of the appendages into needless discredit.

The reflex symptoms due to uterine derangements were then considered and their importance insisted upon, as deserving of more attention by the practitioner than generally met with. The synergic action between the stomach and the uterus, both as regards secretion, sensation, and motor action, were amongst the most remarkable phenomena of reflex nervous action. Nature gave us a very palpable illustration of this in the morning sick-

ness of pregnancy. In place of pouring into the stomach—whose only fault was a too manifest sympathy with its suffering neighbour lower down—bismuth, hydrocyanic acid, ingluvin, oxalate of cerium, and other vaunted specifics, attention should be directed to remedying any condition of the uterus likely to produce vomiting. The application of cocaine, carbolic acid, or other appropriate agent to the cervix uteri, or the insertion of a morphine suppository in the vagina, would more often check the sickness than any of the above remedies administered by the mouth.

Cases of chronic metritis, where nausea or sickness were prominent symptoms, were too often treated by remedies directed to stimulating the action of the liver or improving the digestion, in place of treating the disease of the uterus, which was really the *fons et origo mali*. All the diet lists and lengthy prescriptions too often suggested, even though tried patiently for many consecutive months, and in some cases years, were as nothing compared with appropriate uterine treatment in affording relief. Mr. Henry Power's remarks in his recent Bowman Lecture On the Relation of Ophthalmic Disease to Certain Normal and Pathological Conditions of the Sexual Organs were alluded to and endorsed.

The operative treatment of cancer, more especially of the uterus, was then considered. Although the results, thus far, were encouraging, we should never be able adequately to cope with this terrible malady until the practitioners scattered over the length and breadth of the land had their faculties quickened to appreciate the very earliest manifestations of the disease, and even to anticipate its advent by a more careful consideration of the predisposing causes which, where a strong hereditary predisposition existed, were likely to eventuate in such a condition.

Sir James Paget had indicated the direction in which our minds should tend. He had recently stated that "all cancerous diseases, were apt to form in parts congenitally defective, and still more as a result of injuries. More commonly still they appeared in parts that had long been the seat of some irritation, as we called it, as in the scars of burns, or in syphilitic tongues or gums, or cheeks irritated by bad teeth, or in lips irritated by pipes, or tongues by hot tobacco smoke." And to this list might be added, in mammae where eczema of the nipple had existed, and in the cervix uteri from old standing laceration and irritation.

In his recent Morton Lecture, Sir James Paget encouraged the hope that we might yet find some medicine as efficient against cancer as mercury or quinine were against syphilis and ague. Professor Clay, some seven years ago, asserted that he had discovered the long and anxiously sought for remedy in the form of Chian turpentine. Only recently, in one of our leading medical journals, he had reported three cases of cancer cured by this remedy. If this was all his charity could afford, his poverty must be great indeed. If it were really such a specific as he asserted, why had we not thousands of cases reported as cured, not an insignificant trio like this. Surely the matter ought not to be allowed to remain in its present unsettled and unsatisfactory condition. The remedy had been fairly tried in the cancer wards of the Middlesex Hospital, as had many and various vaunted specifics which had been brought before the public during the present century, and still Dante's motto inscribed above the portal in the *Inferno*, "Lasciate ogni speranza voi ch'entrare"—"all hope abandon ye who enter here"—might not inappropriately be placed over the entrance to the cancer wards.

The subject of electrotherapy in gynaecology, recently brought prominently forward by Dr. Apostoli, was one which was attracting considerable attention. Not only were we promised the dispersal or arrest of growth of fibroid tumours, and the arrest of hæmorrhage by the influence of electricity, but also the resolution of peri-uterine inflammation and the relief of ovarian pain, so as to preclude the necessity of removal of the appendages. Amenorrhœa, dysmenorrhœa, and menorrhagia were amenable to its influence as well as numerous other conditions too often intractable to other remedies.

The desirability of studying the effects of remedies upon uterine and pelvic disorders was then insisted upon. Much might be done by careful clinical observation, recording minutely the symptoms, and how these were modified or relieved, not by a combination of half-a-dozen different drugs, as was too often the case, but by some specially selected one, given with the definite idea of testing its true value under certain well defined conditions. The importance of leaving the culinary department of the organism free for its intended purposes, and not converting it into a drug

store for the reception of nauseating compounds was urged. There were many and various methods of applying remedies directly to the locality affected, which should always be resorted to when feasible; for example, rectal and vaginal suppositories or pessaries, injections and enemata, hypodermic injections, local applications, whether as plasters, fomentation, or poultices, or applied to a blistered surface, medicated baths and fumigations, or as local applications to the cervix uteri.

The injection of a drachm of glycerine into the rectum, as recently advocated, would often succeed in affording relief to the bowels *cito, tuto, et jucunde* where pills and aperients proved of little service.

In many critical cases, where the life of the patient often hung upon the powers of assimilating nourishment, much harm was done by drugging the stomach with opiates unnecessarily and unreasonably. We first impaired the digestive capacity of the stomach by drugs, and then attempted to convert the rectum into a stomach by injections or suppositories of peptonised materials.

The employment of antipyrin in gynaecology as relieving pain, dysmenorrhœa, quieting the nervous system, procuring sleep, arresting hæmorrhage, bringing down the temperature in febrile conditions, and in many other ways proving very serviceable, was dwelt upon.

The so-called "dry treatment" in gynaecology was then referred to and advocated in place of glycerine tampons. Powders such as bismuth, iodoform, horacic acid, borax, alum, tannin, oxide of zinc, soda and others, applied either by the aid of an insufflator or blower, or incorporated in cotton-wool tampons, or placed in the vagina, and kept in by means of dry cotton-wool tampons, were often of great service.

Much had yet to be accomplished in gynaecology before we could sit down satisfied that we had learnt all that was necessary, and had attained to such skill in diagnosis and treatment that we had nothing more to desire.

A CASE OF ACUTE TUBERCULOSIS.

By OWEN LANKESTER, M.R.C.S.

WITH REMARKS BY SIR DYCE DUCKWORTH.

ON November 4th, I was sent for to see H. H., aged 25, single, a cook, who was complaining of a sharp shooting pain at the tip of the left thumb, so severe that it kept her awake at night. On inquiry, she had been out of sorts for several days, her appetite had failed, and she had felt listless.

Examination of the thumb revealed nothing to account for the pain; her tongue was slightly furred, and the temperature 102° F.; she was told to go to bed and have a poultice applied to the thumb, to take an aperient at bedtime, and to use a fluid diet. Her history was good; her father and mother were both alive and well; seven brothers and sisters were also living. There was no history of phthisis or rheumatism in the family; her previous medical history was also good. She had been in a cottage hospital two years before, with what seemed to be aggravated dyspepsia.

On November 5th she expressed herself as better; the aperient had acted, and the pain had left her thumb, having passed to the ring finger of the same hand. She complained of breathlessness in coming upstairs, but after a careful examination no sign of any mischief in any organ of the chest or abdomen could be detected. The temperature at night was 102° , and in the morning 100° . She was given quin. sulph. gr. ij thrice daily.

On November 7th she again expressed herself better; there was no pain in the fingers, but the calf of the left leg was so painful she could not put her foot to the ground; there was no swelling, no redness to be seen, and the calf of the left leg was precisely the same in measurement as that of the right, but it was very tender on pressure. Her general condition was much the same; the temperature was 100° in the morning and 102° at night; pulse 96, regular, full; the tongue was furred in the centre and red at the side; there was no enlargement of the spleen; no abdominal tenderness; the urine 1020, acid, natural. Bellad. and glyc. was applied to the leg, which was wrapped in wool and raised on a pillow.

The patient's condition remained much the same for the next few days; the pain in the calf continued, but as she did not get out of bed it was not very troublesome; the temperature remained raised; the pulse was strong and regular, but rapid; the tongue became gradually drier, and cracked. She was always cheerful,

declaring herself better, and took her food, which consisted of milk and beef-tea, very well.

At this period typhoid fever seemed possible, but there was no splenic enlargement, no spots, and the stools were solid and had no special characteristics.

On November 14th the patient complained of a sharp pain in the left forearm, in the bones, as she said, quite different from the pain in the calf, which was of a dull, aching character. I again examined the chest and abdomen carefully, but discovered nothing abnormal; she had no cough, slept well, and took her food well; the temperature in the morning was 100°, and at night 102.3°; pulse varying from 98 to 102, strong; urine 1020, faint cloud of albumen. Treatment as before.

On November 18th Dr. Oswald Browne saw her with me. At this time she complained only of pain in the muscles of the calf of the left leg, where there was marked tenderness, with some increase of resistance on palpation, nothing more. There was no suspicion of tubercular disease. Respiration was perfectly natural, and there was no cough. Physical examination of the chest revealed true pericardial friction at the cardiac base, over an area of the size of a crown piece. The temperature taken in the mouth was 103°.

Though articular symptoms were absent, Dr. Browne considered that the pericarditis and pyrexia were manifestations of acute rheumatism, and advised the application of a blister over the area affected, and treatment by full doses of salicylate of soda every four hours. This treatment was adopted.

On November 19th friction was still slightly audible. The temperature had fallen from 103° the previous evening to 100.3°. On November 20th friction was no longer heard. The temperature in the morning was 99.6° and at night 100°, the lowest record since the commencement of the illness. Pulse 89. She took nourishment well, and slept well.

For the next few days the improvement was maintained. The temperature never quite reached normal. It was 99.4° in the morning and 100.2° at night, varying a few points from time to time.

On November 23rd salicylate of soda was given thrice daily. On November 25th the temperature began to rise again, reaching 101.8° at night, and for the first time her appetite failed; she slept badly, and wandered slightly. There was no cough, and the physical signs in the lungs were natural. On November 27th the temperature in the morning was 101° and at night 102.4°; pulse 104. A small patch of friction (pleural) was detected in the left axilla. There was no pain on breathing and no cough; the respiration was 22. On November 28th the temperature was still high, the pulse 106, and she seemed confused. The friction was spreading in front; pain was still present in calf. The retinae were examined ophthalmoscopically with negative result. Salicylate of soda, which had been given thrice daily since the 23rd, was discontinued, and quin. sulph. gr. iij was ordered thrice daily. On November 29th there was slight crepitation in the right axilla; in the left axilla there was pleuro-pericardial friction; the heart's apex was in the nipple line, and there was no murmur; the spleen was not felt; the tongue was dry and cracked; respiration 23. On December 2nd, it being impossible owing to domestic reasons to keep her where she was, she was removed to St. Bartholomew's Hospital, under the care of Sir Dyce Duckworth. Dr. Tylden, house physician, has kindly allowed me to use his notes.

The urine contained a cloud of albumen. The spleen could be felt on deep inspiration. She was ordered quin. sulph. gr. iij every six hours, milk, beef-tea and brandy; the temperature in the morning was 102°, and at night 103°; the pulse was 104.

On December 5th the spleen was still palpable; the temperature in the morning was 102.4° and at night 103.2°; the pulmonary signs were rather less; sibilus was still present. On December 6th the temperature was still high; there was no remission; she was more dusky; there was sharp crepitation over the right front as high as the apex; the spleen was still felt; crepitation over old area of friction; slight subsultus; the temperature in the morning was 103° and at night 103.4°. On December 7th she still took nourishment fairly; the crepitation in the lungs was increased; the pulse was 120, the respiration 32; the temperature in the morning was 103° and at night 103.4°.

On December 8th rales were heard over both backs, especially the right, and harsh breathing over the upper scapula. On December 9th she was worse; the physical signs were increased; the respiration was 36, and the pulse was 120; she passed a normal motion; the temperature in the morning was 103.2° and at night

104°. On December 10th the temperature was 101.4°; several (doubtful) rose spots were noted; breathing had been much worse during the last twenty-four hours. She died at 4.30 P.M.

A *post-mortem* examination was made on December 12th by Dr. Ormerod. The visceral pleura and the whole of the right lung were full of miliary tubercle. The right pleura contained a largish, thickened spot on the anterior surface, also some recent shreds of lymph. The parietal pleura was deeply congested. The pleural surface and the interior of the lung were full of miliary tubercle. Tubercle was spread uniformly through the whole of both lungs; there was no caseation, no breaking down. The bronchial glands were not enlarged nor caseated. The pericardium and heart were normal, except slight beading of the mitral edge. There were some patches of tubercle on the serous surface of the intestine, and small deposits of tubercle in the ileum, one just ulcerating. There was also tubercle in the capsules of the liver, and one or two spots in substance, and tubercle in the capsule of the spleen. There was no enlargement of the mesenteric glands. In the kidneys were several small deposits of tubercle, some beginning to look yellow. There was a cyst in one ovary; the mucous surface of the uterus was red. (No incision was made in the left calf, owing to objections by the family.)

REMARKS BY SIR DYCE DUCKWORTH (added by request of Mr. O. Lankester).—The case narrated above was one of extreme interest. The patient was admitted under my care with a history of rheumatic symptoms, including pericarditis. There were no articular pains, and no signs of pericarditis on admission. The pain referred to in the calf was still present. No physical signs explained it; in particular, no venous thrombosis. The patient was clearly very ill. My first impression, which remained for a few days, was that the case was one of enteric fever. The general condition went to support this view, the state of the tongue and spleen, and several of the motions, too, being ochrey and powdery, still further lent support to it. The pyrexia was not, however, characteristic of enteric fever. In discussing the case at the bedside, I stated that the diagnosis lay between acute tuberculosis and enteric fever. Ulcerative endocarditis was considered, but negated by the condition of the heart. For some time, indeed, an exact diagnosis was hardly possible. The occurrence of patches of dry pleurisy on each side was significant of tuberculosis. When, to this, signs of involvement of both lungs with bronchitic symptoms, manifested by fine crackling rales, which increased day by day, were added, the diagnosis became almost certain. With these signs, there came on extreme frequency of respiration, a very significant indication of acute pulmonary tuberculosis. The necropsy fully verified the diagnosis. The case is very noteworthy, because nothing in the family history pointed to the malady, and no evidence was forthcoming of any original seat of tuberculosis in the body. The diagnosis between enteric fever and acute tuberculosis has always been in certain instances a matter of extreme difficulty. It was so for some time in this case. In the earlier period of the case a diagnosis was impossible. The patient appears to have plunged suddenly from previous good health into tubercular fever, and succumbed in about five weeks. The treatment latterly was by quinine in full doses, and large quantities of strong nutriment with stimulants were well taken to the last.

NAPIER, AND KURIPAPANGA (HAWKES BAY PROVINCE, NEW ZEALAND) AS HEALTH RESORTS FOR PULMONARY INVALIDS.

By J. H. LESLIE ALLEN, M.B., M.D.

ABOUT two years ago I wrote a letter to the BRITISH MEDICAL JOURNAL on the climate of the seaport of Napier, the capital of the Hawkes Bay Province. I had at that time been only four months resident in Napier, but had derived so much benefit from even that short visit that I felt fully justified in recommending the climate. The air is bright and clear, from the abundance of sunshine and cloudless skies; and it is dry, as the result not only of the comparatively small amount of rainfall, but from the fact that the rain usually occurs in bursts, and is succeeded by long periods of fine weather. The soil also is light and absorptive, and tends to prevent accumulation of water on the surface.

The position of Napier is favourable. In latitude about 39° S.

its average temperature is intermediate between the greater heat of Auckland and the colder region further south. There is a marsh in close proximity to the southern extremity of the town, which is decidedly a disadvantage, especially in the heat and drought of summer, though the seaward hills and northern parts of the island are beyond the range of its influence. It is unwise to remain in Napier all the year round. The autumn is simply perfect, and the winter months are generally fine. My principal object is to draw attention to a locality which is already much favoured as a health resort by the inhabitants of Napier during the summer months. The plateau of Kuripapanga is situated in the Ruahine mountains, at an altitude of about 1,700 feet above the sea. It is fifty miles inland from Napier, with which communication is maintained once or twice a week by coach. The plateau proper, in itself of small extent, is bounded on three sides by precipitous mountains, and on the fourth by the river Ngarororo, which runs partly round the northern angle and divides the plateau from the more open and undulating ground, through which winds the road to Napier. The climate here during the summer is dry and invigorating, and, although the temperature may probably be as high as it is at the coast, there is no relaxing or exhausting effect. The surrounding hills protect Kuripapanga from the hot winds of the north-west in summer, and from the cold winds of the south in winter. The average temperature is, therefore, higher and more equable than that of the surrounding country. This is a great advantage in winter; and, though the heat in summer is for the same reason greater, yet a ride or climb of a quarter of an hour will make a considerable difference, as a cool breeze is nearly always to be met with among the hillsides. During the winter the mountains around Kuripapanga are covered with snow, which falls in the valley also, but quickly melts there. There are occasionally heavy storms of thunder and rain, and of course bleak and cold days during the winter; but the configuration of the country tends to promote dryness of the soil and of the air, as the mountain sides rise abruptly, in some places sheer from the river Ngarororo, which winds among them, the result being that, when a heavy fall of rain occurs, the water rushes bodily down the gulleys and ravines, and is carried away at once by the river. The plateau is elevated about 80 or 100 feet above the bed of the river. The soil of the valley is productive, and good country fare can be always obtained.

The health-seeker must have some resources in himself, and must make up his mind to forego in some measure the pleasures of society. There are, however, many ways in which he may amuse himself. He can always procure a horse to ride. Should he care for sport, he may have a day's pig-shooting, or may pick up wild duck along the river banks. Then, should he be anything of an artist, he will not be likely to suffer from *ennui* amidst the magnificent and varied scenery. The geologist also, or mining engineer, will find plenty to occupy his leisure, as the mineral resources of the range are supposed to be great. Traces of gold have been frequently found, while coal and iron are known to exist in considerable quantities.

Leaving Kuripapanga, the road into the interior ascends to an elevation of about 3,000 feet above sea-level. A stretch of the true New Zealand bush or forest can be reached by a drive of about eight miles, and a little further on a view can be obtained of the great volcanoes Ruapehu and Tongariro, rising snow-capped to the height of 8,000 feet.

A personal experience enables me to speak in the highest terms of the Kuripapanga Hotel. New arrivals are astonished to find a really first-class hotel in the heart of those mountains. This hotel, however, is not a sanatorium; and, as I write without the knowledge of the proprietor, I cannot affirm that he would be prepared to receive confirmed invalids.

The cases which should do best at Kuripapanga are those in which the lung is merely threatened, or when the disease has made but little progress; and in such cases a residence there all the year round would be desirable. Patients differ much, however, in their power of resisting cold, and those who feel a winter in the mountains too trying may return to Napier at that season. A residence at Napier and at Kuripapanga alternately will secure a fine climate all the year round.

ATHY WORKHOUSE.—The hospital accommodation having been found insufficient, steps are being taken by the guardians to extend it, and the Local Government Board has given its sanction to the proposed addition.

STRANGULATED CÆCAL HERNIA IN A CHILD: RADICAL CURE BY TWISTING THE NECK OF THE SAC.

By A. QUARRY SILCOCK, M.D., B.S.LOND., F.R.C.S.ENG.,
Surgeon to St. Mary's Hospital, and Assistant Surgeon to the Royal London
Ophthalmic Hospital, Moorfields.

CÆCAL HERNIA should be rare in children, if one may judge of the frequency of such an occurrence by the sparseness of recorded cases in medical literature. Mr. Treves, in an excellent summary of the subject, states that cæcal hernia is practically limited to adults; he quotes a case by Sandifort (*Icones Hernie Congenite*, 1781), in a male infant, aged three months, and refers to others reported by Mr. Lockwood, Cloquet, and Wrisberg. Mr. Wright, however, gives five examples verified by operation, cases which occurred at the Children's Hospital, Manchester, and avers that "cæcal hernia is not very rare in male children" (*JOURNAL* of March 5th, 1887, p. 506). It is noteworthy that in all these cases the hernia was of the congenital variety, as in the present instance.

A male infant, aged fifteen months, was brought to the children's department of St. Mary's Hospital, having a large right scrotal hernia, on May 4th, 1887. The child had suffered from sickness during the day previously to admission, and had passed no motion since May 2nd. The rupture had been noticed since birth, but the mother stated that it had become much larger on May 3rd. The hernia was irreducible when the child was placed under the influence of chloroform, and therefore herniotomy was decided upon. The strangulated portion of gut was found to consist of the cæcum with vermiform appendix, contained in a perfectly distinct sac, at the fundus of which was the testicle; the vermiform appendix lay somewhat posteriorly to the exposed portion of the cæcum, and could not be seen until the relations of the parts were disturbed in order that the protruding intestine might be thoroughly examined. The gut involved was moderately congested, and much difficulty was encountered in reducing it, even after the external ring had been notched with the knife, a difficulty which was no doubt incidental to the large size of the hernia; and, although carefully manipulated, the coats of the cæcum were bruised, and its peritoneal covering—which completely surrounded it—was lacerated during reduction.

With a view to producing a radical cure, the sac was dissected up from its attachments, divided circumferentially above the testis, and its neck twisted by the fingers, a catgut ligature being tied tightly around the twisted pedicle just inside the external ring: the sac was then cut away immediately below the ligature.

The whole operation was carried out antiseptically, but convalescence was retarded by an attack of orchitis and suppuration in that portion of the sac which lay around the testis—circumstances attributable to the failure of the antiseptic precautions after the third or fourth day.

When seen on December 28th, the scrotum and testis were perfectly normal, and there was no evidence of any tendency to hernia on the right side. On the left side a congenital scrotal hernia existed, but this was considerably smaller than it was when the child was first seen. A double inguinal truss had been worn since the wound had healed.

The radical cure obtained in this case may be cited as confirming the experience of Mr. M. Ball, of Dublin, of a method of procedure adopted and fully described by him in the *JOURNAL* of December 10th, 1887. He there advocates the use of torsion forceps as a means of twisting the sac; but the same result was easily attained in the present instance by the fingers alone. Whether or no the diminution in the size of the hernia of the left side can be ascribed to the "far-reaching effect of torsion of the sac," as Mr. Ball maintains may be the case, is, of course, an uncertainty.

VACCINATION GRANT.—Mr. W. F. Sheard, L.R.C.P.Ed., public vaccinator, Putney district, has received an award of £14 6s. for efficiency in vaccination, this being his fourth award.

A NEW medical ward has been opened at the Rotherham Public Hospital and Dispensary, affording increased accommodation to the extent of twenty beds.

"A LADY" has given one hundred guineas to the British Home for Incurables.—Mr. E. Armitage and the Rev. F. Jacox have each given £50 to St. Mary's Hospital.

OBSTETRIC MEMORANDA.

ERGOT AND ACETIC ACID IN POST-PARTUM HÆMORRHAGE.

It must have occurred to everyone with a few years' experience in practical midwifery to have encountered cases of *inertia uteri* after delivery. The labour may have been normally rapid and strong, and the placenta and membranes discharged entire after the usual interval, leaving a firmly contracted uterus; but presently, notwithstanding the continued pressure of the hand, the uterus elongates and acquires a feather-bed feel, and, refusing again to contract, hæmorrhage results; or the uterus may have been inert from the first, barely effecting delivery, or requiring instrumental interference; and all this notwithstanding the previous administration of large doses of ergot. In cases where the uterus does contract firmly at first, I take it to be but a continuation of the routine of labour, and the uterus, finding no opposition and nothing to expel, relaxes instead of passing into a state of tonic contraction. I should like to insist on the value of a pasty or of a hectic complexion as a warning, and that an accelerated pulse, be it strong or weak, is an almost certain forerunner of hæmorrhage.

The liquid extract of ergot is very unreliable in these cases, and I have been grievously disappointed with preparations of ergot and ammonia in several instances. I have been equally pleased at the quick action of vinegar, given after ergot has failed, especially when followed by brandy or ether. Having experimentally given a wineglassful of vinegar several times, without ergot, I have found little benefit result. Arguing by analogy, I made the following mixture: R Liq. ergotæ, acid. acetic. concentr. aa ℥j; æther. sulph. (s. g. .735) ℥iv. This should be put into a three-ounce bottle, well corked, and shaken thoroughly. I administer of this mixture three teaspoonfuls in a wineglassful of water, and having used it now for a considerable time I am delighted with its efficacy in causing contraction and giving a refreshing sleep after a short interval, with little or no complaint of after-pains. I combine this with the good old-fashioned pincushion pad wrapped round with a napkin. I look upon the ordinary binder, with or without the two or three napkins usually offered by the nurse when a pad is asked for, as a delusion and a snare. With the lower edge well below the hips (where it ought to be to prevent slipping up), the direct pressure on the uterus is almost *nil*, and it serves merely to hinder the pressure of the hand in manipulating the uterus.

Ladbroke Grove Road, W.

JOHN A. FRANCIS.

THE USE OF ACIDIFIED CORROSIVE SUBLIMATE AS AN ANTISEPTIC.

The annotation under the above heading in the JOURNAL of January 21st opens up several important questions. The first is this. In what chemical form does corrosive sublimate enter the system? The primary effect of bringing bichloride of mercury into contact with albuminous substances is doubtless the formation of an insoluble albuminate. Thus, to borrow the words of the annotation, "the mercury becomes mordanted, as it were, on the surfaces with which it first comes in contact." The matter, however, does not rest here. This solid albuminate is soluble in excess of albumen. Now, as in every part, the albumen must sooner or later gain the ascendancy, the mordanted mercury is gradually redissolved and carried away by the circulation. Thus, the mere fact of fixing the mercury for the time being ultimately results in a large influx into the system.

Does, then, the sphere of its activity become greatly diminished? Before a definite answer can be given to this important question, it is necessary to determine whether albuminate of mercury in excess of albumen is itself an antiseptic, and also whether the antiseptic action of corrosive sublimate is exerted directly and solely by its coagulating action on albuminous matters with which it comes into contact. In the latter case its sphere of action would necessarily be limited to the part to which it is directly applied. Until these points are settled no definite conclusion seems possible. Therefore, if to the sublimate solution sufficient acid be added to prevent precipitation of the mercury, I am still in doubt whether its antiseptic power is thereby increased. It may be that under these conditions the mercury would be readily taken up into the system in a large dose at the time of application (possibly giving rise to sudden mercurialism), but its action would not be con-

tinuous. On the other hand, the coagulating effect of the non-acidulated solution may exert a beneficial influence by sealing the surface against the incursion of noxious matters, and in the meantime mercury is gradually absorbed into the system in the form of soluble albuminate.

Corrosive sublimate, in common with many other antiseptic agents, has been hitherto employed to a great extent empirically. It is most desirable that such potent agents should be applied on scientific principles, which alone will serve as finger-posts to warn against the many pitfalls which lie in the way of their employment. An era is now dawning when a rational understanding of their mode of action will prevail. The experiments of Laplace may be hailed as a step in the right direction, but much still remains to be accomplished.

In the discussion which took place at the Obstetrical Society of London in December, 1886, following Dr. Dakin's paper on Mercurialism in Lying-in Women Undergoing Sublimate Irrigation, I advocated acidulation of the solution on totally different grounds. It is well known that when London water (which is slightly alkaline) is employed to dilute a concentrated sublimate solution (even when chloride of ammonium has been previously added), a precipitate sooner or later appears. This precipitation, which must necessarily deteriorate the solution, may be entirely prevented by the addition of a small quantity of acid, sufficient to neutralise the alkalinity of the water. Dilute hydrochloric acid (*B.P.*) in the proportion of ℥iv to ℥j of solid sublimate (which would give no more than ℥ij in ℥iv of 1 in 1,000 solution) is quite sufficient to effect this purpose, and to maintain the strength of the standard solution. In this form it has been employed at the General Lying-in Hospital for the last two years, the acid being added by the chemist to the concentrated glycerine solution. The amount of acid added is but one-tenth of that recommended by Laplace, and is insufficient to prevent the primary precipitation of albuminate of mercury.

ROBERT BOXALL, M.D.

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SURGICAL MEMORANDA.

CASE OF DISLOCATION OF THE THUMB FORWARDS.

H. P., aged 9 years, was brought to me on January 27th last. He stated that he had been thrown down by a boy in the school playground, falling on his right hand. On examination, I found a deep depression on the dorsal aspect of the thumb, at the metacarpophalangeal joint, the first phalanx of the thumb being dislocated and displaced, so that the base of that bone reached nearly to the centre of the palm. Failing to reduce it without, I put him fully under chloroform, and then found the base of the first phalanx apparently held tightly by the two heads of the flexor brevis pollicis, exactly as the head of the metacarpal bone is held in the common backward dislocation. I pressed the phalanx still further into the palm of the hand, and tried extension; but the most powerful effort I was capable of failed to produce any result. I then placed the fingers of both my hands on the dorsal aspect of the joint, and held the muscles firmly forwards and towards the centre of the palm; then, applying both my thumbs to the base of the phalanx, I pressed it upwards and towards the radial side, when I was pleasantly surprised to find the bone slide easily into its place. The thumb was then flexed a few times to disengage any tissues that might have been in the way, and the hand put up in a stiff case for a few days.

The case may be of interest from its rare occurrence. Mr. Holmes, in his *Treatise on Surgery*, dispatches it in three lines, merely saying that four examples are related by Nélaton, one of which remained permanently irreducible.

FRANCIS TAYLOR SIMSON, L.R.C.P., etc.

110, Lavender Hill, S.W.

INFLATION OF THE EUSTACHIAN TUBES.

SOME time ago, a medical man consulted me on account of deafness, with distressing vertigo and tinnitus. I found it quite impossible to pass the catheter through his right nostril, on account of malformation of that side; it was, therefore, necessary to catheterise the right tube from the left nostril. I found it so easy to do this that, ever since, when it has been necessary to inflate both tubes—and cases have been abundant—I have adopted this measure.

Having inflated the one tube, the catheter is withdrawn about half-an-inch, so as to disengage its point, a half turn is made with the point downwards, and the orifice of the other tube is found at once. It is advisable to use two otoscopes, as it is difficult to change its position when only one is used during the process.

I claim for this method these advantages: 1. The pain and annoyance to the patient of passing the catheter twice is avoided. 2. Having observed the direction of the catheter in the one tubal orifice, the exact position of the other is much more quickly found than when the instrument is withdrawn and passed again through the other nostril. 3. The free movement or otherwise of the point of the catheter, behind the posterior nares, is helpful in the diagnosis of the presence or absence of post-nasal growths or abnormalities. I have no doubt that this method is practised by many aurists, but to some I hope it may be a useful hint.

Plymouth.

J. ELLIOT SQUARE, F.R.C.S.

THERAPEUTIC MEMORANDA.

ANTIPYRIN AND IDIOSYNCRASY.

On February 2nd I saw a girl who for twelve days had taken three doses of antipyrin daily to reduce high temperature in a typical case of typhoid fever. The antipyrin invariably reduced the temperature, and showed no bad effects until the twelfth day of its use, when a rash appeared on the thighs and abdomen, and on the following day every part of her body (arms, hands, legs, and feet) was covered with a most copious rash of characteristic urticaria, except the face, which remained quite clear of the rash. There were no symptoms referable to the air passages in my case. In the cases of Dr. Sturge of Nice, Dr. Barber of Brooklyn, and Dr. Whitehouse of Santiago, the urticaria seems to have come on after the first dose of antipyrin, whereas in my case the patient had taken it with impunity for twelve days. I discontinued the antipyrin, and the rash rapidly faded away. I was extremely puzzled to account for the rash until I read the paragraph in the JOURNAL.

Kirkoswald, R.S.O., Cumberland.

ALEX. MACDONALD.

AN OBJECTION TO THE USE OF SACCHARIN.

I SHOULD like to call the attention of the profession to the singular effect which saccharin has had on a patient of mine.

In a case of glycosuria I had prohibited the use of sugar, and substituted saccharin, with apparently excellent results; but after about twelve or fifteen doses had been used, my patient began to feel so much nausea that he was obliged to leave off taking it. His mouth got to have an "abominably sweet taste always in it," and, without the addition of any sweetening material, everything he touched tasted of saccharin; indeed, so pronounced was this that his pipe, usually such a solace, had to be given up in disgust, on account of the smoke having such a sweet flavour.

This intensity of sweetness occurred on the fifth day after beginning the saccharin; and probably an explanation will be found in the fact that it passes unchanged through the system, and will, I am afraid, produce a sweet saliva, unless it is used with occasional intermissions.

JOHN HEDLEY, M.D. Durh.

Yoster House, Middlesbrough,

CLINICAL MEMORANDA.

CASE OF ALCOHOLIC PARALYSIS, WITH PHTHISIS, TERMINATING IN FATAL LEFT HEMIPLEGIA.

Mrs. W., a widow, aged 44, complained first, in March, of shortness of breath, mentioning incidentally she was unable to move much in bed, owing to loss of power in her legs. There was a cavity in the left apex and moist râles at both bases. The heart was weak, but free from valvular disease. The temperature was slightly raised, the pulse rapid, the breathing shallow. She had been in bed some weeks, having first been laid up with "rheumatic" pains about the legs, and with cough. The urine was loaded with lithates, though otherwise healthy.

The lower extremities were paralysed, and there was considerable difficulty in raising one foot over the other; there was tenderness over the whole body on deep pressure, and sharp pains occurred frequently about the legs, lasting but a short time, but bad enough to make her call out and to keep her awake.

No patellar, plantar, or other usual reflexes could be obtained, and there was no ankle clonus, but acute pain was caused by slight attempts to get this phenomenon. The toes were reflexed and the feet hung helplessly. She could distinguish heat and cold fairly well, but the prick of a pin gave an indistinct impression. The palmar grasp was feeble; the co-ordination of muscles of the upper extremity was fairly good. The sphincters acted satisfactorily. The muscles were greatly atrophied.

On April 28th she was attacked with left hemiplegia, which left her speechless, and with only the right upper limb unparalysed. The left pupil was dilated to twice the diameter of the right. There was no recovery from this attack, and the patient died about twenty-four hours from the onset; no necropsy was permitted. In all, the paralysis ran a course of six or seven weeks. When I was first called in it was so slight as hardly to attract the patient's attention, but rapidly became worse, so that in about a month from the first symptoms the patient was practically helpless. S. H. APPLEFORD, L.R.C.P. Lond., M.R.C.S. Finsbury Circus.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

SAMARITAN FREE HOSPITAL.

OVARIOTOMY AT THE END OF THE SEVENTH MONTH OF PREGNANCY.

(By GEORGE GRANVILLE BANTOCK, M.D., F.R.C.S. Ed., Surgeon to the Samaritan Free Hospital.)

MRS. C., aged 28, was admitted on December 11th, 1886, under my care, and gave the following history. She was married on December 26th, 1885, and was then apparently in perfect health. Soon afterwards she began to feel some fulness in the lower abdomen, and became sensible of some decided enlargement. She continued to increase very gradually, but at the end of summer the enlargement became more rapid. About the third week in October the distension of the abdomen was so great that she could scarcely lie down, and immediate relief became necessary. Accordingly, Mr. Reynolds, of High Wycombe, tapped her of twenty pints of ovarian fluid, and in the course of two or three weeks sent her to me. I was unable to admit her before the above mentioned date. She had in the meantime increased considerably, and on admission measured 40½ inches at the umbilicus, and 12½ inches from the ensiform cartilage to the pubes. Her last menstruation occurred at the end of May, and up to that time she had been quite regular. The evidence of pregnancy was complete and need not be detailed, while the size of the uterus, which occupied the left side of the abdomen, corresponded with the above date.

The question now lay between tapping again and ovariectomy, and the following arguments presented themselves to my mind. If tapped again there was no guarantee that she would escape some degeneration or inflammatory process in the cyst. But, provided no inflammatory or other mischief ensued, or premature labour did not supervene, the history of the case made it probable that before the natural term was reached, this proceeding would have to be repeated, and probably more than once. Assuming that she escaped these dangers—an assumption scarcely warranted—and labour came on at full term, she was then liable to injury to the tumour in the throes of labour—how probable will be seen by the account of this process—which would prove to be a formidable complication, and if she even recovered from this accident and its consequences, it must be evident that her prospects under ovariectomy would not be improved.

On the other hand, it was probable that a cyst of this kind could be removed through a small incision, and it was certain that if she recovered from the operation—a not unwarrantable assumption—the abdomen had been already distended beyond what would be reached by the enlargement of the uterus at full term, so that the cicatrix would not be subjected to any great strain, but would have time to get quite solid before labour supervened. But premature labour might be induced by the

operation, as had already happened more than once in the Samaritan Free Hospital. Yet this was less likely to happen when the peritonæum was not irritated by the carbolic acid, and especially by the spray, as under the Listerian method. Even in this event the stitches, being closely placed, would hold the wound together and it would suffer no harm, while the labour occurring within the eighth month, would probably be rapid and easy. For these reasons, then, I had no hesitation in deciding upon the radical treatment, as presenting the fewer dangers and the greater probability of success. Accordingly I operated on December 20th.

An incision under three inches in length exposed the cyst. From its not having been distended to its capacity of six weeks ago the cyst was flaccid, and the wall yielded to the thrust of the trocar, so that I was obliged to seize it with a volsella, and, drawing it to the surface, open it with a knife. After the evacuation of the thick mucine colloid contents of the large cyst, there remained a multilocular mass too large to pass through the incision. Accordingly, I broke up several minor loculi, one of the largest and most deep-seated of which contained a thick, dark fluid, showing that degeneration had already commenced. As the now collapsed cyst was being drawn out, a large patch of parietal adhesion on the right side, several square inches in extent, was separated, and then two tags of omentum came into view. These were ligatured and divided.

The uterus at once assumed a central position. The pedicle, from the right side—about the thickness of two fingers, and about an inch and a half long—was first compressed by large pressure forceps, then transfixed with a double thread, which was arranged and tied with my usual figure-of-8 knot, and finally secured by encircling it with the same thread, and divided. The peritonæum was now carefully sponged clean, and a large flat sponge was placed between the uterus and the torn surface in the abdominal wall while the stitches were being put in, to the number of eight, placed close together, about a quarter of an inch apart. This done, the sponge was removed, and, as the oozing had apparently ceased, the wound was closed, and three superficial sutures were added to ensure perfect coaptation of the edges of the skin. Two large cotton-wool pads were placed over the simple gauze with which the wound was covered; a many-tailed bandage was applied, and the patient was placed in bed at the end of about twenty-five minutes.

Little remains to be said of the period of convalescence, which was without any special incident. No opium was administered, as has been my habit for several years; there was no sickness; the stomach was kept empty for about eighteen hours; the highest temperature observed (taken nearly every two hours for two days) was 100° F. on two occasions, and the highest pulse was 94 for about twelve hours. On Christmas day the three superficial and five of the deep sutures were removed, and the wound, which now measured barely two inches and a half, was quite dry and without the slightest bluish in the skin. A strip of plaster was put on to support the wound. The patient felt very well, enjoyed her Christmas dinner of turkey, etc., and only complained of the activity of the child, which kicked unmercifully. On the 27th the remaining three sutures were removed. On January 5th she was out of bed, and on the 10th returned home in excellent health.

Mr. Reynolds, under date March 13th, wrote as follows: "Mrs. C. . . . has safely got over her confinement, which took place on February 28th. She was several hours in labour, and was finally delivered by forceps of a large female child. The abdomen was well supported during labour, and not the slightest inconvenience or discomfort was experienced in consequence of the operation. Both mother and child are doing well, the former leaving her bed to-day for a short time, having previously had her abdominal belt altered to her present size."

For the benefit of those who are interested in the doctrine of chances, it may be worth mentioning that my patient was her husband's second wife, and that her predecessor died after ovariectomy performed in one of the London general hospitals.

REMARKS BY DR. GRANVILLE BANTOCK.—The record of cases of ovariectomy during pregnancy is now so long that little interest attaches to any single case, except there be peculiar circumstances connected with it. The foregoing case appears to me to possess features worthy of special notice. Adverting here to the period of pregnancy only, it may be remarked that the cases hitherto recorded were instances in which the operation was performed in the early months of pregnancy, while I am not aware that it has ever been done so late as in this case.

LEICESTER INFIRMARY.

SUPRAPUBIC LITHOTOMY: BLADDER WOUND SUTURED: PRIMARY UNION: NO CATHETER.

(Under the care of Mr. C. J. BOND, F.R.C.S., Honorary Surgeon.) R. M., a boy aged 10, was admitted, with a history of symptoms of stone in the bladder of three months' duration. The bladder was distended with 8 ounces of boracic fluid, and a small sponge introduced into the rectum. The bladder was then opened above the pubes in the usual way, and a uric acid stone weighing 5 drachms removed by forceps, after enlarging the wound in the bladder upwards on the stone to a sufficient extent. The bladder incision, measuring an inch and a quarter, was now held up by a blunt hook at its upper angle, and very carefully sutured with fine carbolised silk, the sutures being introduced by means of a long-handled needle, with the eye at the point, having a double curve, a horizontal lateral one in the extremity and a vertical one in the shaft, allowing the point to dip down through the wound in the abdominal wall. Ten sutures were used, especial care being taken that the incision was kept stretched to its full extent during their introduction. This is an important point, for, as the bladder soon contracts after the escape of the fluid, if the sutures are introduced in the contracted state, dangerous gaps are apt to be left on subsequent distension. The bladder was then again washed out and distended with boracic fluid and found to be water-tight; the wound in the abdominal wall was closed and dressed antiseptically, a drainage-tube having been inserted.

No catheter was left in the bladder, nor was one passed at any time after the operation. The patient passed the first urine (6 ounces) with but little pain five hours after the operation, and 2 ounces four hours later. On the day following, urine was passed at intervals of from two to three and four hours, in quantities of from 1½ to 3 ounces, and the security of the bladder wound was proved by the fact that in the following night a small scale of calculus was passed, with some straining. This had been detached from the stone by the forceps at the time of the operation, and was thought to have been removed with it.

The further recovery was uninterrupted, the wound healing by primary union, and the temperature remaining normal throughout. The boy was up and about in thirteen days.

REMARKS.—The points of interest to which I would draw attention in this case are: First, that the bladder was allowed to empty itself from the first without the aid of any catheter; and this, I fancy, will be found to be the best way of dealing with these cases, provided that the bladder wound has been accurately and closely sutured while in the distended or stretched state, with frequent sutures of very fine material. For we had previously noticed that it is at the time of passing the catheter on the first or generally second occasions after the operation that the greatest risk occurs, the straining produced forcing the urine between the sutures; this accident, though very undesirable, does not necessarily do away with primary union, as will be seen on referring to a case of primary union in the adult, reported by me elsewhere in February, 1887. Secondly, the sutures, especially the lowest ones, are difficult to introduce, especially in the stout adult, unless one uses some such curved needle as the one here described.

In conclusion, it appears to me that we are justified in trying to get primary closure of the bladder wound in most of these cases of suprapubic lithotomy, as the superiority of the operation when so conducted comes out very strongly in the after-recovery of the patient; and if we fail—which, after careful suturing, in an unbruised, healthy bladder, should be a rare occurrence—no great additional risk is run, provided that a good-sized drainage-tube has been inserted down to the bladder through the abdominal incision.

ENTERIC FEVER AT BORDEAUX.—Bordeaux has for some months past suffered rather exceptionally from enteric fever, especially during December, when as many as 750 patients are said to have been under treatment at one time. The epidemic appears to have greatly abated during the last few weeks, but there is still a large number of cases in the town. Bordeaux is in some respects in a better sanitary condition than many other of the large French towns, but the persistent prevalence of enteric fever shows that it is far from perfect. The local authorities will do well to ascertain where the defect lies, and apply the needful remedy; even if the expenditure involved be heavy.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 7TH, 1888.

W. MORRANT BAKER, F.R.C.S., Vice-President, in the Chair.

Etiology of Vesical Growths.—A series of specimens intended to show that irritation of various kinds played a most important part in the production of vesical growths were demonstrated by Mr. HURRY FENWICK. He pointed out that the very earliest form of villous papilloma was to be found in a small patch of stunted papilloma known as subvilloid or cropped villi, and in most of these specimens there existed definite evidence of irritation. Thus, in a case of Dr. Beaven Rake's the patch was found at that part of the bladder which impinged against a straw coated with phosphates four inches and a half long. In Dr. Newman's case the tumour was at the apex of the bladder, and seemed due to the irritation of a large oval stone. Mr. Fenwick then alluded to age and to the position of villous papillomata as corroborative evidence. In carcinoma he believed that the irritation of residual urine was a most important causative factor, and quoted cases in the museums of Stockholm, Glasgow, and London.—Mr. MARMADUKE SHEILD referred to a case of carcinoma of the bladder which had followed at a considerable interval on epithelioma of the penis; amputation of the penis was followed by stricture; the new growth was attributed to the prolonged irritation of instrumentation and of putrid urine. The specimen had been shown to the Society two years ago.—Mr. EVE said that in the specimen he showed of a urinary bladder from a case of bilharzia the thickening of the organ was purely inflammatory.

Osteitis and Periosteitis.—Mr. R. W. PARKER showed specimens of bone disease in children which he described as chronic osteitis and chronic osteo-periosteitis. Case I was a child, aged about 9 years. After a very slight injury severe symptoms set in, and a large extra-periosteal abscess, involving the whole thigh, supervened. After many months' treatment amputation at the hip-joint had to be resorted to. The femur, on examination, was found greatly thickened, and in its interior a small central necrosis was detected. The abscess cavity was situated between the muscles and the periosteum; the latter was firmly adherent to the bone, which was greatly thickened and altered in character. Case II, a boy, about the same age. Following a fall, a chronic thickening of the femur took place; no definite cause for this could be discovered until after removal of the limb, when a small central necrosis was discovered. In this case, also, the bone was greatly altered in character; it appeared to consist entirely of cancellous bone; the periosteum appeared unaltered, and easily separated from the shaft of the femur. Case III, an example of acute necrosis of the shaft of the femur. The periosteum was widely separated from the bone, which appeared dead; there were no signs of repair either in the periosteum or in the bone itself. Mr. Parker contended that the specimens showed that repair in such cases depends very largely on vitality in the bone itself, and that such part as the periosteum played in the repair depended on its being in contact with living bone. The third case, he thought, seemed to indicate that in cases of acute necrosis the periosteum often perished with the bone, and that then repair was impossible. Text-books, he thought, attributed too much function to the periosteum and too little to the bone itself, a circumstance all the more curious considering that bone was the foundation on which the body was built up, and that the periosteum was only an accessory structure.—Mr. MORRANT BAKER coincided with Mr. Parker's view of the first two cases, that the disease was primarily an osteitis.

Dry Caries.—Four specimens of dry caries were shown by Mr. EVE, who referred to the occurrence of this condition in syphilis and tuberculosis. One specimen, from the museum of the London Hospital, was an example of angular curvature taken from a man, aged 39, in which no abscess ever formed, and no pus was found after death. A second specimen, from the Museum of the Royal College of Surgeons, was also an example of angular curvature from the dorso-lumbar region. There was caseous material and necrosis, but no evidence of suppuration. Two other specimens showed extensive destruction of bone without suppuration. In one (presented to the Museum of the Royal College of Surgeons by Mr. Jonathan Hutchinson) there was complete destruction of the cancellous tissue of the os calcis, which was replaced by fibrous

tissue; there was no evidence of tubercle. The casts ought not to be confounded with rarifying osteitis occurring in connection with simple inflammatory action, or with tuberculosis.—Mr. MARMADUKE SHEILD said that many of the cases of dry caries of the spine were associated with caseation, as in one of the specimens shown. In such a case, where the caseous matter was enclosed in a distinct sac, he thought it most probable that there had been suppuration, and that the fluid part had been absorbed, leaving a caseous mass. Paraplegia was not infrequent where abscess was not present, or at least apparent, while where suppuration was present paraplegia seldom occurred.—Mr. MORRANT BAKER thought this was an interesting clinical observation which his experience confirmed.—Mr. R. W. PARKER had found from the examination of a large number of reported cases that abscess occurred less frequently the higher up the vertebral column was diseased, which might account for it.—Dr. ANGEL MONEY agreed with Mr. Marmaduke Sheild's statement.—Mr. WALSHAM thought there was no doubt about its being correct.—Mr. EVE briefly replied.

Ricketty Deformity of Sterno-Clavicular Joint.—A ricketty child, presenting a deformity at the sternal ends of the clavicles, was shown by Mr. W. G. SPENCER. The ends appeared to be displaced forwards at the sterno-clavicular joint; the sternal end was bent forward and thickened. The deformity first began to develop at about six months of age. He attributed it to rickets.—Dr. PENROSE suggested that in these cases there was a green-stick fracture; in one such bone which he had examined there had been a green-stick fracture, and callus had been thrown out. He also mentioned a green-stick fracture of the humerus in a ricketty child with very soft bones.—Dr. ANGEL MONEY had examined one similar case where the deformity was produced about one inch from the sternal end. He believed that the mechanism of the deformity was a green-stick fracture in the first place, followed by the outgrowth of callus.—Mr. BRODIE asked whether the action of the sterno-mastoid muscles had anything to do with producing the deformity.—Mr. J. B. SUTTON thought that the deformity was thus produced during whooping-cough, from which the patient had recently suffered.—Mr. SPENCER said that the deformity was noticed before the whooping-cough. As to the theory of fracture, he pointed out that the deformity was symmetrical.

Case of Anomalous Sacral Appendage.—An infant under the care of Mr. EDMUND OWEN was shown to the Society. On the lower part of the back was a rounded swelling measuring $3\frac{1}{2}$ by $3\frac{1}{2}$ inches, and projecting about seven-eighths of an inch. The lower limit was just above the fold of the nates; the tumour, which was situated a little to the left of the middle line, presented in the exact centre an umbilication. Half way between the dimple and the lower border, and slightly to the left of the middle line was a soft appendage about 2 inches long, and having somewhat the appearance of a fat "little finger"; the base of the appendage was constricted. On the left side of the base of the appendage was a second small excrescence a quarter of an inch long. Both hands were badly developed, being smaller than natural, all other parts of the body appeared to be normal. The child was born at full term, and there was no history of deformity in the family. Mr. Owen suggested that the rounded swelling was the result of spina bifida, while the appendage, and perhaps the tumour also, was the result of an imperfect attempt to produce a double monster; the sacral region was by no means an infrequent site for the attachment of a fairly developed or rudimentary foetus.—Mr. MORRANT BAKER and Mr. J. B. SUTTON both agreed that the case was an example of parasitic foetus. Mr. Sutton observed that if during development the medullary fold remained cleft, two complete foetuses were formed from a single ovum; this was probably the explanation of twins of the same sex in one amniotic sac. From this there was every degree of combination, from Siamese twins to such a case of very rudimentary foetus as that shown by Mr. Owen.

Imperforate Urethra.—Mr. SHATTOCK showed a foetus of about 4 months; the abdomen was greatly distended, and when opened was found to contain a relatively immense cavity which almost filled it; opening into this large cavity the two ureters could be seen. The kidneys were in a condition of cystic disease. The intestine terminated in a well-formed rectum. The urethra was closed. Mr. Shattock discussed the mode of production of this and other similar deformities in a paper of some length, and great ability, but involving very technical embryological matters.

Card Specimens.—Mr. WALTER K. SIBLEY: Double Intussusception in a Baboon.—Mr. C. MANSELL MOULIN: Transverse Fracture of Patella with Bony Union.—Mr. F. S. EVE: Urinary

Bladder and Kidney, from a case of Bilharzia Hæmatobia.—Mr. D'ARCY POWER: Angioma of the Cerebral Membrane.—Mr. JOHN H. MORGAN: Femur with Newly Formed Bone, from a case of Pyæmia in an Infant.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 1ST, 1888.

JOHN WILLIAMS, M.D., President, in the Chair.

Specimens.—Mr. MEREDITH showed two large Pedunculated Fibroid Tumours, in both of which axial rotation had occurred, and in one to an extent involving occlusion of the cervical canal and retention of menses.—Dr. LEWERS exhibited the Cervix Uteri removed by Supra-vaginal Amputation on account of Carcinoma, from a patient in whom abortion had been induced at the fourth month a fortnight previously.—Dr. CARTER showed an Epitheliomatous Growth removed from the Cervix by Galvano-cautery.—Dr. W. DUNCAN exhibited Ovaries and a Piece of Jejunum, the latter showing perforation after ovariectomy.—Dr. W. S. GRIFFITH showed a specimen of Myxoma Fibrosus of the Chorion.

On the Effect of Ergot on the Involution of the Uterus.—A paper on this subject was read by Drs. G. E. HERMAN and C. O. FOWLER. They pointed out that the recommendation of a mixture containing ergot during the lying-in period was based upon a general knowledge of the action of such drugs and of the process of involution. No observations had been made, so far as they were aware, as to the actual effect of this treatment upon the process of involution. They had sought to ascertain its effect by measuring the height of the uterus above the pubes on successive days of the lying-in, in two sets of patients—one set (fifty-eight in number) treated with an ergot mixture for a fortnight after labour, the other set (sixty-eight in number) given a single dose of ergot after labour and no more. They found that in the cases treated by the continuous administration of ergot, the uterus diminished more rapidly in size than in those in which one dose only was given. They compared the two sets of cases as to the duration of the lochial discharge, but on this they did not find that the ergot treatment produced any appreciable effect.—Dr. BOXALL contrasted two series of cases, each referring to 100 patients. Every alternate patient admitted to hospital was given a mixture three times a day, containing ext. ergotæ amm. ℞xv for a dose, during the first three days of lying-in. To avoid fallacy in the comparisons, the two series of observations were carried on simultaneously. The ergot mixture was given in the first series. In the second its routine administration was omitted, but in the series were included thirty-one patients, for whom, on account of hæmorrhage, severe after-pains, etc., ergot was subsequently prescribed. The results were presented in a tabular form. By contrasting the two series of cases Dr. Boxall concluded: (1) That though the routine administration of ergot during the first three days of the puerperium exercised no appreciable effect on the date at which the lochia ceased (in this respect confirming the observations of the authors of the paper), the practice of giving ergot mixture during the three days following delivery tended to prevent the formation of clots, and to hasten their expulsion and to diminish the frequency, intensity, and duration of after-pains. (2) That if omitted at first, but given after, the ergot mixture tended to promote the expulsion of clots and to relieve after-pains. Dr. Boxall considered that (a) the routine practice, which he had followed, of administering a douche at 110°–115° F. not only immediately after labour, but also twice a day during the puerperium until the lochia ceased (a powerful stimulant to the uterus); (b) the ergot which was given in every case immediately after labour, and (c) the ergot mixture which was prescribed subsequently in thirty-one of the cases included under the second series, all tended to lessen the difference which he had shown to exist between the two, and that in consequence the beneficial effect of the ergot mixture was even greater than that shown by the figures given in the tables.—Dr. DAKIN had made observations as to the effect of systematic administration of ergot for some days during the puerperium on cases in the General Lying-in Hospital while he was house-physician. They did not support the view which the authors took, but showed that the average day when the fundus had sunk to the brim was 9.12 when ergot was given once only, and 10.3 when ergot was given daily for three days. There were, however, other fallacies than those named by the authors, for, in addition to the condition of bladder, rectum, thickness of abdominal wall, and weight of the uterus in the pelvis, there was the condition of the uterine axis, whether flexed or inclined

antero-posteriorly or laterally. He had found in a number of consecutive cases taken at random that one-sixth of the uteri were in the axis of the body. These ought not to be compared with cases of anteversion and version usual to the uterus during the puerperium, as there might be a difference of three inches or more on this account alone. In one of Dr. Dakin's cases the fundus was found one day in the left hypochondriac region nine inches from the pubes, whereas in the next it was to the right of the middle line, and only measured five inches and a half. He agreed with Dr. Boxall that the lochia were a better criterion of the rate of involution, and in this his own figures did not agree with the authors, for with one dose of ergot the average was 9.8, with three days of ergot 11.6. With reference to the retention of clots and the occurrence of after-pains, he found that, out of 92 cases where ergot was given for three days, 51 (55.4 per cent.) had after-pains and 22 (23.9 per cent.) passed clots. Out of 103 cases where only one dose of ergot was given, 64 (62.136 per cent.) had after-pains and 141 (3.592 per cent.) passed clots, so that the ergot cases had fewer after-pains but passed more clots. The unergotised cases, like Dr. Boxall's, passed clots up to the tenth day, whereas the ergotised ones passed no clots after the sixth day. It seemed that the continuous use of ergot, by keeping up a tonic state of contraction, instead of allowing normal alternate contraction and relaxation, would tend to favour retention of clots, and to prevent the normal process of involution. This was, to a great extent, borne out by his figures.—Dr. SWAYNE wished to know if chloroform was used during delivery, and in how many of the cases? In order to ascertain accurately the effect of ergot given after delivery, in his opinion it was necessary to remove all disturbing influences, such as the administration of anæsthetics during labour.—Dr. HERMAN, in reply, said that the cases observed by Dr. Dakin (which seemed to support an opposite conclusion to that arrived at by Dr. Fowler and himself) were only given ergot for three days, while their cases took it for a fortnight, and he did not therefore regard the two sets of cases as strictly comparable. The sources of error from the mode of measurement pointed out by Dr. Dakin had been present to the minds of Dr. Fowler and himself, but there was no other mode which was not attended with sources of fallacy. Such errors as arose from anteversion and anteversion of the uterus were equally distributed among the two sets of cases, and so did not vitiate the comparison. Dr. Fowler and himself had paid particular attention to the occurrence of lateral displacement, and had found that it depended, in the majority of cases, on the position in which the patient had been lying. They had not referred to it in this paper, as it did not seem to have any important bearing on the subject of the paper. In reply to the question of Dr. Swayne, chloroform had been given in six of the cases, namely, three of each series.

The business of the annual meeting then commenced.

Financial Report.—The report of the auditors of the accounts of the Treasurer for the year ending December 31st, 1887, was read, and showed a considerable increase of invested funds and balance at the bank.—It was proposed by Dr. C. H. RORTH, seconded by Dr. ROGERS, and carried, that the report be received, adopted, and published in the *Transactions*.

Election of Officers.—The list of officers for 1888 nominated by the Council were declared to have been elected by ballot.

The Library.—A satisfactory report was read regarding the Society's library, together with a list of donations of volumes and specimens received during the year.—Dr. HERMAN proposed, Dr. GIBBONS seconded, and it was carried, that it be adopted.

Examinations for Midwives.—The report of the examinations in midwifery for the diploma of the Society showed that 96 candidates had satisfied the examiners during the year, and that in this department valuable work was being done.—Dr. GALABIN proposed, and Mr. MEREDITH seconded, the resolution adopting this report.

President's Address.—The PRESIDENT then delivered the annual address, at the conclusion of which a vote of thanks was passed on the motion of Dr. BRAXTON HICKS, seconded by Dr. SWAYNE.

Votes of Thanks.—Dr. POTTER proposed a warm vote of thanks to the retiring officers, which was seconded by Dr. BOXALL, and responded to by Dr. CHAMPNEYS and Mr. ALBAN DORAN.

The *Medical News* (Philadelphia) states that the first recorded case in America of fatal œdema of the larynx was that of General Washington. He was treated in accordance with the antiphlogistic methods of his time. No local treatment, beyond the inhalation of the vapour of vinegar and water, was employed.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 6TH, 1888.

J. HUGHLINGS JACKSON, M.D., F.R.S., President, in the Chair.

On Empyema. Dr. CURTON divided empyema for practical purposes into three categories, according to their position on the outer, the basal, and the inner aspects of the lung. He said varieties were caused by adhesions and by differences in the pus, by differences in the size and shape of the chest wall. Disease of other organs might also exist either as causing or complicating its treatment. The first kind gave rise, as a rule, to little trouble, but the second and third were different. He alluded to two cases of basal empyema, where the abscess cavities were with difficulty got at. He dwelt upon the necessity for any methodical exploration in such cases. In three cases out of eighty under his care the pus-like fluid was in two cases found to contain no pus-cells but cholesterine, and in one case minute fat-globules. The latter case and one of the former were cured by aspiration alone. He mentioned five cases of fetid empyema, four of which readily recovered. The treatment of double empyema, and the dangers of aspiration and of too sudden removal of tension even by incision in cases associated with heart-disease or great debility, were dealt with and illustrated by cases.

Thoracoplasty.—Mr. PEARCE GOULD read a paper on thoracoplasty, or Estlander's operation, and related the histories of four cases under his care. CASE I.—A girl, aged 9, under the care of Dr. Gilbert Smith, at the Royal Hospital for Diseases of the Chest, had in May, 1886, suffered from left empyema for two years. The left chest was considerably retracted, and there was a profuse discharge of pus from a sinus in the eighth interspace in the anterior axillary line. Mr. Gould made a vertical incision up from the sinus, and removed about an inch and a half from each of the fourth, fifth, sixth, and seventh ribs. The girl left the hospital in August, much improved in her general health, and losing only a small quantity of sero-purulent fluid from the old sinus. She was readmitted in January, 1887, as the discharge had become purulent and more abundant, and the cavity had not shown any further tendency to close. Mr. Gould repeated the former operation, and removed parts of the second, third, fourth, fifth, and sixth ribs, dividing them at the anterior and posterior limits of the empyema cavity. The child recovered, and was recently shown at a meeting of the Society. The cavity in the chest is completely closed, and the girl's condition is very good. CASE II was a boy, aged 9, also under Dr. Gilbert Smith's care at the Royal Hospital for Diseases of the Chest. He was admitted in January, 1887, for fistulous empyema, from which he had suffered for two years. The left side was retracted; in it were two sinuses in the second and sixth spaces, which discharged pus freely. The boy was anemic, thin, and very delicate looking; his urine contained one-third its volume of albumen, and his liver was considerably enlarged. The sinuses were dilated, and the cavity was carefully drained and cleansed daily. Under this treatment he improved, but after two months matters came to a standstill, and on March 28th Mr. Gould explored the chest, found a considerable cavity, and through a vertical incision removed considerable lengths of the second, third, fourth, fifth, and sixth ribs. The ribs were severed in front at their junction with their cartilages, and behind at the limit of the cavity. The very thick pleura within the ribs was also freely excised. The boy recovered well, and was shown to the Society. The left side of the chest is greatly flattened on all sides, and there is still a sinus which discharges a few drops daily. His general condition is excellent. The urine is free from albumen, and the liver is not to be felt below the ribs. CASE III was a boy, aged 12, who had measles followed by pneumonia, and pleurisy six years before. Paracentesis was performed twice. Further surgical aid was refused, and a year after the empyema burst externally, and had continued to discharge freely ever since, a period of five years. On admission the left chest was quite fixed, and presented three sinuses. The heart-beat was displaced outwards and upwards. On July 14th the sinuses were connected by an incision, and led into a cavity through the second space, and the tissues were removed from the second to the seventh ribs, which were then removed *in toto*, together with much thickened pleura. Haemorrhage was considerable but was controlled by irrigation; a counter-opening was made, and the opening closed. The lad left the hospital on August 15th with the wound almost healed, and in very much improved health. CASE IV was an adult, aged 25, who had pleurisy in 1881, which was aspirated. After a varied hospital experience, she was admitted

with considerable flattening of the right chest, and with a fistulous opening at the angle of the scapula, and another in the seventh space below the nipple, which discharged abundance of fetid pus. By means of an incision ten inches long in the axillary line, the ribs from the second to the ninth were excised, fifty-four inches in all. The pleura, which was nearly an inch thick, was also freely excised. She died suddenly the next morning. The heart was adherent throughout, and much displaced and fatty. Mr. Gould explained the object of these operations and their indications, but he deprecated resort to them merely to save time. He insisted on the necessity for exploring the cavity before operating in order to adapt the operation to each case. The success of the operation varied, but he maintained that this would be increased as it was more extensively practised. —Dr. H. DE HAVILLAND HALL related the case of a man, aged 25, who was treated for empyema at the Westminster Hospital in 1884. He gave a history of fistulous empyema on the left side from November, 1882. He was a thin pale man, with a trace of albumen in his urine. A counter-opening was made by Mr. Boyce Barrow in the eleventh interspace behind, at the angle of the scapula, the tenth being gouged to allow the passage of the drainage-tube through the pleural cavity. The patient immediately improved, but it was found impossible to dispense with the tube, so he invited a more radical operation. Mr. Barrow consequently removed about an inch of the eighth and ninth ribs, after which the cavity filled up, and the patient made a perfect recovery. —Mr. J. ASTLEY BLOXAM showed a man, aged 27, who had coughed up 30 ozs. of pus on one occasion. The right side of the chest moved badly, and was dull on percussion. There was also bulging. He made an incision below the angle of the scapula, giving exit to a quantity of fetid pus, and inserted a drainage-tube. On June 20th it was found necessary to remove three inches of five ribs, after which the patient quickly recovered, though the operation was very severe. A piece of necrosed rib had subsequently to be removed, and recovery was then complete. —Dr. SYMES THOMPSON observed that it was often difficult to know how many ribs to remove. He agreed that it was best to remove a few ribs to begin with, and then remove more if necessary. —Dr. WHITE said it was as good to remove small portions. —Mr. R. W. PARKER suggested that a free incision should be made, and the cavity scraped. He quoted a case of sponge-grafting which had proved successful. In reply to Mr. Bloxam he explained that the sponge was introduced after the cavity had been scraped. —Mr. BLOXAM expressed some incredulity on this point, as he had never before heard of a successful attempt at sponge-grafting in such cases. —Dr. SYMES THOMPSON had seen several unsuccessful attempts when the cavity had not been scraped. —Dr. CURTON, in reply, said that he thought the eleventh space too low; it did not matter where the opening was so long as it was high enough. —Mr. GOULD, in reply, explained that he did not intend the operation to be considered as a routine operation, but only as applicable to particular cases. —Dr. HALL, in reply, said he preferred to open in a dependent part with through drainage. —Dr. CURTON added that the site he preferred was the ninth space in the posterior axillary line. —Mr. BLOXAM said that it had only been by cutting away a rib until enough had been removed that he had effected a cure.

HUNTERIAN SOCIETY.

WEDNESDAY, JANUARY 25TH, 1888.

HENRY GERVIS, M.D., President, in the Chair.

The Therapeutical Indications of Neurasthenia contrasted with those of Hysteria.—Mr. DE BRUET HOWELL said that as long as the pains and disabilities of the disorder termed hysteria were treated by coercive severity, by indifference and inattention, on the ground that they were due to wilfulness, obstinacy and fancifulness, so long must that condition not only remain unrelieved, but be aggravated and prolonged. On the other hand, if irresolution and incapacity, that is, loss of physical power and moral control represented the condition of the nervous system, whether it were termed "neurosis," "neurasthenia," "neurorhthlisis," or any other name be given that philologists might determine, the nature of the case undoubtedly demanded that means should be taken to improve the strength and raise the moral tone. Bearing in mind the division of this class of case into (1) simple, (2) irritative, and (3) depraved, it was obvious that, before this could be done, all sources of irritation, both physical and moral should be removed. The great susceptibility

of this condition to both pain and irritation made this imperative. Nothing could be more annoying, or was actually the cause of more mischievous irritation to the patient, than that her valid complaints should be received with incredulity, and treated with indifference. The cases of M. Charcot, alluded to by Dr. Graily Hewitt, in which pressure over the ovaries produced convulsions, might very properly be termed "hysterical." At the same time, it was clear that this effect would not be produced if the nervous system were not in a very excitable condition. They clearly pointed out that a broad distinction should be drawn between the state of the nervous system, and the source of "hysterical" irritation. It was much to be regretted that these two things, so perfectly distinct, should have been so frequently confounded. There was something very morbid about these cases, and he (the speaker) did not discover any therapeutic indications in the treatment adopted. It was also to be regretted that some practitioners still regarded the valid complaints of patients deemed to be hysterical, as fictitious, and that others avowed that they still treated them with severity, because, within the last six months he had seen patients so treated, who declared that their lives had been marred thereby; some were rendered indignant, and others were humiliated by the treatment they had undergone. The true therapeutic indications were to improve physical strength and raise moral tone. This was best done by restoring confidence and resolution, and promoting and cultivating self-reliance. Lady nurses might be trained to assist most carefully in this work, and it was especially desirable that the milky treatment so strongly advocated should partake of that of human kindness.—The PRESIDENT, in thanking Mr. Hovell for his very interesting and learned paper, said that he did not think that so great an authority as Dr. Playfair could have stated that patients cured of this affection never relapsed. In considering the etymology of the word "hysteria," he believed that its use was liable to lead to mistakes, but adopting the term "neurasthenia," it must be remembered that the change was a moral as well as a physical one, yet it was a real and not an imaginary disease. He thought that love of sympathy was certainly a motive in cases of malingering.—Mr. GILBERT, from his experience in general practice, did not believe that Mr. Hovell's treatment was of any effect in a large number of cases. There was no real disease or paralysis except that of the patient's will. They might suffer pain for years, yet did not get thin, but on the contrary fat. He asked what was the explanation of cases lasting for years, and then often suddenly getting well. There was the greatest difficulty in diagnosis when this condition was associated with or came on after organic disease or injury.—Dr. GRAILY HEWITT said the subject was an exceedingly complicated one, the meaning of the terms used being very indefinite. There were strong reasons for using the term "hysteria." His attention was directed to cases of hysteria associated with attacks of convulsions and due to conditions of the uterus; these patients he found were almost always cured. Hysteria comprehended cases in the male, such as Professor Charcot's cases of hystero-epilepsy, in which the character of the convulsions was the same in the male as the female. An hypothesis might be brought forward to cover both of these classes. Might there not be a central exciting cause indistinguishable from the reflex form. He then referred to cases under Professor Charcot. The condition of the central nervous system was the most important consideration; the nervous tissues were in a state of extreme malnutrition, and hence liable to disturbance, and irritable to reflex stimuli. The Weir-Mitchell mode of treatment by enforced food certainly rendered the disturbances less. On the other hand, the pains and disabilities of the patients were often very real, and due to conditions of the uterus. In this he agreed with Mr. Hovell.—Dr. HALE WHITE thought it difficult to separate hysteria from neurasthenia; differences however could be distinguished, for instance, hysteria was common amongst persons of an emotional type, so was to be met with mostly in females, and was more common in France; neurasthenia, on the other hand, was more common in persons who worked hard, as in New York. Therefore he would not put aside the term "hysteria." The disease was certainly not voluntary, hence punishment and coercion were wrong methods of treatment. He thought Mr. Hovell had overdrawn the picture. Coercion, properly so-called, was not adopted in homes; it was really an attempt to make the girls help themselves. The medical profession did not disbelieve in the reality of the disease. It was hypothetical to suppose that either of these was due to the sympathetic nervous system, as nothing was known of the working of this system.—Dr. R. J. RYLE discussed and contrasted the etymology

of the terms "neurasthenia," "neurophthisis," and "neurotabes."—Mr. DE BERDT HOVELL, in reply, said that his object was not to insist on the actual meaning of the terms, but to separate cases of hysterical origin from those of neurasthenia.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, FEBRUARY 2ND, 1888.

WILLIAM SEDGWICK, M.R.C.S., President, in the Chair.

Intestinal Obstruction.—Dr. DOWN read a case of fatal intestinal obstruction, due to a rare form of internal hernia. The patient was a woman, aged 56; no children. The symptoms of obstruction were fairly acute. Manual exploration of the rectum gave no result. Abdominal section was discussed, but not performed. After death the cæcum was found near the middle of the abdomen, and, together with the ilium, was obstructed by a band, which proved to be the right Fallopian tube, which was greatly elongated and adherent to the ilium and duodenum. Death was due to perforation of the cæcum, followed by fecal extravasation. Dr. Down thought the *post-mortem* appearances showed that abdominal section might have been successful, although the Fallopian tube would have required division.—Mr. LOCKWOOD remarked upon the position of the perforation, and said it was in the usual place. He thought an exploratory operation would have afforded a chance of relief.—Mr. D'ARCY POWER wished to know whether there was any history of previous attacks of peritonitis.—Dr. HANDFIELD-JONES spoke of the rarity of the condition, and wished to know whether the Fallopian tube was adherent to the cæcum.—Dr. DOWN, in reply, said there was no history of previous attacks of peritonitis, and that the Fallopian tube was adherent.

Treatment of Loose Cartilage in Knee-Joint.—Mr. HERBERT ALLINGHAM read a case of suture of the internal semilunar cartilage of the knee to the head of the tibia. The patient was a man, aged 35, who had been constantly laid up by slipping of the internal fibro-cartilage of the knee. An incision two inches long was made, with its centre over the cartilage. The knee-joint was opened, and a strong catgut passed through the fibro-cartilage and the periosteum of the upper end of the tibia. The joint was washed out with carbolic lotion, and the synovial membrane united with deep catgut sutures; the wound was then closed without drainage. The patient, who was shown to the Society, made a good recovery, and can now follow his employment.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SURGICAL SECTION.

FRIDAY, JANUARY 20TH, 1888.

A. H. CORLEY, M.D., President, in the Chair.

The Treatment of Advanced Conditions of Equino-Varus.—Mr. SWAN read a paper on the treatment of advanced conditions of equino-varus, which he maintained to be curable by proper treatment, carried out before the expiration of the first year of life, or before walking had commenced. After three or four years had elapsed a modified result might be obtained, but the treatment would be prolonged and difficult. When the patient had reached the age of 10 the tarsal bones were thickened; the large adventitious bursa was dense, and included in its base the cuboid and the tarsal end of the fifth metatarsal bones. In such a case ablation of a portion of the tarsal bones was indicated. The portion removed should consist of the anterior three-fourths of the cuboid bone, all the external cuneiform except its posterior part, the proximal extremities of the third, fourth, and fifth metatarsal bones; and the apex of the wedge would consist of a portion of the middle cuneiform. The mobility of the foot would remain almost unimpaired; and, as the metatarsal bones had their epiphyses at the distal end, it was probable the development of the foot would not be interfered with. He had performed this operation in thirty-four cases since 1876.—Mr. W. THORNLEY STOKER and Dr. GUNN took part in the discussion, and Mr. SWAN replied.

The Surgery of the Thyroid Gland.—Mr. FOX read a paper on the surgery of the thyroid gland. After tracing the history of operations for the ablation of the gland and extirpation of tumour, he compared the modern operation of Dr. P. H. Watson with that recommended and practised by Desault at the Hôtel Dieu in 1791. He condemned the many minor operations of setons, caustics, injections of irritants, and tapping, and gave the history of a suc-

successful removal of a cysto-adenoma from the right lobe of a young married woman's thyroid.—The PRESIDENT said that Dr. P. H. Watson had advocated the operation for the complete removal of the gland, while at the same time indicating that the surgeon must be prepared to see the patient die on the table—a fatality which occurred at least once in that distinguished surgeon's practice; and he dwelt strongly on the necessity of leaving the capsule uncut, especially the capsule surrounding the vessels.—Mr. STORY inquired what the indications were for operating on tumour on the thyroid gland.—Mr. KENDAL FRANKS did not think the size of a tumour in the neck a guide to operative procedure. Small tumours indicating a tendency to press backwards and sometimes down under the top of the sternum caused great dyspnoea and endangered life.—Mr. W. THORNLEY STOKER had operated in several cases of goitre, both by removal and by division of the isthmus, and in his experience the operator must be prepared for terrible hemorrhage. He condemned, with Mr. Franks, the practice of passing a seton through the gland. The rationale of the operation of the division of the isthmus was that it limited the blood-supply of the gland. He found it gave relief for the time and set the trachea free. As regarded the opening of the capsule he had no decided opinion, being unable in his operations to find out where or what it was; for, when he cut down on the diseased structure, he came on the gland covered by enormous veins, some as big as his thumb; and whether these were inside or outside the capsule he had not been able to determine.—The PRESIDENT said that thirteen years ago he had a case of acute goitre, and, at the suggestion of Dr. Purser, he had given five or ten grains of quinine three times a day, and in a week or ten days the growth stopped. Happening to be with Sir William Mac Cormac in St. Thomas's Hospital, he saw a patient with a tumour on the front of the neck that grew rapidly, and he mentioned the quinine cure. Sir William Mac Cormac tried it, and in fourteen days the growth ceased and the patient recovered.—Mr. FOX, in reply, considered that the operation was justified when the tumour was growing quickly, when dyspnoea or dysphagia was marked, or when any evidence of malignancy was present, and also when the most improved internal and external medication had not given good results. In the swampy districts of the Carolinas a malarial type of goitre was prevalent, which was amenable to treatment by quinine; but the occurrence of such cases in this country must be very rare. Setons, tapping, and caustics were not free from danger, and in many cases did not give favourable results. As for Sir Morell Mackenzie's method of injecting perchloride of iron, he mentioned it only as a treatment most unsuitable and to be avoided.

SECTION OF ANATOMY AND PHYSIOLOGY.

FRIDAY, JANUARY 6TH, 1888.

H. ST. JOHN BROOKS, M.B., President, in the Chair.

Notes of some Nervous and Arterial Anomalies.—Dr. AMBROSE BIRMINGHAM read a paper on this subject, which was discussed by the PRESIDENT and Professor CUNNINGHAM.

An Effect produced by Direct Stimulation of the Heart.—Dr. PURSER made a communication on the results which follow direct stimulation by single induction shocks of the different parts of the heart of the frog. Attention was particularly called to the pause which is sometimes observed without the occurrence of any extra contraction.

First Dorsal Interosseous Muscle supplied by the Median Nerve.—Dr. Brooks read a short paper on a remarkable case of variation in nerve-supply that he had recently observed. The branch of the median to the first lumbrical muscle was larger than usual, and, after supplying that muscle, pierced it, and united to form a nervous arch with a twig from that branch of the median which divides to supply the contiguous sides of the index and middle fingers. The latter twig had no connection with the nerve to the second lumbrical. The arch thus formed by twigs from the median nerve lay under cover of the long flexor tendon of the index finger, and gave off in this situation two twigs to the metacarpo-phalangeal articulation of the index finger, and a strong twig to the first dorsal interosseous muscle. The nerve was traced into the muscle, and was found to end chiefly in its distal part; the proximal part of the muscle was supplied by the normal branch from the deep palmar division of the ulnar. The ulnar twig communicated by two or three excessively fine filaments with the abnormal median twig in the substance of the muscle. A microscopic examination showed that there were not any

"nerves without ends" in the loop above described. The two factors of the loop entered about equally into the composition of the nerve to the interosseous muscle. He believed this variation to be unique. It appeared as if there were in the limb several main lines diverging from the brachial plexus, and meeting again at their terminations in the hand, and that at the points of divergence a shunt of fibres, as it were, might take place, and almost any nerve pass to its destination by an unusual route.

On the Distribution of the Cutaneous Nerves on the Dorsum of the Human Hand.—Dr. BROOKS also read a paper on this subject, in which he showed that the areas of distribution of the nerves often overlapped one another. In five cases, which he had dissected for the purpose, he had found the radial and dorsal branch of the ulnar nerves overlapping for a certain extent. In the case that he had examined with the greatest care, they overlapped in their distribution for the extent of three fingers (index, middle, and ring), with a corresponding area on the back of the hand. He had also succeeded in tracing filaments of the musculo-cutaneous and external cutaneous branch of the musculo-spiral overlapping the radial and ulnar; the musculo-spiral in one case reaching the metacarpo-phalangeal articulation of the little finger. He found that the dorsal nerves extended in the case of the thumb and little finger as far as the nails, in the index and ring fingers as far as the second interphalangeal joints, and in the middle finger only as far as the first interphalangeal articulation. He had found the palmar nerves taking part in the dorsal supply of all the fingers, not excepting the thumb; in several cases he had traced strong branches of the median passing under the thumb nail, and ramifying in the bed of the nail. It was well known that the median and ulnar nerves encroached on one another's domains; some remarkable and instructive cases of this had been recently described by Dr. Hepburn, but he had not met with any record of the nerves overlapping in the literature of the subject except that in one of Henle's figures it was shown to a very slight degree, but not described in the text. Through the kindness of Mr. Wheeler, the author had had the opportunity of examining a patient in the City of Dublin Hospital who had undergone the operation of section of the ulnar nerve. Sensation was completely lost in the little finger, and half the ring finger, and over a corresponding area of the back of the hand. Over the greater part of the dorsum of the hand, as far as the base of the index finger, the sensation was very perceptibly dulled.—Dr. CUNNINGHAM said there was not the least doubt that Dr. Brooks had made out a perfectly new point in regard to the intercrossing of nerves. All were familiar with the great variation in the nerve-supply of the skin, but they considered hitherto that when one nerve advanced into the territory of another, the nerve so invaded retreated. Now Dr. Brooks had shown how completely erroneous in this respect their impressions were.—Dr. Brooks, replying, said the point he contended for as new was the overlapping of the nerves; for it was already well known there was a struggle between the two nerves—sometimes the ulnar nerve going to the radial side, and the radial to the ulnar side.

SOUTH INDIAN BRANCH.

SATURDAY, SEPTEMBER 3RD, 1887.

Deputy Surgeon-General S. B. ROE, C.B., in the Chair.

Lithotomy.—A series of cases of suprapubic and lateral lithotomy were related and specimens exhibited.—Assistant Surgeon STANTON submitted two cases of Suprapubic Lithotomy: (1) a Brahmin boy, aged 13, who had suffered from symptoms of stone for probably nine years; after the stone had been removed (with lithotomy forceps), a large drainage-tube was inserted at the lower end of the wound, and the upper part brought together by thick silk sutures, including the whole thickness of the abdominal wall; the highest point touched by the temperature curve was 103° F. on the fourth day; the drainage-tube was removed on the twelfth day, and the fistula was quite healed on the twenty-third day; (2) an emaciated man, aged 21, who had suffered from symptoms of stone from the age of 7 or 8; at the operation the bladder, which was much inflamed and thickened, contained fetid pus; two narrow tubes were inserted, and the upper part of the wound brought together with deep silver and superficial silk sutures; the patient did not do well, the wound did not heal, vomiting and insomnia persisted, and he passed into a typhoid condition and died on the twelfth day. Mr. Stanton considered that it was best to distend the rectum before filling the bladder.—Brigade-Surgeon FOX related two cases in which he had removed

a mulberry calculus by the lateral operation; in one case the stone weighed an ounce and a half; both cases came from the same village in the North Arcot District, where calculus was very rare. He also showed a stick, $6\frac{1}{2}$ inches long, thickly coated with phosphate, and having a piece of cotton at one end and a phosphatic calculus, measuring $4\frac{1}{2}$ inches by $3\frac{1}{2}$ inches in circumference, at the other; it had been removed from the abdomen of a young woman, aged 22. A midwife, with the object of procuring abortion, had intended to pass the stick, armed with some irritant, into the womb, but had passed it into the bladder instead, where it appears to have remained rather more than two years; then a fistula formed at the navel, through which pus and urine, and subsequently faeces, escaped. In order to extract the stick an incision four inches long in the middle line of the abdomen was found to be necessary. She remained in hospital a little over three months, and shortly afterwards the fistula closed completely. She was again seen about fifteen years after the operation, when she was in good health.—Brigade-Surgeon SIBTHORPE showed a calculus the size of a hen's egg, weighing four ounces, and consisting of a nucleus of oxalate of lime, coated with phosphates, which had been removed by the suprapubic operation from the bladder of an emaciated Hindu, aged 40, of intemperate habits. The patient made a remarkably good recovery, the wound healing in twenty-three days. It was found to be impracticable to suture the wound in the bladder owing to its length; a drainage-tube was accordingly used. This patient also came from North Arcot. Dr. Sibthorpe also showed specimens from a case of urethral calculus, an account of which will be published subsequently.

Ovariectomy.—Surgeon J. SMYTH, M.D., read the notes of a case of large multilocular ovarian cystoma in which he had performed ovariectomy. The patient made a good recovery, though she was for some time troubled by severe neuralgia of the anterior crural nerve.

Severe Injury to the Spinal Cord.—Brigade-Surgeon SIBTHORPE related the case of a young man who was admitted into the General Hospital six days after a severe blow in the interscapular region, which was immediately followed by extensive paralysis. When admitted he was paralysed in both upper and lower extremities, respiration was almost purely diaphragmatic, the accessory muscles of respiration also moving the upper part of the chest somewhat; there was anæsthesia below the nipple level, and in the upper extremities below the elbows. He gradually sank and died on the seventh day. A few hours before death the temperature began to rise rapidly, and finally reached 109° F. in the mouth. At the necropsy the anterior part of the body of the fourth cervical vertebra was found to be bruised, and the membranes of the cord were at this level injected; the cord appeared normal externally, but on section a patch of red softening, the size of a large pea, was seen in the centre, just below the third pair of cervical nerves. The cord appeared to be otherwise healthy. The internal organs were congested, especially the posterior border of the right lung.

Cases of congenital sebaceous cyst and of impacted intra-capsular fracture of the femur, also reported by Dr. Sibthorpe, will be subsequently published.

THE CLINICAL SOCIETY OF MANCHESTER.

TUESDAY, JANUARY 17TH, 1888.

S. WOODCOCK, M.D., President, in the Chair.

Etiology of Pelvic Disease in Women.—Dr. LE PAGE read a paper on the etiology of those pathological conditions in woman which had their origin in the pelvis. The principal points in which woman differed physiologically from other females were considered. In the lower animals, the rut was short, the anti-rut long—that is, sexual activity was of short duration; sexual repose was prolonged. In woman, there was no interval during which the sexual passion was in abeyance. The life of a woman naturally divided itself into three periods: 1, the pre-menstrual; 2, the menstrual; 3, the post-menstrual; and many of the diseases of women may be traced to the first period, the whole of which was occupied in the development of the organs of sex. The causes of pelvic disease, operating in the period bounded by the maturation of the sexual organs and the decadence of generative functional activity, were then reviewed.

Hydronephrosis.—Mr. BISHOP showed the kidney of a patient suffering from hydronephrosis, which he had removed a month before; also, a microscopical section of the degenerated renal tissue, showing the atrophied Malpighian tufts and tubules. The

operation was post-peritoneal and extracapsular. Some collapse followed, but the patient made a good recovery.

Convulsions in Pregnancy.—Mr. W. BAIN read notes of a case of convulsions in a pregnant woman, associated with albuminuria.—In the discussion which followed, the PRESIDENT, Drs. RAILTON, BRIERLEY, BODDY, and Mr. FRANK HOLMES took part.

REVIEWS AND NOTICES.

THE VOLCANIC ORIGIN OF EPIDEMICS. By JOHN PARKIN, M.D., F.R.C.S., formerly Her Majesty's Inspector for Cholera in the West Indies. Popular edition. London: Sampson Low and Co. 1887.

THIS volume is a sequel to the author's essay on the non-contagiousness of epidemics. It is the outward and visible sign of a desire to supply a hypothesis in place of the one which has been demolished—to his own satisfaction—in the earlier work. The various and changing theories which have prevailed on the subject of the causation and nature of diseased conditions give a certain plausibility to the author's attack on the views which now obtain of the operation of contagion and the communicability of epidemics. The author first deals with the influence of the different factors which go to make up matter, and he shows that neither heat nor cold, dryness nor humidity, are *per se* possessed of a constant power in the spread or otherwise of most of the so-called contagious diseases. Having disposed of electricity as a possible causative agent, the author arrives at the conclusion that the morbid influence is contained in the atmosphere, an inference which he supports by numerous instances of the effect of particular winds on the course of prevailing epidemics, and by statistics which tend to prove that during certain cholera epidemics in England the persons who suffered most severely were those whose occupations were outdoor.

Having demonstrated to his own satisfaction the existence of the morbid agent in the atmosphere, the author proceeds to inquire into the nature and origin of this agent. Not being able to account for it by any alteration in the chemical affinities and properties of the air itself, nor by anything generated on the surface of the earth or on the bodies of men, he suggests a glance into the interior of the globe. The willingness of the reader to follow the author in this Jules-Verne-like excursion is promptly repressed by the information that, as we cannot very well act on his suggestion, we must content ourselves with what information we can glean from the manifestations of intra-terrestrial changes as seen in volcanic action. Close observation of these phenomena has enabled the author to formulate the following laws: (1) That the effects of volcanic action are felt and witnessed along particular lines of the earth's surface; (2) that these phenomena are regular in their progress, both chronologically and geographically; (3) that they are characterised by a limited duration and a periodical return.

These peculiarities, the author urges, are strictly noticeable in the evolution and progress of epidemic disorders, both sorts of phenomena being governed by the same general laws. He argues, therefore, that the onset is an effect of the operation of the other set, and, as it would be hazardous to pretend that epidemics started volcanic activity, volcanic action is credited with producing the epidemics. It would be unkind to discuss the logic of such a proposition from a scholastic point of view; it resembles the well-known transition from pigeon pie to fish pie.

The author has collected a large number of intelligent observations which, while useless and even pernicious as evidence, are nevertheless of value, if only to demonstrate that the exception proves the rule.

BEQUESTS.—Mr. John Godfrey Morris, of Birkenhead, bequeathed £500 to the British Home for Incurables, £300 to the Stratford-on-Avon Dispensary, and £300 to the Evesham Lying-in Hospital.—The Halifax Infirmary has received £449 10s. under the will of Mrs. Hargreaves.—Mr. James Johnson Ellis, of West Parleigh, bequeathed £100 to the West Kent General Hospital, and £100 to the Kent County Ophthalmic Hospital.—The Queen's Hospital, Birmingham, has become entitled to £100 under the will of Mr. Francis Deakin, and £100 under that of Mr. John Stubbs.—Mr. Robert Caddell, of Harbournstown, Meath, bequeathed £50 to the Mater Misericordiae Hospital, Dublin.

NOTES ON BOOKS.

Contemporaneous Portraiture.—Under the title of Men and Women of the Day; a Portrait Gallery of Contemporaneous Portraiture, Messrs. Richard Bentley and Sons are issuing a series of photographs by Mr. HENRY BARRATT, the well-known photographer of 263, Oxford Street, whose medical photographs have long held a very high position, and whose portrait groups of the International Medical Congress were a great success. The present issue consists of permanent photographs printed on thick mill-board (any of which can be framed) issued in monthly parts at two shillings and sixpence; each part contains three large panel portraits, so that the annual volume will contain thirty-six panel portraits for thirty shillings, each picture being considerably less than half an ordinary cabinet in price. The portraits in this first part are of political and other public personages. The forthcoming numbers will contain portraits of Sir James Paget, Sir William Gull, Sir Morell Mackenzie, Sir Joseph Lister, and we believe also, at an early date, M. Pasteur and many foreign medical celebrities. Such a book forms a delightful record of our most eminent contemporaries as seen in the life, and the three photographs issued are triumphs of photographic portraiture and of permanent printing.

Calf Lymph Culture and Vaccination. By O. PENFOLD, M.R.C.S. Eng.—This pamphlet appears to be written for non-professional readers. Mr. Penfold has probably not studied the manner in which calf vaccination is carried out in England, or he would know that the eighth day is certainly not the best time to take lymph, as, by that time, it has undergone marked degeneration in its powers of keeping; and, if transmitted from calf to calf, the resulting vesicles, in the course of a few generations, become useless. The addition of any preservative substance to lymph is unnecessary, and strongly to be deprecated; for, if lymph be taken on the fourth or fifth day (ninety-six to one hundred and twenty hours after vaccination), on ivory points, and allowed to dry, or in capillary tubes, and hermetically sealed, it may be used with satisfactory results, the former method of storage being preferable for the vaccination of children. The author prefers calves from eight to twelve months of age; this is, in Europe at any rate, too old, the best age being about four months, the skins being much softer and the animals more easily managed. The case of vaccination with human lymph which is quoted is decidedly not typical of the current vaccination in this country; the lymph was probably taken from a degenerated source. Lastly, we are surprised to find Mr. Penfold upholding the antiquated quarantine system, which has so conspicuously failed whenever tried, except on the very smallest scale. Upon vaccination and revaccination only can a community safely rely for freedom from small-pox.

REPORTS AND ANALYSES

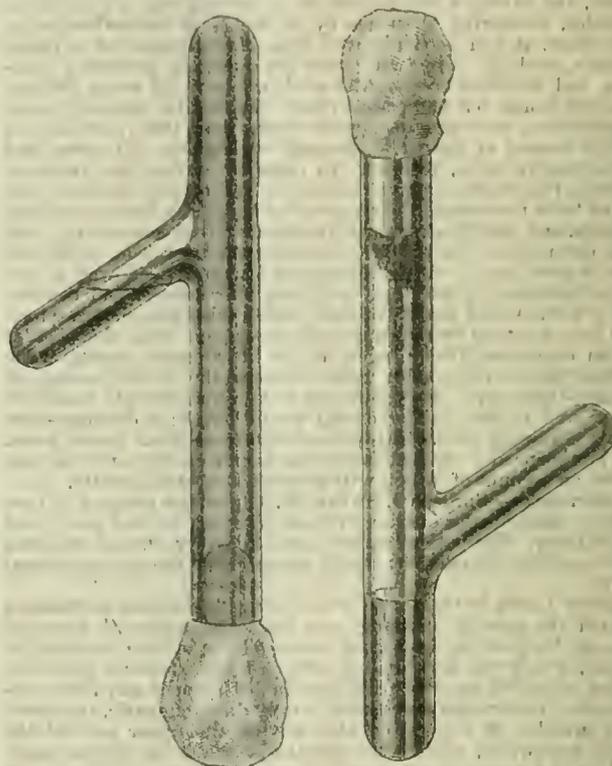
AND

DESCRIPTIONS OF NEW INVENTIONS,
IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

NEW CULTIVATING TUBE.

IN the belief that any simple contrivance which is likely to diminish the risk of accidental contamination in the employment of liquid cultivations will be welcomed by bacteriologists, I am induced to send you a drawing and description of a form of apparatus which I have recently made use of. It may be described as an ordinary test-tube with a blind lateral arm about two inches in length. This arm joins the main tube about two inches from its lower end, and forms, with the proximal part of the tube, an angle of about 45°. The tube is plugged with cotton-wool and sterilised. It is then filled for about an inch and a half of its depth with the liquid medium, and sterilised in the usual manner. When the tube is to be inoculated it is slowly inverted, so as to allow its liquid contents to flow into the lateral arm. While the tube is thus inverted, the cotton-wool plug is removed, and the seed material is introduced up to the bottom of the main tube, in precisely the same manner as one inoculates a tube of solid gela-

line or agar material. The inoculating needle having been withdrawn, the plug is replaced, and the tube returned to what may be called its erect position, the liquid being thus brought into contact with the seed material.



Tube inverted for inoculation.

Tube erect.

The only special precautions to be observed in using the tube are—(1) to use of the liquid medium a volume slightly smaller than the capacity of the lateral arm, and (2) to invert the tube slowly, turning it in a vertical plane towards the lateral arm. By attending to these points one can avoid the risk of part of the contents being poured out of the tube. The tubes necessarily cost a little more than the ordinary test-tubes, but, if made of stout glass, they can be used again and again. There is no difficulty in cleaning the lateral arm by shaking with a small quantity of shot. Edinburgh. J. McFADYEAN, M.B., C.M.E.D.

GAMEBLE'S IMPROVED METHOD OF WARMING AND
VENTILATING DWELLING HOUSES, OFFICES,
AND THE LIKE.

THIS is a system of warming and ventilating rooms by means of heated air which has been patented by Mr. J. H. Gamble. It is in principle a modification of Galton's grate and the Manchester school grate, in which fresh air is warmed by circulating round the back of a stove, and is then admitted into the room about on a level with the chimney breast. In Mr. Gamble's method the external air is conducted to a compartment surrounding a stove of special construction or an ordinary kitchen range situated in the basement of a house, and then passes up a shaft to be distributed to the upper rooms. The products of combustion of the stove in the basement are carried off by a metal flue which passes up through the warm air shaft, and by this means the waste heat is made to contribute to the heating of the fresh air supply. It is claimed by the inventor that rooms thus supplied with warm air will not require open fireplaces, which serve under his method for the admission of warmed air, and are provided with valves for regulating the same. In Mr. Gamble's system means are also provided for carrying away the vitiated air by exhaust shafts, but about these there is nothing special. It is difficult to see how the system could be applied to existing houses without great structural alterations, but for new buildings in course of construction,

especially for workhouses, hospitals, public offices, etc., the system might very probably be effective and cheap in working.

ST. JAMES'S RUM.

It is a well-known fact attested by M. Girard, the official analyst in Paris, and much deplored by French growers, that, owing to the ravages of the oïdium a comparatively small part of what is sold as French brandy is the unadulterated produce of the grape. Enormous quantities of cheap rectified potato spirit are imported into France, and re-exported after manipulation as cognac. Such doctored and manipulated spirit, which constitutes a very large proportion of what is now being innocently used in hospitals and sick rooms as old cognac, is made up of this falsified and deleterious material. Under the circumstances it may be well to turn attention to the unadulterated product of our own colonies, and it will not be surprising, if the pure, old-fashioned, and well-matured rum of the British colonies should come into more general use where it is desired to prescribe a stimulant. Rum and milk used to be a favourite form of medicinal stimulant, and nutritive, and in the navy grog made with rum is we believe at least as popular as cognac, and has the advantage of being cheaper and purer. The "St. James's Rum," of which specimens have been sent us by Messrs. G. W. Christie and Co., 25, Milton Street, Cripplegate, E.C., has an established reputation for age and purity, and we are inclined to think that the considerations to which we have referred should frequently recommend it in place of the artificial compounds which now so largely pass current as French brandy.

AURAL TUBES.

We have received from Messrs. Creswick, of Great Portland Street, W., a collection of their ear tubes for deafness. They are constructed of thin pasteboard, with ear pieces of tinned iron covered with india-rubber tubing. They are made in various sizes and shapes, and some of them by means of a telescopic arrangement can be drawn out and lengthened when necessary to several feet. They are light and portable, can be used for close or distant conversation, and are entirely free from the confusing roar of the ordinary metal tube. They were originally made from a pattern supplied by Dr. C. J. B. Williams, who speaks of them in his *Memoirs* in high praise. We can fully endorse his opinion: "The superiority of these pasteboard cones over those of metal lies in their conveying the sound vibrations through their light material by conduction as well as by reflection and in their being more free from the echoes and ringing sounds developed by metals." These tubes possess the further recommendation of cheapness, varying in price from 4s. 6d. to 10s. 6d.

EXTRACTUM COLLINSONIÆ CANADENSIS LIQUIDUM (HOCKIN).

COLLINSŌNIA CANADENSIS is a perennial herb of the nat. ord. Labiatae, growing in North America from South Carolina westward. Although it is not official in the *British or United States Pharmacopœias*, it has acquired some reputation as being of value in affections of the genito-urinary tract. Messrs. Hockin, Wilson, and Co., of Duke Street, Manchester Square, have prepared a liquid extract of such a strength that the dose is half to one fluid drachm, and recommend its employment in cystitis, gonorrhœa, leucorrhœa, and similar affections.

ROYAL COLLEGE OF SURGEONS.

An ordinary Council Meeting was held on February 9th. The minutes of the extraordinary meeting of January 19th were read and confirmed.

The Museum Committee presented an ordinary report.

Mr. J. H. Targett was appointed assistant in the Pathological Department in the Museum.

The Council authorised the architect to proceed with the construction of the new buildings on the Embankment.

The Council elected Mr. C. A. Ballance as Erasmus-Wilson Lecturer.

Mr. STBLEY moved:—

"That, in view of the increasing complication of the accounts of the College, it is desirable that a Finance Committee be appointed to superintend the accounts and finance of the College, and to report thereon not less than twice in each year to the Council."

The motion was carried.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders, should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 11TH, 1888.

DR. MAPOTHER ON THE DUBLIN SCHOOLS AND THEIR TEACHING.

WHILE the General Medical Council keeps a peremial and expensive watch over the portals of our profession, lest any should enter them who are unfit or remain within them who are unworthy, we are startled from time to time to discover, by how chance as it were, how somnolent is the guard it maintains, how careless it is of the interests entrusted to it.

It comes to us, for instance, as a shock, when an ex-President of the Royal College of Surgeons in Ireland assures us that, in the great teaching centre of Dublin, the study of pathology is almost wholly neglected; that of the six or seven medical schools of that city, only two possess pathological museums; that in the case of three of these institutions at least a proper course of pathology is an impossibility; that the Pathological Society, now a section of the Royal Irish Academy of Medicine, throws open its doors in vain to the students of medicine, only 1 per cent. of whom avail themselves of the generous offer of the Society, although it was to this body that Graves looked so long ago as 1843 for the new birth of Irish pathology, when he levelled his satire against its absence from the curriculum of many an Irish surgeon. It seems almost as though forty years had passed in vain, and that it was to the student of 1888, not to those of 1835, that that distinguished physician drew his picture of the clinical practitioner, taught solely at the bedside, armed with a knowledge of a formidable system of symptomatology, of nosology, and of therapeutics, but ignorant of morbid anatomy, the mother of them all. He describes such a man attacking a case of dropsy, trying remedy after remedy, while the patient grows worse and worse under his treatment, and finally dies. "But," says Graves, "the friends are not dissatisfied with the medical attendant, who excuses himself by asserting that he has successively resorted to every remedy which has been recommended in dropsy; and, in truth, if you look over the list of medicines exhibited in rapid succession, you will probably find that his excuse is not unsupported by facts. But, gentlemen, these cases in which everything has been tried are precisely those in which nothing has been tried, in which medicine has followed medicine, and each symptom of disease has indiscriminately

been the object of attack, until death approaches with accelerated steps, and charitably closes a scene disastrous to humanity and disgraceful to the cause—I was going to say of science, but who will venture to give so ennobling a name to this pseudo-practical knowledge, this worse than actual ignorance?"

And we have reason to fear that these just reproaches apply not only to the schools of Dublin, but to several of the smaller institutions of a like nature in other parts of the United Kingdom. What worth, then, can the Medical Council's visitation of examinations have when the original teaching, of which examinations are only a test, is totally and confessedly non-existent?

Is it right that men should be poured into our profession ignorant of so important a part of its essentials? That they should be declared fit to hold appointments under the State; to give evidence in cases of jurisprudence, where life and death hang in the balance; or to treat the sick and suffering throughout this vast empire, where necessarily in many instances the possession of legal qualifications is the only test of knowledge the people can apply?

It is well that Dr. Mapother should have exposed, with a rare courage and faithfulness, this weakness in the teaching of his colleagues; but it is not well that, with officials excessively paid, whose principal duty it is to see that such scandals do not occur, it should have depended on the patriotism of a private individual to publish them to the world, and to devise means for their removal.

The Medical Council could, with one stroke of the pen, have removed the reproach. It had only to declare that no medical school should be recognised which did not possess an efficient and growing pathological museum, and did not provide a properly qualified pathological lecturer, and to decide that in future, to merit recognition, the teaching of morbid anatomy, both macroscopic and microscopic, must be far other than the sham it too often at present is.

We can only trust that the elective members of the Council will rouse that somnolent body to a due recognition of its responsibilities and shortcomings in this and some other instances.

Another suggestion of Dr. Mapother's cannot be quite so easily accepted. That the amalgamation of several of the Dublin schools and the refusal to receive certificates of attendance on clinical institutions containing fewer than 150 beds would in some ways be beneficial, we cannot doubt; but the advantages are not all on the side of large schools. No one who has observed the overcrowded condition of the *cliniques* in the Edinburgh University, for instance, or has inquired into the opportunities the individual student has in that vigorous school for obtaining a practical acquaintance with the smaller operations, such as catheterism, etc., which are so necessary in practice, can deny that something at least can be advanced on behalf of smaller and less crowded schools. It was Graves, again, who said with much truth: "Everything like monopoly tends to retard the advancement of science, and I see no reason why a

hospital with 50 beds should be inferior to one with 100. It is not the quantity of disease a teacher treats which renders his lessons instructive; his diligence and accuracy of observation are the best means of instructing his pupils." And perhaps one of the strongest arguments against Dr. Mapother's proposition is that it would close the Meath Hospital itself, rendered illustrious as it is by the teaching of Graves, and where Stokes received a great part of his clinical training.

Certain members of the Medical Council have proposed to meet the difficulty by making a close and exhaustive inquiry into our medical schools, and the opportunities and appliances they possess for instructing their students. It ought to be recognised that the existence of any particular medical school is only a necessity in so far as it ministers to the welfare of humanity by thorough and successful teaching. Such inspection of schools would do much for the settlement of controversies like the present, but would be very costly.

It has been proposed to extinguish every school, be it large or small, where the teaching is inefficient, paying especial attention to some smaller schools, whose sole excuse for existence seems to be that they may afford a back-door for the admission of middle-aged druggists and unqualified assistants into our already overcrowded ranks. We hope and trust that the medical schools of Dublin, under this or like necessary pruning, will soon take their proper place among those of Europe. There is, indeed, no reason why they should not. National questions ought not to affect them, for science is independent of Governments, and should flourish in every political climate. From autocratic Russia, from aristocratic Germany and Austria, from constitutional Britain and Belgium, from republican America and France, have come the leaders of scientific thought, without distinction and without preference.

Let not then that Irish school which produced Graves and Stokes, Corrigan and Mac Cormac, Crampton and Mayne, be contented with anything lower than the first position in our empire. If her children, wise in cheapening the means of learning, are equally sensible in exacting a high standard of attainments, her future is secure. For those children are exceptionally fitted to adorn our great profession; their warmth of heart, their brightness of wit, their vigour and versatility of intellect, are qualities which, if properly directed, will raise their many-headed mother, "dear old Dublin," to that place in the medical republic which she now occupies in the loyal hearts of her faithful sons.

THE GERM-THEORY A CENTURY AGO.

In a pamphlet of 87 pages, published in London in the year 1788, there is a curious anticipation of the modern germ theory of disease. The author does not give his name, but the pamphlet is announced to have been produced as an answer to certain questions, proposed by the Royal Society of Paris, on the cause and most effectual method of preventing the progress of infectious disorders. It is entitled *A Treatise on Fevers, wherein their Causes are exhibited in a new point of view, to prevent Contagion:*

and Putrid Sore Throat, Inflammatory Fluxes, Influenza, Consumptions, as well as the Low Nervous Fevers that terribly affect the Spirits, may be cured with Ease. It is written in a popular way, and was issued at the price of a shilling, and declared to be "necessary for all families." To fulfil this intention, it is written in a "plain and intelligible rather than ornamental style," for the writer lays no claim to eloquence, and thinks too great a show of learning out of place; "if the world does not chuse to make the application, he is content to have done his duty in making the communication;" but he "is sure that it is a key to health, and, if adopted, fevers will then no longer be the terror of mankind." He is certain that contaminated air is the sole source of all "fevers, consumptions, fluxes, gouts, rheumatisms, whooping-cough, diseases of the stomach, lungs, liver, head, and kidneys, of putrid sores, St. Anthony's fire, and nervous disorders generally." A tolerably comprehensive list, which perhaps is meant to include surgical fevers, though these are not expressly mentioned; and so, by directing our attention to the removal of the cause, "epidemic disorder will be prevented, just as small-pox is prevented by inoculation."

At the commencement of the treatise, the author states that the remarks he offers were suggested principally in the years 1779-70, when all parts of England, and some foreign countries as well, were extremely affected by contagious disorders of all sorts; animals (especially horses) as well as men being struck down, often suddenly and fatally. Numbers of men were killed in a few days by putrid sore-throat; some were affected in the head, and became delirious; others in the stomach, and were seized with sickness and purging; others had gout, palsy, or rheumatic fever, or were attacked in the eyes, or laid down with erysipelas; many others suffered in the lungs and became consumptive; and many more grew depraved in spirits, had low nervous fevers, and became hypochondriacal. Almost all the cases were contagious, and though usually each disease bred true, yet the maladies were sometimes interchangeable—for instance, an attack of erysipelas was caught from a patient suffering from a sore-throat. Such is the general result of the author's observations; and it will be readily admitted that he had a considerable practical acquaintance with the phenomena and spread of epidemics, and did not spoil his wide experience by a too hasty judgment.

Then follows the speculative and explanatory part, consisting of an exceedingly ingenious argument, an example of that most useful and profound of logical methods, analogy, based on admitted facts, followed by a clear and coherent chain of reasoning, and is perhaps as convincing, and even more free from fallacies, than if he had attempted to prove his case by microscopical demonstration. He states, in the first place, that the cause of these multiform disorders is generally allowed to be some invisible noxious matter in the air; of its intimate nature there were various opinions, but perhaps very little curiosity felt: "Some consider it to be a sulphurous exhalation from the earth; but this cannot be, for, if so, acrid and sulphurous fumes would increase it instead of checking or annihilating it. Another theory is that it is due to the products of putrefaction; but how can

dead and putrid matter ever get such activity as to work such astonishing results?" It must, therefore, be something endowed with a more powerful activity than anything belonging to the mineral kingdom or simply putrefying, and must, therefore, be something actually living. In this he shows considerable penetration; and there being no "cell theory" in his day, he does not stop to consider whether the poison may be embodied in vitiated cells or particles detached from the body, though retaining their specific activity, but concludes that it must be organisms having an independent existence. For this view, surprising and novel enough at first, loses some of its singularity if we search for resemblances elsewhere. Now, just as it was well-known that itch is due to the presence of acari, insects visible by aid of the microscope, so "close attention to these matters in numberless cases during many years has proved beyond a doubt that the gaol distemper, putrid fever, plague, and infectious epidemics generally, proceed not from matter putrid in itself, but from invisible insects also, that, floating in the air at times, are lodged in the skin in immense quantities; feeding here in clusters, they produce pimples, pustules, etc.; for instance, the eruption of small-pox." He overlooks, or at any rate makes no mention of the possibility of their entering the body by the air passages, and working their way from the lungs and alimentary canal.

Moreover, "medicines which poison insects without injuring the constitution have always proved specific." He asks if this is the way that mercury will cure obstinate and foul sores, thus anticipating an explanation of the *modus operandi* of this specific remedy for syphilis, which has lately been put forward again; and that James's powder cuts short fevers; for these drugs are so acrid and corrosive that their action can be nothing else than a destructive tendency, and this is the very reverse of a healing nature. These insects which constitute contagion are communicated by the air, the raiment, or by contact. Not only animals, but vegetables also, suffer much from the ravages of such animalcules, the smallest being most mischievous, from their greater numbers and being least suspected. Marsh effluvia are due, not to putridity simply, but to the myriad forms of minute life to which the abundant decomposition gives life and nourishment. A corpse which has died of an infectious disease is known to be able to convey the same disease to persons brought into its vicinity; but it is noteworthy that it is most infectious while quite recent, and the specific infectiousness ceases as soon as genuine putrefaction has fairly begun, thus proving the radical difference between the specific virus and ordinary putridity. By magnifying glasses it may be seen that many disorders to which corn is subject are due to animalcules "so small that by the solar microscope they equal in size a pig two or three months old, though they are as well-proportioned in their limbs as elephants, and have their internal organs as perfectly constructed as in animals of ordinary dimensions; and they have probably the same senses, ideas, and passions, only their sphere of action is more limited." These are only instances of what had already been shown to exist; but he thought it not only reasonable, but

extremely likely, that still smaller ones exist, though of course more easily eluding discovery; and it is such as these that are answerable for our acute specific diseases. Of course, therefore, the author does not attempt to particularise or define their characters rather than to designate them as "animalcules," though it may be remarked by the way that he always speaks of their originating from eggs, never hinting at their appearance *de novo*.

The existence of bacteria as such, with special forms and attributes, does not rouse his attention, though they had already been seen and described by Leeuwenhoek a hundred years before (1682). He was tolerably familiar with the habits of these minute parasites in many of these diseases which blight plants and attack animals. Those commonly found in wheat flour arise in the soil, where the eggs remain during the winter; being hatched by the warmth of summer, the young insects creep up the stalks of the growing plants, feed on the ears, and sometimes leave their eggs in the grain; these escape destruction by grinding, and may be seen in plenty during the winter, the animalcules themselves being discoverable only in the summer. They are not produced in all kinds of land, or on the same land in every season. These facts being known, an easy method of preventing smut and blights is easily suggested and adopted; for instance, steeping the seed, before it is sown, in wood ashes boiled with arsenic, or quicklime spread over the land will be equally efficacious; or else the insects after being hatched, and while invading the corn, may be killed by burning vegetables to windward of the fields. Soot placed in trenches round the trunks will preserve fruit trees. The foot-halt of sheep is infectious to others in the same track; in this instance also the cause is nothing corrosive, for it is destroyed by a corrosive agent, thus a single application of diluted oil of vitriol to the affected feet will cure the complaint, or else laying quicklime on the track the sheep pass over. Similarly, strong tobacco water will cure the scab of cattle; and in the same way our epidemic fevers may be cured, as suggested above, by destroying the animalcules by mineral or vegetable antidotes given internally, though attention must always be paid, in selecting appropriate remedies, to the particular constitution of the patient. As experience shows, cooling measures are indicated in fevers, and, on the other hand, anything which tends to increase the heat is prejudicial, and this is to be explained by the heat helping to bring some eggs to life, and thereby aggravating the disorder. He says, "I have an account in writing of many extraordinary complaints cured on the same principle; ulcerated lungs cured thereby, and some cases of dropsy and gout so caused." Unfortunately, in the treatise now under examination he gives no details of the remedies which prove so successful, or the method of using them. He promises to give the rest in another book, to draw the attention of medical men, but it is not apparent that this was ever written, the author's name being omitted.

The rot of sheep (a disease of the liver—? flukes) is produced by insects inhabiting marshy ground, and is to be got rid of by removing the flocks to hilly ground or by spreading quicklime on

the surface. The swampy grounds on the borders of the hill breed large quantities of these pestiferous creatures, but the periodical overflowing of the river washes them away, and thus cleanses the ground and purifies the air. In the same way heavy showers will wash away diseases in our country. The mischievous matter of the plague is "effluviated" from the earth; and thus he explains the fact that earthquakes are frequently succeeded by the outbreak of a severe epidemic. The appearance of the aurora borealis in the air is due to the warmth in the bowels of the earth, and indicates a disturbance and escape of it, and it is commonly attended by a prevalence of infectious complaints. To clear infection from a house, wash the interior well with vinegar or soap, and fumigate the air by burning sulphur or frankincense (which is as efficacious as the former, while it is better tolerated by our respiratory organs, and does not blacken furniture). Smoking tobacco is an excellent preventive, and the author remarks that a tobacconist's shop generally remains free. Living near a tanner's yard, according to common belief, gives equal safety. He also recommends as precautions to chew bay leaves, wormwood, or tobacco, and to smoke and drink brandy.

In summing up his theory, he says that, generally speaking, there are only two sources of the animalcules: subterranean, which operates in all sorts of weather, and is chiefly accompanied by electric phenomena; the other is the surface of the earth—swamps, filthy lakes, stagnant ponds, etc. The eggs left on the soil develop in the summer, and "the multitudes effluviated into the air." Though recommending draining the land, and fumigating or watering the air, it is rather strange that the author overlooks the value of heat in disinfecting clothes, etc.

The above account justifies, we think, the belief that the author was sufficiently practical and experienced to command respect and confidence, as well as to interest us in his views; he rightly cared more for simplicity and usefulness than for refinement and barren speculation. Could he have lived to-day, he would no doubt have trodden much of the ground of Pasteur, and would have thrown himself into the still unsettled question of the exact relation of micro-organisms to disease.

SMALL-POX AND VACCINATION AT SHEFFIELD.

THE President of the Local Government Board, when speaking at Sheffield on Monday last, naturally referred to the severe epidemic of small-pox which for some months past has prevailed in the town, and has caused considerable alarm in the northern and midland counties. The opponents of vaccination have eagerly embraced the opportunity of endeavouring to create in the public mind a distrust of the efficacy of vaccination, and the bare fact that small-pox has invaded a well-vaccinated town and gained a foothold there has been held to be a sufficient condemnation of the system. Sheffield, in fact, has been held up as an awful example. It is well, therefore, that the responsible minister has had an opportunity of publicly refuting these sophisms, and of testify-

ing to the beneficial effects of vaccination as demonstrated by the Sheffield experiences themselves.

Bearing in mind that the protection afforded by vaccination in infancy is most effective during the early years of life, and that after the age of ten it decreases unless renewed by revaccination, Mr. Ritchie examines the statistics concerning the children under ten years of age. He finds that there are about 100,000 children under that age living in Sheffield; that 95,000 of these children are vaccinated; and that 5,000 are unvaccinated. Out of the 95,000 vaccinated children there have been 189 attacks and 2 deaths; out of the 5,000 unvaccinated children under ten there have been 172 attacks and 70 deaths. If for a moment it is assumed that all children under ten were vaccinated, there would have been 200 attacks, and hardly more than 2 deaths. If all under ten had been unvaccinated, there would have been 3,277 attacks and 1,330 deaths, or exactly 600 times greater mortality.

Here is a reproduction of the metropolitan experience of 1881. In that year there were in London some 916,000 children under the age of 10 years, and of these 861,000 were vaccinated and 55,000 were unvaccinated; whilst in that year, amongst the 861,000 vaccinated, there were only 125 deaths, among the 55,000 unvaccinated there were 782 deaths, that is to say, upon equal numbers of the two classes, the mortality from small-pox amongst the unvaccinated was about a hundredfold the mortality from small-pox amongst the vaccinated.

As regards persons above the age of ten, the Sheffield experience also supports the efficacy of vaccination, though not so conclusively as does that of the younger persons, inasmuch as the protective value of primary vaccination diminishes year by year, and re-vaccination has not been the rule. The lesson, therefore, is once more taught by these experiences, that if protection against small-pox in the later years of life is to be secured, revaccination must not be delayed beyond the age of ten or twelve years. We are glad that the Government are about to facilitate this early revaccination by reducing the minimum age at which the operation can be obtained at the public expense.

Apart from the question of decreasing protection, it is important that the operation should be performed in each case before the actual business of life is entered upon. If it is not so performed it is likely to be indefinitely postponed, if not altogether forgotten, until a scare of small-pox increases the applicants for revaccination, strains to the utmost the resources of the public vaccinators, and increases the risk of the operation being inefficient.

We would venture to impress upon Boards of Guardians the importance of promoting revaccination systematically during non-epidemic periods much more than has been the practice hitherto. Practically no efforts have been made in the past in this direction, except in the presence of small-pox, and consequently revaccination is by no means as general as the public welfare requires.

DR. W. TINDAL ROBERTSON, M.P., attended at Osborne on Wednesday to receive the honour of knighthood.

THE Budget Committee has recommended the Chamber of Deputies to vote a small sum of money to provide the professor of hygiene in Paris with the means for opening a laboratory for practical instruction.

THE Committee of the Association of Fellows of the College of Surgeons met on Tuesday to deliberate on the recent action of the Council of the College. The proceedings were adjourned till Monday next.

WE are glad to learn that the drainage of Margate is to undergo further improvements, the Town Council having decided to procure plans for a thorough system of drains, which it is suggested should be submitted to Sir Douglas Galton or some other eminent authority for approval.

THE first number of the *Revue Médico-Pharmaceutique* was published in Constantinople on January 31st; it is designed to make known in Europe the work done by the physicians and pharmacists of the East, and at the same time to give a fair reflex of the progress made in medicine and pharmacy throughout the world. The new journal is edited by M. Pierre Apéry.

MR. JAMES ANSTIE, B.A., Q.C., a Charity Commissioner, and formerly Examiner in Law to the University, has been nominated by an influential body of graduates for election by Convocation to be a member of the Senate of the University of London, in the room of the late Sir George Burrows. Mr. Anstie has taken an active share in the recent reform movement in Convocation.

THE twentieth annual banquet in connection with the French Hospital in London will take place this (Saturday) evening at Willis's Rooms, His Excellency the French Ambassador in the chair. The Lord Mayor has also promised to attend. Special efforts are being made at present to provide funds for building the new hospital premises on land which has been purchased in Shaftesbury Avenue. Upwards of £12,000 have already been subscribed.

BRITISH NURSES' ASSOCIATION.

A MEETING will be held at St. George's Hall, Langham Place, on February 13th, at 4 P.M., Mr. Savory in the chair, with reference to the formation of the above Association. It is announced that H.R.H. Princess Christian will be present.

FRENCH SURGICAL CONGRESS.

THE third session of the French Surgical Congress will be held in Paris, from March 12th to the 17th, in the large amphitheatre of the Administration de l'Assistance Publique, 3, Avenue Victoria. Professor Verneuil will preside. The following questions are down for discussion: 1. The Treatment of Gunshot Wounds of Viscera. 2. The Value of Radical Treatment of Hernia as regards Permanent Cure. 3. Treatment of Chronic Empyema. 4. Recurrence of Malignant Growths after Operation: its Causes and Prevention. Surgeons wishing to take part in the Congress are requested to communicate with the General Secretary, Dr. S. Pozzi, 10, Place Vendôme, Paris. The subscription is 20 francs.

SNOWED UP FOR TWENTY DAYS.

AN extraordinary case of prolonged fasting is reported from Vienna. On December 22nd a peasant woman from Obergrabern went to receive some money which was owing to her at a small village a few miles distant. The amount was not paid, and the woman had only four kreutzers in her pocket, with which she bought two rolls of bread. On the way home she was caught in a heavy snowstorm, and took shelter in a small hut in a vineyard. The storm continuing, she decided to spend the night where she

was, and divested herself of some of her upper garments to wrap up her feet. The next morning when she awoke she could not rise, being partially paralysed by the cold. Her cries for help were unheard, and it was only on January 11th that she was found by a woodcutter's wife, having been twenty days without food.

THE WILL OF SIR GEORGE BURROWS, M.D.

SIR GEORGE BURROWS, M.D., by his will dated April 6th, 1882, with a codicil made October 14th, 1886, bequeaths to the library of St. Bartholomew's Hospital such medical books and pamphlets of his father-in-law, John Abernethy, his father, and himself, as may not be selected by his son-in-law, Mr. Arthur Willett. To his son, Ernest Pennington Burrows, he bequeaths the silver inkstand presented to the testator by Gonville and Caius College. He devises and bequeaths all his real estate and the residue of his personal estate in trust to make up the portions of his daughter, Mrs. Willett, and his younger son, Ernest Pennington Burrows; and the residue in trust for his elder son, now Sir Frederick Abernethy Burrows, and his male issue, with remainder to the said Ernest Pennington Burrows, or other the successor in the baronetcy. The value of the personal estate has been declared at £104,628.

MR. CHADWICK ON THE SANITARY NEEDS OF THE DAY.

MR. EDWIN CHADWICK, C.B., speaking at the annual dinner of the Association of Public Sanitary Inspectors on Saturday last, observed that it was important that time should be given to the Boundary Commissioners to make their examinations full and complete, as much of the reform needed would only come from larger areas than the present small administrative ones being provided for poor-law and sanitary purposes. He also urged that the scattered and weakened functions now spread over several Government departments should be consolidated under a Minister of Health. In conclusion he referred to the fact that the Lancashire manufacturers had an offer now made to them to work their engines by gas at two-thirds the price of working them by the flame of coal. This plan was proposed by the speaker thirty years ago; and there was no doubt that this might be done, and, when done, down would fall the big chimney which befouled all around with its smoke and dirt.

VIEWING THE BODIES.

MR. D. WIGHTMAN, coroner, held an inquest at Sheffield on February 6th, on the body of a man who had committed suicide by cutting his throat whilst suffering from small-pox. He proceeded to swear the foreman, and omitted the usual words "of whose body you shall have present view." The rest of the jury were sworn. The Coroner then remarked that he had no law to warrant him allowing the jury to escape viewing the body, but in this case, when he looked at the consequences which might probably arise, he was not at all surprised at the jury objecting to go into a room reeking with small-pox, and in which was the body of a man who had died from that disease. He thought that was a reasonable excuse for not going to see the body. It was his duty, he knew, to insist, but he intended to brave the consequences and see what was said. He would not, as a jurymen, like to go and view the body, not so much for himself as for his wife and family. If the jury said they did not like to go, he felt he would not be justified in making them do so. The inquest proceeded, and at the close the jury thanked the coroner for his consideration.

VACCINATION PAYMENTS IN ITALY.

NOTWITHSTANDING a Government decree enjoining local authorities in Italy to provide funds for the payment of the vaccination officers, in no less than 4,192 communes—that is to say almost half the total number—no such funds are voted. In 2,244 other com-

munes the vote is a simple farce, while in 1,822 the sum allotted varies from threepence to fivepence. In consequence vaccination, which is not compulsory, is not systematically performed in the rural districts. It is highly probable that the vaccination laws will shortly be amended and enforced in a more satisfactory manner by the central authority.

METROPOLITAN POLICE SURGEONS.

AT a meeting of the Metropolitan Police Surgeons' Association, held on Thursday, at the Offices of the British Medical Association, Mr. Timothy Holmes in the chair, a discussion took place with reference to some recent orders affecting divisional surgeons made by Sir Charles Warren. It was proposed to send a deputation to the Home Secretary; but a satisfactory statement having been made by Mr. Mackellar, Chief Surgeon of the Metropolitan Police, further action was, on Mr. Holmes's suggestion, postponed.

INJURY TO SIGHT BY SHUTTLES.

MR. J. WINKLEY LANGDON, the honorary ophthalmic and aural surgeon to the Preston Infirmary, in his annual report notes the large number of extirpations rendered necessary by wounds from shuttles in the weaving rooms of cotton mills. The contemplation of this fact, he says, leads one to wonder that some ingenious spirit has never devised means to avoid so dread a calamity, rendering subsequently, as it does, the sufferer almost useless in this walk of life.

OPEN SPACES AND THE PUBLIC HEALTH.

ONE of the most gratifying signs of the increase in the park and open space accommodation of large centres of population is shown by Mr. Ellis Lever to be manifested in a correspondingly diminished death-rate, the metropolis being a striking illustration of this. London possesses nearly 10,000 acres of parks and breathing grounds, or about 2½ acres per 1,000 of the population, and the death-rate during the year ending October 1st last was 19.3 per 1,000. Leeds, with a population of 345,080, has 528 acres of parks and recreation grounds, or 1½ acre per 1,000 of the population, and the death-rate is 21.7. Manchester (parliamentary borough) has a population of 423,801 and a park area of 165 acres, including open spaces and recreation grounds, equivalent to 2-5ths of an acre per 1,000, while the death-rate is 28.2.

METROPOLITAN PROVIDENT DISPENSARIES.

A MEETING was held at No. 1, Old Serjeant's Inn, on February 3rd, to discuss the above scheme; Dr. Paramore in the chair. Drs. Carpenter, Hentsch, Kisch, Smith, Sargent, Thomas, Wainwright, Maunsell, and Corbyn, were present. The chairman stated the object of the meeting, and referred to the scheme as one more attempt to starve out the medical profession. The scheme was not a provident one, as patients were admitted when ill, and the scale of charges was so ridiculously low that under the scheme human beings were treated at one-twentieth the sum charged by similar institutions in the veterinary profession where the patients were dogs and horses. During the discussion the chief arguments in opposition to the scheme were: 1. That as an advertising concern it is repugnant to the ethics of the profession. 2. That it is not needed, because those who are too poor to pay are amply provided for by hospitals and parish relief. 3. That the intermediate class are amply provided for by the different clubs of general practitioners. 4. That its scale of remuneration is such as to degrade those practitioners who consider its fees as "generally acceptable to the profession," in the eyes of the public. The following motion was then proposed by Dr. Maunsell, and carried unanimously: "That a committee be formed, with power to add to their number, for the purpose of taking into consideration the scheme of the Metropolitan Provi-

dent Association, and that they be requested to report to a subsequent meeting of general practitioners the objections to be taken to such scheme, and the steps which it may be desirable to adopt for the improvement of the position of the profession. A committee was then formed, consisting of those present; Dr. Paramore being elected Chairman; Dr. Maunsell, Vice-Chairman; Dr. Thomas, Treasurer; and Dr. Corbyn, Secretary. The Secretary to the Committee would be obliged if all opposed to the scheme would forward him their names and addresses on a post card, addressed, T. H. Corbyn, 18, Abercorn Place, N.W.

THE OPPOSITION OF CAMBRIDGE UNIVERSITY TO THE SCHEME OF THE LONDON COLLEGES.

WE published last week the petition drawn up by the Special Board for Medicine of the University of Cambridge, setting forth the grounds upon which the University opposes the grant to a Senate formed by a combination of the two Royal Colleges in London of the power to grant degrees in medicine. At the debate which took place on Saturday last on the question of adopting the petition, the scheme of the two Colleges was defended by Professor Humphry, while Sir George Paget, Dr. Donald MacAlister, Dr. Octavius Sturges, Professor Alexander Macalister and others spoke in favour of the proposition to present the petition in opposition. Letters were read from the Universities of Edinburgh, Glasgow, Durham, Victoria, and London approving of the Cambridge petition. The general result of the debate was, our Cambridge correspondent states, decidedly in favour of the petition. The Council of the Senate accordingly has proposed to affix the Common Seal of the University, and on February 16th a vote will be taken on the question. No notice of *non placet* has yet been issued.

THE NATIONAL PENSION FUND FOR NURSES.

THIS Society has now been incorporated, and its memorandum of association has been registered. The memorandum of articles is signed by Lord Rothschild, Mr. Henry Hucks Gibbs, Mr. E. A. Hambro, and Mr. Junius S. Morgan, the four merchants who have contributed each £5,000 towards the £20,000 which had to be deposited with the Court of Chancery as a security for the proper working of the fund. It is further signed by Mr. F. C. Carr Gomm, Chairman of the London Hospital; Mr. Percival A. Nairne, Deputy Chairman of the Seamen's Hospital; Dr. Bristowe, F.R.S., Senior Physician of St. Thomas's Hospital; Mr. Thomas Bryant, Senior Surgeon of Guy's Hospital; and Mr. Henry C. Burdett, the founder of the fund. The Council includes Mr. John Watney, of the Mercers' Company; Mr. Brudenell Carter, Ophthalmic Surgeon to St. George's Hospital; Dr. J. C. Steele, Medical Superintendent of Guy's Hospital; Mr. Alfred de Rothschild, Mr. Clifford Wigram, Mr. W. H. Burns, Mr. Charles Rawlings, and others.

GOOD MEALS FOR SCHOOL TEACHERS.

It is proverbial that to keep an Englishman in good temper he must be well fed, and the teachers in some primary schools appear to find it hard to work in the afternoon when unable to get any mid-day meal. The new schools must be built where they are wanted, and where space can be obtained at reasonable cost. This has led to schools existing in poor and densely populated neighbourhoods, without necessarily having any adjacent coffee-house or restaurant giving facility to the teachers for obtaining a good mid-day meal. Whenever there are cooking centres in connection with Board schools, no difficulties are experienced by the teachers and pupil teachers in buying well-cooked food for their dinners at a reasonable cost, but there is no systematic arrangement by which provision of this kind is made. In very poor neighbourhoods there is, but little choice for the teachers: they must either live near the schools, so as to get something to eat at their lodgings in the middle of the day, or dine off

sandwiches, buns, etc., as some young teachers do. Teachers preferring to live at a distance would not get home till six in the evening, or later. There is a "teacher's common room" at each school, but it is not possible for teachers to cook food there, and in summer there is no fire. In every school a woman is placed as caretaker; it might reasonably be arranged as a part of her duty that she should cook a plain mid-day meal for the teachers, say a joint and vegetables with pudding, the teachers themselves paying the cost. To become a teacher in a Board school is to undertake important and onerous duties, and it is very important that the health and strength of teachers and pupil teachers should not suffer from want of properly prepared food. When food is wanted in schools, the means of providing it are at hand, and we trust that School Boards will see that the necessary arrangements are made in cases where local circumstances show that they are needed, especially as no question of expense would be involved thereby.

BURIAL REFORM.

A MEETING was recently held at Margate under the auspices of the Burial Reform Association, to which Dr. Rowe addressed some very timely remarks upon the desirability of an alteration in the present system of burial. Dr. Rowe once more pointed out that the decomposition of the body after death is, when viewed from the chemical standpoint, always a combustion, and he admitted the logical consequence—namely, that the most perfect, rapid, and elegant form of combustion was cremation. The "earth-to-earth" system advocated by Mr. Seymour Haden, where the body is placed in a coffin of stout millboard, which rapidly decays, and permits the products of animal decomposition to pass directly into the surrounding earth, is undoubtedly a distinct advance upon the system still prevalent of burying in leaden or stout wooden coffins of many casings, which have the effect of retarding disintegration, and lead consequently to a storing up of huge aggregations of human remains in every stage of decay. Such a system is not consonant with reason, and the Bishop of London has declared it to be "inconsistent with the principles of the Christian faith;" it cannot therefore be defended upon any other ground than an unreasoning acquiescence in a comparatively modern and most unhygienic custom. The Burial Reform Association, of which the Rev. F. Lawrence, Westow Vicarage, York, is the Honorary Secretary, advocates early interment, and the use of perishable coffins to permit rapid disintegration after burial in the earth. As to the first, there can be no room for difference of opinion; and as to the second, those who are unwilling to carry the matter to its logical conclusion may fairly be asked to resort to this system, to which the term "Eremaeusis" has been applied. A conference will be held by the Society in the Portman Rooms, Baker Street, on February 23rd, at 3.15 P.M., in which Sir Edward Sieveking, Dr. B. W. Richardson, F.R.S., the Hon. Dudley Fortescue, and Dr. Danford Thomas will take part. Medical officers of health and other persons interested in burial, funeral, and mourning reform are invited to be present.

THE DIET OF NURSING MOTHERS.

THE influence of the diet upon the function of lactation is a subject of such importance for the rising generation as to warrant frequent investigations by scientific authorities. It seems to be one of the evils inherent in a high degree (so-called) of civilisation that women, in a large proportion, especially among the upper and middle classes, should suppress and ignore the physiological function of the secretion of milk, and abandon the privilege of nursing their children in the natural way. But this being the case, it is desirable that the best substitute be provided. The feeding-bottle is but a poor substitute for the mother's breast, and of late there is a tendency to give too diluted a milk. A wet-nurse

is the best substitute for the mother herself, and a knowledge of the influence of the food upon the composition of milk ought to be widely circulated, at least in its chief features. Dr. Zaleski, Docent in the University of Dorpat, is the latest worker (*Berl. Klin. Wochenschr.*, Nos. 4, 5, 1888) in this subject. He has made careful analyses of the proximate constituents of milk, both in the lower animals and in women, under various conditions of diet, and his chief conclusions are: 1. Milk which contains an undue proportion of fat may have a very injurious effect upon the child. 2. A highly nitrogenous diet causes a great increase of fat in milk; the same kind of diet lowers the proportion of milk-sugar, but has very little influence over the other constituents. Alcohol exerts the same influence as a nitrogenous diet. 3. A proper composition of the milk may be attained, speaking generally, by the use of a proper dietary. 4. The lower animals are subject to the same laws as human beings in the above respects. 5. A large proportion of milk is derived, directly or indirectly (that is, by changes in the blood itself or in glands), from albuminous sources. The above conclusions are directly opposed to the views of the laity on the subject. The wet-nurse, as a rule, is a highly privileged being, who must be allowed an unlimited quantity of butcher's meat and a good supply of stout. The amount of exercise usually taken is a gentle saunter at her own sweet will; active exertion is out of the question. Probably the diet has been previously very plain, and too often the sudden change influences the composition of the milk to the detriment of the child. Diarrhoea, of a more or less fatty character, is often the consequence, and Dr. Zaleski instances a case in point. Chemical analysis of a specimen of the milk of a wet-nurse revealed over 6 per cent. of fat, and inquiry was made as to the condition of the child. It appeared that the child was ailing ever since the services of the wet-nurse had been called into requisition. The latter was a poor girl, whose diet and whole course of life was changed when she became a wet-nurse, and that this injuriously affected the lacteal secretion was proved by the fact that her own child had been far from well since then. An immediate return to the previous mode of life was ordered for the nurse, with the best results.

ANOTHER ANTIVIVISECTIONIST MARE'S NEST.

IF we may judge by the straits to which the agitators are put for materials, and the admission that there prevails "too great optimism in regard to what goes on in England in the matter of vivisection," it would seem that the public mind has become aware of the absurdity of the distorted and often unfounded statements put forward as ground for imposing still further restrictions beyond those which have more than attained the desired end. At the last meeting of the Pathological Society in 1887 some very uncommon kinds of fracture were discussed, and Sir James Paget referred to some experiments made by him years ago which had impressed him with an idea of the enormous force which must be suddenly applied in order to fracture a bone in an adult, and suggested that it would be useful to make fresh experiments in this direction. A correspondent of a contemporary reproduces our report of Sir James Paget's remarks (*JOURNAL*, December 24th, p. 1384), and adds:—"Remark from me is needless. The fact that Sir James Paget expresses this wish, and that Mr. Stephen Paget is secretary of a society which holds vivisection to be an allowable and laudable method of research, is sufficiently ominous without any further words of mine." This reminds us of a story about Bishop Berkeley and his tar water, a remarkable fluid which was believed by him to possess the most wonderful curative properties. A committee, of the Royal Society, if we remember rightly, was appointed to investigate the remedy and collect cases. At one of its meetings it received a letter from a gentleman, who said that he had fallen and broken his leg, but that, by the use of suitable bandages and tar water it was so rapidly and soundly cured that he

was able to walk about on it the next day. The committee was overjoyed, and began to noise abroad this marvellous cure, until, at its next meeting it received another letter from the same gentleman, who said that he had omitted to mention, in his previous communication that the leg was a wooden one. Bishop Berkeley fell into a trap which was laid for him, but the antivivisectionists dig pitfalls into which to tumble. The experiment suggested by Sir James Paget would be performed on a dead body, as was evident to any medical reader of our report from the context, and our reports are addressed to medical readers only. To adopt the phraseology of our opponents, "Remark from us is needless."

PARASITIC FÆTUS.

IN the discussion which followed the exhibition of Mr. Owen's specimen of an anomalous sacral appendage, at the Pathological Society on Tuesday, Mr. Baker and Mr. Bland Sutton expressed their opinion that the appendage ought to be considered as a parasitic fœtus. Mr. Sutton also referred to an example of this monstrosity which is at present being exhibited in London. The subject, "Laloo," is a lad from Oudh, aged 17, about five feet two inches in height, and of a very dark complexion. His expression is pleasing and intelligent, and his disposition very cheerful. There is no family history of any monstrosity. The mass, which appears to be of, at the most, very limited sensibility, is attached chiefly to the epigastric region. It consists of the structures forming the shoulder-girdle, including the integuments, which bear a pair of nipples; and of a second part, including the buttocks and lower extremities. The pubes is hairy, the penis well-formed and its glans uncovered, urine occasionally passing from it. The anus appears to be imperforate. The arms are very long, like those of an American spider-monkey (*Ateles*); the buttocks form a projection rather bulkier than a cocoa-nut; the left foot hangs down nearly as low as the knee. Both extremities present numerous deformities, which cannot be satisfactorily described in this paragraph. Next to the fact that there is a large parasitic fœtus dependent from the epigastrium, the most singular feature of the case is the complete separation of the shoulder-girdle from the lower parts of the parasite. The two parts appear to be separately united to the boy's trunk by freely movable joints; they are invested by a common integument, and divided from each other by a deep groove. We understand that Mr. Sutton and Mr. Shattock examined "Laloo" on Wednesday, for the purpose of furnishing the Pathological Society with a full report of the case.

THE HISTORY OF THE GERM THEORY.

PROFESSOR EDGAR CROOKSHANK gave an interesting lecture at the Parkes Museum of Hygiene on February 2nd. After some preliminary observations he referred to the writing of Kircher, and to the discovery of micro-organisms by Lœwenhoek, whose researches were eagerly caught up by some physicians. Nicolas Andry and his school regarded these minute organisms as worms, and attributed small-pox and other diseases to their action. Lancisi believed that the deleterious effects of marshes were due to such minute creatures, and the rapid extension of the theory to account for all sorts of diseases brought it into ridicule. The micro-organisms themselves, however, continued to be studied, notably by Gleichen, Hill, and Müller; and subsequently the discussion which arose with reference to spontaneous generation invested the investigation with profound interest. After giving an account of the scientific controversy which raged on this subject for so many years, Professor Crookshank mentioned the discovery by Cagnard de la Tour and Schwann of the dependence of alcoholic fermentation on the yeast plant, and pointed out that, owing to relations which were believed on theoretical grounds to exist between the process of fermentation and that of certain dis-

eases, again brought the germ theory of disease into prominence. The discovery by Bassi of a fungus in the silkworm disease encouraged the theory, which was adopted and ably defended by Henle. Pasteur took up the study of the yeast plant, and in 1850 Davaine discovered the bacillus of splenic fever. Then followed Pasteur's researches on the diseases of wine, and the silkworm disease. Davaine, again, studied the anthrax bacillus in 1863; but it was Koch who first published its whole life history, and, by his subsequent observations, placed the existence in some diseases of *contagium vivum* beyond a doubt. The new field thus opened up was soon crowded by investigators, and the results were liable to be received either with incredulity or with too enthusiastic belief. The lecturer concluded by pointing out that we as yet had no adequate proof of the existence of *contagium vivum* in hydrophobia, small-pox, vaccinia, typhoid fever, scarlet fever, and measles. The lecture was illustrated by numerous diagrams, by copies of the works of writers mentioned, and by microphotographs of bacteria, projected by an oxyhydrogen light.

NEW CLINICAL INSTITUTION IN ROME.

THE *Riforma Medica* of January 20 states that the foundation stone of the Policlinico Umberto I was laid on January 19th by the King of Italy. The Queen and the Prince of Naples were also present, together with the Ministers of State and a large number of Deputies, Professors, and public functionaries. An address was delivered by Professor Guido Baccelli, President of the Roman Academy of Medicine, to which the King made a suitable reply, in the course of which he said that, gratifying as the present occasion was, it would be a happier day for him when the building was completed and he could visit the sick in it. The site is outside the Porta Pia, and the plans have been prepared by Cav. Giulio Podesti. The buildings will cover an area of 160,000 metres, and will be constructed in accordance with the most advanced hygienic principles. The new institution is intended not only for the treatment of disease, but as a school of medicine, on which great hopes are founded for the restoration of Italy to the leading position which she formerly held in science. The arrangements for clinical study and pathological research are designed on a scale of the utmost completeness. The foundation of the Policlinico Umberto I is the work of Professor Baccelli, and is only a small part of a comprehensive scheme for the reform of university teaching throughout Italy which he brought forward some years ago when Minister of Public Instruction. His enlightened efforts failed owing to causes which we in this country have no difficulty in understanding. It was the old story of hesitation and delay on the part of the powers that be, and excessive tenderness for vested interests and traditional abuses, complicated with the usual personal and corporate jealousies.

INOCULATION FOR SMALL-POX IN ALGERIA.

DR. PRENGRUEBER has recently written a pamphlet on variolous inoculation as practised by the natives of Algeria. Sometimes the inoculation is made by a linear incision between the thumb and forefinger, and this may cause an indolent local ulcer, lymphangitis, or phlegmonous erysipelas. The practice is one of many employed to procure abortion. The most serious result of inoculation is the frequent artificial production of very severe epidemics, which it undoubtedly effects. Dr. Prengrueber witnessed an epidemic in 1878. In the midst of a population of 13,763 inhabitants, he noted 710 cases of severe and confluent small-pox, with 94 deaths. The origin of the epidemic was satisfactorily traced. A soap merchant of the tribe of Amon-Alls was found, on his return from the city of Algiers, to be suffering from confluent small-pox. The entire tribe, including the children, rushed to his abode and inoculated themselves. The epidemic soon developed, and spread to the Krachnas, Boulderballahs, Mosbahas, and Senhadjis, apparently in

the same manner as caused its outbreak amongst the Amon-Alls. It only ceased when there was nobody left to inoculate. Dr. Prengrueber observes that these Kabyle tribes form an endemic focus of small-pox which spreads to the Europeans and Arabs. Inoculation should be suppressed and vaccination enforced by law, supported, on account of the obstinacy of the Kabyles, by Lebel guns and rifled cannon. He advocated the establishment of stables for calves all over Kabylia; this would avoid vaccination from vaccinated infants, to which the native mothers strongly object. The *keikh* might readily be made an ally, which would encourage vaccination from the calf. British sportsmen often select Algeria for hunting large game; they should not overlook the prevalence of small-pox in country.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

AT the meeting of the International Congress of Hygiene and Demography in Vienna last autumn, a permanent committee was appointed to perpetuate the organisation of the Congress, and to initiate the necessary steps for holding the next Congress in London in 1891. A preliminary meeting of persons nominated by societies interested in hygiene was held this week, at which the English members of the permanent committee—Sir Douglas Galton, Professor W. H. Corfield, and Mr. Shirley Murphy—were requested to take steps to bring the subject before the universities, medical corporations, and engineering, architectural, and statistical societies of the United Kingdom.

PIRONITRATE OF AMMONIA IN MALARIAL FEVER.

IN the Bulgarian *Meditzinsko Spisanie*, Nos. 31 and 33, 1887, Dr. A. Golovina, lady physician to the Varna Town Hospital, writes that, at the suggestion of Professor Fr. Goll, of Zürich, she tried pironitrate of ammonia, in 3-centigramme pills, four times a day, in seven cases of malarial fever of quotidian type. In five the paroxysm ceased to recur (in one case from the second day of the pironitrate treatment, in three cases from the third day, and in one from the sixth). Three of the successful cases were of recent origin, and two fairly old. The quinine treatment had been previously tried in three of them (including the inveterate ones) without result. In a sixth patient, however—a lad with quotidian fever of two and a half months' standing—a seven days' course of the pironitrate utterly failed to arrest the paroxysms, the latter subsequently disappearing in two days under quinine (50 centigrammes twice daily). The pironitrate apparently gave negative results also in Dr. Golovina's seventh case. No unpleasant secondary effects were ever observed.

THE ILLNESS OF THE CROWN PRINCE.

WE learn by special telegram from San Remo that the Crown Prince's symptoms had become so urgent that tracheotomy had to be done on Thursday morning. We are pleased to say that the operation was performed with complete success. It is natural enough that some alarm should be felt by the public that this procedure should have become necessary. Our readers, however, will no doubt remember that we have more than once hinted that such a contingency was not unlikely to arise, and last week we intimated, as plainly as was possible under the circumstances, that the time was not far off when the operation would be imperatively required. It is quite inaccurate to speak of the Prince's present condition as a "relapse"; the local symptoms have simply become rather suddenly intensified without any substantial change in their character. The possibility of such an event has been clearly foreseen all along, and it has been obvious for some months past to those

acquainted with the facts of the case that tracheotomy, sooner or later, was inevitable. We are in a position to state that all these points were fully explained, a considerable time ago, to the illustrious patient himself, and to his relatives both in Germany and in this country. It may be well to emphasise the fact that the necessity for surgical interference which has arisen does not in the least degree contradict the more favourable reports as to His Imperial Highness's condition and prospects which we have lately been able to give. It is still highly probable that the disease is not cancerous, but obstruction of the larynx, however "innocent" in itself, is a complication that can only be dealt with effectively by the surgeon's knife. It should be distinctly understood that the operation, when done as in the present instance merely as a security against possible accidents in the future, is not only very slightly dangerous in itself, but is one of the most successful in surgery. There is no reason why a man suffering from a disease which obstructs the upper orifice of the windpipe, but does not spread to neighbouring parts, should not, if tracheotomy is performed in time, live out his full natural lease of life. If at any subsequent period the passage becomes clear again, the tube can be removed; if not, it may continue to be worn with comparatively little inconvenience or discomfort. With a properly constructed instrument the patient is not only free from all risk of suffocation, but is able to speak with perfect ease and distinctness, and can discharge the duties of life, and take part in most of its pleasures, without trouble to himself or distress to others.

SCOTLAND.

ROYAL INFIRMARY, ABERDEEN.

At a special meeting of the Aberdeen Royal Infirmary Corporation recently held, regulations were adopted for the joint management of the infirmary and the asylum.

LIGHTING A LUNATIC ASYLUM BY ELECTRICITY.

At a meeting of the Fife and Kinross Lunacy Board, the question of lighting the asylum by electricity was brought up, and it was agreed to apply for estimates from some of the leading electric lighting companies. A committee was formed for the purpose.

EDINBURGH ROYAL INFIRMARY SAMARITAN SOCIETY.

THE Samaritan Society in connection with the Edinburgh Royal Infirmary continues to do much real good work. At the ninth annual meeting, presided over by Sir Alexander Christison, the Secretary stated that they had every reason to be grateful for the work done during the past year, and for the generous support they had received from the public. The finances of the Society were good. During the year, 895 weekly allowances had been paid to the families of 110 patients, giving an average of eight payments to each family. A number of gentlemen spoke of the great work done by this Society as a supplement to that of the infirmary.

EDINBURGH ASSOCIATION FOR INCURABLES.

THE committee of the Edinburgh Association for Incurables report that, had the accommodation at their disposal been much larger than it is, it could have been fully utilised during the past year, during which time they have admitted 21 males and 23 females, which, added to 33 males and 33 females who were in the home on December 31st, 1886, gave a total of 54 males and 56 females who had received the benefit of the institution. During 1887 32 inmates died, while 15 left of their own accord or were discharged, leaving 31 male and 32 female

patients resident on December 31st, 1887. The wards were fully occupied during the past year, and the committee had dealt with 128 applications, of which 4 were declared unsuitable, 37 were withdrawn or held as withdrawn, 13 died before vacancies occurred, 44 were admitted, and now 30 were standing over for consideration and opportunity. We regret to observe a very considerable falling off during 1887, both of subscriptions and of legacies, the former having fallen off by £197 and the latter by £599; donations, however, showed an increase of £68. The meeting of subscribers, presided over by Lord Trayner, at which these details were made known, was addressed by a number of leading members of the community, who spoke strongly in favour of renewed efforts being made to increase the usefulness of the institution.

GLASGOW UNIVERSITY EXTENSION SCHEME.

AFTER considerable delay the Senate of Glasgow University has constituted a Board for the extension of university teaching by local lectures and classes similar to the Boards already established in Oxford and Cambridge. The Board consists of the Senate and of a large number of the most eminent citizens of Glasgow, such as the Hon. the Lord Provost, Sir John Cuthbertson (of the School Board), Mr. Cochran Patrick, Dr. A. B. McGrigor, and Dr. W. G. Blackie. Professor McKendrick is one of the honorary secretaries. A scheme has been prepared, of which the most important points are as follows. Courses of lectures will be arranged for in Glasgow and the surrounding districts. The Board will determine the subjects and appoint the lecturers. Each course will consist of twelve lectures, delivered once each week during a period of three months. An examination will be conducted at the termination of each course by an examiner appointed by the Board, and to those who pass certificates will be granted in the name of the University. The local arrangements will be undertaken by special local committees, who will pay the fees required by the Board and other expenses. At a large meeting of the Board held in Glasgow on February 1st the proposed constitution was adopted, and a committee was appointed to take steps for carrying the scheme into immediate effect.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

At the last meeting of this Society on February 3rd, Dr. H. C. Cameron made remarks on a case of extra-uterine pregnancy, on which he had successfully operated. Full term was considerably past, and the death of the child before the woman came into hospital had made the diagnosis unusually difficult. After removing the child, which was a well-grown fetus at full term, Dr. Cameron stitched the cyst to the abdominal wall, leaving the placenta in its position. Thorough cleansing of the cyst was performed twice daily. After some days fragments of the placenta began to come away, and finally the remaining mass, considerably shrunken, presented at the wound, and was easily removed. Recovery was throughout uninterrupted, the cyst gradually becoming contracted to a very small size. The fetus and placenta were shown to the Society.

ROYAL HOSPITAL FOR SICK CHILDREN.

THERE were treated by the staff of the Royal Hospital for Sick Children, Edinburgh, during the month of January, 529 patients, of whom 52 were in the wards at the beginning of the month while 51 were admitted during it, 20 were discharged as cured or recovered, and 8 were relieved; the average number daily resident in the wards was 43. In the dispensary department 421 out-patients were treated, and 5 children were vaccinated. The majority of the new cases were from Edinburgh and Leith, only 13 being from the country.

THE NATIONAL REGISTRATION OF PLUMBERS,

A PUBLIC meeting of those interested in the expediency of registering plumbers and providing for their special training, in view of the important bearing which the plumbers' craft has upon public health, was held at Aberdeen on February 6th. The meeting was called by Mr. R. E. Coles, clerk to the Worshipful Company of Plumbers of London, and there was a large attendance of plumbers from the city and representing Aberdeen, Banff, and Kincardine. Lord Provost Henderson occupied the chair. Professor Matthew Hay, who addressed the meeting at considerable length, expressed the opinion that the decrease in mortality in Aberdeen and other cities had been more largely due to improvement in plumbing and in architecture than to any improvement in medical treatment. He concluded by moving that the following gentlemen should be elected as representing the public, and adding to those representing the masters and operatives: William Henderson, Lord Provost of Aberdeen; Dr. Maitland Moir, chairman of the Public Health Committee; Dr. Matthew Hay, ex-Provost; James Matthews, architect; William Smith, city architect; George Rose, convener of the Incorporate Trades; Dr. Alexander Ogilvie, head master Gordon's College; John Miller, Sandilands; William Boulton, burgh surveyor; Kenneth Cameron, sanitary inspector; with Mr. A. M. Byres as secretary. This was unanimously agreed to.

IRELAND.

DEATH OF DR. D. D. TATE.

DR. D. D. TATE, lately resident medical officer, North Dublin Union, died on Tuesday. He had recently retired on pension, owing to severe illness, from which he never thoroughly recovered.

DR. CROKER KING.

WE regret to learn that Dr. Croker King does not make the satisfactory progress which was hoped for, and that it is unlikely that he will be able to resume his duties as medical member of the Local Government Board.

THE CAVENDISH LECTURE.

SIR W. STOKES, Professor of Surgery, Royal College of Surgeons, Ireland, has been invited by the West London Medico-Chirurgical Society to deliver the Cavendish Lecture.

THE ROYAL UNIVERSITY IN IRELAND.

THE Senate of the Royal University has determined that in future the degrees of B.Ch. and B.A.O. shall be conferred in addition to the M.B. upon all candidates who pass the examination for qualification as required by the new Act of Parliament. Candidates will not be required to pay any extra fee. The higher degrees of M.D., M.Ch., and M.A.O. may be taken in three years subsequent to the primary degrees. The privilege now given to old students of the Queen's University of proceeding to the degree of M.D. on the course recognised in that university will be withdrawn at the close of the year 1891.

RELIGIOUS MANIA.

A VERY singular occurrence has recently taken place at Gortley, a village not far distant from the famous Gap of Dunloe. On Saturday, February 4th, six members of one family, in a fit of madness, murdered an idiotic boy aged 13, and threw his body into the yard adjoining the house. The perpetrators of the deed are now inmates of Killarney Lunatic Asylum, but the mother of the lad has confessed to have had some hallucination that so long as he lived the family would be subject to evil influences. On this account she acknowledged having killed her son with a hatchet.

DR. MAGNER.

DR. MAGNER, of Cork, having been sentenced to two months' imprisonment for having taken part in a National League meeting contrary to law, the Local Government Board issued a sealed order dismissing him from his position as dispensary medical officer. At the annual meeting of the Cork Medical Association a resolution in reference to the matter, but the terms of which have not been made public, was passed unanimously, and ordered to be sent to the Local Government Board.

BRITISH MEDICAL TEMPERANCE ASSOCIATION:
NORTH OF IRELAND BRANCH.

THE annual meeting of this Branch was held in the rooms of the Irish Temperance League, Belfast, on January 26th. The President (Brigade-Surgeon M'Farland) occupied the chair. Brigade-Surgeon M'Farland was re-elected President, and Dr. Wm. G. Mackenzie Honorary Secretary and Treasurer for the ensuing year. Dr. Thompson, J.P., Anahilt; Dr. J. Dysart M'Caw, Portglenone; Dr. Dickson, J.P., Ballynahinch; Dr. Taggart, Antrim; Dr. Elliott, Derry; Dr. H. M. Johnston, Stranorlar, Donegal, were elected Vice-Presidents. After a discussion as to the best means of securing the interest and co-operation of those members of the profession who do not now sympathise with the principles of personal abstinence, in which Drs. Barnett (late H.M. Indian Army), Arnold, Osborne, Scott, Sinclair, and the President took part, it was resolved that the Secretary be instructed to send a circular to all the members urging upon them to bring the claims of the association before the medical brethren in their various districts.

THE LATE DR. DAVID J. HAMILTON, OF COOKSTOWN.

AT a meeting of the Cookstown Board of Guardians, held last week, the following resolution was adopted:—"That this board desire to express their sense of the loss they have sustained in the death of Dr. Hamilton, who had been for forty-six years medical officer of the workhouse, and their deep sympathy with his daughter and other relatives." The board have appointed Dr. C. Graves as *locum tenens* in Dr. Hamilton's place, and will elect his successor on February 11th.

THE ROYAL BARRACKS, DUBLIN.

WE publish elsewhere some particulars, which will be found very interesting. The report of the commissioners appointed by Government to inquire into the outbreak of typhoid fever has not yet been made public; but we believe we have been able to collect and present as full a history of the case as is so far available. It is quite plain that there is a fever nest in the Royal Barracks. We think the starting-point has been clearly traced to the ventilating shaft of a sewer at the cavalry mess, and we do not doubt that fresh centres have been established through the impure latrines and the adulterated milk. The ventilating shaft has been removed, and already all improvements that can be rapidly made are being carried out. The pulling down of buildings as recommended will get rid of the narrow lane ways, and the erection of a proposed new cavalry barracks nearer to the Phoenix Park will remove another source of mischief. We are sure that the report will prove a valuable one, and it is to be hoped that, with the changes which must be carried out, the plague spot will disappear.

ANGER OF ENTERING A TRAIN IN MOTION.—Mr. Mortimore Smith, L.R.C.P., of Southport, met with a very serious accident on Tuesday night, whilst attempting to enter the train at Formby, when in motion. Having stepped between the footboard and the platform, he was dragged for some distance, and sustained a compound fracture of the thigh in the lower third, complicated by extensive crushing of the knee-joint. He was immediately removed to the Southport Infirmary, where the thigh was amputated by Dr. Arthur Jones. The patient sank and died on Thursday morning. Dr. Smith had only been in practice at Southport for about two years.

THE NEUROLOGICAL SOCIETY OF LONDON.

THE general annual meeting of this Society took place at the Holborn Restaurant on the evening of February 2nd. The following office-bearers, nominated by the Council, were unanimously elected:

—*President*: Sir J. Crichton Browne, M.D., F.R.S. *Vice-Presidents*: J. Hutchinson, F.R.C.S., F.R.S.; Thomas Buzzard, M.D., F.R.C.P. *Council*: H. Charlton Bastian, M.D., F.R.S.; A. Hughes Bennett, M.D., F.R.C.P.; D. Ferrier, M.D., F.R.S.; J. Hughlings Jackson, M.D., F.R.S.; G. J. Romanes, F.R.S.; G. H. Savage, M.D., F.R.C.P.; E. A. Schäfer, F.R.S.; James Sully, M.A.; D. Hack Tuke, M.D., F.R.C.P.; Samuel Wilks, M.D., F.R.S. *Treasurer*: J. S. Bristowe, M.D., F.R.S. *Honorary Secretaries*: James Anderson, M.D., F.R.C.P.; A. de Watteville, M.D., M.A., B.Sc.

After the business meeting the members of the Society dined together; Sir JAMES CRICHTON BROWNE, President, in the chair. About forty members and a number of guests were present, and amongst the latter was the President of the Royal Society, Mr. Joseph Thomson (the African explorer), and Professor Mivart.

After the loyal toasts, the CHAIRMAN, in proposing the toast of the evening, "The Neurological Society," said that division of labour, it seemed to him, was ever characteristic of advancing civilisation, and that localisation of function might be observed, not less in the community than in the individual. The manufacture of cotton had its centre in Lancashire, that of woollens in Yorkshire, that of gloves in Worcestershire; and in every great hive of industry in these days, like Birmingham, they found that various operations were carried on in different establishments and by different artisans, which in more primitive times would have been conducted in one workshop and by one pair of hands. In science, he ventured to think, as in industry, as that prominent representative of science who had honoured them with his presence there to-night—the President of the Royal Society—would testify, the same kind of division of labour was perpetually going on. It was no longer possible for any one man to emulate Solomon, and talk wisely of beasts and of fowl and of creeping things and of fishes, and to be as encyclopaedic as Aristotle, and every student of science who would be a profitable student must now be content to toil diligently, after a comprehensive general training, of course, in some allotment of one of the fields into which the great domain of science had been broken up. The growth of the tree of knowledge implied the multiplication of branches, and the law would seem to be that in proportion as any branch of science became less abstract and more practical, so the division of labour must be pushed further and further in order that those who followed it might be endowed with due skill and insight. Biology had been broken up into botany, zoology, anatomy, physiology, and so forth; and medical science, which was a branch of applied biology, had been specialised to an extent which was almost a reproach, for they had been told that there was no organ in the human body except the umbilicus, which had not a group of physicians exclusively devoted to the treatment of its diseases. Well, perhaps specialism had been carried a little too far, and they might in some instances have sacrificed breadth to insight, but specialism in medicine was to some extent inevitable, and, in certain directions, it was not only inevitable, but desirable, as in the case of the diseases of an organ, or a system of diseases which were peculiarly complex and varied, that required to be investigated by special methods and special instruments needing special dexterity in their use, and that required to be reviewed from time to time in connection with the development of certain rapidly progressive branches of pure science. And on these grounds he ventured to claim that the diseases of the nervous system, which were certainly very complex, very obscure, and very varied, which required to be investigated by special methods and special instruments, and which had constantly light thrown upon them by physiology on the one hand and psychology on the other, constituted a natural and real speciality in medicine which well might demand the undivided attention of a group of physicians as well as the collateral assistance of other physicians, who, though not making nervous diseases their special study, were particularly interested in them. If nervous diseases constituted, as he claimed, a natural and a real speciality in medicine, they were entitled, he thought, to a Society of their own, in which those that studied them might meet and compare notes—a sort of thought exchange

to which the workers might bring their products to be sampled by those who understood them, to have the actual value attached to them by debate or the haggling of the market, as it might be called. It had thus come about that a few psychologists, who had been accustomed to study mind in connection with its anatomical substrata, a few ardent physiologists who had made a special and particular study of the functions of the nervous system, and a large number of physicians who were engaged in grappling with the disorders and diseases of that system, had found it convenient to band themselves together for mutual encouragement and support into the Neurological Society, the second anniversary of the birth of which they were met to celebrate that evening. Having survived the perils of infancy the Neurological Society had now attained to the enjoyment of solid food and its first dinner, and seeing that the rudimentary brain was a supra-oesophageal ganglion, it seemed to him but right and expedient that the Neurological Society should not altogether overlook the great function of deglutition, and hence their dinner. A number of those who were there that evening had been at the making of the Neurological Society, and it was not necessary to rehearse its origin or progress, but he might merely say that, thanks in a great degree to their indefatigable secretaries—Dr. de Watteville, who was fondly thinking of them on a peak of the Engadine, and Dr. Hughes Bennett, who was blandly smiling upon them at that board—thanks to their exertions, the Society was already in a flourishing condition. Its roll of members was long and lengthening; its meetings had been well attended, and had given rise to discussions of the most thorough, searching, and practical description; and not only had it reached, as he (Sir Crichton Browne) had pointed out, to the enjoyment of solid food, but obtained the command of an organ of articulate speech, for the journal *Brain* had passed into their hands—a journal which, he ventured to say, had already obtained some scientific standing, not only in this country, but on the Continent and in America. He ventured to augur well for the future of the Neurological Society which they inaugurated, and he founded his favourable prognostications upon the knowledge of the stuff of which the members were made, and of the spirit which animated them, of the significance to the community of much of the work in which they were engaged, and of the high and abounding interest of some of the subjects which occupied their attention. As to the stuff of which the members were made, he was quite sure there was no medical society which included a larger number of members devoted to scientific work for scientific work's sake. Happily they had amongst them a large number of practical physicians, whose skill and experience were at the service of the public whenever those silver cords, the nerves, were loosed, and whenever that golden bowl, the brain, was broken, and who obtained substantial rewards. But the neurological work of these practical physicians, like Hughlings Jackson, Buzzard, Ferrier, and Bastian, if looked into, would be found to be of the most thorough and laborious and patient character, with no facile element of display in it; and besides these practical physicians, they had some students of pure science: a number of gentlemen who were 'devoting' themselves to neurological inquiry, animated only by intellectual zeal. The members of the Neurological Society, as a body, seemed to him to be made of the true scientific material, which was likely to give strength and durability to its organisation. With regard to the spirit which animated the members, he might say that it was one of sanguine expectation. Remarkable discoveries on the structure of the brain and nervous system had been made of recent years, striking advances had been achieved in their knowledge of nervous diseases, and those discoveries and those advances had stirred up a spirit of enterprise and of curiosity, which, if he might compare small things with great, he would compare to that spirit which moved this country after the discovery of the New World, and which filled "the spacious times of great Elizabeth with sounds that echoed still." Neurologists had two hemispheres to explore, and the promise of rich treasures of discovery to those scientific adventurers who would embark on the voyage of research. He thought he might say that, stirred by those discoveries and advances that had been made, the members of the Neurological Society were now moved by fervid expectation and anticipation. He was well aware that such fervid anticipations were sometimes fallacious and disappointing, and perhaps some of them would recollect what Oliver Wendell Holmes had told them of his fervid anticipation when he was, as he thought, about to read the riddle of the universe. Having observed that when unconsciousness is consciously approached, as during the

inhalation of an anæsthetic—when the mind is on the confines of two worlds—there arise sublime and voluminous, but fugacious thoughts, and having satisfied himself that in these thoughts, if they could only be caught and transcribed, there lay enshrined the secret of the universe, he determined that by a supreme effort of the will he would catch and transcribe them; so, placing himself in his armchair, with pen, ink, and paper at hand, he inhaled the vapour of chloroform. As drowsiness stole over him and just as unconsciousness was impending, those sublime and marvellous thoughts arose, and by a vigorous effort he seized his pen and wrote, he knew not what, for before he had finished he fell back unconscious. When he awoke, with trembling anxiety he turned to the sheet of paper, on which he could read, in scrawling characters but quite legible, the secret of the universe written in the words: "A strong smell of turpentine pervades the whole." Now that anecdote, he thought, taught that mere fervid anticipations were not to be built upon, but neurologists had momentous discoveries already made to found on. Touching upon the significance to the general community of the work in which the Neurological Society is engaged, he would remind them that the present was a nervous age. The nervous temperament was in the ascendant. The burden of the world's work, which used formerly to be borne by muscle, had been transferred to nerve in devising, guiding, and superintending machinery. Education, which had been so diffuse, had a nervous tendency, and their greatest neurological philosopher, Dr. Ross (of Manchester) had told them that those mental disturbances which were so prolific a source of disease must inevitably exercise a more and more predominant influence in their production as civilisation went on. Then they must remember that the nervous element in our population was constantly being increased by the preservation of sickly lives, which they owed to modern sanitary science. Those epidemics which used to devastate the country carried off a number of those of the least nervous resistance, and now that these epidemics had been restricted in their ravages, a large number of persons of weakly nervous organisation and unstable equilibrium, who would formerly have been cut off, were allowed to grow up and to suffer from every variety of nervous disease. "Take," he said, "infantile convulsions as an example. Within a period of twenty years the mortality fell from 26,000 to 22,000, and that notwithstanding an enormous increase in the population. Now, it was quite certain that under infantile convulsions there used to be classed a large number of maladies which were now recognised of a different nature. But, allowing for this, it was incontestable that a large number of infants, owing to improved methods of feeding and nursing, who would formerly have died of convulsions, were now reared to swell the nervous element in our population." The tide of nervous diseases thus rolled on, and that it did so might, he thought, be inferred from the fact that in the very same period in which the mortality from infantile convulsions diminished so notably the mortality from other nervous diseases rose from thirty to forty-nine per thousand per annum. Nervous disease being the disease of the future, the Neurological Society might, he thought, render important services in safeguarding the public health. It had an important mission, and affecting the general community in connection with mental and nervous hygiene. To bestow just one word on the lofty and absorbing interest of some of the questions which must be deliberated on from time to time by the Neurological Society, he would point out that those questions lay on the margin of that great unbridged gulf which separates the psychical from the physical, that unbridged gulf which was as alluring to the speculative philosopher as the lamp was to the moth. Not, perhaps, until the veil of Life's temple was rent in twain would they rightly comprehend the incarnation of mind in matter, but it was a law of our being to press as closely as may be upon that great mystery and to read with eager interest such fragments as were decipherable of the cryptic records of the brain.

DONATIONS.—Mr. T. Dyer Edwards has given £1,500 to the Chelsea Hospital for Women, to be applied in reduction of the mortgage debt.—Mr. Matthew Whiting, of Lavender Hill, lately paid a visit to the Royal Free Hospital, and on leaving handed to the Secretary a cheque for £1,000.—Mr. James Simcox has given £400 to University College Hospital.—The Mercers' Company have given 100 guineas to the building fund of the Great Northern Central Hospital.—Mr. Matthew Dobson has given £50 to University College Hospital.—"A.B." has given £50 to the Metropolitan Seaside Convalescent Cottage Association at Bognor.

THE HAYA POISON: ITS LOCAL ANÆSTHETIC PROPERTIES.

DR. L. LEWIN, of Berlin, who has already enriched our knowledge of the kava-kava and sassy bark, has, the *British and Colonial Druggist* reports, just coucluded an interesting research upon a new arrow poison, called haya poison, that Messrs. Thomas Christy and Co. sent to him, and which they had received from Africa.

The statement of our contemporary runs as follows; Dr. Lewin, in his report states that he received from Messrs. Christy a box, containing some shapeless fragments of an average length of one centimètre. A superficial examination of the poison showed it to consist of pieces of two different shapes. The first to be examined were amorphous; dark brown, but lighter in the fracture, where the colour was more of a brownish green; easily broken up and showing a smooth section when cut; when squeezed it became flat, and could only be reduced to a fine powder with difficulty. In this powder, as well as in the fracture of the pieces, numerous glistening particles were observed. The other pieces were almost black, somewhat of the colour of the aloe, and presented when splintered the translucency of the latter; the pieces had mostly a decided shape, being convex externally, and having on the inner surface a sharp-edged furrow, suggesting almost that it was occasioned by a narrow angular instrument having been pressed on the surface.

Dr. Lewin is of opinion that the mass had been attached to the barb of an arrow, and this, he says, is all the more probable, as in some of the furrows he noticed a good deal of iron-mould. The pieces which could not be cut up were brittle, fractured, and splintered, like the aloe, and were easily reduced to powder, which, unlike that of the pieces first described, was not sticky. In the powder similar glistening particles to those observed in the first were seen. Upon carefully examining these particles, which were freed from the powder of both the amorphous and the shaped pieces by an aqueous solution, Dr. Lewin found them to consist of gold spangles.

Both powders were odourless and tasteless, readily absorbed moisture from the atmosphere, the amorphous powder doing so to a much higher percentage. Both were soluble in water, especially boiling water, the solution of the amorphous powder varying from a straw to a brown colour, and that of the second powder being of a blackish colour, reminding him of a solution of apomorphine; both solutions, in a minor concentration, showed a distinct opalescence. Upon filtering the solutions there remained a residue containing flint and mica, and having a shimmer like mother of pearl.

Twice did Dr. Lewin separate from the residue some seed husk, which, however, could not be defined even by an expert. The epidermis of a bark was also obtained which, by careful and close examination with specimens in Dr. Lewin's collection, led him to suppose that they consisted of pieces of sassy bark, the ordeal poison of the Africans (*erythrophloeum judiciale*). This supposition was confirmed by Mr. Hemings, of the Botanical Museum of the University of Berlin, and by Dr. K. Schumann, who kindly compared it with specimens of sassy in their possession.

From the amorphous poison about 60 per cent. of the solid substance was extracted by water. The reactions of the aqueous solution were alkaloidal, and remained unaltered when heated in Fehling's solution. The solution of even the smallest particles, when boiled with mineral salts, became yellow, and when treated similarly with Fehling's solution, a bulky mass of oxide of copper was separated. A glucoside was also found. Phosphoric acid, picric acid, and tannic acid yielded from a strongly acidulated aqueous solution of the poison a flaky precipitate. The precipitate from phosphoric acid, when treated with baryta, yielded a minute quantity of golden-brown substance, having a decided effect upon animals' eyes, and which gave certain reactions with a sulphuric acid.

By repeatedly testing the poison with alcohol, a pale yellowish, active principle was obtained, which, in the case of the dark-brown pieces of the poison, was colourless. By adding water to this alcoholic solution, it became opalescent, and after a short time a colourless, flaky, and amorphous substance was precipitated, which does not affect the eye when applied to it. With a view of ascertaining the quantity of soluble matter in alcohol, two grammes of the amorphous poison were well soaked in a little cold alcohol, and then in a little hot alcohol; and, after exhausting the alcohol, 0.35 gramme of a yellowish residue were obtained.

This residue was repeatedly washed, and finally a micro-crystalline mass was yielded, whose crystals melted when heated, and re-crystallised on cooling; these crystals were dissolved by ether and alcohol, produced no effect upon animals, and were separated from the alcoholic residue by treating it with a little water, and then filtering.

After distilling off the water, there remained a substance which, by Lassaigne's process, showed glucoside reactions, which, though not very marked, were capable of being ascertained; this substance had an energetic local and general action on animals.

Dr. Lewin calls particular attention to the fact that the residue, its solution, and one of the whole poison, placed on a porcelain palette with concentrated sulphuric acid, afterwards cautiously and perseveringly manipulated until dry and then heated, gave when warmed a clear pink colour. After the addition of a dilute acid to the aqueous solution of the alcoholic residue, microscopical crystals, mostly rhomboid, were isolated.

After a careful treatment of the poison by alcohol there still remained a substance soluble in water, which seemed to possess a toxic effect unlike that of the alcoholic extract. Treatment with ether yielded no active principle; after passing off the ether, the residue was micro-crystalline, and showed fine needle-shaped crystals. Want of more materials prevented a more ample chemical examination of the poison.

Having often heard of an arrow poison which produced insensibility, Dr. Lewin made experiments to ascertain whether the haya poison produced anaesthesia of the cornea, and he was not a little surprised to find this effect to be obtained with all the animals upon which he tried it. Anaesthesia took place later than by cocaine, but lasted for eight or ten hours, gradually diminishing in its strength during that period. The application produced a passing irritation on the eye.

The action of $\frac{1}{4}$ to $\frac{2}{3}$ concentrated aqueous solution, injected with Pravaz's syringe, on the frog's heart was to diminish the pulsations from 30 to 8 per minute, with paralysis of the extremities. These effects were also noticed in warm-blooded animals. The after-effects were most remarkable, especially in small dogs, in which the respirations, after about twenty or thirty minutes, became arrhythmical, very rapid, with pauses of short duration, becoming, later on, protracted with dyspnoea and langoor; the head drooping, while the position of the body remained normal; there was free salivation. Then the head began to tremble, the animal lay on its side, and the extremities became paralysed; dyspnoea set in, and with it peculiar convulsions, during which the head was drawn close up to the body, the eyes were convulsively closed, and an undulating spasm passed over the whole length of the muscles of the body, and which appeared also to affect the intestines; the almost paralysed limbs were not subject to these convulsions. Decreasing sensitiveness of the surface of the body followed, and death ensued without convulsive effort. The convulsions were noticed to be more severe when using the poison extracted by alcohol and diluting it with water.

The aqueous or alcoholic solutions, injected subcutaneously into a pigeon, produced constant vomiting and frequent evacuations, protracted breathing, as noticed in the previous case; dyspnoea then appeared, and death took place, with convulsions of short duration. Administered to pigeons by the beak large doses only produced constant vomiting and diarrhoea, while small dogs and pigeons, when even so small a quantity as 0.3 gramme was injected subcutaneously, died from the effects. Pigeons remained healthy when even as much as 0.22 gramme was given through the beak.

Dr. Lewin concluded from his experiments that the haya poison may safely be classified with the African poisons already known, or perhaps is identical with them. The effects of the haya poison reminded him very much of those he had noticed with the poison of the Somali, the so-called Ouabaïo, and the effects of the latter resembled the intoxication produced by the erythrophloeum. Besides these coincidences his suspicions were more or less confirmed by the fragments of epidermis which he had found in the poison, and which so strongly reminded him of the erythrophloeum bark, which 13 years previously he worked upon. It was not, however, known that the erythrophloeum contained a principle having a local anaesthetic action, neither was the sulphuric acid reaction which he discovered in the haya poison known.

His suppositions were found to be correct, for a 2 per cent. concentrated solution of hydrochlorate of erythrophloeine obtained from Merck, immediately produced, with contraction of the pupils, insensibility of the eye, lasting from 10 to 24 hours; but

the irritating principle the erythrophloeine contains is present in too great a quantity for it to be neutralised in the concentrated solution; and this was proved by it producing in cats irritation in the cornea, much salivation, running at the nose, and violent sneezing.

It is worthy of notice that solutions of 0.25 per cent., or even 0.10 per cent. of erythrophloeine produced, without apparent irritation, in cats, dogs, guinea-pigs, etc., anaesthesia of the cornea after about 15 to 20 minutes, as was the case with the haya poison, the pupil remaining unchanged for many hours.

A solution of the haya poison was injected subcutaneously into a guinea-pig, and produced an insensibility of the part treated so great that he was able to cut down as far as the muscles without any discomfort to this most sensitive animal. Frogs in which tetanus was produced by injecting erythrophloeine into the leg showed no reaction of that limb when pricked, and the tetanus could not be removed.

Dr. Lewin said he was able to obtain, with the salts of erythrophloeine, that wonderful reaction with sulphuric acid which he is surprised has so long been overlooked. In conclusion, Dr. Lewin says, he has shown that erythrophloeine is contained in the haya poison, if only in minute quantities, and that the action of the poison is partly due to its presence. As soon as he was able to obtain more materials he intended to go further into these matters, and he expresses his satisfaction at the discovery he was able to make of a new anaesthetic.

THE OUTBREAK OF TYPHOID FEVER AT THE ROYAL BARRACKS, DUBLIN.

THE Royal Barracks, Dublin, has gained an unenviable notoriety on the score of its insanitary condition. It has figured in the House of Commons from time to time when some new case of typhoid has occurred, but for some years the authorities have been unable to discover or cope with the cause. Sufficient has now been revealed to show that there are probably several causes in operation.

So long ago as May, 1887, Sir Charles Cameron, medical officer of health for Dublin, and Dr. T. W. Grimshaw, the Registrar-General for Ireland, were appointed to report upon the state of the building and to endeavour to determine the circumstances connected with the prevalence of enteric fever among the troops stationed in the barracks. No one could have been selected better suited for such an investigation. The work was of a most laborious character, and the Blue Book, which will come before Parliament, will show how thorough has been the inquiry.

The geological structure of the site upon which the barracks stand possesses some peculiarities which are of considerable importance. The Dublin district generally stands on the "boulder clay" of the "glacial drift," which is one impervious stratum. There is, however, in the centre of the city of Dublin, extending along the valley of the Liffey, a gravel bed formed by an old raised sea beach. This gravel lies on the "boulder clay" before mentioned—the latter clay being an impervious stratum—the gravel a very pervious one. As the ground rises on each side of the Liffey, the gravel is found at the bottom and the clay on the higher sides of the valley. The result is that the drainage on the higher levels of the valley tends to run off the clay and accumulate in the gravel bed at the lower level. It necessarily follows that the gravel receives not only the sewage and drainage proper to its own area, but also that of the clay above. It so happens that the Royal Barracks are partly situated on the clay and on the gravel, and therefore all drainage not carried off by proper sewers and drains for that part situated on the clay tends to flow down towards the south and accumulates in the gravel. In terracing the ground to accommodate the buildings of the barracks, retaining walls had to be constructed; the dampness of these walls shows that a considerable amount of water is always passing from the higher to the lower ground, and this must ultimately find its way into the gravel bed below. Thus, while the aspect of the barracks is good, its site, from a geological point of view, is defective, and therefore the drainage arrangements require special attention to make the site a healthy one.

The period over which the statistics of typhoid fever in these barracks may be considered extends from 1879 to the latter part of 1887. During that time 59 cases occurred, with a mortality of about 20 per cent. But in 1879, while there were 218 cases in

Dublin with 3 in the barracks, in the first three quarters of 1887; with 90 cases recorded for Dublin, 27 occurred in the barracks. The record of cases in the several military centres is important. Dublin district, which extends right across Ireland to the west coast, shows 2.5 per 1,000; Dublin garrison, 3.5; Belfast, 0.7; Cork, 1.8; Woolwich and Home, 2.5. Deaths from all causes were, in the garrisons of the United Kingdom, 6.55; Dublin district, 6.82; Dublin garrison, 6.63; Home and Woolwich, 6.7. The death-rate in typhoid fever was, in Dublin garrison, 22.6; in the United Kingdom, 23.1.

That the geological structure on which the barracks stand has some influence is shown by the comparative death-rate. In the five years from 1882-7 the death-rate was 1 in 365 on the gravel bed, as compared with 1 in 531 in the rest of the city.

THE PLAN AND STRUCTURE OF THE BUILDINGS.

The distribution of the buildings of the Royal Barracks over the site is somewhat peculiar, and by no means conducive to the health of the inmates. The eastern group of buildings consists of Palatine Square, closed in on all sides, entered by archways, one of which is situated in the centre of each side of the square. To the south of this square is Brunswick Square, which has buildings on three sides only, the fourth side being open to the south. On the north side, and to the rear of Palatine Square, is a terrace rising to the level of the first floor of the buildings. At the eastern end of this terrace stand a number of buildings, which still further intercept the air and light from the windows of the north side of Palatine Square. At the other extremity of the terrace the boundary wall of the barracks is so close to the buildings as to produce the same injurious effect. In fact, all the north structures of the square on the lower storeys have their light and air interfered with. On the eastern side of this eastern group of buildings runs a roadway, with some low buildings on the public side. On the western side there is a totally different state of things. About half of the western side of Palatine Square, and the whole of the western side of Brunswick Square, have their western windows looking into a narrow lane, the opposite side of which is formed of a row of buildings. The lane is but twenty feet wide; the buildings on the Palatine side are four storeys high, and on the other side three storeys. The lane itself contains cook-houses, ablution rooms, washhouses, etc. Thus, the space between the eastern group of buildings, comprising Palatine and Brunswick Squares, and the middle group, is confined by a narrow lane closed at one end, and partly occupied by small buildings scattered irregularly through it—a state of things found in old and overcrowded towns, but not now to be expected in a barrack. An arrangement more calculated to lower the health of the occupants and to spread disease could scarcely be contrived. Similar unhealthy conditions prevail along the western as along the eastern side of this lane. The state of affairs on the western side of Royal Square is almost as bad as on the eastern. The occupants of the buildings cannot ever be expected to be healthy until the insanitary conditions are mitigated. The western group of buildings comprises Cavalry Square, the Horse Square, certain buildings to the north of the Horse Square, consisting of stables, with cavalry soldiers' quarters and recreation rooms over them. To the west of the group of buildings runs another lane, but in this case there are no high buildings; but, on the other hand, there are latrines, cook-houses, stables, and other obstructions. On the eastern side of the western group there is a long narrow lane separating this group from the central group of buildings, with all its unhealthy conditions. The air in these lanes was found to be decidedly bad, and abounding with micro-organisms.

PROBABLE CAUSES.

The cases appear to have first appeared in the Cavalry Square occupied by about fifty persons. Here are the cavalry mess and the cavalry officers' quarters. There were four cases among the officers, one of an officer's servant, and some amongst the sergeants and troopers on the opposite side of the square. A servant's water-closet near the mess room was found to be in a very bad condition. Running up outside the wall of the mess room was a ventilating shaft from the main sewer, not from the closet. When this was tested, it was found that the smoke, as soon as it became cool, began to fall, and then passed into the mess room windows. In summer this room became hot at night, and the windows were always open, so that the gases from the sewer below were constantly passing into the chamber occupied by the officers. A further examination showed that this sewer comes direct from the hospital at Arbour Hill, where infectious cases are treated.

The Palatine Square is occupied by infantry, and is separated from the Cavalry by another square (the Royal), also for infantry. In the Palatine Square two officers were attacked, but they had been in the cavalry mess. The men in this square were soon attacked also, and some cases followed in the Royal Square. It was found that the latrine is common to the infantry of both these squares; but sometimes cavalry men use it also, although that is against orders. Here the poison was probably deposited by the troopers, and in due time spread to the infantry. It was found impossible to flush this latrine effectually. With an enormous force of water only the sides were washed, and there still remained a quantity of decomposing filth. Thus when enteric fever poison got there, it remained there, and was propagated from man to man. The latrine became in turn a regular nursery for typhoid fever.

It is a point of much interest to note that typhoid fever prevails to a greater extent in the army at home than in the troops abroad, and it may be that it is propagated in the way here indicated by the change of regiments from station to station, where the system of drainage is on the same plan. A further interesting point is that in Dublin the death-rate from typhoid is much higher than among the civilian population, the proportion being 11 in civilian males to 22.6 in soldiers.

MILK.

On a particular day, all the milk supplied to the several barracks in Dublin was seized at the request of Sir C. Cameron and Dr. Grimshaw, and it was found that while in several cases the supply was bad, in the Royal Barracks 12 supplies showed 11 to be adulterated with from 13 to 56 per cent. of water. In the total amount of 29 supplies, only 5 were noted as good. Now, this was in the summer, when the cattle were in the fields. The milk was adulterated no doubt from the small streams in the neighbourhood, which were probably impure with cattle droppings. At all events it was from this period that the cases began to increase.

STRUCTURE OF BUILDINGS.

All the buildings are old, many of them very old. The age of the buildings is in itself a source of great difficulty in providing healthy conditions for the inmates. There is a considerable amount of old timber in the floors and elsewhere, which is somewhat detrimental to health.

SEWERS AND DRAINS.

The questions connected with old drains are necessarily very difficult of investigation in such a building as the Royal Barracks. In the many cases in which we have examined the connection between the main sewers we only met with the remains of a very few old drains, none of which contained any recent sewage matter, and must have been completely disused many years ago. In connection with the subject of old drains, it should be mentioned that in some places these drains still exist, and are in use. Such drains are probably harmless when they only carry complete surface drainage, but under all these circumstances they may become sources of danger, and therefore pipes should be substituted. There are no plans of the old drains in existence. We are distinctly of opinion that there are no grounds for believing that the health of the inhabitants of the barracks can be affected by neglected old drains. Important drainage works have recently been carried out by the Royal Engineers, and others are in progress, and cannot fail to have a beneficial influence upon the health of the troops quartered in the Royal Barracks. The latrines are of an unsatisfactory pattern, as are also the arrangements.

RECOMMENDATIONS.

A thorough subsoil drainage of the whole site of barracks, and an extension of the dry-earth system; removal of all irregularities and rendering surface of ground impervious—covering polluted ground with some such material as hygienic cement; removal of considerable portions of the present buildings; complete destruction of the narrow lanes. Buildings to be removed—the whole of the eastern side of Royal Square; the whole of the eastern side of the Horse Square, of the Cavalry Square, the eastern end of the block of buildings separating Cavalry Square from the Horse Square, the riding school north of Royal Square, the cook-houses near the riding school, and several small buildings; removal of boundary wall along Arbour Hill; removal of the magazines on the terrace to the north; the terrace to be sloped down; terrace to the eastern side of barracks in front of officers' stables to be sloped

down; removal of all the small buildings at present in the lanes and yards; ground floor of north side of Palatine Square to be disused for habitation; removal of all very old timber; ventilation of barrack rooms by "Tobin's tubes." Drainage from hospital to be so arranged that sewerage containing discharges from patients with infectious diseases should not be admitted to any of the general sewers of the barrack, and should be disinfected before admission into any sewer. A few other recommendations are made.

Concluding opinion:—That if the foregoing recommendations are adopted the health of the troops in the Royal Barracks will be much improved, and the predisposing causes of enteric fever in the barracks mitigated as far as possible.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, and a further portion of the Report upon OLD AGE have been completed, and will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has just been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held at the Town Hall, Walthamstow, on Thursday, February 18th, at 8.45 P.M. (sharp). The chair will be taken by A. Durham, Esq., President of the Branch. A paper on Pernicious Anæmia, and the Diseases liable to be Confounded with it, will be read by Dr. Bristowe, F.R.S. Visitors will be welcomed.—J. W. HUNT, 101, Queen's Road, Dalston, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—A meeting will be held in the Queen's House, Greenwich Hospital School, on Tuesday, February 14th, 1888, at 8 P.M. The chair will be taken by Dr. Frederick Taylor (Vice-President of the District). Business:—1. To read the minutes of the last meeting. 2. Introductory Address by Dr. Frederick Taylor, as the first Vice-President of the District. 3. Mr. W. Johnson Smith (Resident Surgeon to the Seaman's Hospital) will read a paper on the Radical Cure of Hernia. 4. Cases of interest from the Seaman's Hospital will be shown by Dr. Curnow. Gentlemen desirous of reading papers, exhibiting specimens, etc., at future meetings, are requested to communicate with the Honorary Secretary. All medical practitioners will be welcomed. There will be a meeting of the Committee at the same place at 7.30 P.M.—R. PERCY SMITH, Honorary Secretary, Bethlem Royal Hospital, S.E.

YORKSHIRE BRANCH.—A meeting of the members of this Branch will be held at the Clayton Hospital, Wakefield, on Wednesday, February 22nd, at 3 P.M. Members intending to read papers are requested to communicate at once with ARTHUR JACKSON, Secretary, Sheffield.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—A meeting of this Branch will be held at 198, Union Street, Aberdeen, on Wednesday, February 15th, at 8 P.M., the President, Dr. Smith, of Kinnairdy, in the chair. Business: 1. Minutes, nomination of new members, etc. 2. Ballot for the admission of Dr. J. Marshall Lamb, Borneo. 3. Motion of Dr. Wight to memorialise the Town Council of Aberdeen that the appointment of medical officer of health at present vacant be filled up by a qualified medical practitioner, who shall be excluded from private practice, and whose whole time shall be devoted to the duties of the office, in terms of the memorandum of the duties of the medical officer of health of the city of Aberdeen, of date March 15th, 1888. 4. Case of Pyloric Obstruction, with great Hypertrophy of the Stomach, by Dr. Blaikie Smith. 5. Exhibition of Specimens: (1) Ram's-horn Toe-nail, by Dr. Garden; (2) Specimen of Compound Dislocation of Ankle-joint, by Dr. Garden. 6. Communication by Dr. Barclay, Banff.—ROBERT JOHN GARDEN and J. MACKENZIE BOOTH, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the Railway Hotel, Stafford, on Thursday, February 23rd. Mr. W. D. Spanton, the President, will take the chair at 3.30 P.M.—VINCENT JACKSON, General Secretary.

GLOUCESTERSHIRE BRANCH.—The next ordinary meeting will be held on Tuesday, February 21st, 1888, at 7.30 P.M., at the Infirmary, Gloucester, under the presidency of Dr. Currie. Agenda: 1. A petition will be laid on the table for signature by members in support of the Architects and Engineers Bill, a Bill to be presented in Parliament next session by Colonel Duncan, R.A., C.B., M.P. 2. A discussion will be opened by Dr. Currie on the Present Position of Homœopathy in Relation to Regular Medicine. 3. Cases of interest in the Infirmary.—G. ARTHUR CARDEN, Honorary Secretary.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at the County Hotel, Carlisle, on Friday, February 24th, at 6 P.M. Dr. Byrom Bramwell, of Edinburgh, will read a paper and introduce a discussion on the Process of Compensation and Its Bearing on Prognosis and Treatment. The Secretary will be glad to receive notices of papers for reading, and patients or morbid specimens for exhibition. Supper in the hotel at 9 P.M.—H. A. LEDIARD, Honorary Secretary, 41, Lowther Street, Carlisle.

METROPOLITAN COUNTIES BRANCH; NORTH LONDON DISTRICT.

A MEETING of this district was held on Thursday evening, February 2nd, 1888, at the Training Hospital, Tottenham, Dr. E. HOOPER MAY in the chair. Several interesting cases from the wards were exhibited.

New Instruments.—Messrs. KROHNE and SRESEMANN showed many new instruments, the most important being a modification of Thomas's splint for spinal disease, and the electric light applied to the laryngoscope.

Massage.—Dr. STRETCH DOWSE then read a paper on Massage, demonstrating its practice on a male patient lying on a bed by an assistant "masseuse." The paper and illustrations gave great satisfaction to the many gentlemen present (thirty in number), and was witnessed also by all the sisters of the hospital.

Votes of Thanks.—Votes of thanks were duly recorded to the President, Dr. Dowse, and the other gentlemen.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Magneto-therapy.—Calomel Injections in Syphilis.—Influence of Erysipelas on Syphilis.

PROFESSOR BENEDIKT, in a lecture which he recently delivered at the Vienna Policlinic, made some interesting remarks as to the value of magneto-therapy. The opportunity was offered by a girl, aged 18, who had suffered for several months from very frequent convulsions, which, owing to their being complicated with laughing and weeping, showed that the case was one of hysteria. The expression of the patient's face was very timid, and her complexion continually changed, presenting at one time an excessive pallor, and at others a glowing redness. The dorsal vertebrae, the left intercostal spaces, both ovaries, but particularly the left one, were very tender on pressure, and pressure on the ovary during internal examination brought on a fit of weeping. Professor Benedikt pointed out that such irritable forms of hysteria were particularly suitable for magneto-therapy, whereas most of the other methods, such as electricity, hydrotherapy, etc., might aggravate the disease, and the suppression of such attacks by means of narcotics frequently rendered the malady incurable. He applied the metallic magnet over the sensitive dorsal vertebrae without having the patient undressed, as the magnet could act at a distance, and the dress presented no obstacle to its action.

After some applications the patient became quasi-paralysed; she could only with great difficulty and very slowly execute the movements which she was ordered to perform. It thus became evident how the magnet influenced the nervous system; it increased the resistance of conduction in the motor nerves, and this resistance could easily become absolute. During the general relaxation of the muscles, the respiration became sighing, and consciousness gradually disappeared. This became evident, not only from the complete want of reaction to external impressions, but also in part from the absence of recollection when the magnet was removed, and the patient aroused from the hypnotic state by slight irritations. This was the usual form of hypnosis which was observed after the application of the magnet. The direct therapeutic effect in the case under consideration was that the sensibility of the vertebral column disappeared after the application of the magnet, while that of the intercostal nerves became diminished. The ovarian hyperæsthesia, however, in contrast with many other similar cases, did not show any decrease. On the following day the patient stated that her attacks had become less frequent and less severe. As the ovarian sensibility could not be removed by the application of the magnet to the vertebral column, the patient was directed to lie down on the abdomen, and the magnet, wrapped in a cloth, was first applied with one of its poles to the left ovary, and then to the right one. A few of these applications were sufficient to cure the patient. The chief indication for the application of the metallic magnet was a condition of increased irritability and active symptoms of irritation. With regard to the question, how, in a case like this—which was due to disappointed love—the treatment could remove the consequences of a psychical alteration, Professor Benedikt gave the following explanation: the irritability of the nervous system becomes increased by the psychical irritation, and though the primary effect loses much of its intensity later on, a slight irritation is nevertheless sufficient to produce pathological phenomena. When, however, the irritability is diminished by an adequate course of treatment, the pathological condition is liable to disappear, when the cause of the affection has lost somewhat of its primary intensity. This is, of course, true of all therapeutic effects on neuropathic conditions, including the psychical ones, and, for this reason, we cannot expect to influence such patients before the primary irritation has diminished in intensity. Professor Benedikt went on to say that he had no doubt that we could also injure the patients with the magnet; he himself had, however, only once had the opportunity of observing permanent bad effects from this treatment. We had to take into consideration the peculiarities of each case. When the magnetic treatment did not produce a favourable effect at the very outset, he discontinued treatment, and in the same way he took care not to prolong the experiment, when he saw that the patient's readiness to fall into the hypnotic state considerably increased. Professor Benedikt remarked, at the conclusion of his lecture, that since he had employed the treatment with the metallic magnet, he found hardly any further indication for hypnoto-therapeutical attempts. There was no doubt that the hypnotisations and suggestions augmented, in a rapid and progressive manner, the paradoxical behaviour of the nervous system, and particularly the psychical function. More hysteria was thus produced than had been present before, and strange to say the mind ("psyche") of the experimenters was so easily brought into a condition of exalted confusion, that they allowed themselves to be more influenced in the way suggested by the patients than the latter were by them.

At a recent meeting of the Imperial Royal Society of Physicians of Vienna, Professor Neumann discussed the value of the calomel treatment in syphilis. This method had been recommended in 1864 by Scarenzio, who stated that calomel was to be preferred in the treatment of syphilis before any other preparation, owing to the fact that it was first converted into sublimate and slowly absorbed, and that toxic symptoms were thus avoided. In modern times calomel had repeatedly been tried in Germany and Austria and several observers, among whom might be named Professor Neisser, professed to have obtained admirable results with it. They said that a few injections were often sufficient to make the secondary symptoms of syphilis disappear. Professor Neumann had for some time past experimented with calomel, using a solution prepared according to the following formula:—R. calomelanos, sodii chloratis, aa. 5.0 (five grammes). Aq. distill. 50.0, M. Sig. for injections. A Pravaz-syringeful, containing 0.10 (ten centigrammes) of calomel to be injected at once. With this

solution he had treated thirty-six patients suffering from macular, papular, pustular, and tubercular syphilides. The injections were made in the region of the buttocks, and not, as was formerly the case, into the affected parts, the "materia peccans," according to the expression of Lewin. The results which Professor Neumann had obtained were not, however, so favourable as those claimed by other authors. According to his observations more injections were required in order to produce the effect, and in one case he had even to make eighteen injections. To appreciate the value of an anti-syphilitic method of treatment, its action as a preventive had to be taken into account. Latterly the experiments which had already been recommended by Hutchinson, namely, to delay the outbreak of the syphilis, in spite of the presence of the primary affection, by means of inunction, had been taken up by several authors, and Professor Neumann, who had also tried this plan, found the appearance of the eruption could indeed be thus delayed, in one case even for 160 days, but that no advantage was obtained by it; the course of the disease only became irregular, and moreover a greater number of inunctions were required than in other cases in order to cure the disease. As to injections of calomel, he observed that their effect was in this respect still less intense; and according to his own experience the calomel treatment was indeed a new, and in some cases valuable, method, but in general its effect was inferior to that of inunction.

Professor Neumann also communicated to the same Society some important facts relative to the influence of erysipelas on the course of syphilis. It had recently been stated that erysipelas had not only a favourable influence on the course of the disease, but that it also cured the whole process. Dr. Schuster, at the Congress of German Naturalists, at Berlin, opposed this view, maintaining that the influence of erysipelas in these cases was only local. Professor Neumann had an opportunity of observing two cases. One of these was that of a woman with tubercular syphilide, who had three attacks of erysipelas while she was under Professor Neumann's observation. After the first of these the knobs became quite flattened, and after the third the exanthem completely disappeared. A patient affected with recent induration in the "sulcus coronarius" was attacked with erysipelas, which lasted for fourteen days. The induration was not influenced by it in any way, but the outbreak of the exanthem was delayed, supervening only eleven weeks from the date of infection. These facts proved that erysipelas, whilst having a certain influence on the course of the syphilis, did not produce any alteration in the syphilitic process itself; it did not even make the attack milder. Erysipelas was not the sole instance of this kind; it was known, from inoculating experiments, that inoculations with the syphilitic virus in persons who were at the same time affected with acute infectious diseases were not attended with success, and it was also known that syphilitic exanthems disappeared in persons suffering from such diseases though only for a time. In cases of small-pox, the maculous syphilides, indeed, disappeared, but the ulcerous forms became more severe, and covered with purulent exudation.

SAN REMO.

[FROM OUR OWN CORRESPONDENT.]

THE Crown Prince's general health has not been so satisfactory during the past week; he has suffered a good deal from headache, his nights having been somewhat disturbed. This is probably due to the confinement to the house, which was necessary owing to the weather, and the catarrhal attack which he had, and it is hoped that it is due to no other cause. The weather is now very fine and mild, and His Imperial Highness is out daily, driving and walking. The last few days there has been some slight dyspnoea, which has caused a good deal of anxiety to those who have observed it. There has been no question of his leaving San Remo for any other place, and he continues perfectly satisfied with his surroundings here. Sir Morell Mackenzie left on Friday to see a patient at Barcelona, and returns here on Tuesday: every minute of his time is occupied whilst here, patients of all nationalities with throat affections being anxious to secure his opinion. The social event of the week has been an art exhibition, which is held annually at San Remo, and enables artists, amateur and otherwise (of whom a great number congregate on this coast) to exhibit their works, the same being sold either for their own benefit or that of some charitable object. On this occasion the Crown Princess, at the request of Dr. Freeman, graciously con-

sented to be Patroness of the exhibition, with the understanding that any profits arising should be devoted to the Home for Invalid Ladies, which, owing to the bad season of last year, is much in want of funds. To aid this object, Her Imperial Highness contributed a water-colour sketch, the subject being the head and bust of a San Remese girl. The Crown Princess's talent as an artist is well known, and great interest has been excited about this sketch. An offer of £50 was made for it immediately the exhibition opened, and it is expected it will realise considerably over this sum. Prince Henry, Count Seekendorff, and many others also contributed sketches, and a goodly amount will be realised for the institution. The Crown Princess, with the Princesses and suite, arrived at the exhibition at the hour of opening, and were received by the Syndic and Dr. Freeman. She took a great interest in the collection, and expressed herself much pleased with it. The ball in aid of the Ophthalmic Institute, given last week, was a great success, the Royal party watching it for the greater part of the evening from a balcony.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Carbolic Acid in the Treatment of Carbuncle.—"Chemical Vaccine."—Anæsthesia and Respiration.—Antipyrin in Epilepsy.—Pelletierine as a Vermifuge.—Adulteration of Wine.—Meeting of the Conseil d'Hygiène.—Laicisation of the Paris Hospitals.—Case of Trance.—The Pasteur Institute.

At the Académie de Médecine, M. Verneuil lately described the excellent results he had obtained with carbolic acid spray in cases of boils and carbuncle. He employs a 2 per cent. solution of carbolic acid. The spray producer is placed at a distance of twenty-five to thirty centimètres from the skin. In the case of small or medium-sized tumours, Collin's small spray-producer may be used, but a large one is more efficient in the case of tumours of considerable size. The tumour is surrounded with a roll of linen, in order to protect the adjoining region from the irritating action of the acid. The spray is applied three or four times a day for twenty or thirty minutes at a time. In the intervals the carbuncle is covered with a carbolic acid compress. This method is infallible in arresting the development of small or moderate-sized tumours. In the case of large tumours, it often renders surgical interference unnecessary. In every instance it soothes the pain which accompanies the development of boils and carbuncles.

MM. Roux and Chamberland are engaged on a series of researches to determine whether immunity from certain diseases may not be obtained by introducing soluble substances into the organism, without introducing the actual virus of the disease. The first attempt in this direction was made by M. Pasteur in the case of chicken-cholera. The microbe, placed in chicken-broth, developed during a certain time, but then ceased to do so. The medium, however, retained sufficient organic substances to nourish other kinds of micro-organisms. The development of the microbe ceased, either because it had exhausted certain substances indispensable to its existence, or because it had produced substances which arrested its development. M. Pasteur concluded that broth in which the cholera microbe had existed, injected into a fowl, would preserve the bird from contracting the disease. The notion that immunity from a disease may be obtained by inoculations with substances in which the virus has existed, without the introduction of the virus itself, although not actually demonstrated in this instance, was favourably regarded by many biologists. This artificial attenuation of the virus in the case of septiciæmia of rabbits has been the object of MM. Roux and Chamberland's researches. MM. Pasteur, Joubert, and Chamberland have called attention to a micro-organism the germ of which is found in the earth, and in the intestines of sheep, cattle, and horses. This active organism was termed the "septic vibrio," because it produces a special kind of septiciæmia in guinea-pigs, rabbits, and sheep, rapidly followed by death. MM. Koch and Gaffky described this microbe as the bacillus of malignant œdema. Guinea-pigs inoculated with this microbe presented the following symptoms: the hair stands erect; the animals scream if they are touched, and are attacked with convulsive jerks from time to time. Death occurs within twelve hours. The necropsy reveals sanguinolent œdema in the subareolar tissue of the axillæ and groins; the muscles at the spots where the injections have been made are red; the intestines are red; the liver is discoloured. The septic vibrio swarms in the œdematous area, the muscle

juice, and the peritoneal serosity; it emits gases which make the connective tissue in the axillæ and groins yield a crackling sound when they are pressed. The microbe develops in veal broth to which an alkaline substance has been added, in serum, and in nutrient gelatine, but the cultivation must be protected from the air. In these mediums it produces germs which, when subjected to a temperature of 80° C. (176° F.), die in ten minutes; and in less than five minutes at a temperature of 95° to 100° C. (203° to 212° F.). By placing the serosity from the œdema or the blood from the heart of a guinea-pig which has died from septiciæmia in veal broth, as above described, a cultivation liberating equal quantities of hydrogen and carbonic acid gas is obtained in twenty-four hours. At the end of three or four days the gases are no longer evolved; the microbes, though very small, cease to develop; the medium retains a certain quantity of nutritive substance. The liquid of the cultivation is no longer capable of nourishing the microbe; if, after being passed through a porcelain filter, some fresh septic vibrios are placed in this liquid, it still remains sterile. If a portion of this liquid is added to some fresh broth, it has the effect of checking the development of the vibrio. This fact proves that the vibrio produces substances in the medium in which it develops, which act as an antiseptic and arrest its further development. MM. Roux and Chamberland inoculated some guinea-pigs with sterile cultivation liquid, and by this means the animals were preserved from septiciæmia. The following experiment was made, amongst others: injections with cultivations of septic vibrio, rendered sterile by exposure to a temperature of 105° C. (221° F.), were made in the peritoneum of some guinea-pigs. The doses were gradually increased; 10, 20, 40, 60 cubic centimètres were successively employed. Two other guinea-pigs were inoculated twice in two days with 40 cubic centimètres of the same cultivation. Forty-eight hours after the last injection, all the guinea-pigs were subcutaneously inoculated under the skin with diluted septic blood. This last operation was repeated on three fresh guinea-pigs, and on the two guinea-pigs which had been twice inoculated through the peritoneum with 40 cubic centimètres of pure broth. The guinea-pigs which were inoculated with the septic blood only died in twelve and sixteen hours respectively. Those inoculated with pure broth died within eighteen hours. Those inoculated with the sterile cultivation died in the following order: Those to which 20 cubic centimètres were administered died in 19 hours; 30 cubic centimètres killed the animals in 48 hours; and 60 cubic centimètres killed them in 144 hours. The guinea-pig which was inoculated with 40 cubic centimètres was ill, but ultimately recovered, and was completely protected against septiciæmia. A small eschar was formed at the spot where the inoculation was made; this disappeared in a few days. The two guinea-pigs which were twice inoculated with 40 cubic centimètres of the cultivation appeared to feel no ill effects; the virus evidently did not develop in this case. These experiments show that every degree of immunity from septiciæmia may be obtained without introducing the actual virus into the organism, and demonstrate the influence exercised by the different cultivation media. The serosity removed from the œdematous tissues of a guinea-pig which has succumbed to septiciæmia is a more active medium than broth in which the septic vibrio has developed. MM. Roux and Chamberland conclude that, in a given medium, the microbe may produce certain vaccinal substances which it cannot produce in others, and that the conditions under which a cultivation is prepared have an important influence on the substances which are formed in it by the microbe. The authors believe that a means will be found by which "chemical vaccine" for recurrent diseases will be obtained. The present method of preventive inoculation has so far proved inefficient, because the microbe which causes a recurrent affection develops indefinitely in the body of an animal; it is unable to produce ptomaines (which check its development) with the materials it finds in the organism. In different conditions this pathogenic microbe might form substances which, inoculated in the organism, would prevent the development of microbes of its own kind, or render the organism impervious to their action. It is probable that these substances would be found in cultivations in which the development of the microbe has ceased rapidly. MM. Chantemesse and Widal lately succeeded in rendering some mice refractory to the action of the typhoid bacillus, by inoculating a few cubic centimètres of a cultivation in which typhoid bacilli had been destroyed by the action of heat. When the active substance of these cultivations can be isolated and prepared in sufficient quantities, it will serve to inoculate human beings

attacked by typhoid fever. M. Metchnikoff has shown how the cells of the living organism resist the microbes which are introduced into the body. The influence of the phagocytes in conferring immunity from disease is considerable. This influence is only ineffectual when the microbe finds a peculiarly favourable medium for development in the tissues of the body. When these tissues do not offer such favourable conditions (as is the case when inoculations of attenuated virus have been made) the microbe falls a prey to the phagocytes. During the attacks of intermittent affections, such as recurrent fever, the body acts as a favourable cultivation medium for small spirilla which are found in the blood. During the intervals between the attacks, these spirilla are not observed; they are imprisoned in the cells of the spleen. The substances produced by the parasite during the attacks check their development, and they become a prey to the phagocytes. When the blood has eliminated or destroyed these antiseptic substances, the spirilla reappear. This process would explain the intermittent nature of the disease. MM. Roux and Chamberland believe that the action of the phagocytes is regulated by the chemical changes which occur in the body, and which confer immunity from disease.

At a recent meeting of the Académie des Sciences, M. de Saint Martin communicated the results of his observations on the influence of anæsthetic sleep on the activity of respiratory combustion. M. de Saint Martin stated that these results were directly opposed to those obtained by Paul Bert, who, in his *Lectures on Respiration*, published in 1870, maintained that during sleep produced by chloroform, the quantity of oxygen in the blood is increased. M. de Saint Martin, by his recent experiments, showed that during anæsthesia the proportion of oxygen in the blood diminishes, while the proportion of carbonic acid increases. M. de Saint Martin is evidently not aware that Paul Bert arrived at a similar conclusion in his later researches in 1885, and that he then affirmed that the oxygen in the arterial blood diminishes progressively while the carbonic acid increases during sleep produced by chloroform. M. de Saint Martin also described the different variations which occur in the quantity of carbonic acid expelled from the lungs during anæsthesia. Paul Bert likewise gave a description of these variations in 1885, in which he showed that the quantity of carbonic acid produced diminishes progressively during anæsthesia, while the quantity of oxygen absorbed decreases in the same manner. He proved that the proportion of $\frac{\text{CO}_2}{\text{O}}$ gradually diminishes.

M. Geo. Lemoine, Professor *agrégé* at the Faculty of Medicine at Lille has studied the effects of antipyrin in epilepsy. He concludes that antipyrin diminishes the number of epileptic attacks, and even causes them to disappear under the following circumstances:—(1) When the attacks occur at the menstrual period, and are apparently provoked by menstruation; (2) when the patients are subject to neuralgia and migraine. In every other instance M. Geo. Lemoine believes that antipyrin produces merely transient effects.

M. E. Labbé recommends the following as an excellent tæniacuge: For adults, 40 or 50 centigrammes of sulphate of pelletierine are dissolved in ordinary syrup; for children 8 years of age and upwards, this quantity is reduced to 25 or 30 centigrammes. This remedy should not be administered to children below the age of 8. It is well to add 50 centigrammes of powdered tannin to the mixture above prescribed. The evening before taking this remedy the patient should take only a little milk. An enema should be given at bedtime, and early next morning the mixture is administered. The patient should remain in the horizontal position, in order to avoid vertigo. A quarter of an hour after taking the mixture he should take 30 grammes of German brandy, or an infusion containing 10 to 15 grains of senna. Castor-oil (30 grammes) and sulphate of soda have proved equally efficacious. The tape-worm is usually expelled in three or four hours.

A French publican was lately charged with selling wines composed of the dregs of different white and red wines, filtered through felt. The liquid was analysed at the Municipal Laboratory; it contained 9 per cent. of alcohol, 23 grammes of dry extract, and over 4 grains of reducing sugar. The defendant was acquitted.

At a recent meeting of the Conseil d'Hygiène du Département de la Seine M. Lancereaux reported a fatal case of leprosy which occurred at the Hôpital St. Louis in November.—M. Riche presented a report on the system employed by all the fishmongers at the Halles of preserving fish which they have not succeeded in selling in ice chests lined with zinc or lead. M. Riche considers

that this plan should be prohibited, on account of the toxic properties which may be communicated by the lead to stale fish.—M. Léon Collin presented a report on the epidemic of typhoid fever which has recently appeared at the Duplex barracks and in the neighbouring streets. M. Collin believes that in the second case the epidemic was independent of its appearance in the barracks, and merely resulted from the unhealthy condition of this particular quarter of Paris. He accounts for its appearance in the barracks by the arrival of a regiment of recruits from the provinces, who, by their youth and the fact that they were not acclimatised to Paris, were specially liable to contract typhoid fever, from which Paris is never free. M. Collin suggested that the regiment which suffered from the epidemic should be sent away from the barracks. This measure was adopted, and the regiment was sent to Saint Germain. Only two cases of typhoid fever were recorded in fifteen days in this regiment after leaving Paris.

The laicisation of the Paris hospitals will shortly be complete. The religious staff at the Charité was dismissed a short time ago. The laicisation of the Hôtel Dieu and the Hôpital St. Louis will follow in the course of the year. The laicisation of the hospitals was begun in 1878, with the Hôpital Laënnec. Since that time the Administration of the Assistance Publique has organised a training school for nurses at the Hôpital de la Pitié. The nurses are taken from there to replace the religious nurses, whenever a fresh hospital is laicised. The post of superintendent of a ward is only confided to those who have obtained a certificate at the examinations, proving them competent to undertake such an office. The contract made between the Administration of the Assistance Publique and the religious orders which have hitherto supplied the hospital nurses gave the option to either side to annul the engagement if it appeared advisable.

A curious case of trance is reported from Bordeaux. A woman, aged 57, who had been ailing for many years, fell asleep after an attack of the affection from which she was suffering. Several days passed, and the patient still remained asleep. She was perfectly still, and her breathing was regular. According to a wish previously expressed by her, she was conveyed to a village at some distance from Bordeaux. Shortly after her removal from that city she expired without any apparent suffering, and without waking from her state of torpor.

The Institut Pasteur is being constructed in the Rue Dutot, at Vaugirard, on a piece of ground measuring 11,030 mètres, purchased by the Conseil Municipal for the purpose. The whole cost of the building will amount to over 1,500,000 francs.

SHEFFIELD.

[FROM OUR OWN CORRESPONDENT.]

The Water Supply of Sheffield.—Hospital Sunday.—Revaccination.

THE Water Committee of the Sheffield Corporation has lost no time in trying the effect of placing limestone in the conduits and elsewhere to mitigate the action of the water on the lead piping. The amount of water stored is small, and does not amount to one-half of the total capacity of the reservoirs. The drought of last year told seriously on the storage supply. The autumn rains, usually those of October and November, are relied upon, under ordinary circumstances, to fill the storage reservoirs and provide for the coming year. The rainfall during those months last year was, however, abnormally low; the water in the reservoirs continued to descend, and it was not until the early part of December that any substantial increase was made in the quantity in stock. No restriction has been placed on the water supply since 1870.

Hospital Sunday collections were taken at the different churches and chapels on January 29th. It is anticipated that the amount collected this year will be a little below the sum obtained last year.

Arrangements have been made for the public vaccinators to revaccinate every evening and to attend two days weekly for primary vaccinations. Large numbers are being revaccinated. Dr. Barry, Local Government Board Inspector, who has visited the town, has been successful in giving an impetus to the revaccination movement. He may be congratulated on the way in which he has succeeded in getting the different authorities to work together in taking steps to encourage revaccination.

CORRESPONDENCE.

TO CORRESPONDENTS.

Our correspondents are reminded that prolixity is a great bar to publication and, with the constant pressure upon every department of the JOURNAL, brevity of style and conciseness of statement greatly facilitate early insertion. We are compelled to return and hold over a great number of communications chiefly by reason of their unnecessary length.

CIRRHOSIS OF THE LIVER.

SIR.—The case of cirrhosis of the liver in which the portal blood ran directly into the systemic circulation, read at the annual meeting of the Association, and described in the JOURNAL of February 4th by Dr. Drummond, is full of interest. In this case the conservative formation of compensatory vessels to relieve the portal system led to the patient's death by bile-poisoning. I had for many years been perfectly sure of the fact that the portal blood did take the course more recently demonstrated by Sappey, judging from the great enlargement of the superficial veins of the abdomen seen during life, and the extreme vascularity of the ligaments and tissues around the liver as observed after death. Sappey proved that the umbilical vein, or other veins near it, enlarge sufficiently to carry off the portal blood into the epigastric vessels and general circulation. It is rare that the new vein is so large as that in Dr. Drummond's case, although Dr. Goodhart put up in Guy's Museum a specimen, where, possibly, the vessel was as large. This new channel of relief explains why, in many cases of cirrhosis, dropsy does not occur, or, if fluid has formed, why it sometimes disappears; and also why, after its removal by medicine or by tapping, it may not recur. This subject was not, I think, referred to in the discussion on Dr. Gooding's paper at the Brighton meeting. This gentleman brought forward several cases where ascites had not returned after the removal of the fluid. I have met with a large number of such instances, and never been able satisfactorily to explain the cause of the occurrence. It would appear that, after cirrhosis has advanced a certain stage, some little extra disturbance in the secreting organs will determine a dropsy; but, after these have righted themselves and an equilibrium restored, that the dropsy will depart, although the cirrhosis remains. A better explanation is now forthcoming in the production of collateral or compensatory circulation. Meeting constantly with these cases of temporary recovery, it is interesting to note the value put upon the treatment by the medical man in charge of each patient. One repeats to me the case where jaborandi has cured a man who had been previously tapped ten times; another vaunts the value of copaiba, which has got rid of the fluid, of which there is no return. A well-known shopkeeper in a suburb of London never ceases to praise his neighbour, the homo-opath, who cured him of the dropsy after many other regular practitioners had failed. But lately, I have had a patient die of dropsy which did not return until three years after paracentesis; and I had a hospital patient who went on the same number of years. Neither of these patients, I am sorry to say, profited by their narrow escape, for they both continued to drink, though in less amounts than before. I can, therefore, scarcely encourage the hope which Dr. Gooding clings to, that a total abstinence may be the means of promoting a cure. It is, no doubt, to be recommended, but I fear that no conclusions can be arrived at from the observation of one or two cases, seeing that the symptoms may for a time subside in those who continue to live intemperate lives, or at least do not desist from the use of alcohol either in the form of wine or spirits.—I am, etc.,

SAMUEL WILKS.

Grosvenor Street, February 4th, 1888.

VENTRAL NEPHRECTOMY FOR HYDRONEPHROSIS.

SIR.—Although one can but admire Mr. Hunter's courage in undertaking the formidable operation published in last week's JOURNAL, it would seem right that one with experience in such cases should offer some criticism on the method of treatment adopted. In the treatment of hydrocele it is always laid down that it is first advisable to give the patient the rare chance that the fluid may not re-collect after tapping, and I think such a rule applies with increased force in cases of hydronephrosis, especially as there are well authenticated cases in which the fluid has not re-collected after simple aspiration. Supposing the cyst to have refilled, it might be then advisable, after ascertaining the secreting power of the other kidney, to explore the tumour through the loin, and then

drain or perform nephrectomy according to the conditions found; but to commence with Lauenbuch's incision through the peritoneum appears to me to be rather heroic treatment, and of a kind which exposes the patient to unnecessary risk, especially, as in the case in point, when the peritoneum is adherent to the capsule of the kidney. The case, however, reads as though it might have been successful had free drainage through the loin been secured in the first instance. Still, even had the case been conducted to a successful issue, I should have maintained that the means employed were unnecessarily severe.—I am, etc.,

R. CLEMENT LUCAS, B.S., F.R.C.S.,
Senior Assistant Surgeon to Guy's Hospital.

INTRACAPSULAR INJECTION IN THE EXTRACTION OF CATARACT.

SIR.—Mr. Swanzy is aggrieved because I quoted statistics of the National Eye and Ear Infirmary for 1875-76, and he suggests that the results of operations have been better of late years through certain improvements, and therefore that I should have chosen only "results of to-day" to compare with my own.

I now invite Mr. Swanzy to give (1) details of the extraction of cataract, ripe and unripe, in the National Eye and Ear Infirmary, since he had at his service those improvements to which he refers; (2) like details of other public institutions. When he has supplied these he will have made his first contribution to reasonable criticism. Of assertions and questions suggestive of erroneous inference he has not been sparing; but of material facts he has been parsimonious if not miserly. The "cleansing fire" of fair and reasonable criticism is what I desire.

The improvements Mr. Swanzy indicates are (1) antisepticism, (2) modification in the section, (3) Forster's maturation operation. It is not proved that antisepticism, as carried out by sprays, lotions, dressings, has accomplished anything for cataract operations in any hospital in a good sanitary condition, and in which cleanliness has been strictly enforced.

Let us note what has happened in abdominal surgery. 2. Antiseptic spray and antiseptic solutions are completely discarded by some of the most successful operators. 2. Recent modifications of the section. I suppose Mr. Swanzy refers to the 3-mm. flap of M. de Wecker. I see, however, from the reports of the Moorfields and other large hospitals for last year that Graefe's method was almost exclusively practised. So far from this method being obsolete, it is probably more largely practised than any other; and from long before 1875 till the present time, it has for statistical purposes held its own. 3. Forster's artificial maturation. This is very little practised, and if Mr. Swanzy have any considerable experience of it, it would be well to let us know it.

I have not desired to limit the statistical inquiry. The letter which appeared in the JOURNAL of September 3rd last dealt with all the reports I then had; and when Mr. Swanzy's first letter was published, I endeavoured to ascertain particulars of the operations for cataract in the United Kingdom. I wrote to all the chief hospitals, I examined the special medical and surgical reports of London hospitals, and I only found in addition to what I have already summarised, the reports of Mr. Nettleship for the years 1882, 1883, 1884, and 1885. In the four years Mr. Nettleship operated on 162 senile cataracts; there were 21 (14 per cent.) escapes of vitreous, 36 cases (22 per cent.) in which cortex was not completely removed, 20 cases (12 per cent.) severe iritis, 32 cases (19 per cent.) mild iritis, 40 cases (24 per cent.) of secondary operation, and 17 cases (10.5 per cent.) absolute loss. I must qualify the above statistics by stating that when Mr. Nettleship used M. de Wecker's section, he had fewer escape of vitreous, and that some of the losses in 1885 were due to an untoward and exceptional influence independent of the mere operation. Do these details of the operative work of a reliable and painstaking surgeon support the statement that by the ordinary method of friction cortex can be easily removed, and that iritis, etc., are very rare nowadays?

The only statistics which are of value for analysis and comparison are those which give details regarding (1) the degree of maturation of the cataract, (2) accidents and incidents during operation, (3) the course of all unfavourable cases.

My method, namely, the removal of the cortex by the force and influence of a fluid, is employed by M. Panas and M. de Wecker. Mr. Swanzy gave quotations from MM. Panas and de Wecker, and these I will supplement. M. Panas says:—

"Procéder le plus complètement possible à la toilette du champ pupillaire, couches corticales du cristallin, sang, pigment noir,

bulles d'air, tout doit sortir quelle que soit la peine qu'on se donne pour atteindre le but."

There may be no germs within the eye to be killed, but the antiseptic liquid which is to be forced "jusque dans les profondeurs de l'œil" will often enough find these "couches corticales," etc., and M. Panas is very exacting as to the completeness of their removal. M. de Wecker proves that M. Panas's solution is useless as a germicide, and he writes:—

"Je suis donc absolument partisan des lavages de la chambre antérieure, mais je pense qu'on doit leur laisser cette désignation et ne pas y substituer le mot de désinfection." This is surely plain enough.

Mr. Swanzy should have given a more clear account of the essence of M. de Wecker's practice. There are two preliminary points. 1. In "la pratique usuelle," that is, in ordinary operations for ripe cataract, he says: "Le nettoyage ou lavage de la chambre antérieure n'est pas ce qui nous préoccupe le plus." The pupil being clear and black, he injects a few drops of solution of eserine to contract the pupil, but mark well what he says about this simple injection primarily used for its myotic effect: "S'aperçoit-on que, pendant l'injection, la pupille s'obscurcit par l'apparition de masses corticales rendues opaques par le liquide injecté, on prolonge quelque peu l'injection et l'on reprend la toilette, en répétant cette manœuvre jusqu'à ce qu'une dernière injection laisse une pupille absolument noire et libre d'opacités, même à l'inspection à la lumière électrique. A cet effet on peut promener, pendant l'injection, la canule en argent dans le sac capsulaire et même sous le bord pupillaire opposé à la section."

Leaving aside the evidence afforded of the use of force, we have a striking testimony to the remarkable fact that the cautious introduction of a few drops of eserine solution may, by causing the appearance of unsuspected cortex, reveal the fact that the operation had been imperfectly performed.

2. In unripe cataracts M. de Wecker is of opinion that the mere washing is the prime consideration. He writes: Ici l'on peut faire un véritable lavage des masses corticales opacifiées ou non opaques, mais rendues opaques au moment de l'injection. Dans ce cas encore je préfère l'injection à deux ou trois reprises et reprendre après chaque injection les nettoyages de la toilette, plutôt que de faire un lavage par injection violente." But nobody makes violent injections so far as I know. My injections are gentle and more effectual than pressure. I think I have quoted enough to show that both MM. Panas and de Wecker use the injection for the same purpose as I do myself. M. de Wecker may not go quite so far as I do, but we cannot expect perfect uniformity in views and practice.

The antiseptic treatment of M. Panas and the myotic treatment of M. de Wecker are simple additions which are to be judged from a totally different standpoint from that of intraocular injection to remove cortex. If only an intraocular antisepticism is desired, or if only a myotic influence is sought, then it is necessary only to inject a drop or two of the antiseptic or myotic liquid, as the case may be, and not to practise the prolonged and repeated washings, as MM. Panas and de Wecker have done.—I am, etc.,

WILLIAM A. McKEOWN.

Belfast.

SIR,—On January 22nd, 1884, after extracting the nucleus of a senile cataract, I washed the remaining cortex out of the anterior chamber. I used a new Teale's syringe as a siphon, with distilled water, previously boiled, at a temperature of 97° F., the temperature of the anterior chamber. I was very careful that the conjunctiva, the instruments, the water, the air, and everything which came in contact with the eye was as free as possible from germs. The result was encouraging, with + 12 D. V. = $\frac{1}{8}$. The eye had been blind forty-seven years; therefore I ventured on a new proceeding not expecting such success. Since then I have frequently had recourse to this method of removing lens cortex, and generally with favourable, sometimes with brilliant, results.

In one of my early cases, before cocaine came into use, the patient was very restless, and there was some escape of vitreous immediately on the introduction of the water. The eye did fairly well, V. = $\frac{1}{16}$.

In another early case the operation was followed by severe pain, which kept the patient awake most of the following night I expected the eye would be lost, but the pain gradually subsided, and I was surprised to find the pupil clear. The subsequent progress was good, V. = $\frac{1}{4}$. All my other cases have done

well. I have therefore never had occasion to regret having injected water into the eye; on the other hand, several times when I have left apparently only a little cortex, I have afterwards regretted that I had not washed it out.

My practice is to wash out only when a considerable quantity of lens matter remains which cannot be removed by simpler means without much risk. In such cases it is pleasing to see how readily and gently the water removes the opacity, and the pupil is left beautifully black.

In some cases of traumatic cataract, at the proper time, the anterior chamber may be irrigated, the softened lens matter removed, and the eye saved, when no other method would have been successful.

In cases of unripe cataract I believe with Dr. McKeown that intra-ocular injection will give "results such as have never been otherwise obtained;" but I am sure that "a preliminary iridectomy, combined with Förster's artificial maturation," and after a few weeks extraction under antiseptic precautions and washing out of cortex, will give still better results.

For three years I used the siphon as mentioned; during the last year I have used Dr. McKeown's syringe, but I do not like it because (1) it cannot be used with that delicacy which is desirable when the nozzle is within the eye; (2) the force is uncertain; (3) the action is not sufficiently continuous for some cases.

To my mind the main objection to its more ready adoption is the length of time which is required to have everything exact, and free from germ contamination. The success of cataract extractions depends very much upon the absolute purity of everything which comes in contact with the eye.

I am at a loss to understand the hostile—shall I say unscientific—attitude which has been taken by many eminent specialists with regard to this simple procedure. I suppose it is to be expected that some will commend it unduly, and that others will condemn it unjustly, but whatever may be said I am convinced from experience that it will make its way and will hold its place as a useful addition to our resources in the extraction of cataract.

In conclusion, allow me to state that I think the profession is under great obligations to Dr. McKeown for his distinguished services to ophthalmology, and that, in my opinion, they have not yet been sufficiently acknowledged.—I am, etc.,

J. H. BELL.

Bradford, January 30th.

SIR,—It affords me gratification to see that you have deemed the above subject of sufficient importance to devote an editorial note and also a leading article to its discussion.

In the note referred to, you allude to my paper published in January, 1887, and contend that "the experience given is as meagre as that of the hostile critics." If you will do me the kindness to refer again to my paper, you will see that the desire that actuated me in reading it before the Ophthalmic Section at Brighton was simply to invite other ophthalmic surgeons to make experiments of McKeown's process; and I also took the opportunity to recommend that the water should be introduced by means of an irrigating apparatus rather than by a syringe; the length of time during which I had employed it was obviously too short to afford opportunity for a large number of cases to be operated on.

Lest my experience should again be analogous to that of the "hostile critics," some little time may have to elapse before I fulfil your anticipations, to furnish my "further experiences;" it may, however, happen that, by the time the Glasgow meeting is held, I shall be prepared with a table so strong, numerically, that even your apparently prejudiced contributor will not venture to stigmatise it as meagre.

Meantime I need only add that I continue to adopt the practice with increasing appreciation of its value, as I see more of the beneficial effects it is capable of conferring on those patients in whose cases it is necessary to employ it.—I am, etc.,

73, Rodney Street, Liverpool.

CHARLES G. LEE.

** Our application of the epithet "meagre" to Mr. Lee's statistics in the foot-note to Dr. McKeown's letter on p. 159 was intended solely as an answer to the insinuation that we had suppressed important evidence. We quite admit that Mr. Lee's paper was as full as was possible or desirable at the time it was read, and shall be very glad to hear his further experience.

EARLY OVARIOTOMIES.

SIR.—My old friend and teacher Mr. T. W. Nunn has called my attention to an error in the address you published in the JOURNAL of January 28th, where it is stated that the first ovariectomy at Middlesex Hospital was performed by Mr. Mitchell Henry. The operation had twice previously been performed there by Mr. Nunn, the first being on July 30th, 1860; and in referring to it in a paper read before the Middlesex Hospital Medical Society Mr. Nunn expresses his belief that in one of these cases also death took place from hæmorrhage from the omentum. This only serves to show that such an occurrence may have been more frequent than my statement would infer in the hands of the best operators of that day.—I am, etc.,

W. D. SPANTON.

Hanley, January 31st, 1888.

APPOINTMENT TO HAYWARD'S HEALTH ASYLUM.

SIR.—It is perhaps of little service to complain of things which cannot be altered, yet, though the past may be irrevocable, the future is in some way in our hands, so I write. The valuable appointment as Superintendent of the Sussex County Asylum became vacant by the resignation of Dr. J. W. D. Williams. The advertisement appeared in due course, and the requirements were at once seen to be higher than is in any way usual in a county asylum. This made the candidates question whether these were not specially arranged to suit some one man. Candidates who were eligible sent in their applications, and though the requirements had greatly reduced the number of good and suitable men, yet some very representative men who had gone through the apprenticeship of county asylums contended, but the result was that a gentleman with absolutely no practical training by residence in asylums was selected. Because a man happens to be a friend of the representatives of the Court of Chancery it seems shameful that his deficiencies should be overlooked, and men who have wrought for the good of the speciality should be passed over. I should have thought that it would have been in better taste if the representatives of the law refrained from giving testimonials and using influence in such cases. No one has a word to say against the successful candidate as a man, but he is simply unknown in lunacy.

I trust this miscarriage of justice may not disgust rising men and prevent them from continuing to work for this honourable but badly-used speciality.—I am, etc.,

G.

NAVAL AND MILITARY MEDICAL SERVICES.

THE ARMY MEDICAL SCHOOL AT NETLEY.

THE distribution of prizes to the successful students in the Indian Medical Service, at the close of the fifty-fifth session of the Army Medical School, took place at noon on Friday, February 3rd, in the lecture hall of the Royal Victoria Hospital at Netley. Mr. George Pollock, Consulting Surgeon to St. George's Hospital, London, and examiner in surgery for Her Majesty's Army, Navy, and East India Medical Services, presented the prizes.

The following is the list of surgeons on probation in Her Majesty's Indian Medical Service, who were successful at both the London and Netley examinations. The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows:

21. A. F. Roberts	6,410	13. J. L. T. Jones	5,110
22. D. M. Davidson	6,055	14. W. J. Buchanan	5,030
23. P. P. Maynard	5,895	15. J. K. Close	4,995
4. J. C. Lamont	5,869	16. J. M. Macnamara	4,915
5. A. H. Nott	5,715	17. W. E. Jennings	4,900
16. J. Holt	5,675	18. H. M. Brazazon	4,885
7. A. Coleman	5,495	19. W. H. M. Ingham	4,860
8. W. W. White	5,390	20. F. J. Dewes	4,845
9. D. T. Lane	5,380	21. J. O. Pinto	4,805
10. R. C. Macswat	5,330	22. P. C. H. Strickland	4,790
11. W. H. F. Woodwright	5,290	23. T. W. Stewart	4,575
12. T. H. Griffith	5,130		

* Gained the Martin Memorial Gold Medal and the Prize in Clinical Medicine presented by Surgeon-General W. C. Maclean, C.B.

† Gained the Herbert Prize of £20, the Montefiore Medal and prize of 20 guineas, with the Parkes Memorial Bronze Medal.

‡ Gained the Montefiore Second Prize.

§ Gained the Prize in Pathology presented by Sir Thomas Crawford, K.C.B.

At the close of the distribution, Mr. Pollock delivered an address, taking for his text the imperative necessity for continuous research and labour in the medical profession, and the almost unlimited opportunities for useful medical and sanitary work offered in the vast territories of India, where the surgeons on probation were destined to pass a great portion of their future professional careers. The only surgeons on probation who had passed through the courses of instruction during the session were candidates for commissions in the Indian Medical Service. At the close of Mr. Pollock's address, Sir Joseph Fayrer, speaking from his Indian experience, made some encouraging remarks to the young surgeons, saying that in spite of certain changes he regarded the Indian as still, without exception, the finest medical service in the world; and Sir Thomas Crawford, in conveying thanks to Mr. Pollock for his attendance at Netley, as well as for his admirable address, mentioned the gratification he had derived from the very favourable reports which had reached him not only as to the conduct and diligence of the surgeons on probation, but also regarding the manner in which the class of surgeons who had been at Netley during the session had taken advantage of the opportunities of study presented to them.

THE PARKES MEMORIAL PRIZE.

IT may be useful to remind our naval and military readers that the triennial Parkes Memorial Prize of £100 in money and a gold medal, value fifteen guineas, is to be awarded at the close of the present year. The competition for the prize is open to all medical officers of the Army, Navy, and Indian Services of executive rank. The subject, as previously announced, is the "Etiology and Prevention of Yellow Fever, to be illustrated, as far as practicable, from the personal experience of the writer," and the essays, each bearing a motto and accompanied by a sealed envelope with the same motto and containing the name of the competitor, are to be sent to the Secretary of the Parkes Memorial Fund, Royal Victoria Hospital, Netley, on or before December 31st, 1888.

THE NAVY.

THE following appointments have been made at the Admiralty:—R. H. NICHOLSON, Surgeon, to the Plymouth Division, Royal Marines; G. F. WALES, Surgeon, to the *Cambridge*; G. D. T. ROBER, Surgeon, to the *Stork*; F. J. BURNS, Surgeon, to the *Jackal*; E. H. SAUNDERS, Staff-Surgeon, to the *Porpoise*.

THE MEDICAL STAFF.

SURGEON-GENERAL JAMES MOUAT, V.C., C.B., half-pay, has been appointed Honorary Surgeon to the Queen, *vice* Deputy Inspector-General E. Bradford, deceased. Surgeon-General Mouat's career in the army has been long and distinguished. Entering as Assistant-Surgeon in 1838, he passed through the intermediate ranks till, in 1864, he became Surgeon-General, and retired on half-pay in 1876. From Hart's *Army List* we learn that he served in the Eastern campaign of 1854-55 with the 6th Dragoons, and on the Medical Staff, and was in medical charge of the General Field Hospital of the 3rd Division throughout the siege operations until the fall of Sebastopol, and subsequently as Principal Medical Officer of Balaklava until the final evacuation of the Crimea, June 12th, 1856, having been present at the battles of Balaklava, Inkerman, and Tehermaya, and the night reconnaissance and attack on Russian outposts February 19th, 1855 (C.B., Victoria Cross, medal with three clasps, Knight of the Legion of Honour, and Turkish medal); he was awarded the Victoria Cross "for having voluntarily proceeded to the assistance of Lieutenant-Colonel Morris, 17th Lancers, who was lying dangerously wounded in an exposed situation after the retreat of the Light Cavalry at the battle of Balaklava on October 26th, 1854, and having dressed that officer's wounds in the presence of the enemy. Thus, by stopping a serious hæmorrhage, he assisted in saving that officer's life." Served during the New Zealand war of 1860-61 throughout the operations under General Pratt (twice mentioned in despatches "for valuable services rendered at all times and in all positions"). Present in the field as Principal Medical Officer throughout the operations in Waikato, Taranaki, and Tauranga districts in 1863-65 under Sir D. Cameron, and repeatedly mentioned in despatches (medal). Received the thanks of the New Zealand Government for "special and valuable services rendered to the Colony." He is in receipt of a reward for distinguished service.

Surgeon-Major P. LAVERY, of the 3rd Battalion Irish Fusiliers (late the Armagh Militia), has resigned his commission, which was dated May 22nd, 1873; he is permitted to retain his rank and uniform.

Surgeon-Major W. P. BRIDGES, serving in the Bombay command, is transferred from the medical charge of the Station Hospital, Deesa, to the medical charge of the Station Hospital, Purandhar.

Surgeon R. HOLYOAKE, serving in the Bombay command, is placed on general duty, Presidency district.

Surgeon-Major J. PRENDERGAST, serving in the Bombay command, is transferred from the medical charge, Station Hospital, Purandhar, to general duty, Poona division.

Surgeon R. H. HALL, M.D., serving in the Bombay command, is granted leave to England, on private affairs, with the necessary subsidiary leave.

Surgeon-Major J. E. V. FOSS, M.D., has been brought on the strength of the British forces in the Bombay command.

THE INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON G. C. CHESNAYE, Bengal Establishment, officiating examiner of medical and fund accounts, Bengal, is confirmed in that appointment, *vice* Brigade-Surgeon G. S. Sutherland, M.D., who has vacated the appointment.

The services of Surgeon-Major G. BOMFORD, M.D., Bengal Establishment, officiating Professor of Physiology, Calcutta Medical College, now on leave, are temporarily placed at the disposal of the Government of India in the Home Department.

Surgeon R. PEMBERTON, Madras Establishment, Civil Surgeon, Guntoor, and now Acting Civil Surgeon, Chittoor, is appointed to act as Civil Surgeon at Berhampore, during the absence of Surgeon D. Elcum on other duty.

Surgeon-Major G. F. BEVAN, Madras Establishment, is appointed to act as Secretary and Statistical Officer to the Surgeon-General Her Majesty's Forces, Madras, during the absence on leave of Surgeon-Major W. E. Johnston.

Surgeon W. G. M'EVOT, Madras Establishment, doing duty in the Eastern district, is directed to do duty at Bellary.

Surgeon-Major S. O'B. BANKS, Bombay Establishment, is appointed to act as Professor of Surgery and Clinical Surgeon in the Grant Medical College, during the absence of Surgeon-Major W. Gray, M.B.

Surgeon-Major J. LUCAS, Bombay Establishment, having returned from leave, is placed on general duty in the Presidency district.

Surgeon-Major A. H. C. DANE, Bombay Establishment, in medical charge of the Bhopal Battalion, is allowed furlough to Enrope for eighteen months, on private affairs.

The undermentioned gentlemen, all of the Bengal Establishment, have leave of absence on private affairs for the periods specified:—Brigade-Surgeon E. O. TANDY, 8th Native Cavalry, for 315 days; Surgeon-Major C. CAMERON, for one year; Surgeon-Major G. R. DAPHTARY, M.D., for two years; Surgeon-Major H. K. MCKAY, for 205 days; Surgeon-Major W. A. SIMMONDS, 12th Native Cavalry, for one year and 212 days; Surgeon-Major W. M. COURTNEY, 83th Native Infantry, for one year; Surgeon-Major F. A. SMYTH, 2nd Battalion, 3rd Goorkhas, for one year; Surgeon A. DUNCAN, M.D., 14th Native Infantry, for one year.

THE VOLUNTEERS.

MR. R. H. WRIGHTSON, M.D., is appointed Acting-Surgeon to the 1st Volunteer (Norfolk) Brigade Eastern Division Royal Artillery (late the 1st Norfolk Artillery).

Acting-Surgeons J. F. MERRISON, M.B., and H. MARTIN, M.B., of the 1st Dunbarton Rifles, have resigned their appointments; that of the former was dated March 10th, 1883; that of the latter March 25th, 1885.

Surgeon P. YOUNG, of the 3rd Volunteer Battalion Royal Highlanders (formerly the 3rd Forfar), has also resigned his commission, which bore date June 23rd, 1882.

We thank a "Surgeon," Medical Staff, for his communication on the duties and pay of army medical officers, the substance of which we hope to be able to place before our readers on an early date.

MEDICO-LEGAL AND MEDICO-ETHICAL.

"ANOTHER MEAN FRIEND."

F. H. D. writes: F. H. D. and C. B. H. S. are surgeons in the same town, who have always been upon the most friendly terms until about six months ago. Five years ago F. H. D. had a very good offer made to him of practice in another town, which he then declined. Within the last few months this offer has been repeated, and F. H. D. had nearly made up his mind to accept it, because of the bad state of trade, sbnting up of ironworks, etc., in his own district. F. H. D. offered his practice to S. In the meantime, C. B. H. S. had heard that F. H. D. had an idea of leaving, and wrote to S. informing him that "all F. H. D.'s patients had been his (F. H. D.'s) father's, who, out of respect for his father, stuck to F. H. D., but that if the practice changed hands, the patients would go to him" (C. B. H. S.). This seems to be a deliberate attempt to spoil any sale between F. H. D. and S. F. H. D.'s father has been dead eighteen years, and F. H. D. has been in practice twelve years, and very many of his patients have been C. B. H. S.'s, and have called in F. H. D. for reasons of their own. C. B. H. S. next writes to the secretaries of F. H. D.'s clubs before he has resigned or intimated in any way to the members that he is leaving, informing them that F. H. D. is leaving for practice in another town, and asking to be appointed surgeon in F. H. D.'s place.

Regrettable as is such an incident, the question involved has especially relation to the general moral obligation of man to do unto others as he would be done by, rather than to medical ethics proper; and, therefore, however morally indefensible "C. B. H. S.'s" alleged conduct may be held to be, we are not in a position to express other than regretful surprise that our correspondent should have experienced such unfriendly treatment from an assumed friend of so many years' standing. Possibly, however, four remarks on the case may lead to reflection, and at the same time promote a healthy reaction in the mind of the practitioner alluded to.

CERTIFICATION OF STILLBORN CHILDREN.

L.R.C.P. Etc. writes: A woman takes to a medical man the body of a child, and asks him to certify that it was stillborn. Can he legally do so without having seen the mother, and without making a *post-mortem* examination of the body?

By the Registration of Births and Deaths Act, 1874 (38 and 39 Vic. c. 89, s. 18), it is enacted that the body of a stillborn child shall not be buried unless at the time of burial there is produced (a) "a written certificate that such child was not born alive, signed by a registered medical practitioner who was in attendance at the birth, or has examined the body of such child;" or (b) a declaration that no registered medical practitioner was present at the birth, or that his certificate cannot be obtained, and that the child was not born alive. This declaration is to be made not by a medical practitioner, but by a person who would by law have to give information concerning the birth. By Section 40 it is made an offence, punishable in certain cases with penal servitude, "wilfully to make any false certificate or declaration" under the Act. Our correspondent will therefore see that to give a certificate under

the circumstances stated would be clearly contrary to law, and might entail very serious consequences.

M.D. YEOVILL.—Inasmuch as we have, after a careful and unbiassed but wearisome consideration of the lengthy correspondence relating to the dispute in question, twice expressed our deliberate opinion on the points submitted for our judgement; and believing, moreover, that no practical good, personal or otherwise, can accrue from its further discussion, we cannot, in justice to other correspondents, and the ever increasing demand on our limited space, accede to "M.D.'s" request for a further exposition of our views upon the latter statement. We are constrained, therefore, to close the discussion in so far as relates to the JOURNAL.

AGREEMENTS WITH ASSISTANTS.

MR. PERCIVAL TURNER (Adolph) writes: With regard to the discussion going on as regards "the usual bond" permit me to remark that this term as was applied does in fact mean an agreement somewhat similar to that indicated by your correspondent "A. W. B.," and not what used to be understood as a bond, a formidable looking document, naming a heavy penalty, but practically a much less serviceable document than the "usual agreement" now in vogue, which is equally applicable and binding on qualified or unqualified assistants, and effects the principal object with less chances of dispute and difficulty than any bond can do, and which, as you remark, if properly drawn and impressed with a sixpenny stamp, will hold good in any court.

CANVASSING FOR PATIENTS.

A CORRESPONDENT has forwarded the following advertisement, cut from a Leeds paper:

"LARGE BONUS.—Wanted, influential Persons to obtain Clubs, Friendly Societies, etc., for medical attendance by a Doctor; also to Canvass."

"A doctor" who seeks to acquire practice by such exceptional and professionally reprehensible means as those indicated in the above advertisement must, we apprehend, have mistaken his true vocation. Such practitioners are untrue to themselves and alike insensible to the honour and dignity of the profession, and of their relative duty to it. In reality they are a law unto themselves, and pursue their own course, regardless of the rules (*leges scriptae et non scriptae*), by which the profession of medicine has been ethically governed from time immemorial.

CHARGING FOR MEDICINE.

A SUBSCRIBER asks whether a general practitioner holding the M.R.C.S. Eng. and L.R.C.P. Edin. has a right to charge for medicines supplied to his patients.

Although Section 6 of the Medical Act, 1858, is not so clear as Section 31 of the Medical Act, 1853; it is, we think, quite clear that "A Subscriber's" qualifications entitle him to charge for medicines supplied to his patients in addition to his fees, and that his charges are made out in the proper way.

SIGNATURE OF LUNACY CERTIFICATES BY PARTNERS.

M.D. (Scotland) writes: A. and B. are in partnership. A. grants a certificate of insanity in the case of C. Does the fact of a partnership existing between A. and B. disqualify B. from giving the second certificate requisite for C.'s admission to an asylum? I always understood it did; but I can find nothing in the Lunacy Act under Section "Disqualifications," which confirms my belief.

In England and Wales medical men in partnership cannot sign the certificates of insanity under which a patient shall be sent to an asylum, for the same patient on the same occasion. 16 and 17 Vict., cap. 96, Sec. 4.

QUACKS AND PRACTITIONERS.

M.D. writes: I should like the opinion of the medical profession on the following case, as it appears to me to be very contrary to etiquette, and extraordinary.

A is asked to call to see B. B. states that she is taking medicine ("cancerura"), amongst others, from a quack in London, and that he will not, or does not care to, send more medicine unless she is under the supervision of a medical man in the place whom she wished to correspond with the quack, and still to treat her with the quack remedies. A. refuses to attend under such conditions, considering them unprofessional. B. then calls in C., an M.D. practising in the place; he attends, takes up the case, corresponds with the professor or quack, and gives or allows the patient B. the quack remedies, and, therefore, is really acting as the quack's assistant, and, if anything goes wrong, of course would be convenient to sign a death certificate, and, therefore, avoid an inquest. If qualified medical men are allowed to do these things, one cannot wonder that quacks get on; and surely such men cannot be met in consultation or treated as brother practitioners.

The course described is so unusual as to be almost incredible, and certainly contrary to all professional rule. It seems possible, however, that there may be some errors in the facts of the case as stated. We only hope that this may be so.

FEES TO WITNESSES.

F. W. D. McC. E. asks what fees he is entitled to in the following case: He has received a subpoena to appear as witness in an action brought by a patient whom he attended against a railway company. He is district surgeon to the company, and has received a subpoena from the plaintiff.

According to the authorised scale, the allowance to professional men for attendance as witnesses in a common law action is £1 ls. per diem, if resident in the town in which the action is tried; and £2 2s. to £3 3s. per diem, inclusive of all except travelling expenses, if resident at a distance from the place of trial. If the action is in the county court the scale is lower.

LIABILITY FOR SCHOOL FEES IN CASES OF INFECTIOUS DISEASE.

A MEMBER asks: Am I liable for school fees when children have been prevented returning to school at the commencement of a new term, owing to the risk of their communicating an infectious disease to others?

. Unless there is an express contract on the point, the ordinary contract for schooling is for a term's notice or a term's pay; the master could, therefore, claim payment for the term, although the child last part of the term through illness. In one case, in 1877, Mr. Justice Denman held that, where the master sent a boy home on account of illness, and he was too unwell to return the next term, payment could not be enforced; but the circumstances there were exceptional. As a rule, the illness of the child is no reason for depriving the schoolmaster of his fees.

ACTIONS TO RESTRAIN NUISANCES.

R. C. asks where he can obtain a full report of the case of Wallacey Local Board v. Gracey, under the Public Health Act, reported in the JOURNAL on November 25th, p. 1190.

. The case, having been tried at Nisi Prius, does not appear in any of the regular reports. The only way to get at the facts would be to apply to the solicitor of one of the parties, who could say whether a shorthand note was taken. Actions to restrain nuisances should not be undertaken without good legal advice.

MEDICAL MEN AS TRADERS.

NEMO writes: I have noticed by the reports of cases at County Courts, etc., in your paper that a medical man who supplies medicines and charges for them to his patients is a "trader." May I ask in what position a man is who arranges with a chemist to supply them by making up his prescriptions and charging the patient and giving the doctor a commission on amount paid, or if the doctor, making up his book from the chemist, charges for medicines himself? Both of these things are done by men who would be very indignant at being termed "traders." Are they not so really?

. Under the circumstances stated, the medical man would certainly be interested in trade, and might fairly be termed a trader, just like any other partner in a trading business.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his quarterly return relating to the births and deaths registered in England and Wales during the fourth or autumn quarter of last year, and to the marriages in the three months ending September last. The marriage-rate, although it showed a slight recovery from the exceptionally low rate in the third quarter of 1886, was considerably below the mean rate in the corresponding quarters of the ten years 1877-86. The birth-rate and the death-rate were also below their respective averages. The mean temperature of the air during the quarter was considerably below the average, but the weather was, on the whole, favourable to the public health.

The births registered in England and Wales during the three months ending December last were 217,749, equal to an annual rate of 30.6 per 1,000 of the population, estimated by the Registrar-General to be about twenty-eight and a quarter millions of persons. This birth-rate showed a further decline from the rates recorded in the corresponding quarters of recent years; it was as much as 2.4 per 1,000 below the mean rate in the fourth quarters of the ten years 1877-86, and was actually lower than that recorded in the last quarter of any year since 1849, when the registration of births was admittedly defective. The birth-rate in the quarter under notice in the several counties ranged from 26.1 in Shropshire and 26.2 in Sussex, to 33.9 in Northumberland, 35.4 in Monmouthshire, and 35.6 in Essex. In the twenty-eight large towns for which the Registrar-General publishes weekly returns, the birth-rate last quarter averaged 31.8 per 1,000, ranging from 25.5 in Brighton and 26.2 in Bradford, to 38.0 in Portsmouth, 40.2 in Newcastle-upon-Tyne, and 40.5 in Cardiff. The births registered in England and Wales during the quarter under notice exceeded the deaths by 83,957; this represents the natural increase of the population during that period. From the Board of Trade returns it appears that 70,735 emigrants sailed from the various ports at the United Kingdom at which emigration officers are stationed; of these, 36,030 were English, 6,691 Scotch, and 9,286 Irish. The proportion of British emigrants to a million of the respective populations of the three divisions of the United Kingdom were 1,276 from England, 1,676 from Scotland, and 1,913 from Ireland.

During the last quarter of 1887 the deaths of 133,792 persons

were registered in England and Wales, equal to an annual rate of 18.8 per 1,000 of the estimated population. This death-rate, although it slightly exceeded the very low rates recorded in the last quarter both of 1885 and 1886, was 1.0 per 1,000 below the mean rate in the fourth quarters of the ten preceding years, 1877-86. Among the urban population of the country, estimated at about eighteen millions of persons, the rate of mortality during the quarter under notice was equal to 19.8 per 1,000; in the remaining or chiefly rural population of little more than ten millions the rate did not exceed 16.9 per 1,000. These urban and rural rates were both below their respective averages for the six preceding corresponding quarters. The rate of mortality among infants under one year of age, and of persons aged between one and sixty years, was below the average; while the death-rate of persons aged upwards of sixty years exceeded the average of the ten preceding corresponding quarters.

The 133,792 deaths registered in England and Wales during the three months ending December last included 3,104 which were referred to measles, 2,921 to scarlet fever, 2,464 to whooping-cough, 1,914 to diarrhoea, 1,835 to "fever" (including typhus, typhoid, and simple fever), 1,563 to diphtheria, and 358 to small-pox; in all, 14,159 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.99 per 1,000, the average annual rate in the ten preceding corresponding quarters having been 2.44 per 1,000. The mortality from measles, diphtheria, and small-pox showed a slight excess; while that from each of the other zymotic diseases was below the average. The deaths referred to small-pox, which had been 30, 47, and 70 in the first three quarters of last year, increased to 358 during the quarter under notice, of which no fewer than 230 occurred in Sheffield, 50 in other parts of Yorkshire, 35 in or around Bristol, and only 43 in the remainder of England and Wales. In London only 3 fatal cases of small-pox were recorded during the quarter.

The rate of infant mortality, or the proportion of deaths under one year of age to registered births, was last quarter 136 per 1,000, and was slightly below the average proportion in the ten preceding corresponding quarters. While the rate of infant mortality in London during the last three months of 1887 did not exceed 145 per 1,000, it averaged 162 in the twenty-seven provincial towns, among which it ranged from 111 in Brighton and 123 in Norwich, to 198 in Oldham, 217 in Bolton, and 233 in Blackburn.

SANITARY REGISTRATION OF BUILDINGS.

A CONFERENCE convened by the Sanitary Assurance Association was held on Saturday, February 4th, at the Society of Arts, Adelphi, for the purpose of considering the proposed Sanitary Registration of Buildings Bill. Sir Joseph Payter, who presided, said he knew by sad experience what an immense amount of disease and impaired health was entailed on the populations of great cities by insanitary dwelling houses, and they also knew that those evils being preventable, it was their duty to do all they could to prevent them. It was their wish that all public buildings and dwelling houses should be registered by law, the registration to be optional in the case of private dwellings and compulsory in that of public buildings, such a course to be taken after they had been examined and certified as being in a satisfactory sanitary condition, and this was what the Sanitary Registration of Buildings Bill proposed to do in the interests of the public.

Mr. Mark H. Judge read a paper explaining the provisions of the Bill, and moved a resolution approving them. It was further resolved that all dwelling houses erected after January, 1890, should come under the compulsory clause of the Bill.

THE PRESIDENT OF THE LOCAL GOVERNMENT BOARD, AND THE VALUE OF VACCINATION AT SHEFFIELD.

MR. C. T. RICHIE, the President of the Local Government Board, in addressing a political meeting at Sheffield, on January 30th, took the opportunity of, in the first place, making public the lessons as to the value of vaccination to be learnt from the epidemic of small-pox at present afflicting that town. "Overwhelming evidence," he said, "had been given during the course of the epidemic of the enormous value and protection of vaccination. It was estimated from clear evidence that the number of unvaccinated children under 10 years of age in Sheffield is about 5,000, and the number of vaccinated about 95,000. Out of the 95,000 children who have been vaccinated, there have been 189 attacks and two deaths. Out of the 5,000 unvaccinated children, there

have been 172 attacks and 70 deaths. This is the position of affairs. If we were to assume for a moment that all the children of Sheffield under 10 were vaccinated, you would have had 200 attacks, and two and a fraction deaths. But if all the children of Sheffield, under 10, had been unvaccinated, you would have had 3,277 attacks, and 1,330 deaths, or just exactly 600 times greater mortality. Now, gentlemen, it is almost an established fact that, after the age of 10, vaccination loses a great deal of its effect, so that the moral of this visitation is, as far as I can see, that all those above 10 should get revaccinated, and by that means there is little doubt that in a limited space of time Sheffield will be free of the disease. It gives almost entire and absolute protection to those who are revaccinated, and as an illustration I may tell you that during the whole time that the Hampstead Small-pox Hospital was open, only one person out of the numerous *employés* engaged at that hospital took small-pox, and he was the under gardener, who by some mistake had escaped revaccination, and I am informed by the medical inspector of the Local Government Board who has been down here, that out of more than 290 men and boys employed in the Sheffield Post Office, not a single case of attack has occurred. Well now, gentlemen, I think after such evidence it is impossible for even the most rabid antivaccinationist to gainsay the beneficial results following from revaccination."

RECORDS OF VACCINATION IN THE HOSPITALS OF THE METROPOLITAN ASYLUMS BOARD.

ON the suggestion of the Local Government Board the Metropolitan Asylums Board have recently adopted a new form of "bed card" for the small-pox patients in their hospitals, in which fuller information than has hitherto been given will be required to be recorded. The general character of the disease and the position of the eruption are to be stated amongst other particulars; but the most important alteration is that which relates to vaccination. Hitherto the efficiency or otherwise of the previous vaccination of the patient, as shown in the character of the cicatrices, has not as a rule been recorded, and patients have simply been classified under the general headings of "vaccinated," "unvaccinated," "doubtful." In future the "bed card" is to show; (1) the statement of the patient or his friends as to primary vaccination, (2) the number of vaccination cicatrices, (3) their collective area, (4) the fraction of cicatricial area that can be described as foveated; (5) the number of cicatrices noted as (a) depressed, (b) not depressed, (c) puckered, (d) glazed, (e) not defined in margin. It is also to state the date in case of revaccination, and the character of the cicatrices. Where a child is presented for admission by a person who can give no account of the primary vaccination, means are to be taken to obtain the needed evidence from the nearest relative. In calculating the collective area of the cicatrices it is suggested that the diameter of each should be measured and the area calculated in hundredth parts of a superficial inch. Eventually these "bed cards" may be bound together, and form a convenient "case book." Careful record of the vaccination of officers and of visitors is also to be kept.

Obviously it is important, in view of the existence of much imperfect vaccination amongst us, that efficient and inefficient vaccination should be separated wherever possible. In 1876, the late Mr. Marson, surgeon of the London Small-pox Hospital, prepared a table, summarising his observations during twenty-five years in nearly 6,000 cases of post-vaccinal small-pox, and showing the different degrees in which persons vaccinated in different ways had been safe against death by small-pox. He showed that amongst those stated to have been vaccinated, but having no cicatrix, 21½ per cent. died; of those having one cicatrix, 7½ per cent.; of those having two cicatrices, 4½ per cent.; of those having three cicatrices, 1½ per cent.; and of those having four or more cicatrices, only ¾ per cent. died; whilst 35½ per cent. of the unvaccinated perished. The new arrangement in the metropolitan hospitals will involve some additional trouble and expense; but, from a scientific point of view, the advantages of being able before long to issue an authorised and revised version of Mr. Marson's valuable statistics outweighs other considerations.

MARGARINE AND BUTTER.

THE effect of the Margarine Act has hitherto not been to diminish the supply of imitation butter, the demand for which seems to be largely on the increase. It has been pointed out that, rigorous as are the provisions of the Act, the keepers of refreshment and boarding houses, coffee-shops, and the like, are still allowed to

foist on their patrons an article as butter which costs less than tallow, and which has little or none of the ingredients of the genuine commodity, and that in this respect we might well follow the example of the American margarine inspectors, who have begun to summon the keepers of refreshment and boarding houses for palming the counterfeit articles off on their customers for genuine butter.

COMPULSORY CLOSING OF A SCHOOL.

IN the Queen's Bench Division, the case of Roberts v. Falmouth Urban Sanitary Authority came before Justices Mathew and Smith, on appeal under the Summary Jurisdiction Act, 1879. The action was brought by the head master of the Falmouth British Schools for Boys to recover compensation for loss of emoluments suffered by the appellant from the compulsory closing of the schools for about three weeks during an epidemic of measles. The schools were closed by the managers after receiving a warning from the respondent authority that they would communicate with the Local Government Board on the subject. The Falmouth magistrates held the view that the schools were closed by the managers by reason of the obligations imposed on them, and the Judges, endorsing that view, dismissed the appeal with costs.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, February 4th, 5,739 births and 3,945 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had steadily declined in the four preceding weeks from 23.8 to 22.5, further fell during the week under notice to 21.9. The rates in the several towns ranged from 13.4 in Bradford, 17.9 in Bolton, 18.1 in Hull, and 18.2 in Birkenhead to 25.9 in Blackburn, 27.3 in Manchester, 31.8 in Preston, and 32.2 in Plymouth. The mean death-rate in the twenty-seven provincial towns was 20.9 per 1,000, and as much as 2.2 below the rate recorded in London, which was 23.1 per 1,000. The 3,945 deaths registered during the week under notice in the twenty-eight towns included 506 which were referred to the principal zymotic diseases, against 481 and 478 in the two preceding weeks; of these, 248 resulted from whooping-cough, 75 from scarlet fever, 52 from "fever" (principally enteric), 42 from diphtheria, 35 from measles, 35 from diarrhoea, and 19 from small-pox. These 506 deaths were equal to an annual rate of 2.8 per 1,000; in London the zymotic death-rate was as high as 3.7, while it averaged only 2.0 in the twenty-seven provincial towns, among which it ranged from 0.3 and 0.5 in Newcastle-upon-Tyne and Cardiff to 3.9 in Blackburn, 4.5 in Sheffield, and 4.9 in Derby. Whooping-cough caused the highest proportional fatality in Brighton, Salford, Bristol, London, and Leicester; measles in Birmingham and Derby; scarlet fever in Manchester, Oldham, Huddersfield, and Blackburn; and "fever" in Nottingham and Derby. The 42 deaths from diphtheria in the twenty-eight towns included 29 in London, 3 in Birmingham, and 3 in Manchester. Of the 19 fatal cases of small-pox recorded during the week under notice, 17 occurred in Sheffield, 1 in Leeds, and 1 in Bristol. The Metropolitan Asylums Hospitals contained 7 small-pox patients on Saturday, February 4th, of which 2 were admitted during the week. These hospitals also contained 1,558 scarlet fever patients on the same date, against numbers steadily declining from 2,602 to 1,641 in the nine preceding weeks; there were 95 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 6.3 per 1,000, and was considerably below the average.

WANTED: A MODEL SMALL-POX HOSPITAL.

DR. BROWN.—There is no small-pox hospital which gives security against infection aerially conveyed. Of fever hospitals, none are without some faults, but lessons could be learnt from the Liverpool (Grafton Street) Hospital, Aston Manor Hospital, Bromley Hospital, Guildford Urban Hospital, and that which is now being erected for Leamington and Warwick is especially deserving of notice.

E. E. P.—We consider that the expression "a perpetual or perennial endemic of typhoid fever" means that the disease is peculiar to a locality, and dependent upon some cases special to it, and that this disease is always existent.

It is satisfactory to learn that small-pox is on the decrease at Leeds, no fresh cases having been reported to the sanitary authorities. The hospital now contains only thirty inmates, compared with forty-nine a fortnight ago.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary Examinations, were, at a meeting of the Council on January 10th, admitted Members of the College, namely:—

*L. W. Andrews, L.R.C.P.L., St. Bartholomew's Hospital; A. B. Avarne, L.S.A., 46, King Henry's Road, N.W.; A. Badoock, L.K.Q.C.P.L., 1, Hillary Street, Leeds; J. Bamfylde, L.S.A., 43, Endwell Road, Brockley, S.E.; J. T. Bayes, L.S.A., Queen Street, Peterborough; *R. O. Bowman, L.R.C.P.L., Spring Bank, Woodley, Cheshire; *G. A. T. Bray, L.R.C.P.L., 41, Great Russell Street, Bloomsbury; *F. H. Bronhugh, L.R.C.P.L., "West Leigh," Loughborough, Leicestershire; *W. G. S. Brown, L.R.C.P.L., 45, Tollington Park, N.; A. J. Bulger, L.S.A., Wellington Road, Dudley; *F. Calder, L.R.C.P.L., Highland Villa, Bristol; *W. J. H. Carter, L.R.C.P.L., 8, Thistle Grove Lane, South Kensington; *B. Cartley, L.R.C.P.L., Bramley, Leeds; *C. M. Clark, L.R.C.P.L., Dorking, Surrey; G. S. Clarke, L.R.C.P.L., 63, Grosvenor Rd., S.W.; H. F. Cleveland, L.R.C.P.L., 26, Kiddbrook Grove, Blackheath; *H. S. Collier, L.R.C.P.L., Infirmary, Leicester; *W. M. Cotton, L.R.C.P.L., 37, Marquis Road, Camden Square, N.W.; C. A. S. Cox, L.R.C.P.L., Fordwick House, Fordwick, Canterbury; J. D. Cree, L.R.C.P.L., 2, Pemberton Villas, Upper Holloway; W. H. Cundell, L.S.A., 1, The Avenue, Kew; *F. X. Da Costa, L.R.C.P.L., 7, Delvine Road, Fulham; *E. P. Daniell, L.R.C.P.L., 5, College Street, Islington; *B. W. Darroll, L.R.C.P.L., Clun, Shropshire; *W. H. C. Davey, L.R.C.P.L., Norwood House, Elder Road, West Norwood; A. O. Davies, L.R.C.P.L., Compton House, Barmouth, North Wales; *H. P. Devis, L.R.C.P.L., 85, Clarence Road, New Cut, Bristol; C. J. Devins, L.S.A., 29, Palace Road, Upper Norwood, S.E.; C. A. Duckett, L.R.C.P.L., Great Yarmouth; *T. A. Durrant, L.R.C.P.L., "Avondale," Crescent Road, Kingston Hill; C. H. Eccles, L.R.C.P.L., Brigg, Lincolnshire; *C. S. Edward, L.R.C.P.L., Lindfield, Sussex; *H. W. Elphick, L.R.C.P.L., 3, Mecklenburgh Street, W.C.; A. M. Ewing, M.D. Toronto, 50, Avenue Road, Toronto; G. A. Ferraby, L.R.C.P.L., 381, Summer Lane, Birmingham; *J. E. Forster, L.R.C.P.L., Blue House Farm, Milden, Surrey; *T. W. Francis, L.R.C.P.L., 145, Isledon Road, Finsbury Park, N.; J. Good, L.S.A., Aston Court, Tenbury, Worcestershire; W. Ap S. J. Graham, L.R.C.P.L., Wenlock House, Burton Road, Kilburn; *W. T. Grenfell, L.R.C.P.L., 23, St. Stephen's Square, Bayswater; *F. W. Guisclair, L.R.C.P.L., 13, Messina Avenue, West Hampstead; *W. E. Hardy, L.R.C.P.L., Wellington, Salop; N. C. Harding, L.S.A., 334, Upper Brook Street, Manchester; E. M. Harnden, L.S.A., Down House, Sutton, Surrey; *G. Heaton, L.R.C.P.L., Church Hill, Handsworth, Birmingham; H. H. Heffernan, L.R.C.P.L., Alma, Victoria Road, North Sutherland; *C. T. Holland, L.R.C.P.L., Stanhope House, Mornington Road, N.W.; A. K. Holt, L.R.C.P.L., Tuttand, Perry Vale, Forest Hill, S.E.; *P. M. House, L.R.C.P.L., 3, Cowley Street, Westminster; F. Jeeves, L.R.C.P.L., 59, Esplanade, Scarborough; *F. S. Jermaine-Lulham, L.R.C.P.L., 70, Castle Street, Farnham; C. S. Johnston, L.S.A., 9, Easy Row, Birmingham; J. Jones, L.R.C.P.L., Northcote, Lermard Road, Penge; B. E. Kershaw, L.R.C.P.L., Pitton House, Shepton Mallet, Somerset; *H. Laving, L.R.C.P.L., 52, Alderney Street, S.W.; *R. J. Langley, L.R.C.P.L., Park Cottage, Tielhurst, Reading; P. Lisboa, L.M. and S. B. Bombay, 21, Woburn Place; T. Lissaman, L.R.C.P.L., 30, Millman Street, Bedford Row; C. E. Lister, L.K.Q.C.P.L., Shildben Hall, Halifax, Yorks; A. Lucas, L.R.C.P.L., 7, Leonfield Road, Highbury, N.; J. Maberly, L.R.C.P.L., 19, Devonshire Buildings, Bath; J. B. Melroy, L.R.C.P.L., Derwent Villa, Eglinton Road, Shooter's Hill, S.E.; J. Magauran, L.K.Q.C.P.L., Creehan, Cavan, Ireland; *C. T. B. Maisey, L.R.C.P.L., Charlbury, Oxon.; *H. B. Marriott, L.R.C.P.L., Malton, Ipswich; *A. D. Miller, L.R.C.P.L., 336, Dudley Road, Birmingham; *R. D. Mothersole, L.R.C.P.L., The Infirmary, East Dulwich Grove, S.E.; *G. T. Mould, L.R.C.P.L., 4, Tavistock Crescent, Westbourne Park; F. M. Ogilvie, L.R.C.P.L., 12, Park Lane, W.; W. T. Ord, L.R.C.P.L., Cardos, Bourne-mouth; J. W. Peaker, M.B. Toronto, Brampton, Ontario, Canada; J. N. Phillips, L.R.C.P.L., Goginan, Aberystwith; H. P. Pranker, M.B. Ed., 40, Queen's Road, Bayswater; *E. B. Randall, L.R.C.P.L., Basset, Southampton; J. Rees, L.R.C.P.L., Penyffoes, Rhydlwies, R.S.O., S. Wales; *J. L. Rees, L.R.C.P.L., 45, St. Peter's Street, Mile End, E.; J. K. Reeves, L.R.C.P.L., Heathfield, The Avenue, Beckenham, Kent; A. C. Roberts, L.R.C.P.L., Badlesmen, Eastbourne; A. H. Robinson, L.S.A., Low Moor, near Bradford; *T. Robinson, L.R.C.P.L., Station Street, Burton-on-Trent; J. O. Rossall, L.R.C.P.L., 20, Aberdeen Place, Maida Vale; *O. R. Salisbury, L.R.C.P.L., Care of Mr. Crossley, Scatliffe House, New Walk, Leicester; *J. G. V. Sapp, L.R.C.P.L., Palmerston Road, Southsea; *A. Scott, L.R.C.P.L., North End House, North End Road, West Kensington; H. J. H. Scott, L.R.C.P.L., 2, Heathcote Street, Mecklenburgh Square; *H. Shipton, L.R.C.P.L., Buxton, Derbyshire; *C. W. Smeeton, L.R.C.P.L., 15, Reginald Terrace, Leeds; T. M. Smith, A.M. and M., 8, Brunswick Walk, Cambridge; F. W. B. South, L.S.A., Downham Market, Norfolk; H. A. Spence, L.R.C.P.L., 5, Lansdown Place, Clifton, Bristol; *C. P. Spink, L.R.C.P.L., 1, Cavendish Terrace, Leeds; *E. H. Starling, L.R.C.P.L., 146, Alexander Road, N.W.; *P. W. Strenfield, L.R.C.P.L., College Road, Maldstone; *H. Symonds, L.R.C.P.L., 15, John Street, Hampstead; E. Telchelmano, L.K.Q.C.P.L., 245, Great Vincent Street, Birmingham; *R. Thompson, L.R.C.P.L., 10, Dartmouth Terrace, Lewisham; N. Tyacke, L.R.C.P.L., Kermick, Penryn, Cornwall; A. F. Tyrrell, L.R.C.P.L., 16, Colloct, Road, Putney; F. J. Wallham, L.R.C.P.L., Walton Lodge, New Hampton, Middlesex; J. H. Walker, L.R.C.P.L., 22, Albert Street, Regent's Park; *J. Wayte, L.R.C.P.L., 13, Sloane Terrace, S.W.; A. J. Weatherly, L.R.C.P.L., Seven Springs, Oxford; *C. J. Weekes, L.R.C.P.L., 51, Harrington Street, Hampstead Road, N.W.; A. S. Wilson, M.B. Cantab., 7, Warrlor Square, St. Leonards-on-Sea; H. E. Winter, L.R.C.P.L., 6, Elliott Place, Blackheath; *H. W. Wise, L.R.C.P.L., 15, Lyndock Place, Edinburgh; J. F. Woodhurrat, L.R.C.P.L., 10, Market Place, Macclesfield; W. L. Wyatt, L.R.C.P.L., Corse Vicarage, Gloucester; T. B. Young, L.R.C.P.L., The Laurels, Haldenowen.

*Candidates under the regulations of the Examining Board in England.

UNIVERSITY OF LONDON.—Preliminary Scientific (M.B.) Examination, January, 1888. Pass list. Entire Examination.

First Division.—J. H. Griffiths, University College, Aberystwith, and St. Bartholomew's Hospital; W. N. Soden, St. Bartholomew's Hospital; P. W. Wesley, University College.

Second Division.—Fanny Armitage, Yorkshire College; J. Hall, B.A., private study and University Correspondence Cl.; W. J. Johnson, Guy's Hospital; A. B. Jones, Epsom and University Colleges; C. H. Mott, University College and University Correspondence Cl.

Two Subjects of the Examination.¶

V. J. Battenon (c. n.), University College and private study; C. Butcher (c. p.), Guy's Hospital; B. Collyer (c. p.), St. Bartholomew's Hospital; P. S. Eves (c. p.), University College and School; H. W. Jacob (c. p.), Trinity College, Dublin; H. M. Moore (p. n.), private study; H. S. Revell (c. p.), University College and School; L. Rogers (c. p.), St. Mary's Hospital; W. Turner (c. p.), King's College and School; J. E. B. Wells (c. n.), St. Mary's Hospital and private tuition.

One Subject of the Examination.¶

G. J. Arnold (c.), St. Thomas's Hospital; L. W. Bathurst (p.), St. Bartholomew's Hospital and private tuition; Alice McW. Budgett (c.), University College; F. J. Carter (p.), St. Bartholomew's Hospital; T. Cartwright (p.), University College and Middlesex Hospital; J. H. Crawshaw (p.), Archbishop Holgate's School, York, and private tuition; W. E. de Korté (p.), University College; H. J. Jäger (c.), King's College; H. W. Lane (c.), University College; H. B. Pace (p.), University College and London Hospital; C. S. Pantin (p.), Blackheath Proprietary School and University College; A. W. Peake (p.), University College, Bristol; A. F. Percy (p.), Queenswood School, Birkbeck Institute, and private study; F. R. Rowland (n.), University College; W. Stokes (c.), Trinity Hall, Cambridge, and King's College; H. S. Taylor (c.), University College; J. P. Tildesley (p.), Mason College, Birmingham; K. B. J. Vickers (c.), Westminster School and St. Thomas's Hospital.

¶The subjects taken up by these Candidates are indicated by initials after the name—C.=Chemistry; P.=Physics; B.=Biology.

‡These Candidates have now completed the Examination.

MEDICAL VACANCIES.

The following Vacancies are announced:

ATHLONE UNION.—Medical Officer, Moate Dispensary. Salary, £140 per annum and fees. Applications to Mr. Luke Egan, Honorary Secretary. Election on February 21st.

BALLYSHANNON UNION.—Medical Officer, Kinlough Dispensary. Salary, £120 per annum and fees. Applications to Mr. M. Clancy, Honorary Secretary, Stracomer. Election on February 13th.

BIRMINGHAM CHILDREN'S HOSPITAL.—Assistant Resident Medical Officer. Salary, £40 per annum, with board, etc. Applications by February 21st to the Secretary.

BIRMINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Applications by February 25th to the House Governor.

BRISTOL ROYAL INFIRMARY.—Dental Surgeon. Applications by February 13th to the Secretary.

CANCER HOSPITAL, Brompton.—Pathologist. Honorarium of £80 for twelve-months. Applications by February 21st to the Secretary.

EARLSWOOD ASYLUM FOR IDIOTS, Redhill.—Medical Superintendent. Salary, £500 per annum, with apartments, etc. Application by February 21st to the Board of Management, 38, King William Street, E.C.

EAST SUFFOLK HOSPITAL, Ipswich.—Assistant House-Surgeon. Applications by February 21st to the Secretary.

FOREST HILL PREVENTIVE DISPENSARY.—Medical Officer. Applications by February 15th to F. J. Marriott, Esq., 2, Perry Villas, Perry Vale, Forest Hill, S.E.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with board and residence. Applications by February 22nd to the Chairman of the Committee.

MEPSTON ASYLUM, near Leeds.—Medical Superintendent. Salary, £400 per annum, with board and residence. Applications by February 15th to W. L. Williams, Esq., West Riding solicitor, Wakefield.

METROPOLITAN HOSPITAL, Kingsland Road, E.—Ophthalmic Surgeon. Applications by February 20th to the Secretary.

NATIONAL ORTHOPÆDIC HOSPITAL.—Surgical Registrar and Anæsthetist. Honorarium, £20. Applications by February 21st to the Secretary, Great Portland Street, W.

NENAGH UNION.—Medical Officer, Silvermines Dispensary. Salary, £100 per annum and fees. Application to Mr. Joseph Ryan, Honorary Secretary. Election on February 17th.

OLDCASTLE UNION.—Medical Officer, Oldcastle Dispensary District. Salary, £135 per annum and the usual fees. Applications to William Harman, J.P., Honorary Secretary, Crossdrum. Election on February 13th.

OUGHTERARD UNION.—Medical Officer, Oughterard Dispensary. Salary, £112 per annum and fees. Applications to Mr. Robert Mons, Honorary Secretary, Drumakill Lodge. Election on March 7th.

ROXBURGH DISTRICT ASYLUM, Melrose.—Assistant Medical Officer. Salary, £80 per annum, with board and residence. Applications to Dr. Johnstone.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Assistant Physician. Application by February 11th to the Secretary.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—House-Surgeon. Salary, £40 per annum, with board, etc. Applications by February 15th to the Assistant Secretary.

STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Applications by February 18th to the House-Surgeon.

TUNBRIDGE WELLS BENEFIT SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £120 per annum. Applications by February 13th to Mr. J. Wallis, 25, Newcomen Road, Tunbridge Wells.

YORK COUNTY HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with board, etc. Applications by March 1st to the Secretary.

YORK DISPENSARY.—Three Resident Medical Officers. Salary, £130 per annum, with furnished apartments, etc. Applications by February 29th to S. W. North, Esq., 84, Micklegate, York.

MEDICAL APPOINTMENTS.

BLONFIELD, A. G., M.D., A.K.C.Lond., Physician to the Exeter Dispensary, elected Physician to the Devon and Exeter Hospital.

CARTER, Rowland Wimburn, M.D., M.R.C.S., L.S.A., appointed Surgeon Weymouth Royal Hospital and Dispensary, *vice* F. C. G. Griffin, M.A., M.B., M.R.C.S., resigned.

CLARK, C., M.D., appointed Superintendent of the Rosewell Asylum, Midlothian, *vice* R. W. Cameron, M.D., resigned.

HANLY, Edward, M.D., appointed Visiting Physician to the British Hospital, Buenos Ayres.

HAWKES, L.A., M.B., C.M., appointed Assistant Resident Medical Officer to the Royal National Hospital for Consumption, Ventnor.

HINDE, F. R. Borthon, M.B., C.M. Edin., M.R.C.S.Lond., appointed Junior House-Surgeon to the Macclesfield General Infirmary, *vice* J. M. Gell, M.B., C.M., M.R.C.S., resigned.

LEWIS, C. M., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Western Branch of the Brighton, Hove, and Preston Dispensary, *vice* L. Phillips, M.R.C.S., L.R.C.P., resigned.

LIVINGSTON, J. Lockhart, M.D., M.S., M.A.O. Roy. Univ. Irel., appointed House-Surgeon to the Bristol Hospital for Sick Children and Women, *vice* H. F. Semple, M.R.C.S., L.R.C.P., resigned.

MAUGHAN, James, M.D. Brux., M.R.C.S., L.R.C.P.Lond., appointed Lecturer on Histology to National Dental College, *vice* Thomas Gaddes, L.D.S. Eng. and Edin., resigned.

MILLS-ROBERTS, R. H., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Birmingham General Hospital, *vice* J. Errington Ker, M.R.C.S., resigned.

PEAKE, W. Pemberton, Esq., M.R.C.S., L.R.C.P.Lond., appointed Assistant Medical Officer to the St. Marylebone Infirmary, *vice* Raymond Courteen, M.B., resigned.

SPOULE, R. H., M.D., M.Ch., L.M., appointed Medical Officer to the Killyleagh Dispensary of the Downpatrick Union, *vice* R. G. Shiel, M.D., resigned.

WATSON, W. J., M.B., M.R.C.S., appointed House-Surgeon to the Northern Branch of the Brighton, Hove, and Preston Dispensary, *vice* E. S. Hasell, M.R.C.S., L.S.A., resigned.

WOODHALL SPA, LINCOLNSHIRE.—Among recent considerable additions and improvements made for the accommodation and convenience of visitors to the Woodhall Spa, there has, we learn, just been completed, from the designs of Major Davis, F.S.A., of Bath, who, two years ago, made a tour of the chief European Spas at the request of the Corporation of Bath, a splendid series of baths and pump-room fitted up with every modern appliance and convenience, including shower, vapour, douche, inhalation, and local baths. In the pump-room accommodation is provided for a first-class orchestral band. Plans of a new hospital have been prepared, and in addition to the valuable site given by the present proprietors, subscriptions to the extent of £1,000 have been raised towards this object. Several new villas have been erected, and others are in course of building. The hotel to which a new wing has been added has been entirely remodelled and furnished to meet all the requirements of patients and guests, and the gardens, which have been newly laid out, are surrounded by a charming park of seventy acres. Messrs. Robey and Co., of Lincoln, are, we learn, putting down new machinery for the elevation of the water, which, when completed, will deliver about 20,000 gallons a day; and new tanks have also been constructed to hold some 60,000 gallons of water. It is anticipated that this spa, which was largely attended by rheumatic and other patients during the past year, will, in consequence of the greater conveniences provided, be more generally resorted to.

THE INTER-HOSPITAL (RUGBY) FOOTBALL CUP TIES.—The following are the results of the first round:—The matches are played on the Richmond Athletic Association Ground. St. Mary's a bye, Westminster scratched; Middlesex a bye, King's scratched. St. George's beat Charing Cross on January 23rd, a somewhat easy victory, 2 goals, 2 tries, and 5 minors (75 points) to 1 try and 1 minor (11 points). St. Thomas' beat Guy's on January 27th. Contrary to expectation, Guy's was defeated, the Lambeth forwards so penning their rivals as to prevent their three-quarters getting off. After a most stubbornly contested game the score was 1 goal to 2 minors (27 points) to one try (10 points). London v. St. Bartholomew's resulted in a draw, both sides scoring two points. London, though unable to score, had slightly the best of the game. University a bye. The draw for the second round is as follows:—Monday, February 13th, University v. St. Thomas's; Tuesday, February 14th, St. Bartholomew's v. St. George's; Thursday, February 16th, London v. St. Mary's, Middlesex a bye. ...

THE HEXTHORPE ACCIDENT.—At the meeting of directors of the Manchester, Sheffield, and Lincolnshire Railway Company, held at Manchester on the 25th January, Sir Edward Watkin, Bart., in the chair, the following resolutions were passed:—"That the best thanks of the Board be given to the governors and committee of the Doncaster Infirmary for the valuable aid they had rendered to the parties injured in the Hexthorpe accident, and for the care and attention bestowed upon them during the time they were in-patients in the infirmary. Further, that a sum of 250 guineas be handed to the funds of the hospital towards meeting the additional expenses incurred in consequence of the accident." "That a sum of fifty guineas be voted to Mr. Penny, the house surgeon of the Doncaster Infirmary, in recognition of the additional labour imposed upon him in connection with the accident at Hexthorpe, with the best thanks of the Board."

SMALL-POX AT NOTTINGHAM.—At a meeting of the Nottingham Town Council on Monday, a report was submitted to the Health Committee of the Corporation recommending the erection of a permanent small-pox hospital at Bagthorpe at a cost of £26,000. The matter was deferred for two months. It has, we believe, already been under consideration for four years. There are still eighteen patients in the temporary hospital. Another death from small-pox is reported. Nearly three weeks ago a man was removed from a house to the temporary hospital. All the inmates of the house consented to be vaccinated, except a young woman, who resolutely refused to adopt this precaution. She alone caught the disease, was conveyed to the hospital, but never rallied, and died on February 6th.

LURGAN UNION.—A special meeting of the Lurgan Guardians was convened recently in order to consider the liability of the Board to pay the salary of a substitute for one of the dispensary officers of the union. It appears that on September 15th last, the Lurgan Dispensary Committee allowed Dr. Agnew, medical officer of No. 1 District, three weeks' leave of absence on the occasion of his marriage, and the Committee appointed Dr. Magennis, J.P., as *locum tenens* at a salary of £2 2s. per week. The Board of Guardians, while confirming the grant of leave of absence to Dr. Agnew, declined to pay his substitute, on the ground that, all things considered, Dr. Agnew was liable. A resolution reaffirming their decision refusing to pay the amount was unanimously agreed to.

PASTEURISM IN POLAND.—Dr. Monin furnishes the following statistics concerning the number of preventive inoculations for rabies practised in Warsaw by Dr. Bujwid, and the results obtained. From the beginning of 1887 to July 1st, 220 persons were inoculated; in 85 per cent. of the cases the bites were inflicted by animals proved to be suffering from rabies. In 15 per cent. of the cases this fact was not certified; thirty-five persons who were bitten were not inoculated, owing to the insignificant nature of the bites. Two of the patients inoculated died; the mortality was therefore 1.06 per cent. This proportion is much the same as that shown by the results of similar experiments at the Institut Pasteur.

CREMATION IN FRANCE.—At a meeting of the French Cremation Society held in Paris on January 29th, the President announced that he had received from the Ministry the assurance that an edict rendering cremation legal would very soon be promulgated. A requisition to the general commanding the army in Tonquin that French soldiers dying there might be burnt and their ashes sent to France for burial had been answered by the usual official formula, "It is not the custom."

THE Leeds Trained Nurses' Institution seems to be doing a good and useful work. The staff consists of eighty engaged in private nursing; seven engaged in district nursing; and sixteen probationers in training at the hospitals, giving a total of one hundred and three. The number of cases attended during the year was eight hundred and seven; and one hundred and seventeen cases had to be declined, owing to inability to supply a nurse at the time she was needed. The Honorary Secretary is Mrs. Edward Walker.

ADULTERATION OF PEPPER.—A number of Liverpool grocers have recently been convicted for selling adulterated pepper. The fines and costs, however, we are informed, are in each case paid by the grinders, who are the real offenders, and whose names are, by this means, not disclosed. If the same attention were given to the detection of fraud among manufacturers as is now given to its detection among the retail dealers, such instances of evasion of the law would be less frequent.

THE Committee of Management of the City of London Hospital, in presenting the 137th annual report, expressed their gratification in the satisfactory character of the year's working, both as regards the sanitary condition of the hospital and its financial position. During the year, 356 women have been delivered in the hospital, as against 283 in 1886; 338 children were born, namely, 177 boys and 161 girls; 7 children were stillborn, and one woman has died, the death of the mother, from extraneous causes) being the only one since May, 1886, out of 506 deliveries, the mortality being under 2 per 1,000.

EDINBURGH DENTAL HOSPITAL.—The necessity for the erection of a specially designed and enlarged hospital on a suitable site for the reception of the staff and patients of the present Edinburgh Dental Hospital becomes more apparent every year. During 1887 there was an increase of 785 patients registered as compared with 1886. The staff of the hospital devotes a considerable amount of time to the stopping and preservation, as well as the extraction, of teeth.

MR. THOMAS MONK, surgeon, of Preston, has died at the venerable age of 90 years. The deceased gentleman was for many years a member of the Town Council, was made alderman in 1845, and served the office of mayor during the year 1851-52. Up to about a year ago Mr. Monk continued in active practice.

A TRAMP'S PARADISE.—Orders have been issued by the Chief Constable of Derbyshire for the revaccination of the members of the police force as a precaution against the small-pox epidemic prevailing in the adjoining county. No vagrants or merely suspicious characters are to be apprehended until this order has been carried out.

TRALEE UNION.—The guardians recently passed a resolution increasing the salary of Dr. Hayes from £100 to £120 per annum. As, however, Dr. Hayes had only lately been appointed a medical officer of the union, the Local Government Board have refused to sanction the proposed increase.

GLASGOW SAMARITAN HOSPITAL.—This is one of the youngest of the medical charities of Glasgow, being established for the treatment of diseases of women. During the past year the total number of patients was 203, and the number of operations 93. No deaths occurred.

ACCORDING to M. Leroy-Beaulieu, the medical profession in France pay to the Treasury an annual sum of 12,384,930 francs for their "patentes," a tax levied on the exercise of every trade, profession, and occupation in that country.

GLASGOW DENTAL HOSPITAL.—The annual report of this hospital shows an increase of 1,416 cases treated, the total being 8,212, which included 62 special operations performed under anaesthetics.

A NEW medical journal, called *Electrotherapie*, has recently appeared in France under the editorship of Dr. Léon Danion, who has given much attention to electricity as applied to medicine.

FROM Dr. Diplock's annual report it is seen that considerably over one-fourth of the inquests held in West Middlesex last year were upon children under the age of 12 months.

A "FIRST AID" class of the St. John Ambulance Association has been formed by the Duchess of Albany at Esher, Her Royal Highness herself attending the lectures.

OBITUARY.

WM. BOYD MUSHET, M.B. LOND., M.R.C.P. Dr. MUSHET, whose death occurred at Aldershot towards the end of last year, was a man of varied accomplishments, and highly esteemed by a large circle of personal friends. His educational career was a promising one. He took the degree of M.B. Lond. in 1855, and became Member of the Royal College of Physicians of London in 1863. He was University Medallist in Medicine, and took Honours in Surgery, Midwifery, and Materia Medica. He was late Honorary Consulting Physician to the Mariners' Home, Egremond; Physician to the London Hospital, Norwood; and Resident Physician to the St. Marylebone Infirmary. He was also a member of the Haryeian Society. He was the author of many works on a variety of subjects. In 1864 he published *Man and Apex*. He was also the author of a *Practical Treatise on Apoplexy*, *The Pathology of Angina Pectoris* (contributed), to the *JOURNAL* (1859); *Cholera; its Pathology, Contagiousness, and Treatment* (He

was also the author of a satire entitled *Hyde Park*, and a contributor to the medical journals and *Morning Star*.

MICHAEL LEAHY, M.D. ED.

DR. LEAHY, the oldest practitioner in Bridgend, died on January 29th, aged 76, from a cold contracted when out attending his patients. Dr. Leahy studied at Dublin and Paris, as well as at the University of Edinburgh, where he was a distinguished student in the class of the late Sir James Simpson, and afterwards his class assistant. He obtained the qualification of L.R.C.S. Edin. in 1839, and that of M.D. Edin. in the following year. He was a good French scholar, and well versed in French medical literature. He acted as chief surgeon to the workmen in the Tondou iron-works for upwards of forty years, and he and his valued friend, Dr. Pritchard, who attended him during his illness, have been the two leading practitioners at Bridgend for nearly half a century. His unselfish devotion to duty, his invariable kindness and charitable dealing, and honourable and straightforward action under all circumstances, won for him deservedly the respect of all and the affection of a wide circle to whom he was more intimately known.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor John Bland Sutton: Lecture on Evolution in Pathology. I. Coalescence.

MEDICAL SOCIETY OF LONDON.—Dr. Donald Hood: The Treatment of Rheumatic Fever, with especial reference to the Use of the Salicylates.—Dr. Kent Spender: Some hitherto Undescribed Symptoms in the Early History of Osteo-arthritis.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor John Bland Sutton: Lecture on Evolution in Pathology. II. Coalescence (continued).

ROYAL METEOROLOGICAL SOCIETY, 7 P.M.—Hon. Ralph Abercromby, F.R.M.S.: Electrical and Meteorological Observations on the Peak of Teneriffe. W. B. Tripp, M.I.C.E., F.R.M.S.: Rainfall of South Africa, 1843-1886. Nils Ekholm: Some Methods of Cloud Measurements.

THURSDAY.

HARVEIAN SOCIETY.—Dr. Stephen Mackenzie: Some Cases of Hysteria. Dr. Lees: Case of Hysteria. Mr. Silcock and Dr. Maguire: Death, with Symptoms of Hysteria.

PARKS MUSEUM OF HYGIENE, 5 P.M.—Dr. J. F. Payne: Plagues, Ancient and Modern.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor John Bland Sutton: Lecture on Evolution in Pathology. III. Anatomical Peculiarities and Their Mediating Effects upon Disease.

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 7.30 P.M.—H. E. Armstrong, M.R.C.S.: Port Sanitary Administration on the Tyne; a Seven Years' Retrospect. Campbell Muir, M.B.: Sanitary Administration in the United States.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

FENWICK.—At 5, Old Burlington Street, W., on the 2nd February, the wife of E. Hurry Fenwick, of a daughter.

MARRIAGES.

JAMES—CORMACK.—Tuesday, the 7th February, at the Cathedral, Bombay, William, third son of Edward James, J.P., Greenbank House, Plymouth, to Caroline, youngest daughter of the late Sir John Rose Cormack, M.D., Edin. and Paris.

OGSTON—RODINGS.—On 7th December, 1887, at Bishop's Court, Auckland, New Zealand, by the Right Rev. the Bishop of Auckland, assisted by the Ven. Archdeacon Dudley, Frank Ogston, M.D., Lecturer on Medical Jurisprudence, Otago University, Dunedin, to Kate Mary, eldest daughter of the late George Rodings, Esq., of the same place.

WADE—WILSON.—February 1st, at St. Peter's, Southampton, by the Rev. A. G. Wade, Vicar of Trinity Church, Ryde, father of the bridegroom, and the Rev. C. T. Steward, Vicar of the parish, Arthur Brecon Wade, M.B., Southampton, to Annie, eldest daughter of the late Col. Wilson, B.N.F., of the Polygon, Southampton.

DEATH.

ADBY.—On the 2nd February, at St. Leonard's-on-Sea, Charles Augustus Ader, M.D., F.R.C.P., Consulting Physician to the Hastings, St. Leonard's, and East Sussex Hospital, aged 65 years.

THE HUNTERIAN ORATION

ON THE

LIFE-WORK OF JOHN HUNTER, AND HIS INFLUENCE ON SURGERY.

Delivered before the Hunterian Society on February 8th, 1888.

By R. CLEMENT LUCAS, B.S., F.R.C.S.,

President of the Society.

THE biographies of great men form conspicuous landmarks in the histories of nations like the mountains to our plains and the capes and promontories to our ocean shores. Without them the records of time would be as uninteresting in their monotony as the tedious columns of a banker's ledger, where every figure must fall with wearying regularity into one of the three spaces devoted to pounds, shillings, and pence. There would be reiterated repetition without relief, and a dull monotone would be the only sound heard in a chorus of universal platitudes. But, happily, high above the hum of the multitude, back from infinite space which time overshadows, come the voices of the great, ever calling to us to follow in their footsteps, and to search out the labyrinths of Nature by the aid of the lamp of truth. First among surgeons of immortal renown will ever remain the name of him in whose honour we have met together to-night, and after whom this Society takes its name, the illustrious John Hunter. By his beacon light the reputations of all future generations of surgeons will be tested; and whereas it may be safely predicted that the flickering light of many will disappear like the light of the stars before the rising sun, yet it may still be hoped that the world may create and this nation produce surgeons whose genius will in after years shine with as steady a light as that of the planets in the universal ether. Let us turn to the history of this great man's life, to see if we can discover in it the secret of his power, or learn how to train ourselves, in however distant a way, in the direction of this ideal. Was it by birthright, by the aid of parental wealth, that he gained a start over his fellows in the race of life? Anything but this. Was it by early mental culture, by the careful and exact training of cultivated minds in his early childhood, that he learnt the lesson of his life? No, far from this. The youngest son of a Scotch laird, his home was in the wilds of rugged Scotland, and his early education only that of a village school. Till early manhood his mind lay fallow, like his father's acres under the leaden sky of winter. True, his parents were persons of keen intelligence, if not of the highest culture, and under their roof his mind would be steadied in virtue and guarded from vice. But the records of his boyhood show no promise of pre-eminence. The time was idly spent and uneventful. We cannot even discover that he displayed any inquisitive interest in the structure of the birds or reptiles that in boyish mischief he may have captured. There is no indication of the future biologist in the boy, and nothing whatever to indicate the great scientific mind that lay in him as yet undeveloped. But, mark you, he comes of that sturdy yeoman stock that in the previous century had produced a Newton, and his two elder brothers had already shown signs of high intellectual power. These two, migrating to London, were becoming distinguished in the medical profession. The eldest dies young, but the second son, William, is destined to be the magnet that attracts the youngest towards intellectual pursuits, and through him John Hunter derived that inspiration which roused his hitherto chrysalid mind to the mighty exertions of after years. Little can we learn from such a boyhood. It is devoid of those little incidents upon which biographers delight to lay so much stress as indicating the bent of the developing mind. There is nothing corresponding to the boyhood of the great general who loved more than other boys to play with cannon, or to that of the great engineer who delighted in mechanical contrivances. All we have to contemplate is a wide uncultivated field, but the adjoining acres indicate that the soil is fertile if sown with the appropriate seed. The first venture is unsuccessful. At the age of 17, John Hunter is sent to assist a failing brother-in-law, who is a cabinet maker in Glasgow. As well might his friends have attempted to grow a succulent water-lily on the Surrey sand hills as to force such a calling upon the unwilling youth. The result is failure, and he returns again to home and idleness. Thus the first twenty years of his short life of sixty-five are, as we now judge, lost—or, at least, unproductive. Whether years that in their own time prove

unproductive are, when added to the human cycle, to be regarded as lost is an interesting problem. If so, then hours spent in healthy exercise—inasmuch as they seldom lead to immediate intellectual results—may be regarded as lost also. And sleep, even, that “foster-nurse of Nature,” may be blamed for her apparently unproductive hours. But if those twenty years of mental repose led to the storing up of energies which in after years produced such magnificent results, then must they not be regarded as lost, but as potential. It is possible even that this storing up of energies by lack of opportunity had been present in the family of Hunters prior to the generation in which John was born. It is certain that the strain of blood derived from Hunter's parents was capable of supporting the highest intellectual attainments, as evidenced not only in Hunter and his brothers, but afterwards in the family of Baillies, one of whom married his sister.

John Hunter was the youngest and tenth child, but only five of the family lived to adult age. It may be interesting to those in search of the origin of genius to note that there was a great difference between the ages of Hunter's parents, and that the father was verging on his seventieth year when John was born. He lost his father when 10 years of age; to this circumstance and to his mother's indulgence is attributed the neglect of his early education. This defect followed him throughout life. His grammar is often incorrect, his sentences clumsy and obscure, and his expressions coarse, or at least inelegant. But a vigorous intellect and irrepressible will struggle through all the difficulties resulting from his defective tuition, and in this we recognise the impulsive force of true genius. To how many would such an education have proved an impassable barrier to higher intellectual attainments! Ignorant of any language but that of his birth, and but little skilled in using even this, we find him twenty years of age before his mind commences to unfold. Then comes the turning-point of his whole life, that

Tide in the affairs of men,
Which, taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.

This turning-point is a letter which he addressed to his distinguished brother William, “requesting to be allowed to join him in London, and offering his services as an assistant in the dissecting-room.” The reply was favourable, and contained a kind invitation to visit London. Now, mark you, this is apparently the first time that Hunter attempts to direct his own path in life. It is his own initiative. Before, he shows no liking for the parental acres. He is said to be attached to country sports but negligent of farming. His fond living parent, having neglected his education, thinks that he may earn an easy living by falling into the business of a dissipated brother-in-law. From this he returns in disgust and failure.

The tendency of parents generally is to place their sons as soon as possible into positions of ease, regardless of their inclinations; but there is this consolation, that men of genius commonly break through all restraint, and eventually determine for themselves their paths in life. It was so with the Hunters. Why parents too often fail to direct aright their children's futures if it is not difficult to understand; for youth strives for distinction, age for affluence. Having arrived at a time in life when they begin to feel the burden of work and the luxury of rest, when they desire to defend their sons from the toils and dangers by which alone distinction can be secured. Happily for the world, the two Hunters broke loose from parental guidance, and found in the medical profession that scope for intellectual activity to which their minds were best adapted.

Let us rest for awhile from the contemplation of John Hunter's life to study the character of that elder brother, William, who henceforth is destined to exert so powerful an influence on his career. William is ten years his senior, and was sent to Glasgow University at the age of 14 to read for the clerical profession. After five years of study his tastes lead him in another direction, so that at the age of 19 we find him at Hamilton, with a young doctor named Cullen. Three years with Cullen intensify his love for the medical profession, and he proceeds first to Edinburgh, then to London, to study, with the object of becoming Cullen's partner. At the age of 23 he is in London, residing with Dr. Douglas, a celebrated anatomist of that day, whose house he enters in the double function of anatomical assistant and preceptor to his children. Here wider fields are opened for his talents, and once more we find him asserting his own judgment. His father doubts the wisdom of this step, and writes strongly urging him to adhere,

to his original intention of returning to Hamilton to be Dr. Cullen's partner, "where," he writes, "you may be very comfortably settled and make money; and if you miss this opportunity now you cannot be sure of it at another time." This parental advice, tinged as it is with Gaelic prudence, is not followed by William Hunter, who, continuing to pursue his studies in London, rapidly rises to be the most distinguished anatomist and most brilliant lecturer of his time. Later in life he directed his attention specially to midwifery, and published, nine years before his death, his great work on the gravid uterus. He collected a large museum, the materials of which cost him £100,000, and this collection, together with £8,000 for its maintenance, he bequeathed to the University of Glasgow. Adams thus describes him: "His person, though small, was graceful; his cast of features regular and interesting; his voice musical; his manners attentive and flattering. In short, Dr. Hunter was a polite scholar, an accomplished gentleman, a complete anatomist, and probably the most perfect demonstrator as well as lecturer the world had ever seen."

One sentence from a letter to his old friend Cullen, who rose to be Professor of Medicine in the University of Edinburgh, will show at once the manner and character of this truly distinguished physician. "Since I began to think for myself," he writes, "Nature, where I am best disposed to mark her, beams so strongly upon me, that I am lost in wonder, and count it sacrilege to measure her meanest features by my largest conceptions." In that one sentence we note the humility of scientific thought, associated with breadth of view and beauty of expression, which were characteristics of William Hunter. Had the whole world been searched over to find an appropriate teacher for a young developing genius, it would have been difficult to discover a more able and accomplished guide and instructor. For not only was William Hunter recognised as a scientific physician and anatomist of the greatest eminence, but he possessed in the highest degree the power of communicating knowledge. John Hunter rode from Scotland on horseback in 1748 to join his brother in London. What a new world for the uncouth Scotch lad! Picture the indifferently educated, awkward, ungainly youth, now suddenly imported into the centre of intellectual activity. How keenly must he have felt the distance between his limited knowledge and that of the circle in which his elder brother was already distinguished. At first it would seem he displayed little love for refinement, and became a leader among his brother's more noisy pupils. The higher civilisation acted slowly upon him, and came too late to remove all the angularities of thought and expression which had become deeply rooted in his northern home; but he brings a robust constitution and a determined will to carry him through his future studies, and in his brother's dissecting room he finds that new interest which supplies the requisite stimulus to excite his dormant energies into activity. His brother starts him in the usual way by giving him an upper extremity to dissect, and the pupil acquits himself so well that the master predicts for him a distinguished future in anatomy.

Thus is Hunter's mind inoculated by his brother towards the study of life through death, and henceforth the feverish thirst for knowledge, thus excited, grows more and more intense with increased acquirement. But for this one sphere of knowledge only is his mind adapted, and that the widest sphere of all; every creature or thing that may be accounted to have life will, in future years, when brought within his ken, command his earnest attention and study. As yet he treads but the lowest steps in the study of life, but his interest is awakened, and he is, thus encouraged to labour on without sense of weariness.

The following summer, again through his brother's influence, he is enabled to study surgery at the Chelsea Hospital under Cheselden, the famous lithotomist, and he returns to assist his brother when the autumn session of anatomy commences. After Cheselden's retirement he studies under Percival Pott, and thus five years are spent between anatomy and surgery. Then, in 1753, a new departure is made, and we find John Hunter entered as a gentleman commoner at St. Mary's Hall, Oxford. This change is attributed to the desire of his brother William to see him better trained in classic lore, but the experiment is a failure. Hunter's mind is one strong in its own lines, but showing little adaptability to the teaching of others, and at the age of 25, after five years spent in anatomy and surgery, he cannot be persuaded as he says "to stuff Latin and Greek at the university," so he returns again to London to enter as a pupil at St. George's Hospital, where, in 1756, he is appointed house surgeon. In the same year he joins his brother as a partner and joint lecturer in his

anatomical school, and this must therefore be regarded as the termination of his student's career. He is now 23 years of age, well trained in surgery, and an able and laborious anatomist; but as a lecturer we find him, when brought into contrast with his brother, a comparative failure. This is due in no way to a lack of knowledge, but to the difficulty he experienced in expressing his thoughts in words ready for immediate service. Perhaps it may be regarded in some degree as fortunate that he was not possessed of natural eloquence, inasmuch as a popular teacher is apt to be diverted by his popularity from those close studies and laborious investigations with which Hunter's name is henceforth to be associated.

Thus he labours on with scalpel and forceps in the dissecting-room, and now begins to widen his views by original researches in conjunction with his brother William, or independently of him. He works at the descent of the testis, and employs himself in a series of observations on the anatomy and uses of the lymphatics. But this close and continuous anatomical work begins to tell on his health, and in the spring of 1759 he is seized with inflammation of the lungs. The effects are slow in clearing, and as his elder brother James died of consumption, he is strongly advised to leave London, and seek change in a warmer climate. With this object he applies for an appointment in the army, and is soon on his way as staff-surgeon with the expedition sent in 1761 to lay siege to Belleisle. The army has proved destructive of many an early reputation, and there might have been a danger to Hunter of a renewal of those dissipations to which he appeared to have some inclination when he first came to London. But the love of science has taken too strong a hold upon him to allow him to break away from her influence. Although engaged in practical surgical duties and the study of gunshot wounds, we find him employing his leisure hours in observations on the hearing of fishes and the digestion of hibernating animals during the torpid state. The following year he is sent with an expedition to support the Portuguese against the Spaniards, and peace being proclaimed in the spring of 1763 he returns once more to London.

John Hunter's second entry into the metropolis at the age of 35 may be contrasted with that he made fifteen years before under his brother's guidance. Then he was ignorant, uncultured, and without prospect in life. Now, thanks largely to that brother's influence and training, he is recognised as an accomplished anatomist and able surgeon. He still displays some roughness of manner, some ungoverned impulses of temper, and perhaps a little tendency to quarrel with other workers in the same field, but he is thoroughly imbued with a love of scientific inquiry, and has shown an industry, perseverance, and originality of thought which in future years will raise him to the highest pinnacle of surgical fame.

The position he held as demonstrator in his brother's dissecting room has been worthily filled by a Mr. Hewson in his absence, and the independence of thought which was one of John Hunter's characteristics may have rendered a reunion with his brother inadvisable even if again possible. He is still poor, but possessed of resources which may command wealth, and he has his half-pay from the army to contribute to his support. He starts in practice in Golden Square, but the public are slow to discover his talents, and thus he is left with plenty of time in which to pursue his biological studies. In order to increase his income he gives a course of lectures on anatomy and surgery, but these are not largely attended. Thus his two chief defects, roughness of manner and lack of fluency in speech, debar him at the commencement both from public and professional favour.

About this time he purchased a piece of ground at Earl's Court, then two miles from London, and built there a small house, which he converted into a kind of menagerie for the study of animals and for the carrying out of experiments. There bulls and leopards, eagles, dogs, pigs, poultry, bees—indeed, almost every living creature he could collect around him—were subjected to his critical examination and study. This house came under the auctioneer's hammer on February 16th, 1886, only two years ago, and it may be interesting to hear a last description of it, which I take from the BRITISH MEDICAL JOURNAL of February 20th: "Behind a large brown brick house stood a fine lawn, at the right extremity of which was a grassy mound, in form like a small brick kiln. This mound was surmounted by a low machicolated brickwork turret, for which various explanations have been advanced. Indeed, this tower has been made the basis of Hunterian legends; but it was most probably erected before Hunter's time, and meant for ornament, after ideas due to influences derived from Versailles and Holland. Three dens were excavated in the mound, the

central den being fairly capacious; but, according to modern ideas, they were ill-adapted for the reception of live carnivora. The story of the escape of two leopards from the den is probably well known. Close to the dens grew some fine trees, including a fine mulberry, in the bark of which the late Mr. Frank Buckland believed that he could trace old incisions, made by Hunter, for the introduction of a thermometer in his experiments on the physiology of the circulation of the sap. At the left hand corner of the grounds, beyond the lawn, was a small workshop, with a loft, evidently as old or older than Hunter, but what use he made of it remains unknown. Turning back to the house, a long, low, subterranean passage led from the grounds under the building to the yard in the front part of the premises. It was hardly six feet in height, and midway it led to two small chambers well bricked, the one was used for the famous madder-refuse experiments on swine, the opposite chamber contained two copper furnaces. It was in the larger copper, concealed in this little apartment, that the skeleton of the Irish giant, Byrne O'Brian, and many other specimens, were prepared. Doubtful as may be the original meaning of the passage under the house, it cannot be doubted that Hunter found it very useful for the introduction of 'subjects' and the prosecution of work away from the dangers of popular prejudices and inquisitiveness."

But to return to Hunter's life. Although as yet he has found little favour with the public, in the scientific world his eminent abilities now command respect, and it is to the credit of the Royal Society that he was elected a Fellow in 1767, at a time when he was poor and little known apart from anatomical work. The following year, again through his brother's influence, he is elected surgeon to St. George's Hospital. One last benefit he obtains from that elder brother, when Dr. Hunter gives up to him his house in Jernyn Street, after moving his museum and school to a more spacious house in Great Windmill Street. This change was made in 1770. Thus we find John Hunter, at the age of 42, acquiring that success in life which he so well deserved, living in a large house in a situation favourable for practice, surgeon to a hospital, and a Fellow of the Royal Society. His income is further increased by taking resident pupils (of whom the afterwards celebrated Edward Jenner is the first), and in 1771 he marries Miss Home, to whom he had been engaged for some years.

From the time he left the army till this year, when he published a treatise on the teeth, there has survived no paper from his pen; but he doubtless was, by his laborious dissections, laying the foundations of many of his future researches into the study of life.

When 40 years of age he began to suffer from gout; and at the age of 45 he had his first attack of angina pectoris, during which his pulse could not be felt at the wrist, and his respiration was, according to his own account, only carried on by voluntary effort. This was the first indication of ossified coronary arteries, to which he succumbed twenty years later during a fit of excitement.

John Hunter's first paper before the Royal Society was communicated five years after election, on the suggestion of the President, Sir John Pringle. It was on *Post-mortem Digestion of the Stomach*, a subject that brought him into court some nine years later as an expert in the trial of Captain Donellan for the murder of Sir Theodosius Broughton. To the legal mind, which requires a positive affirmation or denial of every question, Hunter's evidence appeared worse than useless. He could not be induced to give any opinion that his knowledge of facts would not warrant, and this caution (which is characteristic of a philosophical mind) brought down upon him some severe and sarcastic remarks from Mr. Justice Buller, who presided at the trial. It would be impossible for me to notice the many different contributions to biology, physiology, and pathology from Hunter's pen; but this may be said of all, that they invariably indicate a mind trained to exact observation, ever on the search for truth; and, where possible, observation is always supplemented by experiment. Over what a wide field he travelled will be sufficiently indicated by naming a few of them: *Observations on Animals and Vegetables with respect to the Power of Producing Heat; An Account of Certain Receptacles for Air in Birds; Proposals for the Recovery of People apparently drowned; Observations tending to show the Wolf, Jackal, and Dog are all of the same Species; Some Observations on Loose Cartilages found in Joints; Observations on the Structure and Economy of Whales; Observations on Bees; Observations on Fossil Bones*. These and many other scientific papers were written whilst he was a surgeon and lecturer at a hospital and occupied more or less with private practice.

As a lecturer he appears never to have been a great success, not simply on account of his difficulty in finding words to express his views, but because he dared never make any statement beyond what his facts would warrant, and consequently never spoke with dogmatic emphasis. The difficulty appears to have been felt as much by the teacher as by the students, for one biographer states that "the task was so formidable to him that he was obliged to take thirty drops of laudanum before he entered the theatre at the beginning of each course," and, as a result, I imagine the lecturer and class must have gone to sleep together.

His friend and pupil, Edward Jenner, had now settled at Berkeley in Gloucestershire, and Hunter enters into a correspondence with him, which is full of the ideas which are occupying his mind. He thus stimulates his friend to exert himself in original inquiry, and asks his assistance in obtaining specimens for himself. The following is a typical sentence from one of these letters: "I want you to pursue the experiments on the heat of the hedgehog this winter; and if you could send me a colony of them I should be glad, as I expended all I had except two—one an eagle ate, and a ferret caught the other."

Hunter's fame as a surgeon is now rapidly on the increase. In 1776 he is appointed Surgeon Extraordinary to the King, and his pathological labours begin to excite a mixture of admiration and envy. He commenced to erect his museum in Leicester Square in 1783, as the house he lived in would no longer hold his numerous specimens, and the new premises were completed in 1785, the year which is rendered noteworthy in the annals of surgery by the first performance of his operation for aneurysm.

In the spring of this year he is seized with a very severe illness, accompanied by cerebral symptoms and a number of curious secondary sensations, from which he imperfectly recovered. After this date any exercise or mental emotion was apt to bring on acute spasmodic agony, but his work was by no means finished, and he laboured on.

In 1786 he was appointed Deputy Surgeon-General to the Army, and he soon after published his work on the *Lues Venerea*. This work shows much philosophical reasoning, but he falls into two serious errors: one that two diseases cannot exist in the body at the same time, and the other (well known as the result of sacrificing his own bodily health to experimental inoculation) that gonorrhoea, chancre, and soft sore were all the result of one poison. In spite of these errors, his description of the hard, or, as it is still called, the Hunterian chancre, is as true now as then, and with its signs well developed secondary symptoms invariably follow. I will quote from this work to show how wide was Hunter's reasoning: "Nature," he says, "has not been able to apply any one part to two uses with advantage, as might be illustrated in many instances in different animals. The animals whose legs are contrived both for swimming and walking are not good at either, as seals, otters, ducks, and geese. The animals, also, whose legs are intended both for walking and flying, are but badly formed for either, as the bat. The same observations are applicable to fish, for the flying fish neither swims nor flies well, and whenever parts intended for such double functions are diseased, both are performed imperfectly. This is immediately applicable to the urethra, for it is intended as a canal or passage, both for the urine and the semen. The urine requires the simplest of all canals, and of no greater length than the distance from the bladder to the external surface, as we find the urethra in women, birds, the amphibia, and fish; but the passage for the semen in the quadruped requires to be a complicated canal, and of a length capable of conveying the semen to the female, provided with many additional and necessary parts, as the corpus spongiosum urethrae, muscoli acceleratores, Cowper's glands, prostatic gland, and vesiculae seminales. As all these parts are to serve the purpose of generation, and as the diseases of the canal are principally seated in them, we at once see how much the urinary organs must suffer from a connection with parts so numerous and so liable to disease; and what adds to the evil is that the actions of the urinary organs are constant and absolutely necessary for the well-being of the machine, whereas the evacuation of the semen takes place only during a certain portion of life, is then only occasional, and never essentially necessary to the existence of the individual."

In another place we find him, with philosophical fairness, framing an apology for the exaggerated praise with which Daran introduced the use of the bougie: "Such extravagant recommendations of particular remedies," he says, "are not at all times without their use. Inoculation would still have been practised with caution, had it not been for the enthusiasm of the Suttons. Pre-

parations of lead would not have been so universally applied, if they had not been recommended by Goulard in the most extravagant terms; nor would the hemlock have come into such general use, if its true merits only had been held forth. Improvements are often over-rated; but they come to their true value at last. Sutton has told us that the cold regimen in extreme is infinitely better than the old method; but from general practice we have learned that moderation is best, which is all we yet know. When Daran published his observations on the bougie, every surgeon set to work to discover the composition, and each conceived that he had found it out, from the bougies he had made producing the effect described by Daran. It never occurred to them that any extraneous body of the same shape and consistence would do the same thing."

In spite of the errors to which I have alluded, this work did much good service, for it was an honest endeavour to free an uninviting branch of surgery from the monstrous quackery with which it was then associated, and from which, even in our day, it cannot be considered to be absolutely disentangled. The same year that he published this work, he received the Copley Medal of the Royal Society, and he opened his museum in Leicester Square. In 1789, he is appointed Surgeon-General and Inspector of the Army, and he has a rather severe illness, accompanied with cerebral symptoms. The attacks of angina now become frequent; yet, in the year before he died, we find him printing his great work on the blood and inflammation; and he is at work framing a catalogue for his museum. So well did he know his dangers, that he used frequently to say "his life was in the hands of any scoundrel who chose to put him in a passion." The sudden death he had so truly predicted actually took place in St. George's Hospital, in 1793, when he retired from a meeting at which he had been opposed to die in an adjoining room.

Such was the life of Hunter, a life of infinite labour. Yet, what surprises us most is the immense amount accomplished in so limited a space of time. For the first twenty years cannot be counted as part of his mental life. This was a period of mental quiescence. Then followed ten years of arduous preparation, resulting in illness, and the rest of his days he works on with heroic fortitude, under conditions of health that would have determined any other man to have relinquished all ideas of fame and fortune, and to have retired to a life of rest and obscurity. During the last twenty years of his life he was subject to attacks of agonising angina, and no one knew better than he what dangers to life these symptoms foreshadowed. Yet, with a perfect knowledge that any sudden emotion might result in immediate dissolution, he labours on to the very end. Truly this was a courageous life, ending, like the soldier's on the battle-field, in heroic death. He might well have said, with Cæsar:

Cowards die many times before their deaths;
The valiant never taste of death but once.
Of all the wonders that I yet have heard,
It seems to me more strange that men should fear,
Seeing that death, a necessary end,
Will come when it will come.

Let us endeavour now to trace some of the distinguishing faculties of this master mind. In many qualities John Hunter resembled his elder brother, whilst in most he surpassed him. In both there was the same insatiable love of collecting, which was not confined to objects of professional or even biological interest, but extended to coins, pictures, armour, or indeed anything out of the common. In both there was the same industry, perseverance, and love of original research. In both we trace the same self-will and integrity, combined with a jealous determination to defend any encroachment upon supposed or actual rights. This jealous care over the fruits of their labours ends eventually in an estrangement between the two brothers, which is only healed when the elder is on the point of death. Much as it was to be regretted, it probably arose from the natural antagonism of the same qualities in each, rather than from any actual rivalry. Lastly, we find that the study of life and of death, with a view of benefiting their fellows, was the one overruling passion in the mind of each.

It may be an interesting speculation how much of John Hunter's genius was transmitted to him by his parents, and how much was due to the influence of his elder brother. I think we must recognise both these factors as contributing to his success. The close resemblance we have traced in many of the mental attributes of the two brothers indicates their origin from a common stock, as clearly, perhaps, as any resemblance in their features. It was the elder brother, William, who first discovered for himself

that the study of life was the direction in which his mind felt the greatest pleasure, and he had advanced far along the road of science before John attempts to follow him. But when once John is brought under his influence, he suddenly develops a thirst for knowledge which is in extraordinary contrast to his former indifference. It can only be compared with the inoculation of virgin tissue with some virulent poison, or, what we now begin to regard as a similar process, the fermentation of some minute fungus in its appropriate nidus. His love for scientific research grows into a raging lust, which governs his whole future, and causes him to sacrifice both wealth and health in its pursuit.

All here will easily bring to mind a parallel between two brothers now living and the two Hunters. I need not mention names, to remind you of an elder brother, distinguished in medicine, who has been more than equalled by a younger brother who has devoted his life to the science and art of surgery.

John Hunter married about the middle period of life, and had four children, two of whom grew to adult age, but neither of these left issue. Although Galton has attempted to trace hereditary genius, his observations would tend to show that it is more likely to make its reappearance in side-heirs than in the immediate offspring of great men. I have often thought it, a pity we cannot slip geniuses as they do rare plants and shrubs. The children of highly intellectual parents are too often the outcome of mental and physical exhaustion, and the race becomes weak, erratic, or extinct. Doubtless great cities, which are the hotbeds of intellect as well as of vice, are largely responsible for this degeneration. As Emerson puts it: "The city would have died out, rotted and exploded, long ago, but that it was reinforced from the fields. It is only country which came to town the day before yesterday that is city and court to-day." The proper children of great intellects are the intellects of their pupils rather than those of their flesh-begotten offspring. Traced in this way Hunter left many children, and his race has spread far and wide. It must never be forgotten that Edward Jenner was his most intimate friend and pupil, and the Hunterian mode of thought developed in Jenner led to the immortal discovery of vaccination. What inestimable benefits have accrued from this discovery by a child of Hunter may be gauged by the foolish opposition that immunity from small-pox has enabled agitators to develop against the Vaccination Act. I would the antivaccinators would take to heart *Punch's* parody on Hamlet:

To vaccinate or not?—that is the question;
Whether 'tis better for a man to suffer
The painful pangs and lasting marks of small-pox,
Or to bare arms before the surgeon's lancet,
And, by being vaccinated, end them? Yes,
To feel the tiny point, and say we end
The chance of many a thousand awful scars
That flesh is heir to, 'tis a consummation
Devoutly to be wished. Ah! soft you now—
The vaccinator! Sir, upon your rounds,
Be my poor arms remembered.

But not Jenner only, but Home, Cline, Astley Cooper, Abernethy, Travers, and Blizard were Hunter's intellectual descendants by direct contact, and they have handed on his teachings to those known in our own day.

What was there in Hunter's mind that made such great men his apostles, and led all subsequent generations of surgeons to regard him as a guiding star in surgery? If we inquire what improvement, that might be regarded as an invention, he added to the art of surgery? the answer comes at once: the Hunterian operation for aneurysm. Nearly every great surgeon devises one new operation, to which his name is apt to become attached; but if his reputation depended on this alone, how little would be his worth.

Hunter was the first to perform the operation for the cure of aneurysm by ligaturing the artery, on the proximal side, at a distance from the sac. Astley Cooper's name is associated with a bold attempt to ligature the aorta, but his reputation rests mainly on his philosophical work *On Fractures and Dislocations*. Lister's name is associated with a not very successful method of excising the wrist-joint, but his fame will be handed down by his scientific investigations for the protection of wounds from external influence, which resulted in the "antiseptic system." Even I, who do not deserve to be mentioned in the same hemisphere with such men, have performed one operation of which a small mind might be proud. I allude to a case of total suppression of urine lasting five days, which I relieved when the patient was *in extremis* by cutting down on the one remaining kidney, and removing a stone, which was plugging its outlet. This patient, two years and a half

after the operation, remains in perfect health. But such advances in operative surgery, though of importance to the world as tending to preserve life, will never alone serve to support a great reputation. Hunter was far more than a mere operation-inventor; though this, when it can be shown, to have been deduced from previous observations, is not a thing altogether to be despised. He was far greater than this. He was above all the greatest surgical philosopher that every lived. He was constantly searching for new facts, and adding to his museum preparations which acted as a kind of index to those facts; and from these facts, when accumulated in sufficient numbers, he deduced general laws. Thus he worked a revolution in surgical pathology, and he raised the science of surgery, from the doubtful position that it occupied before his time to a level with the sister science of medicine. Over what a desert the river of his thoughts has since flowed! How many diseases and deformities, then thought to be incurable, have since been brought within the range of surgical relief! The old lumber room filled with incurable diseases and misunderstood pathology, that was left to the care of medicine, has since been ransacked over and found to contain much that surgery could relieve or cure. Within our own time the kidney has become a surgical organ, the gall-bladder has had to yield up its obnoxious stones to the captivating influence of the surgeon's knife, the stomach and intestines, the lung, and even the brain itself, have in turn been brought within the range of surgery.

To aid us in our labours, two great discoveries have been made since Hunter's time; the introduction of chloroform, which makes operations painless, and the use of antiseptics, which renders them safe. But in spite of all the great advances made since his time, Hunter's name and Hunter's fame shine through them all. So far from detracting from the merits of his labours, they simply add lustre to his achievements. But we must not be deterred by the contemplation of his greatness from exerting such talents as we may possess in the humble sphere that we may occupy. Though it is allowed to few like Hunter to touch immortality on this side of eternity, yet let us take courage in the thought that there is nothing in Nature, however minute or obscure, that has not some power over its immediate surroundings. With this thought let me close my address in the words of a philosopher I have already quoted: "All things are engaged in writing their history. The planet, the pebble, goes attended by its shadow. The rolling rock leaves its scratches on the mountain, the river its channel in the soil, the animal its bones in the stratum, the fern and leaf their modest epitaph in the coal. The falling drop makes its sculpture in the sand or stone. Not a foot steps into the snow, or along the ground, but prints in characters more or less lasting a map of his march. Every act of the man inscribes itself in the memory of its fellows, and in his own manners and face. The air is full of sounds, the sky of tokens, the ground is all memoranda and signatures, and every object covered over with hints which speak to the intelligent."

CLINICAL LECTURES

DISEASES OF THE NERVOUS SYSTEM.

BY A. HUGHES BENNETT, M.D., F.R.C.P.

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LECTURE IX.—SENSORY APHASIA.

THE manifold forms of aphasia have been variously classified by different authorities. The comparative claims of the diverse divisions of the subject it is at present unnecessary to discuss. It will be convenient in this lecture to regard the disorder simply from a dual aspect—namely, from the influence the sensory or motor elements of the nervous system have in its production. Intellectual language, taken in its broad sense, is the medium through which individuals intercommunicate. This may be effected in a variety of ways, but is chiefly carried on by means of speech, writing, and gesture. For the successful performance of these, a double attribute must exist: first, we have to appreciate and understand the indications given by our neighbours; and, secondly, we have in turn to convey our thoughts and purposes to them. As a knowledge of the former is derived through our senses, the collective phenomena involved in its production

may be called the ingoing, impressive, centripetal, or, in simpler terms, the sensory function of intellectual language. On the other hand, the latter, which, as a rule, is accompanied by the performance of a muscular act, may be named the outgoing, expressive, centrifugal, or the motor function of speech. Each of these sensory and motor functions is represented by a corresponding special nervous mechanism, which may become diseased and give rise to a characteristic disorder of speech, and which may, for convenience, be termed respectively sensory or motor aphasia. That form of aphasia which results from interrupted functional activity of the motor nervous elements includes disorder, not only of speech, but of writing and gesture; in short, of all those means by which an individual attempts to convey his wishes or thoughts to another. Each of these modes of expression is presided over by a complex system consisting of muscles, nerves, and centres in the cord, medulla, and cortex, which may be independently deranged, or lost, and, in consequence, aphonia, agraphia, or amimia, is induced. These varieties of so-called aphasia are of tolerably frequent occurrence; they are, as a rule, capable of easy recognition, and so many instances have been recorded in medical literature that their existence has been amply established.

The condition of what has been termed sensory aphasia is much more complex, and uncomplicated examples are of much less frequent occurrence. It is through the senses, and especially through those of hearing and sight, that the faculty of intellectual language is acquired, and by which it is organised in the individual. The association of the senses with the acquisition of speech is effected by certain nervous elements, including the organs of sense, various conducting media, and centres in the medulla and cortex cerebri. By sensory aphasia, therefore, is understood the results of interruption or disease of any of these centripetal paths or centres which induce an imperfect appreciation of language or its symbols, and which, as a consequence, may indirectly lead to disorder of the faculty of expression. In addition to the sensory organs themselves, and the complex nervous arrangements which connect them with the surface of the brain, there must be other and more extensive cerebral structures engaged in the acquisition or formation of speech. These supply what has been termed the apprehensive faculties, or the mental attributes involved in the process of human intercourse or communication, the exact nature and locality of which is not accurately determined. Therefore, on the sensory side aphasia may arise either from disease of the centres associated with the senses, themselves, and especially those of hearing and sight, or with a derangement of the nerve elements, whichever and wherever they may be, which preside over the so-called apprehensive faculty. This results in what has been termed respectively word deafness, word blindness, and word forgetfulness, or verbal amnesia, each being due to disorder of the special nervous mechanism which originates and regulates the corresponding function. Uncomplicated examples of these forms of sensory aphasia are rare; accordingly, I now demonstrate an illustrative case of each.

1. *Case of Word Blindness.*—G. L., aged 52, a shipwright. This patient complains of blindness to the right side of both eyes, and although on the left he can see fairly well, of inability to read or understand written or printed words. He states that his family history was unimportant, that he never had suffered from syphilis, and that he had always been a temperate man. For some years before he came under observation he had complained of indefinite pains in his lower extremities, accompanied with general malaise, neither of which, however, had incapacitated him from work. With these exceptions he was in all respects a healthy man till some twenty months before examination, when one day he suddenly fell down, unconscious, and remained so for about an hour. He did not know whether or not he was convulsed. Soon after this attack he regained his former condition and returned to work, but he fancied that his right side was weaker than before, and that his eyesight was not so good as formerly. He, however, continued at his ordinary occupation till five months before coming under observation, when he gradually became incapacitated from giddiness and slowly increasing inability to read.

On examination he is found to be a robust and healthy-looking man. The organs and functions are normal, except those about to be mentioned. There is nowhere any sign of paralysis or tremor, but there is a suspicion that the power of the right side is slightly impaired; but if this is so it is scarcely noticeable. Both knee-jerks are somewhat exaggerated, especially on the right side, and here also there is imperfect ankle clonus. Sensibility is everywhere normal. The vessels throughout are somewhat hard and

ortuous. Vision is stated to be defective. The pupils are equal and normal; there is well marked arcus senilis; the movements of the eyeballs are natural. Investigation shows the presence of well marked hemiopia in both eyes on the left side, and especially in the right eye, thus inducing right homonymous hemianopsia. (Circumstances unfortunately prevented a complete perimetric examination.) The discs of both eyes are somewhat grey and ill-defined, but the fundi are otherwise normal. The patient is very intelligent, and gives an accurate account of himself and his illness. He says that he thinks his memory is not so retentive as formerly, but of this there is no definite proof, as he seems to remember all the circumstances of his life, and to intelligently describe them. The articulation is distinct and natural, and there is no trace of thickness or hesitation in speaking. The patient expresses himself in language unusually apt for his station in life, his choice of words is that of a man of education, and his words are delivered with ease and facility. He is somewhat deaf on both sides, but this is due to a chronic catarrhal condition of the ears. When spoken to loudly he understands everything that is said, and responds by appropriate answers in a perfectly rational manner. The patient cannot read a single word of written or printed matter. This is not from inability to see, as he names all individual letters correctly, the vision on the left side of both eyes being fairly good. Although he names every letter without mistake, he is unable to tell or understand a single word, no matter how short, unless he spells it out aloud like a child learning its first lesson. For example, when shown the word "cat," he cannot read it, and does not understand what it means. When, however, he spells it out c a t aloud, he at once says "cat," and recognises the meaning of the word. The same occurs with all words of two, three, or even four letters. With longer words, when they are spelt out, he is doubtful and uncertain, and frequently makes mistakes in naming them. With very long words, such as "Constantinople" and "hippopotamus," although all the letters are read in turn, the patient gets confused, and either miscalls them, or altogether asserts his inability to name them. It may also be mentioned that he cannot even read his own name. This difficulty in reading applies equally to writing and print. The patient, although he cannot read a single word, can write a letter like any educated man, and his handwriting is excellent. He can spontaneously indite and write anything he desires with as much ease and facility as formerly. I asked him for example to write out for me an account of his case. He did so in a very intelligent manner, giving a fair history and description of his complaint, and did not make a single mistake. On showing him his own letter he is unable to read a single word of it, and can only make out the shorter words by spelling them over as he does with print. When asked to copy writing or print he does so with perfect accuracy, but very slowly, letter by letter. Printed letters he transcribes into written characters. He does not understand what he is copying unless he spells the word out loud. His writing to dictation is without fault. He can read figures correctly, and his powers of arithmetic are seemingly intact.

REMARKS.—This case is an example of pure word blindness, as, with the exception of the homonymous hemianopsia, the man may be said to have little else the matter with him. On the left side of both eyes vision is practically normal, so that the inability to read is not due to an ordinary defect in sight. The patient recognises and names individual letters with facility, but cannot understand or pronounce even the shortest words except by spelling them out aloud. While totally unable to comprehend written or printed language the remarkable fact remains that he can put his thoughts into writing without any difficulty, but immediately after he is unable to read a word of his own composition. In short, his intelligence is normal; he can express his ideas in speech and writing, and he retains the power of understanding spoken language and of recognising individual written characters, but he has lost the faculty of appreciating the meaning of composite symbols, and the visible signs of words fail to revive in consciousness ideas previously connected with them. As regards reading, he is in the position of a child who can speak and who can understand all that is said to him, who, while he knows his letters, has not yet learnt to recognise the smallest words, until he laboriously spells them out aloud so as to appeal to his sense of hearing. He is also like an ordinary individual in regard to a piece of music, who, while he may be able to see or recognise the name of each printed note, is unable, like a practical musician, to feel and appreciate the harmony at which he looks. The resemblance to the child and musician

is not, of course, in all respects complete, because this patient can express himself in writing, which neither of these could do. This case constitutes an interesting example of dissolution of the faculty of reading by disease, in which the most early acquired, and, therefore, the most highly organised, functions remain, while the later and less stably organised have been destroyed. As Dr. Ross aptly puts it, "In partial diseases of the nerve centres the latest evolved structure is the most liable to injury. The intruders to disease conform, both as regards structure and function, to the law of dissolution, the mode of invasion being from the complex to the simple, from the special to the general." This man recognises and names letters, the most highly organised symbols, while he does not know words, a faculty of later development, and, therefore, of lower organisation. While unable to comprehend the meaning of words by sight, he can, by spelling them out aloud, name and understand them, showing that he arrives at this result through his auditory and not through his visual faculties, probably translating the latter into the former. In many cases of word blindness, the power of recognising even letters is lost. Between this extreme and the case under observation are various degrees, still further illustrating the law of dissolution. I have a man at present under observation, who, in addition to other ailments, is completely word blind, with the exception that he can read only his own name and the letters which compose it. When a heap of letters are placed on the table he can pick out all the g's, e's, o's, etc., composing George Smith, and leaves the a's, b's, c's, and other letters of the alphabet untouched. In short, his name and the letters of which it consists are those which have become most automatic and most highly organised, and these are retained in his memory, all the others having been forgotten. The original patient under observation can express his ideas in speech and writing, and can write from dictation. When, however, he copies he does so letter by letter, without understanding what he writes. If, however, he spells out a short word aloud, he can then write it down with a full comprehension of its meaning. This further shows that he translates visual into auditory impressions; otherwise he only mechanically copies such letters, without having any idea of the meaning of the words which they compose. No better example could be given of the remarkable phenomena of an individual who, while able spontaneously to indite and execute a well-written epistle, a few minutes afterwards is unable to read or understand a single word of his own performance. In this case there is an absence of paralysis and all other objective symptoms except the homonymous hemianopsia. It is probable that the condition is due to interference in the function of the angular gyrus and its neighbourhood on the left side, or to that portion of the cortex in which reside the elements concerned in the acquisition of written characters. This has been partially interrupted, and hence, according to the principles of dissolution, while the knowledge of individual symbols in the form of letters is retained, the memory of their combination into words is lost. All the other faculties of intellectual language remain intact, which seems to show that the lesion is limited to this special centre. If the disorder was the result of a more diffuse partial disease, by the same law we should expect that writing, which is acquired later than reading, would have been affected the first.

2. Case of Word Deafness.—Sarah G., aged 55, complains of inability to comprehend spoken language and to make herself understood by speech. Her friends state that until seven weeks ago she had enjoyed excellent health, never having had a day's illness in her life, and that her family history was unimportant. One day about this time she slipped off the step of a tramway car in motion, and fell somewhat heavily on the ground. She was raised up, felt stunned and confused, but gave her name and address, and was carried home in a cab. An hour afterwards she could not understand what was said to her, although perfectly conscious of what was going on around, and her speech also was noticed to be unintelligible; otherwise she did not appear to be any the worse for the accident. Next day she got up, physically apparently quite well; but the inability to understand spoken language and to make others comprehend what she wanted by speech continued, and has remained so ever since.

On examination the patient is found to be in every respect a healthy person, with the exception about to be described. All the organs and functions of the body are normal, and there is nowhere any trace of paralysis. The superficial and deep reflexes are normal, so also is cutaneous sensibility. The special senses are as in health, and hearing especially is acute for all ordinary sounds. The patient cannot understand a single word of spoken language.

Her friends assert that they cannot get her to comprehend anything they say, but that she is very intelligent in anything which does not require language, and quick at giving and understanding signs. Since her accident, she has performed all her household duties as before, with the exception of being unable to comprehend what is said to her, and to make herself understood. If she wishes an article, she makes signs which are sufficient to indicate her wants. For example, if she requires an egg she produces an egg cup, and points interrogatively to its inside, and so on with everything else, and she is especially ingenious in making her desires known by pantomimic demonstrations. Her friends say that they cannot discover that she understands any single word spoken in her presence, not even her own name. On examination, I cannot satisfy myself that she comprehends any word. When told to do the simplest act, if not accompanied by any clue in the way of signs, the patient does nothing, looks puzzled, evidently understands that she is being asked to do something, and although anxious to oblige, fails to comply. The slightest hint in the shape of a sign is quickly interpreted. So great is her anxiety to succeed that she often does wrong things, simply because she fancies they are required. For example: asked to put out her tongue, she does nothing and looks puzzled; question repeated, the observer looking at the patient's mouth, the tongue is at once protruded. Asked to shut her eyes, the observer as before looking at the patient's mouth, the tongue is promptly put out, and so on with all other actions, proving that the patient does not comprehend words if they are not accompanied by gesture or some visual indication, which latter she is very quick to translate. If several objects are placed on the table, and the patient given to understand that she is to give me what I call for, she never, except occasionally by chance, hands the right one, if my back is turned to the articles. If I look at them, she often selects the right one, being, like the so-called thought reader, ready to interpret my glance towards the right object. In short, various tests all combine to show that the patient is incapable of understanding the meaning of any word spoken in her presence. The powers of reading and writing cannot be ascertained, as, unfortunately, this woman is uneducated, and has never been able to do either. The patient has no affection of her vocal or articulatory organs. She talks with the greatest distinctness and volubility, all the words themselves being properly pronounced and enunciated without the slightest hesitation or error. None of these, however, are *à propos*, but constitute an unintelligible jargon of meaningless strings of words, all rightly pronounced, but, taken together, signifying nothing. She is always ready with this voluble and purposeless torrent of conversation, and is constantly making attempts apparently to explain her wants, or to reply to questions which she does not understand. The following is an attempt to describe what takes place. Doctor: "How are you to-day, Mrs. G.?" Patient (with the greatest readiness, rapidity, and distinctness of articulation): "Yes, why should I not do, for really, you know, it could be." Doctor: "Are you a hundred years old?" Patient (with the utmost gravity): "Well but then I will so, for why it is. No. Yes." And this goes on *ad infinitum*. She also bursts out into long spontaneous floods of the same incongruous speech, in which she is evidently trying to explain something, and which often end by the woman bursting into tears. Although she does not know that the words she uses are wrong, she evidently appreciates the fact that she is incapable of making others understand her explanations, and is distressed in consequence. Not only is spontaneous speech lost, but the patient is unable to repeat a single word correctly when prompted to do so. As far as can be judged from the general demeanour, the patient seems to be intelligent, and she continues to perform all her household duties as well as formerly. Her friends say that, with the exception of not understanding spoken language, and inability to express herself in words, the woman is precisely in the same condition as before her illness, and my own observations coincide with this opinion.

REMARKS.—This woman, although retaining natural hearing for all ordinary purposes, seems to be a case of pure word deafness, the accompanying paraphasia, or inability to express herself intelligently, being the result, not of any impairment of the motor functions of speech, but the secondary consequence of incapacity to associate the sounds of words with their proper execution. The motor mechanism of speech is intact, as evidenced by articulation being in every respect normal, and because a large vocabulary of words is pronounced in a natural manner. These utterances, however, are not properly applied, and, therefore, constitute mere jargon. The patient evidently knows exactly what she

wishes to say, and in response to this desire articulates a copious flow of words, but she is incapable of applying them properly, and is ignorant of the fact that they are misapplied. Notwithstanding, as far as can be determined, the intellect is not affected, for although she cannot express her desires, and does not know whether her uttered words are right or wrong, she thoroughly appreciates the fact that she does not succeed in making herself understood, and shows corresponding signs of annoyance. A suitable idea is apparent to her mind, but, when spoken, it is replaced by unfitting words unknown to the speaker; the connection of thoughts with word images is so disordered, that, instead of appropriate terms, those of a totally different meaning are used. There is ample evidence to show that not a single word is understood by the patient, who, however, is very quick to appreciate and express herself by gesture. In pure motor aphasia the sensory side may remain intact, so that a person who cannot speak is able to comprehend what is said to him. On the other hand, when sensory aphasia exists, the motor side is, as a rule, secondarily involved, although in itself unimpaired, and paraphasia results, as in the present case. An individual who cannot understand spoken language must, as a consequence, be unable to speak it, because he is incapable of mentally recognising whether or not his efforts to do so are correct; hence the volley of words in response to a desire to speak, all of which are in themselves perfectly articulated, and constituting an extensive vocabulary, but in no way expressing the meaning they are intended to convey, the patient all the time being ignorant of her failure to succeed. Hence the inability to express thoughts in intelligible spoken language, and even to repeat words when required to do so. It is a disputed point whether in such a case as the present intelligence can remain intact. Abstract thought, it is maintained, is the outcome of language; and as this has usually been acquired through the auditory perceptions, if the organs of these are destroyed, internal as well as external speech must be impaired, and the faculty of thought interfered with. The congenital deaf mute possesses his faculties of thinking intact, because he has cultivated ideas and powers of reasoning through other sensory channels. With an ordinary person, however, when the auditory centres are suddenly destroyed, there have been no such opportunities for developing these accessory paths; hence the belief that abstract thought must in consequence be disordered. A decision on this point is one of great difficulty, especially in uneducated persons, as in the case of Sarah G. It can only be said that no evidence could be produced to show that the mental powers, so far as they existed, were in any way affected, and that, with the exception of her inability to understand and be understood, she performed all the duties of life as well as before her illness. As a person who is word deaf is sometimes able to understand printed or written language, there seems to be no reason why the reasoning faculties should not be exercised without the aid of internal auditory impressions, and be translated into some other sensory channels. It is also possible that the power of abstract thought having once been acquired may be retained, even without the use of words. In this case there is no paralysis or other objective complications, and, therefore, the lesion is probably a local one, involving those centres presiding over the faculties for the appreciating of the auditory perception of speech. These are believed to reside in the superior temporal convolution on the left side.

3. *Case of Word Forgetfulness.*—William H., aged 70, a distinguished divine and author. This gentleman belongs to a gentry family, and has himself had occasional slight attacks of that disorder. With this exception he has been in every respect healthy all his life. He has led a very active life, both physically and intellectually, and has been well known as a man of exceptional mental capacity. For some years past he has been supposed by his friends to have gradually become very "absent-minded" and "forgetful," and latterly this has reached a high degree, in the manner about to be described. His general health remains good, and his intellectual faculties are said to be in no way affected.

On examination the gentleman (for he is not a patient) is remarkably good health and vigour for his years. All his organs and functions are normal. His vessels are somewhat rigid and tortuous, but not to any great extent. Mr. H. is a highly-educated and intellectual man, and takes the greatest interest in his own case; and thus, although his powers of verbally describing his condition are limited, the main facts can be easily elicited by means of cross-examination. His chief, and indeed only, complaint is that he has forgotten the use of most words, and especially of nouns, places, persons, etc. From him it is elicited that

he considers his intellectual faculties to be as good as ever they were, and his reasoning powers to be intact. He can recall every object in his mind, but has simply forgotten the name of it, and of voluntarily reproducing it either in speaking or writing. Efforts, therefore, at spontaneous conversation or expressing his thoughts on paper are seriously impaired. Hearing and sight are as good as in most men of his age, and he understands spoken language and printed or written matter as well as ever he did. Although spontaneous writing is impaired, that to dictation is natural, and he copies with perfect ease; and his articulation and handwriting are perfectly normal. On attempting to read aloud his efforts are very imperfect, and words are mispronounced. The meaning of the text is understood, and he knows when mistakes are made. His difficulty consists in having forgotten his own language to a great extent, and he is exactly in the condition of a man who, having formerly been a proficient in a foreign language, has lost the art of speaking or writing it, although retaining the power of understanding it when reminded of it either by conversation or literature. In this way he cannot voluntarily repeat or write hardly any noun and many other words. He generally cannot tell his own name and age; not that he has forgotten them, but that he cannot recollect their verbal representatives. He has forgotten, as a rule, the names of his wife and children, and therefore, it need scarcely be said, of everything belonging to him. Many verbs and other parts of speech are also not remembered, and it may, therefore, easily be supposed that his powers of expressing his thoughts are very imperfect. This failure to express himself is always most marked when he makes the greatest efforts to remember anything, or when he is especially anxious to make himself understood. At other times, when listening to general conversation which he understands perfectly, he frequently joins in quite *à propos*, using appropriate language, in short sentences, as it were automatically, for, if asked to repeat what he has just said, he is unable to do so. For example, at dinner, the conversation being on politics, of which he is a keen follower, and to which he had been paying intelligent attention, he suddenly exclaimed, "We will never have peace till these wretched Radicals are kicked out." When pointedly asked what he had just said, he was totally unable to repeat it, although he perfectly recollected the nature of his remark, as evidenced by the fact that, when it was repeated to him, he acknowledged it to have been correct. In short, conversation with him is a slow, laborious, and roundabout effort to try and express himself, in which nearly every substantive and many adjectives and other parts of speech are left out. Not only are words not forthcoming at will, but, when produced involuntarily, they are often distorted, very much after the fashion of Mrs. Malaprop; of which mistakes, however, as soon as they are made, he is perfectly conscious. He might say, for example, "constitution" for "constituency," "illiterate" for "literary," and "phosphorescent" for "philosopher," and so on. Voluntary attempts to express his ideas are, therefore, so imperfect, either in speaking or writing, that the effort only makes Mr. H. annoyed and depressed, as he is perfectly conscious of his failure. For the most part he remains silent, and passes his time either in listening to the conversation of others, which he perfectly understands, or in reading books, of which he is an inordinate lover.

REMARKS.—This example of sensory aphasia is unlike the two others, inasmuch as the individual comprehends both spoken and written language, and has forgotten neither ideas nor things, but only fails to remember their names and the words which represented them. He is, in short, incapable of spontaneously reviving and reproducing by means of speech the thoughts which exist in his mind, but he recognises these when they are reproduced to him through his ear or eye. It is not an instance of mere loss of memory, because there is no evidence that either events or things are forgotten. All that is wanting is the spontaneous power of putting them into words. Although this exists to such a degree as to render voluntary conversation almost impossible, connected sentences and appropriate observations are often made involuntarily in conversation or under emotion, which same remarks immediately afterwards cannot be reproduced at the wish of the patient. If these are supplied by another person he can at once repeat them. Here the centres associated with the auditory and visual verbal mechanisms are apparently intact. There is a disorder of some higher structures in the cerebral organism, the failure of which prevents a spontaneous revival of names or words, although the ideas they represent remain. Here again it may be questioned whether an individual who cannot voluntarily

recall the names of things even in internal speech, can retain his full intellectual vigour and his power of abstract thought. In this case there is no positive evidence that either of these is in any way affected, and the patient himself, while perfectly conscious of his peculiar failing, maintains that his reasoning faculties are unimpaired, although the power of expressing them is so imperfect. As has been already stated, it would appear that ideas once acquired may remain independent of words, although, doubtless, without them, or some other form of sensory impression, they never would have been obtained. If not produced spontaneously, they can be revived both by spoken and written signs from without. The patient cannot think aloud, but silent thought remains. If any impairment of intellect or memory for things exists which is always difficult to determine, in such cases, it certainly is in no proportion to the loss of memory for words. Whether verbal amnesia can be localised is a matter of speculation, and we have as yet no positive information on the subject. The perceptive centre is probably a union of all the sensory centres. Perceptive conceptions and abstract thinking have all probably different levels of development, and degrees of directness, one or more of which may be specially affected. It might of course be maintained that the loss of memory for certain words is only the symptom of an incipient general mental failure. A study of these cases, however, suggests that the faculty of memory for words has some more or less special position in the cerebral hemisphere, and there is no necessary relation between its loss and that of intelligence.

WHAT IS A STONE IN THE BLADDER?

By SIR HENRY THOMPSON, F.R.C.S., M.B. LOND.,

Consulting Surgeon to His Majesty the King of the Belgians; Consulting Surgeon and Professor of Clinical Surgery to University College Hospital, etc.

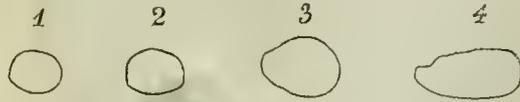
At a lecture which I gave at University College Hospital in November last on the subject of vesical calculus, embracing a sketch of the physical and chemical characters, frequency of appearance in regard of age, etc., I observed that it was becoming desirable to consider the question, "What is a stone in the bladder?" When there was only one method of removing it, and that by the knife, there was rarely any doubt in offering a reply; but with our present facility for removing small formations, the term is sometimes loosely employed. By way of endeavouring to define it in a sense which may commend itself to the judgment of surgeons generally, I suggested that we might still retain a practice followed by our predecessors, which may be thus expressed. Any calculus which can be by any means removed entire through the urethra, including one impacted therein and removed thence by the knife, cannot be admitted to rank as a vesical stone, nor can such an operation be regarded as one for stone in the bladder. And I added that for those which are crushed, only formations of a certain weight can be fairly described by the word "stone."

It was indeed for the express purpose of distinguishing the various small formations from "stone" that the terms "gravel" and "concretion" have been long employed.

I little thought, however, that so apt an illustration of my remarks would appear as that presented by a paper entitled "A Hundred Cases of Stone in the Bladder," by Surgeon-Major P. J. Frey, published in the *JOURNAL* of December 24th. I have purposely waited some weeks in the hope that someone else might raise this question, and I now write with much reluctance as a matter of duty, lest a precedent should be established which I think it is very undesirable to follow.

Among the hundred cases of stone thus reported, I observe no fewer than a dozen cases, the largest of which does not exceed 12 grains, and this not merely in children, for ten of them are adults. But what is more remarkable still is that a tiny concretion weighing only 2 grains is twice reported as "a stone" in the adult bladder, as are also two of 3 grains each, besides others of 4 and 5 grains respectively. Indeed, the total weight of the "stones in the bladder" for which in eight adult cases "the operation of lithotripsy" has been performed amounts to no more than 37 grains, an average of about 4 grains each, the total weight of the eight being only that of quite a small stone. Such tiny pro-

ducts are easily removed for the most part by washing out the bladder, from which indeed they usually escape spontaneously. I append outlines of the exact size of such concretions, scores of which now in my possession have been so removed, and which it has never occurred to me to regard or to report as cases of stone in the bladder. I may add that exact outlines present to the eye an idea of magnitude exceeding that conveyed by the body itself, as anyone may observe by placing one within the outlines given.



1. A concretion weighing 2 grains.
 2. " " " 3 " "
 3. " " " 5½ " (this is a rather flat one).
 4. " " " 7½ " (this is cylindrical, or nearly so).
 The largest measurement is of course given in every case.

Thus in my cabinet of calculi, now numbering about 950 cases removed by operation, with the history of each appended, there is not one weighing less than 20 grains, and I have never accepted or reported an example beneath that weight as a "stone." I have crushed many from that weight downwards to 5 or 6 grains, and had I so regarded them could report at least 1,100 cases instead of 950. I still venture to think that most of my brethren will agree with me that 20 grains is the very lowest weight, in the adult, the removal of which should be esteemed an operation for stone in the bladder. And in chronic prostatic retention cases, where the phosphatic concretions so frequently and so rapidly form, I have never recorded anything as a stone which has not reached at least half a drachm.

There is another aspect of the matter, too, which cannot be lost sight of. I think that it is very undesirable, from more than one point of view, to convey an impression to any patient from whom a bit of gravel weighing 2 or 4 grains has been removed that he has undergone an operation for stone in the bladder, and that the custom might give support to objectionable practice.

I beg to submit these remarks to the consideration of my professional brethren, in the belief that it is desirable to have some general understanding as to the meaning of the term in question, and to adopt, if possible, a uniform method in the employment of it in future.

CASE OF RAYNAUD'S DISEASE, OR SYMMETRICAL GANGRENE.¹

By J. W. F. SMITH-SHAND, M.D.,

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GENTLEMEN,—I must premise that the case I am going to bring under your notice to-night is that of a girl of excitable nervous temperament, of but moderate intelligence, and of questionable habits. Great difficulty has been experienced in getting an accurate account of the previous history, more especially with reference to the occurrence of "chilblains" and other points, for what she affirmed to-day she would contradict to-morrow. My examination of her always seemed to make her very nervous, particularly in the presence of students; and thus I asked Mr. Shirras, the house-physician, to undertake the narrative of the case, as I supposed she would be more at her ease with him. Consequently it is mainly to him that we are indebted for the following history.

J. A., aged 20, a servant, was admitted into the Royal Infirmary on May 24th, 1887, complaining of pain in the hypogastric and lumbar regions, with frequency of micturition, which symptoms, she stated, had been present for the last four days. Her appearance was striking, as the face was much flushed, the lips swollen, with the mucous surfaces of a purplish colour, and a general erythematous redness all over the body. The skin was moist, and the patient said her body felt hot. Her face was heavy and dull in expression.

Three hours after admission her temperature was 104°, respirations 40, pulse 125 per minute. On physical examination, heart

sounds normal, pulmonary percussion normal. On auscultation, breath sounds harsh. No cough or expectoration. Liver normal; spleen slightly enlarged; tongue dry and coated with white fur; great thirst; appetite bad; bowels confined. There was marked tenderness on pressure over the lumbar regions. Urine scanty, specific gravity 1030, acid reaction, dark yellow in colour, with sediment composed of lithates and pus; upper portion showed trace of albumen.

On the 25th the temperature was 104.4°, but, under the use of antipyrin, fell to 101.6° in the evening. As she said she was unable to pass urine, the ward sister used the catheter and drew off 42 ounces.

Twenty-four hours after admission she complained of great pain in the ears, and shortly afterwards symmetrical black patches appeared on the lobes, and after some time became filled with dark serum. Soon after this other black patches appeared symmetrically on each cheek and on the point of the nose. Still later, on the following day (26th), other symmetrical spots were seen on the face and neck, on the arms, hands, and legs above each knee. No patches appeared on the trunk, fingers, or feet. The largest patches were on the arms. The one on the right measured seven inches in length and three and a half in breadth; the patch on the left arm measuring five and a half in length and three in breadth. Before these patches appeared the patient complained of a severe burning sensation in the parts, which was greatly intensified on pressure. They appeared suddenly, and were of a very black colour; the margins were distinctly marked, there being no shading of colour. The surface of the patches was covered with moisture. After the patches appeared the general erythematous condition diminished very considerably.

For eight days the patches remained as described, but after that a reddish border appeared around them, and by the tenth day they began to shrink in length and breadth, and by the thirteenth day sloughing sores had formed on the arms, and were dressed with carbolic oil and enveloped in cotton wadding. The ulceration was quite superficial. The patches on the ears, cheeks, and neck shrank and disappeared, leaving a small thick crust, which gradually got smaller and dropped off, leaving on the left ear a certain amount of atrophy of the tissue. On the ninth day after admission the lumbar pain and frequency of micturition began to abate, the pus and albuminuria diminished, and by the eleventh day these symptoms had completely disappeared. Since then her only complaint has been of thirst, and pain when the arms were being dressed. The temperature ranged high for over three weeks, the maximum being marked on May 28th, when it was 104.6°. During the second week of her illness she had diarrhoea for several days, having five stools on June 3rd. The treatment consisted in giving ten-grain doses of antipyrin for the first three days every six hours, and afterwards a mixture containing arsenic and strychnine every six hours.

Previous History.—Patient, up to the age of 16 years, enjoyed good health, but since she first menstruated (when 17 years old) she has always suffered more or less from dysmenorrhœa and irregular menstruation; she menstruated last on May 7th. She told Mr. Shirras that she often complained of chilblains in the winter time, and suffered more or less from cold hands and feet. She denied this to me, but said that four years ago, when she was in the House of Nazareth, she, along with many others, had little red lumps about the size of pins' heads on her fingers, and that the nails cracked and came off, and at present the nail of the forefinger of the left hand is fissured. This winter she told me she suffered from cold hands and feet, and her hands were blue and swollen, but "not like chilblains."

On April 28th of this year she was admitted into the Infirmary under me, but during my absence from home, complaining of severe pain in the lumbar and iliac regions, and retention of urine. Mr. Williamson, then house-physician, considered this last symptom as hysterical, and refused to draw off her urine, and in a short time she passed it all right. At this time a bulla, about the size of a five shilling piece, developed on her left hand. It was very painful, containing at first clear serum, but rapidly becoming purulent. It was punctured, and in three days had quite healed; she was dismissed on May 7th "cured."

Under the date of July 4th I have to report that the patient says she is quite well, that the ulcerated surface on the left arm has been perfectly healed for the last three days, and that on the right arm there are now two ulcerated spots, one about the size of a sixpence, and the other being half an inch in length and half an inch in breadth.

¹ Read before the Aberdeen Medico-Chirurgical Society.



RIGHT SIDE.



LEFT SIDE

REMARKS.—This is the first case of Raynaud's disease which I have observed, so-called after Raynaud, who made it the subject of a thesis in Paris in 1862, and who then brought together twenty-eight examples of this morbid condition. It has, as a result of this and of an article written by him in the *Dictionnaire de Médecine et de Chirurgie*, of late years been brought more prominently before the profession. But for many years previous to this isolated instances of this disease have been recorded in the medical journals.

From the special character of the symptoms it has also received the names of symmetrical gangrene and local asphyxia, and the opinion now held of its nature is that it is a neurosis due to vasomotor disturbance. At my first visit this was the view I took of the case before us, but I was at first inclined to believe that it had been brought about by some toxic influence—that the patient had been taking some drug such as belladonna, which had produced the great dilatation of the cutaneous capillaries; but she stated that she had been getting no medicine before admission, and when the gangrenous patches made their appearance, the nature of the disease then became apparent.

Notices of this affection are singularly rare in systematic works of medicine. Quain's *Dictionary of Medicine* gives three lines to it. It is not mentioned in Ziemssen's *Cyclopædia of Medicine*, beyond a short reference to gangrene from ergotism, a condition which it somewhat resembles, but in this case the nature of the patient's food did not allow of such an explanation of the symptoms. A good description of the disease is given by Dr. Allen Starr, in Pepper's *System of Practical Medicine*, an American work of great value. My case, however, differs in certain important respects from the picture there drawn.

It is there stated that while the disease commences suddenly in all cases, the local symptoms as a rule are more marked than the constitutional, and that these local symptoms begin with pains usually limited to the tips of the fingers and toes. These pains are commonly followed, and rarely preceded, by a condition of (1) ischæmia, (2) cyanosis, or (3) erythema.

1. Ischæmia. This first stage Raynaud described as the condition of local syncope, in which the fingers more frequently, and the toes more rarely, are involved, and look pale, shrunken, and dead, owing to the diminished quantity of blood flowing through the contracted arterioles. This condition may pass off in a short time, in which case the arterial spasm relaxes, and the parts resume their normal appearance; this change, however, being generally accompanied by a feeling of burning pain. But if this arterial spasm be of long duration, then the second stage of cyanosis is certain to be reached.

2. Cyanosis. This stage, Starr says, must result from one of two conditions; "either the arterial spasm is so complete that no blood passes into the part, in which case venous blood from lack of *vis a tergo*, or in response to gravitation, regurgitates into the capillaries, distending them and producing a state of blueness; or a venous spasm occurs, preventing the exit of blood from the part, which then becomes actively congested, and the blood in the capillaries, from want of renewal, soon becomes venous and produces the cyanotic appearance. This stage of local asphyxia may be of variable duration, from hours to days, and may terminate in a gradual return to the normal condition, but more usually it is followed by gangrene.

3. Erythema. Some doubts have been expressed by various observers as to this being a true stage, because it has sometimes been found to be of a more permanent character, while at the same time it is seldom followed by the death of the part.

The experience of my case, however, I consider warrants us in the conclusion that it is a true stage. This condition of erythema may be ascribed to a paralysis of the vaso-constrictors, or to an irritation of the vaso-dilators.

When the stasis of blood in the vessels has been extreme, this is followed by gangrene and death of the part, and the symmetrical manner in which this is brought about constitutes the special character of the disease. The most frequent site, as I have said, is in the tips of the fingers, the least frequent the arms. As a rule the gangrene is limited and superficial, although in rare cases the terminal phalanx of the fingers may be entirely lost. This gangrene, it has to be observed, is not dependent upon embolism or upon any diseased condition of the coats of the vessels, and as a rule is only noticed in the tips of the extremities, so in this respect also my patient forms an exception to the rule.

The constitutional symptoms consist of headache, mental depression or irritability, disturbed sleep and loss of appetite. Tem-

porary albuminuria, hæmaturia and glycosuria, have also been observed. Starr says that "fever never occurs as a symptom of the disease, and if present, must be ascribed to some other condition." Now, in my patient I could find no other condition to account for the quick pulse and high temperature, and I looked upon the latter symptom as being purely nervous, and solely due to irritation of the heat-regulating apparatus.

This brings us to a consideration of the nature of the disease. Raynaud believed it to be of central origin, while Weiss, a recent writer, considers it to be a reflex neurosis dependent upon any peripheral irritation. Certain it is that it is most common in young adults, in females rather than males, and that menstrual disorders have been observed in a large number of the female cases, while in one third of all the cases a recurrence of the disease has been found to take place within a year of the first attack.

Fearful as the appearance of my patient was at the height of the disease, so much so that the ward sister thought it impossible that she could recover, I yet gave a favourable prognosis, as no fatal result has yet been recorded, so far as I know, of a genuine case of the disease.

No special plan of treatment has been found beneficial, beyond general tonics, the occasional use of sedatives when pain is severe and when gangrene is present, using some antiseptic dressing, and raising the affected limbs well on pillows, while they are kept warm and enveloped in layers of cotton wadding.

ABSTRACT OF A LECTURE

ON

AMBULANCE WORK IN CIVIL

PRACTICE.

By RICHARD DAVY, M.B., F.R.S.E.

Surgeon to the Westminster Hospital.

GENTLEMEN,—There is scarcely a day passes in hospital or private practice without some special form of conveyance being required for our patients, either for convalescent or urgent necessity. Conveyance of a patient may be a very simple matter, as, for instance, the use of a stretcher or chair to carry him from one room to another, or a really complex undertaking, such as the transport of an enfeebled or injured man from one point of the kingdom to another, or from Great Britain to the Continent. I have endeavoured to practically overcome many of these difficulties, and have now the pleasure of explaining to you the construction of our hospital ambulance, which is the generous gift of one of our governors, the Rev. T. S. Echalaz, M.A., and which has been designed throughout by myself.

The woodcut will give you a good general impression of the carriage and a patient placed in it ready for transport. The carriage part of the mechanism, the stretcher, the cradle, and hood are all portable and easily detached, and will be described separately. The carriage part consists of four 26-inch iron wheels, supporting on springs two grooved bars firmly braced together on either side for the stretcher poles to fall into; these poles are fixed at any point by means of two clips, so that there is no danger of tilting, and the weight trimming is adjusted to a nicety. Four wheels have been used in this hospital ambulance, for the general advantage of the stretcher being ever safely on the wheels, and for the whole arrangement being used as a convalescent couch or airing vehicle. For my own use (and I have now superintended many hundreds of journeys) I have two wheels only; but, for careless or nervous hands, four wheels are safer than two; this, moreover, is the common experience of carriages in general. Remember that by proper adjustment this ambulance can be driven on two or four wheels, so the wheeled framework consists only of a sort of perambulator pattern, receiving the poles of the stretcher instead of the carriage body. The stretcher itself is so well known now as not to call for any full description; it consists of two hickory poles, two cross bars, and a sheet of red duck canvas; the two cross bars are of iron, and at either end have forged on

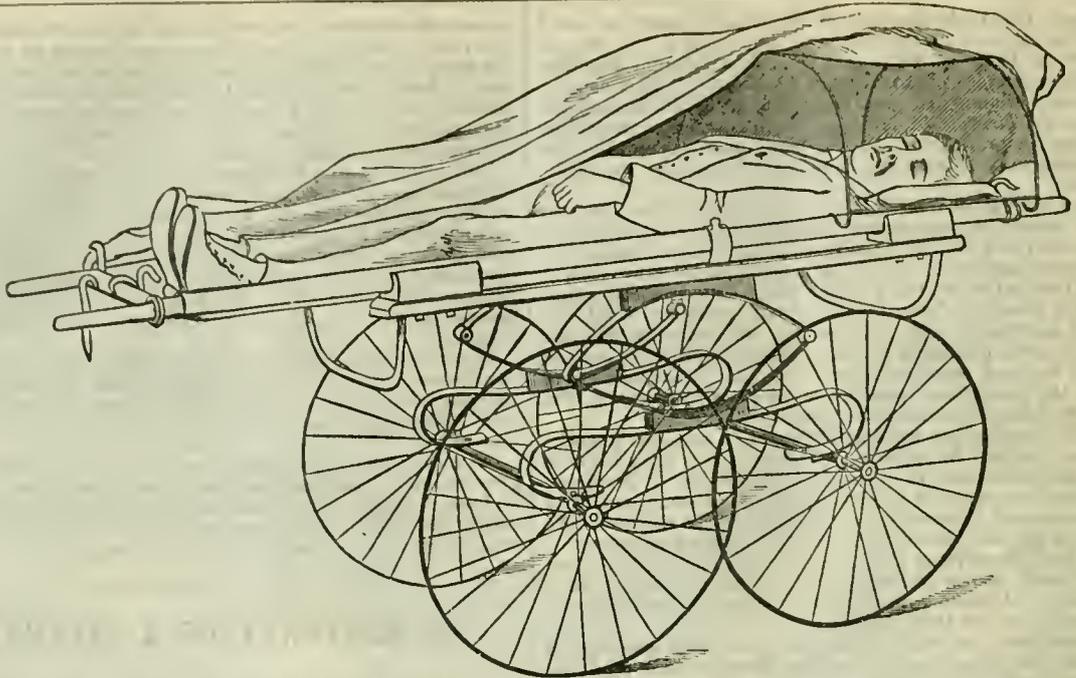


Fig. 1.

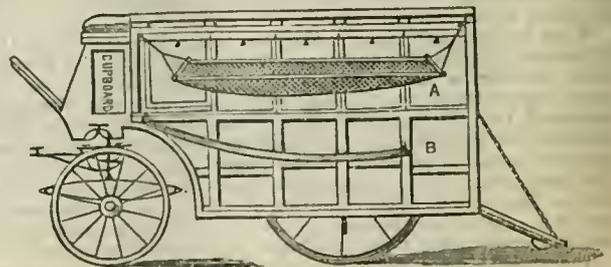
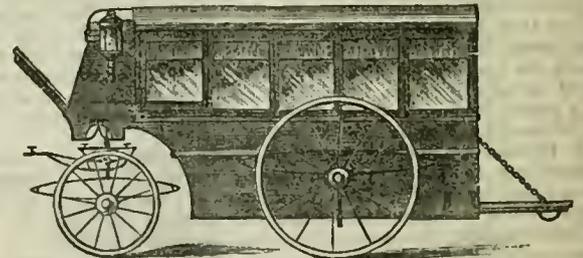
the suspending hooks. I have used this, my own form of stretcher, for fifteen years, and have never yet had any reason to distrust it; on the contrary, it has done hard work and very good service. The form of cradle here used is quite new, and answers well. It

fits on and upon the stretcher poles, and may be used either at the head or foot of the stretcher, thus giving support to the hood, and playing also the part of a surgical cradle in the event of a smashed head or broken leg. It is a wrought iron framework, and is well shown in the woodcut. The hood is made of canvas or waterproof; it rests upon the poles and cradle: its presence or not depends upon the state of the weather and the wishes of the patient. Its fashion also varies according to the taste of the surgeon.

Let me now suppose that a patient has to be shifted from our accident ward to Margate; and we will assume him to be the subject of a compound fractured thigh, knit, yet sinuses refusing to heal. Having seen that the whole machinery is in order, wheel the ambulance to the patient's bed; place him on the stretcher by rolling him on to it; then fix the stretcher poles to the framework of the wheels; put on the cradle and hood; then one porter can drive him to Victoria Station, another porter walking at his



Fig. 2.



side. On reaching Victoria, a guard's van—having had two hooks

driven by screw into the roof of the car—receives the stretcher carried by the two porters, and it is immediately slung up by two elastic cords, the patient himself being absolutely free from possibility of harm. Next wheel your four wheels into the same van, and let the porters go down with the man to Margate—the faster the better. At Margate the procedure at Victoria is reversed, the patient being driven from the station to his own home on the ambulance; the porters roll him off the stretcher on to his new bed; then pack up stores and return to Westminster with them.

But at this point let me put you up to a valuable hint. Many of our English houses are extremely small, especially about the staircase, which is frequently crooked and angular; no stretcher carried by two porters can pass—no chair of ordinary dimensions can pass, either. The means that I have successfully adopted is to make use of a good strong jaek-towel as a support to the patient in getting up these defiles, and its method of usage is shown in the woodcut. The carriage upstairs must be done with care; but the jaek-towel will twist a little, and that little makes all the difference.

By passing the loop of a towel across the patient's chest, beneath his arm-pits, he can be securely bound to the back of the leading porter; generally speaking there is no fear of falling, but far more of any blow or injury to the leg in passing corners.

This woodcut shows my hammock van and stretcher slung within; it has now run over most of our lines of railway—the wheeled ambulance can easily go inside the horse ambulance.

At the present time much inconvenience results from the surgeon having to make special arrangements with each railway company over which the van has to pass. I look forward with pleasure to the time when all our public railways will be handled by one superintending power; and that power should be the Government.

I have every reason to speak in praise of the principle of suspension as applied to the transit of invalids, and I entirely disagree with what Mr. John Furley stated at the meeting of the St. John Ambulance Association, that the patient's bed should be a fixture, for though there may be individuals who object to any swinging motion, yet in cases of necessity this objection ought to be overruled by considerations of far higher moment, namely, the actual safety of the patient and the prevention of further injury to a part already injured. An attendant by the side of the suspended patient during a railway journey is the best agent for overcoming any undue oscillation, the touch of a gentle hand being lighter than the restraint of fixed elastic cords.

It is a humiliating reflection that in civilised Great Britain property receives more consideration than human life. There is no court of criminal appeal, although trivial disputes may be carried from court to court. Ship cargoes are heavily insured, but not the crew who man the ship. Furniture is most carefully removed, but, until lately, no regard was given to the removal of an invalid. I have endeavoured to practically refute this last accusation, and commend ambulance work to your notice, as being one worthy object of your high professional training.

ABSTRACT OF

A PAPER ON THE RELATION OF THE MEDICAL SCHOOL TO THE HOSPITAL.

Read before the Hospital's Association at their meeting in the Board-room of St. George's Hospital, February 8th, 1888.

By TIMOTHY HOLMES, F.R.C.S.,

Consulting Surgeon to St. George's Hospital.

AFTER apologising for appearing on a short notice to fill a vacancy left by Dr. Gilbert Smith, who was to have treated this subject, but had been prevented by illness, Mr. Holmes went on to observe that a hospital might be regarded in various aspects:

1. As a body of governors, to regulate and administer the whole institution; and he endeavoured in this connection to show how great assistance the authorities of a school can give, from their intimate knowledge of all the arrangements and their direct per-

sonal interest in their success, and consequently how important it is that teachers and other qualified members of the school should be admitted on terms of equality to a voice in the management of the hospital, and showed from the experience of St. George's what good results follow from this plan.

2. Looking at the hospital in its financial aspect, he insisted on the great aid which a good medical school gives in the way of providing subscribers and procuring donations and legacies, instancing on the latter head the splendid bequest made to St. George's by Mr. Atkinson Morley on account of his old connection as a pupil of the school. On the other hand, the medical school assists the hospital materially in obtaining efficiency by well-considered expenditure in all departments. This does not necessarily mean saving money. It may involve increased expense, as in the recent great increase in the cost of surgical dressings; but if this increase is accompanied (as has been the case in that instance) by a diminished mortality, it is true economy.

3. Regarded as a body of medical officers engaged in treating the sick, the hospital derives the greatest benefit from the medical school. The school keeps alive the *esprit de corps* by which one hospital is stimulated to surpass its rivals, if possible, in medical progress, and one part of the country to try and outstrip another, and to this healthy competition much of the extraordinary activity and success of the British school is due. The intimate acquaintance between members of a staff who know each other as teachers, fellow-students, and pupils is also a great advantage to the patients; and, again, the necessity for clinical instruction is a great benefit to the sick. The idea sometimes entertained that the presence of students in the wards is one of the drawbacks of a hospital was combated, and it was, on the contrary, contended that the need for clinical instruction, by compelling the attention of the physicians and surgeons to the patients, greatly improves their prospect of recovery.

But though a school ought to be able to supply to the hospital the great bulk of its medical staff, yet it ought not to be a "close borough," but should be ready on proper occasions to recommend to the governors persons from outside if their election would promote the good of the hospital.

4. Looked at as a place for the study of the medical art, the hospital derives still more important aid from the school. The great advances which have been made of late years both in medicine and surgery have been secured for the most part by the co-operation of many men working together in the same school, and many schools working together in testing theories by practice, and this is especially true of the progress of pathology, which is the basis of all improvement in medicine, and which promises such brilliant results in the near future.

5. A hospital ought also to be the centre of the medical charities of its district, to which such institutions as poor-law infirmaries, dispensaries, fever hospitals, and lunatic asylums should be affiliated or connected; but this idea has not yet been realised. If it were, the aid of the junior practitioners and students of the school would be most important, and they would in return obtain experience of kinds of practice not at present well illustrated in hospitals.

Again, the out-patient department is most important to the school and the hospital to it. The main object of the reforms proposed in this department is to make it more efficient both for the use of patients and the teaching of medicine; and, on the other hand, the need for teaching is a great stimulus and assistance to the medical officers in charge of out-patients. And here also a medical school, so far from being a nuisance or a disadvantage, is a very great benefit to the patients.

These being some of the advantages of the school to the hospital, they are required on behalf of the hospital by the indispensable service of providing the school with its whole material for clinical teaching, and this should be provided as freely as possible; that is, no class of disease should be excluded which can be admitted with safety to the patients, and the pupils should have the freest possible admission to the wards consistently with the regular service of the hospital and the comfort of the patients. But it seems doubtful whether the hospital is justified in undertaking any expenditure on behalf of the school, such as is involved in the erection of premises. The great principle seems to be that the governing body of a hospital should accept the teaching of medicine and the presence of students working in the wards as a great benefit both to the institution and to the individual patients, and endeavour in all legitimate ways to encourage both the one and the other.

THE BEARING OF ALBUMINURIA ON LIFE ASSURANCE.

By F. DE HAVILLAND HALL, M.D., F.R.C.P.,
Physician for Out-patients, Westminster Hospital.

SINCE Dr. Grainger Stewart read a paper before the Royal Society of Edinburgh, in June last, on the discharge of albumen from the kidneys of healthy people, the attention of the profession has been directed to this important subject. I would suggest that before the word "healthy" be inserted "apparently," so that the sentence would run: "the discharge of albumen from the kidneys of apparently healthy persons." It is, I think, begging the question to call persons healthy who are passing albumen; and I gather that this is also the view of Dr. Stewart, as in the report of the meeting in the JOURNAL for June 11th, from which I get my information, he is said to have arrived at the following conclusion, amongst others: "That there is no sufficient proof that albumen is normally discharged from the human kidneys."

The point, however, to which I wish to direct attention is the bearing of albuminuria on life assurance. The question at once arises, Are medical officers to life assurance companies justified in rejecting or referring all applicants found to be passing albumen? I am distinctly of opinion that at the present time there is not sufficient evidence before the profession to allow of any answer except an affirmative being given to this question. If Dr. Saundby could give us the result of his experience of the last ten years a little more definitely, it would make a good commencement.

The only attempt with which I am acquainted to follow up in a systematic manner the after-history of cases of albuminuria is that made by the medical staff of the United States Life Insurance Company in their annual reports to the board of directors. Struck by the fact that nearly 10 per cent. of all the deaths of policy holders in their company occurred from Bright's disease, an examination of the urine was required in the case of each applicant. In the first year, twenty-four cases of albuminuria were detected. "In each the heart and lungs were found to be normal, and nothing could be learned from the past history to lead to the suspicion that albuminuria existed; furthermore, the physical appearance in every case (with, perhaps, two exceptions) indicated a healthy condition. Each one considered himself in perfect health, and really appeared as if he were. They were all excluded solely on account of albuminuria, and formed 11 per cent. of those presenting themselves to me for examination. In nearly every case two or more specimens taken at different times were examined and albumen found in each." A similar procedure was adopted in 1879, with the result that nineteen cases, or 12 per cent., and in 1880 twenty-six cases, or 10 per cent., were found to be suffering from albuminuria.

In his concluding report Dr. Munn sums up his experience of the 69 cases as follows: "In view of the fact that four of the number have died, and that the general appearance of the majority of those who have been under observation for more than one year is gradually deteriorating, I am led to believe that albuminuria should be regarded as of grave significance. In some cases, however, it may be of slight importance, and further research may possibly enable us to discriminate between them."

The reports are accompanied by tables recording the occupation, age, weight, height, frequency of pulse, amount of albumen, presence or absence of casts in each case.

In favour of the line of action that I am recommending, namely, that persons suffering from albuminuria should not be accepted, is the fact that the vast majority of applicants for assurance are examined some hours after breakfast, so that those cases in which albumen is only found immediately after that meal would not be excluded from the benefit of life assurance.

In analysing Dr. Stewart's tables contained in your issue of October 15th—and I only take into consideration Tables II, III, and IV, the other tables, embracing children and scarlet fever patients, having no practical bearing on the assurance aspect of the question—I find that, of cases of Bright's disease (including those probably due to Bright's disease), in forty-nine instances the albumen was detected by nitric acid, and in five instances by picric acid only; grouping all the other conditions giving rise to albuminuria together, in forty-seven instances albumen was detected by nitric acid, and in twenty-eight instances by picric acid only;

therefore if picric acid had been dispensed with, five cases of Bright's disease would have been overlooked; but on the other hand, twenty-eight instances where there was no evidence of organic disease of the kidneys would not have been included in the category of persons unsuitable for assurance purposes on account of renal disease. Using nitric acid only, forty-nine cases were referred to Bright's disease and forty-seven to other causes. The outcome of this analysis is that in more than half the cases, in which albumen was detected by cold nitric acid Bright's disease was the cause. I am therefore of opinion, as I have already stated, that medical officers to assurance companies should not recommend cases of albuminuria for acceptance where the albumen has been detected at mid-day or in the afternoon, on boiling the urine, or by means of cold nitric acid. From an assurance point of view I think it would perhaps be better not to employ picric acid, as otherwise fairly good lives might be excluded.

Before concluding, I must express my admiration of the able manner in which Dr. John Munn, one of the medical officers to the United States Life Insurance Company, has drawn up his tables, and of the very careful directions he gives for examining the urine.

CLINICAL MEMORANDA.

A CASE OF "QUINTAN" AGUE.

Mrs. B. M., a widow, aged 46, consulted me in October last. She was suffering from an attack of ague, which had commenced in the preceding June. The symptoms were very typical, the cold, hot, and sweating stages being well marked. The temperature rose during the cold and hot stages, reaching 105° F., and fell during the sweating stage, being normal during the intervals. The spleen was slightly enlarged, the other organs normal.

The most interesting feature of the case which leads me to record it was the rare interval between the attacks, namely, four days. I have consulted most of the books dealing with malarial diseases, but find that, while they all mention the ordinary types—quotidian, tertian, quartan, and the double varieties of these—none of them mention what may be called a "quintan" type, in which the interval was four days. Another interesting point was that a spot about the size of a shilling, near the tip of the tongue, became pale, cold, and anæsthetic during the height of each attack, and was accompanied by an eruption of herpes on the inside of the lips and cheeks. Those symptoms subsided during the interval, to return afresh on the fourth day, with the next paroxysm of ague.

At the Plymouth and Devonport Medical Society, on December 12th, Dr. W. H. Pearse said that in India herpes and ague sometimes alternate, but in this case they occurred concurrently. The patient had been in Massachusetts, U.S.A., in her youth, but does not remember having had ague there, but may possibly have forgotten, as it is twenty-six years since she returned from that country. There is a large swamp adjacent to her residence, which was lately in process of drainage, and the drying of this under the intense heat of last summer was probably responsible for the malarial infection.

I put the patient on treatment by quinine, which produced an immediate improvement. The next attack was much reduced in severity, while the one following that was only represented by a slight rise of temperature, headache, and malaria. After this all the symptoms disappeared; the spleen decreased in size; she had no return of the herpes or anæsthesia of the tongue. Her general health also rapidly improved, and I had a letter from her shortly before Christmas, in which she stated that she felt in better health than she had done for several years.

Dublin.

JOHN P. HENRY, M.B., B.Ch., T.C.D.

A CASE OF MELANCHOLIA PRESENTING SOME EXCEPTIONAL FEATURES, PROLONGED REFUSAL OF FOOD, AND FORCED ALIMENTATION.

INTEREST attaches to cases of melancholia of the kind here reported owing to the relation which they bear to, and the light which they tend to throw upon, the cause or causes in operation which sometimes lead to prolonged fasting in so-called "fasting girls" and others; for I may at once say with regard to this case, before entering upon any details, that, as a result of delusion, no less than 123 days have elapsed since food or nourishment of any

kind has been partaken of voluntarily, or without resistance; forced alimentation has been necessary to sustain life during the whole of that period, and the determination to refuse all sustenance remains to-day as firm as it was 123 days ago.

The patient in question is a young lady, aged 25, unmarried; she was pale, thin, exhausted, sad, and taciturn when she came under my care in August, 1887; at that time, when asked to take food or nourishment, she placed her hand firmly upon her mouth, clenched her teeth, and tightly compressed her lips, thus clearly indicating her very fixed resolve not to do so; the pupils were dilated, there was hysterical quivering of the upper eyelids, the pulse could scarcely be felt at the wrist; the tongue, teeth, and lips were dry, and thickly coated with sordes; the breath was very offensive, and of that peculiar odour which indicates prolonged abstinence from food.

The attack of mental disease was described as the first, and was of sixteen days' duration. Suicidal and dangerous propensities existed, and no food had been partaken of for eight days. The reasons for this abstinence were found to be beliefs on her part that she had been directed by God to abstain from taking all food. Finding that it was quite useless to try to induce her to take food, and it being absolutely necessary that the process of nutrition should be recommenced without further delay, forced alimentation was resorted to, and, as already stated, it has been continued daily since, the three hundred and forty-fifth feeding in succession having been performed this day. Exhaustion had, however, already proceeded so far, and the strength was already so much reduced when this was begun, that it was feared for some time that she would sink; the pulse rose to 120 or more; the temperature also rose to 102°. She lay motionless and torpid, and as if in a trance; respiration, however, continued normal; there were marked pallor and prostration, also a staturesque condition, but without the muscular rigidity or catalepsy so often observable in such cases; neither was there the usual stupor accompanying melancholia of this description; the intellectual faculties were apparently perfectly clear.

During the progress of the disorder menstruation has been altogether absent; the calls of nature were not attended to, diarrhoea also was persistent for a time, but was relieved by the usual medicaments, and alteration in the diet as forcibly administered.

The present physical condition may be described in a few words. The strength is well maintained, the patient has gained in weight, the pharynx and œsophagus are free from congestion or tumefaction, the tongue is clean and moist, the mucous membranes are generally quite healthy in appearance, the breath is free from offensive odour; the delusions still continue, but I am disposed to form a not altogether unfavourable prognosis; with improving nutrition and brain-rest a change of ideas will come, it may be suddenly, but more probably there will gradually be a return to mental health.

JAMES ADAM, M.D., formerly Physician
Superintendent Crichton Royal Institution, etc.

West Malling.

THERAPEUTIC MEMORANDA.

ALARMING SYMPTOMS PRODUCED BY SPRAYING THE THROAT WITH COCAINE.

DR. MCNEILL WHISTLER'S note on cocaine reminds me of the following history which I lately had from the patient and her husband, both persons of great intelligence. The lady, middle-aged and stout, but otherwise healthy, had been prescribed a spray of cocaine (2 per cent.) for "irritability of the windpipe and cough." The solution was made up abroad, and there is some doubt as to the strength actually used. She sprayed heavily for the first time about 5 P.M. for about a quarter of an hour. The symptoms then commenced, with coldness and numbness of the tongue, weakness of the lower limbs and staggering, mental distress and great depression from the very first. Her husband states that she was unconscious before 9 P.M., and remained so more or less until 2 A.M., but she says that she had glimmerings of consciousness most of this time, although she could not articulate, thought there were strange objects in the room, and feared lest anyone should speak to her. Great prostration followed, and I am told it was some weeks before this lady regained her usual strength.

FORTESCUE FOX, M.D. Lond.

Strathpeffer Spa, N.B.

OPHTHALMOLOGICAL MEMORANDA.

ANÆSTHESIA DURING STRABISMUS OPERATIONS.

MR. EDGAR BROWNE, in the JOURNAL of December 10th, describing an ingenious irrigating strabismus hook for producing local anaesthesia in strabotomy, says, "squint operation, even in nervous, frightened children, can be done painlessly."

Mr. Lloyd Owen, in the JOURNAL for December 24th, described a method by which the same effect can be accomplished very well without this special instrument, saying that by this means "the operation can be completed painlessly"; while Mr. Priestley Smith, in the JOURNAL for January 14th, explaining another very good means by which local anaesthesia by cocaine can be induced, says with a nearer approach to accuracy that the operation can, thereby be performed "in most cases without pain."

In my experience, while cocaine does abolish the pain caused by cutting the conjunctiva, and even the actual division of the tendon, I have not found it suffice to annihilate the very unpleasant sensation, I might say pain, occasioned by stretching the tendon with the hook, which, if the patient is unruly, may be considerable, and become very inconvenient to both the surgeon and the patient. I have, therefore, since cocaine was introduced, in addition to using it, administered nitrous oxide gas as well for this operation; by this means all the early steps of the operation, rendered painless by the cocaine, can be performed before complete anaesthesia by the gas is reached, the drawing forward of the tendon on the hook, and its division, being reserved for the stage of complete nitrous oxide anaesthesia which lasts long enough to complete this part of the procedure in comfort.

Having employed this plan frequently for the last three years, or so, I can strongly recommend it for this operation, the patients requiring which are so many of them of tender age. My chief object in writing is to draw the attention of my colleagues to the use of an anaesthetic which, I fear, is not generally sufficiently appreciated except by dentists, and which I have found valuable for many short operations, especially when assisted in this way by the local effects of cocaine.

In conclusion, I would say that I hardly think any plan of applying cocaine locally will be found to anaesthetise the whole of the internal rectus, running back as it does to the apex of the orbit—I am, etc.,

HENRY EALES.

Birmingham.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GENERAL HOSPITAL, MADRAS.

(Cases under the care of Brigade-Surgeon SIBTHORPE.¹)

CASE I.—*Large Collection of Urethral Calculi; Operation: Recovery.*—A thin, slightly anæmic native Christian, domestic servant, of intemperate habits, aged 35, was admitted into the General Hospital on May 24th, 1887. He stated that twenty-one years before admission he had gonorrhœa, which was cured in the course of about six weeks; that he enjoyed fairly good health till about six years before admission, when he contracted a second attack of gonorrhœa, which was followed in twenty days by a bubo in each groin, together with a sore in the meatus urinarius externus. This sore gradually affected the whole margin of the opening, and was followed by some cicatricial contraction of the orifice, which steadily went on to complete closure, and led to formation of a urinary fistula just behind the meatus, through which he had since been passing urine with great difficulty. Five years before admission he began to pass gravel in his urine, accompanied by severe pain over the region of the bladder, and feverishness; he continued to do so for a month; during this time he suffered occasionally from symptoms of cystitis and renal colic. He had never since passed gravel; but, on the other hand, he had noticed a swelling near the root of his penis, which had gradually enlarged. Ever since the appearance of this swelling the act

¹ These three cases were reported at the meeting of the South Indian Branch, on September 2nd, 1887.

of micturition had been attended with great difficulty and straining, to overcome which he had been in the habit of pressing the swelling downwards and backwards with his fingers during micturition.

During the five years before admission, after any unusual exertion or excess in eating or drinking he had been subject to slight febrile disturbances, attended with pain in the hypogastric region, pain during micturition, passage of blood and mucus in the urine, and occasional attacks of renal colic. When admitted he was passing urine seven or eight times in the twenty-four hours; there was pain and tenderness on pressure over the hypogastrium, and scalding during micturition; blood was not then passed in the urine, which was opaque-yellowish, slightly turbid, the turbidity being unaffected by heat; reaction was alkaline; there was no albumen. The deposit under the microscope showed amorphous and crystalline phosphates and mucus cells. The size of the stream of urine was narrowed, the urine sometimes coming away in drops. There was a pyriform tumour, the size of a lime, underneath the root of the penis, situated a little to the left side; it had the peculiar feel of the crop of a bird, due to small calculi having collected and distended the lower urethral wall into a sac; there was some degree of tenderness on pressure over this sac. On sounding the urethra, two strictures were detected, one at the false meatus and the other two inches and a half from it, the former admitting a No. 6 silver catheter and the latter a No. 1. No instrument could be passed beyond the seat of the gravel sac.

May 27th. The patient having been placed under the influence of chloroform, both strictures were divided by means of a *bistouri caché*, and a No. 8 silver catheter was passed into the bladder. An incision two inches and a half long was then made over the gravel sac antero-posteriorly; the sac was opened and the gravel removed. The superabundant portion of the sac wall was removed by scissors, and the bladder was washed out. The edges of the wound were brought together with four harelip pins, with silk sutures twisted over them in a figure of eight. The parts were dressed with lint soaked in perchloride lotion. The sac wall was about one-eighth of an inch thick; the opening by which the sac communicated with the urethra was a large one. The calculi, numbering about eighty, varied in size from a pin's head to that of a tamarind seed. They were sharply angular, and finely polished, of hard consistence; on analysis, they were found to consist of uric acid, phosphates, and organic matter.

He recovered well from the effects of the chloroform, and was quiet during the day. In the evening the temperature rose to 101° F. At 5 P.M. he passed his urine in the knee-elbow position. Some urine escaped through the wound; the bladder was washed out with warm perchloride lotion at 5 P.M.

May 28th. He felt better; the temperature had come down to normal. The bladder was washed out.

June 5th. He passed fifty-six stones similar to those which had been removed through the wound.

June 6th. The temperature had been keeping normal; the wound was looking clean and granulating; there was some dribbling of urine through it; there was no discharge from the wound. Urine was slightly cloudy.

June 10th. The wound was healing; there was dribbling of urine still through it; he passed urine four or six times in the twenty-four hours.

June 11th. The urine was almost clear, with only a slight deposit of mucus at the bottom of the glass. There was no difficulty or pain during micturition. Some urine still dribbled through the wound, especially when he micturated in the sitting or in the erect posture. The silver catheter which was tied in since May 27th was removed, and the bladder washing stopped.

June 14th. For the last three days the urine had been turbid with a heavy deposit. He passed his urine four or six times in the twenty-four hours. The wound was contracting.

June 12th. He had passed about 100 pieces of gravel of varying sizes, similar to those he had passed on June 5th; he passed ten more on June 10th and five on June 14th. These came away mostly at night through the scrotal wound, unaccompanied by any symptoms.

On June 25th a No. 7 silver catheter was passed, and on June 30th there was no dribbling through the scrotal wound, which was contracting. He retained the catheter without any trouble.

August 23rd. The urine continued quite clear. No calculi had been passed since June 14th. The urine occasionally dribbled through the scrotal wound, especially when he strained in defæca-

tion. The wound had contracted to about a quarter of an inch, but showed no further tendency to contract, and seemed to be unaffected by stimulating injections.

A No. 8 gum-elastic catheter had been retained and renewed every week, to prevent the contact of urine with the wound, but without any effect.

August 24th. An attempt was made to close the opening by the following operation: he was chloroformed; a No. 10 silver catheter was passed, but met with some obstruction at the seat of the second old stricture; this was divided with a *bistouri caché*, and the catheter was passed into the bladder. The edges of the wound were freshened with a scalpel and brought together with silk sutures; a No. 10 gum-elastic catheter was tied in. The next day the sutures gave way on account of the impossibility of preventing the contact of urine with the wound. No constitutional disturbance followed the operation, the sutures were removed, and the catheter retained.

September 1st. The edges of the wound had healed, leaving the fistula open. He insisted on going home, as he was satisfied with the result.

REMARKS BY BRIGADE-SURGEON SIBTHORPE.—A very interesting and an unusual case, for the notes of which I have to thank Civil Apothecary Rama Row, L.M.S.; such a collection of gravel in a sac formed from the walls of the urethra behind a stricture is rare. It was difficult to say where the stones came from which he passed subsequently to the operation, for the sac was completely cleared out and its walls removed; he has had no symptoms of calculi in the bladder, nor have any been detected in it, though it has been sounded on several occasions. There is little chance of closing the opening in his urethra, which rendered him impotent. Another attempt would have been made if he had consented.

CASE II. *Congenital Sebaceous Cyst*.—A young, healthy, muscular Hindu (Malayalee), from near Palghaut, was admitted on July 30th, 1887. He stated that the tumour existed at the time of his birth, and had gradually grown till two months before admission, when it had attained the size of an orange; since then it grew more



rapidly. The tumour, which was of the size and shape of a large cocoon, was soft, fluctuating, elastic, and painless; it could not be moved on the cranium, and pressure on it caused no distress; the scalp over it was reddish, shining, and somewhat hot to the touch; two large tortuous arteries could be seen, one on either side of it; it measured fifteen inches in circumference at its roots, and twelve inches from before backwards in the middle line. After exploration it was removed on August 3rd, about a third of the distended skin being taken with it; it was found impos-

sible to take away the sac without opening it, the wall being so thin; it was closely attached to the pericranium; its contents consisted of the usual putty-like substance, full of short hairs and a quantity of dark greasy fluid full of fat cells. The operation was performed under strict aseptic conditions; the hemorrhage gave but little trouble, and the wound, was dressed after the method of Sir Joseph Lister. He made a good recovery, except for a curious attack of inflammation of the glands of the neck attended with fever, which came on suddenly, and without any apparent cause, on August 6th, and left him on the 9th. During this attack the wound was perfectly aseptic, and free from any sign of inflammation. He left the hospital on August 25th with the wound completely healed.

CASE III. Impacted Intracapsular Fracture of the Left Femur.—A young and healthy-looking Hindu horse-keeper, aged 16, was admitted on August 16th, complaining of pain in the left hip-joint. He stated that about a month before he fell from a tree, from a height of about twelve feet, on his left side. He was conscious after the fall, but felt some pain in the left hip-joint; he, however, managed to walk with a limp and reach the stables, about a quarter of a mile distant, where he sat down. After a while, on attempting to rise, his leg became everted, and he felt considerable pain in the hip-joint, with inability to walk. He was taken home in a cart, and fomentations were daily applied. In about a fortnight's time he was able to limp about, and felt only slight pain in doing so. He did not bear any marks of syphilis or other constitutional diseases. In walking he limped a good deal, but did not evince any pain or discomfort in doing so. The left limb was straight, but looked shorter than the other. On measuring, there was a difference, the affected side being about half an inch shorter in the perpendicular line of Bryant's triangle. On manipulation the trochanter major could be felt rotating with the shaft of the femur, and distinct crepitus could be detected in the joint. He refused to remain in hospital after September 2nd. The leg was kept for a fortnight in a long splint, but he found this so irksome that he wished it removed. There was little or no improvement when he left the hospital, but Dr. Sibthorpe thought that as time passed on the leg would doubtless get stronger.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 14th, 1888.

W. H. DICKINSON, M.D., Vice-President, in the Chair.

Relapsing Typhlitis treated by Operation.—Mr. FREDERICK TREVES read a paper on this subject, in which he said that in the majority of the cases of so-called typhlitis the appendix was the cause of the trouble, and the perityphlitic abscess was more usually an encysted peritonitis due to perforation of this process, than to disease in the cæcum. The appendix might become the starting point of inflammation, by reason of congenital deformities, of changes that took place in its mesentery, producing bending; of the lodgment of foreign bodies or concretions that were encouraged to remain unmoved, on account of the feeble muscular coat of the tube. This source of manifold disturbance could be destroyed by removal of the appendix, or by correcting any simple deformity of which it was the seat. The question of such interference was only considered in reference to relapsing typhlitis. The statistics of Fitz showed that in 11 per cent. of the examples of this affection the patient was the subject of successive attacks. In one case quoted five attacks occurred in a period of eighteen months. The author was of opinion that relapsing typhlitis was due in a very large proportion of instances to some appendicular trouble, and was, therefore, a condition which might possibly be relieved by operation during the period of quiescence that followed an attack. A case of relapsing typhlitis, in a man aged 34, was reported. After the subsidence of the second attack, and during a period of freedom from all symptoms, the author performed laparotomy, and found a diseased appendix, which was dealt with. The patient made a perfect recovery, and had remained free from further relapses. The mode of dealing with diseased appendices was discussed.—Mr. TIMOTHY HOLMES remarked that Mr. Treves's very interesting paper reminded him of a case that he had treated some years ago which was somewhat similar, but in which his operation, though giving great relief, had not proved such a complete success as in Mr. Treves's case. A man, aged 30, had been

admitted into St. George's Hospital under the care of his late colleague, Dr. Barclay, in 1880, for vomiting, constipation, and pain in the right iliac fossa. He was a worker in lead, and that was supposed to have been the origin of his symptoms. Relief was given by medical treatment, but he returned to St. George's Hospital in 1884, with a more severe attack of the same nature, under Dr. Ewart. Operative treatment was suggested, on the hypothesis that the symptoms were due to a foreign body in the appendix, but was not adopted, as the indications seemed insufficient. There was considerable improvement in two months, and he was discharged, but the day following came back to the hospital in great pain. Examination under ether showed an immovable tumour in the right iliac fossa, which felt more like a foreign body than a mass of faeces. There was much thickening round it, and great pain followed the examination. As constipation was obstinate, and purgation very distressing, he cut down upon the mass by an incision such as would be suited for tying the common iliac artery. He found a mass in the cæcum, and the surrounding tissues much confused, and matted together by old inflammation. An elongated body adherent to the cæcum was recognised as the appendix, was somewhat torn in dissection, and a probe passed up it into the small intestine to ensure its diagnosis; the torn end was removed, and the remaining portion secured by ligature. No accurate sewing of peritoneal and mucous surfaces was possible in such thickened and adherent tissues. The result was satisfactory for the time, for the man lost his pain and vomiting, and could go to work again. His health, however, was not perfect, for whenever he ate too much, he got fresh attacks of pain, and came again under treatment at St. George's and elsewhere. The appendix was lying vertically on the cæcum, and the adherence was so close that it would probably have been impossible to detach it completely without wounding the bowel. The case was one which helped to justify Mr. Treves in saying that the removal of the appendix was sometimes advisable; and he agreed that if the tissues were clearly defined both peritoneal and mucous coats should be sewn together. Many years previously, when house-surgeon to St. George's, he had to deal with a woman in whom the right iliac region had all the appearances of acute cellulitis. On that he had thought it his duty to make several incisions, and to his surprise and dismay faeces came out through them, and continued to do so. Nevertheless the patient lived some three months, and at the *post-mortem* examination it could be shown that the wound was in a very much enlarged appendix. Mr. Treves's paper had contributed to his opinion that there was a field for active surgery in these cases.—Mr. HOWARD MARSH congratulated Mr. Treves on having supplied suggestions that would make the treatment of many cases clearer. He related a case of acute general peritonitis, in which he had opened the abdomen and found the cause in faecal extravasation through a perforation in the appendix. He had amputated the appendix and washed out the abdomen, but the patient died after a few hours. If the case had been brought under treatment a day or two earlier it might have been possible to save life.—Mr. BRYANT cordially agreed to the propriety in some cases of surgical interference, and considered the appendix as the cause of many of them. A surgeon might be quite justified in trying to anticipate the recurrence of them. If he had understood rightly that Mr. Treves had only found an appendix curled up and not perforated, he doubted whether he should have himself operated. He had made oblique incisions to look at the cæcum, and had washed out faecal and other abscesses, but he had not amputated an appendix.—Mr. WALSHAM could hardly regard all cases of typhlitis and perityphlitis as due to the appendix. He related, however, a case of acute abdominal obstruction which he saw with Dr. Andrew at St. Bartholomew's on the fourth day, and, on cutting down, found localised peritonitis around a gangrenous appendix, in which a gall-stone was lodged. He amputated the appendix, which was sealed over with plastic lymph and needed no more than a ligature. Another patient had had many attacks of abdominal pain, for which no surgical treatment had been used at first, but lately the abdomen had been opened, and a pint of fetid pus withdrawn from a localised peritonitis, of which no definite cause had been ascertained, but which was probably to be traced to the appendix. The man was now nearly well.—Dr. HARE admitted that it was hardly his province to speak on a surgical subject, yet remarked with some emphasis that he had never found any need for surgical interference in his own cases of typhlitis or perityphlitis. In cases of acute tenderness, swelling, fever, etc., he advocated the free use of leeches to the part.

and was frequently surprised to find such a sure source of relief neglected nowadays.—Mr. HULKE observed that most of those present must regret to have seen cases in which leeches were freely used, but without avail. In a case of his own, in which he was inclined to operation, a consultation led to abandonment of surgical measures, a resort to leeches, and a termination in death by perforation of the appendix. It might fairly be said of such a case that tentative measures deprived him of his chance of life. Another patient who had had dysentery three times, and had led an irregular life, came under his treatment three weeks ago with acute pain and much swelling of the right iliac fossa. He cut down upon the swelling and found inflamed omentum, which he removed, and as he found no further definite disease, took no further steps. The patient was relieved for a week, but then showed signs of a deep abscess, which was opened, and he was now convalescent. He wished to call attention to a very interesting pamphlet on this subject by Dr. Henry B. Sands, of New York.—Dr. DOUGLAS POWELL regretted that typhilitis and perityphlitis should have been confused in this discussion, as they were in reality as separate as pleurisy and pneumonia, though their diagnosis was often difficult. If a foreign body was present he admitted the use of surgical treatment, but typhilitis was generally the result of errors of diet, and could not be benefited by surgery. He thought "relapsing typhilitis" an unfortunate title for Mr. Treves's paper, which, had, as he understood it, dealt with the treatment of relapsing perityphlitis.—Dr. DICKINSON thought that perityphlitis, as far as we could judge of it accurately from the *post-mortem* table, was chiefly due to diseases of the appendix, more especially to concretions, which were not foreign bodies, but of home manufacture, stratified lumps, looking at first sight like calculi. He considered Dr. Hare had quite established his right to speak on old-fashioned treatment, and agreed with him as to the great use of leeches in the earlier though acute stages of the disease.—Mr. TREVES thanked the Society for much interesting information and discussion. Dr. Powell had opened up again the old difficulty of estimating the distinctions between relapsing typhilitis, typhilitis, and perityphlitis. Of typhilitis properly so called he thought we knew little; museums certainly did not illustrate it, and he was not aware that intestinal inflammations restricted themselves to such narrow boundaries. In the cases of Fitz and Sands the original trouble had been almost always in the appendix; and he felt justified in holding to his opinion that relapsing typhilitis was due chiefly to the diseases of the appendix, and not to a mass of fæces. Mr. Holmes's case might be interpreted as an argument for earlier surgical interference. He thought that Mr. Bryant's disinclination to operation was probably due to his own imperfect description of the circumstances, and would have disappeared if he had seen the curled and rolled up mesentery of the appendix. Dr. Hare's remarks made him hope that earlier treatment might be made more serviceable, but they could hardly influence the conclusions of most surgeons who had not shared his experience.

As the hour of adjournment was nearly reached, Mr. Henry Morris's paper on Hydrocele was postponed till the next meeting.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 10TH, 1888.

W. H. BROADBENT, M.D., F.R.C.P., President, in the Chair.

The Diagnosis and Treatment of Ruptured Intestine without External Wound.—Mr. MAYO ROBSON, Leeds, read a paper, basing his remarks on six cases which had come under his own observation, or under the care of his colleagues, Mr. E. Atkinson and Mr. Ward. In two of the cases abdominal section and enterorrhaphy had been performed. After a detailed description of the cases, Mr. Robson remarked that in some cases of ruptured intestine, the symptoms were so distinct as to be almost pathognomonic; that other instances of abdominal injury might present most of the signs of ruptured intestine, and yet recover; the shock being due to disturbance of the sympathetic nervous system, and the diminished liver dulness to distended intestine; that the usual symptoms might be entirely absent for a time, only becoming evident after some hours; and that a failure in diagnosis might occur from injury to other regions taking the attention from the abdomen. In discussing the diagnosis, Mr. Robson considered the symptoms and signs separately, and then collectively; remarking on the variability of the cause, the difference in the degree of shock, the usually rapid and feeble pulse, the constant presence of vomiting and of pain, and later, the usual signs of peritonitis;

but especially dwelling on the importance of altered liver dulness, which when normal was almost proof of absence of perforating wound of alimentary canal; when diminished, was suspicious of perforation, but when absent was almost pathognomonic of rupture. He considered the combination of symptoms most to be relied on were shock more or less severe following immediately, or within a short time, on an accident; pain in the abdomen; moderately quick and flabby pulse; vomiting of contents of stomach, followed by bilious vomit; anxious countenance; and diminished or absent liver dulness. After showing that on expectant treatment no reliance could be placed, Mr. Robson remarked that the only hope of success lay in early operation, and consequently that a timely diagnosis was of vital importance, to attain which it would seem necessary that all cases of intra-abdominal injury should be both accurately observed and fully reported. For his own guidance he had adopted the following rule. In cases where there was a reasonable belief that the intestine was wounded, as evidenced by the history, symptoms, and signs, exploration by a small median incision must be made: when, if there were any rupture of the bowel, flatus or serum, tinged with blood or faeculent material, would escape through the small peritoneal opening, which could then be enlarged, and necessary treatment adopted; but should no flatus or fluid appear and the peritoneum prove to be healthy, the small wound could be closed, and no harm would have been done.—Mr. GOLDING-BIRD said that the late Mr. Alfred Poland was wont, in cases of abdominal injury, to ascribe pains radiating from one point of the abdomen to rupture of the bowel; and his treatment in all such cases was very strict. For example, he would not allow the patient to suck ice. He considered that the surgeon knew not how much was taken, and that pounds might be given by the nurse in twenty-four hours. Often at a *post-mortem* examination there might be pints of blood-stained liquid (chiefly the melted ice) found in the abdominal cavity. The speaker asked how Mr. Robson's patients had been treated, *re* food, prior to operation. Some of the cases showed the symptoms early, some late. Was it known in each case how long before the accident the previous meal had been taken?—Mr. BRYANT thought there was room for improvement in the surgical treatment of these cases. Mr. Robson had emphasised the fact that patients might have received a considerable rupture of the bowel, and yet have scarcely any indications in pain, pulse, or even local tenderness. Acting on this knowledge, he himself always instructed his dressers to admit all cases of abdominal injury, and keep them for twenty-four hours in bed, to see what might eventuate. He would give one instance of the value of this plan. A child fell on a sharp pointed piece of wood. When admitted to the ward, she had scarcely any external sign of injury, but she had cried much at the time of the accident. She had no pain on admission. Scarcely any food was given, but in twenty-four hours there was a slight tendency to vomit, and it was thought probable that peritonitis might be coming on. Next day there was acute peritonitis, and on the fifth day the child died. At the necropsy, rupture of the intestine was found. Granting the diagnosis, which was often a matter of difficulty, there could be no doubt about the treatment to be adopted in the way of surgical operation if the diagnosis tended to support the theory of rupture. In a former volume of the *Guy's Hospital Reports*, Mr. Poland had published a valuable paper on these cases. If one could not find therein the materials to support the line of treatment recommended by Mr. Robson, he feared it would be obtained nowhere else.—Sir WILLIAM MAC CORMAC had listened with much pleasure to the paper of Mr. Robson, which endorsed the line of treatment that he himself had recently inculcated. He thought that surgeons should adopt in these cases the same plan as in hernia—namely, "when in doubt, operate." He was glad that Mr. Bryant had also endorsed that plan of treatment. Mr. Robson's case showed that the old idea of collapse was not reliable. He himself had seen patients with ruptured bowel walk to the hospital and have no pain for some little time.—Mr. W. H. BENNETT said that often, in cases of abdominal injury, the symptoms were so slight that he thought Mr. Bryant's proposition to watch them for twenty-four hours was not enough. Thus, in the case of a youth struck by a cricket-ball, who was sent to bed and kept on a spare diet for a week, there were scarcely any symptoms of severe injury; he was then allowed to leave his bed, at once felt faint, and in a short time was dead. Upon inspection there was found to be rupture of the duodenum, extending half round the bowel, allowing extravasation of fæces. The amount of symptoms

might be due to the amount of peritonæum involved in the rupture; for, in the case cited, there was very little peritonitis found at the *post-mortem* examination, and at the first the peritonæum was probably not involved. Perhaps, even if laparotomy had been performed, the rupture might not have been in that case discovered.—Mr. ROSSON, in reply, said that shock due to the injury must be distinguished from that due to its after-effects. When absorption of the extravasated material set in, the symptoms were rapid and violent. It would be rather inconvenient to keep all cases of abdominal bruising in hospital for a week, though he agreed with Mr. BRYANT that detention for twenty-four hours was most advisable. But even the rigorous adoption of this plan would have been of no avail in his first case, as that patient came to the hospital for the injury to his head, and did not mention at the time that his abdomen was at all hurt. In all cases where the injury was indirect the pain was of a general character; it was only radiating from one point when caused by a direct blow. As regarded treatment, he always starved these cases, and allowed no ice in any abdominal case. Even in ovariectomy he only allowed ice in pieces the size of a pea, and if thirst was great, he ordered an injection of one pint of lukewarm water into the bowel, whence a large amount of it was absorbed.

A Case of Intestinal Obstruction, in which the Colon gave way Outside the Peritonæum.—Mr. WILLIAM H. BENNETT brought forward this case. The patient was a gentleman advanced in age, who for many years had been habitually constipated. At frequent intervals he was in the habit of using violent purges, without which the bowels never acted. About the middle of September, 1887, the constipation became more obstinate, and attacks of colic, from which the patient had also often suffered for years, were frequent and most severe. He was able, however, to obtain sufficient relief by means of his usual medicines up to October 17th, when a very small hard motion was the only result of this treatment; the colic, which was very acute, did not completely subside. Gradually the abdomen became distended, and great discomfort ensued in consequence. Further purges were taken without any good effect, although there was a frequent urgent desire to defæcate. On the 21st, whilst stooping over a letter, he felt a sudden acute pain passing down into the left loin. Some nausea and faintness followed, from which he soon rallied. He was seen by Mr. Bennett on the 22nd. His face was pinched and anxious in aspect; the tongue was brown and dry; the pulse very weak. The belly was much distended, especially on the left side, where the loin bulged very prominently. The rectum was empty, but a hard mass could be felt through its walls, situated in the bowel higher up. The distress from the distension was extreme, and the patient begged for an operation. As the case was clearly one of obstruction above the sigmoid flexure, a left lumbar colotomy was performed. On opening the abdominal cavity there rushed out, before any gut was exposed, a large quantity of gas and some liquid feces; on introducing the finger, the intestine could be felt in front of a space, from which the gas, etc., had come; manipulation of the colon, which could be easily made out, caused the air which remained in it to come through an opening in the gut at the lower part of the space mentioned, just below which could be felt a hard mass in the bowel. The distension at once subsided, but the patient became collapsed and did not rally. The case was regarded as a clear instance of rupture of the colon outside the peritonæum, which explained the mildness of the symptoms following immediately upon the giving way of the gut, which it was assumed took place when the acute pain, mentioned in the account of the case, suddenly seized the patient. In the same way the one-sided character of the abdominal distension and the absence of peritonitis could be accounted for, and a curious corroboration afforded to a statement of the patient, to the effect that attempts at defæcation only increased his distress, for it was easy to see how such attempts could force the contents of the loin more and more into the surrounding cellular tissue. The case was considered remarkable for its rarity, and on that account had been thought worthy of record.

Intestinal Obstruction: Nélaton's Operation: Death: Volvulus of the Cæcum; Malposition of the Ascending Colon.—Mr. WALSHAM related the case of a man, aged 63, previously healthy, suddenly seized with severe abdominal pain and vomiting, and the bowels, which were regular up to the time of the seizure, became obstinately confined. On his admission, two days later, into St. Bartholomew's Hospital, under the care of Dr. Gee, nothing could be found to account for the pain, either on palpation of the abdomen or rectal examination, save some slight fulness and tenderness in the right

iliac region. Temperature, tongue, pulse, etc., were fairly normal. On the 18th, two days after being in the hospital, he began to vomit continuously. On the 20th he seemed better, and the vomiting ceased, but the bowels remained obstinately confined. On the 24th, stercoraceous vomiting set in, and he became collapsed. A consultation was held, but no diagnosis could be arrived at, save that the obstruction was probably situated low down, though too high to admit of relief by right colotomy. As the patient's condition was such as to make it appear probable that he would die on the table were exploration of the abdomen attempted, the abdomen was opened in the middle line, and a portion of inflamed and distended intestine—the portion which first presented—was secured by suture to the abdominal wall. Only a small quantity of feces escaped. Though vomiting did not return, the abdomen continued swollen and tender, and the bowels remained unopened. He died on the afternoon of the 23rd. At the necropsy a volvulus of the cæcum was discovered, as shown in the specimen exhibited. There was general peritonitis, but neither extravasation of feces nor collection of fluid in the peritoneal cavity. It was found on tracing the gut backward that the colon, beyond the splenic flexure, instead of passing across the abdomen to form the transverse arch, descended vertically to the left iliac fossa, and thence returned to the lower border of the stomach, forming a U-shaped bend. It then turned to the right, and, having reached the median line of the abdomen, again ran downwards to end in the cæcum, which was situated over the last lumbar vertebra almost in the middle line. There was no ascending colon in the right loin, and the cæcum was absent from the right iliac fossa. The gut that was opened proved to be the cæcum, which was situated at the apex of the volvulus. It was ulcerated in places; but, owing to the surrounding adhesions, no feces had escaped. Mr. WALSHAM remarked that the suddenness and acuteness of the symptoms pointed to some internal strangulation or volvulus; but, after careful watching, no definite diagnosis could be arrived at. Laparotomy was not undertaken, because of the patient's collapsed condition; and Nélaton's operation—varied, however, by making an incision in the middle line—was accordingly performed. As it turned out by this operation, the cæcum, the apex of the volvulus, was secured to the wound, and subsequent untwisting of the gut prevented. Mr. WALSHAM, however, did not believe that the gut could in any case have become untwisted without surgical interference. Some surgeons held that primary enterotomy was not to be advised, while others thought highly of it as being less dangerous than exploration of the abdomen. In the present case, enterotomy was performed as likely to give the patient a better chance. Mr. WALSHAM thought that the consideration that like and similar conditions, though rare, were of occasional occurrence, should influence us to some slight extent in determining whether laparotomy or enterotomy should be performed, and, when taken in connection with the other objections that had been raised by some surgeons, should, he thought, dispose us to reserve enterotomy as a primary operation merely for those desperate cases in which it appeared that laparotomy must inevitably prove fatal.—The PRESIDENT considered both cases unique, each in its own way.—Mr. BRYANT recited the case of a lady, aged 73, liable to attacks of spasm and nausea, with difficulty of defæcation, for which she was constantly taking aperient medicine. She was seized at Folkestone with intestinal obstruction, and was thence brought back to London. Being summoned by Dr. Cumberbatch, Mr. Bryant found the case to be one of chronic obstruction, with acute symptoms superadded. The abdomen was swollen, with large coils of intestine bulging its anterior wall. Nothing could be felt from the rectum. Right colotomy was performed, but the ascending colon was found empty. Nélaton's operation was then performed between the umbilicus and right anterior superior iliac spine, where a large coil of intestine was especially evident. For three days the bowel continued to empty itself; and on the fourth day the stitches were removed. The patient rallied much after the operation, and did well for a time; but unfortunately she remained very feeble, and eventually died on the fourteenth day, from exhaustion. At the necropsy a large distended sac was found in the abdomen; this was the cæcum, which had fallen over a band, so that what should have been its posterior had become its anterior surface, and its lower end was also turned upwards. The volvulus of the cæcum caused obstruction in the ascending colon near the seat of the first operation. Failing to find the distended bowel in the colotomy, it was right to do "the Nélaton." It relieved the patient; and had she been younger, he believed she would have recovered. In cases where constricting bands or in-

ternal hernia were expected, or in other doubtful cases; where colotomy was out of court, laparotomy was called for. He had had three cases; one lived for five months, and another for two months, much relieved by the operation. He might cite another case of colotomy which bore upon Mr. Bennett's case. Upon cutting into the subperitoneal tissue, a puff of faeculent gas escaped. Upon traction being made upon the colon, faeces passed also from behind the bowel. The wound was then thoroughly washed out with iodine water, and a drainage-tube inserted. On the third day the bowel was opened, and the patient went on to recovery. He now thought that the case must have been such a one as that described by Mr. Bennett.—Mr. HOWARD MARSH said that, as regarded Mr. Treves's adverse opinion of Nélaton's operation, there were instances in which the patient was so ill from obstruction that laparotomy could not be done; then to open the abdomen in the middle line, and perform Nélaton's operation, sometimes gave great relief. A patient so operated upon by Mr. Morratt Baker some years ago had recovered. He would ask if there was any considerable resistance under the abdominal wall in Mr. Walsham's case to point to the trouble being at the region operated upon. If so, possibly the patient would have had more chance if the operation had been done farther from the actual site of the trouble. He had lately operated upon a patient by opening the colon in the loin, and so large a quantity of faeces had immediately escaped that he believed if the operation had not been done the bowel would soon have ruptured.—Dr. HENRY HANSEN said that he had recently made a *post-mortem* examination on a man supposed to have malignant disease of the sigmoid flexure. Fourteen days before death he had great pain in the abdomen, but went to his work until two days before death, when peritonitis began. The ascending colon was parallel and close to the descending, and there was cancer of the sigmoid flexure.—Mr. ROBSON asked if any pus was found behind the colon in Mr. Bennett's case. Might it not be that an abscess had broken into the bowel? He had twice performed Nélaton's operation, once successfully, whilst the other patient died two days after the operation. In the first case the patient had cancer, and upon colotomy being done, the bowel was found to be empty. A large coil of intestine was then discovered beneath the anterior abdominal wall; it was brought to the surface, stitched there, and opened, and the patient was probably living now. It was a great comfort to have Nélaton's operation to fall back upon when the abdomen could not be explored.—The PRESIDENT mentioned a case that had perplexed him. Upon an exploratory incision being made the caecum was found distended, and lying in the pelvis, and encircled by a coil of adherent small intestine, which had blocked the passage. The caecum had given way during the operation, and the patient died from peritonitis.—Mr. BENNETT said Mr. Bryant's case was evidently like his own. There was no trace of pus in the cavity behind the bowel, and it was not at all like an abscess cavity.—Mr. WALSHAM said that it was thought that there was some fulness in the left iliac fossa, but nothing definite was made out. An early operation would probably have saved his patient.

Living Specimens.—The following living specimens were exhibited. By Mr. B. ROTH: A Girl with Arrested Growth of Ulna from Exostosis. Dr. Pasteur: A case of Congenital Hypertrophy of One Lower Limb in a Girl. Dr. Fox: A Girl with a Chancre on the Lip. Mr. MARSH: A Successful Case of Laparotomy for Tubercular Peritonitis.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 13TH, 1888.

J. HUGHINGS JACKSON, M.D., F.R.S., President, in the Chair.

The Treatment of Rheumatic Fever.—Dr. DONALD HOOD read a paper on the treatment of rheumatism, with especial reference to the use of the salicylates, an abstract of which we shall publish.—Dr. S. WEST said that the value of statistics such as those drawn up by Dr. Hood, depended, to a very great extent, upon the way that the items were classified and grouped. Probably no disease was so difficult to classify and properly group as rheumatic fever and the different diseases which were closely allied to it and so difficult to distinguish from it. It was very curious, on comparing the statistics of different hospitals, to see how those differences were grouped in so many unexpected ways. He thought that the high percentage in recent statistics of *morbus cordis* was due to the fact that the statisticians were much more careful. They were now gradually approximating to the original

statistics when the connection between the two was first described. He said that a great deal turned upon the anomalous groups of cases which might be termed chronic rheumatism or chronic rheumatic fever, according to the relation which it was supposed they bore to rheumatic fever. He observed that there had only been one or two cases of hyperpyrexia under his notice during the last seven or eight years, whereas when a student they were of comparatively frequent occurrence. Another important point which tended to vitiate the conclusions was that drunkards suffering from acute rheumatism were very liable to get delirium.—Dr. WHIPHAM observed that, when that method of treatment was first introduced in London, they found exactly what Dr. Hood had said—namely, that relapse after relapse occurred. It then became clear that the salicylates were anodynes more than anything else. Since then it had always been the custom to combine alkalies with the salicylates, according to the condition of the urine. With such a mixture, relapses were comparatively rare. He was inclined to attribute the toxic effects to impurity of or imperfections in the drug. He mentioned that in 655 cases of rheumatic fever brought together for the Collective Investigation Committee, only four cases of hyperpyrexia were reported. The best remedy for delirium was alcohol.—Dr. WICKHAM LEGG said he had noticed symptoms resulting from the use of the salicylates respecting which further inquiry was necessary. He said they would have to find out what the cause of these effects was.—Dr. DREWITT observed that the appearance of the artificial acid differed *in toto* from that obtained from the oil of wintergreen; and, moreover, that if one compared samples of the acid at different hospitals or from different chemists, the greatest variety was found of taste, appearance, and effects.—Dr. ARCHIBALD GARROD mentioned several instances of very severe symptoms following the administration of salicylate of soda, and expressed an opinion that differences in the preparations used were responsible for many of these effects. He said he had certainly noticed epidemics, so to speak, of toxic effects in patients during particular periods of time. He added that discrimination was necessary in the administration of the salicylates, and in persons who could not be closely watched their use had probably be better dispensed with.—Dr. ROUTH recommended the employment of cold baths as a means of combating the tendency to hyperpyrexia. He pointed out that the connection had not been made clear between the delirium recorded in Dr. Hood's paper and the hyperpyrexia. He thought that delirium was often due to an impending attack of hyperpyrexia.—Dr. DONALD HOOD, in reply, said he had not intended to convey the idea that hyperpyrexia was more common, but only that it would sometimes occur in spite of antipyretics. He mentioned that hyperpyrexia occurred in cycles of intensity. He wished to contest Dr. Fagge's assertion that hyperpyrexia might be averted if the patient itself took enough salicylate.

Some hitherto Undescribed Symptoms in the Early History of Osteo-Arthritis.—Dr. KENT SPENDER read a paper on this subject.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

MEDICAL SECTION.

FRIDAY, JANUARY 27TH, 1888.

JAMES LITTLE, M.D., President, in the Chair.

Nervous Diseases: Congenital Spastic Paraplegia: Ataxic Paraplegia.—Dr. C. J. NIXON made a communication upon congenital spastic paralysis and ataxic paraplegia, and exhibited two cases illustrating both diseases. He divided cases of congenital paralysis into those which were cerebral and those which were spinal in origin, and dwelt at length upon the various conditions with which both forms were associated. One of the cases exhibited was paraplegia, due to compression of the upper part of the Rolandic area during an instrumental delivery by the forceps. In the case of ataxic paraplegia Dr. Nixon first detailed the evidence which had been afforded by recent investigations as to the probable course taken by the sensory muscle-tracts in the spinal cord—namely, in the columns of Goll, the direct cerebellar tracts, and in the short vertical fibres which connect the posterior horns of grey matter at different levels in the spinal cord. The last was the part in which the comma-shaped degeneration was found. In noting the motor paralysis which existed in ataxic paraplegia, special reference was made to the difficulty of distinguishing a lesion of the delicate fibrillary network which connects the terminations of the pyramidal tracts with the network of Gerlach,

though a slight lesion in the situation, as being the furthest point from the influence of the trophic centres, would most probably be attended with serious disturbance of the motor function. Dr. Nixon also adverted to the different pathological lesions which might be set up in the cord, the results of which, as regards the intensity of the symptoms and their duration might be very different. Many cases of the most profound disturbance of both sensibility and mobility got well, though this result was usually considered as phenomenal. Allusion was made to the effect of treatment in certain affections of the spinal cord.—The PRESIDENT observed that it was evident Dr. Nixon did not share the opinion of a distinguished physician that "all diseases of the nervous system are either syphilitic, or they are not; if they are not, you will do them no good; if they are syphilitic, treat them with iodide of potassium."—The Rev. Dr. HAUGHTON said the distinction drawn by Dr. Nixon between the sensory and muscular nerves was of great importance. There was one thing they had certainly determined, although the difference was exceedingly small—namely, that the rate of transmission of a sensation and the rate of transmission of an order from the brain to use muscular action differed slightly. Everything seemed to show that the mode of communication with the external world, which took place from the sensorial nerves and from the nerves that transmitted orders for muscular action, differed.—Dr. BEWLEY related the symptoms presented by a man suffering from ataxic paraplegia under his care. This man, aged 38, with no history of syphilis or alcoholism, had been in perfect health until April last, when he began to suffer from pain in the lower lumbar region of his spine on going to bed. The case was remarkable for the great rapidity with which the symptoms had come on. Within a fortnight after the first trouble had been noticed in the legs ataxy was extreme; and within two months the man was unable to move his legs, owing to their rigidity. The affection of the sensory nerves was indicated by the anaesthesia and pain attributable to slight isclerosis of the postero-external column in the lumbar region, which was sufficient to cause irritation of the sensory nerve roots, but not sufficient to cause paralysis. Locomotor ataxy and spastic paraplegia were two extremes between which might be found almost any combination of symptoms.—Dr. WALTER SMITH mentioned a case in Sir Patrick Dun's Hospital as illustrating one of the most interesting phenomena of spinal diseases, namely, the different modes of transmission of different sensory impulses. Prying the patient with a pin or twisting the skin he did not perceive; yet in all parts of the limbs, down to the very toes, he could feel and localise accurately the touch of a feather, while he was thoroughly insensible to the most painful impressions, and unable to discriminate between heat and cold. The symptoms pointed to acute destructive inflammation of the lower part of the spinal cord.—Dr. Nixon, in reply, said it was not to be expected that all cases of ataxic paraplegia would be precisely similar. On the contrary they must vary, inasmuch as the pathological changes in any two cases would vary, and accordingly as the disease became more pronounced in the lateral roots in one case or in the posterior.

Heredity in Hemorrhagic Purpura.—Dr. J. F. KNOTT read a paper on this subject.—Mr. FOY, Dr. J. F. POLLOCK, and Dr. C. F. MOORE made some remarks, and Dr. KNOTT replied.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, JANUARY 6TH, 1888.

E. CARVER, F.R.C.S., President, in the Chair.

Note on Subcutaneous Nodules in the Hands.—The PRESIDENT read a short paper on subcutaneous nodules in the hands occurring in rheumatic individuals. His remarks were based on two cases which had somewhat recently come under his notice. The patients were gentlemen on the shady side of 50; each was rheumatic, dyspeptic, and somewhat gouty. The nodules were painful only on pressure, and fixed to the deeper textures, but unattached to the skin, which preserved its normal healthy condition. In the one case the nodules disappeared under treatment by alkalies and oleic acid; in the other case the nodules diminished under alkaline treatment. Both cases showed evidence of gout in the contracted finger and enlargement of the phalangeal joint. The fibrous nature of the nodules was alluded to, their microscopic appearance being identical with that of the vegetations on the valves of the heart. The President brought these cases before the Society inasmuch as the behaviour of the nodules was different from that described by others. In the young and up to early adult age the nodules had

been observed to come and go, sometimes in successive crops, disappearing altogether in from a few days to a few months. Where these nodules had appeared later in life, they had been noticed to last for years.

Cases of Abscess in the Tibia.—Professor HUMPHRY related two cases of this disease, which presented the ordinary symptoms of abscess in bone, but were situated rather lower down than usual. He remarked on the length of the previous history of the symptoms in these two cases. Remarks were made by Dr. EASEY and Mr. WHERRY.

Wound of Palmar Arch: Abnormal Blood Supply.—Mr. WHERRY related the history of a middle-aged woman, who broke a glass bottle with great violence into the palm of the hand. The surgeon in attendance had tried all the usual means of stopping hemorrhage, but without lasting success, so that during four weeks there were six considerable and sudden losses of blood. When Mr. Wherry first saw the hand, a month after the accident, the fingers were becoming gangrenous, and the general condition of the patient was feeble and anæmic. Amputation of the hand was followed by a good recovery. A large traumatic aneurysm was found in the palm, full of clot and pieces of glass. A large ulnar artery communicated with the sac, and no deep arch formed by the radial existed. There was no deep or communicating branch from the ulnar artery passing between the little finger muscles. The small representative of the radial appeared to communicate with the wounded palmar arch by a branch passing through the second interosseous space. This absence of the deep arterial arch, with the enlargement of the superficial (ulnar) supply in the hand, was, according to Quain, the most uncommon of abnormalities, and might explain the great difficulty in controlling the hemorrhage, and also the ready tendency to gangrene of the digits in a large flat hand.

Enlargement of the Prostate.—Mr. GRIFFITHS showed this specimen. The patient was an elderly man, whose urine contained a small quantity of albumen; attacks of uræmic convulsions came on, and he died comatose. The heart was hypertrophied, and the ureters and pelvis of the kidneys much dilated. The third lobe of the prostate was remarkably enlarged and prominent, and there was a sacculæ in the bladder. Mr. Griffiths gave a detailed account of the morbid anatomy and histological characters of this form of enlargement of the prostate. It corresponded entirely with the adenomata, and might be well compared with such tumours as adenoma of the mamma.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, JANUARY 25TH, 1888.

W. ROSS JORDAN, M.R.C.S., President, in the Chair.

Congenital Sacral Tumour.—Mr. WILLIAM THOMAS exhibited a child, aged 11 months, which had a large congenital sacral tumour. The tumour was of a mixed character, containing several cysts, much fatty tissue, and some firm cartilage-like masses continuous with, but movable on, the sacrum. No communication was evident between the tumour and the spinal canal. The tumour projected downwards and backwards, its lower limit reaching the middle third of the thigh. The mother stated that it was relatively as large at birth. Mr. Thomas intended keeping it under observation for a time with a view to removal.

An Undescribed Fallacy in Testing for Albumen in Urine with Nitric Acid.—Dr. CARTER drew attention to the importance of securing complete purity of nitric acid for the purpose of testing for albumen in urine; and showed a specimen of acid which he had obtained from a druggist of good position, and which, evidently from the presence of some impurity, gave reactions indistinguishable from those of albumen. Subsequent analysis of the nitric acid had shown that it contained a trace of nitrate of silver.

Cardiac Thrombosis.—Dr. CARTER also showed a specimen of cardiac thrombosis, taken from a lad of 13 years of age, who about a fortnight previously had been attacked with sore throat of a low type. The lad was very emaciated, had been greatly neglected, and his surroundings had been unhealthy. A few days before his death he had been attacked with acute pneumonia, and was admitted into the Queen's Hospital in a state of collapse, and died shortly afterwards. On *post-mortem* examination adherent clots of various sizes were found in both ventricles, many of which had undergone central softening, and were beginning to break up. The greater part of the right lung was in a state of pneumonic consolidation, and presented two or three recent in-

farcets of considerable size. The left lung was congested, but free from consolidation and infarcts. The other organs were normal. Dr. Carter drew attention to the importance of the nutrition and vitality of the blood as a tissue of the body, as a factor in thrombosis, to which he was inclined to attach even greater pathological significance in these cases, than to such conditions as alteration of the vascular walls, and retardation of the blood-current.

Abscess of Frontal Sinus.—Mr. LLOYD OWEN showed a case of chronic abscess of frontal sinus successfully treated by opening and free drainage.

Tubercular Necrosis of Cranial Bones.—Mr. BARLING showed a case of tubercular necrosis of the cranial bones, causing perforation, in a young girl.

Use of Electricity in Gynecology.—Mr. J. W. TAYLOR read a paper on the Use of Electricity in Gynecology.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY. THURSDAY, FEBRUARY 2ND, 1888.

E. MACKEY, M.D., afterwards J. HARRIS ROSS, M.D.,
in the Chair.

Lupus Erythematosus.—Dr. MACKEY showed a case of this disease in a woman, aged about 43, of three years' duration. Treatment by resorcin, and scarification was just commenced.

Nephrotomy.—Mr. JENNER VERRALL read notes of a case of renal calculus with nephrotomy. The patient, a married woman, aged 47, first noticed pain in the right flank five years ago, after a confinement. At times there was hematuria, but never severe. The pain had steadily increased, and after her last confinement, three years ago, pus first appeared in the urine. The quantity passed had been variable, the urine being at times almost wholly purulent. For some time there had been swelling of the right side of the abdomen, which had more than once disappeared with sudden passing of a quantity of pus, and again reformed. It was present when the patient was admitted into Sussex County Hospital under Dr. Mackey. As she was getting gradually worse, and there was distinct evidence of a calculus, Mr. Verrall, on December 10th, 1887, explored the kidney from the lumbar side, and extracted a large stone, weighing when removed three ounces and a half. The cavity was at first drained, but the tube was removed on December 20th. The wound was closed with the exception of a small sinus, discharging about a drachm of pus in the twenty-four hours. General condition much improved, though there is still some nocturnal rise of temperature, and about one-eighth of pus in the urine.

Tubercular Pyosalpinx.—Dr. CHAFFEY showed a specimen of endometritis and meningitis from a child, aged 12 years, who died with chronic tubercular peritonitis. The body of the uterus was enlarged to the size of a pigeon's egg, its cavity, along with that of the Fallopian tubes, being distended with cream-like material. The os internum was plugged with glairy mucus; cervix natural; no displacement of the organ. Destructive changes had taken place in the walls of the organ, so that no definite tubercular growth could be distinguished.

Clinical Remarks on Resorcin, Antifebrin, Naphthol, and Naphthalin.—Dr. MACKEY read a paper showing the value of resorcin in gastric ulcer and catarrh, as illustrated by fifteen cases; also on the power of moderate doses of antifebrin to lower pyrexial temperatures, of naphthol to relieve pruritis, etc., and of naphthalin to control intestinal catarrh and offensive stools.—Mr. VERRALL mentioned two cases of gastric ulcer without hæmatemesis, which rapidly disappeared under the internal administration of resorcin.—Mr. CRESSWELL BABER had found in a case of epithelioma of the fauces more relief to the pain from a spray of 20 per cent. resorcin combined with cocaine than from a spray of the latter alone, although it had no effect in arresting the disease.

Phosphorus Poisoning.—Mr. LINGARD STOKES gave particulars of a case of phosphorus poisoning in a woman, aged about 20, who was seen to swallow some green-coloured paste five days before she died. The symptoms were vomiting, slight jaundice, coldness of extremities, severe pain in the abdomen, especially in the epigastrium, great thirst, etc. On examination the muscles were found soft and fatty; the pericardium contained some brown serous fluid; heart full, otherwise healthy; lungs healthy; liver greatly enlarged, of the consistence of dough, breaking down on the least pressure, of pale yellow colour, not a trace of liver colour being found. The stomach showed the usual symptoms of gastritis; no ulceration. The intestines were much inflamed, but presented no luminous patches. The kidneys were large, white,

and fatty, the pyramids natural in colour and cortex white. The stomach contained a large quantity of chocolate-coloured grumous fluid, which, on first opening and heating, gave off a slight smell of phosphorus.—Mr. DOUGLAS ROSS referred to a case of phosphorus poisoning he had brought before the Society (see JOURNAL for December 3rd, 1887), and thought that the state of the liver left no doubt as to Mr. Stokes's case being of this character.—Dr. HARRIS ROSS, Dr. CHAFFEY, and Dr. MACKEY also took part in the discussion.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 1ST, 1888.

JULIUS DRESCHFELD, M.D., F.R.C.P., President, in the Chair.

Bacteria.—The PRESIDENT, on taking the chair, delivered an Inaugural Address on Bacteria.

Plastic Surgery.—Mr. WHITEHEAD showed a patient on whom he had performed a successful plastic operation. The skin had been taken from the arm, and the object of the operation had been to restore the surface of an extensive rodent ulcer which had been excised. During the period of union the arm was fixed to the head by plaster-of-Paris.

Osteitis Deformans.—Mr. SOUTHAM showed a man, aged 70, with osteitis deformans. The bones generally were affected, especially the cranium, spinal column, and shafts of both tibiae. The disease commenced thirty-five years ago, and was apparently induced by exposure to cold and damp. The patient was also affected with contraction of the palmar fascia, and it was suggested that both conditions were of rheumatic origin.—Mr. BISHOP showed a woman suffering from the same disease.

Spina Bifida Occulta.—Mr. STOCKS showed a case of spina bifida occulta, in which the lumbar region for about the space of six inches was covered with a considerable crop of long hair. The arches and spinous processes of several of the lumbar vertebrae were wanting. The patient was a woman in good health, the mother of several children, who had never suffered any inconvenience from the want of development.

Unnoticed Symptoms, and Unrecorded Reflex.—Mr. HENRY COLLEY MARCH communicated an unnoticed symptom in apæticæmia, and an unrecorded cutaneous pain-reflex, producible at will.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, FEBRUARY 3RD, 1888.

EDWARD ATKINSON, M.R.C.S., President, in the Chair.

Intestinal Obstruction.—Mr. MCGILL showed a case of acute intestinal obstruction due to a Meckel's diverticulum successfully treated by laparotomy (see JOURNAL for January 14th).

Ileo-cæcal Growth.—Mr. JESSOP related a case in which obstruction was caused by an ileo-cæcal growth. G. J., aged 33, signalman, was admitted into the Leeds General Infirmary on November 22nd, 1887. Nine weeks previously, there was a gradual onset of abdominal pain, and at the end of twenty-four days he was seized with symptoms of complete obstruction, the vomiting becoming stercoraceous. This lasted for seventeen days, when diarrhoea supervened, and there had been no vomiting for eight days before admission, at which time he was very ill and wasted, the abdomen much distended with constant borborygine and visible peristalsis. On December 1st, the abdomen was opened by the usual median incision, and a hard, fixed, irregular mass was at once felt at the junction of the ileum and cæcum. The colon was collapsed. An incision was made a few inches above the obstruction, and an artificial anus was established, the whole of the small intestines having been passed twice through the fingers in order to empty them and facilitate their reduction within the abdominal cavity. The patient made a good recovery, and was discharged on January 21st, 1888.

Intestinal Diverticulum.—Mr. T. PRIDGIN TEALE narrated the case of a man, aged 28, who had previously suffered from attacks of colic, and who, on December 24th, after a hearty supper was seized with colic, vomiting, and obstruction of bowels. When seen on December 27th by Mr. Teale, there had been no vomiting for twelve hours, and it was decided to wait. On the 28th vomiting came on again, and grew steadily worse; and on the 29th the abdomen was opened by a median incision below the umbilicus. A coil of intestine was seen to be bound down by a slender, though firm band, from the cut ends of which, when divided, a thin fluid

exuded, having a distinctly stercoraceous odour. The ends were secured by ligature. Upon irrigating the peritoneum a clubbed diverticulum was washed up out of the pelvis, where apparently the free end had been impacted, and had in that way been enabled to give rise to symptoms of obstruction. The patient died immediately after the operation.

Rupture of Intestine.—Mr. ATKINSON, related the case of a porter, aged 28, who was admitted into the infirmary at 2 p.m., August 15th, 1887, having shortly before received a severe contusion of the abdomen from falling against the edge of a table. On admission he was somewhat collapsed. The breathing was thoracic; the abdominal walls retracted; there was no pain but there was tenderness over contused spot; the flanks were resonant, the liver dulness normal. A catheter was passed and clear urine drawn off. He shortly afterwards vomited some undigested food free from blood. Intense abdominal pain afterwards came on above the level of the umbilicus, and at 10 p.m. abdominal section was performed by median incision below the umbilicus. Bubbles of gas and some blood-stained fluid escaped. The intestines were deeply injected, and glued together in places by patches of lymph. A perforation about half an inch in length was found close to the duodenum. The mucous membrane was everted close to the mesentery, which, as well as the intestine, was severely contused and echymosed. The wound was closed with six Lembert's sutures of chromicised gut; the peritoneal cavity irrigated with a 2 per cent. solution of boracic acid at a temperature of 96°; a Bantock's tube placed into the recto-vesical pouch, and the abdominal wound closed with wire sutures. He grew steadily worse, with occasional vomiting, hiccough, pain, tympany, and complete obstruction. On August 15th, there being obvious peritonitis, the abdominal wound was reopened at midday, and the peritoneal cavity again irrigated with boracic lotion. Acute peritonitis was found, but no faecal extravasation. He died at 4.30 p.m.

Acute Dilatation of the Stomach.—Mr. JESSOP communicated this case.—The patient, a lady, aged 26, had a month before undergone excision of the hip-joint for disease of seventeen years' duration, originating in distinct traumatism, and which Mr. JESSOP believed to be non-tubercular. Her general health and her family history were remarkably good. At the operation the disease was found to be limited to the head of the femur, the section being made through healthy bone, and the acetabulum intact. The wound was nearly closed, and she was rapidly improving, when one day, in the absence of the nurse, she obtained an apple, the whole of which she ate greedily. She was shortly afterwards seized with severe continuous vomiting. An aperient was administered, and she was put on milk diet. On the following two days the vomiting was intermittent, and was associated with extreme thirst. On the third day it was observed that before vomiting the abdomen was tumid, and the outline of the stomach, much distended, was clearly visible. After vomiting, the abdomen became flaccid, and nothing abnormal could be made out either as regards resonance, resistance, or tumour. There was no tenderness, but the extreme thirst continued, and the patient was obviously rapidly sinking. On the fourth day, as a last resource, the abdominal cavity was explored by the usual median incision, when the stomach, duodenum, and the first six inches of the jejunum were found enormously distended, the whole of the remainder of the intestines being remarkably collapsed and small. The stomach was opened by a small incision near the pyloric end, and a finger introduced. The pylorus could not be distinguished owing to its extreme dilatation, a condition which also affected the duodenum as far as the finger could reach. The patient died in a few hours. At the necropsy nothing more could be made out. There was no mechanical obstruction anywhere. The intestine simply seemed to pass from a condition of extreme dilatation to one of extreme contraction at a point six inches below the duodenum.—In the discussion which followed, Dr. CLIFFORD ALBUTT said it was difficult to account for acute dilatation of the stomach except on the theory of a neuroparesis in patients of feeble constitution or weakened by long illness, in whom an acute condition supervened. In Mr. JESSOP's case the collapse of the intestines was remarkable, and might possibly have allowed of the distension of the stomach; on the other hand, it might be secondary, and due to compression by the stomach.—Mr. TEALE said that in his experience one third of the cases of intestinal obstruction got well without operation, and thought that this consideration was mainly responsible for the unfortunate delays which so often terminated fatally within five days. He had

never seen a life thrown away by operation, but could call to mind four cases where death had resulted from the operation being performed too late, and he thought that it would be better occasionally to risk opening the abdomen unnecessarily, and especially in cases of chronic obstruction, or in acute cases where there was a history of former attack. There were undoubtedly grave intrinsic dangers from the damage done to the intestines by the enormous distension, and he had seen one case of ileo-caecal rupture where the patient had been watched for four weeks before a malignant stricture was discovered high up the rectum.—Mr. JESSOP, in operating upon all cases where there was danger of asphyxia from hæmorrhage or vomiting, had the patient's head brought well down over the edge of the table, so that the upper part of the pharynx became the most dependent.—Dr. JACOB referred these cases of acute dilatation of the stomach to a purely mechanical causation. It usually occurred in invalids in whom, as the result of careful and limited diet for a long period, had supervened an atrophic condition of the intestine. After a meal of indigestible or unsuitable food a large quantity of gas was evolved, and immediately produced a condition of extreme distension and paralysis.

Pathological Specimens.—Mr. E. ATKINSON: Bladder from case of Suprapubic Prostatectomy.—Mr. MAYO ROBSON: Hydrosalpinx.—Dr. JACOB: Microscopic Sections of Laryngeal Papilloma recently removed.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

WEDNESDAY, FEBRUARY 23RD.

Professor HUMPHRY, F.R.S., President, in the Chair.

Sinuses of Valsalva.—Mr. MAYO COLLIER read a paper on the functions of the sinuses of Valsalva and auricular appendices, with some remarks upon the mechanism of the heart and pulse. He began by discussing current views of the formation and action of the sinuses of Valsalva. Those pouches were not pathological formations, but were essential to the action of the heart. Their closure was not sudden but gradual, and the second sound of the heart was due to the sudden distension of the aorta. The force of the ventricular contraction was expended in distending the aorta rather than in propelling the main column of the blood. The auricular appendix was the part of the auricle which forcibly contracted and propelled the blood into the ventricle during its diastole. The current views as to the flapping of the valves of the heart were next refuted, and it was maintained that the first sound of the heart's beat was in no way caused by the closure of the valves. The pulse was afterwards spoken of, and the dicrotic wave was considered not to be due to a back wave, but to other causes.

Ossification of Skull.—Mr. J. BLAND SUTTON showed specimens of the ossification of the superior maxilla, inferior maxilla, and malar bones to illustrate his paper on the morphology of the skull. There was no discussion.

Cranio-Cerebral Topography.—Professor CUNNINGHAM then showed and explained a series of models which illustrated cranio-cerebral topography. The series consisted of plaster casts, made before and after the removal of the skull cap, and comprised specimens of 5, 11, 12, and 15 years, and of adult male and female. The suture lines had been left, and the convolutions placed in relation to them.

Musculus Sternalis.—Professor CUNNINGHAM next read a paper on the musculus sternalis. After reviewing the literature, the results of his own dissections were given, and he maintained that the muscle was not a part of the panniculus carnosus, but a downward dislocated portion of the pectoralis major. This assertion was chiefly based upon its nerve supply, which was exceedingly long, and came from the anterior thoracic nerves, and upon the fact that the anterior branches of the intercostal nerves were recurrent round the inner margin of the sternalis.—Professor HUMPHRY considered the existence of the sternalis due to incomplete segmentation of the great muscular sheet.—Professor MACALISTER discussed the question of the origin of the sternalis, and thought too much stress had been laid upon the last point. The muscle was present in 3 cases out of 115, but this was a low average. He confirmed Professor Cunningham's observations that the muscle was absent in other mammals.—Professor TRANE was inclined to agree with the author of the paper. He discussed the question whether the muscle was vestigial or developing, and, in

the latter case, as Professor Cunningham had remarked, devoted to costal respiration.—Mr. SUTTON also made some remarks.

Morphology of Extensor Muscles.—Professor CUNNINGHAM read a paper by Dr. ST. JOHN BROOKS on the morphology of the muscles on the extensor aspect of the middle and distal segments of the limbs. The paper showed that: 1. The extensor minimi digiti was originally the fifth belly of a short extensor. 2. The anconeus belonged more properly to the extensor carpi ulnaris than to the triceps. 3. That the occasional extensor brevis digitorum manus in man was not homologous with the extensor brevis digitorum pedis, but to the occasional deeper slip of that muscle. Finally, that the nerve to the anconeus was homologous to the branch of the anterior crural, which sometimes supplied the tibialis anticus.

Vestigial Muscles.—Mr. J. BLAND SUTTON then read his paper on vestigial muscles, which, he said, reviewed the subject of Dr. Brooks's communication from an entirely different standpoint. Man, in common with the quadrupeds, originally had a deep as well as a superficial set of extensors for the fingers. The deep set originally arose from the external condyle of the humerus and adjacent olecranon; gradually they migrated down the ulna. As they descended they carried the posterior interosseous nerve with them. By degrees the middle slips regressed into fibrous tissue, and their nerve became imbedded in their remains on the back of the carpus. Gimbernat's ligament and the triangular fascia were then argued to represent a ligament which binds the epipubis to the ilio-pectineal line in the marsupials, and the ilio-femoral ligament was said to represent the gluteus quartus.

Specimens.—The following specimens were also shown: Professor THANE: Obliteration of the Coeliac Axis: Collateral Circulation established through the Pancreatico-duodenal Arteries.—Professor CROFTON: Interparietal Bone; Double Arch of Aorta, enclosing Trachea and Oesophagus; Constricted Arch of Aorta, with enlarged Anastomotic Branches.—Mr. KENNY: Abnormal Relation of Phrenic Nerve to the Subclavian Vessels.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THURSDAY, FEBRUARY 9TH, 1888.

LAWSON TAIT, F.R.C.S., President, in the Chair.

Ununited Fracture.—Mr. VINCENT JACKSON exhibited a patient, aged 27, who was seen last March on account of an ununited fracture of both bones of the right leg at the lower third, injuries received eight months previously. The operation consisted in most carefully removing by cutting, snipping and scraping all the soft tissues connecting the ends of the bones, then placing these in apposition, and after each fragment had been pierced by a bradawl, they were permanently fixed by being nailed together by two wire nails two inches in length, the heads of which were buried in the soft parts, and at the present time were to be felt subcutaneously. The operation wound healed within a fortnight, and when the plaster-of-Paris case, after being worn for eight months, was permanently removed, it was evident that the most perfect union of the fractured bones had resulted.

Suprapubic Lithotomy.—Mr. VINCENT JACKSON exhibited a man, aged 57, upon whom he had, in December last, performed the operation of suprapubic lithotomy for the removal of a uric acid calculus weighing fifty-one grains, tightly fixed in a diverticulum at the extreme posterior limit of the base of the bladder on the left side. It had previously been attempted to remove the calculus by perineal lithotomy.

Loose Cartilage.—Mr. VINCENT JACKSON showed a loose body recently removed from the right knee-joint of a gentleman, aged 27. The measurements of its longest and shortest diameter, as well as of its thickness, were $2\frac{1}{2}$, $1\frac{1}{2}$, and $\frac{1}{2}$ inches. Within a fortnight the operation wound into the joint had quite healed.

Successful Nephro-lithotomy.—Mr. BENNETT MAY brought to the meeting a young man whose case presented some unusual features. The number of calculi removed from the left kidney was four; they were very small and faceted, the total weight being twelve grains. In spite of the fact that the kidney, when operated on, was enlarged and dilated, the patient was now (four months) perfectly well in every respect. Hematuria occurred eight years ago, and since then he had never been free from symptoms. For the last year the pain after exercise had been unbearable, and he had been in bed for a month. There was much pus in the urine. Remarking on the good fortune which had attended the exploration, Mr. May said he thought these small calculi must together have acted as a ball-valve in the ureter, and that the sudden

recoil and outflow of urine which took place on incising the kidney substance brought them within easy reach of the finger. They were all he could find on a careful and prolonged search. The patient rapidly recovered, had remained perfectly free from pain, though engaged in a laborious occupation, was now in perfect health, and his urine showed no trace of the former deposits.

Specimens.—Mr. JORDAN LLOYD exhibited a typical raspberry-like adenomatous polypus, removed from the rectum of a man nearly 70 years of age. Haemorrhage of between two and three years was the only symptom. He also showed a large sebaceous cyst which he had excised from the abdominal wall of a woman 50 years of age, and which presented all the phenomena of irreducible umbilical hernia.

Cholecystotomy for Gall-Stones.—Mr. LAWSON TAIT exhibited a large solitary gall-stone, from a case of suppurating gall-bladder, which he had operated on about a fortnight previously. At the time of the operation, the gall-bladder was in a condition of suppuration, and was adherent to the surrounding viscera, but not to the parietal peritonium. Its walls were very thick and friable, and it was with great difficulty the stone was brought to the surface. The patient made an easy and rapid recovery. This was the last of a series of forty-one consecutive cases in which Mr. Tait had performed the operation of cholecystotomy, and he had only two fatalities in the series, in both of which the operation did not seem to make any difference as to the progress of the disease, as it was malignant, associated with gall-stone.

Uterine Appendages.—Mr. LAWSON TAIT also showed the uterine appendages of a case recently published, in which the operation was performed for intense hysterio-epilepsy. Professor FORRÉ had made an effort to remove the appendages six weeks before, but had completely failed on account of the dense adhesions, evidences of which were to be seen all over the surfaces of both tubes and ovaries. Both tubes were occluded, and had been occupied by a small amount of serous fluid. The patient had had no return of the symptoms since the operation, now nearly four months.

Modification of Tait's Trocar.—Mr. LAWSON TAIT showed a modification of his trocar which had been forwarded to him by an American surgeon as an improvement. It was made of vulcanite, and consisted of the old-fashioned arrangement of an inside tube and outside slide, and the apertures of the trocar could be closed either by intention or by accident. This, in Mr. Tait's opinion, was the great drawback, because if the trocar was in a cavity and there was any fluid left in the cavity, under no circumstances ought the apertures in the trocar to be closed, for the intention was that the fluid should run out of the cavity. If, on the contrary, there was no fluid in the cavity to run out, no harm was done; but if there was fluid to be extracted, and by an accident the apertures of the trocar were closed, serious mischief might arise. Therefore it could not be necessary, under any conceivable circumstances, to close the apertures of the trocar, and in his opinion the so-called improvement was a mistake.

Gall-stones.—Mr. LAWSON TAIT also showed a preparation of three gall-stones of large size impacted in the common gall-duct. They were so situated that they might have been reached from within the peritoneal cavity and crushed, as Mr. Tait had done in several instances, from outside the duct, the fragments then passing on. The preparation was sent to him by Dr. Forty, of Wotton-under-Edge, and showed clear evidence of the evil results which would have accrued from removal of the gall-bladder—the so-called operation of cholecystectomy. If this had been done with the gall-bladder occluded as it was, all the bile would have flowed into the peritoneal cavity. As it was, the patient lived for many years after a cholecystotomy for the removal of a large number of gall-stones, and these were left in the duct.

Tumours of the Bladder.—Mr. G. BARLING read an exhaustive paper upon this subject.

THE LABOURERS' ACT.—The Clonmel guardians have agreed to pay their medical officers a fee of five shillings for each cottage examined and reported upon under the provisions of this Act.

UNUSUAL DEATH-RATE.—The Medical Officer of Motherwell reports for the month of January a death-rate equal to 50 per 1,000 per annum. During the month, 40 out of the total of 74 deaths were caused by zymotic disease, 22 being due to measles, 12 to whooping-cough, 4 to scarlet fever, and 2 to diphtheria.

The will of Dr. James Cato de Castro, formerly of Ilinde Street, Manchester Square, but latterly of Torquay, has been proved; the personal estate valued at upwards of £22,000.

REVIEWS AND NOTICES.

THE USE OF ELECTRICITY IN GYNÆCOLOGICAL PRACTICE. By GEORGE J. ENGELMANN, M.D., Professor of Obstetrics and Diseases of Women, St. Louis Post-graduate School of Medicine. (Reprinted from the *Transactions of the American Gynæcological Society*, vol. xi, 1886). New York: D. Appleton and Co. 1887.

DR. ENGELMANN, of St. Louis, has earned the right to be considered as an authority in the application of electricity to gynæcology, along with Apostoli, Cutter, and Steavenson. This memoir includes a definite system of electric measure and dosage. The author rightly dwells on the difficulties which attend the use of electrical apparatus. He distinguishes nine radical errors into which practitioners have fallen. These errors are, first, the empirical use of electricity, and the want of proper indications for the use of this powerful agent; secondly, ignorance of the powerful action of the pole direct and use of the interpolar current, inferior as a remedial agent; thirdly, indiscriminate use of the various forms and modifications of galvanic and faradic current; fourthly, indiscriminate use of both poles; fifthly, want of localisation and diffusion of current; sixthly, lack of exactness, if not total absence, of measure and dose; seventhly, the use of currents too weak to be effective, and the too ready limiting of their intensity by the pain which they inflict; eighthly, the long duration of sittings long continued; and ninthly, the lack of proper electrodes and of instruments of precision.

An instructive commentary is given on each of these errors, and the right path is indicated. Some good comparative tables of the effects of galvanic and faradic electricity are placed alongside each other. In the essential part of the memoir are paragraphs on the management of the apparatus and the application of the poles. Dr. Engelmann agrees with M. Apostoli in his theory of the action of the positive and negative poles when the galvanic current is employed. A long series of cases concludes the memoir. We need hardly say that, on the whole, brilliant results are claimed, but the cases are fairly reported. Each demands close scrutiny, and we know the great difficulties which attend any attempt to determine the precise agent which has brought about the cure of any given case. We do not wish to be sceptical about Dr. Engelmann's system; we rather commend his method of teaching it through a literary medium. The matter, at first sight, looks very heavy; but the man who takes to electrical apparatus must work hard, and cannot expect to find his preliminary instruction light. Dr. Engelmann has altogether been merciful to his pupils, that is to say, his readers; he does not terrify them with long scientific tables, loaded with figures, decimal points, and still less familiar mathematical symbols. We regret, however, that, owing no doubt to its publication as part of the archives of a Society, it is not illustrated. Some good diagrams of the parts of a battery and some drawings of the method of application of the poles should have been added. Lastly, we cannot share the author's confidence about the partial cure of a case of ovarian sarcoma with perimetritis by electricity. The most experienced authorities may take many curable abdominal affections for ovarian tumour; and a sarcoma of the ovary is not always easy to recognise, even when exposed by abdominal section, which does not appear to have been done in this case; adhesions, too, are not so readily diagnosed as the author here implies. Electricity may, some day, be made to cure malignant tumours, but first we must be sure both of the electricity and of the tumour.

LIGHT DIET: A HANDBOOK OF DIET AND COOKERY FOR ALL CLASSES OF INVALIDS. By H. W. SEAGER, M.B., etc. London: Simpkin, Marshall and Co. 1887.

SOME acquaintance with, at least, the elements of the art of cooking is a very necessary part of the outfit of a successful practitioner of the art of medicine; Dr. SEAGER's book is intended for the use and information of the lay patient, and the receipts it contains may be handed to any intelligent cook. It is, however, likely to be of great use to the physician; it is a careful compilation of receipts for the preparation of wholesome and palatable dishes from all varieties of food, which are classified in thirteen chapters, each provided with some general introductory observations. There are chapters also on enemata and predigested foods, on the feeding of

infants, and on drinks. Dr. Seager seems to have taken great pains to obtain trustworthy information, and to lay the results of his researches before his readers without prejudice, and the book is quite free from the "fads" which sometimes diminish the value of works intended for the use of invalids. The author has taken the word invalid in a wide sense, as may be gathered from the following quotation: "Sucking-pig is too rich for most people, but is so excellent a dish that it seems a pity to forbid it altogether."

The introductory observations prefixed to the various chapters are short and to the point, giving trustworthy particulars as to the properties of each class of food; but the collection of receipts could only be really judged by experiment in the kitchen, though the majority are fairly well known and approved. The directions for preparing predigested foods ought to have been more precisely given, as the method is unfamiliar to most people, even to many trained nurses; it may be observed in passing that the glycerine extract of pancreas will keep for a longer period than "several days," and the quantity directed to be used for each injection is unnecessarily large. We have noted a few statements which are, to say the least, open to question, and contrary to opinions founded on long experience, as, for instance, that snipe is better than woodcock, and that both are very digestible; that pheasant is "a much over-rated bird; he has little more flavour than a chicken, and is not nearly as digestible." The remarks on wines are on the whole sound, but it is not correct to say that "marsala is an inferior, madeira a superior, sherry;" neither does it seem very judicious to write: "Sweet wines, for example, tokay, malaga, malmsey, port, Lacryma Christi, etc., should only be taken in liqueur glasses with a plain biscuit when the stomach is not full, and are good as a stop-gap between meals." Aside from the danger of inducing habits of intemperance, by advising or permitting such "nips" between meals, the best opinion is that port wine should be taken after dinner, no wine, or very little, being taken during the meal.

MANUAL OF HYPODERMIC MEDICATION. By Drs. BOURNEVILLE and BRICON. Translated from the second edition, with additions, by ANDREW S. CURRIE, M.D. Edin. London: H. K. Lewis. 1887.

THE method of administering drugs by injection of their solutions into the subcutaneous tissue is not much more than thirty years old. It is true that a few physicians had from time to time resorted to the method in an experimental kind of way for some years before the publication of Dr. Wood's treatise in 1855, but the method did not come into general use until after that date. Questions of priority are always rather unsatisfactory topics of discussion, and this is especially so in this instance, for physiologists had used the method since the beginning of the century at least, and the application of the method to the human subject is hardly to be accounted a stroke of genius, though creditable to the adopter, whoever he may be, whether Rynd, Taylor, Washington, or Kurzak. Practically, in this country at least, the method has been used for a very limited number of drugs only, and it will probably be a surprise to many readers to learn that Drs. BOURNEVILLE and BRICON treat of over one hundred drugs which have been (with varying frequency and success it is true) administered hypodermically in disease.

The *Manuel* of these two authors is so well arranged, accurate, and portable, that it is rather surprising that it has never been translated before. It has not been a difficult book to translate or adapt to English measures. Dr. Currie has done his work, so far as we have been able to judge, well, and his notes and additions are, as a rule, judicious. It is a pity that the publisher has not better seconded the translator's efforts by bringing out the volume in a neater and more portable form.

The main body of the *Manual* consists of a series of articles on the various drugs arranged in alphabetical order, after the manner of the *British Pharmacopœia*. The physical properties of the drug are first described, then its physiological effects, and antidotes, next formulæ which have been employed are given, and, finally, the therapeutic uses are indicated. As the authors confess, many of the formulæ given are not good, and it is doubtful whether any useful purpose is served by preserving them in a work so well-known and so highly valued as MM. Bourneville and Bricon's *Manuel*. Many of the drugs also have never come into actual use, and it is hardly probable that they will ever pass beyond the experimental or tentative stage.

Dr. Currie has increased the value of the *Manual* for reference in emergencies by adding a therapeutic index based on those contained in the well-known works of Dr. Ringer and Dr. Lauder Brunton. He has also drawn up a table of antidotes and antagonisms, a posological table, and a general index. He has written several articles, which are well up to the mark, and has throughout the work taken great pains to make the information furnished complete and accurate.

NOTES ON BOOKS.

Longley's Student's Pocket Medical Lexicon. (Edinburgh Young J. Pentland. 1888.)—This is a new edition of a little work which usefully fulfils its purpose. It places in the hands of students a dictionary of over seven thousand words, embracing all the words and terms in most general use in medicine and the collateral sciences, with the pronunciation of each word fully and distinctly indicated by means of the American phonetic alphabet, which requires very little patience to acquire. The meanings are tersely, accurately, and well expressed. Of course such a work as the present is not intended to supersede the larger and more comprehensive works of Thomas, Dunglison, and the like; but as a pocket medical lexicon for students it fulfils in an admirable degree its useful object. An appendix, giving a list of poisons and their antidotes, renders the work additionally valuable. There are also given the abbreviations used in prescriptions and the metric scale of doses. As a compendious pocket guide for medical students, a veritable *multum in parvo*, we can warmly recommend it.

Travels in the Interior, or the Wonderful Adventures of Luke and Belinda. By LUKE THEOPHILUS COURTENEY. Edited by a London Physician. With Illustrations by Harry Furniss, and Original Scientific Drawings by L. T. C. London: Ward and Downey, 1887.—It is rather curious that *Alice in Wonderland* has found so few imitators; other works of imagination and humour, far less successful in catching the popular fancy, have set a fashion followed with a brief period by many writers; in this volume, "edited by a London Physician," we have a sort of *Alice in Wonderland* with a purpose. Alice, whose name however is Belinda, is accompanied by her brother, a new-fledged M.R.C.S., and his friend; like Alice, they incautiously eat a magic sweetmeat, and decrease so rapidly in size, that they are accidentally carried into their uncle's mouth, where two of the party find a temporary refuge in a hollow tooth. The M.R.C.S. is an inventive genius, somewhat ahead of the day perhaps, who is provided with a pocket electric light, a wonderful apparatus for waterproofing clothes, and a still more remarkable respirator; thus armed, the pigmy travellers visit the tympanum and the larynx, travel down the œsophagus, watch the process of digestion in the stomach and duodenum, bore their way into a lacteal, journey through the receptaculum chyli and thoracic duct, gain a cutaneous vein, and finally after many hairbreadth escapes, reach the surface, and regain their natural dimensions. The M.R.C.S. and his friend discourse pleasantly at the various stages of the journey, explaining to the inquisitive Belinda the significance of the various structures and processes observed. The information thus conveyed is always accurate, and we have indeed noted one point, the mode of absorption of fat by the lacteals, where the statements are an advance on these still made, if we mistake not, in the ordinary textbooks. The story is well told, and if young people can be induced to get over a little natural repugnance to the subject, and to being taught under the guise of amusement, they will become sufficiently interested in the fortunes of the adventurous travellers to follow them to the end. Mr. Furniss's illustrations will conduce to this; they are well and gracefully designed, and realise the ideas of the author, without the least suspicion of coarseness.

Dr. WEST asks us to correct the statement in the roll of the Royal College of Physicians, to the effect that he has taken up his residence in Rome; he continues to reside and practise in London, and is merely absent on a short holiday.

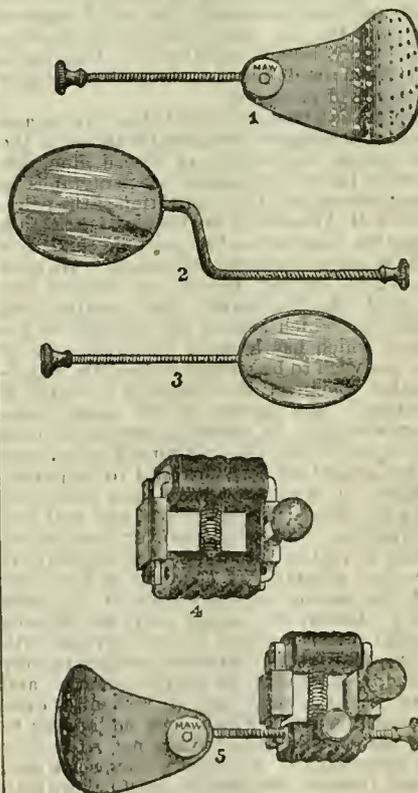
PRESENTATION.—On the occasion of leaving Byers Green, for Whitburn, near Sunderland, Dr. McKane has been presented by some of his late patients and friends, with a handsome microscope as a token of esteem.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW GAG WITH THROAT GUARD.¹

By JOHN WARD COUSINS, M.D.LOND., F.R.C.S.,
Senior Surgeon to the Royal Portsmouth Hospital, and to the South
Hants Eye and Ear Infirmary.

The instrument exhibited in the engraving consists of a gag in combination with a throat guard, mouth mirror, and tongue depressor. The gag is small and square-shaped (Fig. 4), and it can be opened and closed when placed in position in the mouth. The dental surfaces are made of steel, covered with thick pads of red rubber, and they are supported on either side by sliding bars and a metal collar. The bars are expanded by a central spring, and fixed by a rack and screw adjustment. The lower dental bar is tunnelled for the purpose of carrying the stem of the guard or mirror. By rotating the stem in the gag, the mouth-plate of the



appendage is readily shifted, and then, by turning a binding screw, it is securely fixed. The gag with the throat guard, attached to it is shown in Fig. 5. The plate of the guard is spoon-shaped, and half of its surface is perforated with small openings, so as to permit the passage of air (Fig. 1). It is also flexible, and can be easily bent to fit a shallow mouth. When placed obliquely on the fauces, its posterior edge rests against the anterior pillar, and it thus forms a complete protection to the throat. The guard divides the oral cavity into two parts, at the same time it acts as a very efficient tongue depressor.

The gag is especially designed for the purposes of dental surgery, and for other minor operations on the mouth and gums. It can be used with safety during the administration of chloroform or nitrous oxide gas, and the guard is a great protection against the slipping of a tooth into the throat, an accident which may happen even to a careful and dextrous operator. It, moreover, enables the mouth to be readily cleansed of blood, and prevents it from entering the respiratory passages. The guard is generally very easily adjusted without causing any discomfort to the patient; but, whenever the fauces are extremely sensitive, it must be introduced with care and gentleness. In many cases the irritability is removed at once by the application of a solution of cocaine to the throat. The mirrors serve for tongue depressors, and they are adapted to illuminate the mouth in any direction. They are made in several sizes, and with both straight and angular stems (Figs. 2 and 3). The buccal mirrors are not represented in the engraving; they

¹ Exhibited in the Section of Surgery at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

consist of narrow reflecting plates, which are fixed at right angles on flexible stems. The right upper buccal mirror can be used for the outer surface of the left lower molars, and the left upper mirror can be fixed on the right side for a similar purpose. When in position the buccal plate gives a complete view of the outer surface of the teeth and gums, and acts also as a cheek distender, and compressor of Steno's duct. All the mirrors can be very conveniently used for dental operations, such as stopping and sealing, and they are intended as substitutes for the ordinary dental mirrors, which are often encumbrances in the hands of the operator. The gag is manufactured by Messrs. Maw, Son, and Thompson, of London.

HARTMANN'S SANITARY WOOD WOOL SHEETS, AND HARTMANN'S SUBLIMATE LOTIFORMS.

THESE new preparations have been submitted to our notice by the Sanitary Wood Wool Company, of 11, Hatton Garden, E.C.

The sheets consist of a good thickness of Hartmann's well-known wood wool enclosed in gauze, and secured so that when used the wool does not shift its position. They are made of various sizes, those of about three feet square being, perhaps, as convenient as any. They can be used in place of mackintosh sheeting in lying-in cases, as well as in other cases where there is a large secretion or discharge from which the bedding requires protection. These sheets possess the advantage of having no odour. They are very soft and absorbent, and, being antiseptic, the secretion and discharges absorbed by them do not tend to decompose.

The lotiforms consist of small pledgets of coloured wool, enclosed in a little gauze bag. They are impregnated with corrosive sublimate to such a degree that one lotiform cut open and placed in two pints of hot or cold water, and stirred, will give a solution of a strength of 1 in 10,000. This strength can, of course, be varied by using a larger or smaller quantity of water. The lotiforms are cheap and portable, and very convenient for making extemporaneously a solution of corrosive sublimate, either for vaginal injection or for general use as a lotion. Owing to the nature of the material of which they are made, there is no danger of their being swallowed by mistake.

CALVERT'S CARBOLIC LOZENGES AND CAMPHORATED CARBOLIC SOAP.

THESE preparations are made by Messrs. Calvert, of Manchester, the well known manufacturers of carbolic acid. The lozenges contain one-fifth of a grain of pure phenol, and are as palatable as any lozenge can be containing such a proportion of carbolic acid.

The camphorated carbolic soap is recommended to prevent chapped hands and insect bites. As a bath soap it will be found useful in destroying the odour of perspiration, and leaving the skin in an agreeable condition. It can also be used generally for those skin diseases in which the application of a mixture of carbolic acid and camphor is indicated. The soap lathers well, and it has a wholesome and pleasant odour.

GLASS STETHOSCOPES.

MR. ALEX. FAULKNER, M.R.C.S. (London), writes: I should like to bring to notice an improved stethoscope which I had made for myself, and which I have used for some time. It is made entirely of glass, and there is no loss of continuity in its construction, its cylindrical portion being either solid or hollow, and its shape is similar to other ordinary stethoscopes in general use. It is an excellent conductor of sound.

TUNBRIDGE WELLS URBAN.—A comparison of the death-rates of this district with those of the twenty-eight large English towns for 1886 elicits from Dr. Stamford the boast that no town of the same population suffered so lightly, judging from the mortality statistics, as Tunbridge Wells. Moreover, he was so satisfied with its condition at the close of the year that he had no further measures of sanitary improvement to recommend. Only 20 deaths resulted from zymotic disease, and half of these were due to diarrhoea. The sufferers from this disease were nearly all infants, and the deaths were in the third quarter of the year, facts which Dr. Stamford remarks upon, and which lead him to doubt whether the deaths were due to zymotic origin. He attributes them rather to fermentative change in the food. Twenty-two cases of scarlet fever were removed to the sanatorium, and all were discharged convalescent. One death from this disease took place in the town. The general death-rate was 14.4 and the zymotic rate 0.7 per 1,000.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, FEBRUARY 18TH, 1888.

LESSONS FROM SHEFFIELD.

SURELY something must be wrong in the education given to the people, or it would not be possible in a town like Sheffield, at the close of the nineteenth century, to find such an amount of ignorance, prejudice, credulity, and folly as was seen in the Temperance Hall of that town, on the evening of February the 9th.

A Mr. Herring, of Leeds, gives out that he can cure small-pox in two days. At once a memorial is signed by 2,000 persons requesting the Mayor to convene a meeting before which Mr. Herring could explain his plan of treatment. The requisition further stated that, notwithstanding the fact that Mr. Herring could get no recognition from the Corporation, he had come to Sheffield, and already successfully treated a number of cases, particulars of which could be produced at any time. In response to this document the Mayor, very foolishly as we think, called a meeting, at which he himself took the chair. The hall, a large one, was crowded to its utmost capacity, and so great was the attendance that many persons were unable to gain admittance, while the wild enthusiasm shown by the audience was a noteworthy feature of the meeting.

A person named Adams moved the first resolution, which was, like the remaining one, carried by acclamation. It was this: "That, in the opinion of this meeting, the fearful state of small-pox in the town, the damage to shopkeepers and trade in general, the fearful loss of life, and the consequent suffering therefrom, demand that prompt action be taken by the health authorities to extinguish the disease, and so lift the town from its present unenviable position."

Mr. Hill, the seconder of this resolution, made the statement that when a man suffering from small-pox got into Mr. Herring's bath, with the water up to his neck, and had his head sponged, it was "domino" with the disease; he does not explain, however, to what extent it is likewise "domino" with the patient.

The second resolution was, if less grammatical, more definite in its recommendation; it ran as follows: "That this meeting having had produced before it such evidence of Mr. Herring's ability to reduce the disease in an incredibly short time, and having regard to his offer to the town of Sheffield, which he now repeats, we request the Town Council to engage him at once, and

place him in a position for showing the efficiency of his treatment of small-pox cases."

In the course of the discussion, Mr. Herring gave his auditors an account of the *rationale* of this treatment; it was beautifully simple. "The blood was reduced to its natural heat; and as the blood was stopped from being inflamed, the flesh was prevented from being mortified. The disease was stopped in two minutes."

An admirer of Mr. Herring, to whom the latter might justly say "save me from my friends," at this stage asked him how many cases of small-pox he had dealt with before he came to Sheffield, during the twelve years he had been in practice, and what had been the result of his treatment in these cases.

This was Mr. Herring's remarkable reply, reported in his own lucid and elegant language: "He had cured hundreds of people who had been crippled with rheumatism and drawn all shapes." "As regards small-pox," continued he, "I have only had four cases, which was cured direct in a state of fever—no spot on them. One young man that come, he had got into a state while his flesh was beginning to inflame a bit, and under the treatment it simply showed where he would have a spot, and that was gone away when the medicine was dried in. As regards typhoid it is as bad as small-pox, and it is as readily cured by this treatment. Scarlet fever, I have cured hundreds of children and grown-up people—hundreds. Once at Batley I cured twenty-six children in three days."

Mr. Paul Gill asked Mr. Herring if it was true that a person had died under this treatment? But he was promptly extinguished by a woman who cried out from among the audience, "How many have died under doctors?" and by Mr. Herring, who, amid loud and prolonged cheers, said: "The answer is simply this; the man was dead when I went to him." At this the Chairman interposed, and declared himself shocked at Mr. Herring's statement, for that person, in speaking privately to him a few minutes before of this very case, had said that the man was not dead when he was called in to him, but so ill that he dared not give him a bath, but simply bathed his face with the remedy. Mr. Herring, however, was equal to the occasion; he replied: "I did not say he was lifeless, I said he were dead; his flesh were dead; he was simply breathing in and out of his mouth, and that was nearly closed. His flesh were all gone; no life in it. Of course, if there is no life in your flesh you are dead, are you not? I did not mean to say the man were lifeless, I said he were dead."

After this luminous explanation, which, however, drew forth the taunt from one of the audience: "You ain't had a school-board education," the resolution was passed unanimously amid loud cheers. On his way from the meeting Mr. Herring was followed for some distance by an enthusiastic and cheering crowd.

While the people of Berlin press round Prince Bismarck with their enthusiastic applause as he walks from the Reichstag after making a speech which echoes throughout Europe, the inhabitants of Sheffield can find no better object for their hero worship than a mischievous and ignorant pretender. We trust this is no

symptom of a degeneration of our countrymen, but only a passing example of the truth of Carlyle's dictum, "That England is inhabited by thirty millions of people, mostly fools."

Both this meeting and its cause have several lessons even for wise and scientific men. They show that an epidemic, if not prevented by isolation and separation in the first instance, may, in spite of all subsequent efforts, become an endemic plague, throwing the people of the affected district into panie terror, and making them the easy prey of quacks and charlatans of all kinds. They show, too, that without local or general Acts for the compulsory notification of infectious disease, preventive measures are merely a delusion and a snare.

Leicester, with its explosive population and under an Act for compulsory notification, stamps out each case of small-pox as it arises. Sheffield, partly protected, which refuses such a clause, becomes a very pest-house, injurious to its own inhabitants, their trade and life, and a source of danger to the whole country.

Another lesson is the importance of instructing the people in the causation and course of disease by means of classes and lectures and private instruction, in order that they may be protected from such folly as the Sheffield Temperance Hall meeting. Let them learn the etiology and course of this and all kindred diseases, and they will not be prone to believe that what the wisest and most learned of our physicians, from Sydenham to Murchison, have declared to be impossible, an uneducated pretender from Leeds can accomplish with ease.

Let the public also learn from the action of our own body, from our private conduct and our public pretensions, that the days of empiricism and theoretical pathology are passed away—that we are not believers in the possibility of cure by the vague and indiscriminate administration of drugs. That in some few diseases there are specific remedies; that in others we can guide the patient safely through an illness, which we can no more check, or seek to check, than the skilful pilot quiets the raging storm, through which, however, he steers his labouring ship to its desired haven.

Let us also insist, both publicly and in private, that no valuable discovery in healing has ever been made by the compounders of quack medicines, and that they are simply impostors, growing rich on the credulity of silly people. Let us also agitate for some such wise law as that of France; that the composition of every patent medicine shall be declared before it is permitted to be sold. As to Mr. Herring, if the Corporation of Sheffield does not ignore his modest request to treat patients in the Fever Hospital, it should be granted on one condition, that, in case of failure, he submit himself to be publicly whipped at a cart's tail from the hospital to the Temperance Hall, as a detected impostor, a rogue, and a vagabond.

The thanks of the people of Sheffield and of our profession are due to Sir William Leng, the editor of the *Sheffield Telegraph*, for the judicious method in which he has reported this meeting and exposed and ridiculed this nineteenth century repetition of the folly and ignorance of the Middle Ages.

STUDIES IN THERAPEUTICS:

III.—RECENT CARDIAC TONICS.

DIGITALIS still holds its own as the most powerful heart tonic which we as yet possess, and the most permanent in its effects. But its use is more or less contra-indicated in certain forms of disease of the heart; and, on the other hand, it is sometimes found that digitalis is not well tolerated even in cases apparently suitable. In fact, a watchful care is required whenever this drug is given, not only at the beginning of treatment, but as long as it is continued, because alarming symptoms may arise at any time during its use, although its so-called "cumulative" effects are questioned by several recent observers. Of late years ceaseless efforts have been made to find some other means of strengthening the heart's action safely as well as certainly in cases of failure of compensation.

Oertel, dispensing with drugs altogether as far as regards the heart, effects this by muscular exercise, graduated to suit the patients. He finds hill climbing to be the best means of stimulating the heart muscle to increased action, and thereby promoting increased growth of its fibres. The excess of water connected with venous stasis is for the most part previously removed from the blood, and altogether it will be found that the treatment adopted is exactly that calculated to put the patient "in good condition," just as a horse is trained for racing. Grooms are sparing in the amount of water they give to hunters and racers during severe exertion; when cool the animal will not drink too much even with water constantly before him. But man is a very different animal, and there is no doubt that most people imbibe much more liquid, of one sort or another, than is necessary for the physiological requirements of the body. Oertel's work on circulatory disorders is now to be had in English, and it is to be hoped that it will receive the serious attention which it deserves, but which it has not yet obtained in this country. The manner in which the heart muscle grows larger under increased exertion still requires explanation. Stricker is of opinion (*Vorlesungen*, 1883) that together with impulses to the motor muscles of the body during work, impulses are also communicated to the vasomotor nerves of the viscera, causing a rise of blood pressure, which would explain the persistency of the increased blood pressure after the exertion is over. Nothnagel attributes this increased blood pressure to compression of the peripheral vessels during muscular exercise, and, moreover, regards the increase of carbonic acid in the blood caused by work as a stimulant to the heart. Practically speaking, it is of course understood that hill climbing is only suitable in cases of insufficiency of the heart muscle when this condition is not too far advanced; if this be the case, Nothnagel very properly calls the method a "two-edged sword." But Oertel does not advocate sending a patient—for example, with severe valvular derangement, an irregular pulse, and œdema about the ankles—straight to the mountains to be walked up and down. Von Bamberger advocates Oertel's method, but he also would confine its application to commencing in-

sufficiency of the heart muscle, with or without valvular derangement.

The double salts of caffeine, as examined and recommended by Riegel, have attracted some attention as a means of strengthening the heart's action; but their use is not altogether free from danger, and again they sometimes fail wholly in effect. They have not succeeded in coming into general favour.

Sparteine (sulphate) is the next claimant of our attention. Sparteine is a base derived by Stenhouse from *spartium scoparium*, and pronounced by Mills to be a tertiary diamine having the formula $C_{15}H_{26}N_2$. It is a colourless alkaline liquid, boiling at $287^{\circ}C.$, of penetrating, disagreeable odour and very bitter taste. It is heavier than water, and only slightly soluble therein, easily soluble in ether or chloroform. It forms crystalline salts with acids, from which it is precipitated by alkalis. The sulphate is the best salt medicinally. Fick studied the action of sparteine on the animal organism, and Froumüller established its diuretic effect. Recently it has been rescued from oblivion by Germain Sée (*Comptes Rendus*, 1885, No. 21), who recommends it warmly as a cardiac tonic. This observer declared that sparteine had a stronger effect in prolonging systole and increasing the energy of the cardiac contractions than even digitalis or convallamarin; also that rhythmic action was re-established, and that the pulse was rendered fuller and slower. A diuretic effect was not observed. Voigt (*Wiener med. Blätter*, 1886, Nos. 25-27) concluded that sparteine was a valuable drug, worthy to be placed beside digitalis, but that it had not the persistency of the latter in its effects, which, however, were superior to those of caffeine, adonis vernalis, and convallamarin. Increased diuresis frequently resulted, but in this respect sparteine was easily exceeded by other medicines. Voigt recommended sparteine in insufficiency of the heart muscle, with or without valvular disease, in pericarditis, and as an adjunct to digitalis, or rather an occasional substitute. Leo (*Zeitschrift f. klin. Med.*, 1887, p. 143) found that sparteine acted as a powerful diuretic, and was beneficial in exactly those cases in which digitalis failed. The diuretic action Leo ascribes to direct irritation of the renal epithelium, and not to the increased blood pressure from increased cardiac action. Palpitations and cardiac asthma were much relieved, but whether from some narcotic influence or from increased cardiac action is left undecided. The last observer in this department is Dr. Prior, Docent in the University of Bonn (*Berliner klin. Wochenschr.*, 1887, No. 36). According to Prior, sparteine only occasionally acts as a diuretic in health; and this effect is probably due, when it occurs, to increased blood pressure. He found it to act better in valvular failure than in simple insufficiency of the heart muscle from other causes. Its effects were, on the whole, fairly constant, rapid, and marked, but did not persist long. In some cases the heart's action was regulated for a long time by sparteine, the urine being increased, and œdema diminished or removed. Dyspnoea and palpitation were relieved within two hours, often less, in severe cases of heart disease, even when the heart's action was unaltered; but the drug was of no use in bronchial asthma. A grain and a half of

the sulphate was found the best to begin with. No cumulative action was made out. Prior advocates the use of sparteine sulphate in those cases in which digitalis has failed to do any good; also when it is required to relieve severe stenocardiac attacks as speedily as possible, as sparteine often effects this even when the heart's action is unaltered by it. He also regards it as a valuable diuretic.

We have not space for convallamarin and some other drugs, but will conclude with a few words on strophanthin, a powerful rival to digitalis. Fraser first isolated the glycoside strophanthin from *strophanthus hispidus* (Kombé), and has written more than once about its uses. But it is only recently that the plant has been imported from Africa in sufficient bulk to allow of general investigation. At present, *strophanthus*, whether the tincture or strophanthin be used, is the strongest rival against digitalis in the field. Zerner and Löw have recently reported on the new drug in the *Wiener med. Wochenschrift*, No. 36. They support Fraser in his assertion that, unlike digitalis, strophanthus preparations do not cause arterial contraction. As regards the heart, diastole is prolonged, while systole is rendered shorter and more energetic. Irregularity of the pulse usually disappears under the use of strophanthus, but sometimes only a slight improvement in this respect is obtained. They found that for hypodermic injection of strophanthin, a milligramme (a little under a sixtieth of a grain) was a moderate dose, but preferred to give it by the mouth in doses between the thirtieth and the sixteenth of a grain. Experiments showed that in health no appreciable diuretic effect was exerted, while in disease the urine was often considerably increased by the use of strophanthin, and sphygmographic tracings showed that this effect was due to increased cardiac action, causing increased blood pressure. In one case of pleuritic effusion, increased diuresis persisted for some time, the patient taking forty-five minims daily of tincture of strophanthus, and the area of dulness steadily diminished. These observers strongly oppose the statement, often asserted, that strophanthus acts as an irritant to the healthy kidney; and, as above remarked, ascribe its effects solely to increased cardiac action. They are also against Fraser in his assertion that it is able to lower the temperature of the body, as they tried in vain to obtain this effect in bad cases of pneumonia. Indeed, unless in the stage of collapse, when strophanthus is eminently useful from the rapidity of its effect in stimulating the heart, they consider that this medicine is contra-indicated in pneumonia and fevers generally. The tincture is well tolerated if a little syrup of orange peel be added; a slight diarrhoea may follow, often beneficial; but strophanthin causes no discomfort in the proper doses. One case of myocarditis, with pulmonary and hepatic congestion, was cured by strophanthus after digitalis had been tried in vain. Two cases of fatty degeneration of the heart, which were not very far advanced, were also greatly benefited; but in a third extreme case no advantage was obtained from the drug, there being scarcely any heart-muscle left to act upon. But it is in valvular disease with failure of compensation that strophanthus is so useful. In one mitral case the writer was

surprised at the earnestness with which the patient begged for "more of the last medicine." He had been taking digitalis for some time previously without any marked benefit, but felt better after every dose of strophanthus, and his pulse became regular at once. Strophanthus does not appear to possess any "cumulative action," but time is required to show how far its undoubtedly good effects in appropriate cases are persistent.

THE SCHEME OF THE LONDON COLLEGES FOR DEGREE-GIVING POWERS.

As the weeks wear on, the opposition to the scheme promoted by the London Colleges of Surgeons and Physicians for obtaining for themselves exclusive powers for granting medical degrees to their members and licentiates in the future, widens and gathers strength. The University of Oxford has thrown its weight into the balance against the two Colleges, and the University of Cambridge is preparing to take the same course. Moreover, the London medical schools, although largely controlled by councillors of the two Colleges, and therefore slow to move in the matter, are beginning to awaken to the imperfections and dangers of a scheme which, while promising them much, offers the gift in so doubtful a shape that not even a supposed self-interest can blind them to the serious defects by which the scheme is disfigured. We have already pointed these out, and some of them are clearly indicated in the memorial from the Westminster Hospital Medical School. That memorial, which is drawn up with a full recognition of the advantages to London medical schools of reasonable facilities for acquiring the degree of medicine in London for the students whom they train, points out the palpable fact that of all the schemes which are now before the Privy Council, that of the two Colleges is the least satisfactory.

It is unsatisfactory for three main reasons—first, because it fails to give to the body entrusted with this new degree-giving power even a reasonably representative constitution. Neither the teachers as such, nor the competent colleges and medical schools as such, nor the graduates are represented in it. The degree-giving power would be given to a Senate, in which the teaching bodies of London would have no representative voice. The colleges and medical schools would have no power of appointing delegates to express their united opinions on any subject of teaching or examination, nor would the persons who sit on the Senate be in any way responsible to the schools for their votes or acts, or on any occasion be called upon to give an account to them of their proceedings. Again, the graduates of the university, to whom its interests, its reputation, and its development will be at least as dear and as important as to any other persons, would, by the proposed constitution, be totally excluded from any right to representation on the governing body of their own university. This is an anomaly of which we know no other example. The whole constitution of the university is imposed upon it by the self-elected and non-representative Council of the College of Physicians, and by the most inadequately constituted and imperfectly repre-

sentative Council of the College of Surgeons. No security is taken that the University would be administered otherwise than in the corporate interests of those two licensing bodies, and, in fact, every precaution is taken to prevent any interest which can be supposed to conflict with the individual and joint interests of those two bodies from being allowed even to have a voice in the management of the new University.

The spirit in which it is likely to be administered is further indicated by the fact that it is not proposed to constitute this new body as a degree-giving power for the students of the medical schools of London, all educated alike, under the same conditions, with the same curriculum, and with the same clinical and scientific advantages. But it is proposed to take from them the right of choice as to the portals through which they will present themselves for this higher grade, and to confine their selection exclusively to these two particular licensing bodies. In the name and with the object of granting degrees to the London medical students, an effort is made by this proposal for a charter practically to tie them up to selection of the Membership of the College of Surgeons and the licence of the College of Physicians as the sole mode of entrance. Thus, whether it be regarded from the point of view of the relation of the teaching bodies to the examining bodies, or from the point of view of a just and fair constitution of the University, or from the point of view of fairness to the medical students themselves, the proposition stands condemned. Most persons will agree with the memorial of the Westminster School in the opinion that of all the schemes before the Privy Council that of the College of Physicians is the most objectionable.

With the immense body of opposition which has now arisen to that scheme, in the profession at large, as represented by the Society of General Practitioners and the Apothecaries' Society, by the Scotch Universities, by the English Universities, and by the feeling in the medical schools which the Westminster memorial expresses, it is hardly conceivable that the Privy Council can adopt any other course than that which we have from the first advocated, of appointing a Royal Commission fully to inquire into the whole subject, and to arrange a scheme which shall meet all the just requirements of the case.

MR. E. H. BUSK, M.A., LL.B., who had much to do with the throwing open of the London University to women, has been nominated for election to the Senate, in opposition to Mr. James Anstie, Q.C.

DR. STRAUS has been unanimously chosen by the Professors of the Paris Faculty as the successor of Professor Vulpian in the chair of Experimental and Comparative Pathology. The regulations require two names to be submitted to the Minister of Public Instruction, and that of Dr. Hanot was chosen as the second.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A SPECIAL general meeting of the Medico-Psychological Association will be held at Bethlem Hospital, on Friday, February 24th, 1888, at 5.30 P.M., "To consider the recent appointment at the Hayward's Heath Asylum."

CREMATION.

WE are informed that during the present year already five cremations have taken place at the Woking Crematorium of the Cremation Society. One of them was a child eight months old, and the ashes weighed only eight ounces. Up to the present time thirty-one cremations have taken place at the Society's Crematorium. A gold medal was awarded to the Cremation Society of England at the Yorkshire Jubilee Exhibition lately held at Saltaire.

THE SECTION OF SURGERY AT THE GLASGOW MEETING.

THE President of the Surgical Section (Professor George Buchanan) will take it as a favour, if those gentlemen who propose to bring forward papers or cases in surgery will kindly give early notice of their intention, either to himself at 193, Bath Street, or to Dr. Knox, Local Secretary of the Surgical Section, India Street.

PROFESSOR LANKESTER AND THE VICE-CHANCELLOR.

PROFESSOR RAY LANKESTER has been defeated in his action against the Vice-Chancellor of Oxford University. Professor Lankester had objected to go from London to Oxford to hold a preliminary *vivâ voce* examination in animal morphology on the ground that it was useless, and not required by the statutes. The University authorities held that it was an integral part of the examination as required by the statutes, and dismissed the recalcitrant examiner. The Queen's Bench decided not to issue a *mandamus* requiring the Vice-Chancellor to reinstate Professor Lankester.

THE NATIONAL PENSION FUND FOR NURSES.

THE first meeting of the Council was held at the Offices, 38, Old Jewry, on Friday, February 10th. Mr. Walter H. Burns (Messrs. J. S. Morgan and Co.) was appointed Chairman, and Mr. Burdett Deputy-Chairman of the Council. Mr. Thomas Bryant (Senior Surgeon of Gny's Hospital), Mr. R. Brudenell Carter (the St. George's and National Epileptic Hospitals), and Major Ross, M.P. (Chairman of the Middlesex Hospital), were elected members of the Council. The tables, rates of premium, and other forms which the actuary had prepared were submitted, and arrangements were made for the completion of the necessary prospectuses, etc., for the information of those waiting to join the fund. The Earl of Aberdeen, Lord Rothschild, Messrs. E. A. Hambro, Henry Hucks Gibbs, and Junius S. Morgan were elected Vice-Presidents; and the Countess of Rosebery and Lady Rothschild patronesses. It was reported that several hundred names of those anxious to join the fund had been registered during the last three weeks, in addition to the 1,400 previously announced. Mr. Philip Grove was appointed Secretary, and all names and inquiries should be addressed to him at the offices of the Fund, 38, Old Jewry, E.C.

TREATMENT OF INEBRIETY.

FOLLOWING the example set by the Dalrymple House, Mr. Harrison Branthwaite has tabulated the records of the cases of inebriety treated by him at High Shot House, Twickenham. It would be well if the licensees of other retreats for inebriates followed suit. Mr. Branthwaite reports 50 cases of alcoholic inebriety in 2½ years, morphine cases being excluded. Of these, 27 were under the Habitual Drunkards' Act and 23 were received as private patients. The average age was 39.38 years; 30 were married, 18 single, and 2 widowers; all but 5 had had a good education; 9 were merchants, 7 in the army, 4 clergymen, 2 doctors, 2 artists, 3 hotel proprietors, 2 clerks, 2 gentlemen, 2 wine merchants, 2 timber merchants, besides a barrister, a solicitor, a journalist, an architect, a surveyor, a land agent, a builder, a student, a civil servant, a corn merchant, a linen draper, a grocer, and a boot merchant. There

was a history of heredity in 38 per cent., of insanity in 12 per cent.; 47 used tobacco; 45 were regular and 5 periodical inebriates. The average length of addiction was 9.84 years; 11 used whisky, 6 spirits, 4 brandy, 3 beer and whisky, 1 brandy and whisky, 1 wine, and 1 beer. In all but 6, either company, or occupation, or some other exciting cause, was present; this in one case being accident, and in another sunstroke. Some complicating disease was present in 11 cases. The average time under treatment was 5.5 months. Of the patients, 26 were doing well, 9 had relapsed, 7 were still under treatment, and 1 had died.

MEDICAL AND SURGICAL CONGRESSES IN GERMANY.

The seventh German Medical Congress will take place at Wiesbaden, from April 9th to the 12th, under the presidency of Professor Leube, of Würzburg. The following questions will be discussed:—1. Chronic diseases of the myocardium and their treatment. 2. Alcohol as a medicinal agent. 3. Prophylaxis and treatment of Asiatic cholera.—The seventeenth congress of the German Surgical Society will be held at Berlin, from April 4th to the 7th.—On the evening of April 3rd, the German Surgical Society and the Berlin Medical Society, will hold a special meeting in common for the purpose of celebrating the anniversary of the death of the late Professor von Langenbeck.

THE OFFICIAL REPORTS ON THE ILLNESS OF THE CROWN PRINCE.

The full text of Professor Virchow's last report on the case of the Crown Prince, together with an important statement which Sir Morell Mackenzie has presented to the Emperor of Germany will be found at p. 370. From the former it will be seen that the most careful microscopical examination has failed to detect any conclusive evidence of malignant disease. The substances examined consisted of one large and two smaller pieces of dead tissue, which had spontaneously become detached from the inner surface of the larynx. The larger of these sloughs contained a considerable amount of muscular structure, but no cartilage. The disintegrated tissue was thrown off from the site of the growth on which the diagnosis of cancer was founded. It is, therefore, a fact of the very highest importance that in this material no evidence of any morbid process beyond violent inflammation was detected. The two reports taken together seem fully to justify the best hopes for the future.

THE UNIVERSITY OF LONDON AND THE PROPOSED NEW UNIVERSITY.

The Senate of the University of London at its last meeting appointed a committee to watch the proceedings in the matter of the petition of the University and King's Colleges for the constitution of a Teaching University in London. The members of this committee are, we believe, Lord Herschell, Lord Justice Fry, Sir Julian Goldsmid, Sir John Lubbock, Dr. Quain, Dr. Wood, Mr. Hutton, and Mr. Fitch. At the same meeting a resolution was adopted calling the attention of the Home Secretary and the Lords of the Treasury to the petition, and asking for a full inquiry into the effect of such a charter on academic organisation, and on the interests of learning in the country generally; and without determining (a) whether the independent functions and duties of this University, which have been exercised for more than fifty years by virtue of charters granted by the Crown under regulations sanctioned by the Secretary of State, and with the aid of funds annually voted by Parliament, will not seriously be interfered with if a second University, composed exclusively or essentially of teaching colleges, be established in London; and (b) whether, as the Senate are of opinion, the objects promoted by the petitioning Colleges, so far as consistent with the interest of higher education in London, would not be more effectually ad-

vanced by a well-considered modification of the constitution of this University, such as the Senate have had under consideration, and would be prepared to submit, rather than by the foundation by its side of a new and probably less comprehensive University.

"STONE" OR "GRAVEL."

The short but pregnant paper of Sir Henry Thompson raises the question of nomenclature, which has a real surgical interest in the determination of surgical methods to be adopted in the treatment of stone in the bladder. It is, of course, important to know whether the various authorities are discussing what is really the same thing. We all know the old-fashioned designation of "gravel," and we know also that it has not been customary for surgeons gravely to discuss surgical operations in connection with the evacuation from the bladder of small calculous particles of insignificant size, which can often be washed out or spontaneously expelled. Sir Henry Thompson refers to certain instances in which there appears to have been rather an abuse of the ordinary nomenclature of stone in this relation, and it is, at any rate, of importance—especially for statistical purposes—that some sort of agreement should be general as to the size of a calculous particle, which should be dignified by the name of a "stone," otherwise statistics of the kind would soon come to have very little or no value.

SMOKE ABATEMENT.

The National Smoke Abatement Institution, on Saturday, February 11th, inaugurated a series of lectures at the Society of Arts, John Street, Adelphi, W.C. The chair was taken by Sir W. Aitkin, F.R.S., and a lecture on "Town Smoke and House Warming" was delivered by Mr. A. E. Fletcher, chief inspector under the Alkali, etc., Works Regulation Act. In his official capacity the lecturer has had great experience of factories and districts where black smoke was produced in much larger volumes than in the Metropolis, and he congratulated Londoners that in the absence of smoking manufactories they had really far from the worst conditions to deal with. The chief source of smoke in London was the domestic fires. The factories were admirably dealt with under the Smoke Prevention Act, which was well carried out under the Commissioners of Police, who were independent of personal interests. Although London had, during recent years, greatly improved, there was every reason for getting rid of the very considerable residue of black smoke which still affected its atmosphere and its fogs. Primarily, he laid great stress on the use of gaseous fuel; secondly, on the more perfect combustion of the coal itself when used direct as fuel. A discussion followed, in which it was stated that 600 tons of coal are daily burnt in the bakeries of London in the early hours of the morning.

REVACCINATION.

The Local Government Board have adopted the advice that the limit of age prescribed by the regulations of February 18th, 1868, respecting revaccination at the public expense, should be reduced, and they have issued an order, dated February 3rd, 1888, providing that in future revaccination may be performed by a public vaccinator under contract when the applicant has attained the age of 12 years (instead of 15 years as heretofore), or, in case there is any immediate danger of small-pox, the age of 10 years (instead of 12 years as heretofore), and has not before been successfully revaccinated. The term "public vaccinator" includes the medical officer of a workhouse, separate workhouse school, or infirmary; and, as regards children in those institutions, the order very wisely leaves a discretion in the hands of the medical officer by providing that he may, in any case in which he deems the primary vaccination to have been inadequate, revaccinate any child under the prescribed age who has not before been successfully revaccinated. The experience which is accumulating day

by day as to the great value of revaccination in mitigating the severity of small-pox epidemics, should stimulate local vaccination authorities to promote revaccination as well as primary vaccination in their districts. The step which has been taken by the Local Government Board will greatly facilitate any such action by enabling the revaccination to be performed whilst children are still at school, and before they have actually entered upon the serious battle of life. We trust that boards of guardians will, as we have often urged, take more special measures in the future than has been the rule in the past, to encourage the revaccination of young persons immediately the age of 12 years has been reached.

LORETA'S OPERATION ON THE STOMACH.

SOME two months ago Mr. Treves performed this operation at the London Hospital upon a man suffering from fibrous stricture of the pylorus. At the time of the operation the patient was very much reduced by pain and constant vomiting, and had been for some time unable to take food by the mouth. The abdomen and stomach were opened, and through the incision made in the viscus the pylorus was dilated with the fingers. The man made a rapid recovery, and has not vomited since the operation. He can now take any food well. The case will be shown at the next meeting of the Clinical Society.

DEATH OF MR. J. H. WALSH.

WE regret to see the announcement of the death of Mr. J. H. Walsh, who, though a medical man, was best known as the author (under the *nom de plume* of "Stonehenge") of a number of very popular works on British sport, and who since 1857 was the editor of the *Field*. Mr. Walsh was born in 1810, and became a Fellow of the Royal College of Surgeons. He practised as a medical man in Worcestershire until 1852, when he quitted the provinces for the metropolis, and subsequently spent some time abroad. He ultimately settled in London, and devoted himself to literature as a profession. He was an acknowledged authority on sport of all kinds, and published the following works: *Horse in the Stable and the Field*, *Shot Gun v. Rifle*, but he was best known perhaps as the author of *British Rural Sports*, a work which went through many editions. He also published *Domestic Economy*, and *Domestic Medicine*, and in 1858 the *Dog in Health and Disease*. Some years later he wrote the *Dogs of the British Islands*, which passed through several editions, and in 1882 he produced the first volume of the *Modern Sportsman's Gun and Rifle*, the second following in 1884.

A CONTRADICTION.

A STATEMENT has been going the round of the public press which has caused a good deal of severe comment, to the effect that a poor woman, in a condition which demanded immediate care and succour, was carried by a policeman and some women to the Lying-in Hospital, Endell Street, which was near at hand, and that the authorities refused to admit her; that, suffering as she was, she was taken from there to the workhouse, though she piteously begged to be taken "anywhere but there." As might have been anticipated, we find on inquiry that the facts as stated, with respect to the Endell Street Hospital, are a pure invention. No application, we are informed, was made to admit the woman at that institution. She was, it appears, delivered of her child in the street close by, without any attempt being made either to summon one of the staff or to take her to that hospital. She was, as a matter of fact, on her way to the lying-in ward of the workhouse next door, and had not thought of going to the hospital. Had the incident been known to the medical staff, no question would have been asked as to whether she was married or single, but the woman would have been taken in and kept for at least eighteen days.

MEMORIAL TO THE LATE SURGEON-MAJOR

T. R. LEWIS.

THE subscribers to the above memorial will be glad to learn that the reprinting of Dr. Lewis's collected scientific works has now nearly approached completion, much delay having been occasioned by the reproduction of numerous maps and lithographs. The volume, in crown 4to., when completed will contain about 800 pages illustrated by 5 maps, 24 copperplate engravings, 15 chromolithographs, and numerous woodcuts, with a portrait of the author, in autotype, forming a fitting memorial of one who devoted his life to scientific medical research. It is hoped that intending subscribers will give in their names as soon as possible to the Honorary Secretaries, care of Messrs. Holt, Laurie and Co., 17, Whitehall Place, S.W., as it is especially wished that the names of all supporters of the memorial (each subscriber of £1 receiving a copy of the reprinted works) should appear in the list of subscribers, which will appear as an appendix to the volume.

ZOOPLASTIC GRAFTS.

SURGEONS are familiar with skin grafting in the human subject, but it is rather a novel procedure to substitute the skin of birds and poultry for snips from the patient's own healthy skin. Wiesmann twice transplanted skin from pigeon to pigeon with success, and three times from fowl to fowl. Under the title of *Dermepenthesis*, Mr. G. F. Cadogan-Masterman published some interesting cases a few weeks since in our columns, in which he had succeeded in utilising the skin of young wild rabbits for the purpose of bringing about the cicatrisation of raw and ulcerating surfaces. Several others have repeated and varied Wiesmann's experiments, but before Mr. Masterman none of them seem to have been enterprising enough to spare their patients the disagreeable snipping incidental to the operation as it is usually practised. At about the same time Dr. Redard communicated to the Paris Academy of Medicine some observations of his own with animal grafts on wounds in human beings. In a case of severe burn of the scalp of eight months' standing, in a child 2 years of age, he obtained a rapid cicatrisation by means of grafts from a fowl. He first tried grafts of frog's skin, but as these proved to be repulsive to patients, and did not give very good results, he substituted others from the fowl, and the wound, which measured three inches by two and a half, had completely healed in two months. He had been equally successful in other and subsequent cases. He takes the skin from beneath the wing of a chicken, carefully securing the subjacent cellular tissue, but avoiding adipose tissue. The transplanted pieces varied from a sixth to a third of an inch in size, and they were maintained in position by means of a little cotton-wool and iodoform gauze. The skin of birds and fowls has the advantage of being supple, delicate, and vascular; it adapts itself readily to the surface of the wound, and adheres without undergoing absorption.

THE HUNTERIAN SOCIETY.

THE annual dinner of the Hunterian Society was held on Friday evening last; Dr. Gervis, President, in the chair. There was a large attendance, including Dr. Robert Barnes, Mr. Clement Lucas (President-elect), Dr. Holman (Reigate), Mr. Ernest Hart, Dr. Savage, Dr. Galabin, Mr. de Berdt Hovell, Dr. F. Charlewood Turner, Mr. Bland Sutton, Mr. Stewart (Conservator of the Hunterian Museum), and other guests and members of the Society. After proposing the usual loyal toasts, the Chairman referred to the long-standing prosperity of the Society, and the valuable contributions which its members had made to clinical and scientific medicine, enumerating a long list of eminent surgeons and physicians—Buzzard, Curling, Bright, Herbert Davies, and others—who had taken a deep interest in the work of the Society. It was one of the specialities of the Society that it had hitherto pursued

its course without seeking publicity for its work, and in the belief that conference without publication was a valuable means for promoting scientific progress. Dr. Holman responded for the British Medical Association, Mr. Stewart for the Hunterian Museum, and Mr. Ernest Hart for the visitors. In proposing the health of the Chairman, it was mentioned that after thirty-seven years of active service at St. Thomas's Hospital, he was now proposing to lessen the work attached to his public appointments, in view of the heavy occupations of private engagements, and after having made a contribution of the best work of the best years of his life to the service of his hospital, and to the furtherance of systematic and clinical teaching. The toast was received with much enthusiasm, and duly acknowledged. In the course of the meeting it was mentioned that an important announcement was shortly about to be made, of a character gratifying to the members of the British Medical Association, on the unanimous recommendation of the Council of the Hunterian Society, with reference to the disposal of its valuable library. Mr. Hart, in referring to this, gave a brief sketch of the present promising position of the newly founded library of the British Medical Association, and of its probable development. The dinner was enlivened with admirable music, and broke up at a late hour.

ELECTRICAL THERAPEUTICS.

THE gullibility of the public has seldom been rendered more evident than in the case with which they are fleeced by empirics who trade on the unknown potentialities of electricity. A few pieces of feebly magnetised clock spring sewn into flannel or leather constitute a magnetic appliance which is advertised to cure most of the ills of suffering humanity. Pieces of metal welded together in defiance of the most elementary laws of electric science are credited with powers for good beside which the elixir of life itself would pale. As the prices asked and received for such articles from a confiding public are calculated, not on the cost of production, but on the claims of their introducers, this department of industry is about the most remunerative yet discovered, and success has brought numerous rival magneticians and electricians into the market, who vie with each other in the audacity of their assertions. What one regrets is, perhaps, less the fact that the public are induced to part with their money—*populus vult decipi*—but that discredit is thereby brought on what promises in the future to be a very useful branch of therapeutics. The absence of any organised means of providing for the electrical treatment of disease, and the scanty supply of apparatus too often found in hospitals, are responsible for much of the public gullibility. This deficiency may, if the undertaking is properly managed, be remedied by the Institute of Medical Electricity, which has just been organised with the approval and under the control of a number of distinguished hospital physicians for the express purpose of providing a place at which, or in connection with which, people of limited means may obtain electrical treatment under the direction of their own medical attendants at moderate fees. There is no reason why such an institution should not fulfil a useful purpose in the treatment of disease, the names of the hospital physicians and men of science connected with it affording a guarantee of its being restricted to its proper functions.

REMOVAL OF A HAIRPIN FROM THE PERITONEUM.

DR. FREUND, of Strasburg, describes in the *Centralblatt für Gynäkologie* (December 17th), a case where a hairpin was found in the peritoneal cavity in the course of an exploratory operation for suspected disease of the uterine appendages. The patient was a sickly and emaciated woman, aged 41, who had symptoms of tertiary syphilis. Her period had been regular till about four months before she first applied for hospital relief; then it did not

appear for two months; at the end of that period metrorrhagia set in, with the discharge of small shreds, and spasmodic pains in the sacral region and the hypogastrium. The discharge of blood continued for five weeks, then epileptiform fits occurred. The uterus was found anteverted, and a small oval tumour lay to its left side, connected by a tough cord with the pelvic wall. Tubal pregnancy was suspected. On March 2nd, 1887, an exploratory incision was made; the adhesions, which bled freely, had to be broken down, and a cyst of the left tube, "the size of an apple," was removed. It was universally adherent to surrounding structures; and, in securing some bleeding vessels to the great omentum, a piece of hairpin, an inch long, and consisting of part of the two shanks pressed close together just below their point of union, was discovered and extracted. A drainage-tube was left for twenty hours in the wound. The patient did well for a fortnight, then the stump of the tubal pedicle suppurated, and the pus which escaped contained ligature-threads. The first period after operation was attended with attacks of convulsions, which lasted eight days; but the second was only represented by the molimen without show, and by slight convulsive attacks. Ten days later a hard substance was detached, on vaginal examination, to the left of the cervix. The woman was in good health when last seen by Dr. Freund; but there were slight convulsions at every menstrual period. Should a portion of the hairpin yet remain in the pelvis, the persistence of the neurosis is readily comprehensible; should the hard body be simply an inflammatory deposit, the persistence of the symptoms would be a feature already observed in other cases, where self-evident causes of nerve irritation have been removed, the neurotic condition remaining for a long time after their removal. It appears that in this case the shanks of the hairpin had been pressed together, and introduced into the uterus for the destruction of the imaginary fœtus, amenorrhœa having followed cohabitation. The pin had broken, found its way into the left tube, set up salpingitis, perforated the tube, and reached the omentum. Dr. Freund shows, on carefully considered evidence, that the prevalent theory that hairpins are introduced into the genito-urinary tract, either in the belief that the practice may produce abortion, or for another repulsive purpose, is perfectly correct.

SCOTLAND.

INCREASE OF MORTALITY IN EDINBURGH.

THE mortality for January in Edinburgh this year shows a very considerable increase when compared with the two preceding years. There were 529 deaths, equal to a death-rate of 24.16 per 1,000 of the estimated population; in January, 1887, there were 446 deaths, equal to 20.69 per 1,000; while in 1886 there were 362 deaths, and the average death-rate for five years was 20.13. Diseases of the chest accounted for 166 deaths, while zymotic diseases caused 72 deaths, of which no fewer than 44 were from measles. The above death-rate for January, 1888, is the highest that has been recorded since 1872.

INNOVATION AS TO MORTALITY STATISTICS.

THE Public Health Committee of Edinburgh Town Council discussed at length and unanimously adopted a motion by the Dean of Guild (Sir James Gowans), which is a decided innovation as regards the publication of mortality statistics in Edinburgh, and which will likely yield abundant material for generalisation as to the effect of house environment in the death-rate of the dwellers in that city. The motion proposed was that, instead of the present system, Dr. Littlejohn, the medical officer of health, should make a return of the deaths in the city, with the rental of the houses in which they occur, the necessary information regarding

rental to be supplied by Mr. Paterson, the assessor. This statement would be prepared every four weeks and submitted to the Council, the convener of the committee giving at the end of each year a summary showing the results of the preceding months. This scheme of Sir James Gowans was thoroughly gone into by a subcommittee, and by it unanimously recommended for adoption. It was agreed to classify the rental as follows: Under £5, from £5 to £10, £10 to £15, and so on up to £50, all above that being classed the same.

ROSEWELL ASYLUM.

THE appointment of Dr. Campbell Clark as Medical Superintendent to Rosewell Asylum is not to be carried out, Dr. Clark having elected to remain at Bothwell Asylum. The directors have now appointed to Rosewell Asylum, as Medical Superintendent, Dr. Mitchell, at present senior resident in Morningside Asylum.

CASE OF LONGEVITY.

A REMARKABLE case of longevity, the circumstances of which have been carefully looked into, is that of Mr. Michael Smith, of Larkhall, who has reached the age of 111 years. Smith was born at Auchnagrgan, and baptised at Ballymacnab in the month of October, 1776. He was married in 1818, at 42 years of age, and had eleven children, the eldest of whom would have been 69 years of age had he been alive. A movement is on foot at Larkhall to present Mr. Smith with a testimonial.

GLASGOW PHILOSOPHICAL SOCIETY.

AT the last meeting of this Society, on February 8th, Professor McKendrick exhibited and described E. von Fleischl's spectropolarimeter for the estimation of grape sugar, a centrifugal apparatus for separation of blood into corpuscles and plasma, and Kronecker's electromyographion. Sir William Thomson exhibited various new electrical measuring instruments, ampèremeters, etc.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

AT the last meeting of this Society, on February 10th, a variety of specimens were shown by Dr. Samsen Gemmill, Mr. A. E. Maylard, Dr. C. F. Pollock, and Dr. Parry. The specimens included

lung with bean impacted in bronchus, a larynx with papillomata, cultivations of the organisms of pus, and microscopical specimens of meibomian glands and cysts of eyelids. Dr. Macewen showed the parts in left inguinal hernia, removed *post-mortem* from a man who had undergone Dr. Macewen's operation by "internal abdominal peritoneal pad, and the restoration of the valved form of the inguinal canal," and who had been able afterwards to carry on his work as a carter without any external support.

ST. MUNGO'S COLLEGE, GLASGOW.

THE agitation for the erection of the Glasgow Royal Infirmary Medical School into a College of the University of Glasgow has been brought to a head by the introduction into Parliament by some of the members for Glasgow of a Bill for this purpose. It proposes to establish in the East End of Glasgow a College of the University, to be called "St. Mungo's College," with which the medical school of the University shall be incorporated, and to which all the premises and effects, etc., of the infirmary school shall be conveyed. The Bill provides for the management of the affairs of the College by a body of governors, who shall appoint the professors and lecturers. The teaching at the College is not limited in the Bill to medicine, but includes the sciences and arts and other branches of learning as the governors may deem fit. The status, rights, and privileges of the professors, are to be the same as those pertaining to the University professors, and each faculty of the new College is to be adequately represented in the University Court. It will thus be seen that the Bill has been

drafted in a bold spirit, and that it will commend itself to the public mind is obvious. None the less it is certain to meet with stubborn opposition from the Senate of the University. But so many guarantees for the proper management of the College have been introduced into the Bill, so full is the University representation on its board of governors, that it will be difficult for the University authorities to convince the public that it is not a Bill worthy of becoming law. The board of governors, it is proposed, shall consist of nineteen persons, of whom six are University representatives and five representatives of the Royal Infirmary. The Faculty of Physicians and Surgeons is accorded one representative. The Lord Provost of the city is named one of the board, and the Town Council names a representative. The other representatives are sent by various other important public bodies. The six University representatives are the Chancellor, Vice-Chancellor, two elected by the Senate, and two by the General Council. The proceedings of the governors are to be subject to the review of the University Court. The details of the Bill thus bear out its profession that it is drawn in "the interests of learning, and more especially of medical education and science." Even though it does not succeed in passing into law, it will not fail to have a stimulating effect upon the authorities of the University.

IRELAND.

ST. JOHN AMBULANCE ASSOCIATION, BELFAST CENTRE.

COURSES of ambulance instruction have recently been given in Belfast by Professor Sinclair, Dr. W. G. Mackenzie, and Dr. Strahan. They have been very largely attended; the utmost interest being shown in the work, and the excellence of the instruction given has been attested by the very satisfactory results of the examinations, conducted by Surgeon Fagan, Dr. Walton Browne, and Brigade-Surgeon McFarland.

EPIDEMIC OF MEASLES AT SCHULL.

ANOTHER epidemic of measles has broken out in Schull and district, near Skibbereen, County Cork. The disease first made its appearance in the coastguard station among the children. The schools have been closed, and steps taken to prohibit the holding of "wakes." Up to last week there were about fifty cases, with only one death.

DUBLIN HOSPITAL FUND.

AT the annual meeting of the Dublin Hospital Fund, held last week, it was stated that the amount received was less by £200 than in 1886. The total received was £3,957 9s. 3d. The following is the result of the distribution for the year:—Sir Patrick Dunn's, £238 12s.; City of Dublin, £587 18s. 9d.; Doctor Steevens's, £99 18s. 7d.; Meath, £483 2s.; Mercer's, £106 4s. 6d.; Whitworth (Drumcondra), £40 0s. 10d.; Coombe (Lying-in), £118 5s. 7d.; Rotunda (Lying-in), £114 5s. 3d.; St. Mark's (Ophthalmic), £184 3s. 5d.; National Eye and Ear Infirmary, £102 0s. 9d.; Convalescent Home, £233 12s. 8d.; Cork Street (Fever), £111 1s. 8d.; Adelaide, £847 16s. 6d.; Monkstown, £154 6s. 5d.; Orthopaedic (Great Brunswick Street), £160 18s. 9d.; National Children's, £99 5s. 7d.—total, £3,681 13s. 3d. The Committee felt bound to inquire whether any of the ordinary funds would be employed to defray the expenditure of the investigation at Mercer's Hospital. They were informed that the "only expenses which would fall on the hospital would be the assessors' fees, and the costs of reports and printed evidence, and the charge for the inquiry in the room at the Four Courts." The grant to the hospital will therefore be paid.

THE CASE OF HIS IMPERIAL HIGHNESS THE CROWN PRINCE OF GERMANY.

By SIR MORELL MACKENZIE, M.D.

His Imperial Highness the Crown Prince of Germany having expressed his wish that I should now place on record my opinion of his case, the opportunity is afforded of correcting some of the statements which from time to time have been inaccurately attributed to me.

The general idea is that I am of opinion that the disease from which His Imperial Highness is suffering is not cancer; the view on the other hand, which I have consistently maintained is, that there never has been any proof of the existence of cancer.

To enter more into detail: When I arrived in Berlin, last May, I stated to my colleagues that, in my opinion the appearances seen in the throat were of a negative character, that is to say, that the disease might be either benign or malignant, and that its nature could only be determined by microscopical examination. A portion of the diseased tissue having been taken away by me from the throat of His Imperial Highness, it was submitted to Professor Virchow, who could not detect in it anything of a malignant nature. Repeated examinations by Professor Virchow of other portions removed by me yielded similar results.

In the month of July, whilst His Imperial Highness was staying in the Isle of Wight, I pointed out to more than one of his august relatives that the danger that I most dreaded was the occurrence of perichondritis at a future date, and three months later this fear was proved to be well grounded. At the end of October and early part of November entirely fresh symptoms appeared, and at that time the local disease presented an appearance which was consistent with the diagnosis of cancer. It was then impossible to obtain any fresh microscopical evidence in the matter, and I considered it safer accordingly to treat the case as one of a malignant nature; at the same time, however, I drew up and submitted to my colleagues a *protocol*, in which I stated that although the disease at that moment looked like cancer, I could not agree that the malady was proved to be malignant until a further microscopical examination had been made. The document in which I set forth my views was forwarded to Berlin to be placed in the State Archives. Although the unfavourable symptoms then present were explicable on the ground of the existence of cancer, yet it was clear to the majority of the physicians at that time in attendance that perichondritis had supervened.

In the middle of December, however, the unfavourable signs had passed away, and there were no longer any clinical symptoms of cancer. Microscopical evidence on the subject was, however, still wanting. This was furnished at the end of January, when a slough was expectorated from the very spot which had presented such a highly suspicious appearance in November. This slough was most carefully and repeatedly examined by Professor Virchow, and the result (which is now published) again shows that cancer could not be detected.

To recapitulate: In my opinion the clinical symptoms have always been entirely compatible with non-malignant disease, and the microscopical signs have been in harmony with this view. I need only add that although in nearly every case of laryngeal disease it is possible at the first inspection to form an accurate opinion as to the nature of the disease presenting itself, yet, in a few rare instances, the progress of the complaint alone permits its character to be determined. Unfortunately, the case of His Imperial Highness is among the latter number, and at this

moment medical science does not permit me to affirm that any other disease is present than chronic interstitial inflammation of the larynx combined with perichondritis.

San Remo, February 12th, 1888.

REPORT OF EXAMINATION OF THE SLOUGH FROM THE LARYNX OF HIS IMPERIAL HIGHNESS THE CROWN PRINCE OF GERMANY.

On the morning of the 26th of January, 1888, Dr. Wegener brought me a sealed box with a letter dated 23rd from Dr. Schrader from San Remo. It was accompanied by a report, dated January 17th, from Dr. Krause respecting a large piece of tissue which had been expectorated on the same day from the larynx of H. I. H. The Crown Prince.

The portion sent was the whole of the matter expectorated, with the exception of six small particles removed by Dr. Krause for examination in the fresh state. The piece of tissue was in a sealed bottle containing absolute alcohol. In addition to the large portion referred to, there were also two other separate and somewhat harder pieces—a larger and a smaller. The former, according to Dr. Krause, was originally a part of the principal mass. The examination offered great difficulties, the nature of which could not have been anticipated, either from the form or the appearance of the pieces submitted for investigation.

The large mass greatly resembled certain portions of imperfectly masticated pieces of meat, which are sometimes rejected in vomiting after being swallowed. This view seemed to derive support from the presence here and there of small yellow and brownish particles of fine cellular vegetable structure, and from the existence in the innermost portion of the large piece (expectorated) of an abundance of elastic fibres.

In consideration, however, of the very precise information conveyed by Dr. Krause to the effect that the substance had been observed before its separation (from the larynx) extending from beneath the left ventricular band from the middle to the anterior angle, and also below the glottis, and even extending round below the anterior part of the right vocal cord, there could be no doubt, on further examination, that we had to deal with a large slough spontaneously separated from the inner surface of the larynx, and not with a purely exudative (fibrinous) mass.

In the substance which, according to the report of Dr. Krause, when first expectorated, measured $3\frac{1}{2}$ centimètres in length, whilst at the thinner end it was half a centimètre in width (its thickness being 4 millimètres), and at the thicker end one centimètre wide, a small smooth semicircular spot in the long diameter of the substance could be seen. All the rest of the surface was occupied by long and very closely arranged fibres. Although there was no epithelium on the smooth spot, and no glands beneath it, it cannot be doubted that this was the free surface of the mucous membrane. For beneath it could be seen microscopically a thin layer of almost homogeneous connective tissue, and a great mass of elastic fibres. Beneath this, there was, deeper down, a very thick layer, consisting especially of tubules with granular amorphous contents. From this thick layer originated the long fibres observed with the naked eye. It was not once possible to recognise in these tubular layers any transverse stripes, but they seemed to contain only amorphous matter, in which, on more minute examination, numerous micrococci were found. Here and there numerous but very small clear brown bodies, or crystal-like deposits, were observed. Nevertheless, I have no doubt that these tubular layers and fibres are primitive muscular fasciculi which, through a necrotic process, have been destroyed.

The slough must therefore be regarded as a necrotic and decomposed part of the larynx, which in parts has been separated from the surface to a depth of 4 millimètres. The very rich muscular structure could only be attributed to the thyro-arytenoid muscle.

I could not determine what kind of morbid process had caused the gangrene, nor what kind of process had produced the demarcation and exfoliation of the substance. Neither pus-corpuscles nor granulation-cells could be distinguished; and, in fact, in most places there was nothing of a heterogenous nature to be discovered. Only in the larger (of the two smaller pieces) which had been cut off the main mass by Dr. Krause from a somewhat hard spot, and which had the form of a flat wart on section, with the

¹ In this statement the words "cancer," "cancerous," and "malignant," are used synonymously.

naked eye a central whiter and an external and opaque rather thick covering could be distinguished.

In every microscopic section so-called nests (*zwiebeln*) of epidermoidal cells, for the most part of homogeneous character, were seen. As a rule these nest-cells were in the most external layer, or in that lying immediately beneath it. The external layer had also most likely consisted of an epidermoidal formation, though these cells could only be here and there partially distinguished.

I could not find epidermoidal cells in the deep parts, and distinctly isolated alveoli were nowhere to be discovered, in spite of assiduous researches.

These examinations will be continued, and if any further result is obtained I will send a report instantly.

(Signed) **RUDOLF VIRCHOW,**
Director of the Pathological Institute, Berlin.

January 29th, 1888.

We are informed by Sir Morell Mackenzie, who has forwarded the above translation to us, that Professor Virchow has since sent several private letters, in which, however, he has not been able to add anything to his original report. Nevertheless, he remarks that he has not found any cartilage in any portion of the slough.

THE BRITISH NURSES ASSOCIATION.

A MEETING in furtherance of the aims and objects of the British Nurses Association, was held on Monday last, at St. George's Hall, Langham Place, at which the Princess Christian, of Schlesweg-Holstein, the President of the Association, was present. The chair was taken by Mr. Savery, President of the Royal College of Surgeons, who was supported by Sir Henry Acland, Dr. Quain, Sir Joseph Lister, Sir Dyce Duckworth, Mr. John Marshall, Sir Douglas Powell, Mr. Brudenell Carter, Sir Joseph Fayrer, Mr. Gant, Dr. Norman Moore, Miss Mollett, Miss Stewart (St. Bartholomew's), and other matrons of metropolitan hospitals, together with a large gathering of representatives of the nursing profession.

PRINCESS CHRISTIAN, in opening the proceedings, said: I have been asked to say a few words to open this meeting, a meeting of which the importance and interest cannot be overrated. We are met together to-day to lay the foundation stone of an Association, which should not be inferior to any other great institution of this kingdom. I said lay the foundation stone, but that is already laid. We have, rather, come together to enlist the public sympathy and support in furthering it, in building it up. The British Nurses Association seeks to unite in common action all who are engaged in doing woman's highest and noblest work, namely, that of nursing the sick. The first object of the Association is to obtain for the calling of nursing the recognised position and legal constitution of a profession which shall from henceforth be inseparable from the noble profession of medicine. It will follow from this, that in the future every member of the nursing profession must have been educated up to a definite standard of knowledge and efficiency. The importance of this guarantee to the public cannot be overestimated. Another object is to enable the members of the Association to assist each other in illness or old age. But the British Nurses Association has also a deeper, a wider, and a grander meaning. I believe it is the first example of a large number of women combining together, not only to help their overworked or weaker sisters, but also to further and advance their calling, and to raise their work to a higher level than it has hitherto held. If the Association be successful—and its success now depends mainly on the united efforts of the nurses themselves—who can foretell where the influence of their example will end? It will perhaps be the means of showing women in other walks of life that they, too, can combine successfully for the manifest advantage of themselves, their fellow workers, and society in general, in a united striving after higher things. I should like to say how much I feel personally the great honour which has been done me in your allowing me to become a fellow worker in this great movement, and I will conclude with some words which seem to me to embody the true spirit of nursing. They are:—

"Perfect service rendered, duties done,
In charity, soft speech, and stainless days,
These riches shall not fade away in life,
Nor any death dispraise."

The CHAIRMAN said the cause they had at heart was so good and strong that it needed no advocacy to commend it to the acceptance of all. Even those who thought lightly of doctors

were able to appreciate good nursing, and who, when illness came upon him, dreamed of refusing such help? In no department of their art had there been a more signal advance than in that of nursing. Some of them were old enough to remember by what class of persons the nursing in their wards and sickrooms was formerly carried on—the lineal descendants of the old hospital nurse, as she was called. Those of them who could remember these and knew what our wards and sickrooms were now might perhaps realise the vast improvement which had been effected. He who watched most closely would be able to appreciate most fully the debt they owed to good nursing. For many years their faith in drugs and specific remedies had gradually declined, while they had learned to attach more importance to matters of hygiene and to good nursing. The time had come when some definite organisation should be established for those who devoted themselves to the duties of nursing. In the first place, a system of registration by a body of competent authorities would secure a simple guarantee to all that those whose names appeared on the register were duly qualified for their work. It would accomplish for nurses what the registration of the medical profession secured for them, and they and those ladies who were at the head of their department would see that the character and credentials of the Association were such that no question could be raised with regard to its competency or worthiness. Such an Association, by the judicious distribution of distinctions, might do very much to increase excellence and to bring to the front those who were best qualified to help and advise others. As in the church, in the law, and in medicine, by a recognised course of study and by examination, security was given to the public that those who offered their services were at least in some degree qualified for the work, so in the case of nurses for the sick should the public look for such evidences of character and education as that Association would be able to offer. With all his heart he said God speed the Association, might it prosper as it deserved to do. The loyal and devoted work which the nurses did had been recognised by the Queen; her recent gift had expressed her sympathy with their work.

SIR DYCE DUCKWORTH moved the first resolution: "That this meeting, desiring to express its cordial sympathy with the British Nurses Association, pledges itself to support the Association by every means in its power, and urges upon all nurses in the United Kingdom who are eligible for membership that they should join the Association for the sake of promoting the advancement of their profession." He regarded the present meeting as very strong evidence that the whole body of nurses, and those who were interested in their career and good work, were not satisfied with things as they were, and that, therefore, it was intended that something should be done to put those good women who were engaged in that useful work in a better position, for the benefit of both themselves and the public. It was now difficult to give a definition of what was meant by a "trained nurse." When that Association was set on foot that difficulty would no longer exist. He thought it would certainly be one of the duties of the Association to lay down the conditions of education, and to instruct the public as to what was meant by a "trained nurse." He had no doubt that in the future a three years' curriculum would be required for a trained nurse. He regarded nurses as units, who would be better for a little cohesion; by cohesion and co-operation very great benefit might be derived, both for the sick and the public. Such an institution as they were proposing to build up could only be carried on and regulated by those who understood the work best. They believed it was not a work in which the laity could take any active, if any, part at all, for the work required very special knowledge. By the adoption of a register the public would be able to distinguish those nurses who were thoroughly trained from those who were not. Those not accepted by the Association might be safely taken as inefficient and imperfectly trained. The time, he thought, had come when they might fairly stand by themselves. He would urge the nurses very strongly to come forward and enrol themselves in the Association, because he could not conceive under any circumstances whatever, either now or at any future time, that such an opportunity as now existed would present itself again.

MR. BRUDENELL CARTER seconded the resolution, which was supported by DR. MATTHEWS DUNCAN and by DR. NORMAN MOORE, who reminded them that the attempt had been made before under much less auspicious circumstances in the year 1834, when the then existing nurses of London endeavoured to become incorporated to the College of Physicians, having a very powerful advocate in Dr. Peter Chamberlain. They were at that time an un-

educated and almost untrained body, and they were then unable to secure the support of the College of Physicians.

Miss Wood (the Secretary) said they all knew what a large number of people were pressing into the nursing profession, and it seemed necessary that they should have some means of distinguishing between those who were suitable and those who were not. No such guarantee was at present afforded by the hospitals, as sometimes nurses went out without sufficient training, and called themselves "trained nurses." Nurses who had been properly trained wished to band themselves together to promote the advancement of their profession. The way in which that would be done would be, of course, a matter to be considered in detail as time went on. No nurse would bear the name of a trained nurse until she had been in training for a period of three years; as to that she thought they would have a consensus of medical opinion. They did not want to make it in any way a trades union; they had no idea of dictating terms of contract between employer and employed. What they aimed at was that when the nurse went forth to do her work she should do so as a trained nurse, and for that object they were seeking to obtain a charter which would give them the legal right to register nurses after examination either by their own hospital or a central body. Having satisfied the leading members of the medical profession, and of the nursing profession, that they knew by practice as well as by theory what they professed, they would then be registered, and have the right to practise as nurses. The Association would not interfere with hospital custom, but they did intend, as far as possible, to prevent nurses who were insufficiently trained going out to nurse in private families as "trained nurses." The public were not yet educated in the matter of nursing. She concluded by urging all nurses to come forward and make the Association what it ought to be, a very great success.

Mr. Cross and Miss MOLLETT having spoken, the resolution was carried unanimously.

Sir HENRY ACLAND, in proposing a vote of thanks to Princess Christian for accepting the presidency of the Association and for the active interest and work she was devoting to its progress, recalled the fact that Her Royal Highness was the translator of Esmarch's *First Aid to the Sick and Wounded*, and spoke of the great interest shown by her in the work of nurses and in nursing institutions, referring also to the great national association organised by her sister in Germany for that great purpose. They were at the present meeting responding to that splendid national sentiment which would raise one of the grandest monuments to the greatest monarch of England, who had decided that that magnificent gift which the nation had given to her should be given back to assuage the sickness and sorrows of the people under their care.

Dr. QUAIN seconded the vote of thanks, which was heartily accorded.

A vote of thanks to the Chairman, proposed by Sir JOSEPH FAYRER and seconded by Dr. DOUGLAS POWELL, closed the proceedings.

DEGREES FOR LONDON MEDICAL STUDENTS.

PETITIONS TO THE PRIVY COUNCIL.

THE PETITION OF WESTMINSTER HOSPITAL MEDICAL SCHOOL.

(In Support of the Petition of the Association for Promoting a Teaching University.)

THE following petition has been signed by the majority of the teachers at Westminster Hospital School, and forwarded to the Privy Council.

We, the undersigned teachers of the Westminster Hospital Medical School, and members of the staff of the Westminster Hospital, respectfully beg to lay before the most Honourable Privy Council, the following reasons, in so far as they concern the medical faculty, in support of the petition now before the said Council from the Association for Promoting a Teaching University in London.

1. We fully admit the necessity which exists for providing a medical degree for students of the metropolitan medical schools on conditions less restrictive and less prohibitive than those at present imposed by the University of London.

2. We are of opinion that in any plan proposed to meet this need there should be an intimate association of the teaching and examining functions; both being directly controlled by the same

governing body. In such way do we conceive that the true principles of a university are to be satisfied.

3. We regard the proposal made by the Royal Colleges of Physicians and Surgeons as the least satisfactory way of meeting the acknowledged requirements; since it maintains only an indirect association of the teaching and examining functions, and would merely confer the title of university on an examining board. Such a plan we feel sure would not provide a satisfactory medical degree, nor one that would be valued as it should by possessors, although we fully recognise the excellent general character of the present examinations of the said board for qualifying purposes.

4. We are of opinion that either the proposal of the Association for Promoting a Teaching University in London, or that of the University and King's Colleges, now before the Privy Council, would satisfy the requirements, and by associating together the various teaching bodies, properly qualified, would establish a university that would be real, and not one in name only; offering also the opportunity for compelling some general training in arts, which is in almost universally accepted accordance with the spirit of a university degree, and is virtually disregarded by the proposal of the Royal Colleges of Physicians and Surgeons.

5. Having regard to the legitimate interests of existing medical schools, we are of opinion that the objects sought will be best attained by the plan proposed by the Association for Promoting a Teaching University in London.

THE PETITION OF THE UNIVERSITY OF OXFORD.

(In Opposition to the Petition of the Royal Colleges of Physicians and Surgeons.)

ON February 15th, the Convocation of the University of Oxford resolved by ninety-eight votes to thirty-four to affix the seal of the University to a petition against a proposal now before the Queen in Council for conferring upon a Senate of the College of Physicians and the College of Surgeons the power of granting medical degrees to persons qualified under the Medical Act. The petition objects that these titles should be conferred only on those who have undergone a preparatory education in literature and science, and whose proficiency in these subjects has been tested by examination. It points out that Oxford medical degrees are conferred only upon Bachelors of Arts. Professor Price explained that University College and King's College, London, had presented similar petitions. The Regius Professor of Medicine, Sir Henry Acland, urged that the two great medical Colleges might surely be trusted to take such steps as were best for the profession. It was a mistake to suppose that culture was not provided for nor tested.

THE PETITION OF THE UNIVERSITY OF CAMBRIDGE.

OUR Cambridge correspondent telegraphs that the petition to the Privy Council against the scheme of the Royal Colleges passed the Senate on Thursday without a dissentient voice. No discussion takes place on such occasions. The common seal of the University was duly affixed.

It is stated to be the intention of the members of the West Herts Medical Association to invite Dr. C. E. Saunders, Medical Officer of Health for the Combined Districts of Middlesex and Hertfordshire, to a dinner, on his retiring from that official connection, as a mark of respect and regard, and an acknowledgment of the efficient manner in which he has performed his duties for a period of fourteen years.

LADY DUFFERIN'S FUND.—The third annual meeting in connection with Lady Dufferin's Female Medical Aid Fund was held at Calcutta on February 8th. The Viceroy presided. Among the speakers were the Governor of Madras, the Lieutenant-Governor of Bengal, the Maharajah of Durbunga, and the Nawab of Moorshedabad. A resolution was passed that the Association should be incorporated. The report showed that the financial position was highly satisfactory, and that the Association now possesses investments giving an annual income of 30,000 rupees.

BEQUESTS.—By the will of the late Miss J. A. Peterson, Cumberland House, the following legacies have been paid by the trustees:—The Glasgow Royal Infirmary and the Western Infirmary, £1,000 each; Association for the Relief of Incurables, £200; the Maternity Hospital and a number of other charities in Glasgow not medical, £50 each.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council, or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, and a further portion of the Report upon OLD AGE have been completed, and will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has just been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The second general meeting of the present session will be held at the Railway Hotel, Stafford, on Thursday, February 23rd. Mr. W. D. Spanton, the President, will take the chair at 3.30 P.M.—VINCENT JACKSON, General Secretary.

GLOUCESTERSHIRE BRANCH.—The next ordinary meeting will be held on Tuesday, February 21st, 1888, at 7.30 P.M., at the Infirmary, Gloucester, under the presidency of Dr. Currie. Agenda: 1. A petition will be laid on the table for signature by members in support of the Architects and Engineers Bill, a Bill to be presented in Parliament next session by Colonel Duncan, R.A., C.B., M.P. 2. A discussion will be opened by Dr. Currie on the Present Position of Homœopathy in Relation to Regular Medicine. 3. Cases of interest in the Infirmary.—G. ARTHUR CARDEW, Honorary Secretary.

YORKSHIRE BRANCH.—A meeting of this Branch will be held at the Clayton Hospital, Wakefield, on Wednesday, February 22nd, at 3 P.M. The following papers will be read: Mr. Snell: On Prevention of Blindness by the Ophthalmia of the New-born. Mr. T. R. Jessop: On Transfusion as a means of averting death from Hamorrhage. Dr. Adolf Bronner: Ozæna; its Nature and Treatment. Cases: Mr. A. W. Mayo Robson: Three successful Cases of Transfusion. Dr. J. Gordon Black: The Treatment of Chronic Ulcers of the Leg. Mr. H. Hendelack Hewetson: (1) Suggestions as to the Relationship existing between Chronic Constipation, Chlorosis, and occasional Optic Neuritis; (2) Salycilic China Grass, with remarks.—ARTHUR JACKSON, Secretary, Sheffield.

BORDER COUNTIES BRANCH.—The next meeting will be held at the County Hotel, Carlisle, on Friday, February 24th. Dr. McLeod will take the chair at 6 P.M. Dr. Ryrom Bramwell, of Edinburgh, will read a paper and introduce a discussion on the Process of Compensation and its Bearing on Prognosis and Treatment. Dr. Muir Selkirk will read notes of a case of Hypertrophy of the Mamme. Dr. Altham Penrith will read (1) A Case of Hemorrhage from the Rectum treated by removing the redundant Skin around the Anus; and (2) A Case of Strangulated Hernia with Cysts in the Omentum extracted. Dr. Hamilton Hawick will read a paper on Pneumoparesis. Mr. T. P. Devlin, Carlisle, will read Notes of a Case of Intra-cranial Hemorrhage in a Young Subject. Supper in the hotel at 9 P.M.—H. A. LEDIARD, Honorary Secretary, 41, Lowther Street, Carlisle.

CORRECTION.—In the report of the meeting of the North London District of the Metropolitan Counties Branch it was erroneously stated that Dr. Stretch Dowse demonstrated the practice of massage on a male patient with the assistance of a *masseuse*. The word ought to have been *masseur*, and the correction is important, as it is inadvisable to employ a female for performing massage on a male.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

A MEETING of this District was held in the Greenwich Hospital School (by permission of Captain Collins, R.N., the Superintendent) on February 4th. The chair was taken by Dr. FREDERICK TAYLOR, Vice-President of the District. The minutes of the previous meeting were read and confirmed.

Cases Exhibited.—Dr. TREVELYAN, House-Physician to the Seamen's Hospital, showed for Dr. CURNOW the following cases:—1. Early Locomotor Ataxy, with Atrophy of Optic Discs; 2. Paralysis of the Muscles of the Front of the Right Leg of Doubtful Origin; 3. Left Hemiplegia from Syphilitic Thrombosis; 4. Phthisis with a Large Dry Cavity at the Right Apex; 5. Tubercular Ulceration of Epiglottis; 6. Syphilitic Disease of the Larynx.—Dr. FREDERICK TAYLOR and Dr. PITT discussed the cases, and Dr. TREVELYAN replied.

Vice-President's Address.—Dr. FREDERICK TAYLOR, as the first Vice-President of the District, then read an introductory address. He thanked the members of the District for the honour they had done him, and reviewed the history of the District from the first meeting in 1878 under the presidency of Mr. John Wood, specially mentioning the loss sustained of late years by the death of Dr. Carrington. He referred to an idea which had become current in one part of the District, that in having a meeting at Greenwich the Association was trying to compete with the local West Kent Medico-Chirurgical Society, and pointed out that meetings could only occasionally be held in Greenwich in consequence of the size of the South London District, and also that the present President of the local Society was a member of the Committee of the District, which facts were a sufficient guarantee against any clashing of meetings or subjects of discussion. He further drew attention to the fact that only about half of those members of the Association who reside in the South London District were members of the Branch, and hoped to see a large increase in numbers. He reviewed the progress of medicine and surgery during the past twenty or thirty years, and ended by congratulating the District on having again started on an active career after a period of quiescence.—Mr. SANGSTER moved, and Mr. JOHNSON SMITH seconded, a vote of thanks (which was carried unanimously) to Dr. Taylor for his valuable address.

Radical Cure of Hernia.—Mr. JOHNSON SMITH then read a paper on the radical cure of hernia, after which there was a short discussion. A vote of thanks was passed.

Vote of Thanks.—The proceedings concluded with a vote of thanks, moved by Dr. FEGAN and seconded by Dr. PITT, to Captain Collins for the use of the room.

NEW SOUTH WALES BRANCH.

THE sixty-ninth general meeting of the New South Wales Branch of the British Medical Association was held in the Royal Society's Room Sydney, on Friday, December 2nd—present: the Hon. Dr. Creed, M.L.C. (President) in the chair; Drs. Clubbe, Sydney-Jones, McCormick, Brady, Chambers, Hankins, Scot-Skirving, Fiaschi, Contie, McCulloch, Worrall, and Crago were present.

The minutes of the previous meeting were read and confirmed. **Fracture of the Acetabulum.**—Dr. CLUBBE read some notes on a case of fracture of the acetabulum.—A discussion ensued in which Drs. SYDNEY-JONES, BRADY and MCCORMICK took part.—Dr. CLUBBE replied.

By-Laws.—The by-laws were then considered and discussed, and after some slight alterations were made they were passed.

Digestive Ferments.—Dr. MCCORMICK, of Macquarie Street, read a paper on digestive ferments. Some very interesting demonstrations were made, illustrating the action of certain ferments.

ROYAL VISIT TO VENTNOR HOSPITAL.—The Queen, who was accompanied by Princess Beatrice and Princess Victoria of Schleswig-Holstein, paid an informal visit to the Royal National Hospital for Consumption and Diseases of the Chest on February 11th. This is the first time Her Majesty, who is the Patroness of the institution, has visited the hospital, though she has on many occasions shown her sympathy with it and contributed liberally to its funds. The whole of the 120 patients, with the exception of a few who were too ill to leave their rooms, assembled in the new dining-hall to greet the arrival of the Royal visitors. A bouquet of flowers was presented by Master Coghill to Her Majesty, who then visited several of the blocks, and expressed the deep interest she felt in all she had seen.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Copaiva Eruption.—Antipyrin in Nocturnal Emissions.

THE appearance of an eruption after the use of balsamum copaivæ is not a rare occurrence, but the anatomical changes in these cases have not hitherto been investigated. Professor Neumann recently excised a part of the skin in such a case, and examined it microscopically. The papillary layer was normal, and the affection had its seat chiefly around the blood-vessels, the sebaceous glands, hair follicles, and sudoriferous glands, just in the same way as in measles.

In a recent number of the *Wiener Medizinische Blätter*, Dr. Thör, of Bucharest, gives some particulars as to the effect of antipyrin in cases of nocturnal emissions. Lupulin and camphor had been justly abandoned in such cases. Curschmann ("Functionelle Störungen der männlichen Genitalien," in *Ziemssen's Handbuch*, 1878, p. 518) states that the sedative effect of lupulin on the genital organs, in spite of all the recommendations, was not proved. As to camphor, it has, according to his opinion, no better effect. Fürbringer (*Krankheiten der Harn- und Geschlechtsorgane*, 1884, p. 347) is of the same opinion. Zeissl (*Syphilis*, 1882, p. 112) recommends it in the first place, as do Purgsz (*Recept-Taschenbuch für venerische Krankheiten*, 1883, p. 21), and other writers. The effect of nuxvomica, arsenic, and atropine is also often uncertain. Among all the remedies hitherto employed, bromide of potassium or bromide of sodium was the most useful. Diday (*La Pratique des Maladies vénériennes*, 1886, p. 538) recommends it to the exclusion of every other drug. Bromide of potassium, from two to five grammes in a glass of water, taken just before going to bed, will, according to his experience, exert a prompt effect and check the pollutions. The prolonged use of the preparations of bromide, however, as is well known, produced an acne-like eruption, and the use of the remedy had, for this reason, often to be discontinued. Dr. Thör states that he has found antipyrin an excellent substitute for the bromides. He gives it in doses of from half a gramme to one gramme, to be taken by the patient a short time before going to bed. In seven cases it had proved very successful, and checked the pollutions. No disagreeable after-effects were observed. In "neuroasthenia sexualis" in the sense of Beard (*Die sexuelle Neuroasthenie*, 1885) antipyrin could also be used with good results; but the dose had in these cases to be sometimes increased from one gramme to two grammes a day.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Is Pelada Contagious?—Action of Nickel.—Clinical Photography of the Eye.—Cheap Artificial Arm.

At a recent meeting of the Académie de Médecine the question whether pelada is or is not contagious was hotly discussed. In 1875 an epidemic of this affection appeared at the Collège de Vannes. M. Hardy and Hillairet, who were consulted by the Minister of Public Instruction, made the following recommendations. Newly arrived pupils were to have their heads closely examined by the school physician. The heads of the pupils were to be examined every fifteen days. Immediately a child showed a, and not allowed to return until pelada he was to be sent home, appeared. A law rendering the affection had entirely disappeared. M. Hardy cited several instances in which pelada had proved contagious. M. Ollivier stated that pelada was not contagious, but had ignored the numerous instances in which it had not proved are useless. The most cases the preventive measures employed by M. Besnier, Le Fort, frequently interfered with their career. M.

Larret, and Bergeron suggested that, before resuming the discussion, M. Ollivier should endeavour to procure some proof of his assertions, which at present rested on no sure foundation.

M. Riche is engaged in studying the action of nickel. From his experiments he concludes that nickel is absorbed without danger by guinea-pigs and dogs. He believes that vessels made of this metal may be used without risk for the purpose of holding food.

M. Paniel has invented a photographic machine by which the fundus of the eye may be photographed in a few seconds. This machine will enable a physician having a certain knowledge of photography to produce the image of a lesion situated in the eye.

M. Griponilleau has invented an artificial arm, costing only forty francs, which will allow the wearer to dig, load, wheel a barrow, mow, etc. This arm, which is applied to the shoulder where the limb has been amputated, is made of wood, zinc, and sheet-iron.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

An Administrative Campaign against British Practitioners in the Grisons; Protest of the Engadine British Colony; Protest of the Swiss Hotel-keepers' Society; Opinion of the Swiss Daily Press.—The Grisons Health Resorts and National Wealth.

THE Chur Sanitätsrath has recently prohibited, under a heavy penalty, any further medical practice to several English physicians who reside in the Engadine and other health resorts in the Grisons, and are practising exclusively amongst the English-speaking community. The prohibition may be regarded as a somewhat late retaliation for the fact that a Swiss medical man is not permitted to practise in England until he has obtained a British qualification. To judge, however, from a correspondence in the *Berner Zeitung* (February 7th, 1888), the step so abruptly taken by the Grisons sanitary authorities seems to be directed impartially against all foreign physicians who may choose to settle at any of the local health resorts for the purpose of practising there without previously obtaining a Swiss diploma. As a matter of principle, every lover of fair play will readily admit that the Grisons Sanitätsrath was under present circumstances fully justified in taking this step with the view of protecting the interests of the native practitioners, who have long complained most bitterly of the gross injustice done to them in this regard (*vide the JOURNAL*, June 12th, 1886, p. 1139). It is not quite so clear, however, that the measure, though doubtless legal, is expedient. As a matter of fact, it has, as might have been expected, caused a revolt amongst the English community.

According to the *Bund* (February 6th, 1888), as many as 150 British subjects, residing in the Engadine, have without delay sent in a petition to the British Ambassador at Berne, in which they protest against the Chur decree, and request him to take such steps as may be necessary to allow them to retain the indispensable services of their old medical attendants. The *Bund* (a semi-official and most ably conducted organ) observes, in referring to the episode, that "though the Sanitätsrath is fully in the right, its decision all the same must have an injurious effect on the Swiss health resorts." Similarly, the influential *Berner Zeitung* (February 7th, 1888), the organ of the Berne Radical party, which is now in the ascendant, calls the Chur edict "unüberlegte" ("inconsiderate" or "rash"). It states, also, that the Schweizerischer Hoteliersverein, which has just held an extraordinary meeting to discuss the situation, has unanimously passed a strong resolution, disapproving of the action of the Sanitätsrath, and at the same time demanding that "all foreign practitioners, whether they possess the Swiss diploma or not, should be allowed to practise freely at health resorts, especially amongst the foreign colonies."

To show how foreign visitors enrich certain sections of the Grisons population, the *Bund* adduces the following remarkable statistics. The taxable capital (*Steuercapital*) at Davos in the twenty years 1866 to 1886 rose from 3,250,000 francs to 8,879,000, that at St. Moritz from 642,000 to 5,250,000, and that at Pontresina from 1,715,000 to 3,756,000. The *Schweizerische Morgen-Zeitung* (January 31st, 1888) adds that in 1866 the capital subject to State taxation at Chur amounted only to 19,000,000 francs, while in 1886 it rose to 29,000,000. According to the *Freier Rhaetier* (January 29th, 1888), in Grisons there exist now as many as twenty communes (*Gemeinden*) whose taxable capitals equal and exceed 2,000,000 francs. Since so considerable and rapid an increase of wealth can be ascribed only to a growing "hotel industry" in the canton, and

the Grisons population, naturally enough, looks to foreigners as the most welcome guests, one may venture to prophesy that the Chur Sanitätsrath will soon be compelled to yield to popular pressure, and to cancel its edict as suddenly as it was promulgated.

NEWCASTLE - UPON - TYNE.

[FROM OUR OWN CORRESPONDENT.]

The Newcastle Infirmary.—The Inquiry at the Workhouse.—The Durham Guardians and their Medical Officer.

THE annual meeting of the governors of the infirmary was held last week, and a very favourable report was presented. This was the first report since the hospital has been made free. During the year many changes have been adopted; the system of admitting patients by letter has been abolished, the Committee and Medical Board have been amalgamated, the out-patient and casual departments have been remodelled, the special out-patient departments of the skin, throat and ear, and diseases of women have been closed, the only special departments kept on being those of the eye and teeth. A fee of £2 2s. for one session, or a composition fee of £6 6s., is now charged from all students for the privilege of attending the hospital. The working-men subscriptions have increased very considerably during the past year, though a perfect state of equilibrium has not yet been arrived at between income and expenditure. The number of patients treated during the year was 3,020, as against 3,175 during the previous year; the average number of patients in the hospital per diem was 241.79, last year it was 257.5; the average stay of each patient in the hospital was 29.2 days; the average cost per patient was £3 12s. 7d.; the death-rate for the year was 6.82. Of general and constitutional diseases there were 19 cases of rheumatic fever, 14 of diabetes mellitus, 3 of purpura hæmorrhagica, 2 of pernicious anæmia, 3 of beri-beri, these last occurring in Chinese sailors staying in the Tyne, awaiting the completion of war ships for the Chinese navy; of diseases of the circulatory system there were 10 cases of thoracic and 2 of abdominal aneurysm. Twenty-three cases of poisoning were treated during the year, 2 being fatal, 1 from phosphorus and 1 from coal gas. There were 893 operations during the year, with 16 deaths: ovariectomy was performed 8 times without a fatal case; 5 cases of abdominal section are recorded, with 3 deaths, 1 being a uterine fibroid, the 2 others being cases of intestinal obstruction; there was 1 case of successful gastrotomy, and a successful case of laparotomy. Twelve cases of stone were treated, 5 by suprapubic lithotomy and 7 by crushing, without fatal result. There were 17 primary amputations with 2 deaths, and 43 amputations for disease without a death. There were 6 excisions of the hip, 7 of the knee, 1 of the ankle, 2 of the shoulder, and 3 of the elbow, all successful. Nephrorrhaphy was successfully performed by Mr. Dodd, the senior assistant surgeon.

Some weeks ago an inquiry was held by Mr. Knollys, the Local Government Board Inspector, into existing irregularities at the workhouse. The decision of the Board has just been published. The following is a copy of portions of the letter addressed to the medical officer, Mr. N. Hardcastle. "The Board have carefully considered the inspector's report, and have arrived at the conclusion that it is proved you have been guilty of very grave neglect of duty as medical officer of the workhouse." The letter then specifies the distinct charges of carelessness in examination of the patients in a recent outbreak of scarlet fever, devotion of insufficient time to the cases during the progress of their ailments, incorrect entering in the medical relief book, insufficient precautions in disinfecting own person after visiting the fever cases. The letter finishes by saying that "the Board are unable to consider they would be justified in allowing you to retain the office of medical advisor, and they regret they must call upon you forthwith to place your resignation in the hands of the guardians." Dr. Hardcastle has held the appointment of medical officer for many years. Latterly things have not gone smoothly between him and the master of the institution. The unpleasantness has at length culminated in a Government inquiry and the dismissal of both the medical officer and the master. I understand that Dr. Hardcastle has appealed against the decision of the Board. Should the decision be upheld, the Guardians will most probably elect a resident medical officer whose whole time shall be devoted to the duties of the office.

At the last meeting of the Durham Board of Guardians, Dr. E. Jepson, the medical officer to the Durham Workhouse applied for

permission to make *post-mortem* examination of all paupers dying in the institution, providing the relatives make no objection; also to introduce a pupil to attend him during his visits to the hospital; also for leave to perform any operation which he considered necessary on any pauper, and to obtain the necessary medical assistance, leaving the question of remuneration for the after-consideration of the Board. One would have thought there was nothing very alarming in Dr. Jepson's request, but the members of the Board were strong in their language and in their refusal. One gentleman said if the request was acceded to, it would make them worse than the days of Burke and Hare. The request was most unjustifiable and repugnant to the right feeling of every Englishman. Finally, as it appeared that Dr. Jepson had performed a *post-mortem* last July without asking the permission of the Guardians, it was decided to report him to the Local Government Board.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Small-pox Epidemic.—Owens College and the Royal Infirmary.—Victoria University.—Secretary to Board of Medicine.

IN the neighbourhood of Manchester several cases of small-pox have occurred; several new cases have occurred at Stalybridge and at Ashton-under-Lyne, while at Accrington one death from this disease is recorded. At Stockport also there are several cases.

We understand that the authorities of Owens College are anxious to establish more intimate relations between the Royal Infirmary of Manchester and the Owens College Medical School. To this end we believe a conference of certain authorities of both institutions has been held. There cannot be any doubt that the more intimate the connection between the theoretical teaching on the one hand and its practical application as exemplified in the wards of a hospital, the better it will be for everyone concerned. There will soon be one or more vacancies in the medical staff of the hospital, owing to the retirement of certain members of the staff, who have almost reached the age laid down by Infirmary rules in such cases.

Sunday last was hospital day in Manchester, when, as usual, collections on behalf of the hospitals were made in churches and elsewhere. The sum collected has not been announced. Saturday next will be Hospital Saturday.

The written examinations for the intermediate and final examinations for M.B. in Victoria University begin simultaneously in Manchester and Liverpool on Friday, March 16th.

Owing to his removal to London, Dr. Cullingworth has resigned the office of Secretary to the Departmental Board of Medicine and Surgery in Victoria University. Professor Stirling has been elected to the office. Dr. Cullingworth officiated as Secretary for about four years.

CORRESPONDENCE.

REFORM AT THE ROYAL COLLEGE OF SURGEONS.

SIR.—The first thought that must strike any reader of the manifesto of the President of the Royal College of Surgeons, which is likely for many reasons to become a historical document, can be none other than one of deep regret. Not only is it an illustration of the time-worn saw *parturient montes*, but it does no credit to an ancient corporation such as this that, even in the defence of an untenable position, such a lamentable gathering of ill-assorted arguments should be marshalled. The battalion might well have been collected from the *anthropophagi*; for the reasoning employed is of such a nature that one proposition devours its neighbour. We are unfeignedly sorry to reflect how little such a reply as this will add to the reputation of the College, for it does not need a man of the legal acumen of Lord Cranbrook to spy out at once the inconsistency of this remarkable fulmination. The "reply" is nominally directed to the statement of the Association of Fellows; but as it deals as much with the claims of the Members as with those of the former body, we beg your indulgence for a few remarks thereon. We should trespass too much upon your space did we deal with each clause *seriatim*, and therefore must single out one or two of the most glaring defects.

The very first statement contains a misstatement, for it numbers the members at 18,000, though both Mr. Holmes and Dr. Danford

Thomas informed the Council at the last general meeting of the results of our scrutiny of the "List of Members." Under 12,000 was the number we arrived at after most careful search through the last *Medical Register*. Surely the Council might have instructed the College Secretary to verify or disprove our assertion before making public so incorrect a computation! No, there was a purpose in allowing the higher figures to stand. The petition of the Members had been signed by 4,665 Members, and that, of course, was a much smaller proportion of 18,000 than of 12,000. The Council states that there was "no evidence before the Council that the majority of even the Members themselves are in favour of the claims set up on their behalf." Has the Council ever sought for such evidence? No; yet it has been abundantly supplied to it, not only when it was informed on November 3rd, 1887, of the number of signatures, and that in many large towns from two-thirds to three-quarters of the Members living there had actually signed; not only in the ridiculous number of dissentient Members (fourteen) who had recorded their disapprobation of the petition, but also in the enormous majorities in favour of the resolutions passed at the College at successive general meetings. Is this evidence? If not, why did not the Council poll its own Members? The Members would not have grudged the expense involved—considerably under £100. As to its poll of the Fellows, the disingenuity of that you have long ago exposed. Yet the Council, which treats so lightly a matter of nearly 5,000 signatures, plumes itself upon a document signed by the magnificent total of "over six hundred," and on a majority of six out of eighteen in the first, thinly attended and badly advertised, of the series of general meetings. It is careful also to include two propositions in one sentence, and to make its lame answer to one only do duty for a judgment on both. This is a very poor feint. It has been maintained ere this, on behalf of the Council, that it would be unfair to deprive the Fellows of the electoral value for the extra money defrayed by them upon an extended course of professional study; but now the Council tries to make a point out of the present possibilities of obtaining the Fellowship "without any further special curriculum of professional study involving additional expense." One clause objects to Members of twenty years' standing being eligible to the Council on the ground that it would substitute mere seniority for professional distinction. There is no question of substitution, for the proportion of seats asked for by the Members is small, and they may be trusted to take care that they elect men of "professional distinction," for such are not unknown among the ranks of the general practitioners. The time limit may also be looked upon as a self-denying ordinance on the part of the Members.

We are not at present so directly interested as the Fellows are in the question of the election of the President; but may point out that Clauses *c*, *d*, *e*, and *f* are mutually antagonistic in their bearings, and that Clause *f*, where the Council speaks of the danger of placing the election of the President in the hands of "a comparatively small number," is an instance of the Council being judged out of its own mouth, not only on this, but on the larger question of the Members' claims. We are informed, however, on the highest authority, that the Privy Council does not look so slightly as does the College President upon the petition presented by 4,665 Members of the Royal College of Surgeons, and that that body looks upon it as a most important and weighty document, over the discussion of which much time must yet be spent. We have no misgivings as to the result.—We are, etc.,

WARWICK C. STEELE, } Hon. Secs. Assoc.
WM. ASHTON ELLIS, } M.R.C.S.

February 8th, 1888.

REGISTRATION OF TRAINED NURSES.

SIR,—Being present at the remarkable gathering of medical men and nurses at St. George's Hall, I desire to ask, through the medium of your columns, a question to which, although I listened attentively to all the admirable speeches, I could find no answer.

The British Nurses Association (President, Her Royal Highness Princess Christian) is founded to supply the profession and the public with a really good article in the shape of thoroughly trained nurses, who are to be registered, and form members of a new and rising profession. My question is, "What is this trained nurse of the future to be like, and what are to be her qualifications and training?"

The medical profession is fairly well marked out into the three great divisions of medicine, surgery, and obstetrics, besides the army of general practitioners. There are the two separate

diplomas of medicine and surgery with their Colleges, obstetrics not yet standing alone.

In nursing, as far as I understand it, these three classes, the monthly, the medical, and the surgical nurse are still more clearly differentiated. Most women who enter the profession now display a marked aptitude for one or other, and the training for each must be distinctly specialised.

Are the trained nurses of the future to be a vast body of general practitioners trained in medicine, surgery, and obstetrics, or are we to have the three branches specialised, with diplomas and registration for each? I venture to think the latter arrangement vastly preferable. A highly trained surgical nurse is not always a good hand at washing a baby, or a medical nurse at dressing a wound; and considering the distinctions are as well marked as in our profession, I was surprised, when so much allusion was made to the difference between a surgeon and physician, that this point was not touched on at all.

In conclusion, I venture to think that both the public and the profession will better value and better understand the meaning of a trained and registered nurse if it be stated what she is trained for, and if her studies be specially shaped for that end.—I am, etc.,

A. T. SCHOFIELD, M.D.
141, Westbourne Terrace, Hyde Park, W.

THE METROPOLITAN PROVIDENT DISPENSARIES AND THEIR OPPONENTS.

SIR,—It is to be hoped that the committee lately formed, and over which Dr. Paramore presided, are really in earnest in helping on the above movement, but are equally determined to make the scheme as perfect as possible. They give several reasons for objection, and only one of these has any solidity in it. They object to allowing anyone to enter when ill, or in other words to paying a "sick entrance fee." To call such a scheme an "insurance against sickness, during health," is absurd, and altogether opposed to any system of solid insurance. In fact, if any other society started an insurance with such a clause, it would crack up in a few months. Their income from premiums would not supply the demands for benefits. If the "sick entrance fee" were a keystone of the provident scheme, one could wish it to be retained; but it is not, and more certainly, it never can be, therefore it should be dropped.

As to the objection that it is "an advertising concern," this will not hold water. Our annual hospital reports, our insurance company's prospectuses, our health-officers' appointments, our having our names printed in the directories, are all advertisements, more or less, just as the provident prospectus is.

The Committee object also, that it is not needed, for the hospitals and club doctors, and parish authorities are amply sufficient. This is not so. In the Sturge Prize Essay, I lately showed that in twelve months, and at 130 hospitals, 50,935 in-patients, and 1,179,661 out-patients received treatment; now it is well known that the majority of these out-patients can pay the fees of a provident system. Indeed, the fear is that a good many would be disqualified from joining a provident dispensary. However, a well worked "wage limit" would look to this. At 72 of these hospitals the patients paid £36,334, while at 82 hospitals the doctors were paid £15,225 19s. Now if these people had been in a provident scheme they would have paid more, and the doctors would have received larger salaries. This statement then does away with their objection—that the scale of payments to a provident dispensary is ridiculously low.

If again one takes the club-doctor system, it is found to be very poor as regards payment of doctors. I know of one doctor who has seven clubs. He says it does not pay him, and to prove this he has an unqualified assistant at £50 a year. He calculates that, if he gets the confinements, vaccinations, and treatment of the children of club members, this goes to repay him; but he complains bitterly that, when he sends in his account for the treatment of the club members' wives, the men threaten to have him kicked out (*sic*) if he insists on their paying. It is well known that a club doctor's life is a broken-hearted life, full of insults and worries. Then look at the fearful abuses of the club-doctor system. Anyone can join; they sneer at the idea of a "wage limit." Take the Clerks' Association at Liverpool: any member, even those making £600 per annum, can have a doctor and medicine for *four shillings* a year! The Foresters and Oddfellows are the same.

Now, granting some go to the hospital who should not, and that the same holds good of clubs, is there not room for a provident scheme in London? It is sad to see that the chief oppo-

nents of the system are our club doctors and those at the hospitals. It is a matter of observation that many club doctors shift their patients into the hospitals, so as to get rid of them. In this way the two classes help each other.

The Committee point out that the scale of fees is degrading. Well, for that matter, so are all our fees, even those of club doctors, hospital men, ship surgeons, and general practitioners. But we hold the remedy in our own hands. For years I have asked my medical neighbours to fix the minimum fee for the district; but will they? From fourpence to tenpence (not including the supply of drugs) is the rate per visit of the provident dispensary system to their doctors. This might be improved upon, and I hold that the working expenses of a provident dispensary should be defrayed by honorary subscriptions. All provident societies have such. The Foresters have 13,971 such, paying from 10s. 6d. upwards. Each club has its concert or raffle. In Germany, where there is compulsory national insurance against sickness and accident, the employer pays one-third opposite the two-thirds paid by the workman. Capitalists sink their money in insurance companies before a single premium has been paid.

I shall be glad to send anyone information on the provident dispensary system. Let it have a fair trial. But, to be a success, it must have hospital co-operation, without which it will be a farce and a complete failure.—I am, etc.,

Liverpool.

ROBERT R. RENTOUL, M.D.

THE NOMENCLATURE OF NEURASTHENIC CONDITIONS.

SIR,—The enclosed communication from Mr. Howell is a sort of note or postscript to his paper on Hysteria, read before the Hunterian Society, an account of which appeared in the JOURNAL of February 11th. There can, I think, be no doubt that a revised nomenclature will be of service in connection with the theory of the subject in question.—I am, etc.,

H. GERVIS.

40, Harley Street, Cavendish Square.

February 12th, 1888.

"NEUROKINESIS: NEURASTHENIA: HYSTERIA.

"MR. PRESIDENT,—It seems to me that some word is needed to define the condition of the nervous system which ensues upon shock, either physical or moral, or breakdown from overstrain more closely than neurasthenia, which may mean a natural state, or hysteria, which implies a special source or cause. This condition—which is attended by loss of physical power, paresis, etc.; by loss of moral power, irresolution, etc.; by susceptibility to pain, hyperæsthesia, and irritation in all forms; by a readiness, to take on perverted action, paroxysm or emotion, on the one hand, or to fall to pieces, as it were, as if the screws were loose or fallen out, prostration of power, on the other; by a loss of integrity of nerve power, or of some element that is essential to it—might, perhaps, be represented by neurokinesis, that is, nerve shock or shaking; a nerve commotion.

"Revision and improvement in nomenclature necessarily attend upon advance of science. No one, in the present day, would think of confounding typhus with typhoid fever, or of adopting in the one case the treatment suitable for the other. So the emotion which ensues upon shock is simply emotion; it is not hysteria; to call it hysteria is to attribute to a natural consequence a special cause that does not appertain to it. Obviously the treatment of emotion *per se*, and of hysteria, *per se*, ought to be essentially different.

"Again, loss of power of the will, of self-reliance, irresolution, etc., is another effect and result of shock. This condition palpably stands in need of help to restore the will which is in abeyance, and to rouse to resolute action the power that is temporarily suspended and prostrated. If this need of aid is ignored because it is either not recognised or not understood, it becomes an unrelieved want, the repeated representation of which by the patient is very liable to be misinterpreted into a craving for sympathy by the doctor, who thus fails to see the true state of the case. Let the patient once see that her condition is rightly understood, and that it will meet with attention, and this reputed craving will cease; at least, this is in accordance with my experience. When once hysteria ceases to be a "disorder with which everyone is familiar, but which nobody understands," the treatment will become more rational and more successful. Hitherto it has represented neither the science nor the art of medicine.—I am, yours truly,

"February 10th, 1888. "D. DE BERDT HOWELL.

"To the President of the Hunterian Society."

INTRACAPSULAR INJECTION IN THE EXTRACTION OF CATARACT.

SIR,—I took part in this correspondence chiefly with the object of protesting, as I was bound to do, against the use, twice made by Dr. McKeown, of statistics of my hospital of some eleven or twelve years ago. Having entered this protest, I should not trouble you further in the matter, but that it might be taken as a want of courtesy on my part were I to pass over in silence some points in Dr. McKeown's last letter (JOURNAL, 11th February). I hope, therefore, you will permit me once more to intrude upon your space.

And, first of all, referring to an observation in Mr. Bell's letter in the same JOURNAL, I do not know whether I am included amongst those whose attitude with regard to this procedure seems hostile or even unscientific, but, to my mind, neither of these epithets can be applied to an attitude which consists in declining to call a certain procedure good, when the results of its principal advocate do not show it to be good. I have no "hostile" feeling towards the intracapsular injection, nor would it be inconsistent with anything I have said were I to adopt the method at some future time, when it may have been placed on a surer footing than at present.

With respect to Dr. McKeown's letter:—1. Quite apart from his invitation, it is my intention to give the results of my cataract extractions as soon as I possibly can. For the present I may say that I am almost, if not altogether, satisfied with those results. But, whatever they may be, I fail to see how they can be of use to Dr. McKeown, for I operate only on ripe, or very nearly ripe, cataracts. If, therefore, my results are better than his, this may depend upon the difference of the material operated on; indeed, Dr. McKeown has himself reminded us that "we have no analogous statistics." If my statistics are bad, or are only middling, Dr. McKeown will not wish to compare his with them at all, but, if comparison there can be, will prefer to place his statistics beside those of more successful operators.

2. With regard to Dr. McKeown's suggestion that I should supply him with the details and results of cataract operations performed by other surgeons, I am afraid I must ask to be excused, for the task would involve some hours' work over the back numbers of about a dozen journals, not to speak of hospital reports, in different languages. I may, however, mention that, in a publication I received to-day, there is a table giving the results obtained by 17 operators, and they are all better than Dr. McKeown's results. The number of operations opposite the names of some of these surgeons is too small to render their percentages of results of much value; but the series recorded by five of them is sufficiently long. No. 1 operated on 101 cataracts; losses, 2.0 per cent. No. 2 operated on 381 cataracts; losses, 2.88 per cent. No. 3 operated on 155 cataracts; losses, 1.29 per cent. No. 4 operated on 116 cataracts; losses, 1.18 per cent. No. 5 operated on 107 cataracts; losses, 0.94 per cent.

3. Dr. McKeown said it is not proved that antiseptic measures have accomplished anything for cataract operations, if only the hospital be sanitary. To this I can only say that I hold precisely the opposite opinion as do all the most successful operators in Europe and America. The proof lies in the almost complete freedom from suppurative processes which we now enjoy.

4. With respect to the modification which, in the hands of most operators, has or has not taken place in the section, I am not well acquainted with the present practice at Moorfields, but I should not be surprised to learn that what is there called Graefe's method receives that name, and properly too, because the operation is done with a Graefe's knife, and includes an iridectomy, while the section may be much less peripheral than von Graefe made it. On the Continent (Germany and France) I know of only one operator who still clings to the old von Graefe's section.

5. Dr. McKeown states that Forster's artificial maturation is very little practised. "Very little" is a relative term, but I can assure him that it is used by very many ophthalmic surgeons whenever occasion requires, and that it is coming more and more into use. My experience extends to some half a dozen cases in which I thought it indicated, and it acted well.

6. The quotations from MM. Panas and de Wecker, with which Dr. McKeown supplements mine, do not bear him out in his view, except in so far as that, in some exceptional cases of unripe cataract, the latter author evacuates cortical masses partly by washing them out and partly by pressure with the lower lid.

As I do not think that a correspondence in the JOURNAL is a

snitable medium for the thorough discussion of such a subject, and as there is always danger of the personal element creeping into a correspondence like this, I shall ask you, Sir, to consider this one now closed, so far as I am concerned.—I am, etc.,

23, Merrion Square, Dublin.

H. R. SWANZY.

February 15th.

APPOINTMENT TO HAYWARD'S HEATH ASYLUM.

SIR,—Your correspondent "G." has certainly not overstated his case, for he has omitted to point out that the new medical superintendent has, for many years, held a post as district medical officer of health, and has been presumably debarred from the ordinary practice of his profession.

He is at least forty-five years of age, his earliest qualifications being dated three years after those of his predecessor, whose pension of £500 per annum has been strongly protested against by the Sussex Guardians; in face of this, the Committee of the Asylum have elected a man who, in five years, might also be pensioned at £500 per annum. Unfortunately, the antagonism to pensions this is likely to raise will extend to other counties.

"G.'s" letter suggests the idea that if one of the Lord Chancellor's visitors were shortly to retire, it would be very natural and probable that their *protégé* should be nominated to the vacancy. The possibility of such promotion is calculated to harm the Asylum Medical Service by deterring good men from entering a speciality, in which the prizes may thus be withdrawn from competition.—I am, etc.,

14th February, 1888.

* * * We have received a copy of the rules of the Sussex Lunatic Asylum, Hayward's Heath, approved by the Home Secretary in 1870 and 1873, and we are informed that the requirements as to the qualifications of the medical superintendent therein contained are those which were advertised as applicable to candidates for the vacancy recently filled up. The opposite was implied in the letter of our correspondent "G." published last week, and the correction was received too late for insertion then.

INJURY TO SIGHT BY SHUTTLES.

SIR,—In the JOURNAL of February 11th you quoted from the annual report of the Preston Eye Infirmary (Mr. Winkley Langdon) regretting that shuttle accidents cannot be prevented. In a memoir which I had the honour to present to the Society for the Prevention of Blindness (Paris), 1886, this subject was fully and exhaustively discussed, statistics given from the Manchester Eye Hospital showing the alarming nature of the accident, and accompanying this was a drawing to scale by a mechanical engineer of great skill, showing a weaver's loom with the patent shuttle guard of "Wirth" attached; the patent is a German one, but I am assured admirably fulfils its intention. Shortly it consists of three rods in a hinged fall, which is attached to the beam of the reel; the guard rods are sufficiently near to prevent the shuttle flying through; and when we know that a full shuttle weighs nearly one pound, is tapered at either end, shod with iron, and thrown 8 feet from side to side 120 times a minute, some idea can be formed of the formidable nature of this engine of destruction. Happily, improved machinery has much reduced this accident, so also has the Employers' Liability Act, but no knowledge nor skill can prevent an occasional knot in the yarn, which deflects the point of the shuttle and forces it to leave the simple groove in which it plays.

There can be no doubt of the admirable service Mr. Langdon does by calling attention to these preventable accidents, but the operatives are often to blame, for they refuse to use safeguards which slightly hinder their work.—I am, etc.,

20, St. John Street, Manchester.

P. H. MCLES, M.D.

VENTRAL NEPHRECTOMY FOR HYDRONEPHROSIS.

SIR,—In reply to the letter of Mr. Clement Lucas in the JOURNAL of February 11th, I desire to state that I entirely disagree with him that the treatment adopted by me was what he considers as heroic, or other than the case demanded, and for the following reasons:

In the first place, the correct treatment of hydronephrosis is at the present time an open question, and is, in my opinion, ever likely to remain so, each case requiring to be treated on its own merits.

Again, there is no analogy betwixt hydrocele and hydronephrosis, either in their pathology or treatment. Aspiration in a case of distended kidney pelvis is a much more risky proceeding than in that of hydrocele. The fact of the cyst so often refilling

was sufficient evidence that simple tapping would have been useless as a permanent cure, which was what the patient desired. Incision and drainage I look upon as a very unsurgical proceeding, and quite unsuited to such a case.

As regards removal through the loin, I question if in any case, more especially in a very stout subject, there is any less danger in this operation than in the other; but, in my case, I am confident from the extensive adhesions, the operation would never have been completed, even by one who had had experience in such cases.—I am, etc.,

R. H. A. HUNTER, M.R.C.S., etc.

Clifton House, Battersea, S.W.

PATHOLOGY IN DUBLIN.

SIR,—While in the main I agree with much you have written by way of commentary on Dr. Mapother's remarks regarding the teaching of pathology in Dublin, there are one or two points on which I should like to express my dissent. It is quite incorrect to say that teaching in pathology is "totally and confessedly non-existent." It could hardly be so in the city which gave an impulse to the teaching of pathology everywhere by the foundation of the old Pathological Society. In the hospitals it is taught, not systematically, I admit, but with all the force and advantage which come from an intimate knowledge of the clinical history of the cases. Several of the hospitals have small pathological museums. The Richmond has one of considerable extent and wide fame, and with the specimens there the teaching in the wards is made clearer and more forcible. In the Trinity College School, Professor Purser gives a full course on pathological histology, and no more able teacher is to be found.

The fault lies not in the difficulty of having the subjects well taught, but in the omission of the licensing bodies to have attendance on a course of lectures and demonstrations made compulsory. As a member of the Senate of the Royal University, I have moved and carried the introduction of such a course into the curriculum. Following up that success, I brought the matter formally before the Dublin Branch of the British Medical Association in 1887, and a motion was again carried this year enforcing the importance of systematic teaching. It is now for the other licensing bodies in Ireland to follow the example of the Royal University. If they will only require attendance on a three months' course, there will be no difficulty about the teachers.

But I wish to say, nevertheless, that we are not such an ignorant class as your leader implies. With many disadvantages to struggle against, we do know something about pathology: there are some branches which have been worked as fully here as anywhere else in the world. We do not intend, however, to rest satisfied; to use your own words, we will not "be contented with anything lower than the first position."—I am, etc.,

34, Harcourt Street, Dublin.

W. THOMSON.

CIRRHOSIS OF THE LIVER.

SIR,—In connection with Dr. Drummond's case of cirrhosis and Dr. Wilk's interesting remarks thereon, I send you the following abstract of a case that was under the care of Dr. Churton in the Leeds Infirmary.

A man, about 55, was admitted with ascites. He had great enlargement of the veins about the umbilicus, and hepatic cirrhosis was diagnosed. He was tapped once and steadily improved, the abdomen remaining small. I then ventured to offer to the clinical class as an explanation of the non-reaccumulation of the fluid the establishment of collateral venous circulation. A year afterwards he was readmitted with a very extensive purpuric condition of the skin of the legs and trunk, and slight reaccumulation of ascitic fluid. He slowly sank into a semicomatose condition, became faintly jaundiced, and died gradually. *Post mortem* we found cirrhosis of the liver well marked, and retroperitoneal extravasation of blood. In the free margin of the falciform ligament a large vein passed from the left division of the portal trunk to the superficial veins around the umbilicus. This vessel was thick walled, and as large as a goose quill.

I can call to mind one case of ascites, under the care of Dr. Clifford Allbutt, who, diagnosing cirrhosis, directed me to tap repeatedly, the case not having been in any way affected by a lengthened use of diuretics. This was done, and the fluid ultimately did not reaccumulate. In this case there was not much enlargement of the superficial veins, and possibly a collateral circulation may have been established through the ductus venosus or other channels.—I am, etc.,

Leeds.

T. WARDROP GRIFFITH.

NAVAL AND MILITARY MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Surgeon-General W. A. Mackinnon, C.B.	London ...	Gibraltar.
" Sir J. A. Hanbury,	M.B., K.C.B. Gibraltar ...	Madras.
" W. M. Webb ...	York ...	Aldershot.
Deputy Surg.-Gen. J. Ferguson	Bengal ...	York.
Brigade-Surgeon J. Inkson, M.D.	Aldershot ...	Madras.
Surgeon-Major W. J. Fawcett, M.B.	Clifton ...	Bengal.
" H. W. Joynnt ...	Jamaica ...	Canterbury.
" J. M. Namara, M.D.	W. Africa ...	Aldershot.
Surgeon W. R. Henderson, M.D.	... ..	Cork.
" D. O'Sullivan ...	Fleetwood ...	York.
" G. Coutts, M.B. ...	Bombay ...	Hulme.
" J. Battersby, M.B. ...	Boyle ...	Dublin.
" E. J. E. Risk ...	Oxford ...	Portsmouth.
" J. W. Beatty, M.D. ...	Bengal ...	Newcastle.
" L. E. Anderson ...	Netley ...	Jamaica.
" G. B. Russell, M.B. ...	Peruany ...	Cahir.
" J. S. Green, M.B. ...	W. Africa ...	Dublin.
" J. Rose ...	Madras ...	... ..
" J. Moir, M.B. ...	Devonport ...	Ceylon.
" J. F. S. Fowler, M.B. ...	Aldershot ...	Nova Scotia.
" J. R. Burrows, M.D. ...	Cork ...	Hong Kong.
" E. S. Marder ...	Gosport ...	Bengal.
" A. L. F. Bate ...	Dublin ...	... ..
" E. A. Burnside ...	Portsmouth ...	Ceylon.
" J. W. Cockerill ...	Aldershot ...	Dover.
" J. W. Bullen, M.D. ...	Queensdown ...	Roscrea.
" H. E. H. Smith ...	Portsmouth ...	Sts. Settlements
" W. Hallaran, M.B. ...	Aldershot ...	Madras.
" R. Crofts ...	Cork ...	Sierra Leone.
" L. E. A. Salmon ...	Newcastle ...	Preston.

THE NAVY.

MR. MICHAEL RONAN, B.A., Staff Surgeon, has been appointed to the *Fearless*.

THE MEDICAL STAFF.

SURGEON-GENERAL T. W. FOX, M.B., is granted retired pay. He entered the service as Assistant-Surgeon July 23rd, 1852; became Surgeon, September 18th, 1860; Surgeon-Major, July 3rd, 1872; Brigade-Surgeon, November 27th, 1879; Deputy Surgeon-General, June 23rd, 1880; and Surgeon-General, May 18th, 1887. He was with the 14th Light Dragoons in the Persian war of 1857, and was present at the bombardment of Mohumrah; he received the medal and clasp for the campaign.

Brigade-Surgeon W. B. RAMSDOTHAM, M.B., has also been granted retired pay; his commissions bear date: Assistant-Surgeon, March 10th, 1883; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; and Brigade-Surgeon, October 1st, 1883. The granting a step of honorary rank on retirement has been discontinued. Brigade-Surgeon Ramsbotham served in the Afghan war of 1878-80 (medal), and in the Egyptian war in 1882 (medal and Egyptian bronze star).

Quartermaster G. W. M. JOHNSTON has likewise retired. He entered the service as Lieutenant of Orderlies, June 25th, 1873; became Captain, April 30th, 1879; and was made Quartermaster, Medical Staff, from July 1st, 1881. He was engaged in the campaign in the Eastern Soudan in 1885, and obtained the medal and clasp and the Egyptian bronze star.

Surgeon-Major METCALFE JOHNSON, of the 4th Battalion Royal Lancaster Regiment (formerly the 1st Lancashire Militia), has resigned his commission, which bore date March 1st, 1873; he is allowed to retain his rank and uniform.

Deputy Surgeon-General P. B. SMITH, M.D., on relief from the Allahabad Division of the Bengal Army, is appointed to the administrative medical charge of the Oude Division and Rohilkund district, *vice* Deputy Surgeon-General Slaughter, who has been transferred to the Home Establishment.

Deputy Surgeon-General E. H. ROBERTS, on arrival from England, is appointed to the administrative medical charge of the Allahabad division of the Bengal army, *vice* Deputy Surgeon-General P. B. Smith, transferred.

Surgeon D. SEMPLE, M.D., serving in Bengal, has been appointed to the charge of the civil medical duties at Dum Dum.

Surgeon-Major J. E. V. FOSS, M.D., serving in the Bombay command, is appointed to the medical charge of the station hospital at Deesa.

THE INDIAN MEDICAL SERVICE.

THE promotion of Brigade-Surgeon W. R. RICK, M.D., Bengal Establishment, to be Deputy Surgeon-General, already announced in this JOURNAL, has received the approval of the Queen.

Surgeon-Major C. F. OLDFHAM, Bengal Establishment, is promoted to be Brigade-Surgeon. He entered the service as Assistant-Surgeon July 27th, 1859, and was made Surgeon-Major January 3rd, 1877. He was with the 1st Goorkhas in the operations in the Malay Peninsula in 1875-76 (medal with clasp), and with the same regiment in the war in Afghanistan in 1878-79 (medal).

Brigade-Surgeon C. STUBBORPE, Madras Establishment, Professor of Anatomy, is appointed Professor of Surgery and Clinical Surgery at the Medical College, *vice* Surgeon-Major J. J. S. RATTON, M.D., retired.

Surgeon-Major H. ALLISON, M.D., Madras Establishment, Professor of Hygiene, is appointed Professor of Anatomy at the Medical College, *vice* Brigade-Surgeon Sibthorpe.

Surgeon T. H. POPE, Madras Establishment, is appointed Professor of Hygiene, *vice* Surgeon-Major Allison.

The services of Surgeon F. C. REEVES, of the Madras Establishment, are placed temporarily at the disposal of the Chief Commissioner of the Central Provinces, from the date on which he may be relieved of his acting appointment as Deputy Assay Master, Calcutta Mint.

Surgeon W. G. P. ALPIN, Bengal Establishment, Resident Surgeon in the Eden Hospital at Calcutta, is appointed to officiate as Medical Officer of the Bhopal Battalion and Agency, during the absence on furlough of Surgeon-Major A. H. C. DANE, M.D.

Surgeon E. W. REILLY, Madras Establishment, is appointed to officiate as Medical Officer 3rd Native Cavalry.

Brigade-Surgeon A. H. HILSON, M.D., Bengal Establishment, with temporary rank of Deputy Surgeon-General, is appointed to the officiating administrative charge of the Gwalior and Sangor District, *vice* Deputy Surgeon-General R. F. HUTCHINSON, M.D.

The undermentioned gentlemen have obtained leave of absence for the periods specified:—Surgeon D. R. ROSS, M.D., Bombay Establishment, Medical Officer of the Political Residency in the Persian Gulf, for eighteen months; Surgeon-Major D. WILKIE, M.D., Bengal Establishment, Statistical Officer to the Government of India in the Sanitary and Medical Departments for one year on private affairs; Surgeon-Major W. B. JOHNSON, Madras Establishment, Secretary and Statistical Officer to the Surgeon-General H.M.'s Forces, for one year on medical certificate.

THE VOLUNTEERS.

ACTING-SURGEON C. S. YOUNG, of the 3rd Volunteer Battalion Black Watch (formerly the 3rd Forfar), has been promoted to be Surgeon, and Mr. M. F. ANDERSON, M.B., has been appointed Acting Surgeon in his stead.

The undermentioned gentlemen have been appointed Acting Surgeons to the corps specified:—HUGH HEALD, 16th Lancashire; F. H. STAW, 4th Volunteer Brigade, Cinque Ports Division, Royal Artillery (late the 1st Cinque Ports Artillery); F. P. F. RANSOM, 3rd Volunteer Battalion, Suffolk Regiment (late the 1st Cambridgeshire).

RANK OF ARMY MEDICAL OFFICERS.

A CORRESPONDENT writes that he wishes to give some facts supplying yet another instance of the absolute necessity of giving medical officers honorary—or, at all events, some definite and comprehensive—military rank. He says he was detailed as a member of a mixed sanitary board, in a station of which he happened to be the actual sanitary medical officer. His seniority should have placed him next to the president, a junior major of a regiment. Nevertheless, he was detailed in order at the bottom, below a captain of Engineers and some budding subalterns of the garrison. The president markedly treated him as a nobody, never even asking his opinion, etc. He adds: "I think I have due grounds for feeling aggrieved."

. Undoubtedly. This board seems to have been a farce from a sanitary point of view, and its intelligent conclusions probably on a par with the courtesy of its president. The medical officer, being detailed a member and not a mere "attending" sanitary expert, should have asserted his seniority—probably, however, to be met with the answer that medical officers were not now in the possession of any army rank whatever!

REFORM OF THE DIRECTOR-GENERAL'S OFFICE.

A CORRESPONDENT suggests a Royal Commission to throw light into the dark subjects of promotion, retirement, the roster, and general administration in the Army Medical Service. Especially he advocates that the post of confidential secretary to the Director-General should be in the hands of an experienced medical officer, and not of a civilian clerk.

STATEMENT OF RANK IN THE GAZETTE.

AN administrative medical officer writes that "on all occasions when medical officers are gazetted, their military rank should be fully stated." This would include retirements, as well as appointments and promotion.

ESPRIT DE CORPS.

SENIOR SURGEONS writes: One point in recent discussions in the public press on the efficiency (or inefficiency) of the Army Medical Staff must have struck many of my brother officers as well as myself. I refer to the silence maintained throughout by those in other branches of the service, who, under many personal obligations to officers of the medical staff—obligations privately willingly admitted—or, it may be, for good offices (to which they were by no means entitled by regulation) rendered to some near and dear one in their families, apparently are not so strongly felt as to prevent silent assent to scurrilous detractions which they well know are totally unjust. Let us not forget this attitude.

Since my attention was drawn to the fact, in the evidence given before Lord R. Churchill's Committee, that the public had to pay £25,000 yearly for drugs used in the army, I have made various calculations, which confirm the opinion that the necessity for this large expenditure is partly due to the large consumption of drugs by officers' wives and families; and I would suggest to economists of the Labouchere type that, if the wives and children of officers were not held entitled to attendance and medicines at the public expense, not only would a direct saving ensue in the reduction of the drug bill, but also an indirect one in medical officers' salaries, as the army could do with fewer surgeons. The suggestion would also meet the views of those combatant officers who have been trying to prove that civilian surgeons are always to be preferred to military. It would, moreover, be a logical continuation of the policy by which officers' wives and children abroad were recently struck off "rations" issued at a nominal cost to themselves.

ROYAL PUBLIC DISPENSARY, EDINBURGH.—The annual meeting of the Royal Public Dispensary was held recently, the Lord Provost of Edinburgh in the chair. The report stated that during the past year 7,697 patients had been attended by the staff of the dispensary; of these, 5,397 had personally visited the outdoor department, 1,531 cases of a more serious nature had been attended at their own homes, 630 children had been vaccinated, and 139 women had been attended in their confinements. There was an increase of 123 patients on the previous year, although the institution was closed for a fortnight. Dr. G. Balfour was elected consulting physician for the ensuing year.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE APOTHECARIES' SOCIETY AND ILLEGAL PRACTICE.

AN important case under the Apothecaries' Act came before the judge of the Burslem County Court on Monday last. Edward Middlebrook, of Burslem and Smallthorne, was sued, at the instance of the Apothecaries' Hall, for practising as an apothecary without having obtained a certificate under the Act. It was stated that the defendant had for some time past carried on an extensive business in Burslem as an apothecary and surgeon without any qualifications. He had also a dispensary, called "Middlebrook's Provident Dispensary," at Smallthorne, and described himself as "E. Middlebrook, L.M. Dublin, Surgeon Accoucheur," etc.

It was contended, on behalf of the defendant, that the Act of George III, under which action was taken, was not intended to apply to a case like the present, and that a surgeon, merely as a surgeon, was not entitled to practise under this Act of Parliament, under which men holding the qualifications of M.R.C.S., M.D., and F.R.C.S. might be prosecuted. The meaning of the Act was that a man of absolutely no qualification should not be allowed to go about holding himself out as a medical man. But Mr. Middlebrook was a Doctor of Medicine of an American University, and had obtained a qualification from the Coombe Hospital, Dublin, which would entitle him to practise in midwifery and diseases of children. It was contended that there was no evidence that Mr. Middlebrook had held himself out as an apothecary.

The Judge, in giving judgment, said an apothecary had been defined by Mr. Justice Creswell as one who judged of internal diseases by its symptoms, and who set himself to cure that disease by medicine. It was proved to his (the Judge's) entire satisfaction that the defendant had practised as an apothecary without a certificate. A verdict was given for a penalty of £20 and costs.

CORONERS AND UNQUALIFIED ASSISTANTS.

J. M. SMITH, M.D., C.M. (London, N.), forwards us an account of an inquest recently held in the eastern district of the metropolis, in which it appears that our correspondent has come somewhat into collision with the coroner who presided on the occasion. The subject of the inquiry was a domestic servant, aged 48 years, who died at her sister's residence after a short illness of less than three hours' duration. In her evidence at the inquest the sister stated that the deceased—who was single, suffered from delusions, and was eccentric in her habits—paid her a casual visit one afternoon, and soon afterwards complained of a severe pain in her back. Becoming worse, our correspondent was sent for, and, not being at home, his unqualified assistant attended, saw the deceased, and prescribed for her, the friends being under the impression that the deceased was receiving the services of a duly qualified medical man. On Dr. Smith's return, some hours after, he went to visit the patient, and found she was dead, and, not having seen her alive or diagnosed her case, he declined to certify as to the cause of the death, and an inquest in due course was held, to which Dr. Smith, his assistant, and other witnesses were summoned.

No *post-mortem* examination was ordered, and when Dr. Smith was called upon to give evidence, he stated that he knew nothing about the case, and could assign no cause of death, he never having attended the deceased woman. The coroner then examined the assistant, who stated that he was a dispenser of drugs to the last witness; that, in the absence of his principal, he had visited and prescribed for the deceased. In answer to questions, he further stated that he considered the case "a very serious one indeed," but did not think it necessary to tell the friends he was not qualified, or to send for a medical man, as he was expecting Dr. Smith to return.

The coroner (severely): "That has nothing to do with the patient's life. You thought the case a serious one, and the friends were under the impression that the deceased was being treated by a fully qualified medical man, and so did not trouble. I think it is scandalous. It is over and over again that I have cases where people think their friends are being attended by duly qualified medical men and they are not."

Dr. Smith then appears to have contended that this was a case where a *post-mortem* examination should have been ordered; but the coroner evidently at first took an opposite view, presumably on the supposition that, had a duly qualified medical man attended the deceased instead of the dispenser of drugs, a proper diagnosis of the case would have been made during the three hours' illness prior to death, and an opinion given at the inquest, which would, from a legal coroner's point of view, have been sufficiently satisfactory without a *post-mortem* examination, and thus, as intimated, "not have wasted the public money when it might be avoided." The inquest, however, was adjourned, and a medical man unconnected with the case made a *post-mortem* examination, which showed that death was due to failure of the heart's action from fatty degeneration, accelerated by excessive indulgence in alcohol.

"* * * Apart from the question of *post-mortem* or no *post-mortem* in this case, our correspondent naturally feels aggrieved that he should be expected to assign a cause of death without knowing it, and that unpleasant observations should be made at the inquest about himself and his assistant. Having no knowledge of the deceased person till after death, he could not under the circumstances state the cause of it; but we would venture to remind him that if he employs an unqualified assistant—or, as the assistant described himself, "a dispenser of drugs"—to conduct his practice during his absence, he will from time to time find himself in collision, not only with the coroner, but

with the public generally and his patients in particular; and he must not be surprised if some amount of indignation is expressed when it is discovered that his representative has not even attained that minimum of knowledge which the State requires to be verified by registration before it sanctions an appointment of a medical officer to attend upon the very poorest in the land. We are sorry to gather from the statements of the coroner that this objectionable mode of practice is not uncommon in the eastern district, and that it has necessitated expressions of opinion from him which were distasteful to our correspondent.

With regard to *post-mortem* examinations, it is usual for the coroner to send his order to the medical man who last attended the deceased, or who was called in at the time of or immediately after the death; nevertheless, it is within the discretion of the coroner to issue the order to any other duly registered medical man. In the present case he appears to have departed from the usual rule; possibly he feared that, if our correspondent's drug dispenser was considered sufficiently to represent him at the bedside of the sick and the dying, he might be thought by his principal competent to preside at the *post-mortem* table.

BRANCH SURGERIES.

X. Y. Z. writes: A. has for over thirty years had a few private and several club patients in a village four miles from the nearest medical man. B. has the parish appointment and the bulk of clubs. Is A. justified in (1) setting up a surgery or place of call? and (2) if so, is it necessary to acquaint B. of the fact before doing so?

"* * * If our correspondent's statement had been more explicit and definite we should have been able to answer the two questions submitted. In the absence, therefore, of certain details, our reply is unavoidably based on the assumption that B., as well as A., is at the present time a non-resident practitioner in the village alluded to. In such case, unless a mutual arrangement existed between them to the contrary, A. would be "justified in setting up a surgery or place of call, without previously acquainting B. with his intention to do so." At the same time, we deem it judicious to add that, in our opinion, duplicate surgeries, unless absolutely necessary for the convenience of the practitioner, are more than objectionable, and tend more or less to degrade the profession.

A CASE OF ETIQUETTE.

S. asks for an opinion on the following: A. B. is medical superintendent of a union infirmary of 600 beds, and C. D. is the assistant medical officer there. C. D. is laid up for two days through an accident. A. B. does his work in the wards during that time, and sees a case for whom C. D. has prescribed a few days previously. The patient has had some vomiting following the original symptoms. One of the items of C. D.'s prescription is *vin. ipecac.* in 7-drop doses. A. B. ordered C. D.'s prescription to be repeated, with the omission of the *vin. ipecac.*, but does not mention the alteration to C. D. When C. D. returns to duty, he writes to A. B., accusing him of committing a "gross breach of medical etiquette" in altering his prescription without consulting him. Has A. B. done so or not, and in either case is C. D. justified in using these terms under the above circumstances?

"* * * The one essential point for consideration in the above case is the manner in which the change (by the simple omission of a drug) in the medicine was carried out. If it were effected with scrupulous care, so as not in any way injuriously to affect the repute or wound the feelings of the assistant medical officer in question, the latter's imputation against his responsible senior is, from our point of view, altogether indefensible, and, strictly speaking, constitutes an act of insubordination. At the same time, although A. B., as the responsible superintendent of the union infirmary and in actual charge of the case, was fully justified in omitting the *vin. ipecac.* (as the probable cause of the supervening symptom of vomiting), without previous consultation with the temporarily incapacitated assistant, he would have done well—as a matter of courtesy, if not of right—to have intimated to his touchy subordinate the nature and cause of the change made in the prescription. In neither case, however, can A. B.'s conduct, in our opinion, be regarded as, or approaching thereto, a "gross breach of medical etiquette."

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, February 10th, 1883.

The Dublin Barracks.—In answer to Mr. NORRIS, Mr. STANHOPE said: Thirty-nine deaths occurred in all the Dublin Barracks during the year 1887 among the warrant officers, non-commissioned officers, and men of the garrison. No officer died during that period. It is impossible to say how many of these deaths were attributable to causes intrinsic to the barracks. Four were due to enteric disease and eight to pneumonia. Referring to the report by Sir Charles Cameron and Dr. Grimshaw, of which we were enabled to publish a full account last week, he said under many of the heads the requisite measures have been taken, or are in hand. But there are two of grave importance as to which no final action has yet been taken. One is the erection of a new hospital for the isolation of infectious cases. We are trying to set aside another

hospital for this purpose. The other is the demolition of a large portion of the barracks on the ground that some of the old buildings are too much crowded together. Unfortunately, it is very difficult to provide other accommodation in Dublin at this time of the year for the troops, who would thereby be turned out of the Royal Barracks, and the new barracks now being commenced cannot be ready for some time. We are, however, trying to make such arrangements as will enable the most unhealthy part of the Royal Barracks to be vacated as soon as possible. As regards Dover, I caused an inspection to be made by an inspector of the Local Government Board. A considerable expenditure has been incurred in carrying out his recommendations, and the sanitary condition of these barracks is believed to be satisfactory.

Monday, February 13th.

Insanitary Dwellings.—In reply to Mr. THORBURN, Mr. RITCHIE said that, in view of the work which the Government had in hand, they could not undertake to deal with the question of the compulsory periodical inspection of dwellings.

Tuesday, February 14th.

The Treatment of Accidents at Sheerness.—In reply to Mr. KNATCHBULL-HUGESSEN, Lord G. HAMILTON said: It has been the practice to send accident cases occurring in Sheerness Dockyard to the Royal Naval Hospital at Chatham, for treatment, when the nature of the injury admitted of their removal. Injuries of a nature to render removal undesirable would be treated locally at the dispensary of the Royal Naval Barracks at the dockyard. Under these circumstances it appears to be unnecessary to ask the military authorities to receive accident cases. Since January, 1887, there have only been three cases necessitating removal.

Local Government, Scotland.—Mr. W. H. SMITH, in reply to Mr. BARCLAY, said: It is not anticipated that there will be time this session for Parliament to consider the Local Government Bill for Scotland. Leave will be asked to bring in a Bill dealing with the question of local government boundaries in Scotland so as to facilitate the passing of the Local Government Bill in the ensuing session.

The Sweating System.—In answer to Mr. PICKERSGILL, Mr. W. H. SMITH said: The Secretary of State some time ago instructed the Chief Inspector of Factories to institute special inquiries into the sweating system at the East End of London, with the help of inspectors drawn for the purpose from other districts. The report of the Chief Inspector is daily expected, and it is hoped that it will materially assist the Government in deciding whether anything can be done by legislation to remedy the evils complained of.

Scotch Sanitary Legislation.—Upon a division being taken, leave was given to introduce a Bill by the Lord Advocate for regulating the police and sanitary administration of towns and populous places, and for facilitating the union of police and municipal administration in burghs in Scotland.

Wednesday, February 15th.

New Bills.—On the motion of Mr. ELTON for leave to introduce a Bill for the better regulation of temporary dwellings, Dr. TANNER objected. A Bill to facilitate the better housing of the working classes in London was introduced by Mr. REID, and was read a first time.

NOTICES OF MOTION.

Among the Bills and motions of which notices have already been given are the following:

- Mr. QUILTER: Bill for the better securing the purity of beer.
- Mr. GILHOOLY: Bill for the better housing of the working classes in Ireland.
- Mr. ISAACSON: Bill to amend the law relating to the election of coroners.
- Mr. DIXON-HARTLAND: Bill for the better regulation of theatres and music halls in the metropolis.
- Mr. G. O. MORGAN: Bill further to amend the law relating to burials.
- Mr. S. HILL: Bill for the sanitary inspection of dwellings.
- Sir E. GREY: On Tuesday, March 6th, to move a resolution in favour of the repeal of the carriage tax.
- Mr. PICTON: Bill relating to the practice of vaccination.
- Mr. MILVAIN: Bill to amend the law in relation to punishment by whipping, and for the better protection of women and children.

A FIRE broke out last week at the buildings of the Faculty of Medicine of Paris just at the hour when students adjourn to the library. It was due to overheated calorifères, and spread to the grand amphitheatre. Fortunately plenty of assistance was at hand, and a disaster was averted before much damage had been done.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF LONDON.—Intermediate Examination in Medicine. January, 1888. Pass list. Entire Examination.

First Division.—H. S. Ballance, King's College; A. E. Berry, Owens College; A. W. Boring, University College; C. R. Box, St. Thomas's Hospital; P. R. Dodwell, University College; J. McD. Gill, Guy's Hospital; F. W. Hall, Guy's Hospital; E. V. Hugo, St. Bartholomew's Hospital; R. E. Lord, B.Sc., Owens College; A. W. Lyons, King's College; H. J. M. Playfair, King's College; H. S. Sandifer, King's College; J. H. Sykes, Owens College.

Second Division.—A. M. Cass, Owens College and Manchester Royal Infirmary; B. E. Dawson, London Hospital and University College; H. Distin, King's College; P. W. Dove, St. Bartholomew's Hospital; E. R. C. Earle, University College; C. J. Girling, Guy's Hospital; G. S. Johnston, Queen's College, Birmingham; H. B. Kitchin, University College; T. F. Ricketts, B.Sc., Guy's Hospital; L. Roberts, St. Bartholomew's Hospital.

Excluding Physiology.

First Division.—W. A. Clark, St. Bartholomew's Hospital.

Second Division.—E. L. N. Pridmore, University College; J. A. Waring, University College.

Physiology only.

First Division.—A. W. W. Lea, Owens College; S. W. Morgan, Bristol Medical School; J. A. Pickels, Owens College.

Second Division.—E. G. Hall, Bristol Medical School; H. Langdale, Owens College; F. R. P. Taylor, Westminster Hospital.

UNIVERSITY OF CAMBRIDGE.—The following were on February 9th admitted to the degree of Bachelor of Medicine.

E. Cautley, King's; T. Redmayne, Trinity; E. T. Wynne, St. Catharine's; C. J. Whitby, Emmanuel; R. Major-Brown, Downing.

The following gentleman was at the same time admitted to the degree of Bachelor of Surgery.

E. Cautley, King's.

MR. FRANCIS DARWIN, M.A., M.B., has been nominated by the Council of the Senate a member of the Special Board for Medicine, in the room of the late Mr. Coultts Trotter.

UNIVERSITY OF DUBLIN.—At the Spring Commencements of Hilary Term, held according to custom on Shrove Tuesday, February 14th, 1888, the following degrees in Medicine, Surgery, and Midwifery were conferred by the University Caput, in the presence of the Senate assembled in the Examination Hall of Trinity College.

Bachelor of Obstetrics.—S. W. Allworthy, E. B. Ffennell, H. N. H. Joynt, A. G. Price, J. D. Wright.

Bachelor of Surgery.—S. W. Allworthy, E. B. Ffennell, J. E. Hadden, W. M. Jennings, H. N. H. Joynt, J. F. Knott, A. G. Price, J. D. Wright.

Bachelor of Medicine.—H. N. H. Joynt, A. G. Price, J. D. Wright.

Doctor of Medicine.—R. J. Baker (in *Coloniis*), H. T. Bewley (stip. cond.), C. Mallius (in *Coloniis*), J. P. Henry, E. Hogben (stip. cond.).

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLAND AND WALES DURING 1887.

FROM the last quarterly return of the Registrar-General we are enabled to summarise the vital and mortal statistics relating to England and Wales for the year 1887. The birth-rate was equal to 31.4 and the death-rate to 18.8 per 1,000 of the population, estimated at twenty-eight and a quarter millions of persons. The birth-rate was lower than in any year since 1838, and the death-rate was actually the lowest on record. It is worthy of note that in each year since 1880 the death-rate has been lower than in any year on record prior to that date. This marked and continued reduction in the national death-rate implies that more than 400,000 persons in England and Wales have survived whose deaths would have been recorded had the rate of mortality remained the same as that which prevailed during the ten preceding years, 1871-80. The natural increase of population during 1887, or the excess of births over deaths, was 355,440, which showed a further decline from the numbers in recent years. According to returns issued by the Board of Trade, it appears that 286,969 emigrants of British origin left the various ports of the United Kingdom during the year under notice; of these, 172,334 were English, 35,039 Scotch, and 79,596 Irish. The amount of emigration from each division of the United Kingdom showed a further increase upon that recorded in the two preceding years.

The 530,577 deaths from all causes in England and Wales during

last year included 64,676 from the principal zymotic diseases, of which 19,302 were referred to diarrhoea, 16,297 to measles, 10,661 to whooping-cough, 7,719 to scarlet fever, 5,653 to "fever" (including typhus, enteric, and simple or ill-defined fever), 4,339 to diphtheria, and 565 to small-pox. These 64,676 deaths were equal to an annual rate of 2.29 per 1,000, against 2.19 and 2.36 in the two preceding years, 1885-86. Compared with the numbers recorded in 1886, the fatality of measles, scarlet fever, diphtheria, and small-pox showed an increase, while that of diarrhoea, whooping-cough, and fever had declined. The death-rate from measles exceeded that recorded in any year since 1840. The rate of mortality from scarlet fever, although slightly exceeding the very low rates in 1885 and 1886, was lower than that recorded in any previous year. The death-rate from diphtheria was lower than in any of the three previous years. The rate of mortality from small-pox showed an increase upon the unprecedentedly low rate in 1886, although it was considerably below the average of the six preceding years, 1881-86. The death-rate from whooping-cough was lower than in any year on record, and that from "fever" was also the lowest on record.

The 530,577 deaths at all ages registered in England and Wales during 1887 included 128,436 of infants under 1 year of age, equal to a proportion of 145 per 1,000 of the registered births, against 138 and 149 in the two preceding years. In the seven years of the current decade, 1881-87, the rate of infant mortality has averaged 141 per 1,000, against 149 in the preceding ten years 1871-80. Among elderly persons the rate of mortality during 1887 differed but slightly from that recorded in recent years.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons, 6,182 births and 3,993 deaths were registered during the week ending Saturday, February 11th. The annual rate of mortality per 1,000 persons living in these towns, which had steadily declined in the first five weeks of this year from 23.8 to 21.9, rose again during the week under notice to 22.2. The rates in the several towns ranged from 15.2 in Brighton, 16.8 in Derby, 17.4 in Sunderland, and 17.6 in Halifax, to 28.1 in Wolverhampton, 28.2 in Manchester, 28.9 in Plymouth, and 36.4 in Preston. In the twenty-seven provincial towns the mean death-rate was 22.0 per 1,000, and was slightly below the rate recorded in London, which was 22.0 per 1,000. The 3,993 deaths registered during the week under notice in the twenty-eight towns included 212 which were referred to whooping-cough, 75 to scarlet fever, 56 to diphtheria, 40 to measles, 38 to "fever" (principally enteric), 36 to diarrhoea, and 36 to small-pox; in all, 492 deaths resulted from these principal zymotic diseases, against 478 and 506 in the two preceding weeks. These 492 deaths were equal to an annual rate of 2.7 per 1,000; in London the zymotic death-rate was 3.3, while in the twenty-seven provincial towns it averaged only 2.3 per 1,000, and ranged from 0.0 in Brighton, Birkenhead, and Halifax, to 4.9 in Oldham, 5.3 in Blackburn, and 6.5 in Sheffield. Measles caused the highest proportional fatality in Derby, Blackburn, and Plymouth; scarlet fever in Hull, Blackburn, and Oldham; whooping-cough in Sunderland, Bolton, London, Wolverhampton, and Portsmouth; and "fever" in Nottingham and Blackburn. Of the 56 deaths from diphtheria recorded during the week under notice in the twenty-eight towns 49 occurred in London, 4 in Manchester, 2 in Liverpool, 2 in Oldham, and 2 in Huddersfield. The 36 fatal cases of small-pox included 31 in Sheffield, 2 in Oldham, 1 in Bristol, 1 in Nottingham, and 1 in Leeds. The number of small-pox patients in the Metropolitan Asylums Hospitals was 8 on Saturday, February 11th, of which 3 had been admitted during the week. These hospitals also contained 1,453 scarlet fever patients on the same date, against numbers steadily declining from 2,602 to 1,558 in the ten preceding weeks; there were, however, 145 admissions during the week, against 133 and 96 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 6.1 per 1,000, and was considerably below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 798 births and 566 deaths were registered during the week ending Saturday, February 4th. The annual rate of mortality in these towns, which had been 23.3 and 22.4 in the two preceding weeks, was again 22.4 during the week under notice, and slightly exceeded the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns,

the lowest rates were recorded in Leith and Greenock, and the highest in Perth and Glasgow. The 566 deaths in these towns during the week under notice included 69 which were referred to the principal zymotic diseases, equal to an annual rate of 2.7 per 1,000, which almost corresponded with the mean zymotic death-rate during the week under notice in the large English towns. The highest zymotic rates were recorded in Greenock, Leith, and Perth. The highest proportional fatality of whooping-cough occurred in Leith and Glasgow; from scarlet fever in Dundee, Glasgow, and Perth; from measles in Leith and Edinburgh; and from diphtheria in Greenock and Perth. The mortality from diseases of the respiratory organs during the week under notice in these towns was equal to 5.9 per 1,000, against 6.3 in London.—During the week ending Saturday, February 11th, 822 births and 568 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had been 22.4 per 1,000 in each of the two preceding weeks, was 22.5 during the week under notice, and slightly exceeded the mean rate during the week in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Perth and Leith, and the highest in Glasgow and Aberdeen. The 568 deaths in these towns during the week included 72 which were referred to the principal zymotic diseases, equal to an annual rate of 2.5 per 1,000, which was slightly below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Glasgow, Leith, and Edinburgh. The highest proportional fatality of measles occurred in Leith and Edinburgh; from scarlet fever in Glasgow; from diphtheria in Edinburgh; and from whooping-cough in Leith, Paisley, and Aberdeen. The mortality from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 5.4 per 1,000, against 6.1 in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, February 4th, 493 deaths were registered in the sixteen principal town districts of Ireland, equal to an annual rate of 29.5 per 1,000. The lowest rates were recorded in Londonderry and Wexford, and the highest in Belfast and Newry. The death-rate from the principal zymotic diseases in these towns averaged 4.8 per 1,000, and was highest in Cork, Newry, and Kilkenny. Measles showed fatal prevalence in Newry and Kilkenny, and whooping-cough in Belfast. The 202 deaths registered in Dublin during the week under notice were equal to an annual rate of 29.0 per 1,000, which showed a decline from the high rates in recent weeks. The 202 deaths included 25 from the principal zymotic diseases (equal to a rate of 3.7 per 1,000), of which 10 were referred to whooping-cough, 6 to scarlet fever, 4 to "fever," 3 to diarrhoea, and 2 to measles.—In the sixteen principal town-districts of Ireland the deaths registered during the week ending Saturday, February 11th, were equal to an annual rate of 29.6 per 1,000. The lowest rates were recorded in Drogheda and Kilkenny, and the highest in Newry and Lurgan. The death-rate from the principal zymotic diseases in these towns averaged 4.5 per 1,000, and was highest in Cork, Lurgan, and Newry. Measles showed fatal prevalence in Cork and Newry. The 202 deaths registered in Dublin during the week were equal to an annual rate of 29.9 per 1,000, corresponding with the rate in the preceding week, the rate during the same period being only 22.0 in London and 22.2 in Edinburgh. The 202 deaths included 21 from the principal zymotic diseases, equal to an annual rate of 3.1 per 1,000, of which 9 resulted from whooping-cough, 6 from scarlet fever, 3 from diarrhoea, 2 from fever, and 1 from measles.

MEDICAL PRACTITIONERS AND OFFICERS OF HEALTH. In his annual address as President of the Birmingham and Midland Counties Association of Medical Officers of Health, Dr. Bosstick Hill complained of the manner in which some practitioners failed to co-operate with medical officers of health in preventive measures. He said "A medical man in practice was openly stating, much to the alarm of the inhabitants of the district, that he had at one time under his care fourteen cases of diphtheria. I was informed of this, and wrote to him asking if what I had heard was true, and, if so, whether he did not think it desirable to give me some information that I might endeavour to trace the cause of the disease. His reply was unique. He said that as there was no chance of an improvement in the condition of sewers, he did not see the use of giving any information as to the whereabouts of

the cases. I pointed out to him the necessity of the sanitary authority endeavouring to prevent the spread of the disease by disinfection and other measures, and the impossibility of doing this in the absence of information as to where the cause existed. His replies are again worthy of being recorded. He did not see why he should do my work, as it was my duty to inspect the district in such a way that I should discover all cases of infectious disease for myself. I should add that the gentleman was careful to sign himself 'EX.M.O.H.'"

VACCINATION AND SMALL-POX AT SHEFFIELD.

WITH reference to the inquiry of our correspondent respecting the statistics quoted by Mr. Ritchie, in his recent speech at Sheffield, showing the beneficial effects of vaccination amongst the children under 10 years of age, living in Sheffield during the current epidemic of small-pox, we are not aware that the correctness of Mr. Ritchie's figures has been impugned. In the local publication of some earlier statistics respecting the epidemic, some accidental error occurred in the printing, but this was immediately corrected. We have every reason to believe that the figures quoted by the President of the Local Government Board are quite correct. We would remind our correspondent that Mr. Ritchie did not say that his information as to the number of vaccinated and unvaccinated in Sheffield was obtained by a house-to-house visitation.

The calculation was probably made from the published returns of the Registrar General and of the vaccination officers, and can therefore be readily verified. So also can the facts as to the vaccination of the children under 10 years of age, who were attacked with small-pox and died. It may interest our correspondent and others to know that in a recent report Mr. Willey, the medical officer of the Sheffield Borough Hospital, states that during the month of January 160 cases of small-pox were admitted to the hospital (37 of them being unvaccinated), which, added to the 136 already in the hospital from the previous month, made a total of 296 under treatment within the month. Amongst these there were 32 deaths, 21 being amongst the unvaccinated, and 11 amongst adults who had not been vaccinated since infancy. The average age of these latter cases was 30 years. Experiences of a similar sort are reported by the health officers of the Chesterfield Rural and Stapleton Urban District, where small-pox has lately been somewhat severely prevalent. In fact, such experiences are repeated during every epidemic.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—The undermentioned Licentiate in Medicine of the College, having complied with the by-laws relating to Membership pursuant to the provisions of the Supplemental Charter of Queen Victoria, dated December 12th, 1878, has been duly admitted a Member of the College.

M. A. Boyd, Lic. Med. 1869, Physician to the Mater Misericordiarum Hospital, Dublin.

At the examination for the Diploma in State Medicine, held on Tuesday, Wednesday, and Thursday, February 7th, 8th, and 9th, 1888, the following candidate was successful.

W. Hartigan, M.K.Q.C.P., 1880, Hermitage, Hong Kong.

At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, February 6th, 7th, 8th, and 9th, 1888, the undermentioned registered medical practitioners were successful.

For the Licence to Practise Medicine and Midwifery.—J. J. H. Jackman, L.R.C.S.I., 1883, Dunmore East, Co. Waterford.

For the Licence to Practise Midwifery only.—R. Bryans, M.B., R.U.I., 1887, Mountaghlan.

MEDICAL VACANCIES.

The following Vacancies are announced:

ATHLONE UNION.—Medical Officer, Moate Dispensary. Salary, £140 per annum and fees. Applications to Mr. Luke Egan, Honorary Secretary. Election on February 21st.

BIRMINGHAM CHILDREN'S HOSPITAL.—Assistant Resident Medical Officer. Salary, £10 per annum, with board, etc. Applications by February 21st to the Secretary.

BIRMINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Applications by February 25th to the House Governor.

BRISTOL ROYAL INFIRMARY.—Dental Surgeon. Applications by February 18th to the Secretary.

CANCER HOSPITAL, Brompton.—Pathologist. Honorarium of £80 for twelve months. Applications by February 21st to the Secretary.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by March 6th to the Secretary.

CIRENCESTER UNION.—Medical Officer. Salary, £115 per annum, and extras. Applications by February 20th to W. L. Cooke, Esq., Solicitor, Cirencester.

EARLSWOOD ASYLUM FOR IDIOTS, Redhill.—Medical Superintendent. Salary, £500 per annum, with apartments, etc. Application by February 21st to the Board of Management, 36, King William Street, E.C.

EAST SUFFOLK HOSPITAL, Ipswich.—Assistant House-Surgeon. Applications by February 21st to the Secretary.

FRENCH HOSPITAL, Leicester Square.—Resident Medical Officer. Salary, £90 per annum, with board, etc. Applications to the Secretary.

LINCOLNSHIRE COUNTY ASYLUM, Bracebridge, near Lincoln.—Assistant Medical Officer. Salary, £150 per annum, with board, lodging, and washing. Applications by February 25th to J. W. Marsh, Esq., Superintendent.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum, with board and residence. Applications by February 22nd to the Chairman of the Committee.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, Bowdon, Cheshire.—Resident Medical Officer. Salary, £80 per annum, with board, etc. Applications by February 23rd, to the Secretary, Manchester.

METROPOLITAN HOSPITAL, Kingsland Road, E.—Ophthalmic Surgeon. Applications by February 20th to the Secretary.

NATIONAL ORTHOPEDIC HOSPITAL.—Surgical Registrar and Anaesthetist. Honorarium, £20. Applications by February 21st to the Secretary, Great Portland Street, W.

OUGHTRARD UNION.—Medical Officer, Oughterard Dispensary. Salary, £112 per annum and fees. Applications to Mr. Robert Mons, Honorary Secretary, Drummakill Lodge. Election on March 7th.

OUGHTRARD UNION.—Medical Officer to the Workhouse, Infirmary, and Fever Hospital. Salary, £70 per annum. Applications to Mr. J. Gilmore, Clerk of Union. Election on March 7th.

ROXBURGH DISTRICT ASYLUM, Melrose.—Assistant Medical Officer. Salary, £80 per annum, with board and residence. Applications to Dr. Johnstone.

ST. GEORGE'S AND ST. JAMES'S DISPENSARY.—Physician. Applications to S. L. Bunnett, 60, King Street, Regent Street, W.

STAFFORDSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Applications by February 18th to the House-Surgeon.

TARBAT (ROSS-SHIRE).—Medical Officer. Salary, £115 per annum. Applications by February 29th to Finlay Munro, Esq., Rockfield-by-Fearn, N.B.

THURLES UNION, Templemore Dispensary.—Medical Officer. Salary, £140 per annum, and fees. Applications to Mr. John O'Meara, Honorary Secretary, Colleshill. Election on February 22nd.

UNIVERSITY OF GLASGOW.—Four Examiners in Medicine. Annual fee, £40 and £30 respectively. Applications by March 5th to the Secretary of the University Court, G. D. McLellan, Esq., 145, West George Street, Glasgow.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Salary, £80 per annum, with board. Applications by February 25th to William Bache, Esq., Churchill House, West Bromwich.

YORK COUNTY HOSPITAL.—Senior House-Surgeon. Salary, £100 per annum, with board, etc. Applications by March 1st to the Secretary.

YORK DISPENSARY.—Three Resident Medical Officers. Salary, £130 per annum, with furnished apartments, etc. Applications by February 29th to S. W. North, Esq., 84, Micklegate, York.

MEDICAL APPOINTMENTS.

ABBOTT, C. E., L.K.Q.C.P.I., M.R.C.S.Eng., appointed Medical Officer of Health for the Braintree Urban Sanitary District, Essex.

BARKLEY, C. H., L.R.C.P., L.R.C.S., L.M.Édin., appointed Anaesthetist to the National Dental Hospital, *vice* H. F. Winslow, M.D., resigned.

BARRETT, C. W. Sessions, M.B., C.M., appointed Honorary Surgeon to the Hants County Hospital, Huntingdon.

BOWIE, Alexander, M.D., M.Ch.St. And., appointed Assistant Physician to St. John's Hospital for Diseases of the Skin.

DOCKRELL, Morgan, M.D., M.A., B.Ch.Dub., appointed Assistant Physician to St. John's Hospital for Diseases of the Skin.

FLOOD, E. F., L.A.H.Dub., appointed Medical Officer for the South Division of the Dundalk District of the Dundalk Union.

FROST, Francis T., M.R.C.S.E., appointed Junior House-Surgeon to the Huddersfield Infirmary, *vice* W. J. W. Marshall, M.R.C.S.E., resigned.

GIBBS, A. N. Godby, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A., appointed Honorary Assistant Surgeon to the Bristol Eye Hospital.

GILLARD, R., M.R.C.S.Eng., L.S.A., appointed Medical Officer and Public Vaccinator for the Ugborough and Brent Districts of the Totnes Union.

HAYES, Clements D. G., C.M., M.D., etc. Edin., appointed Honorary Assistant Surgeon to the Bristol Eye Hospital.

HITCHINS, T. J., L.R.C.P., M.R.C.S., appointed Assistant Physician to St. John's Hospital for Diseases of the Skin.

JONES, E. Lloyd, M.B., C.M., B.A., appointed Junior House-Surgeon to the Western General Dispensary, Marylebone Road.

PRIESTLEY, R. C., M.A., M.B.Camb., M.R.C.S., appointed Registrar and Pathologist to the Hospital for Sick Children, Great Ormond Street.

SELLERS, J. C., L.K.Q.C.P.I., appointed Medical Officer for the North Division of the Dundalk District of the Dundalk Union.

SYMINGTON, Johnson, M.D., F.R.S.E., appointed Examiner in Anatomy to the University of Edinburgh, *vice* Professor D. J. Cunningham, M.D., F.R.S.E., whose term of office has expired.

TREVELYAN, E. F., M.D.Lond., B.Sc., M.R.C.S., appointed House-Physician to the Seamen's Hospital, Greenwich, *vice* E. H. Booth, M.D.Lond., M.R.C.S., L.R.C.P., resigned.

ROYAL COMMISSION ON THE BLIND, DEAF AND DUMB, AND IMBECILES.—On Tuesday, February 7th, Dr. Francis Warner gave evidence as to weak-minded children in public elementary schools, and on Wednesday, February 8th, Dr. George Shuttleworth, medical superintendent, and Mr. J. Wiggins, secretary, Royal Albert Asylum, Lancaster, were examined as to the provisions in England, educational and otherwise, for the imbecile class.

SANITARY ASSURANCE ASSOCIATION.—The seventh annual meeting of the members of this Association was held on February 13th. Professor Roger Smith, F.R.I.B.A., presided. Mr. Joseph Hadley read the annual report, which stated that with newly built property there had been a continued improvement, necessitating fewer alterations to secure the sanitary certificates. Annual inspections for the renewal of sanitary certificates continued to be made. Mr. Mark H. Judge, A.R.I.B.A., proposed, "That the Right Hon. Lord Chelmsford, G.C.B., be requested to take charge of the Sanitary Registration Bill in Parliament this session, and to introduce the Bill into the House of Lords at as early a date as possible." Sir Peter Lumsden, G.C.B., seconded this resolution, which was supported by Mr. H. Rutherford, barrister-at-law, Dr. Willoughby, and others, and was carried unanimously. The retiring members of the Council were re-elected: Sir Joseph Fayer was re-elected President of the Association, and Professor T. Roger Smith were re-elected Vice-President.

INTER-HOSPITAL (RUGBY) FOOTBALL CHALLENGE CUP.—*Second Round.*—On February 13th St. Thomas's beat University. The strong forward team of St. Thomas's quite overpowered University, whose three-quarters were unable to show their powers. R. L. Thomas, of the losing team, unfortunately broke his collar-bone before half-time—4 goals, 6 tries, and 1 minor (161 points), to *nil*. On February 14th, St. Bartholomew's v. St. George's resulted in a win for the former by 1 try 1 minor (11 points), to 1 minor (1 point). This game was played with a layer of snow over the ground; the game was almost entirely confined to the forwards, and sternly contested. On February 16th London v. St. Mary's; Middlesex, a bye.

THE FRENCH HOSPITAL.—At the annual banquet of the French Hospital at London, which took place on Saturday evening last at Willis's Rooms, His Excellency the French Ambassador in the chair, supported by the Lord Mayor, the report for 1887 was read by the Honorary Secretary, M. Rüffer, showing that the total receipts for that year amounted to £3,551 15s. 6d., being less than the preceding year by £126 10s. 7d. The expenditure amounted to £2,266 18s. 6d. for maintenance and £274 18s. 1d. for management. Upwards of 11,000 out- and 422 in-patients were relieved during that time. These figures reflect every credit on the management of the hospital for economy in administration.

THE METROPOLITAN ASYLUMS BOARD.—The last fortnightly returns from the fever and small-pox hospitals of the Metropolitan Asylums Board showed 260 patients admitted, as against 297 in the previous fortnight. In the same time 39 had died, as against 42 in the previous period; and 370 had been discharged, as against 505 in the previous fortnight. There were, on the morning of February 10th, under treatment 1,685 patients in the various hospitals.

The Cambridge Sanitary Authority have decided to adopt the "broad irrigation" system for the disposal of sewage, provided that land can be purchased at a reasonable price. They also decided that no scheme for the conveyance of the sewage to the pumping-station be adopted unless it be connected with a scheme for the reconstruction of all existing sewers and drains which are found to be sewers of deposit or otherwise defective.

THE PARKES MUSEUM.—The Merchant Taylors Company have recently voted ten guineas to this museum, to aid in its work of practical teaching and demonstrating sanitary science.

MR. WILLIAM E. CASS, M.R.C.S.Eng., late medical officer to the Goole Union, has obtained a superannuation allowance of £160 per annum.

PUBLIC VACCINATION.—Mr. Crocker, Bingley, has received for the fourth time the Government grant for efficient vaccination.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor William Watson Cheyne, F.R.C.S.: Lecture on Suppuration and Septic Diseases.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Hutchinson: The Abortive Treatment of Syphilis.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Inspector-General Lawson: The Milroy Lectures.—Lecture I. Epidemic Influences.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Specimens.—Mr. Sutton and Mr. Shattock: Report on a case of Parasitic Forus. Mr. D'Arcy Power: Congenital Fatty Tumour connected with Bone. Mr. T. F. Chavasse: Parotid Tumour. Dr. Crooke: Pulmonary Endarteritis. Mr. Stoham: Complex or Vertical Hermaphroditism. Mr. Doran: Papilloma of Fallopian Tubes. Sir Wm. MacCormac: Epithelioma of Kidney, associated with Calculus. Mr. Pitts: Villous Carcinoma of Breast. Dr. Wooldridge: New Constituent of the Blood. Card Specimens.—Mr. Stoham: Tumours of Bone. Mr. Chavasse: Peculiar Vesical Calculus. Mr. Bruce Clarke: Stone in Intra-Portion Pouch. Mr. Walsham: Volvulus of Cecum and Lower Portion of Ileum. Mr. Shattock: Dermoid Cyst from the Third Branchial Cloft. Dr. Leddard: Enchondroma of Flogers.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor William Watson Cheyne, F.R.C.S.: Lecture on Suppuration and Septic Diseases.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—The adjourned discussion on Ectopic Gestation will be opened by Dr. Barnes. A large collection of specimens illustrating Ruptured Tubal and other forms of Ectopic Gestation will be exhibited by Mr. Lawson Tait. Council, 8 P.M.

HUNTERIAN SOCIETY, 8 P.M.—Mr. R. Clement Lucas: President's Address. Dr. F. J. Smith: The Influence of the Discovery of Micro-organisms on Treatment.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Inspector-General Lawson: The Milroy Lectures.—Lecture II. Epidemic Influences.

BURIAL REFORM ASSOCIATION, 3.15 P.M. (Portman Rooms, Baker Street).—Conference on Burial, Funeral, and Mourning Reform; Sir E. Sieveking, Dr. B. W. Richardson, F.R.S., Hon. Dudley Fortescue, Dr. Danford Thomas, and others.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor William Watson Cheyne, F.R.C.S.: Lecture on Suppuration and Septic Diseases.

MEDICO-PSYCHOLOGICAL ASSOCIATION, 4 P.M.—A quarterly meeting of this Association will be held at Bethlem Hospital, St. George's Road, London. A meeting of the Council will be held at 3 P.M.; Dr. Hughlings Jackson will read a paper on Post-Epileptic States. A special meeting will be held at 5.30 P.M. "to consider the recent appointment at the Hayward's Heath Asylum." The members will dine together in the evening at 7 P.M., at the Holborn Restaurant. Members intending to dine are requested to communicate with Dr. Paul, The Terrace, Camberwell.

QUEKETT MICROSCOPICAL CLUB (University College, Gower Street), 8 P.M.—Annual General Meeting. President's Address.

CLINICAL SOCIETY OF LONDON, 8 P.M.—Mr. Holmes: (1) Case of Laceration of Axillary Artery in attempted Reduction of Dislocation of Shoulder; Death from Exhaustion, with symptoms of Septicæmia. (2) Sequel to a case reported in vols. ix and x, under title of Ligature of Left Carotid. Mr. J. R. Lunn: Case in which the Superficial Femoral Artery was Ligatured for a Popliteal Aneurysm without Rupture of the Walls of the Vessel. Mr. B. Pitts: Case of Amputation of the Hip-Joint for Osteo-sarcoma of Femur; Secondary Hemorrhage; Ligature of Common Femoral; Recovery. Living Specimens:—1. Case of Cured Subclavian Aneurysm; Dr. Barlow and Mr. Ruffer. 2. Case of Traumatic Meningocele; Mr. Silcock. 3. A patient upon whom Loret's Operation on the Stomach was performed two months ago.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

BRUNTON.—On February 12th, at 10, Stratford Place, W., the wife of T. Lauder Brunton, M.D., F.R.S., of a daughter.

CHILD.—On January 22nd, at 2, College Park Villas, Harrow Road, W., the wife of Warwick L. Child, M.D., M.R.C.S.Eng., of a daughter.

DAVIS.—On February 14th, at 14, St. James's Square, Bath, the wife of Robert Davis, M.R.C.S.Eng., of a daughter.

LLOYD-ROBERTS.—On February 13th, the wife of J. Lloyd-Roberts, M.B., of Denbigh, North Wales, of a daughter.

PARSLOE.—On February 10th, at The Larches, Black Torrington, Devon, the wife of H. Heath Parsloe, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

ROBERTS-PRICE.—On February 7th, at the Parish Church, Holywell, by the Rev. R. O. Williams, M.A., Vicar, assisted by the Rev. Llewelyn Jones, M.A., curate, Richard Pritchard Roberts, M.R.C.S.Eng., L.S.A.Lond., of Bethesda, to Maggie, eldest daughter of the late John Price, of Holywell.

TURNER-SILCOCK.—On February 7th, at Chittisbam, George Turner, of Holledon, to Eleanor Charlotte (Lillie), second daughter of Edward Clowes Silcock, Wood House, Ely.

DEATHS.

HARRISON.—On February 9th, at The Grange, York Road, Birkdale, Southport, Josephine C., the dearly loved wife of G. Cooper Harrison, L.R.C.P., L.R.C.S.E., and daughter of the late J. J. Godfrey, M.R.C.S., of Liverpool.

SMITH.—On February 9th, at Southport, from the effects of an accident, Edward Mortimore Smith, L.R.C.P., L.R.C.S., aged 29 years. R.I.P.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department);

WEDNESDAY.....10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's, St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu. 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical daily, 1.30; Obstetric, Tu. Th. S., 2; o.p. W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p., Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S. 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

A COUNTRY MEMBER asks where to purchase a cheap couch or chair-couch suitable for ordinary gynaecological necessities such as one has to attend to in one's own surgery.

EUCALYPTUS LOTION.

M.B. wishes to know what formula is generally used in the preparation of eucalyptus lotion for surgical dressings.

** Oil of eucalyptus is only used, so far as we are aware, in various forms as a dressing; it is not employed in the form of a lotion.

DOES CIDER TEND TO PRODUCE GOUT AND GRAVEL?

O. V. writes: Is cider drinking beneficial or otherwise in cases of a gouty description? More particularly, does it tend to produce or to prevent the formation of stone in the bladder? or does it have no effect either way?

CLIMATE FOR HAY FEVER.

M.D., who has not been able to find the desired information in books, wishes to hear of the best localities inland, both in this country and abroad, for invalids who wish to avoid the cold east winds of spring, and the hot weather—and especially attacks of hay fever—in June and July.

NIGHT BLINDNESS.

CHARLES À COURT writes: The *Cologne Gazette*, in describing some night manoeuvres which recently took place in Russia, stated that much confusion arose owing to the large number of men in the ranks afflicted with "hühnerblindheit"—that is, literally, "hen-blindness"—and it further ascribed the frequency of this affection, which prevented men from seeing anything on a moderately dark night, to the inferior diet of the Russian peasant class. Can you oblige me with any explanation of this curious statement?

** Swanzy and other authorities believe that defective nutrition plays an important part in rendering patients liable to nyctalopia, or night-blindness. Nyctalopia is a constant symptom in syphilitic retinitis, even when hereditary, and in retinitis pigmentosa. It may accompany scurvy.

ANSWERS.

DUBITANS might consult Dr. De Watteville's *Practical Introduction to Medical Electricity*, second edition.

M.R.C.S. should communicate with the Clerk to the Society of Apothecaries, Apothecaries' Hall, Blackfriars, E.C.

NOTES, LETTERS, ETC.

SURGEON-MAJOR S. SMITH, W.C.E., M.V.I., F.A.S., M.S.A., etc., informs us that he was unanimously elected a Vice-President of the Association of Members of the Royal College of Surgeons at its last meeting.

AN APPEAL.

JAMES McDONALD, L.F.P.S.Glasg., 1875, late medical officer for Barvas, Stornoway, N.B., died suddenly of an attack of apoplexy in July, 1884, leaving a widow and four young children wholly unprovided for. Mrs. McDonald's health had broken down some time before her husband's death, owing to a slight hemiplegic attack, after which she never quite regained the use of her right hand. But, through the help of her sister, she has been able to do a little towards her own and her family's support by keeping lodgers in a rented house in Stornoway. However, there is reason to believe that of late she has been in very straitened circumstances; and, as if to crown her misfortunes, her only son, the eldest of the family, a fine promising boy of 10 years, was cut down about two months ago by an attack of measles.

Mr. McDonald was highly respected as a conscientious and painstaking practitioner, who never spared himself in the interests of his numerous but poor patients; and it is to be hoped that the members of the medical profession, and others as well, will respond liberally to this appeal on behalf of his helpless widow and three orphan girls. Subscriptions will be gratefully received and acknowledged either by C. M. McEae, M.D., Stornoway, N. B. or by R. Ross, L.R.C.P. and S. Ed., Barvas, Stornoway, N. B.

THE TITLE OF DR.

L.R.C.P. Ed. writes: In answer to "Anxious One," in the JOURNAL of February 11th, you say: "The Edinburgh College of Physicians have discouraged all the Fellows, Members, and Licentiate from using the title of Dr." I should like to say that this answer, though correct as far as relates to the last ten years or so, is not correct as regards licentiate admitted prior to 1870.

EARLY MENSTRUATION.

DR. W. F. SHEARD, Medical Officer to the Putney District, writes: The following case of youthful precocity is now under my care. M. S. was born in August, 1878. The catamenia appeared last August (1887), and she has continued regular every month since. She is a dark, swarthy child, of small size for her age, but with a large head, and she has had fairly good health, with the exception of a severe attack of acute rheumatism. Her father is a cabman, who suffers much from rheumatoid arthritis, and her mother is a strong healthy woman.

SACCHARIN.

DR. C. J. R. MACLEAN (Yeaton) writes: I see a correspondent last week writes, stating saccharin to have produced some nausea and persistently remaining sweet taste, and suggesting that the cause might be that some of the saccharin is excreted with the saliva. I have at present a patient who has taken saccharin tablets instead of sugar for his breakfast and tea, and also to sweeten aerated waters, for a space of three months with scarcely an intermission, and without experiencing any nausea or after-effect whatever. I would here state, however, that some of the cheaper specimens of saccharin which I have tried

REPORTS
OF THE
COLLECTIVE INVESTIGATION
COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.
REPORT ON INQUIRY No. III.

ACUTE RHEUMATISM.

PREPARED BY THOMAS WHIPHAM, M.B., F.R.C.P.,
Physician to St. George's Hospital.

THE invitation to the medical practitioners of the United Kingdom to furnish reports of cases of rheumatism which had come under their observation was issued by the Collective Investigation Committee of the British Medical Association on April 22nd, 1882, and the last report came to hand on June 5th, 1886. The result has been that observations on 655 cases have been sent to the Committee for comparison and analysis. It will be at once agreed that such a number of cases, recorded more or less in detail, is extremely creditable, when the arduous labours and the scanty leisure at the disposal of busy country practitioners (most of whom supply these records) are taken into consideration. It shows, moreover, how great is the interest which such men take in the advancement of the science of their profession.

The recorded cases have been considered for the most part in the order following:—1. Sex; 2. Age; 3. Occupation; 4. Habits; 5. Food; 6. Locality and Atmosphere; 7. Previous Illnesses; 8. Recent Antecedents; 9. Severity and Sweating; 10. Influence of Treatment on Duration of—*a.* Fever, *b.* Pain, *c.* the whole Attack; 11. Extent of the Joint-Affection; 12. Complications; 13. Relapsing Cases; 14. Deaths; 15. Skin Eruptions; 16. Subcutaneous Nodules; 17. Common Ailments; 18. Sequelæ.

SEX.

Of the 655 cases, 375, or 57.25 per cent., were males; 279, or 42.59 per cent., were females. In one case (133) the sex is not mentioned.

The difference in the numbers is not great, and it may be accounted for by the greater exposure to weather, etc., which the occupations of men entail upon them; added to which is the fact that men are, as a rule, more addicted to the consumption of beer and other forms of alcohol, which, though not perhaps an actual cause of rheumatism, certainly increases the liability to it in those who have once suffered from the disease.

AGE.

Of the whole number (655) of cases recorded, the ages of 6 males and 1 female are not mentioned, leaving a total of 647, or 369 males and 278 females, in which to calculate the average age in which the rheumatic attack occurred, including No. 133, in which the sex is omitted. The figures come out as follows:—In 369 males the average age of rheumatic attack, 26.55. In 278 females the average age of rheumatic attack, 23.82. Average age of the 647 cases, 25.38. Thus it is evident that the age difference between the two sexes, so far as the age of incidence is concerned, amounts practically to nothing.

Arranged in decades, the cases give the following result.

	Males.	Females.	Total.
Under 10	18	14	32
" 20	90	106	196
" 30	135	91	226
" 40	76	32	108
" 50	37	23	60
" 60	11	10	21
" 70	2	2	4
" 80	1	—	1
Age not mentioned	6	1	7

655

It will be seen from the above that by far the greater number of cases occurred between the ages of 20 and 40—namely, 80.94 per cent.; that is, males 45.98 per cent., females 34.96 per cent.

[1417]

The greatest proportion in any one decade was between 20 and 30—namely, males 38.74 per cent., females 30.07 per cent. This is probably in accordance with general experience.

CASES OCCURRING AT EXCEPTIONAL AGES. 1.—IN PERSONS OF ADVANCED AGE.

Under this head five cases require especial notice, namely:

No. 14 (R. W. Barrow, Liverpool). Female, aged 66, married; third attack, the first occurred at the age of 33. Temperate habits and sufficiently fed. Locality, high, dry, and exposed; atmosphere wet and cold, with S.E. wind. Had previously suffered from sunstroke, glaucoma, and cardiac dropsy. The determining cause was attributed to over fatigue. Attack moderate in severity, with slight sweating. Duration of the fever and pain were 5 days and 8 days respectively; and the whole attack lasted 9 days. Many joints were affected; the pains migratory. Mitral systolic murmur of old standing; the apex being half an inch external to the nipple. The patient suffered frequently from urticaria and sick headaches. Recovery was complete.

No. 146 (J. W. Martin, M.D., Sheffield). Male, aged 63, a weighman, of temperate habits and sufficiently fed. Locality, low, dry and confined; atmosphere, wet and cold; wind N.E. He had had no previous illness, and the attack was attributed to exposure. It was a severe attack, with considerable sweating. Duration of fever and pain 20 days respectively, and the whole attack 26 days. Pains migratory, affecting many joints. No cardiac affection, and no previous rheumatic attacks. Recovery complete.

No. 153 (Thomas Fuller, M.D., New Shoreham). Male, aged 62, wheelwright, of temperate habits and sufficiently fed. Locality, high, dry and exposed; atmosphere, dry and mild, wind S.W. He had had no previous illness. The attack was a severe one, with considerable sweating. Duration of fever and pain 2 days respectively, and of the whole attack 21 days. Many joints affected; no record of any cardiac affection; third attack. Recovery complete. A relapse occurred 18 days after convalescence, and lasted 12 days, yielding to same treatment; namely, sodium salicylate.

No. 281 (E. A. Gibson, M.D., Edinburgh). Female, aged 68, widow, of temperate habits and sufficiently fed. Locality, high, dry and exposed; atmosphere, dry, cold, changeable; wind E. There had been no previous illness; the attack was ascribed to exposure to cold on the previous day. Attack severe, with considerable swelling. Duration of fever and pain 30 days and 5 days respectively, and of the whole attack 30 days. The muscles only were affected, and severely. She died of meningitis, there being no evidence of previous cardiac disease. No previous rheumatism. The case was complicated by pericarditis, and threatened pneumonia of the left lung.

No. 367 (T. H. Morehead, M.D., Cootehill, Cavan). Male, aged 80, farmer, of temperate habits and sufficiently fed. Locality, low, damp, confined; atmosphere, wet and cold; wind N.W. No previous illness. Tonsillitis was a recent antecedent, and the attack was attributed to exposure to wet and cold. It was a severe one, accompanied by night sweating. Duration of fever and pain 12 days respectively, and of the whole attack 42 days. Many joints were affected, and the pains were migratory. There was no cardiac affection; it was the first attack of rheumatism. Relapses occurred at intervals of 2 or 3 weeks. Recovery was complete.

The most remarkable of these five cases is the last, in which a first attack of rheumatic fever occurred at the age of 80, the attack being one of great severity. In this case recovery was complete. In a severe first attack, however, in another case (281), a woman of 68, death occurred after 30 days' illness. In a third case (143) a first attack occurred in a male aged 63.

2.—IN YOUNG CHILDREN. EIGHT CASES.

No. 13 (C. H. Hill, M.D., Islington). Male, aged 3; insufficiently fed. Locality, high, dry, and confined; atmosphere, wet and changeable; wind S.W. The attack was attributed to exposure to cold 3 days previously; it was mild, but attended by considerable sweating. Duration of the fever was 7 days; of pain 4 days; and of the whole attack 8 days. Few joints were affected; the pains were fixed; the child was liable to tonsillitis and bronchitis. Recovery was complete. A mitral murmur became audible during the attack, but afterwards was inaudible, the apex beating in the fifth space.

No. 109 (S. C. Smith, M.D., Halifax). Male, aged 6; sufficiently fed. Locality, low, damp, and confined; atmosphere, wet and cold. The patient had scarlatina just before. Attack a moderate one, with considerable sweating, lasting about 5 weeks. Many

joints were affected; the pains were migratory. There was a systolic mitral murmur developed during the attack. No previous rheumatism. Recovery partial.

No. 245 (J. T. Collin, M.D., Lincoln). Male, aged 4; sufficiently fed. Locality, high, dry, and exposed; atmosphere, wet and cold; wind N.E. Had measles 2 years previously. Attack ascribed to exposure to cold 3 days before; it was a moderate one, but attended by considerable sweating. Duration of fever and pain 21 days and 14 days respectively; and of the whole attack 21 days. Few joints affected; pains migratory. No previous rheumatism. Death from pericardial effusion and exhaustion.

No. 450 (Edwin Jackson, Whalley Range, Manchester). Female, aged 5½; sufficiently fed. Locality, dry and flat; atmosphere, wet and cold; wind W. Whooping-cough at 4½. The attack was attributed to exposure to wet two days previously; it was a moderate one, attended by slight sweating. Duration of fever and pain 8 days and 6 days respectively, and of the whole attack 8 days. Many joints were involved. There was no cardiac complication, and no antecedent rheumatism. Recovery was complete.

No. 511 (D. J. Mackenzie, M.D., Glossop). Male, aged 5; sufficiently fed. Locality, low, damp, confined; atmosphere, dry, hot sun. Had measles six weeks before; attack attributed to exposure to wet and cold three days previously; it was a mild one, with slight sweating. Duration of fever and pain 6 days and 5 days respectively; and of the whole attack 6 days. Few joints were affected; the pains being fixed. Both pericarditis and endocarditis (mitral regurgitation) occurred during the attack, which was further complicated by bronchitis. No previous rheumatism. Recovery complete.

No. 587 (D. J. Mackenzie, M.D., Glossop). Male, aged 4; sufficiently fed. Locality, high, dry, exposed; atmosphere, wet and cold; wind W. Slight chorea 10 days previously. The attack was moderate, with very slight sweating. Duration of fever and pain 8 days and 12 days respectively, and of the whole attack 12 days. Few joints were affected; the pains were fixed. A systolic apical bruit was developed. The child was subject to catarrh and convulsions, but had had no previous rheumatism. A thread-worm was said to have been expelled by santonin before the child came under observation. Recovery was complete.

No. 620 (J. Mackenzie Booth, M.D., Aberdeen). Male, aged 4; sufficiently fed. Locality, low, damp, confined; atmosphere, wet; wind E. There had been marked anaemia for some weeks. The attack was attributable to exposure to wet and cold, with over-fatigue 2 days previously; it was a severe one, with slight sweating. Duration of fever and pain 6 days respectively, and of the whole attack 6 days. Many joints were involved; the pains were fixed. There was an apical systolic murmur, and the disease was complicated by conjunctivitis and keratitis. No previous rheumatism. Bronchitis supervened 2 days after convalescence became established. Recovery was complete.

No. 627 (C. P. Coombs, M.D., Castle Cary). Male, aged 6; sufficiently fed. Locality, dry; confined; atmosphere, dry, cold, changeable; wind E. The attack was severe, with slight sweating. Duration of fever 17 days, and of the whole attack till death about 40 days. Pericarditis was developed, and the disease was complicated by chorea of one arm and aphasia; then by indications of spinal meningitis. Death was the result of embolism. The child had previously suffered from three or four attacks of subacute rheumatism; the first at the age of 5.

OCCUPATION.

The occupation of the patients who were the subjects of the record are varied, and are as follows.

Domestic servants 71	Colliers	9	Sempstresses	4	
School children ..63	Tailors	8	Bakers	4	
Married women ..46	Masons	8	Bricklayers	4	
Labourers	24	Soldiers	7	Brickmakers	4
Clerks	21	Iron workers	7	Sailors	4
Agricultural labourers ..16	Cotton hands	7	Carmen	3	
Farmers	13	Engine drivers	6	Nailmakers	3
Shopmen	13	Carpenters	6	Furnace cokers	3
At home (females chiefly)	13	Waggoners	6	Navvies	3
Innkeepers	13	Nurses	6	Painters	3
Factory hands	11	Governesses	6	Weavers	3
Grocers	10	Coachmen	6	Druggists	3
Medical practitioners	9	Laundresses	5	Shoemakers	2
		Blacksmiths	5	Brewers, etc.	2
		Gamekeepers	5	Gamekeepers	2
		Dressmakers	4	Plumbers	2

Quarrymen	2	Mineral borer	1	Porter	1
Gasfitters	2	Bléacher	1	Circus tent maker ..	1
Fruiters	2	Weighman	1	Assistant warder ..	1
Dairymen	2	Wheelwright	1	Barnmaid	1
Whitesmiths	2	Cabman	1	Open air	1
Charwomen	2	Gentleman	1	Purser's clerk	1
Maltsters	2	Undergraduate	1	Milk carrier	1
Warehousemen	2	Commission agent ..	1	Cabinet designer	1
Paper mill hands ..	2	Hay dealer	1	Printer	1
Coopers	2	Grinder	1	Fisherman	1
Various trades	2	Railway guard	1	Prostitute	1
Police constables ..	2	Signalman	1	Bookseller	1
Postmen	2	Canal boatman	1	Reformatory boy	1
Telegraph messengers ..	2	Higgler	1	Literary	1
Pilot	2	Pilot	1	Pupil in colliery	1
Tube makers	2	Stationer	1	Vice maker	1
Solicitor	1	Saddler	1	Builder	1
Oilman	1	Drilling machine hand ..	1	Casting dresser	1
Railway porter	1	Electric worker	1	Lace darning	1
Screwer	1	Mercantile	1	Stono printer	1
Postmaster	1	Tin opener	1	Boot tip, stamper ..	1
Cutler	1	Rope maker	1	Bookkeeper	1
Machine maker	1	Dancing mistress	1	Skin dresser	1
Filler	1	Fitter	1	Potter	1
Brick carter	1	Fireman	1	Card room hand	1
Traveller with steam engine ..	1	Servant in asylum	1	Message boy	1
Gunner	1	Vinegar maker	1	Ship chandler	1
Infirmary matron	1	Bandsman	1	Upholsterer	1
Pupil teacher	1	Watchmaker	1	Analytical chemist ..	1

Inspection of the above list at first sight appears to negative the explanation advanced above, of the difference between the numbers of males and females in the tables, namely, that the exposure necessarily entailed on men by the nature of their occupation is a cause of their being more frequently the subjects of rheumatism. It must, however, be remembered that the cases reported are simply those which different medical practitioners have been able to record during the time allowed them for furnishing the results of their experience. They are by no means to be received as a record of the prevalence of rheumatism in various trades or occupations. If it were common experience would lead one rather to place such occupations as sailors, soldiers, brewers, bricklayers, coachmen, cabmen, police constables at the head of the list. It cannot be denied, however, that the number of domestic servants (71) is a remarkable occurrence. This may be partly accounted for by the inordinate consumption of alcoholic drinks—especially beer—and meat to which persons in that station of life are addicted. To this may be added want of proper exercise, with its consequent accumulation of nitrogenous compounds in the tissues.

One important omission must be noted in the tables, namely, an inquiry as to any hereditary tendency to rheumatism. Had this been available for analysis, it might have afforded an explanation of the great number of children (63) which comes second on the list.

CLASS IN SOCIETY.

Instead of grouping the cases in the different classes, namely, upper, middle, and lower, it has been deemed preferable to give the list in full, as showing more accurately the class to which the majority belong. It will be seen at a glance that the lower greatly preponderates over the middle and upper classes.

HABITS.

In calculating the numbers given in the tables under the three heads—temperate, intemperate, and total abstainers, it was thought well to group separately children under 14 years of age who were under close supervision either at home or at school. Such young persons who were engaged in any occupation which necessarily removed them from the supervision of the parents or school teachers, when not under 14 years of age, have been placed among the adults in the class to which they belong. There are, therefore, 647 cases to be dealt with under this head, excluding those in which no mention of the habit is made, namely:—

	Males.	Females.	Children under 14. Males.	Females.
Temperate	263	177	9	15
Intemperate	32	2	—	—
Total Abstainers	47	54	22	26
No mention made	5	3	—	—
Total	347	236	51	41

In order to trace the effects of habits in acute rheumatism, it will be necessary to make an analysis of the tables, and by so doing the following results come out:—

TOTAL ABSTAINERS (including Children).

Males	69	or 10.53 per cent.
Females	80	" 12.21 "
Total	149	" 22.74 "

Average age of total abstainers:—

Males	18.86
Females	18.96
Total average age	18.17

Decade.	Males.	Females.	Total.
Under 10	13	11	24
" 20	33	42	75
" 30	11	19	30
" 40	9	2	11
" 50	2	3	5
" 60	1	3	4
	69	80	149

Previous attacks of rheumatism occurred in total abstainers in

Males	19	or 27.53 per cent.
Females	29	" 36.25 "

Average age of previous attack:—

Males	16.26
Females	16.41

Average number of previous attacks:—

Males (69 cases)	0.56	(exclusive of Nos. 353 and 469, in which no mention is made)
Females (80 cases)	0.60	(exclusive of Nos. 53 and 205, in which no mention is made)

Average duration of fever:—

Males (64 cases)	11.59 days	(no data in 5 cases)
Females (77 cases)	10.37 days	(no data in 3 cases)

Average duration of pain:—

Males (61 cases)	11.31 days	(no data in 8 cases)
Females (76 cases)	12.22 days	(no data in 4 cases)

Average duration of whole attack:—

Males (60 cases)	27.26 days	(no data in 9 cases)
Females (70 cases)	38.08 days	(no data in 10 cases)

Deaths.

Males	4	
Females	3	(excluding No. 112, in which death occurred from enteric fever)
Males	5.79 per cent.	
Females	3.75 "	

or a total death-rate of 4.69 per cent. in total abstainers.

Recovery.

	Complete.	Partial.
Males	54 cases or 83.63 per cent.	10 cases or 15.15 per cent.
Females	51 cases " 63.75 "	25 cases " 31.25 "

(Excluding No. 255, female, in which the result is not stated.)

Occurrence of Heart Affection in Total Abstainers.

	Males.	Females.	Total.
Mitral regurgitation (during attack)	13	12	25
Pericarditis and mitral regurgitation	8	9	17
Mitral regurgitation (old)	7	7	14
Pericarditis	7	4	11
Aortic disease	3	2	5
Mitral and aortic (during attack)	3	1	4
Mitral stenosis	2	1	3
Mitral and aortic (old)	1	—	1
Mitral and pulmonary systolic	1	1	2
Old disease	—	2	2
Endocarditis	1	1	2
Pulmonary systolic murmur	1	1	2
Murmur	1	—	1
Not mentioned	—	—	4
	45	41	90

Percentage of recent heart disease, that is, occurring during the present attack:—

Males (68 cases)	54.41 per cent.	(No. 259 not mentioned)
Females (78 cases)	43.58 "	(Nos. 303, 337 not mentioned).

TEMPERATE (including Children).

Males	272	or 41.52 per cent.
Females	192	" 29.31 "
Total	464	" 70.83 "

Average age:

Males	27.40
Females	20.57
Average age of the whole number	26.47

Decade.	Males.	Females.	Total.
Under 10	5	4	9
" 20	58	61	119
" 30	111	68	179
" 40	54	31	85
" 50	33	17	50
" 60	8	8	16
" 70	2	2	4
" 90	1	—	1
	272	191	463

(Excluding No. 579, F., in which the age is not mentioned.)

Previous attacks of rheumatism occurred in temperate persons in

Males	127	cases or 46.69 per cent.
Females	83	" 43.22 "

Average age of previous attack:

Males (118 cases)	17.70	(age not stated in 9 cases)
Females (83 cases)	17.59	

Average number of previous attacks:

Males (excluding Nos. 22, 83, and 373, in which the number is not stated)	2.19
Females (excluding Nos. 202, 239, 254, 403 and 614, in which the number is not stated)	2.11

Average duration of fever:

Males (253 cases)	11.37 days	(no data in 19 cases)
Females (184 cases)	12.10	" " 8 "

Average duration of pain:

Males (252 cases)	14.28 days	(no data in 20 cases)
Females (176 cases)	13.38	" " 16 "

Average duration of whole attack:

Males (256 cases)	25.37 days	(no data in 16 cases)
Females (176 cases)	24.23	" " 16 "

Deaths.

Males	6	or 2.20 per cent.
Females	4	" 2.07 "

or a total death-rate of 2.15 per cent. in temperate persons.

Recovery.

	Complete.	Partial.
Males	201 cases or 73.89 per cent.	61 cases or 22.34 per cent.
Females	133 " 69.27 "	51 " 26.56 "

(Exclusive of Nos. 65, 151, 249, 579, males, in which the result is not mentioned.)
(Exclusive of Nos. 81, 150, 322, 567, females, in which the result is not mentioned.)

Occurrence of Heart Affection in Temperate Persons.

	Males.	Females.	Total.
Mitral regurgitation	43	48	91
Pericarditis and mitral regurgitation	22	16	38
Pericarditis	10	—	10
Mitral regurgitation (old)	10	14	24
Murmur	8	3	11
Aortic obstructive	5	4	9
Aortic obstructive, mitral regurgitation	3	—	3
Pericarditis and murmur	3	3	6
"Aortic and mitral"	2	2	4
Presystolic murmur	2	2	4
Aortic diastolic (old)	2	—	2
Pericarditis and mitral obstructive	1	—	1
Pericarditis and presystolic murmur	1	1	2
Aortic and mitral systolic and presystolic	1	—	1
Mitral diastolic	1	—	1
Murmur diastolic	1	—	1
Aortic obstructive (old)	1	—	1
Pulmonary diastolic	1	—	1
Pericarditis (old)	1	—	1
Aortic regurgitant, mitral regurgitant	2	—	2
Aortic regurgitant, mitral regurgitant, and pericarditis	1	1	2

Carried forward ... 121 94 215

Brought forward	...	121	94	215
Murmur at base...	...	1	—	1
Aortic (old)	...	1	1	2
Murmur (old)	...	1	—	1
"Murmur and aortic systolic" (old)	...	1	—	1
Hæmic	...	—	4	4
Pericarditis and aortic obstructive	...	—	4	4
Endocarditis (old)	...	—	3	3
Pericarditis and endocarditis	...	—	2	2
Presystolic and mitral systolic	...	—	1	1
Mitral stenosis (old)	...	—	1	1
Pericarditis and mitral systolic (old)	...	—	2	2
"Pericarditis, aortic and mitral" (old)	...	—	1	1
Pulmonary murmur	...	—	1	1
Pulmonary systolic	...	—	1	1
Aortic regurgitant	...	—	1	1
Endocarditis	...	—	1	1
		125	117	242

Percentage of recent heart disease, that is, occurring during present attack:

Males (271 cases)	...	40.59 per cent. (No. 579 not mentioned)
Females (192 cases)	...	49.47 per cent.

INTEMPERATE.

Males	...	32 or 4.76 per cent.
Females	...	2 " 0.30 "

Total	...	34 " 5.34 "
Average age of intemperate persons:		
Males	...	33.74
Females	...	31
Average age of the whole number...	...	33.60

Decade.		Males.	Females.
Under 20	...	1	—
" 30	...	10	1
" 40	...	12	—
" 50	...	6	1
" 60	...	2	—

Total ... 31 ... 2
Age not mentioned in No. 62 (male).

Previous attacks of rheumatism occurred in intemperate persons in—

Males	...	12 cases, or 37.5 per cent.
Females	...	1 " 50.0 "
Average age of previous attack:		
Males (12 cases)	...	24.85
Females (1 case)	...	21
Average number of previous attacks:		
Males (12 cases)	...	1.25
Females (1 case)	...	7
Average duration of fever:		
Males (30 cases)	...	11.6 days (no data in 2 cases).
Females (2 cases)	...	12.5 "
Average duration of pain:		
Males (30 cases)	...	14.46 days (no data in 2 cases).
Females (2 cases)	...	10 "
Average duration of whole attack:		
Males (30 cases)	...	23.6 days (no data in 2 cases).
Females (1 case)	...	7 " (no data in 1 case).

Deaths.

Males ... 2 or 6.89 per cent.
Females ... 1 " 50 "
or a total death rate of 8.82 per cent. in intemperate persons.

Recovery.

Complete.		Partial.	
Males	...	17 or 53.12 per cent.	12 or 38.70 per cent.
Females	...	1 " 50 "	0

Occurrence of Heart Affections in Intemperate Persons.

	Males.	Females.	Total.
Mitral regurgitation	...	7	7
Pericarditis and murmur	...	3	3
Pericarditis	...	2	2
Pericarditis and mitral regurgitation	...	1	1
Pericarditis, mitral and aortic regurgitation	...	1	1
Aortic obstructive and mitral regurgitation	...	1	1
Murmur (old)	...	1	1
	16	1	17

Percentage of recent heart disease, that is, occurring during present attack:

Males (32 cases)	...	46.87 per cent.
Females (no data).	...	

	Percentage of		Average Age.		Percentage of Previous Attacks.		Average Age at which Previously Attacked.		Average Number of Persons Attacked.		Average Duration in days of			Percentage of Deaths.		Recovery per cent.		Percentage of Recent Heart Affections.						
	Males	Fem.	Males	Fem.	Males	Fem.	Males	Fem.	Males	Fem.	Fever.	Pain.	Whole Attack.	Males	Fem.	Males	Fem.	Males	Fem.					
Teetotallers	10.53	12.31	18.86	18.77	27.53	36.25	16.26	16.21	0.56	0.60	11.59	10.37	11.31	12.23	27.26	38.08	5.79	3.54	83.63	63.75	15.15	31.25	54.41	43.58
Temperate	41.52	29.31	27.40	20.57	46.69	43.22	17.70	17.59	2.19	2.11	11.37	12.10	14.23	13.33	25.37	24.23	2.20	2.07	73.89	69.27	23.34	26.56	40.59	49.47
Intemperate	4.76	0.30	33.74	31.00	43.38	*	21.85	21.00	1.25	*	11.05	12.50	14.46	10.00	23.60	7.00	6.89	0.00	53.12	*	38.70	*	46.87	*

* No data.

† No. 259; no data.

‡ Nos. 603, 337; no data.

§ No. 579; no data.

This table is drawn up in order that the course and complications of rheumatism, as set forth in the records, which occurred in teetotallers, temperate, and intemperate persons may be more easily compared. It must be borne in mind, however, that in intemperate females but two cases are given; no importance must therefore be attached to the figures under this heading. The table speaks for itself. On the whole, the figures are in favour of the teetotallers; but in three of the most important points it is distinctly the reverse, and it is somewhat surprising to find, first, that the average duration of the whole attack is 23.6 days in intemperate males, as against 25.27 days in temperate males and 27.26 days in teetotallers; secondly, that the percentage of deaths in teetotallers is more than double that of temperate persons; and, thirdly, that the percentage of heart affection is in teetotallers 54.41, as against 40.59 in temperate males and 46.87 in intemperate males.

It was thought advisable to make a brief analysis of the tables in children under 12 years of age with the view of eliciting any facts from the information given under the more important headings.

In the tables records are given of 51 cases of children under the above-mentioned age, namely: males, 25; females, 26.

Average age, males, 7.72; females, 9.15.

The attack was severe in: 8 (33 per cent.) Males. 6 (23.07 per cent.) Females.
" moderate or mild: 16 (66 per cent.) 20 (76.92 per cent.)

The joint affection was:

	Males.	Females.
Many affected: pains migratory	...	9
Few " " fixed	...	4
" " " migratory	...	4
Many " " fixed	...	2
Few " " "	...	1

Average duration (in days) of fever:
Males ... 22 cases (72, 109, 121 no data) 10.72
Females ... 25 " (337 ") 8.76

Average duration (in days) of pain:
Males ... 21 cases (72, 109, 466, 627 no data) 11.09
Females ... 25 " (337 ") 10.00

Average duration (in days) of the whole attack:
Males ... 24 cases (121 no data) ... 22.12
Females ... 25 " (205 ") ... 15.96

Recovery.

Complete		Partial.	
Males	...	19 or 76 per cent.	21 or 80.76 per cent.
Females	...	4 " 16 "	4 " 15.38 "
Deaths	...	2	1

Heart affections:

	Males.	Females.
Mitral regurgitation	7	6
Pericarditis and mitral regurgitation ...	4	3
Pericarditis	2	3
Aortic obstruction	2	—
Aortic and mitral	1	—
Pericarditis and murmur	1	—
" " aortic obstruction	—	1
" " mitral regurgitation (old) ...	1	—
	18	13
Percentage of heart affections... ..	72	50

Inspection of the above figures brings out one fact, namely, that the percentage of children in whom the articular affection was severe and extensive is 36 per cent. in males and 42.30 per cent. in females. This is contrary to the received opinion, but the discrepancy may perhaps be accounted for by the small numbers here available. The duration of the fever, pain, and of the whole attack is about the same as in adults of the most approved habits; and this remark applies, generally speaking, to the percentage of complete recoveries. In the percentage of heart affection among males, the excessive liability of children is clearly shown by the figures, namely, 72 per cent. in children, against 54 per cent. in total abstainers, 40 per cent. in temperate males, and 46 per cent. in intemperate males. In the case of females the difference is much less.

Food.

Apparently but little information is to be gained under this head, the numbers being—

Food sufficient	626
" insufficient	27
" more than sufficient	1
Not stated	1
	655

It is unnecessary therefore to state the proportion of males to females.

LOCALITY.

The numbers come out as follows:—

High, dry, exposed ... 161	High, damp, confined ...	9
Low, damp, confined ... 98	Low, confined ...	8
High, dry 52	Low, damp	6
Low, damp, exposed ... 46	Damp	5
Low, damp 35	Dry, confined	5
High, damp, exposed ... 31	Damp, exposed	5
High, exposed 31	Low	4
High, dry, confined ... 28	At sea	3
Low, dry, confined ... 26	Confined	2
Low, dry 19	Damp, confined	2
Low, dry, exposed ... 18	Exposed	2
High 14	Medium	1
High, damp 11	Travelling	1
Dry, exposed 10	Dry, flat	1
Dry 9	Flat, dry, confined ...	1
Not mentioned	9	

This is a somewhat remarkable list. It is a general opinion that rheumatism is more prevalent in low and damp localities, and it is certainly surprising that by far the greater number of cases (in 24.92 per cent.) occurred in a "high, dry, exposed" locality, and that, on the other hand, only two cases out of 646 in which data exist in the tables, occurred in a "damp, confined" locality. It is true that the next number (93 cases) occurs under the heading "low, damp, confined," but this is followed by 52 cases in a "high and dry" locality; the result of examination of the above list being that no facts of real value come out under this head.

ATMOSPHERE.

Wet or damp, cold, and cloudy	307
Wet, mild, and changeable	156
Dry, hot, sun for the most part	63
Dry and cold	57
Dry, mild, changeable	37
Wet	10
Damp	4
Not mentioned	21

Under this head the numbers come out in accordance with prevailing opinion. By far the greater number (307, or 47.66 per cent.), occurred in a wet, damp, cold, and cloudy atmosphere.

PREVIOUS ILLNESSES—TONSILLITIS.

In 158 cases, or 24.12 per cent., the patients were the subjects of tonsillitis, and it is worthy of remark that the numbers were the same in the two sexes, namely, 79, or 12.06 per cent. Again, sore-throat (the exact nature of which is not specified) occurred in 10 males and 10 females.

Of the 158 cases, 12 males and 15 females were the subject of tonsillitis as a common ailment, that is, the patients were liable to attacks of inflammation of the tonsil apart from any definite manifestation of rheumatism.

Of these cases—

No. 53. Female, aged 17, was attacked with tonsillitis three days after exposure to wet and cold.

No. 435. Male, aged 12. The tonsillitis lasted throughout the rheumatic attack (twenty-one days), and continued after convalescence was established.

No. 481. Female, aged 28. The attack commenced with tonsillitis.

No. 497. Female, aged 20. Tonsillitis supervened on the third day of the rheumatic attack.

No. 604. Male, aged 49. Tonsillitis preceded the rheumatism by six days, and recurred five days after recovery from the rheumatism.

No. 613. Female, aged 30. The patient had three attacks of tonsillitis each followed by acute rheumatism.

With the exception of the above cases specially mentioned, the tonsillitis preceded the rheumatism at variable intervals. Two cases (103, 494) as long as fourteen years previously; one case (11) five years previously; one case (638) four years previously; one case (517) tonsillitis and scarlet fever three years before; four cases (107, 189, 305, 516) two years before; seven cases (105, 317, 332, 438, 502, 635, 647) between one and two years. Of the remainder, tonsillitis occurred at periods varying between twelve months and the actual day of the onset of the rheumatism. In all those cases in which any cause for the tonsillitis or rheumatism is distinctly stated, exposure to wet, cold, or over-fatigue, or all three combined, is given. It is unnecessary therefore to print the exact numbers.

SCARLET FEVER AS AN ANTECEDENT.

Scarlet fever is mentioned as an antecedent in 88 cases only out of the total number, 655, or 13.43 per cent. It is probable, however, that this number does not represent the actual fact, and that the disease, as an antecedent of rheumatism, is not stated by many reporters, simply because no special inquiry was made as to particular fevers.

Of the 88 cases 43 or 6.41 per cent. were males
45 or 6.71 " " females.

It is not possible, by reason of the scanty data, to draw any conclusions as to the origin of valvular disease of the heart in specific fever other than rheumatism, but the following case may be noted as the only one having any special bearing upon this point.

No. 130 (James Barr, Bolton). Male aged 18; gasfitter. No previous rheumatic affection. Patient a total abstainer. He had measles 10 years and scarlet fever 8 years before the rheumatism, which was apparently induced by over-fatigue and exposure to wet on the day previous. When the patient came under observation a systolic aortic and a mitral murmur were heard, and on the termination of the rheumatism at the end of a fortnight, the heart's apex was 1 inch external to the nipple, showing clearly that the valve disease was of old standing.

In many of the cases of antecedent scarlet fever old valvular disease of the heart is recorded, but in them there had been at least one previous attack of rheumatism. The above-mentioned case forms the only exception. The incidence of the scarlet fever was, as common experience would show, in the earlier years of life, that is, before 20.

MEASLES AS AN ANTECEDENT.

Measles is recorded in 21 males or 63.63 per cent.
" " 13 females " 39.39 "

34 cases in all.

As in scarlet fever, the reports are insufficient for any definite conclusions, but the following cases are worthy of mention as bearing upon the question of the causation of heart disease.

No. 1 (Theophilus Trend, M.D., Southampton). Male, aged 32; solicitor. Had measles in childhood, followed by rheumatism.

He had an aortic murmur (systolic) when he came under observation, but at the termination of the attack it had diminished in intensity, and the apex beat was in its normal position.

No. 130 (James Barr, Bolton). Male, aged 18; gasfitter. Had scarlet fever 8 years and measles 10 years previously. He had an old systolic aortic and mitral murmur, and at the end of the rheumatic attack the apex was 1 inch external to the nipple. He had had no previous rheumatism.

No. 180 (C. Harrison, M.D., Lincoln). Female, aged 23, single, a cook. Had measles 21 years and scarlet fever 2 months previously. She had a systolic murmur observed during the attack of rheumatism, but it is not stated whether the murmur existed at the onset of the rheumatism, or whether it persisted after the convalescence was established. She had had no previous rheumatism.

As in the case of scarlet fever, the measles occurred in early life, and before 20 years of age.

Measles was associated with scarlet fever as an antecedent in 7 cases, of which Nos. 44, 103, 117, 130, 277, 365, 434 were males, and 1, No. 180, was a female. It was associated with varicella in 1 male (No. 309); with tonsillitis in 2 males (Nos. 1 and 11), and 1 female (Nos. 502); with tonsillitis and pertussis in 1 male (No. 103); with pertussis in 1 male (No. 420), and 3 females (Nos. 132, 392, 574); with tonsillitis and scarlet fever in 1 female (No. 229); with tonsillitis and chorea in 1 male (No. 433). In the remaining 15 cases measles was the only antecedent—namely, in 8 males and 7 females.

TYPHOID AS AN ANTECEDENT.

This occurred in 11 cases, of which 6 (295, 356, 389, 483, 518, 612) were males, and 5 (94, 139, 357, 360, 481) were females; of these, enteric and scarlet fever were antecedents in 5 cases.

No. 139. Female, aged 28, had enteric fever 25 years previously, and scarlet fever in childhood; 1 previous rheumatic attack at 19. No morbus cordis.

No. 357. Female, aged 8, recovered from enteric fever 2 months previously to the rheumatism, having had scarlet fever 14 months before. No previous rheumatism; no morbus cordis.

No. 389. Male, aged 17, had scarlet fever 8 years previously; the date of the enteric was uncertain. No previous rheumatism; no morbus cordis.

No. 360. Female, aged 22, had enteric fever, scarlet fever, small-pox, and whooping-cough as antecedents, but the dates of the fevers are not stated; 1 previous rheumatic attack at 19. No morbus cordis.

No. 481. Female, aged 28, had scarlet fever 19 years previously; the date of the enteric was unknown; 5 previous rheumatic attacks. Old morbus cordis.

No. 518. Male, aged 20, had enteric fever 6 years and tonsillitis 6 months previously; 1 previous rheumatic attack at 18. No morbus cordis.

Of the remaining 5 cases, enteric fever was the only antecedent, namely, in 2 males and 4 females.

TYPHUS AS AN ANTECEDENT

Occurred in—

No. 174 (W. Easby, M.D., March). Male, aged 18; 11 years previously. No previous rheumatism. No morbus cordis.

No. 372 (C. B. Richardson, M.D., Brighton). Female, aged 21; 5 years previously; this patient had scarlet fever when young; 1 previous rheumatic attack at 15. Old morbus cordis.

No. 441 (J. W. Miller, M.D., Dundee). Male, aged 47; twice previously; the patient had bronchitis 7 years, and otitis 5 years before; 3 previous rheumatic attacks, the first at 12. No morbus cordis.

VARIOLA AS AN ANTECEDENT

Occurred in 4 cases—3 males and 1 female, namely:

No. 126 (J. H. Jackson, M.B., Wigan). Male, aged 36, had variola 32 years, and pneumonia 20 years previously; 1 previous rheumatic attack at 19. No morbus cordis.

No. 370 (Thomas F. Raven, Broadstairs). Male, aged 40, had variola 7 years previously. No previous rheumatism. No morbus cordis.

No. 451 (John Reid, Rochdale). Female, aged 15, had variola 7 months previously. No previous rheumatism. No morbus cordis.

No. 645 (B. Roberts, M.D., Eastbourne). Male, aged 29; variola 18 years; scarlet fever 24 years previously; 1 previous rheumatic attack at 20. Old aortic disease.

(In No. 451 a mitral systolic murmur was heard during the

rheumatic attack, and in No. 645 an old aortic murmur, but in none of the others is any cardiac disease recorded.)

OTHER ACUTE SPECIFIC DISEASES AS ANTECEDENTS.

Whooping-cough occurred in 6 cases, namely, 3 males and 3 females.

Rötheln occurred in 2 cases, both females.

Mumps " 1 case, namely female.

Erysipelas " 1 " " "

Varicella " 1 " " "

" Fever " 1 " " "

In none of the above was there any heart affection unconnected with the rheumatism.

Syphilis is specially noted in 4 cases, namely, 1 male and 3 females.

No. 2 (Charles Ede, Guildford). Female, aged 40; syphilis was doubtful; the patient had suffered from eczema for 1 year previously.

No. 167 (T. Hyde Hills, Cambridge). Male, aged 32; cabman; the date of infection, etc., not stated.

No. 332 (W. Shaw, M.D., Maidstone). Female, aged 36, married; infected 4 years previously.

No. 424 (Thomas F. Raven, Broadstairs). Female, aged 35; infected 4 years previously by husband.

ANÆMIA AS AN ANTECEDENT.

Anæmia is recorded in 17 cases, or 2.59 per cent.; of which 3 or 0.45 per cent. were males, and 14, or 2.13 per cent., females.

No. 37. Male, aged 6; anæmic child; 1 previous attack of rheumatism at 3 years of age.

No. 47. Female, aged 14, single; errand girl; anæmia for two months previously.

No. 59. Female, aged 19, single; dressmaker; anæmia, no date given.

No. 78. Female, aged 28, married; anæmia, no date given. Phlebitis after parturition 38 days previous to rheumatism; 1 previous rheumatic attack at 14.

No. 94. Female, aged 15, single; house work; anæmia, no date given. Enteric fever 3 years previously.

No. 138. Female, aged 22, single; servant; anæmia, no date given.

No. 252. Male, aged 26; joiner; anæmia, no date given; neuralgia; 2 previous rheumatic attacks; first at 22.

No. 302. Female, aged 24; servant; anæmia, no date given; neuralgia, scarlet fever in childhood; 3 previous attacks of rheumatism, first at 13.

No. 340. Female, aged 24, married; anæmia, no date given; 2 previous attacks of rheumatism, first at 18.

No. 360. Female, aged 22, single; milliner; anæmia, no date given; 1 previous attack of rheumatism at 19. Scarlet fever, enteric fever, variola. Pertussis in former years.

No. 372. Female, aged 21, single; shopgirl; anæmia, no date given; 1 previous attack of rheumatism at 15. Typhus and bronchitis 5 years before second rheumatic attack. Scarlet fever in former years.

No. 423. Female, aged 20, single; at home; anæmia, no date given; migraine, debility, hysteria; insufficient diet; 1 previous rheumatic attack at 16.

No. 499. Female, aged 18, single; servant; anæmia, no date given; bronchitis, otitis in former years.

No. 549. Female, aged 24, single; servant; anæmia, no date given; 1 previous rheumatic attack at 15.

No. 520. Male, aged 4; anæmia some weeks previously; conjunctivitis, keratitis.

No. 622. Female, aged 27, married; anæmia, no date given; abortion and flooding 8 months previous to rheumatic attack; 5 previous rheumatic attacks, first at 8.

No. 647. Female, aged 17, single; servant; anæmia, no date given; scarlet fever at 5 years of age; tonsillitis 21 months before the last attack of rheumatism; old cardiac disease; no previous rheumatism.

In 5 of these cases cardiac complication existed, namely, in No. 37 a mitral systolic bruit was developed during the rheumatism, there having been one previous attack at the age of 3; 78, an old systolic mitral murmur, the patient having had an attack of acute rheumatism 14 years previously; 302, a mitral systolic murmur (probably of old-standing), there having been 3 previous attacks of acute rheumatism; 372, a mitral systolic murmur (but whether old or recent is not stated), with an attack of rheumatism 6 years previously; 647, a mitral systolic bruit (possibly of old standing),

with previous history of scarlet fever, but without any record of rheumatism.

It will be seen, therefore, that anæmia cannot, so far as these cases are concerned, be regarded as a cause of cardiac disease, but that in those instances in which it existed it must be attributed rather to rheumatism (4 cases), or to scarlet fever (1 case).

PULMONARY DISEASES AS ANTECEDENTS.

Bronchitis occurred in 15 cases=10 males, 5 females.

Pneumonia " " 7 " = 3 " 4 "

Pleurisy " " 2 " = 2 " " "

Pleuropneumonia " " 1 " = 1 " " "

WHOOPING-COUGH AS AN ANTECEDENT

In 6 cases=3 males and 3 females.

Namely...No. 199. Male, aged 31; no date given.

" 392. Female, " 7 " " "

" 420. Male, " 8 " 7 years previously

" 450. Female, " 5 " 4 " " "

" 574. " " 10 " 5 " " "

" 629. Male, " 14; no date given.

CHOREA.

It is not a little remarkable, considering the recent observations of Dr. Stephen Mackenzie and others, that chorea is mentioned in this series of 655 cases as an antecedent or concomitant of rheumatism in 13 instances only, or 1.98 per cent., namely, males, 0.76 per cent.; females, 1.22 per cent. No apology is needed therefore for a statement of the chief particulars in each case.

No. 49 (F. Marsh, Stafford). Female, aged 24; single; housemaid; temperate; sufficiently fed. Locality, low, damp, exposed; 2 previous attacks of rheumatism, the first at 13. Scarlet fever 12 years previously; chorea at the same time. A mitral systolic murmur was heard at the commencement of the rheumatic attack, for which the patient was under treatment; but at the termination of the attack the apex was normal in position, although the murmur persisted.

No. 74 (S. Moritz, M.D., Manchester). Female, aged 25; single; factory hand; temperate; insufficient diet. Locality, low, damp, confined. Chorea 4 months previously, during pregnancy; no previous rheumatism or other illness; no cardiac affection.

No. 209 (G. W. Homan, Lichfield). Male, aged 27; single; clerk; temperate; sufficient diet; 1 previous attack of rheumatism at 19; chorea in childhood. A systolic mitral murmur was heard at the commencement of the present attack, and remained during the attack; the apex beat being then half an inch internal to the nipple. The patient did well till the seventh day, when sweating ceased; and in the evening the temperature rose to 110° F., and he died in 5 hours, the temperature being then 106.9° F.

No. 238 (W. F. Brook, Farcham). Female, aged 11; sufficient diet. Locality, high, dry, exposed. No previous attack of rheumatism; chorea 2 years previously. The attack of rheumatism was severe; pericarditis complicated the attack, and death occurred on the seventh day, from asphyxia, the result of pericarditis and "great bronchial secretion."

No. 433 (F. Wachter, Canterbury). Male, aged 14; cabinet maker; sufficient diet. Locality high. No mention made of previous rheumatism. The patient had measles with enlarged tonsils, but the date is not given; 2 attacks of chorea 7 and 2 years ago. A mitral murmur was audible throughout the attack and at the termination of rheumatism after 21 days. The apex beat was normal in position. Recovery complete.

No. 469 (E. J. Allan, M.D., Dock Street, E.). Female, aged 24, single; temperate; sufficient diet. Locality, low, damp; 1 previous attack of rheumatism at 16; liable to bilious attacks; chorea in childhood. A mitral systolic murmur was audible throughout the attack, and at the termination of the rheumatism on the eleventh day. The apex beat was one inch to the left of the sternum; the murmur had been present since childhood, and was heard before the chorea attacked her. Recovery was complete.

No. 466 (H. S. Renshaw, M.D., Sale). Male, aged 9; temperate; sufficient diet. Locality, dry, exposed. No previous attack of rheumatism; aortic and mitral murmurs during the rheumatic attack; apex 1 inch below, and internal to nipple; murmurs disappeared 21 days after the onset of the rheumatism; "chorea remained." Recovery from rheumatism was complete.

No. 493 (W. Frew, M.D., Galston, Ayrshire). Female, aged 19;

single; lace maker; total abstainer; sufficient diet. Locality, low, damp. One previous attack of rheumatism at 16; chorea 9 years previously. A systolic mitral murmur audible throughout the attack (14 days' duration); at the termination the apex beat was in the sixth interspace, 1 inch external to the nipple line. Recovery was complete.

No. 524 (G. H. Mackay, M.B., Elgin). Female, aged 19; single; no occupation; temperate; sufficient diet. Locality, low, damp. No previous rheumatism; chorea 18 months previously; tonsillitis 4 days before. A mitral and aortic murmur was heard during the attack, and at its termination at the end of 3 weeks; the apex was just within the nipple. The patient had dropsy from heart disease.

No. 547 (W. H. Dobie, M.B., Chester). Female, aged 17; single; lady; temperate; sufficient diet. Locality, low, damp, confined. One previous attack of rheumatism at 12; chorea 5 years previously; systolic and presystolic mitral murmurs audible during the attack; no mention of position of apex. Chorea accompanied the previous attack of rheumatism, which was attended by violent delirium and severe pain; present attack mild, and terminating on the tenth day.

No. 587 (D. J. Mackenzie, M.D., Glossop). Male, aged 4; total abstainer; sufficient diet. Locality, high, dry, exposed. No previous rheumatism; chorea was slight, and occurred 10 days previous to the onset of rheumatism. There was a systolic mitral murmur from the third day of the attack, but the apex was normal. Recovery was complete.

No. 589 (D. J. Mackenzie, M.D., Glossop). Female, aged 14; temperate; sufficient diet. Locality, high, damp, exposed; 2 previous attacks of rheumatism (age of first not given); chorea is said to be "still present." A "murmur" was noticed when the patient came under observation; the apex was widely diffused. Recovery was complete.

No. 599 (C. H. Milburn, M.B., Durham). Male, aged 16; weaver; temperate; sufficient diet. Locality, low, damp, confined; 1 previous attack of rheumatism at 12. A mitral systolic murmur was noticed when the patient came under observation; the apex beat 1 inch below the nipple; chorea had occurred 3 years previously. Recovery was complete.

In 5 cases (74, 238, 466, 524, 587) there had been no previous rheumatism.

In 1 case (483) no mention is made of previous rheumatism. In 2 cases (49 and 589) 2 previous attacks of rheumatism had occurred, while in the remainder, 1 previous attack had occurred in each case.

In Nos. 74 and 587 no cardiac disease existed after recovery from rheumatism; the patient having had an attack of chorea 4 months previously.

In No. 238 no cardiac disease was known until the rheumatic attack under which the patient succumbed; but chorea had occurred 2 years previously.

In No. 433 there had been no previous rheumatism, but there had been two previous attacks of chorea, and there had been no previous cardiac disease.

In No. 524 there had been no previous rheumatism. One attack of chorea 18 months previously; the patient suffered from cardiac dropsy; an evidence of old-standing valvular disease.

In these records, then, no valvular disease can be traced in connection with chorea alone, and, though in the majority of these cases in which chorea occurred valvular disease of the heart existed, it was presumably of rheumatic origin, and in all save one (524) the mitral valve alone was affected.

In one case (460) there had been one attack of rheumatism 8 years previously, and chorea in childhood, the date not given; it is specially noted that the mitral systolic murmur was heard "before the chorea attacked her."

In No. 49 chorea occurred at 12 years of age, the patient being aged 24, female.

In No. 74 chorea occurred 4 months previous, the patient being aged 25, female.

In No. 209 chorea occurred in childhood (no date given), the patient being aged 27, male.

In No. 238 chorea occurred at 9 years of age, the patient being aged 11, female.

In No. 433 chorea occurred at 7 and 9 years of age, the patient being aged 14, male.

In No. 460 chorea occurred in childhood (no date given), the patient being aged 24, female.

In No. 493 chorea occurred at 10 years of age, the patient being aged 19, female.
 In No. 524 chorea occurred at 16 years of age, the patient being aged 19, female.
 In No. 547 chorea occurred at 12 years of age, the patient being aged 17, female.
 In No. 587 chorea occurred ten days previously, the patient being aged 4, male.
 In No. 599 chorea occurred at 13 years of age, the patient being aged 16, male.
 Various other "previous illnesses" are recorded in these tables, but the numbers in each case are so small that analysis of them would be useless.

RECENT ANTECEDENTS TO THE RHEUMATIC ATTACK.

Under this head are stated certain previously existing conditions to which the rheumatic attack might probably be attributed, or without which the patient might possibly have escaped.

Over-fatigue and exposure to wet and cold:			
Males	...	...	61
Females	...	...	37
Not mentioned	...	...	1
Total	...	...	99 or 15.11 per cent.
Exposure to wet and cold:			
Males	...	...	76
Females	...	...	30
Total	...	...	106 or 16.18 per cent.
Exposure to cold:			
Males	...	...	55
Females	...	...	36
Total	...	...	91 or 13.89 per cent.
Over-fatigue—more or less prolonged:			
Males	...	...	12
Females	...	...	18
Total	...	...	30 or 4.58 per cent.
Exposure to wet:			
Males	...	...	38
Females	...	...	32
Total	...	...	70 or 10.68 per cent.
Over-fatigue—prolonged:			
Males	...	...	12
Females	...	...	11
Total	...	...	23 or 3.51 per cent.
Over-fatigue—sudden:			
Males	...	...	7
Females	...	...	4
Total	...	...	11 or 1.52 per cent.
Pharyngitis:			
Males	...	...	10
Females	...	...	4
Total	...	...	14 or 2.13 per cent.
Parturition:			
2 cases (125 and 406)	6 weeks	previously.	
1 " (305)	5 "	"	
1 " (391)	4 "	"	
1 " (264)	25 days	"	
1 " (606)	22 "	"	
1 " (428)	14 "	"	
1 " (515)	2 "	"	
Shock:			
Males	...	...	4
Females	...	...	3
Total	...	...	7 or 1.06 per cent.

Of the other mentioned recent antecedent diseases, such as gout, gonorrhoea, of each one case; jaundice, catarrh, diptheria, injury, parotitis (two cases), for example, the numbers are so small as to be valueless.

The expression "recent antecedents" here signifies a disease which occurred within six weeks previously to the rheumatic attack for which the patient came under observation.

The numbers in order stand as follows:

Exposure to wet and cold	...	...	106 cases.
Over-fatigue and exposure to wet and cold	...	...	99 "
Exposure to cold	...	...	91 "
Exposure to wet	...	...	70 "
Over-fatigue, more or less prolonged	...	...	30 "
Over-fatigue, prolonged	...	...	23 "
Pharyngitis	...	...	14 "
Over-fatigue, sudden	...	...	11 "
Parturition	...	...	8 "
Shock	...	...	7 "
No recent antecedent diseases (males, 39 females, 30)	...	...	79 "
No mention of antecedent diseases (males, 27; females, 18)	...	...	45 "

PHENOMENA CONNECTED WITH THE PRESENT ATTACK.

Under this head returns are made: 1, as to the severity of the attack and the sweating; 2, the duration of the fever, pain, and whole attack; 3, extent of joint affection; 4, result.

The figures come out as follows:

The rheumatism was severe in	...	178 males, or 27.17 per cent.
" " mild in	...	116 females, or 17.70 "
" " "	...	191 males, or 29.15 "
" " "	...	160 females, or 24.42 "
	...	645
Cases in which no mention is made as to severity, namely, 133, 319, 320, 342, 377, 415, 420, 505, 539, 588	...	10
	...	655
Sweating was considerable in	...	255 males, or 38.93 per cent.
" " slight in	...	166 females, or 25.34 "
" " "	...	116 males, or 17.70 "
" " "	...	107 females, or 16.33 "
	...	644
Cases in which no sweating occurred or no mention is made as to sweating, namely, 9, 46, 132, 133, 336, 407, 493, 520, 573, 608, 638	...	11
	...	655

Examination of the tables were then made with the view of ascertaining the influence of diaphoresis on recovery; the following is the result:

	Males.	Females.
Sweating, considerable	180, or 27.89 per cent.	105, or 16.25 per cent.
Recovery, complete	88 " 13.62 "	82 " 12.69 "
Sweating, slight	64 " 9.90 "	52 " 8.04 "
Recovery, complete	21 " 3.25 "	20 " 3.09 "
Sweating, considerable	11 " 1.70 "	9 " 1.54 "
Death	1	1
Sweating, slight	1	1
Death	1	1
Sweating, none	1	1
Recovery, complete	1	1

Of the 655 cases data were insufficient for the above calculation in 9 males (Nos. 46, 151, 249, 255, 325, 407, 578, 579, 608), and in 9 females (Nos. 9, 81, 132, 150, 322, 520, 567, 573, 638); in 1 case (133) the sex is not mentioned, leaving 646 cases to be dealt with.

The figures lend but partial support to the presumption that free diaphoresis produces a beneficial effect on the course and result of acute rheumatism, when the number of complete recoveries with slight sweating is compared with that when sweating was considerable.

Under "slight" sweating have been grouped cases in which diaphoresis is described as moderate; under "considerable" those in which it was profuse.

INFLUENCE OF TREATMENT ON THE DURATION OF THE RHEUMATIC ATTACK.

With only four exceptions, the cases recorded in the tables were under one or more of various remedies advocated for the relief of the disease, and it has been, therefore, thought advisable to calculate the average number of days' duration of the fever, pain, and of the whole attack (where a sufficient number of cases could be collected to strike an average), under some of the more usual methods of treatment. In a large number of cases the treatment

is different in each; no grouping of them, therefore, is either profitable or even possible.

Treatment.	Average duration (in days) of		
	Fever.	Pain.	Whole Attack.
Salicylates (sodium or potassium)	(173 cases) 8.65 days	(171 cases) 10.18 days	(167 cases) 19.03 days
Salicylic acid ...	(9 cases) 13.8 days	(9 cases) 10.7 days	(9 cases) 10.7 days
Salicin ...	(14 cases) 9.28 days	(14 cases) 15.07 days	(14 cases) 23.92 days
Alkalies ...	(26 cases) 13.23 days	(26 cases) 19.0 days	(26 cases) 36.30 days
Alkalies and then salicylates	(22 cases) 11.54 days	(22 cases) 13.90 days	(21 cases) 22.22 days
Salicylates and alkalies (combined)	(12 cases) 10.83 days	(11 cases) 15.54 days	(13 cases) 34.92 days
Salicylates and then alkalies	(19 cases) 10.78 days	(18 cases) 13.16 days	(17 cases) 30.64 days
Salicin and alkalies ...	(3 cases) 11.6 days	(3 cases) 19.3 days	(3 cases) 24.0 days
Salicylates and potass. iod.	(7 cases) 17.14 days	(6 cases) 24.16 days	(7 cases) 46 days
Salicylates and iron ...	(18 cases) 11.77 days	(19 cases) 10.89 days	(18 cases) 27.7 days
Salicylates and tonics ...	(16 cases) 8 days	(16 cases) 10.18 days	(16 cases) 18.68 days
Alkalies and opium ...	(8 cases) 10.75 days	(8 cases) 12.60 days	(8 cases) 18.75 days
Salicylates, then iron and quinine	(5 cases) 10 days	(5 cases) 13.8 days	(6 cases) 20.33 days
Salicylates and opium ...	(10 cases) 9.9 days	(11 cases) 8.45 days	(9 cases) 30.3 days
Salicylates and blisters...	(7 cases) 6.14 days	(7 cases) 12 days	(6 cases) 15.83 days
Alkalies and then quinine	(6 cases) 13.5 days	(6 cases) 21.6 days	(5 cases) 35 days
Salicylates and quinine...	(6 cases) 10.5 days	(6 cases) 17 days	(6 cases) 31.6 days

Case No. 655 has been excluded from the calculation under salicin as the data are insufficient. The patient was ill 7 days before she came under observation; the pain lasted 1 day, and the duration of the whole attack was 7 days.

In most of the cases treated the dose of salicin was 1 scruple, repeated in intervals of from 1 to 4 hours; and in once case (654) the drug was taken in 1-scruple doses every hour till the patient was well (about the 6th day).

In Case 444 the dose was grains xij, given every 2 hours till bedtime, and then repeated thrice daily. The patient was not seen until the 10th day, and on the 2nd day of treatment the temperature became normal.

CASES IN WHICH SALICIN, SALICYLIC ACID, OR ITS SALTS FAILED.

No. 19 (W. Bruce, M.D., Dingwall). Male, aged 42; shoemaker; temperate; sufficiently fed. Locality, low, damp, confined; atmosphere, changeable; wind W. No previous rheumatism. Present attack attributed to exposure and over-fatigue. The attack was severe, attended by considerable sweating, and many joints (fingers chiefly) were affected. Sodium salicylate was given, 10 grains every 2 hours, and then every 4 hours. Subsequently potassium bicarbonate was administered till the urine became alkaline. Recovery was partial, pain persisting in several joints. The reporter remarks: "Salicylate seemed to have no effect; treatment carefully carried out."

No. 22 (J. A. Erskine Stuart, Healy, Batley). Male, aged 23; single; blacksmith; temperate; sufficiently fed. Locality, high, dry, exposed; atmosphere, damp and cold; wind N. The patient had had several previous attacks of rheumatism, and had "congenital mitral disease inherited from mother." The present attack was ascribed to exposure to wet, and cold, and over-fatigue; it was severe, and the sweating considerable. The duration of the fever, pain, and whole attack was 7 days. The dose of sodium salicylate was 15 grains every 3 hours. The joint affection was relieved in 2 days. The salicylate caused gastro-enteritis and hæmatemesis, and the patient died.

No. 52 (J. Munro, M.D., Barnard Castle). Male, aged 21; single; labourer; temperate; sufficiently fed; locality, high, dry; atmosphere, mild and changeable; wind E. The patient had bronchitis 6 years previously, but no rheumatism. For the present attack no cause is assigned; the attack was severe, with profuse

sweating. The fever and pain lasted 6 days, and the whole attack 35 days; many joints were involved. During the attack a crop of sudamina appeared. Sodium salicylate, half a scruple to one scruple, was given every 3 hours. The reporter remarks that there was an absence of effect of the salicylate on either the fever or the pain. The patient made a complete recovery.

No. 79 (A. A. Cohen, M.B., Burwash). Female, aged 25; single; housemaid; temperate; sufficient food. Locality, high, damp, exposed; atmosphere, wet and cold. The patient had one previous attack at the age of 8. Present attack attributed to wet, cold, and over-fatigue; it was severe, and the sweating was considerable. The duration of the fever and pain were 12 and 14 days, and of the whole attack 14 days. Many joints were affected. Patient was chlorotic. Sodium salicylate was at first administered, and then potass. bicarb. and iod. The reporter remarks: "No benefit from treatment No. 1; rapid effect of No. 2." Recovery complete.

No. 105 (Edward Cureton, Shrewsbury). Male, aged 25; railway labourer; temperate; sufficient food. Locality, low, damp, confined; atmosphere, mild and damp; wind S. Patient had tonsillitis 1 year previously but no rheumatism. Present attack attributed to exposure to wet; it was severe, with considerable sweating. Duration of the whole attack was 49 days. Many joints were affected, and sudamina were present during the attack. Salicylates were administered for 3 days, and then potass. bicarb. Reporter remarks: "Salicylates failed; bruit appeared at the end of first week; case of a relapsing nature throughout. Recovery was complete."

No. 127 (F. B. Mallett, M.D., Bolton). Female, aged 22; single; sempstress; temperate; sufficient food. Locality, high and dry; atmosphere, changeable; wind S.W. Patient had scarlet fever 5 years previously but no rheumatism. Present attack attributed to prolonged over-fatigue; it was severe, with considerable sweating. Duration of fever and pain were 21 and 30 days respectively, and of the whole attack 42 days. Pericarditis and endocarditis supervened during the attack. Sodium salicylate, 2 drachms in 24 hours for several days was the first treatment; afterwards salines were substituted. The remark is: "No relief from treatment 1; good from No. 2." Recovery partial.

No. 143 (Henry Davy, M.D., Exeter). Male, aged 20; single; cutter; temperate; sufficient food. Locality, low, damp, confined; atmosphere, wet and mild. One previous rheumatic attack, at 13. Present attack moderate; slight sweating. Duration of fever and pain 7 and 5 days respectively, and of the whole attack 14 days. Salicylate was given at first in one-scruple doses, and afterwards iron and ammon. acet. Remarks: "Salicis produced no effect on temperature. Relief from treatment No. 2." Recovery was complete.

No. 201 (C. A. McMunn, M.D., Wolverhampton). Female, aged 15; single; schoolmistress; temperate; food sufficient; locality, low, damp, exposed; atmosphere, damp and cold; wind N.E. Patient had had no previous illness. Present attack attributed to exposure to cold and over-fatigue; it was a mild one, but attended by considerable sweating. Duration of fever and pain 14 and 10 days respectively, and of the whole attack 21 days. Few joints were affected. Pericarditis and pleurisy supervened during the attack. Salicin was first administered, and subsequently "sodium salicylate in one-scruple doses every four hours, with alkalies." The reporter observes, "No benefit from salicin." Recovery complete.

No. 212 (M. Messiter, Dudley). Male, aged 17; single; engine-driver; temperate; sufficient food. Locality, high, damp, exposed; atmosphere, wet and cold; wind N.E. No previous illness. Present attack was severe, with considerable sweating. Fever and pain lasted 28 and 20 days respectively; the whole attack 43 days. Few joints were affected. Sudamina appeared during the attack, and roseola afterwards. The dose of salicylate is not given, but the reporter remarks: "Salicylate produced so little relief and so much sweating that it was stopped. No other drug affected the rheumatism."

No. 244 (A. A. Cohen, M.B., Burwash). Male, aged 35; higgler; temperate; sufficient food. Locality, high, dry, exposed; atmosphere, dry, cold; wind S.W. Patient had two previous rheumatic attacks, the first at 27. Present attack attributed to sudden over-fatigue and exposure; it was moderate, with slight sweating. The fever and pain lasted 7 and 8 days, the whole attack 21 days. Many joints were involved. Salicin (dose not stated) was first given; subsequently, two grains of quinine every four hours and a blister to knee. The patient was anæmic. "No benefit from

salicin. After the first dose of quinine, said, "I felt it take all the fever out of me." Recovery partial; pain persistent in one joint.

No. 290 (Jas. McNee, M.D., Inverness). Male, aged 18, single; grocer; temperate; sufficiently fed. Locality, low, damp, confined. No previous illness. Present attack attributed to exposure. Fever and pain lasted 20 and 2 days, and the whole attack 35 days. It was a moderate attack, but attended by considerable sweating. Sudamina appeared on the 9th, and lasted till the 24th day. A mitral systolic murmur came on during the attack. Sodium salicyl. was first given in doses of one scruple every two hours; then salicin in the same doses; and, thirdly, quinine with alkaline effluents. The reporter remarks: "Temperature fell and murmur disappeared with the salicylate. With salicin in same doses, temperature rose and murmur returned."

No. 332 (W. Shaw, M.D., Maidstone). Female, aged 32, married; paper-mill hand; temperate; sufficiently fed. Locality, low, damp, exposed; atmosphere, wet. Patient had four previous attacks of rheumatism, the first at 8, and four years previously suffered from syphilis. Present attack preceded by prolonged over-fatigue; it was a severe attack, with considerable sweating. Duration of fever and pain was 5 and 21 days respectively, and of the whole attack 56 days. Many joints were involved. The treatment is stated to have been alkaline, but the remark of the reporter is, "Almost complete inutility of salicylic acid."

No. 372 (C. B. Richardson, M.D., Brighton). Female, aged 21, single; shop assistant; temperate. Locality, low, dry; atmosphere, wet, cold; wind E. Patient had had a previous rheumatic attack at 15; also scarlet fever when young, and typhus with bronchitis five years previously. Present attack followed exposure to cold; it was severe, and attended by considerable sweating. Duration of fever 40 days, and of the whole attack 280 days. Many joints were involved. During the attack the patient suffered from pleurisy, pericarditis, and double pneumonia. "Salicylates in large doses frequently repeated had no effect on the fever or pain," and recovery was eventually complete on quinine, digitalis, pot. iod., ammonia, and stimulants.

No. 390 (W. Brooks, Fareham). Male, aged 25, single; manservant; temperate; sufficiently fed. Locality, low, damp; atmosphere, dry, hot. No previous illness. Present attack followed prolonged over-fatigue on the previous day; it was moderate in severity, and attended with slight sweating. Fever and pain lasted 20 days respectively, and many joints were affected. Sodium salicylate for one week failed to relieve the symptoms, and recovery was eventually completed under potassium bicarb. and potass. iod.

No. 418 (H. G. Orlebar, M.D., Elizabeth Street, S.W.). Female, aged 18, single; servant; temperate; sufficiently fed. Locality, low, damp, confined; atmosphere, wet, and cold. No previous illness. Present attack attributed to exposure to wet 8 days previously; it was severe, but accompanied by only slight sweating. Duration of fever and pain 21 days and 20 days respectively; of the whole attack 24 days. Many joints were affected. Patient suffered during the attack from pericarditis and intense pain in the cervical spine, and was usually dyspeptic. Sodium salicyl. in 15-grain doses every four hours failed to give relief; slight relief followed potass. acet. and bicarb., while quinine produced great benefit. Recovery was complete under iron and potass. iod.

No. 419 (H. G. Orlebar, M.D., Elizabeth Street, S.W.). Female, aged 25, single; dressmaker; temperate; sufficiently fed. Locality, low, dry, confined; atmosphere, dry, mild. No previous attacks. Present attack followed exposure to wet and over-fatigue just before; it was severe, with considerable sweating. Fever lasted 19 days, pain 17 days, and the whole attack 21 days; few joints were affected. Membranous pharyngitis supervened on the 18th day. Pericarditis during the attack; the patient was, moreover, subject to "bronchial catarrh and sluggish liver." Quinine was administered first, and then sodium salicyl., 15 grains every four hours, with no result. Recovery was finally completed under potass. iod., potass. bicarb., and digitalis.

No. 425 (T. F. Raven, Broadstairs). Female, aged 32, married; temperate; sufficiently fed. Locality, high, dry, confined; atmosphere, dry and hot; wind W. One previous attack of rheumatism at 12. Present attack attributed to exposure to cold and sudden fatigue 14 days previously; it was of moderate severity, but accompanied by considerable sweating. Fever lasted 40 days, pain 49 days, and the whole attack 84 days; many joints were involved. The patient was subject to migraine and was anæmic. "Salicylic acid relieved the fever and pain from time to time, but failed eventually."

No. 448 (G. C. Dickson, M.D., Carnoustie). Female, aged 48, married; temperate; sufficiently fed. Locality, low, dry, confined; atmosphere, dry, cold, changeable; wind W. No previous illness recorded. Present attack followed prolonged over-fatigue and exposure to cold on the previous day; it was of moderate severity, but attended with considerable swelling. Duration of fever and pain 11 days and 21 days respectively, and of the whole attack 21 days; many joints were affected. The patient suffered from hæmorrhoids. The drugs employed were; (1) salicylates, (2) salicin, (3) citrate of iron, as to which the reporter remarks, "No benefit from No. 1; relief from No. 2."

No. 494 (W. F. Brook, Fareham). Female, aged 38, married; housekeeper; temperate, sufficiently fed. Locality, low, damp; atmosphere, wet, cold; wind N.W. No previous rheumatism. Patient had suffered from tonsillitis and pharyngitis 11 years previously, and from erysipelas 5 months before the present attack, for which no cause is assigned; it was a moderate one, with slight sweating. Fever and pain each lasted 25 days, and the whole attack 56 days. Many joints were affected. Sodium salicyl., 12 grains, with sod. bicarb. and ammon. carb., was administered every 4 hours, and Dover's powder at night. The reporter remarks, "No result from salicylate." Recovery was complete.

No. 530 (W. E. Green, Sandown, I.W.). Female, aged 14; nurse; temperate, sufficiently fed. Locality, low, dry, confined; atmosphere, dry, cold; wind N.E. One previous attack of rheumatism at 9. Present attack, not traced to any cause, was of moderate severity, with slight sweating. Duration of fever and pain 15 and 20 days respectively, of whole attack 28 days. Few joints were involved. Patient suffered from acne and dry bronchial cough. The disease was "persistent, notwithstanding salicin," but recovery was eventually complete.

No. 531 (W. E. Green, Sandown, I. W.). Male, aged 51; carter; temperate; sufficiently fed. Locality, low, damp, exposed; atmosphere, dry, hot. Three previous attacks, the first at 39. No cause could be traced for present attack, which was of moderate severity, with considerable sweating. Fever and pain lasted 7 and 5 days respectively, and the whole attack 10 days; many joints were affected. Salicin and actæa racemosa were at first administered, and then salicylic acid and guaiacum. Reporter remarks: "No. 1 failed, No. 2 gave great relief. In the former attack salicin alone was of no service." The dose is not stated. Recovery was complete.

No. 538 (J. Neil Whitfield, Ebbw Vale). Female, aged 20; single; dressmaker; tectotaller; sufficiently fed. Locality, high, damp, exposed; atmosphere, damp and mild; wind S.W. No previous rheumatism. Patient had suffered from measles. Present attack followed exposure to wet 2 days before; it was severe, with considerable sweating. Duration of fever and pain 12 days and 10 days respectively, and of the whole attack 14 days; few joints were involved. Treatment was (1) sodium salicyl.; (2) alkalies and blisters over the heart; (3) digitalis, ammon. carb. and strychn. Reporter remarks: "No good result from treatment 1. Patient died of asthenia from endocarditis."

No. 644 (G. Fisher, Aberdare). Female, aged 21; married; temperate; sufficiently fed. Locality, high, dry, exposed; atmosphere, wet, cold. No previous rheumatism. Present attack followed tonsillitis 12 days, and exposure to wet 2 days previously; it was severe, with considerable sweating; pain lasted two days, and the whole attack 28 days; many joints were involved. Treatment was (1) salicylates; (2) alkalies. Reporter remarks: "No effect from treatment 1; marked improvement under treatment 2."

646 (G. W. Stevens, M.D., Liverpool). Male, aged 29; single; clerk; temperate; sufficiently fed. Locality, high, damp; atmosphere, wet, cold; wind E. Patient had scarlet fever and measles in childhood. Present attack followed exposure to wet and cold on the previous day; it was severe, with considerable sweating. Duration of fever and pain 8 days and 12 days respectively, of the whole attack 21 days; many joints were involved. Patient suffered from neuralgia and general debility. Treatment was (1) sodium salicyl., 15 grains every 3 hours for the first 2 days; (2) sodium salicyl. (dose reduced) and alkalies, blisters, etc. Reporter remarks: "Salicylate treatment had very little, if any, control over pain."

Of the total number, 655 cases, 536 were treated with salicin, salicylic acid, or its salts. In the majority of the cases other drugs were combined with the supposed specific, which failed in only 22 cases, or 4.10 per cent., namely, 10 males and 12 females. Of these, salicylates failed in 16 cases.

No. 22. Sod. salicyl., 15 grains every 3 hours caused gastro-enteritis and hæmatemesis.

No. 79. Salicylate failed, while rapid effect was obtained from alkalies and potass. iod.

No. 418. Salicylate failed, in doses of 15 grains every 4 hours, while quinine was successful.

No. 419. Quinine and salicylates (15 grains every 4 hours) failed, while alkalies and potass. iod. gave a good result.

No. 448. Salicylates failed, while salicin succeeded.

No. 644. Salicylates failed, while alkalies succeeded. In 5 cases salicin failed. Of these:

No. 201. Salicin (dose not stated) failed, while salicylates (1 scruple) with alkalies every 4 hours gave good results.

No. 290. Salicylate (1 scruple every 2 hours) gave good results. With salicin in same doses the temperature rose, and the murmur, which had disappeared under salicylates, returned.

No. 531. Salicin and actæa racemosa failed, while salicylic acid and guaiacum gave great relief.

In 1 case (332) salicylic acid failed; dose not stated.

In 1 case (212) a failure was experienced, but the form of the drug, that is, whether salicin, salicylic acid, or its salts, is not stated.

From recent experience of the treatment of rheumatism by salicylic acid and its salts, the conclusion to be drawn from its failure in the above quoted cases is that the dose administered was far too small, or was not repeated at sufficiently short intervals.

SALICISM.

Untoward symptoms are noted in the report as resulting from the employment of salicin, salicylic acid, or its salts in 14 cases out of the 536, or in 2.59 per cent.

No. 10 (Basil G. Morrison, M.B., Canonbury). Male, aged 30, oilman, temperate. Had 1 previous rheumatic attack at 23, and an old regurgitant mitral murmur. Present attacks moderate, with considerable sweating. Patient was dyspeptic for a fortnight before the attack, which began with severe muscular pain in the neck and back, but with little or no fever at this stage. Sodium salicyl. 15 grains every hour produced "salicisim."

No. 22 (J. A. Erskine Stuart, Healey, Batley). Male, aged 23, blacksmith, temperate. Had had several previous attacks of rheumatism, and had "congenital mitral disease inherited from his mother." Present attack severe, with considerable sweating. Sodium salicyl., 15 grains every 3 hours, relieved the joint affection in 2 days, but produced gastro-enteritis and hæmatemesis. Patient died on the seventh day from "serious cardiac complication."

No. 61 (A. G. McKenzie, Much Wenlock). Female, aged 19, single, living at home, temperate. Had had one previous attack of rheumatism at 17, which had lasted 6 weeks under alkaline treatment. Present attack moderate, with considerable sweating. Sodium salicyl., 12 grains every 4 hours, was administered till salicisim supervened, and was then repeated thrice daily. The attack lasted 4 days only, and recovery was complete.

No. 87 (E. B. Mansell, Hastings). Male, aged 24, carpenter, temperate. No previous rheumatism. Patient had scarlet fever in childhood, and an ischio-rectal abscess 3 years previously; had been exposed to wet and cold a fortnight before. The attack was severe, and all ended with slight sweating. Sodium salicyl. was administered first, in one-scruple doses every 4 hours, and then salicin in the same doses. The salicylate caused great nervous disturbance and delirium, but did not ease the pain; salicin produced marked benefit. The attack lasted 16 days, and recovery was complete.

No. 116 (J. McEwan, M.B., Helensburgh). Female, aged 24, single, living at home, temperate. Had had 1 previous attack of rheumatism at 15; biliousness 1 month ago; unwell and shivery ever since; was liable to sore-throat and asthma (?). The attack was of moderate severity, with considerable sweating. Salicin was administered, half a drachm every 2 hours, from the fifth day; (2) sodium salicyl. (dose not stated) on the eleventh day; (3) salicin again. Patient became deaf, "probably due to salicisim; an acute attack of delirium about the time that sod. salicyl. was given, lasting about 2 days." The whole attack, inclusive of a relapse from slight exposure, lasted 28 days. Recovery was complete.

No. 187 (Edward Williams, M.D., Wrexham). Female, aged 29, married; temperate. Had had one previous attack of rheumatism at 25. Present attack moderate, with considerable sweating. Sodium salicyl. was first administered, and then potash in large

doses. The salicylate produced tinnitus, and was then dropped. The attack lasted 21 days. Recovery was partial.

No. 223 (A. S. Underhill, Tipton). Male, aged 41; innkeeper; temperate. No previous rheumatism, but had had peritonitis (date not given). The attack was severe, with considerable sweating. Sodium salicyl. was administered in half-drachm doses, and caused vomiting, diarrhoea, and headache; pain recurred when it was omitted. Under tonics recovery was complete in 56 days.

No. 229 (E. A. Laurent, M.B., Bedford). Female, aged 25, single; nursemaid; temperate. Two previous attacks of rheumatism, the first about 18. She had had 2 attacks of tonsillitis between 15 and 17; measles and whooping-cough as an infant. The attack was severe, with considerable sweating; many joints were affected. Treatment was (1) sod. salicyl.; potass. iod.; potass. bicarb. for 2 days only; (2) alkalies. Patient was "unable to take the salicylate;" the pains were aggravated at the menstrual period, which occurred on the sixth day of the attack. She was convalescent on the eighteenth day.

No. 297 (L. W. K. Phillips, Hove). Male, aged 13, schoolboy. Measles 11 years previously; no previous rheumatism. Tonsillitis 12 days before present attack, which was of moderate severity, with slight sweating. Many joints were affected, and pericarditis supervened during the attack. Sodium salicyl., half a scruple to 1 scruple, was administered every 2 hours at first, and produced delirium. It was therefore omitted for 1 day, and then recommenced, and gradually reduced for a month. Patient convalescent on the twenty-first day.

No. 428 (T. F. Raven, Broadstairs). Female, aged 35, married; lady; temperate. One previous attack of rheumatism at 23. Patient was anæmic; parturition 14 days previously; "over-fatigue from suckling." The attack was of moderate severity, but sweating was considerable; many joints were affected. Treatment was (1) salicylic acid; (2) quin., iron, arsenic, and alkalies. Salicylic acid was not tolerated; all drugs failed; and the case "gradually emerged into a condition resembling rheumatoid arthritis."

No. 508 (D. J. Mackenzie, M.D., Glossop). Male, aged 34; mason; intemperate; hitherto free from rheumatism. Present attack severe, with considerable sweating, and many joints were affected. Treatment was: (1) sod. salicyl., 15 grains, every 3 hours for 2 days; (2) potass. bromid. and bicarb.; (3) salicylate resumed. The salicylate produced deafness and delirium; no fall of temperature till No. 2 was commenced.

No. 566 (H. B. Pullen Burry, Liphook, Hants). Male, 31; carpenter; teetotaler. No previous rheumatism. Diarrhoea 12 days, and exposure to cold 6 days previously. Present attack severe, with considerable sweating. Few joints were affected. Treatment was: (1) alkalies for 36 hours; (2) potass. salicyl. was given when the temperature was 105.3° F., and 6 days later was 102.8°, when the patient was nearly poisoned, with blackish urine (the drug being presumably contaminated with phenol), and very diæretic pulse. Delirium was absent. Recovery was complete.

No. 598 (G. Birt, M.B., Stourbridge). Male, aged 30; firebrick maker; intemperate. Patient had had 2 previous attacks of rheumatism; the first 5 years ago. Tonsillitis 9 days previously, and was liable to sore throats. He was fat. Present attack severe, with considerable sweating. On the second day sod. salicyl. was administered in 15-grain doses every 4 hours, but was omitted on account of distressing tinnitus. Pericarditis supervened during the attack. On the fifty-sixth day recovery was "nearly complete."

No. 642 (W. E. Green, Sandown, I.W.). Male, aged 24; soldier; temperate. No previous rheumatism. Present attack severe, with considerable sweating; many joints were affected. Treatment was: (1) sod. salicyl. for 2 days; (2) salicin for 1 day; (3) alkalies. Patient "unable to take either salicylate or salicin," "consequently the case ran the old-fashioned course," and recovery was complete after 40 days.

The toxic symptoms which occasionally follow the administration of the salicylates may doubtless often be accounted for by phenol contamination, as was the case in No. 566; but from the immunity of the great majority of the patients from such evil effects, it may be assumed that these drugs, as used in this country, are tolerably pure. In hospital practice it is by no means uncommon that a contaminated supply is sent in, and then toxic symptoms are the rule, even with small doses.

Of these 14 cases, 9 were males and 5 females. The most advanced age of the patients was 41 (No. 223); the youngest, 13 (No. 297).

Two of the males (Nos. 503, 508) were intemperate; 1 (No. 566) was a total abstainer; the remainder were temperate.
 The attack was severe in 7 males and 1 female.
 " moderate in 2 " 4 females.
 " considerable in 7 " 5 "
 " slight in 2 " "

TOXIC SYMPTOMS.

Salicisism (definite symptoms not stated) in Nos. 10, 61, 220, 428, 643=2 males and 3 females.
 Deafness and delirium in Nos. 116, 503=1 male and 1 female.
 Tinnitus in Nos. 187, 598=1 male and 1 female.
 Delirium in No. 297=1 male.
 Nervous disturbance in No. 87=1 male.
 Vomiting, diarrhoea, headache, in No. 223=1 male.
 Delirium, mucous pulse, and blackish urine, in No. 566=1 male.
 Gastroenteritis and hæmatemesis in No. 22=1 male.

DOSE ADMINISTERED.

The dose of the drug is omitted, or it is not stated how often the drug was repeated in 6 of the cases, so that no conclusion can be drawn under this head; suffice it to say that the largest dose given was in No. 116, female, aged 24, namely, salicin half a drachm every two hours, followed on the fifth day by sod. salicyl., with a reversion to salicin (date not given); that the acute delirium supervened about the time the salicylate was commenced; that deafness probably existed before the patient took the salicylate.

The smallest recorded dose which produced toxic symptoms was (No. 61) gr. xij, of sodium salicylate, given every four hours, to a female, aged 19, with a moderate attack, but considerable sweating.

Examination of the 14 cases shows no relation between the amount of sweating or the severity of the attack and the toxic effects of the drug.

EXTENT OF JOINT AFFECTION.

The numbers under this head came out as follows;

	Cases.
Pains migratory—many joints affected	383
" " " few " "	73
Many " joints" affected	18
" " " pains fixed	85
Few " " " "	16
One joint affected	4
Not mentioned	4

A.—It was found that in cases where the pains were migratory, and many joints affected,

That the locality was:

Cases.		Cases.	
High, dry, and exposed	100	High	6
Low, damp, and confined	56	Not mentioned	5
High and dry	36	Low and confined	4
Low, damp, and exposed	33	Damp and exposed	4
Low and damp	22	Damp	3
High and exposed	17	At sea	2
Low, dry, and confined	16	Low, dry, and exposed	2
High, damp, and exposed	16	Confined	1
Low and dry	12	Medium	1
High, dry, and confined	10	Travelling	1
High, damp, and confined	7	Damp and confined	1
Dry	6	Low	1
Low, dry, and exposed	6		
High and damp	6		383

That the atmosphere was:

Cases.		Cases.	
Wet and cold	112	Dry, mild, and changeable	9
Damp, mild, and changeable	33	Dry	7
Damp and cold	31	Mild	7
Dry and hot	30	Dry, cold, and changeable	6
Dry and cold, with sunshine	28	Damp and mild	3
Changeable	20	Dry, cold, with snow	2
Wet, mild, and changeable	16	Cold	1
Not mentioned	14	Damp	1
Wet and changeable	13		
Cold and changeable	10		283

That the wind was:

Cases.		Cases.	
E.	60	S.E. to S.W.	1
N.E.	41	N.W. to E.	1
S.W.	38	E. to N.	1
S.E.	34	W.S.W. to N.W.	1
W.	24	W. to E.	1
N.W.	22	Variable	2
N.	7	Not mentioned	146
N. to E.	5		
S.	19		383

Of the 237 cases out of the total of 383 in which the direction of wind was mentioned, it had an easterly direction in 141 cases, or 59.45 per cent.

B.—Where the pain was migratory and few joints affected, That the locality was:

Cases.		Cases.	
High, dry, and exposed	18	No fixed abode	2
Low, damp, and confined	8	Dry and confined	2
Low and damp	7	Low, dry, and exposed	1
Low, damp, and exposed	7	Low	1
Low and dry	4	Low and confined	1
High and dry	4	High and damp	1
Low, dry, and confined	3	High, dry, and confined	1
High, damp, and exposed	3	Damp and changeable	1
Damp	2	Damp and cold	1
High	2		
High, damp, and confined	2		73

That the atmosphere was:

Cases.		Cases.	
Wet and cold	20	Changeable	3
Dry	10	Damp and mild	2
Wet and mild	9	Damp, mild, and changeable	1
Damp and cold	8	No fixed abode	1
Dry, cold, with sunshine	6	Not mentioned	1
Dry and hot	5		
Wet	4		
Wet and changeable	3		

That the wind was:

Cases.		Cases.	
S.W.	13	N.	2
E.	11	S.	2
N.E.	10	N.E. to S.W.	1
W.	7	E.S.E.	1
N.W.	4	Not mentioned	18
S.E.	3		
E.N.E.	3		73

Of the 55 cases out of the total of 73, in which the direction of the wind was mentioned, it had an easterly direction in 27 or 49.09 per cent.

C.—Where the pain was fixed and many joints were affected,

That the locality was:

Cases.		Cases.	
High, dry, and exposed	18	Exposed	3
Low, damp, and confined	11	Dry	1
Low, damp, and exposed	8	Dry and exposed	1
High, dry, and confined	6	High	1
Low and damp	5	Low, dry, and exposed	1
High and dry	3	High and damp	1
Low, dry, and confined	3	Confined	1
Low and dry	2	High and dry	1
High and exposed	2	Not mentioned	1
High, damp, and exposed	2		
Low and confined	1		73

That the atmosphere was:

Cases.		Cases.	
Wet and cold	21	Damp and cold	3
Changeable	12	Mild	2
Damp and cold	6	Dry	1
Damp and mild	6	Cold, with sunshine	1
Dry and hot	5	Cold and changeable	1
Wet and mild	5	Not mentioned	1
Dry and cold	4		
Wet	4		72

That the wind was:

	Cases.		Cases.
E.	19	N.W.	2
S.W.	8	N.	2
N.E.	7	Not mentioned	20
S.E.	5		72
W.	5		
S.	4		

Of the 52 cases out of the total of 72 in which the direction of wind was mentioned, it had an easterly direction in 31 cases, or 59.61 per cent.

D.—Where the pain was fixed and few joints affected,

That the locality was:

	Cases.		Cases.
Low, damp, and confined	16	Low, dry, and confined	3
High, dry, and exposed	14	Low and dry	2
High, dry, and confined	11	Low, damp, and exposed	2
High and dry	8	Damp and confined	1
High and exposed	6	Low and confined	1
Low and damp	5	Damp	1
High, damp, and exposed	4	At sea	1
High and damp	3	Not mentioned	1
Low, dry, and exposed	3		—
High	3		85

That the atmosphere was:

	Cases.		Cases.
Wet and cold	27	Dry and cold	2
Damp and cold	9	Changeable	2
Dry and hot with sunshine	9	Dry and changeable	2
Wet and mild	5	Cold and changeable	1
Dry and mild	5	Mild and changeable	1
Damp and mild	5	Damp and changeable	1
Not mentioned	5	Cold	1
Wet	4		—
Dry and cold with sunshine	4		85
Damp	2		

That the wind was:

	Cases.		Cases.
E.	13	N.W.	4
S.W.	12	E. to W.	3
W.	7	Not mentioned	28
N.E.	6		85
S.E.	6		
N.	6		

Of the 57 cases, out of the total 85, in which the direction of the wind was mentioned, it had an easterly direction in 28, or 24 per cent.

E.—Where many joints were affected (no mention being made as to whether the pain was migratory or not),

That the locality was:

	Cases.		Cases.
High, dry, and exposed	4	High	1
Low, dry, and confined	2	Low, dry, and exposed	1
Low, damp, and exposed	2	High and exposed	1
Low, damp, and confined	2	Dry and confined	1
Dry	2		—
High, damp, and exposed	2		18

That the atmosphere was:

	Cases.		Cases.
Wet and cold	7	Dry and hot	1
Wet and mild	3	Dry and cold	1
Changeable	3	Dry	1
Dry and mild	1		—
Wet	1		18

That the wind was:

	Cases.		Cases.
E.	5	Not mentioned	4
S.W.	5		—
S.E.	2		18
W.	1		

Of the 14 cases, out of the total of 18, in which the direction of the wind was mentioned, it was easterly in 7 cases, or in 50 per cent.

F.—Where few joints were affected (no mention being made as to whether the pain was migratory or fixed),

That the locality was:

	Cases.		Cases.
High, dry, and exposed	4	High	1
Low, damp, and confined	2	High, dry, and confined	1
High and exposed	2	High, damp, and exposed	1
Dry and confined	2		—
High and dry	2		16
Low and damp	1		

That the atmosphere was:

	Cases.		Cases.
Wet and cold	6	Wet and mild	1
Wet	2	Damp and cold	1
Dry and hot	2	Not mentioned	1
Dry and cold	2		—
Mild	1		16

That the wind was:

	Cases.		Cases.
E.	4	Variable	1
S.W.	2	Not mentioned	1
S.E.	2		—
N.E.	2		16
N.W.	1		

Of the 15 cases, out of the total 16, in which the direction of the wind was mentioned, it was easterly in 8, or 53.3 per cent.

G.—Where the pain was fixed, one joint only being affected.

That the locality was:

	Cases.
Low and damp	1
High, damp, and exposed	1
Low, dry, and exposed	1
High and dry	1

That the atmosphere was:

	Cases.
Changeable	1
Wet and cold	1
Dry and cold	1
Not mentioned	1

That the wind was:

	Cases.
E.	1
W.	1
Not mentioned	2

H.—Where pain was absent,

That the locality was:

	Cases.
High, dry, and exposed	1
High and exposed	1

That the atmosphere was:

	Cases.
Dry and cold	1
Wet and cold	1

That the wind was:

	Cases.
E.	1
N.E.	1

(In 3 cases no mention was made as to pain or joint affection.)

Further analysis of the above tables shows:
1. That the direction of the wind was mentioned in 432 cases, and that it was easterly in 244, or 56.48 per cent.

Under locality, taking the first four headings under which the majority of the cases occurred, the following order is observed:—

	A.	B.	C.	D.	E.	F.	G.	H.
1	High, dry, exposed	High, dry, exposed	High, dry, exposed	Low, damp, confd.	High, dry, exposed	High, dry, exposed	Low, damp	High, dry, expd.
2	Low, damp, confd.	Low, damp, confd.	Low, damp, confd.	High, dry, exposed	Low, dry, confined	Low, damp, confd.	High, damp, expd.	High, exposed
3	High, dry	Low, damp	Low, damp, expd.	High, dry, confined	Low, damp, expd.	High, exposed	Low, damp, expd.	—
4	Low, damp, expd.	Low, damp, expd.	High, dry, confined	High, dry	Low, damp, confd.	Dry, confined	High, dry	—

Similarly under atmosphere the following is the result:—

	A.	B.	C.	D.	E.	F.	G.	H.
1	Wet and cold	Wet, cold	Wet, cold	Wet, cold	Wet, cold	Wet, cold	Wet, cold	Wet, cold
2	Dmp., mid., chngble	Dry	Changeable	Damp, cold	Wet, mild	Wet	Changeable	Dry, cold
3	Damp, cold	Wet, mild	Damp, cold	Dry, hot	Changeable	Dry, hot	Dry, cold	—
4	Dry, hot	Damp, cold	Damp, mild	Wet, mild	Dry, mild	Dry, cold	—	—

A. = many joints affected; pains migratory.
 B. = few " " " " " " " " " " " "
 C. = many " " " " " " " " " " " "
 D. = few " " " " " " " " " " " "

E. = many joints affected; no mention as to pain being migratory or fixed.
 F. = few " " " " " " " " " " " "
 G. = one joint " " " " " " " " " " " "
 H. = where pain was absent.

CARDIAC COMPLICATIONS.

1. Cases in which pericarditis and endocarditis were coexistent. Pericarditis and endocarditis occurred synchronously in 57 cases, or 8.70 per cent., namely, males 29, or 4.427 per cent.; females 28, or 4.274 per cent.

Of these, 2 deaths occurred, both females, aged 29 and 22, and both were treated with salicylic acid.

The following figures show the result under the various treatment employed:

	Males.	Females.
Recovery complete, from the rheumatism, etc.:		
Salicylates ...	10	11
Salicylic acid ...	4	—
Salicylates and alkalis ...	3	1
Salicin and salicylates ...	—	2
Quinine and salicylates ...	1	1
Alkalis ...	1	2
Recovery partial:—		
Salicylates ...	6	6
Alkalis ...	—	1
Salicylic acid ...	—	1
Salicin ...	1	—
Alkalis and quinine ...	—	2
Salines ...	1	—
Every known remedy ...	—	1
	27	27

Deaths:—

Salicylic acid ...	—	2
No mention of result ...	1	—

Table showing the period of life at which these affections occurred:—

Between	Males.	Females.
1 and 10 ...	4	2
10 " 20 ...	8	11
20 " 30 ...	7	12
30 " 40 ...	7	0
40 " 50 ...	2	4
	28	29

The greater number in each case occurred between the second and third decades.

PERICARDITIS.

Pericarditis occurred alone in 54 cases, or 8.24 per cent., namely, in 27 males and 27 females.

If this number be added to that of the pericarditis and endocarditis combined, we have 57 + 54 = 111, or 16.94 per cent., of pericarditis in the whole of the recorded cases.

Among these cases 6 died, namely:

No. 12. Male, aged 34, of intemperate habits.

No. 238. Female, aged 11.
 No. 245. Male, aged 4,
 No. 281. Female, aged 68.
 No. 463. Female, aged 16. Death in this case was from bronchitis.

No. 627. Male, aged 6. Death in this case was from embolism. These fatal cases will be considered more in detail under the head of deaths (see p. 401).

Forty of the cases, or 70.17 per cent., were treated, from the commencement of the attack or during its course, by salicin, salicylic acid, or its salts, but the information to be gathered from the tables is necessarily limited; no data are therefore available to show what is the effect of this drug on the serous membrane.

The greater number of cases occurred in males between the second and third decade, and in females between the first and second.

Between	Males.	Females.
1 and 10 ...	2	0
10 " 20 ...	5	14
20 " 30 ...	10	6
30 " 40 ...	8	1
40 " 50 ...	1	5
60 " 70 ...	—	1
Age not stated ...	26	27
	1	—
	27	—

The most advanced age at which pericarditis occurred was in (281) a female, aged 68; the youngest was (245) a male, aged 4.

Table showing the Different Recent Murmurs (that is, Murmurs which Supervened during the Present Attack). They are classed under two heads, namely, those which Recovered and those which were Persistent, and are grouped in columns according to the treatment of each case.

RECOVERY.

	Salicyl.	Alkal.	Alk., etc.	Salicin	Salic.A.	No ment.	Total.
Aortic systolic ...	7	2	—	—	—	—	9
Aortic diastolic ...	2	—	—	—	—	—	2
Mitral systolic ...	43	2	3	2	3	3	56
Mitral diastolic ...	—	—	—	—	—	—	—
Presystolic mitral ...	6	—	—	—	—	—	6
Pulmonary ...	2	—	—	—	—	—	2
Murmur ...	—	—	—	1	—	—	1
Endocarditis ...	—	—	—	—	—	—	—

PERSISTENT.

	Salicyl.	Alkal.	Alk., etc.	Salicin	Quin., op., alch.	Salic. A.	None.	Total.
Aortic systolic ...	13	3	1	2	1	—	—	20
Aortic diastolic ...	1	—	—	—	—	—	—	1
Mitral systolic ...	75	4	6	5	1	2	1	94
Mitral diastolic ...	1	—	—	—	—	—	—	1
Presystolic mitral ...	1	1	—	—	—	—	—	1
Pulmonary ...	3	—	—	—	—	1	—	4
Murmur ...	—	2	1	—	—	2	—	5
Endocarditis ...	1	—	—	—	—	1	—	2

In addition to these, 1 case of mitral regurgitation recovered, but the treatment is not stated; 5 cases recovered on salines, and 1 case on iron; 1 case of pericarditis recovered on saline treatment simply.

COMPLICATIONS.

The rheumatic attack was complicated by:

Males. Females.

Pneumonia	in 7	4 = 11 cases, or 1.52 per cent.
Pleurisy	8	5 = 13 „ 1.98 „
Epistaxis	4	3 = 7 „ 1.06 „
Bronchitis	1	2 = 3 „
Pharyngitis	2	1 = 3 „
Erysipelas	1	2 = 3 „
Suppurative otitis	—	1
Hæmophilia	—	1
Meningitis	—	1
Pyelitis	—	1
Naso-pharyng. catarrh	1	—
Laryngitis	—	1
Diphtheria	1	—
Delirium tremens	1	—
Parturition	—	1
Chancre	1	—
Lactation	—	1
Gout	1	—
Urethral discharge	1	—
Thrush and tympanites	1	—
Dysentery	1	—
Epilepsy	1	—
Diarrhœa	1	—
Scarlet fever	1	—
Rhôtheln	—	1
Angina	—	1
Enteric fever	—	1
Acute tuberculosis	1	—

(Chorea is treated of in a separate section, see page 393.)

HYPERPYREXIA.

Four cases are included under this heading, in which the temperature at any time exceeded 107° F. Of the 4, three were fatal and 1 recovered.

No. 208 (G. W. Homan, Lichfield). Male, aged 47, baker, of temperate habits. Locality, high; atmosphere, dry but changeable; wind S.W. There had been four previous attacks of rheumatism. Present attack mild, but attended by considerable sweating. Patient had been exposed to cold, and shock of his son's death. Many joints were affected, and the pains were migratory. There was no cardiac disease. Treatment was: (1) potass. bicarb. and iod. sod. salicyl.; (2) quinine and opium. For the first 5 days there was wandering pain, but no fever or constitutional disturbance. On the sixth day temperature rose to 101.4° F., and remained between that and 102.2° F. until the nineteenth day. On the evening of the nineteenth day it rose suddenly to 107.4° F., and death ensued.

No. 209 (G. W. Homan, Lichfield). Male, aged 27. (This patient, in the preliminary report published by the Subcommittee in July, 1883, is said to have been a son of the above, 208). Single, a clerk, of temperate habits. No mention is made as to locality; atmosphere, mild and changeable; wind (?) N.W. There had been one previous attack of rheumatism at 19, and the patient had chorea in childhood. He had been exposed to cold 3 weeks previously. The attack was moderate in severity, attended by considerable sweating. Many joints were affected; the pains were fixed. An old regurgitant mitral murmur existed at the time of the present attack. Treatment was: sod. salicyl. 15 grains every 3 hours, and ice packing for the high fever. The case did well till the seventh

day, when sweating ceased, and in the evening the temperature rose to 110° F. He died in 5 hours, with a temperature of 106.9° F.

No. 531 (C. Boyce, M.B., Maidstone). Male, aged 43; intemperate; a vinegar maker. Locality, high and exposed; atmosphere, wet and cold. Patient had had a previous rheumatic attack at 35, and was constantly exposed to wet; the attack was severe, and attended by considerable sweating; many joints were affected; the pains migratory; there was an old mitral murmur (systolic). During the second day of the attack a miliary eruption appeared; the patient was, moreover, liable to dyspepsia and ulceration of the mouth. Treatment (1) sod. salicyl., 15 grains every 4 hours; (2) pot. bicarb.; (3) "cold sponging for hyperpyrexia." The temperature, which reached 107.2° on the fourteenth day, fell 5° in 3 hours under cold sponging. Duration of fever 23 days, of pain 11 days, of whole attack 105 days. Recovery was complete.

No. 560 (James Kaye, M.B., Bromsgrove). Male, aged 35; gardener; temperate. Locality, high and exposed; atmosphere, cold and changeable; wind E. He had been exposed habitually to sudden chills. The attack was a moderate one, with considerable sweating; many joints were involved; the pains were migratory; there was no cardiac complication; in the early part of the attack erythema made its appearance, and, later, sudamina. No previous rheumatic affection. Treatment: (1) pot. iod. and bicarb., with colchicum; (2) sod. salicyl., half a scruple every 2 hours, then 15 grains with sod. bicarb. half a drachm; (3) quinine, half a scruple dose; brandy; cold sponging. From the first to the fourth day the disease simulated gout; from the fourth to the seventh day pain and swelling nearly gone, when patient persisted in going out. On eighth day pain and swelling recurred, but the temperature was nearly normal. On twelfth day temperature 102°; rheumatic fever well developed. All went well till twenty-first day, when hyperpyrexia set in, which, though at first checked by treatment, proved fatal on twenty-third day. Temperature on twenty-first day 110°, on twenty-third 108.6°. The more important facts are shown in the subjoined table:—

Sex.	Age	Habits.	Previous Rheumatic Attacks.	Recent Antecedents.	Heart Disease.	Date of Onset of Hyperpyrexia.
Male	47	Temperate	4	Expd. to cold	None	6th day
..	27	..	1	..	Old mitral	7th ..
..	43	Intemperate	1	.. .. wet	..	14th ..
..	35	Temperate	None	.. .. chills	None	21st ..

RELAPSING CASES.

Out of the whole number of recorded cases, instances of relapse of the rheumatic affection is noted in 70 patients, or 10.68 per cent., namely, males, 44; females, 26. Some had only one relapse, but in 6 males and in 2 females the relapses are stated to have been many. Among the 44 males occurred 63 relapses, and among the 26 females 30 relapses. Search among the tables was then made with the view of ascertaining whether or no treatment had any effect in preventing this recurrence of the rheumatism, but in vain. It was found that 97.18 per cent. of these relapsing cases were treated with salicin, salicylic acid, or its salts, chiefly sodium salicylate.

The only case requiring any special note is, perhaps, No. 155, a male, aged 15, who was immediately benefited by salicylic acid continued for 3 days; at the end of this time it "was omitted, as the patient loathed it." Potass. bicarb. and colchicum was substituted, with the result of an immediate relapse, and a rapid recovery on sodium salicylate. The duration of the fever was 10 days, of the pain 4 days, of the whole attack 10 days. The lad had suffered from two previous attacks of rheumatism, the first 5 years previously.

DEATHS.

In the 655 cases in the tables death occurred in 22, or 3.30 per cent., of which 12 were males and 10 females; 10 were temperate, 3 were intemperate, 8 were total abstainers, and in 1 case no mention is made as to drinking habits; 18 of the cases, or 81.81 per cent., were treated with salicin, salicylic acid, or its salts.

Percentage of deaths in

Total abstainers	...	5.36 per cent. (140 cases)
Temperate	...	3.74 .. (264 ..)
Intemperate	...	8.82 .. (34 ..)

The following table, taken almost verbatim from the tabulated report, gives the more important facts connected with each case:—

Number.	Age.	Sex.	Heart Complications.	Previous Attacks of Rheumatism.	Treatment.	Recent Antecedents.	Day of Death.	
12	34	M.	Pericarditis and mitral regurgitation	—	Quin., ammon., blister, opium, whisky	Exposure to cold and over-fatigue	7th	—
92	23	M.	Mitral regurgitation	Several	Sodium salicyl. and alkali	—	7th	Salicylate caused gastro-enteritis and hæmatemesis. Death from enteric fever.
47	14	F.						
112	47	F.	—	—	—	Exposure to cold and over-fatigue	14th	Dilatation of heart. Temperature, 105.6° F. on 12th day.
119	13	M.	—	—	—	" " "	18th	
165	29	F.	Pericarditis	—	Salicylic acid, calom., op., blister	" " "	11th	Apparently a case of primary endocarditis, followed by congestion of lungs. Temperature 107.4° F., sudden rise before death.
181	40	F.	Presystolic murmur	Several	Sod. salicyl., calom. and opium, leeches to heart	" " "	8th	
208	47	M.	—	4	Sod. salicyl., alk., op., quinine	Exposure to cold and shock	19th	Temperature 110° F. Death from bronchitis and asphyxia.
209	27	M.	Mitral regurgitation	1	" " ice pack	" " "	7th	
238	11	F.	Pericarditis	—	1 salines, 2 sod. salicyl.	" " "	7th	Death from pericardial effusion and exhaustion.
245	4	M.	—	—	Alkal., opium., blister over heart,	Exposure to cold	21st	
281	68	F.	Pericarditis and mitral regurgitation	?	Sodium salicyl.	—	30th	Death from meningitis.
455	22	F.					Salicylic acid, ammon., port wine		7th	Purpura, sloughs on buttocks.
463	16	F.	—	2	Sod. salicyl. and stimulants	" " "	14th	Death from acute bronchitis. temperature 105.4° F. Temperature 105.8° F.
529	38	M.	Mitral stenosis	—	Sod. salicyl., alk.	Exposure to cold and over-fatigue	18th	
538	20	F.	Endocarditis	—	Sod. salicyl., alk., blister over heart, digit., ammon., strychn.	Exposure to cold and wet	14th	Death from cardiac complications.
544	18	M.	Pericarditis	1	Sod. salicyl.	?	25th	
550	18	F.	Aortic obstruction	—	Sod. salicyl., ammon., alch.	—	—	Death from aortic pulmonary and mitral disease. Temperature, on 21st day, 110.4° F.
580	38	M.	? Mitral regurgitation	—	Alk., pot. iod., colchic., quini., alch., cold sponging	Habitual exposure to sudden chills	23rd	
593	24	M.	Murmur	—	Sod. salicyl., blister over heart*	Exposure to cold and damp	6th	Heart's action suddenly ceased.
594	53	M.	—	—	Rest, stimulants, warmth to joints	Exposure to wet and cold	7th	
627	6	M.	Pericarditis	3 or 4 subacute	Sod. salicyl., alk., quini., bromides and chloral for chorea	?	40th	Death from embolism.

SKIN ERUPTIONS.

Skin eruptions are recorded as shown in the following table:

Before (the attack).		During.		After.	
Cases.	Cases.	Cases.	Cases.	Cases.	Cases.
Eczema ...	22	Sudamina ...	46	Urticaria ...	9
Urticaria ...	11	Miliaria ...	13	Sudamina ...	1
Acne ...	5	Erythema ...	12	Miliaria ...	1
Erythema ...	1	Urticaria ...	10	Acne ...	1
Erythem. nodos. ...	1	Eczema ...	8	Erythema ...	1
Psoriasis ...	1	Purpura ...	5	Purpura ...	1
Schorrhœa ...	1	Erythem. nodos. ...	4	Herpes zoster ...	1
Papular ...	1	Acne ...	3	Papular ...	1
Lepra ...	1	Psoriasis ...	2	Lichen ...	1
Rashes ...	1	Lichen ...	2	Erysipelas ...	1
Acne rosacea ...	1	Vesicular ...	2		
Pustular (10 yrs.) ...	1	Herpes zoster ...	1		
Tinea tonsurans ...	1	Papular ...	1		
Sycosis ...	1	Peliosis rheumat. ...	1		
		Macule ...	1		
		Herpes labialis ...	1		
		Syphilitic roseola ...	1		
		To which may be added:			
		Rose rash ...	2		
		Erysipelas ...	1		
		Typhus ...	1		

Sudamina being such a frequent concomitant of rheumatic fever, it was thought desirable to investigate the connection (if any) between the eruption and the severity of the attack and the extent of diaphoresis. The following table is drawn with the view of showing this:

Attack severe, sweating considerable; males, 20; females, 9 = 29	
" moderate " " " " 8 " 6 = 14	
" (?) " " " 2 " = 2	
" severe " slight " 1 " = 1	
	46

SUBCUTANEOUS NODULES.

Of this affection 36 cases or 5.49 per cent. are mentioned—

They occurred at the following ages:		Male.		Female.	
Age.	Male.	Female.	Age.	Male.	Female.
26	1	—	26	1	—
25	1	—	25	1	—
24	2	—	24	2	1
22	1	—	22	1	1
21	—	—	21	—	1
19	—	—	19	—	3
17	1	—	17	1	—
16	—	—	16	—	1
13	—	—	13	—	1
12	—	—	12	—	—
10	—	—	10	1	—
7	—	—	7	—	1
19	—	—	19	—	16

In one male the age is not given. Nineteen or 52.7 per cent. of those who were affected with subcutaneous nodules had suffered from previous attacks of rheumatism.

The following table shows the number of previous attacks in each case, together with the date of the first.

Age.	Sex.	Previous Attacks.	Age at First Attack.	Age.	Sex.	Previous Attacks.	Age at First Attack.
37	M.	5 or 6	3 to 7	25	M.	3	Childhood
52	M.	1	20	24	M.	1	20
50	F.	1	39	24	F.	1	15
49	M.	1	15	22	F.	3	18
42	F.	3	39	19	F.	2	8
37	M.	Many	31	19	F.	2	13
34	F.	5	16	19	F.	1	14
32	F.	1	24	17	M.	2	13
30	M.	6	9	16	F.	2	8
26	M.	1	18				

Table showing the liability of those affected with Subcutaneous Nodules to Skin-Disease or other Ailments.

Age.	Sex.	Disease.
57	M.	Eczema for 15 years.
53	M.	Bronchitis.
52	M.	Prickly heat in India.
50	F.	Sciatica; erythema, left leg.
49	M.	Miliaria on tenth day of the rheumatism.
45	M.	Alcoholic dyspepsia; debility.
42	F.	Eczema on wrist and ankles second to twelfth day of rheumatism.
42	F.	Great debility.
38	F.	Debility.
37	M.	Sudamina during rheumatism; anæmia.
35	M.	Syphilitic roseola.
34	F.	Neuralgia.
33	M.	Lumbago.
33	F.	Urticaria often.
32	F.	Gout.
30	M.	Eczema on twenty-sixth day of rheumatism.
25	M.	Acne often; erythema and miliaria during rheumatism.
24	M.	Urticaria 7 days before rheumatism.
24	M.	Acne for years.
24	F.	Eczema.
22	M.	Erythema and miliaria during rheumatism.
22	F.	Dyspepsia.
21	F.	Erythema nodosum on ninth day of rheumatism.
19	F.	Anæmia.
19	F.	Eczema 7 years; herpes labialis and conjunctivitis during rheumatism.
19	F.	Eczema 5 years; dyspepsia.
12	M.	Urticaria on fifth day of rheumatism.
17	F.	Erythema nodosum in first week of rheumatism.
?	M.	Gout.

Of the above tendency to skin disease is noted in 17 cases, or 47.2 per cent.

PREVIOUS ATTACKS OF RHEUMATISM.

Previous attacks of rheumatism are mentioned in 230 cases, or 42.74 per cent., namely:

Males ... 156, or 23.81 per cent.
Females ... 124, or 18.93 "

Of these:

The average age of previous attack of the whole number=18.27.
" " " males =18.58.
" " " females =17.89.

COMMON AILMENTS.

Under this head are mentioned various diseases to which the patients were liable apart from the rheumatic attack for which they were under treatment.

The numbers are as follows:

Neuralgic headaches	...	55 cases, or 8.39 per cent.
Dyspepsia	...	36 " 5.49 "
Neuralgia	...	20 " 3.05 "
Biliousness	...	18 " 2.74 "
Bronchitis	...	15 " 2.29 "
Anæmia	...	13 " 1.98 "
Dyspepsia and constipation	...	9 " 1.37 "
Epilepsy	...	4 " 0.61 "
Hæmorrhoids	...	4 " 0.61 "
Dysmenorrhœa	...	3 " 0.45 "
Eczema	...	3 " 0.45 "
Urticaria	...	2 " 0.30 "
Epistaxis	...	2 " 0.30 "
Glandular abscesses	...	2 " 0.30 "
Herpes labialis	...	2 " 0.30 "
Syncope attacks	...	2 " 0.30 "

And one case respectively of boils, ulceration of the cornea, gout and bronchitis, alcoholic dyspepsia, fever and ague, hæmoptysis, worms, dyspepsia and chronic Bright's disease, gout and headache, osteo-arthritis, chilblains, erythema nodosum, gonorrhœa, psoriasis, facial paralysis, periostitis, strumous, celiac, convulsions, otorrhœa.

Although neuralgia occupies the first and third places in the above list, the total number of cases in which a "nervous element"

prevailed amounts only to 79 (neuralgic headaches 55, neuralgia 20, epilepsy 4) cases out of 655. No very strong support, therefore, is furnished by the tables to the theory of the nervous origin of rheumatism.

SEQUELÆ.

Under this head the following ailments occur in order of frequency.

	Males.	Females.	Total.
Anæmia and debility	...	11	9
Chorea	...	4	7
Stiff joints	...	6	5
Great debility	...	8	—
General debility	...	6	—
Bronchitis	...	3	3
Slight recurrence of rheumatism	...	4	1
Second attack	...	3	—
Increasing cardiac disease	...	1	2
Obstinate constipation	...	1	1
Dropsy	...	1	1
Desquamation of cuticle	...	—	2
Pain in joints	...	1	1
Boils	...	1	1
Phlebitis	...	1	—
Neuralgia and debility	...	1	—
Gout	...	—	1
Acute nephritis	...	1	—
Dyspepsia	...	—	1
Tonsillitis	...	1	—
Hæmoptysis, syncope, infarcts	...	—	1
Embolism	...	—	1
Rheumatic node in sacrum	...	1	—
Abscess in calf of leg	...	1	—
Enlarged finger joints	...	—	1
Pericardial effusion and adhesions	...	1	—
Sciatica, œdema, erythema (right leg and foot	...	—	1
Syncope and loss of memory	...	—	1
Sciatica and melæna	...	1	—
Pneumonia (left)	...	1	—
Chronic rheumatism	...	—	1
Diarrhœa	...	—	1
Intense headache relieved by epistaxis	...	—	1
Urticaria	...	—	1
Subacute prostatitis	...	1	—
Irritation of soles of feet	...	1	—
Epistaxis	...	—	1
Functional disturbance of heart	...	1	—
Typhus	...	—	1
		62	46
			108

Of the cases of chorea as a sequela the affection occurred:

No. 383, in a female aged 13, 6 months after recovery from the rheumatism.

No. 458, in a female aged about 30.

No. 466, in a male aged 9, both as an antecedent and a sequela.

No. 490, in a male aged 13, 14 days after recovery from the rheumatism.

CASES WHICH DESERVE SPECIAL NOTICE.

No 2 (Charles Ede, Guildford). A female, aged 40. The onset was very severe, and accompanied by delirium. During the attack slight pericarditis was developed.

No. 26 (Miles A. Wood, F.R.C.S., Ledbury). Male, aged 26; total abstainer. Had suffered 5 previous attacks, most of which, according to the report, occurred since his marriage 18 months previously, "as if nervous exhaustion had some effect." The other conditions are the same. "He is nervous and delicate."

No. 41 (P. Caldwell Smith, M.D., Motherwell, N.B.). Female, aged 34; total abstainer. Had had 5 previous attacks. She had old mitral disease, and suffered frequently from angina pectoris.

No. 57 (W. Carter, M.D., Liverpool). Female, aged 13. "The attacks came on immediately after a very severe fright, the child up to the moment of the fright being apparently quite well, and never having had any rheumatic symptoms before."

No. 104 (Alfred Eddowes, M.D., Market Drayton). Male, aged 30, previously free from rheumatism. During the present attack developed pericarditis and mitral regurgitation. He had two relapses, and in the second "the pulse dropped to 40."

No. 118 (Dove McCalman, M.D., Ballechulish). Male, aged 24

quarrier; temperate; previously free from rheumatism. A double mitral murmur developed during the attack, and "rapid dilatation of the heart occurred between the second and eighth day, accompanied by a rapid rise of temperature to 105.4° F."

No. 119 (same reporter). Male, aged 13, previously free from rheumatism. Had "rapid dilatation of the heart from the seventh day till death on the thirteenth day. Before the ninth day the temperature was between 101° and 102° F.; from the ninth day it gradually rose to 105.6° F. on the twelfth day."

No. 273 (W. Macfie Campbell, M.D., Liverpool). Female, aged 17½; temperate. Had had one previous attack of rheumatism. In the present attack "fever was the sole primary symptom, followed by erysipelas. Diagnosis was, therefore, difficult."

No. 282 (J. Lardner Green, Salisbury). Male, aged 25; clerk; temperate; previously free from rheumatism. "Rapid consumption set in within a fortnight, of which the patient died (having made a partial recovery from the rheumatism). No obvious signs of phthisis were noticed at the onset of the rheumatism."

No. 296 (R. P. Ogleby, Leeds). Female, aged 25; temperate; free previously from rheumatism. Suffered from acute pyelitis during the attack.

No. 299 (A. W. Mayo Robson, F.R.C.S., Leeds). Male, aged 16; pork butcher; temperate. Had pericarditis and mitral regurgitation during the attack, with absence of joint affection.

No. 325 (T. F. Pearce, M.D., Haslemere). Male, aged 16; intemperate; no fixed occupation. Pericarditis existed 6 days before the joint affection.

No. 336 (G. G. Whitwell, M.B., Shrewsbury). Male, aged 12; total abstainer; diet probably insufficient; previously free from rheumatism; subject to weekly epileptic fits before the onset of the rheumatism. During the attack he had no fits; since recovery the fits have recurred, often more severe than before.

No. 361 (H. R. Hadden, M.D., Dublin). Female, aged 42; temperate; subject to tonsillitis, but previously free from rheumatism. The rheumatic attack was accompanied by "tonsillitis and violent fever," which rapidly subsided under sodium salicylate. From the second to the thirteenth day the patient had eczema on the wrists and ankles, "the eruption being strictly confined to the joints, and attacking one after the other, just as rheumatism does."

No. 398 (G. H. Lilley, M.D., Portland). Male, aged 25; prison warder; temperate, and previously free from rheumatism. "The onset occurred while the patient was in bed for a fractured leg."

No. 419 (H. G. Orlebar, M.D., Elizabeth Street, S.W.). Female, aged 25; single; dressmaker; temperate. No previous rheumatism. Pericarditis and mitral regurgitation were developed during the attack. On the eighteenth day the patient had an attack of severe pharyngitis, with membranous exudation. Recovery complete on the twenty-first day.

Hæmorrhage occurred in three cases worthy of note; namely:

No. 337 (J. P. Willis, M.B., Bexhill). Female, aged 9; sufficiently fed; free from rheumatism hitherto. Patient had profuse epistaxis; slight vaginal discharge of blood.

No. 338 (same reporter). Male, aged 17, brother of the above. Had had one slight rheumatic attack previously. He suffered from profuse epistaxis before and after treatment commenced.

No. 557 (Harold Swale, M.B., Tavistock). Female, aged 20; nurse; total abstainer; previously free from rheumatism. She had severe epistaxis on the second, third, and fourth day (three-quarters of a pint each time). Mother and brother both hæmophilic.

These three patients were treated with sodium salicylate.

The tables were examined with the view of eliciting any facts as to—1, the effect of stimulants; 2, evidence of heredity of rheumatism; 3, the period at which cardiac complications occur; but, as no special inquiry was directed to these points in the formula submitted to the reporters, no information can be obtained from their reports.

THE will of Sir Joseph Ritchie Lyon Dickson, physician to the British Legation at the Court of Persia, has been proved; the personal estate valued at upwards of £7,000.

The senior medical students at the University of Pisa have agreed upon a strike of a novel kind. They have decided not to attend lectures until the five important chairs of clinical medicine, medicine, hygiene, general pathology, and materia medica, which have now been vacant for some time, have been filled up.

LECTURES

SUPPURATION AND SEPTIC DISEASES.

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LECTURE I.

In studying the effects of pathogenic bacteria on animals, we frequently see great differences between the effects of the same bacteria on different species of animals, and even on the same species under varying conditions. Inoculate guinea-pigs with tubercle bacilli and we constantly produce a rapid and general disease which has little or no tendency to remain localised, and no tendency to undergo spontaneous cure; we are naturally, therefore, tempted to look on the bacilli as the only noteworthy factor in the causation of the disease, and to think that with the discovery of the bacillus the etiology of the disease has been settled. On the other hand, if we turn our attention to man, we see that opportunities for infection with tubercle bacilli are frequently present without being followed by infection; that the disease assumes a variety of forms under a variety of external conditions; that it has comparatively little tendency to become generalised, and that it has a strong tendency to get well, either spontaneously or under the influence of treatment not directed against the parasites. It cannot be a matter of surprise if, under these circumstances, the clinical observer concludes that the etiology of the disease has not been solved by the discovery of the bacillus, or that he is inclined to regard the organism as a very small portion of the cause, or even as a secondary, and perhaps unnecessary accompaniment.

The fact is, however, that in these diseases we have two opposing forces before us—on the one side the bacteria, on the other the body, and these forces are by no means always equally matched, nor do they always bear the same relation to each other in different species of animals. In some animals the bacteria are more powerful than the body, the resistance on the part of the body being scarcely, if at all, evident; in other species of animals the same bacteria are much weaker than the body, and if they succeed in entering the animal organism at all, they only do so by the aid of other conditions, and when these conditions cease to act the bacteria again die out. In extreme cases these conditions, by determining the seat and the exact nature of the resulting disease, are apt to give rise to the erroneous belief that they are the essential ones.

This is well illustrated, not only by the example given, but also by the case of anthrax. Introduce a single anthrax bacillus into a guinea-pig, and the animal dies with certainty of a general disease, with only œdema at the seat of inoculation. On the other hand, introduce anthrax bacilli into rats, and we have a very different result, and one which varies according to the age of the animal and the other conditions of the experiment. The result of the injection into a young rat, for example, is that the animal becomes very ill—it may be, in some cases, even dies—while there is a production of sero-purulent fluid at the seat of inoculation. The older the rat, up to a certain point, the less are the general symptoms manifest, the purer is the pus which is formed at the seat of injection, and the sooner do the anthrax bacilli die out. In spite of these different results we must none the less admit that in each case the bacillus has been the essential cause of the disease, the difference in the characters of the disease being due to differences in the strength of the opposing forces. In the case of the guinea-pig infected with anthrax, the bacillus is so much more powerful than the body, that the symptoms of resistance on the part of the latter are completely obscured. In the case of the rats, on the other hand, the opposing forces are more or less equal in strength, and consequently other conditions, such as age, seat of inoculation, etc., come into play, and modify the character of the resulting disease.

In our surgical work we have to do with two diseases which

illustrate, in a very marked manner, the action of the various conditions necessary for their production. These are local tuberculosis and suppuration with its allied diseases. I had at first intended to discuss both these diseases from this point of view, and such a discussion would have led to important deductions as regards treatment, especially in the case of the tubercular surgical affections; but when I came to put the material together I found that it was far too great for the time at my disposal, and I therefore resolved to limit myself to a short sketch of the present state of our knowledge with regard to suppuration and septic diseases, with especial reference to the various conditions on the part of the body and on that of the organisms, which are of importance in the commencement and continuance of these affections: and I may at once say that, as regards suppuration, I shall only refer to the acute form, the question of chronic suppuration being intimately bound up with that of surgical tubercular diseases, and differing greatly in its pathology from the other.

DESCRIPTION OF THE PYOGENIC ORGANISMS.

Before going into further details on this subject, it will be most convenient to glance briefly at the various organisms which have been found in association with acute suppuration. These organisms are distinguished from each other by their microscopical appearances, by their characters on cultivation, and by their effects on animals. The information obtained by means of the microscope is not much; in fact, beyond telling us whether we have to do with bacilli or with cocci, and whether we have to do with streptococci or staphylococci, the microscope does not aid us. In order to obtain more precise information, it is necessary to employ various methods of cultivation, and, fortunately, as some of the organisms produce pigment, while others do not, as some liquefy gelatine, and others do not, and so on, we get further information of great value as regards the species present. In some cases, also, it is necessary to resort to the study of their effects on animals, in order to ascertain the existence of any differential character between the organisms.

1. *Staphylococcus Pyogenes Aureus*.—This is the organism most commonly present in acute suppuration. As its name implies, the organisms are cocci, which tend to arrange themselves in the form of bunches. They grow readily at the ordinary summer temperature, but most rapidly above 30° C. When grown in gelatine they soon cause liquefaction of that medium, with the development of an orange-coloured deposit. When grown on agar, kept at the body temperature, we see, even after twenty-four hours, a whitish or light yellow opaque layer at the point of inoculation, which soon becomes more distinct and of a bright orange-yellow colour; on potatoes it grows very readily, and presents the same appearance. These organisms peptonise albumen very energetically; they also give rise to a peculiar sweaty smell, like that of decaying starch. They retain their vitality in the cultivations for a long time, and, in the dry state, they remain alive for at any rate some weeks.

Injection of these organisms into animals gives varying results, according to the number injected and the other conditions of the experiment, but in the case of rabbits it is comparatively easy on subcutaneous injection to produce suppuration; on intravenous injection to set up abscesses in the kidneys, and also in other organs; and, on injury to bone, to cause suppuration in connection with the injured part. Injection of moderate quantities into the knee-joints of rabbits usually causes acute inflammation with suppuration, and ultimately the death of the animals; and in the case of dogs, abscesses result, but not as a rule death. This organism is the same as that described in acute osteo-myelitis, and at first supposed to be the specific organism of that disease.

2. *Staphylococcus Pyogenes Albus*.—This organism resembles the former in its conditions of life outside the body, in the character of its cultivations and in its effects on animals, but it produces no pigment. As regards the effect on animals, it is generally stated that it is somewhat less virulent than "aureus," but my own experience is that, on the contrary, it is rather more virulent.

3. *Staphylococcus Pyogenes Citreus*.—This organism, like the former, liquefies gelatine, and grows both at the body and summer temperature. After twenty-four hours' growth on agar, kept at the body temperature, the cultivations present a light yellow colour, indistinguishable at that period from cultivations of staphylococcus pyogenes aureus; the latter, however, soon becomes darker and orange-yellow in colour, while "citreus" remains of a light yellow or citron colour. In both species the development of pigment only occurs where the colonies are in contact with the

air. The pathogenic properties of "citreus" are said by Passet to resemble those of "aureus" and "albus," though it is not quite so virulent, abscesses following subcutaneous injection, and injection into the knee-joint, while deposits in the kidney occur after injection into the veins. In my own experience these organisms have proved much less virulent than "albus" or "aureus."

4. *Streptococcus Pyogenes*.—These organisms are also cocci which are arranged in chains, often of great length. They grow very slowly on the ordinary culture media at the summer temperature, but with greater rapidity at the temperature of the body. On gelatine they form small, colourless, round colonies, but they do not spread to any appreciable extent on the surface of the gelatine. On agar, kept at the body temperature, they have a tendency to grow in small points, which may attain the size of a pin's head, but, on the whole, the growth is very slow, and, when quantities are sown on agar in the form of lines, the growth does not, even after weeks, attain a greater breadth than that of two to three millimetres. They do not liquefy gelatine, but, like the others, they exert an energetic peptonising action in the absence of oxygen.

When injected subcutaneously into rabbits, unless considerable numbers are introduced, the result is only a slight and transient redness; when larger quantities are employed it is said by some authors that small circumscribed abscesses, resembling chronic abscesses, are formed; when injected into the knee-joint or into the pleura of rabbits they at first apparently cause slight inflammatory effusion, which, however, soon becomes absorbed without further bad consequences. Rosenbach was inclined to think that this organism differs from the form obtained by Fehleisen from cases of erysipelas, but that is a subject to which we shall presently allude.

5. *Micrococcus Pyogenes Tenuis*.—This species is of rare occurrence; in fact, Rosenbach only met with it three times. On agar it forms an extremely delicate, almost invisible, layer. The individual cocci are irregular in shape, and larger than the preceding forms. No experiments have been made on animals.

6. Rosenbach found an oval coccus in one case of acute abscess, which rapidly liquefies gelatine and causes suppuration when injected into the eyes of rabbits. This organism has not been further studied, nor has it as yet received a name.

7. *Staphylococcus Cereus Albus*.—This organism was found in abscesses by Passet. It forms a white, dull, wax-like layer on the surface of gelatine, and greyish-white patches on potatoes. Its name is derived from the appearance of the growth on gelatine, on which the individual colonies look like drops of wax. It is not pathogenic in rabbits.

8. *Staphylococcus Cereus Flavus*.—This organism was also found by Passet, and closely resembles the former, with the exception that the cultivations have a beautiful citron-yellow colour. It is not pathogenic in rabbits.

9. Passet has also found an organism in the pus of acute abscesses which closely resembles Friedländer's pneumococcus. This organism forms greyish white semi-circular elevations on the surface of gelatine, which may attain the size of a pin's head. In the early stage of growth it is indistinguishable from Friedländer's pneumococcus, but at a later period marked differences between the two can be made out, and that not only as regards the mode of growth, but also as regards the effects on animals. In the case of the pneumococcus, growth occurs not only on the surface of the gelatine, but also along the entire track of the needle. In the case of this organism, growth occurs only at the surface, the organism being thus a typical aërobie. As regards the effects on animals the pyogenic organism, when injected into the pleural cavity of mice and rabbits, causes pleuritis, and when injected subcutaneously it, in many instances, leads to the formation of abscesses in the same animals. On the other hand Friedländer's pneumococci are not pathogenic in rabbits.

10. *Staphylococcus Flavescens*.—This organism was found in an abscess by Babes, and occupies an intermediate position between "aureus" and "albus." On gelatine it forms a colourless layer and liquefies the gelatine; on agar the growth becomes yellow after about eight days. It kills mice, sometimes causing abscesses, and sometimes, when in larger doses, septicæmia.

11. *Bacillus Pyogenes Fætidus*.—Passet found this organism in an abscess in the neighbourhood of the rectum. It is a bacillus which grows on nutrient jelly, forming a delicate white or greyish layer on the surface, but it does not liquefy the gelatine. Its growth on agar and potatoes has the appearance of a light brown glistening layer, which has a very foul smell; in milk this smell

is not produced. Traces of the cultivation inoculated into mice do no harm; the injection of several drops causes septicæmia; injection of about ten minims of an emulsion of the cultivation into a guinea-pig causes an abscess in which the bacilli alone are found; injection into the blood stream causes septiciæmia. This organism is not pathogenic in rabbits.

12. In some cases of empyema occurring after acute pneumonia the organism found in the pus is the pneumonia coccus, described by A. Fränkel, and regarded by him as by far the most frequent cause of pneumonia. On the other hand, in ordinary empyema, not in association with pneumonia, the ordinary pyogenic cocci only are present.

One or two other organisms have been described in acute abscesses, but as they are of no importance, I need not take up time in describing them.

13. *Gonococcus*.—The gonococcus is constantly present in, and is undoubtedly the cause of, acute gonorrhœa. The cocci occur in pairs or groups, the individuals not being completely spherical, but flattened on their opposed surfaces. This appearance was at first supposed to be characteristic of the gonococci, but of late it has been found that a number of other cocci, which grow rapidly, present the same characters. In gonorrhœal pus the cocci are frequently present in numbers in the interior of the pus cells, and Bumm regards this appearance as peculiar to these organisms. They have been cultivated outside the body, though with great difficulty; in fact, Bumm was not successful until he employed human blood serum. On this material the organisms form at the body temperature a delicate layer, which ceases to increase after about twenty-four hours, and must then be inoculated on fresh soil; they grow only on the surface of the serum. Bumm has definitely proved that this organism is causally connected with the disease by two observations on man, in one of which the second generation grown on blood-serum, in the other, the twentieth generation were introduced into the healthy female urethra, and caused typical acute gonorrhœa.

As this is a specific organism only occurring in this disease, it need not be considered further in these lectures; it may be mentioned, however, that in a certain number of cases, the ordinary pyogenic cocci are also present in pus from acute gonorrhœa, and that it is just in these cases that suppurative bubo occurs, the pus from the bubo containing the ordinary pyogenic organisms, and not the gonococcus. Hence the occurrence of suppurative bubo in gonorrhœa is evidently accidental, and due to a mixed infection.

14. *Fehleisen's Coccus of Erysipelas*.—Although not a pyogenic organism, this coccus must be shortly referred to. Micrococci have been observed by many investigators in the lymphatic vessels of the skin in cases of erysipelas, in largest numbers at and beyond the spreading margin of the redness, but Fehleisen was the first who succeeded in obtaining cultivations of these organisms, and in demonstrating that they can cause this disease. As has just been said, they are present in the lymphatic vessels at and beyond the margin of the redness, but in the parts where the redness is passing or has passed off the lymphatic vessels and the tissues in their neighbourhood become infiltrated with leucocytes, and the cocci rapidly die out. Fehleisen has succeeded in cultivating them on a number of media; on nutrient jelly they grow very slowly, and the individual colonies always remain small. They do not liquefy the gelatine, and the growth closely resembles that of streptococcus pyogenes.

If these organisms are inoculated on the ear of rabbits, redness occurs, which spreads towards the root of the ear, and, on making sections at the margin of the redness, the lymphatic vessels are seen to be filled with the cocci as in man. Fehleisen has absolutely proved that these organisms are the cause of erysipelas in man by inoculating persons, the subjects of incurable tumours, with pure cultivations of the cocci. Of seven individuals so inoculated, six developed typical erysipelas; in the seventh case the patient had suffered from an attack of erysipelas only a few weeks previously, and was, in all probability, still protected from a fresh attack.

RELATION OF STREPTOCOCCUS PYOGENES TO ERYSIPELAS COCCI.

An important question, and one which has been much discussed of late, is the possible identity of these organisms of erysipelas with the ordinary streptococcus pyogenes. The streptococcus pyogenes is found especially in cases of spreading suppuration in the subcutaneous tissue; and when, along with this, erysipelas is also present, it was at first assumed that we had to do

with a mixed infection by the erysipelas cocci and the streptococcus pyogenes; but the belief seems to be gaining ground that we have here really a different effect of the same organism. In fact, a number of observers now assert that the organisms are the same, and that the different results depend on differences in the other conditions, such as variations in virulence, in dose, seat of inoculation, susceptibility of the host, etc. The earlier observers pointed out certain points of distinction between the cultivations of the erysipelas organisms and the streptococcus pyogenes, but closer examination and comparison of the mode of growth of the two forms under similar conditions has failed to establish any constant difference between the two.

In the case of animals, chiefly rabbits, the statements as to the results of inoculation are very contradictory; for, while some observers seem to have been able to make out very definite points of distinction, others have entirely failed to confirm their results. Thus Hajek states that the erysipelas cocci, when inoculated into the ear of rabbits, cause a wandering inflammation, without any marked swelling at the seat of inoculation; and that they chiefly inhabit the lymphatic vessels, and are seldom found outside them; while the streptococcus pyogenes, inoculated in the same manner, causes wandering erysipelatous inflammation and the production of an inflammatory swelling at the seat of inoculation; and the cocci rapidly pass into the tissue, being found especially in the neighbourhood of the blood-vessels, the walls of which they penetrate and thus reach the blood.—Hoffa also has obtained results of a somewhat similar character. He also notes that a doughy swelling and ultimately a large inflammatory tumour develop at the seat of inoculation of the streptococcus pyogenes, although suppuration does not occur; while the erysipelas cocci simply cause redness, without the development of any inflammatory tumour.—On the other hand, several other observers—Biondi, Passet, Bumm, von Eiselsberg, and others—have entirely failed to establish any such differences in the effects on animals, and have come to regard these organisms as one and the same.

It is thus evident that the whole question is still *sub judice*. In any case these organisms are very closely allied; they are, indeed, probably varieties of the same species, but that we have to deal with absolutely the same organism, and that the differences in action do not depend on differences in their physiological characters, but simply on differences in the conditions under which they act, seems to me somewhat difficult of belief, and somewhat difficult to reconcile with clinical experience. It is quite possible, on the other hand, that two organisms may have the same microscopical characters, may grow in a similar manner in various culture media, and may have much the same effect on certain species of animals, and yet they may not be the same, for when some other species of animal is tested differences may be brought to light, the existence of which was not previously suspected. In proof of this I need only refer to the example of chicken cholera, rabbit septicæmia, and swine fever, the organisms of which very closely resemble each other, but apparently show differences when inoculated into certain species of animals. In the case of the organisms under discussion, it may quite well be that the differences between them are only brought clearly to light when they are inoculated on man.

As a matter of fact, in the cases where erysipelas has been produced by inoculations of pure cultivations, only organisms cultivated from cases of erysipelas have been employed, so that we have no absolute evidence as regards this matter; but there are facts which seem to show that inoculation of streptococcus pyogenes into the human skin does not cause erysipelas. For example, streptococcus pyogenes is not infrequently present in closed abscesses, and when these are opened the skin is inoculated with the organisms; but so far as I am aware we have no evidence that erysipelas has ever resulted in such a case, nor that a surgeon with a wound on his finger gets erysipelas from dabbling in pus containing streptococcus pyogenes.—Rosenbach also mentions a fact which shows the action of streptococcus pyogenes on the human skin; he states that, after opening an empyema which contained streptococcus pyogenes, a dense inflammatory induration, what was practically a boil, developed around the incision; erysipelas did not occur. Till, therefore, more definite evidence in favour of the unity of these organisms is produced than we at present possess, I am inclined to uphold the specific character of the coccus of erysipelas.

OCCURRENCE OF PYOGENIC ORGANISMS IN DISEASE.

The diseases in which these organisms occur are very various;

in fact, they are present practically in all affections accompanied by acute suppuration. Thus they are found in acute abscesses, in boils, carbuncles, whitlows, spreading suppuration, acute osteomyelitis, suppurative inflammation of joints, suppurative peritonitis, empyema, ulcerative endocarditis, pyæmia, puerperal fever, the pustules of small-pox, vaccinia, etc.

As regards the frequency of occurrence of the individual species, Zuckermann has put together the results obtained by a number of different observers in 495 abscesses, and he states that staphylococcus was present in 71 per cent. of the cases, streptococcus in 16 per cent., the two organisms together in 5.5 per cent., and the remaining pyogenic organisms only exceptionally. As regards the pyogenic cocci individually, in 172 cases in which definite statements are made, we found that staphylococcus pyogenes aureus occurred alone or in combination with other staphylococci 123 times, and that streptococcus pyogenes was present alone 35 times, and in combination with staphylococcus 8 times. Staphylococcus pyogenes albus occurred alone 25 times in 133 cases, and in combination with "aureus" also 25 times. The other pyogenic organisms occur comparatively rarely; thus "citreus" was only found 7 times in 133 cases, 4 times alone and 3 times in conjunction with other forms; staphylococcus cereus albus was found 3 times in the same number of cases, and staphylococcus cereus flavus only once. Micrococcus pyogenes tenuis was found 3 times by Rosenbach in 39 cases (two of these were cases of empyema, and one a case of acute abscess); the organism described by Passet as closely resembling Friedländer's pneumococcus was found in 2 out of 33 cases (in one case in an ordinary acute abscess, and in the other in an acute abscess after pneumonia); and the bacillus pyogenes fetidus was only found on one occasion, in an ischio-rectal abscess.

The organism, therefore, which most frequently occurs in these diseases is staphylococcus pyogenes aureus, and the next in frequency is the staphylococcus pyogenes albus. Both are associated with closed acute abscesses, also with boils, acute osteo-myelitis, etc., and "albus" is apparently associated with somewhat more severe inflammations than "aureus;" the combination of the two, in acute osteo-myelitis, for example, seems to be particularly unavourable.

The streptococcus pyogenes is also frequently present, but is especially associated with phlegmonous and erysipelatous processes, where the pus occurs in the form of infiltration of tissue, accompanied by death of portions of tissue. It also occurs, as pointed out by Ogston and Rosenbach, in progressive gangrene, and is the chief organism of pyæmia, having been present in five out of six cases examined by Rosenbach.

Mastitis in women offers a good example of the different mode of action of these two species of pyogenic organisms. The abscesses in the mamma, which are caused by the staphylococci, always begin in the deeper part of the organ, and spread towards the surface, while in the case of the suppurations, which occur in connection with streptococci, the disease commences with a rapidly spreading redness of the skin, extending from some fissure or crack on the nipple, and the suppuration in the deeper parts follows this superficial affection. The explanation of these differences is that the staphylococcus generally spreads up the milk-ducts, and acts from their interior, whereas the streptococcus spreads along the lymphatic vessels, and its pathogenic action commences at the surface. I may say that the action of the staphylococci from the interior of the ducts and acini was ascertained definitely by Bumm, who excised a portion of the wall of a commencing mammary abscess, and was able to demonstrate the presence of the cocci in the acini and their penetration from thence into the interacinous tissue.

THESE ORGANISMS CAN CAUSE SUPPURATION.

We must now pass on to the evidence which leads us to believe that a causal connection exists between the pyogenic organisms and acute suppuration. In the first place they are constantly present in acute abscesses and in suppurations generally; and, as has just been pointed out, certain species are constantly associated with certain types of inflammation; thus the association of streptococci with spreading suppurations and of staphylococci with circumscribed abscesses, being constant, can hardly be accidental.

Numerous experiments have been made on animals which show that these organisms, when introduced under suitable conditions, can set up suppuration; and I have previously mentioned some of their effects on animals. The conditions necessary for infection are very various, more especially as the animals usually employed

for the experiments are not very susceptible to the action of these organisms, but I need not refer to these conditions at present. One experiment will suffice to show that these organisms can cause suppuration in rabbits. Knapp performed experiments in connection with the process of healing of wounds of the eye in rabbits. A similar operation was performed on both eyes; on one eye the operation was performed aseptically, the hands, instruments, etc., being carefully disinfected, and care being taken to exclude organisms during the operation, but no antiseptic was applied to the wound; on the other eye the operation was performed in the same manner, but, after it was finished, the wound was infected with pyogenic cocci, chiefly with the staphylococcus pyogenes aureus. As a result, all the aseptic eyes, though very roughly handled, healed without any trace of suppuration; while almost all the other eyes were destroyed by suppuration, and only in those cases where the operation was superficial and not extensive did suppuration cease without complete destruction of the eye.

Absolute proof of the causal connection of these organisms with suppurative diseases has been furnished by experiments on man, of which we have three kinds. We have, first, a considerable number of experiments, where superficial abscesses have been induced by the introduction of organisms under the superficial layer of the epidermis; secondly, a number of experiments where impetigo pustules, boils, etc., have been caused by inoculation of these organisms into the skin; and, thirdly, experiments where abscesses have been caused in the subcutaneous tissue by subcutaneous injection of the organisms.

As all experiments in which superficial inoculations were made yielded the same result, it is unnecessary to mention more than one as an example. Take, for instance, one of Bockhardt's experiments. He introduced a trace of the mixed cultivations of "aureus" and "albus" into the cutis of his left forefinger; after forty-eight hours, an abscess, the size of a lentil, had formed, and was opened, and the pus contained staphylococcus pyogenes aureus.

Garre's case of inoculation of staphylococcus pyogenes aureus into the skin is probably well known, but I may mention it for the sake of completeness. He thoroughly cleansed the skin of his left forearm with distilled water, and, taking a cultivation of "aureus" in gelatine, rubbed it well into the arm, in the same manner as one would rub an ointment into the skin; for purposes of control, he rubbed a small quantity of sterilised agar jelly into the skin of his right forearm, in the same manner, and it was noted that there was no wound or pustule on the skin of either arm. It may be said at once that the result on the control arm was *nil*. In the case of the other, a burning sensation began at the seat of inoculation six hours later; this burning sensation became more intense, redness and swelling developed, and on the evening of the same day a number of pustules, the size of a pin's head, formed especially in connection with the hairs. On the following day, these pustules had attained the size of a lentil, contained a small quantity of pus, and were surrounded by an inflammatory area. The inflammation increased in intensity, and on the fourth day the seat of inoculation presented the appearance of an enormous carbuncle, surrounded by a ring of pustules. Ultimately, more than twenty openings formed, discharging pus and portions of dead tissue.

Bockhardt performed similar experiments on himself, inoculating in the same manner a part of the skin of the forearm, about the size of a five shilling piece, the part having been cleansed and disinfected, and slightly scraped in parts with his finger nail. The organisms used were a mixture of staphylococcus pyogenes aureus and albus. This mixture was rubbed into the arm at 4 P.M.; at 10 P.M. that is to say, six hours later, the seat of inoculation was slightly reddened, and somewhat painful; at 6 A.M. on the following morning, fourteen hours after infection, there were at the seat of inoculation, twenty-five closely aggregated impetigo pustules, varying from the size of a pin's head to that of a lentil, a few, but not the majority of these being traversed by hairs. These pustules contained the cocci employed, and by about the sixth day they had dried up and disappeared.—Some days later a similar experiment was performed with the same mixture. The inoculation took place at six in the evening; similar cultivations, mixed with sterilised salt solution, being rubbed into the outer part of the forearm. Next morning, at 6 A.M., the seat of inoculation was covered partly with impetigo pustules, of which he counted thirty-five, and partly with small slightly red patches; between 6 A.M. and 11 A.M. he saw twenty-five impetigo pustules form, on these red patches before his eyes, most of these pustules being perforated by a hair. After eight days, most of the pustules had

dried up and disappeared, except two; which developed into large and painful boils, and for the next two or three months he was subject to a recurrence of the impetigo pustules on the skin of his left fore-arm. As will be seen, the result in Bockhardt's experiments were milder than in Garré's; and Baumgarten attributes this, and probably correctly, to the fact that Bockhardt employed a much more dilute mixture of the organisms, and also a smaller quantity of them. That this fully accounts for the differences will be evident when we come to consider the question of the dose of organisms.

Bowen injected pure cultivations of what was apparently staphylococcus pyogenes aureus into the subcutaneous tissue of his own arm, and into the arms of two other persons. The cultivations were mixed with a few drops of salt solution before injection. On each occasion an abscess developed, which varied from the size of a pigeon's egg to that of a man's fist, according to the time which elapsed before they were opened, and these abscesses contained large numbers of the organisms employed.

ANATOMY OF ABSCESS.

As regards the mode in which an abscess is produced by these organisms, a considerable number of facts have recently been obtained from the examination of parts after infection. Where the organisms are circulating in the blood and become deposited in the smaller capillaries in the form of plugs, as is seen in pyæmia, the first effect is the change in the tissue, termed by Weigert "coagulation necrosis," and figured by me in a paper on Micrococci in Relation to Suppuration, etc., published some years ago. On staining sections of tissue in which these plugs are present with the ordinary aniline dyes, it is found that, while the mass of organisms is intensely stained, and while the nuclei in the section have become well coloured, there is a ring of tissue around the central mass of organisms which does not take on the stain, and which presents a homogeneous translucent appearance; this ring evidently results from the action of the concentrated products of the micrococci, the tissue being brought into the condition of coagulation necrosis. After some hours, a second ring appears, at a greater distance from the mass of organisms, this ring being composed of a dense layer of leucocytes, apparently collecting where the chemical substances are more dilute and do not interfere with the life of the cells. As time goes on, the intermediate translucent layer becomes infiltrated, on the one hand with cocci from the central plug, and on the other hand with cells from the outer ring, and the original tissue rapidly disappears, probably as the result of the peptonising action of the cocci. At the same time the fluid effused does not coagulate, probably also on account of the peptonising action of the cocci on the fibrinogen, and thus we come to have a central collection of fluid containing leucocytes and micrococci, surrounded by a wall of leucocytes and cocci—in other words, an abscess.

When the cocci spread into the surrounding tissue after injection, or from wounds in the skin, etc., they apparently at first frequently follow the course of the lymph channels. In the case of injections, as in Lumin's cases, we find at the seat of injection a central mass presenting a yellowish appearance, due to the presence of large numbers of leucocytes and cocci infiltrating the injured parts, this central yellow mass being surrounded by an inflamed area, in which are also leucocytes and micrococci. At the margin of the inflamed area the cocci are seen to be multiplying and penetrating into the surrounding tissue in all directions, the mode in which they spread varying according to the density of the tissue; thus, where the tissue is fairly dense, they spread in masses, while in the loose cellular tissue they form small groups and chains of four to six members. The cellular tissue attacked soon loses its fibrous appearance, the fibrille swelling up and a homogeneous mass forming, this mass ultimately undergoing liquefaction, just as in the case previously described. Beyond the area of infiltration with organisms a layer of leucocytes is formed, but at first this layer does not seem to be able to oppose the spread of the organism. In rabbits, however, after about the third—and more especially the fourth—day, their spread begins to be limited, and the zone in which the cocci are penetrating into the tissue becomes thinner. In rabbits, by the ninth day the tissues have, as a rule, completely got the upper hand, and the micrococcal growth is surrounded and limited on all sides by a layer of leucocytes (Ernst). The sequence of events in man is quite similar, but, as a rule, the cocci become enclosed more quickly than in rabbits. I may say that I have here been speaking of the effects of staphylococci; the mode of spread and action

of the streptococci is, as Ogston first pointed out and as will be afterwards mentioned, somewhat different, and these differences apparently bear some relation to differences in the peptonising power of the two species of organisms.

As regards the mode in which the cocci act on the skin, for example, in the experiments made by Bockhardt, the following seem to be the facts. The points at which the pyogenic cocci penetrate into the skin are the ducts of the sweat glands, the orifices of the sebaceous glands and hair follicles, and portions of the skin where the protective epidermis has been scratched or destroyed. If the micrococci penetrate by one or other of these paths into the skin, they multiply either in the wall of the ducts of the sweat glands and the adjacent part of the Malpighian layer, or they penetrate into the external root sheath and into the Malpighian layer at the orifice of the hair follicles, or they develop at some part of the Malpighian layer which has been deprived of the epidermic covering. They multiply rapidly at the seat of infection, and set up violent suppurative inflammation in the neighbouring papilla, the violence of this inflammation being evident from the rapidity with which the pustules appear after inoculation. As a rule, when the micrococci only set up impetigo pustules, they do not spread beyond the epidermic tissue; if they do so we have the conditions necessary for the production of an abscess in the skin; this, however, generally only occurs after coarse mechanical injury to the skin. A boil develops, especially from impetigo pustules which have formed in connection with hair follicles, or with the orifices of the ducts of the sweat glands, in the following manner: After the micrococci have entered these parts and set up the impetigo pustules, they gradually spread in the wall of the ducts until they reach the end of the sweat gland, or sebaceous or hair follicles. Coagulation necrosis occurs around them, and violent inflammation is set up in the vascular tissue surrounding these ducts and glands, with the result that a layer of leucocytes is formed like a wall around the affected epithelial tissue. As the necrosed wall of the duct or hair follicle becomes infiltrated with pus cells, the core of the boil is formed; pus forms around the core, and ultimately the skin gives way and it is expelled.

CAN SUPPURATION OCCUR WITHOUT MICRO-ORGANISMS?

Although it is thus evident that these organisms can cause suppuration, a very important question, and one which has been much debated, still remains for consideration, namely, whether acute suppuration can occur without the action of organisms. It is only in a very few instances that pyogenic organisms have been missed in acute abscesses. Rosenbach failed to find any micro-organisms in two cases of suppurating hydatid cyst, and he was inclined to think that a hydatid cyst could, under certain circumstances, exert a pyogenic property. But the cases of this kind which have since been investigated have always shown the presence of micro-organisms in the pus. The other cases of acute suppuration in which micro-organisms have occasionally been missed are cases of suppurating bubo after soft chancre; in a certain proportion of these cases the ordinary pyogenic organisms have been found just as in bubo after gonorrhœa, but in a considerable number, and more especially in those abscesses which, after being opened, become chancrous surfaces, no organisms have as yet been demonstrated. In this instance, however, the abscess is without doubt caused by the virus of soft chancre, a virus which is, in all probability, of a bacterial nature, but which has not as yet been satisfactorily demonstrated. As this is the case it can hardly be a matter of surprise that organisms have not been found in a certain proportion of these bubos; and that, under certain circumstances, pyogenic organisms are present is only what we should expect as the result of the mixed infection which is so apt to occur. Although, therefore, organisms have not been found in some of these cases, we cannot, under the circumstances, conclude that none are present. With these exceptions we always find that acute suppurations occurring naturally are associated with micro-organisms.

Numerous experiments have been made with the view of ascertaining whether it is possible that suppuration can occur as the result of injuries of a mechanical or chemical nature without the intervention of micro-organisms. As a result it may be regarded as settled that, in the lower animals at any rate, mechanical injuries, though frequently repeated, cannot of themselves lead to suppuration; and, as a matter of fact, the whole discussion at the present time is limited to the effect of a few acrid chemical substances, namely, croton oil, ammonia, and oil of turpentine.

With regard to these substances, a large number of investiga-

tions have been made with contradictory results. On the one hand a number of observers state that one or all of these substances can cause suppuration in animals. I myself came to the conclusion some years ago that croton oil could cause suppuration in rabbits. Omitting the earlier experiments, which were not free from objection, I may mention the method I ultimately adopted with the view of excluding all possible contamination with organisms. I took a mixture of equal parts of croton oil and olive oil, sterilised it, introduced it into sterilised glass capsules, which were then sealed at both ends. An incision was made antiseptically in the muscles of the back of a rabbit, and the tube introduced into the muscles; the wound was then stitched with catgut, and an antiseptic dressing applied. The result was that in a certain number of cases the wound healed by first intention, and the glass capsule remained embedded in the muscles as an unirritating foreign body. After a certain time had elapsed the capsule was broken by slight pressure against the spine, and thus the croton oil was brought into contact with the tissues. In one experiment performed in this way the capsule was broken fifty-four days after its insertion, and the animal was killed twenty-seven days later. On making an incision into the part a quantity of putty-like material was found. In another experiment, forty-five days elapsed between the operation and the breaking of the tube, and the result was the same, except that there was a much less quantity of this putty-like material. No organisms were present in either case.—Councilman and others who have followed the same plan mention similar results, as do also other observers, such as Orthmann, Grawitz and de Bary, etc., who have adopted different methods.

On the other hand, we have a number of experiments, carefully conducted, by a number of independent observers, in which no suppuration has followed the introduction of irritating chemical substances. Thus Straus took especial care that organisms should not be introduced along with the material injected by cauterising the surface of the skin at the seat of injection, so as to destroy the organisms on it, and he is positive that these substances do not cause suppuration. Perhaps the most valuable of these researches is that by Klemperer, who adopted Straus's method with still greater precautions. He states that he has failed to cause suppuration by the injection of these substances except in cases where micro-organisms were present at the same time. I may also mention a research by Ruijs, where the materials were injected into the anterior chamber of the eye, and where the effect could be watched. Here also it was found that if organisms are absent, suppuration does not follow the introduction of these chemical substances.

In weighing the evidence it is clear that most stress must be laid on the negative results. If a number of careful observers have failed entirely to produce suppuration by the injection of these irritating chemical substances, then those who have obtained a contrary result must either have brought some other factor unwittingly into play, or there must be some other explanation of the result.

The explanation of the positive results given by those who hold the opposite view is that organisms were really present in the pus, but were either missed from imperfect examination or had died out before the abscess was opened. Speaking of my own results, I am positive that organisms were not present in a living state when the animal was killed, and although it is quite possible that they may have been present at an earlier period, and have died out before I opened the abscess, I do not think that this explanation is a satisfactory one, for other investigators have examined the seat of injection after a shorter period than I did, and have likewise failed to find micro-organisms; and, besides, the character of the disease induced is different from that caused by micro-organisms. In the latter case we have a progressive suppuration, an abscess which goes on spreading, whereas those who speak of suppuration occurring after the introduction of croton oil, etc., state that it is not a progressive inflammation, and does not resemble that caused by micro-organisms.

On the other hand, it seems to me that we are possibly disputing about the same thing, that what the one set of observers calls pus, the other set looks on as fibrinous exudation, for Klemperer, Ruijs, and others speak of the occurrence of fibrinous exudation containing many leucocytes as the result of their injections. Certain it is that, after the injection of these chemical substances, true creamy pus is not obtained unless micro-organisms are present; the most that one gets is a collection of putty-like material, and it becomes a question whether this "putty-like

material may not simply be a further change in what has been found at an early stage, and has then presented the appearance of fibrinous exudation. Klemperer states that on examining a part into which croton oil has been injected, the tissues at the centre of the irritation are of a yellow colour, infiltrated with fibrinous exudation and large numbers of leucocytes. Where the pyogenic organisms act, their peptonising action rapidly dissolves this original tissue, and prevents the coagulation of the fresh exudation, and thus a cavity, containing fluid pus, is rapidly produced. On the other hand, where these organisms do not act, there are still grounds for believing that the tissues themselves can, very slowly it is true, dissolve and remove the dead material, and thus we may quite well find, as the result of the prolonged action of living cells on the extensive dead mass, a putty-like mass, which has been described by some as pus.

This seems to me to be the most probable explanation of these discrepant statements, but on this view we must admit that these irritating substances cannot cause true acute suppuration when micro-organisms are absent. The result which they produce is a different pathological process, corresponding more closely with the formation of chronic abscesses than with that of true suppuration. For the formation of acute abscesses we apparently require the presence of the peptonising ferment produced by the micro-organisms, or, at any rate, of a chemical substance which prevents coagulation of the exuded fluid. Thus we have to note that both Grawitz and Scheuerlen, the latter of whom denies the occurrence of suppuration as the result of irritating chemical substances, have succeeded in inducing acute abscesses by the injection of cadaverine, an alkaloid separated by Brieger from putrefying flesh; this substance is not only an irritant, but also prevents coagulation.

As a matter of fact, in Nature the only situations where we have to consider the possible occurrence of suppuration without organisms are the surface of wounds and the skin. With regard to the possibility of acute suppuration from a wound as the result of the initiation of the antiseptics applied to it, I must confess that I have never yet seen true creamy pus coming from the surface of a wound without finding at the same time micro-organisms in it, and I suspect that the only effect of the antiseptic substance is to increase the amount of exudation and the number of leucocytes, and thus cause at most a semi-purulent discharge. The only other instance in which I have seen suppuration in man without micro-organisms as the result of the action of chemical substances is on the skin at the margin of the new alembroth dressings, where pustules are apt to occur when the discharge is at all free, the contents of these pustules being a sticky semi-purulent material and not containing any micro-organisms. This is the nearest approach that I have seen to true acute suppuration in man without the action of micro-organisms.

A LECTURE

OR

ANATOMICAL PECULIARITIES IN RELATION TO DISEASE.

*Being one of a Course on Evolution in Pathology delivered at the
Royal College of Surgeons.*

By J. BLAND SUTTON, F.R.C.S.

Hunterian Professor; Assistant-Surgeon to the Middlesex Hospital.

MR. PRESIDENT AND GENTLEMEN,—Not the least interesting investigations in the province of comparative pathology are those which relate to morbid conditions, depending in a great measure, or almost entirely, on anatomical peculiarities. The material at my disposal to illustrate this question is very large, hence, on the present occasion, only the more striking examples will be chosen for description. My first illustration is taken from the lamelli-branches.

Lining the concavity of the shells is a membranous structure, which may be regarded as the integument, and known as the pallium or mantle. The shell itself is the direct result of the excretory efforts of the lobes of the mantle, and is composed of animal matter hardened by deposits of carbonate of lime.

Occupying the space between the mantle of opposite sides, we find the animal proper consisting of branchia, intestines, foot, nervous system, heart, reproductive organs, etc.

These animals obtain their food in a somewhat lazy fashion. The margins of the gills are covered with cilia, which, by their constant movements, set up inhalent currents, which not only serve to oxidise the blood in the branchia, but convey concrete particles, many of which are seized upon by the mussel and utilised as food.

Some lamellibranchs have animals commensal upon them. Commensalism differs from parasitism, in the important fact that an animal commensal on another lives upon the food of its host, whereas a parasite lives in the cavities or tissues of, and draws nourishment from, the blood of its host. It would seem that as long as the animals commensal on a lamellibranch keep within the space between the mantle they are safe enough, but occasionally they are rash enough to penetrate the space between the shell and the mantle.

This trespass is resented by the lamellibranch, and the trespasser is punished by being entombed in shell-tissue, and in some cases by pearl.

A very beautiful example of this has lately been recorded by Dr. Günther (*Pro. Zool. Soc.*, June 1st, 1886). The specimen is represented in the accompanying woodcut, Fig. 1. It had been in Dr. Günther's possession for many years. It is an old shell of *Margarita margaritifera*, in which there is embedded, behind the impression of the attractor muscle, a perfect individual of a fish belonging to the genus *Fierasfer*. The fish is covered by a thin layer of pearl-substance, through which not only the general outlines of the body, but even the eye and mouth, can be seen.

In this case the fish, instead of keeping between the two halves of the mantle, penetrated between the mantle and the shell. The irritation thus caused induced the mollusc to cover the intruder with pearl. The secretion must have taken place in a very short time, at any rate before the fish could have been destroyed by decomposition.

Specimens of this nature arrest attention on account of their novelty, and many similar cases could be adduced. This encysting process may be studied in mammals, particularly in the molars and tusks of elephants. In numerous cases, spear-heads, bullets, and other foreign bodies have from time to time been found completely embedded in ivory. Even in the human subject foreign bodies encysted in connective tissue come under observation.



Fig. 1.—A fish of the genus *Fierasfer* imbedded in a pearl oyster (after Günther.)

The Incisors of Kangaroos.—The dentition of kangaroos is, in many respects, peculiar. In the present case it is only with the

incisors that we are concerned. It will be seen from the drawing (Fig. 2) that the upper incisors are three in number, and present

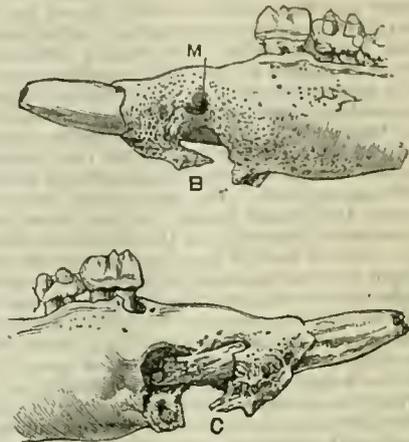


Fig. 2.—The upper and lower incisors of a kangaroo.

little that is exceptional, but the lower jaw possesses only one, and this, in order to antagonise with the upper incisors, is of large size and procumbent, projecting horizontally forward. They are flattened from side to side, and are slightly convex in the outer surface; the inner surface is flat, with a median ridge; the margins are sharp. These incisor teeth are provided with a large and persistent pulp, which extends an unusual distance along the tooth, reaching nearly to its distal extremity.

The points of these teeth, shaped something like a lancet, are exceedingly thin and brittle; as a consequence, the tips are frequently broken, and if only a small piece is detached, the pulp is readily exposed. Kangaroos, like mammals of even high moral pretensions, have domestic differences, which occasionally lead to unpleasant consequences. In the encounter the tips of the incisors are broken, the exposed pulp becomes inflamed, suppurates, and leads to alveolar abscess, which, in some cases, terminates in death. In Fig. 3 two views of the symphyseal portion of the

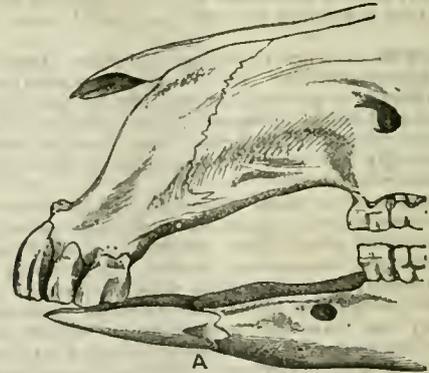


Fig. 3.—Portion of the lower jaw, with the incisor (teeth of a kangaroo, showing the effect of alveolar abscess. M. the mental foramen.

lower jaw of a kangaroo are given, showing the disastrous effects of an alveolar abscess arising in this way. Such cases are by no means uncommon.

The Vermiform Appendix.—In that man has connected with his cæcum a vermiform appendix, he agrees with the anthropomorpha, but differs from all other mammals. This appendix is the vestigial representative of the large cæcum found in very many mammals. Though useless, it is not harmless, as a careful attendance in the *post-mortem* theatre of any general hospital in this metropolis will show. The inconveniences which may arise from the possession of this rudimentary structure are threefold: 1, not infrequently foreign bodies, such as fruit stones, small pieces of pencil, and other similar indigestible substances become impacted in it, induce ulceration, perforation, and peritonitis; 2,

its orifice may become obstructed, and the appendix dilate into a cyst; 3, containing, as is common with vestigial portions of the alimentary tract (vitello-intestinal duct, post-anal gut, etc.) a large amount of lymphoid tissue, ulceration may occur independently of a solid irritant and destroy life.

On the present occasion, however, I am not desirous of drawing many instances from man, but shall deal with one other inconvenience he suffers in common with many members of his class, and even birds; fortunately one that is rarely serious, but interesting nevertheless.

Sebaceous Glands.—The normal anatomy of a sebaceous gland is so well known that it is unnecessary to describe it here, so we may pass at once to a consideration of some of the disadvantages which may arise from their presence. Not infrequently the orifice of the duct of one of these glands becomes obstructed, whilst secretion continues within the alveoli. The acini of the gland thus become distended with the result of their own activity, and a retention cyst is the result. In man such cysts may occur wherever sebaceous glands exist, varying in size from a pin's head to an orange. The walls may be thin and pliant, or laminated, thick, and hard. In man they are very common on the scalp, face, and back; on the scrotum and perineum they are rare. The contents of a sebaceous cyst are epithelial scales, granular fatty matter, and flakes of cholesterol.

The most curious condition associated with a sebaceous cyst is when the contents burst through the capsule, become dry and hard through exposure to the air, and of a brownish-black colour, resembling horn in appearance. If the dried mass is allowed to remain, growth continues at the base, and at length a long cutaneous horn is produced. (Fig. 4.)



Fig. 4.—Cutaneous horns on the face of a woman. The one on the forehead is 5 inches long.

The most elaborate collection of cases illustrating this singular condition is to be found in a small work by Dr. Hermann Lebert (*Ueber Keratose*, Breslau, 1864). He furnishes an account of one hundred and nine cases, with full references, the earliest dating from the year 1300. The horns were found on the scalp, temples, forehead, eyelids, nose, lips, cheeks, shoulders, arm, elbow, thighs, legs, knee, toes, axilla, thorax, buttock, loin, penis, and scrotum. In length they varied from a fraction of an inch to as much as ten or twelve inches, and in circumference some of them measured eight inches. The majority of these cutaneous horns occurred on the head.

An excellent account of human horns is furnished by Sir Erasmus Wilson in his well-known work on *Diseases of the Skin*, 5th ed., p. 653. Besides furnishing details of some good examples of these abnormal appendages a brief but interesting summary of some of the more striking cases is given. The *Transactions of the Pathological Society of London* contain accounts of many curious examples of cutaneous horns, including one which grew from the prepuce of the clitoris. The *Phil. Transactions* for 1791 contain an interesting communication from Sir E. Home, in which some extraordinary cases of cutaneous horns are described. Horns growing from sebaceous cysts are not infrequently seen in the out-patient rooms of large hospitals, but they are as a rule very small in size. Cases such as those described in Home's paper must be very rare at the present time.

Leaving man, and extending our inquiries to lower animals, we

shall find that sebaceous cysts and their consequences are by no means confined to him. They may occur in horses, dogs, sheep, oxen, and birds.

Lebert gives references to cases of cutaneous horns in sheep, he-goats, horses, rams, hares, cows, and dogs. Malpighi described one growing from the neck of an ox, ten finger's-breadths in length, and eight in circumference at the base. Home described in a footnote to the paper already mentioned the case of a sheep about four years old, which had a large horn, three feet long, growing on its flank. It had no connection with bone, and appeared only to be attached to the external skin. It dropped off in consequence of its weight having produced ulceration of the soft parts to which it adhered. On examining it there was a fleshy substance, several inches long, of fibrous texture, filling up its cavity, on which horn had been formed.

In the teratological collection of the Royal College of Surgeons there is a horn three feet five inches in length, and eleven inches in its greatest circumference, said to have grown on the flank of a ram; preserved in a jar near it is the soft core of the same, exactly corresponding to Home's description. The specimen is labelled Hunterian, and I have no doubt it is the one referred to above.



Fig. 5.—Head of a cow with a cutaneous horn.

In the same collection, near it, two other specimens of cutaneous horns are preserved. The first, Fig. 5, a Hunterian specimen, is described as "the head of a cow with a very large hornlike appendage growing from the forehead immediately between the eyes. The second is the head of a sheep, Fig. 6; in this case the horn causes it to resemble the head of a cassowary.



Fig. 6.—Head of a sheep with a cutaneous horn.

Judging from the general character and texture of these horns and the nature of the softer material filling them, I have no doubt they originated in sebaceous cysts. These horns, and that which has just been mentioned as growing from the flank of a sheep, are the largest I have seen or of which I can find any record.

We will now proceed to consider some cases which have been found in birds.



Fig. 7.—A cockateel, *Calopsitta nova-hollandia*, with symmetrical sebaceous cysts on the wings (*Proc. Zool. Soc.*).

It is usual to believe that in birds sebaceous glands are wanting, except in the case of the one over the coccyx, known as the oil or uropygial gland, which is especially developed in water fowl, and serves as a store of ointment in which the bird dips its beak and anoints the feathers in the act known as preening. It is a very significant fact that no known bird ever has its neck shorter than its trunk; that is to say, it is always of sufficient length to allow the bird to reach the oil gland. This structure is not invariably present, for the struthious birds, some of the *Columbae*, and others, lack an oil gland. In the pigeon it is bilobed, of a whitish colour, and a quarter of an inch in length. A duct which is directed backwards has its orifice indicated by a papilla. Such an oil gland as this is described as being nude. In others it is surrounded by a circle of small feathers, and is then described as tufted. The majority of birds have two ducts to this gland. In the hornbill the gland is of a deep orange-yellow colour, which stains very freely things brought in contact with it.

Sebaceous glands exist in other parts of birds' integument, such as the wings, head, neck and breast. They resemble the glands of man in structure, in the tendency to form cysts and in growing horns. Thus in Fig. 7 a cockateel, *Calopsitta nova-hollandia*, is sketched with a sebaceous cyst on the under surface of each wing, and many specimens are preserved in the Museum of the Royal College of Surgeons, occurring in pigeons, partridges, linnets, etc.; some of the cysts are of large size.

The tendency of sebaceous cysts to form horns in birds is as marked as in the case of mammals. Thus in a mule canary a horn of this nature grew from the under surface of the wing, and was curiously curved and twisted. This horn was shed each time the bird moulted, and inquiry seems to show that with birds this is the usual rule. The horn must grow very rapidly to attain such a length in so short a time (Fig. 8).



Fig. 8.—The wing of a mule canary with a cutaneous horn growing from it. Natural size. (Museum of the Royal College of Surgeons.)

Through the kindness of Mr. W. Roger Williams I am able to figure and describe a pretty case of sebaceous cysts and horns in a thrush. In this instance the bird presented a cyst upon its head (Fig. 9), whilst cutaneous horns, as shown in the drawing, were



Fig. 9.—The head of a thrush with a sebaceous cyst. On the leg of this bird two cutaneous horns existed.

attached to its thigh. In this instance the horns were detached when the bird moulted. The thrush was under the observation of Mr. Williams for some time previous to its death.

Sebaceous cysts in birds present characters similar to such cysts in man; in some instances the contents are pultaceous, in others laminated and hard. This is well shown in a cyst growing on the head of a blackbird in the College Museum (Fig. 10).

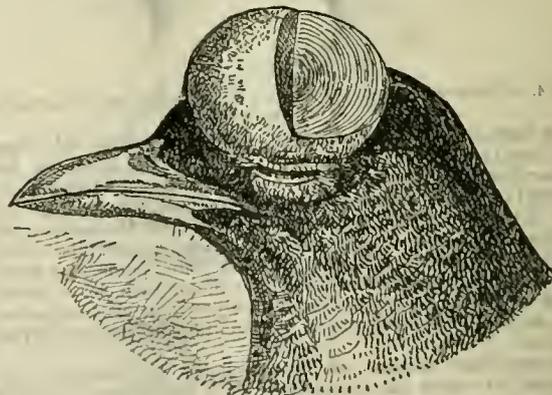


Fig. 10.—The head of a blackbird with sebaceous cyst. The contents are laminated.

Before leaving cutaneous horns it may be interesting to draw attention to a singular cluster of these structures which occur normally on the forearm of *Hapalemur*. These were first described by Mr. F. E. Beddard (*Proc. Zool. Soc.*, 1884, p. 391) in *Hapalemur griseus*; underlying this cluster of cutaneous horns is a gland of oval shape and corresponding in size to the patch of spines. The ring-tailed lemur (*Lemur catta*) presents when adult a curious cutaneous hornlike structure on its forearm, in a situation corresponding to that on the arm of *Hapalemur* (Fig. 11).

This horn or comb-like structure was first noticed by Dr. Jentink in specimens contained in the Leyden Museum. The simi-

larity of this structure with the small spines on the arm of *Hapalemur* induced me to examine the adjacent smooth patch on the forearm of *Lemur catta*, and I had the satisfaction of finding a large collection of glands, the secretion from which, when dried, gives rise to the horny projection in question.



Fig. 11.—Arm of *Hapalemur* with the patch of cutaneous spines on its forearm (*Proc. Zool. Soc.*)

These structures are interesting, inasmuch as they may be regarded as intermediate to the pathological cutaneous horn on the one hand, and the cutaneous nasal horn of the rhinoceros on the other. They also furnish some light as to the nature of the singular patch of hard integument known as the castor on the inside of the foreleg of the horse. In addition, we may use them as physiological types of cutaneous horns which in man only occur under pathological conditions.

ON THE ABORTIVE TREATMENT OF SYPHILIS.

Read before the Medical Society of London, on Monday, February 20th, 1888.

By JONATHAN HUTCHINSON, F.R.S., F.R.C.S., LL.D.,
Emeritus Professor of Surgery at the London Hospital.

For many years past I have been in the habit of assuring patients who came to me with indurated chancres but without any other symptoms, that they would in all probability wholly escape the secondary stage. As years have gone on I have found myself holding out this hope with increasing confidence. My treatment has been almost uniform, and has consisted in giving mercury in the form of grey powder in one-grain doses three times a day, at least, and more frequently if the symptoms did not quickly yield. I have always told the patient that he must take these pills for six months at least. The results have also been very uniform, or have varied chiefly according to the period of the disease at which the treatment was begun. The effect of the medicine in softening the induration is usually quite evident within a week, and may be expected to be complete in the course of a month or a little more. After this the patient remains without symptoms till the end of the course, except, perhaps, some slight persisting enlargement of the inguinal glands. At the end of the six months, if the treatment is left off, there not very infrequently follows in three weeks or a month an erythematous general eruption. This eruption is never severe, never becomes papular or scaly, and always vanishes in a few days if the mercury is resumed. It is never attended by failure of health, and but rarely by sore throat. On account of its frequency after six months' courses, I have lately been in the habit of continuing the treatment for nine or twelve months, and am willing to admit that it might be wise to continue it for still longer periods. As regards relapses at still longer periods, I must state that, in a certain proportion of cases, sores in the mouth or scaly patches in the palms, or a liability to transitory erythema on the skin have occurred, but they have generally been in connection with some special kind of irritation.

The statement which I wish to make quite clear is this: that I believe that it is quite possible, by the early and continuous use of mercury, to suppress the secondary stage—in other words, to make it abortive. In exceedingly few cases where it has been possible to use mercury without interruption in this way have I known a

well characterised secondary eruption or a typical sore-throat to occur. In cases where diarrhoea or sudden pyralism have caused the course to be interrupted, the success has been less complete; but where the patient is careful, and can bear the drug, I may repeat that I believe that it is easily possible, to prevent secondary symptoms. This assertion is not by any means the same as saying that it is possible to cure syphilis, for it does not concern itself with the tertiary stage. It is desirable, I think, in order that we should arrive at sound conclusions, that we should take our problem in parts. In making the proposition which I desire to submit to you this evening, that mercury is a specific antidote for the syphilitic virus, and that by its use the disease may be made abortive, I will divide my argument into several parts.

The first statement shall be one with which all will agree. It is this: that in cases in which induration is well characterised and considerable, it always yields quickly and definitely to the influence of mercury. The very rare apparent exceptions to this which we witness occur to those who in a peculiar manner resist the influence of mercury. We never see sores remain typically hard when the patient is under the influence of mercury.

The next is that in cases in which high temperatures have been observed in syphilis they always abate under the influence of mercury.

Thirdly, I believe that all will agree that when a patient receives no treatment until his eruption is well out, the use of mercury will usually in the most definite manner cause the eruption to disappear. There is but little less certainty about this than there is as to the disappearance of induration in the sore, and the exceptions occur only when the treatment disagrees, and has to be interrupted.

If these several propositions be true, if mercury always causes induration when present to soften down, fever when present to subside, and an eruption when present to disappear, I cannot think that any will see much improbability in the assertion that if used before the fever, rash, etc., have shown themselves, and steadily continued, it will prevent their development. It would be extraordinary if these symptoms should develop *de novo* under the very conditions which all but invariably secure their removal when extant.

Those who object to the statement that mercury is an antidote to syphilis, and decline to employ such terms as "specific," "abortive treatment" and the like, do so because, as they allege with truth, it can seldom or never be asserted that the disease has been wholly or, at any rate, permanently cured. This is, however, I cannot but think, putting a too strong meaning on the words. It may easily be the fact that we have not yet hit upon the best method of using the remedy so as to secure permanent results. It is not fair to demand of a "specific" that it shall always prove its efficacy without regard to differences in the mode in which it is employed. A remedy may be fairly called "specific" if it always and invariably manifests its power over the phenomena of a disease. It is for the prescriber to find out how so to use his specific as to bring about an actual cure. As regards the term "abortive treatment," its appropriateness may surely be justified in any case in which it is designed to cut short the development of a malady and prevent the evolution of its natural stages. We must not strain the word to make it mean absolute annihilation of the thing concerned. If a scheme of treatment of syphilis, begun in the primary stage, is planned to prevent the secondary phenomena, and usually does so, it may, I think, be fairly styled "abortive" in contradistinction with others which make no pretence to prevent the ordinary evolution of the malady. Abortion, as regards preventing tertiary symptoms, is, as I shall endeavour to show immediately, another matter. It is possible that in our present modes of use of mercury we neither begin early enough nor continue long enough to secure that result.

The term antidote, when used in reference to mercury as against syphilis, must be sustained by resort to more hypothetical reasoning as to the nature of the disease. In the year 1860, in a paper read before the Hunterian Society, I first ventured to claim a place for syphilis amongst the exanthemata, and argued that in its phenomena as regards stages, period of incubation, and other points, it resembled the diseases which we attribute to specific animal poisons. Amongst those who took part in the debate on my paper were Mr. Acton, Mr. De Méric, and others who at that time were the leading authorities on the subject. Some years later I read before the same Society another paper, claiming for mercury, on much the same grounds that I have this evening advanced, the position of a specific. My views were on each occa-

sion warmly opposed, but I believe that the progress of investigation since then has done much to facilitate their acceptance. For myself, I may say that I have always, in speculating about the cause and evolution of syphilis, held firmly to the belief that it is due to a specific particulate virus, just as small-pox is, or in the language of to-day, to a living microbe. Other observers, with most praiseworthy zeal and industry, have occupied themselves with the endeavour to bring this microbe to actual demonstration, nor have I the slightest doubt that their search will some day be crowned with success. In the meantime, if we would understand the disease we must, I think, take its existence as granted. It is in reference to this as yet hypothetical microbe, that we justify the assertion that mercury is an antidote; we know how powerful that drug is in preventing the development of plant life, and that which we know fits well with what we observe of its efficacy and its failures in the treatment of syphilis. It is antidotal to the virus, and so long as present it prevents its manifestations of activity. In some cases, but by no means in the majority, it probably kills it outright. The more usual result is a repression of vital activity in the virus, which lasts as long as the drug is used. This repression, if continued for long periods, would appear to amount to a very important modification of power, for I believe that if the secondary phenomena be kept in abeyance for many months, their subsequent development, if then permitted, will never be severe. If continued long enough it will wholly prevent the secondary stage, and yet I fear it is true that even in these the patient may be liable to tertiary affections.

If it be rejoined that no remedy can claim to be antidotal or specific respecting which it is admitted that it does not prevent tertiary sequelae, a reply is yet possible. There is a sense in which, without any hair-splitting, tertiary symptoms may be said not to be syphilis at all. There is neither proof nor probability that the microbe or virus is present in their lesions. They do not develop symmetrically, and they are not contagious; they are due to processes of inflammation occurring in tissues which have formerly been under the influence of syphilis, and have been modified by it. If this be their true position, it will easily be seen that no antidotal treatment directed to the killing of the microbe can prevent them, unless it is commenced before the system has been contaminated. If we wait till the sore is well developed, the patient feverish, and the eruption on the eve of appearance, we have waited until the patient has had syphilis through him, and though we may then proceed to cure the disease by killing the poison, it is too late to prevent its remote effects. In saying this, do not let me be understood to say that the use of mercury late makes no difference as to proclivity to tertiary symptoms. On the contrary I believe, although it is impossible to prove it, that it does make them both less common and of milder type.

The practical questions which come, then, before the surgeon are these—In what manner and at what stage ought mercury to be given so as best to secure its antidotal efficacy?

The verdict that mercury given in short courses is not preventive of the development of syphilis has been recorded in unmistakable terms by the surgeons of the past generation. Mr. Judd, indeed, whose reports are full of interest, and contain proof alike of ability and of candour, thought that such courses favoured the absorption of the virus, and made the disease eventually more severe. His courses were, however, of a fortnight, a month, or six weeks at the most, and were always attended by free ptyalism. The modern introduction of the small-dose system, with the avoidance of ptyalism, makes it necessary that we should investigate the whole question anew. I do not suppose that there is much difference, as to the special preparation of mercury which is employed, though it will not do to take this for granted. Some of the records of M. Diday as to his failures to prevent symptoms would add to the suspicion that the iodide of mercury, as employed by him, is less efficient than the mercury only, in the form of grey powder. The great point is that a preparation should be used which can be pushed without producing symptoms which necessitate its temporary discontinuance. Its efficacy may be taken as proved by the prompt disappearance of the primary induration. The dose which is efficient to this result will, if steadily persevered with, probably be efficient in preventing the development of other symptoms.

The question arises, I think, naturally, at this point of our inquiry as to whether it may not be advisable in the future to attempt the abortion of the primary stage itself. I am not aware that any large amount of evidence is in existence as to the possibility of preventing the development of induration in a chancre by using mercury before it occurs. Ever since the recognition of

the fact that some chancres are not infecting, and that the phenomenon of induration is the most valuable one by which to diagnose the true or infective chancre, we have been in the habit of waiting till the character of the sore declares itself before beginning to use the specific. Many, indeed, especially those of the French school, have advocated waiting till constitutional symptoms in the form of eruption occur. Our forefathers, we well know, did not so wait. For them a venereal sore was a chancre, and they poured in mercury as soon as the patient presented himself, and often within a week or two of the contagion. It may have been that in many cases they succeeded in aborting syphilis as a whole, and in preventing alike the primary and secondary stages. It is to be feared, however, that their success was but too often prevented by the manner in which they prescribed the antidote. They were accustomed to give large doses during short periods, and were constantly obliged, by the occurrence of ptyalism, to interrupt the treatment. Indeed, as a rule, a short treatment was all that was contemplated, and the production of free ptyalism was regarded as essential. As I have already suggested mercury may sometimes, when given in this way, possibly prove an abortive treatment—that is, it may kill the virus. Facts, however, would seem rather to point to the conclusion that it only temporarily suspends its activity, and that in many cases a severe outbreak follows soon after its suspension. It is otherwise, I think, when small doses are long continued.

I wish to avoid giving any exaggerated impression of the extent and kind of evidence upon which my statements are based. It is not my intention to produce before you any statistical evidence, nor even to quote individual cases. To do so would be very easy, for I hold in my hand a large number of extracts from my notebooks which bear upon the matter. To read them to you would however be very monotonous, and I think unprofitable. They are for the most part repetitions of the statement that the patient came under my care with a well-indurated chancre, that I advised a long course of small doses of mercury, that the induration melted away, and that nothing else ever followed. There is a weak point in many, but by no means in all, and it is this, that I have no record as to the patients beyond the first six months or so. My practice has for many years, in respect to primary syphilis, been solely in private, and it is of course not practicable to compel patients to come and report after they believe themselves well. I feel sure, however, that this negation of evidence is in itself of considerable strength. For long, as I have said, I have been in the habit of holding out hopes of immunity, if the remedy were persevered with, and I assume that if my foretellings proved fallacious, I should in the majority of cases hear of it. On the contrary, so far as my own observation of primary syphilis has for many years past been concerned, I should certainly never have discovered that an eruption on the skin was a usual part of the malady. I have of course seen plenty of secondary eruptions in those who had not been under treatment, but in those whom I had myself prescribed for in the primary stage scarcely any. I could count on my fingers the number of cases in which during the last five years I have watched the patient from his primary sore through a well-marked syphilitic eruption on the skin. A few I have seen, probably because not sufficient mercury was given, and more in which some very slight and transitory eruption showed that the poison, though restrained, was struggling to show its powers. Of really troublesome eruptions, such as are common enough when mercury has not been used, I may say confidently that I have seen none.

I must admit that the gross total of cases of primary syphilis which have been under my care has not been so large as that which falls to the share of specialists, particularly those holding hospital appointments. More patients come to me in the secondary, or later stages, than in the primary. Still, my experience has been considerable, and justifies, I think, the general statements which I have ventured to make to you this evening. It is to be clearly understood that I have been speaking only of cases in which the induration was characteristic, and in which an interval of from five to seven weeks had occurred since the exposure. I have never allowed myself to diagnose a sore as infectious, or to begin mercury, except under these conditions.

There is another class of cases which bear testimony which I think, very valuable as regards the antidotal efficacy of mercury. I allude to those in which the patient comes under care with his rash fully out, and having as yet had no treatment. The possibility of aborting the rest of the malady in these is less certain, yet I think we may generally expect it with much confi-

dence. If such patients will take mercury their symptoms will disappear, and if they will continue it there will be no relapses.

In conclusion, I may express my hope that it will have been clear to all that my object in this paper has not been to claim credit for any particular method of treatment, far less to make boast of personal success. My wish has been to draw attention to a clinical fact which, although hitherto much ignored, or even denied, must have been for long more or less under the cognisance of all engaged in the treatment of syphilis according to modern rules. The fact to which I refer is that the early use of mercury does not only greatly shorten the duration of the primary phenomena, but that it also much modifies, and in many instances entirely prevents, those of the secondary one. I have indeed ventured to assert that, when circumstances favour, the febrile stage of the exanthem, syphilis may be rendered wholly abortive. If we can accept this proposition, I feel sure that we shall have gained a step in the orderliness of our future work, and in reference to this the following problems seem to lie before us.

What plan of treatment is most successful in suppressing the febrile or secondary stage?

Does the suppressing of this stage tend to prevent what are called reminders, or those minor, and for the most part local, symptoms which often intervene between the febrile stage and tertiary phenomena?

Are those in whom the febrile stage has been aborted by artificial means more or less than others liable to tertiary phenomena?

Is it possible by anticipatory treatment to prevent or abort the phenomena of the primary stage; and, if this be done, what is the influence upon the further course of the disease?

It has been well said that all men use syllogisms, whilst but few have studied logic; and in like manner I may remark that most of us have been practising more or less completely the abortive treatment of syphilis, though without giving it that name.

CLINICAL MEMORANDA.

TUMOUR OF THE INTESTINE: SYMPTOMS SIMULATING BILIARY COLIC.

COLONEL M., aged 45, who had lived in India for some twenty years, was seized about 2 A.M. on 4th June with agonising pain referred to the right side of his abdomen. An injection of morphia gave relief. But in the course of the following night the pain returned with even greater intensity, so much so, that recourse was had to chloroform inhalation. The case seemed obviously to be one of gall-stone colic, and directions were given to wash the fæces through muslin. On the 6th June the patient passed what he thought was a "piece of flesh," but which was a lymphoma of nearly square outline, measuring about one inch and a-half along each side, and a quarter of an inch in thickness. This is not the place for a description of the tumour. As the textbooks give no warning of this source of error in the diagnosis of biliary colic, it seems worth while to place the case on record. Regarding the patient's subsequent history, a dull pain in the abdomen, chiefly on the right side, continued for some days, at the end of which he regained his usual excellent health. There has been no recurrence of symptoms up to date.

J. LEWTAS, M.D.Lond.

Henrietta Street, W.

PUERPERAL APHASIA.

THE interesting remarks made by Dr. Bateman on the above subject in the JOURNAL of February 4th lead me to record the following case.

In April, 1886, I was called to see, in consultation with Dr. Maguire, of Chesterton, Mrs. B., aged 35, who had given birth to her tenth child ten days before. For some time she had suffered from anæmia with a hæmic murmur, but had improved in health before her confinement, which was quite natural; and she went on perfectly well, suckling her child until the tenth day, when she sat up in a chair for the first time. She was suddenly taken speechless and helpless, the right side being completely paralysed. In this condition I found her. Like Dr. Leith Napier in his case, quoted by Dr. Bateman, we attributed the symptoms to occlusion, by embolism, of the left cerebral artery. Mrs. B. was perfectly conscious, and understood everything said to her. There was no increased flow of milk; in fact it went the same night after the

attack. The use of the arm and leg was soon regained, so that in five weeks she was enabled to walk about the house, and in five months to walk a distance of some miles. In June, 1887, I saw her at Llandudno with Dr. Dalton. We then detected no hæmic murmur. Her general health had greatly improved, but her speech remained very defective; and, as it has not improved much, if at all, since then, I fear it never will.

Newcastle-under-Lyme.

CHARLES ORTON.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ALBANY GENERAL HOSPITAL, GRAHAMSTOWN, SOUTH AFRICA.

A CASE OF HYSTERECTOMY.

(By J. B. GREATHEAD, M.B.Édin., M.R.C.S.Eng., Surgeon to the Hospital.)

J. A., aged 33, a spinster, was first seen on September 5th, 1886. She had had persistent metrorrhagia and menorrhagia for twelve months, and had become very anæmic. The abdominal tumour had grown more rapidly for three months, and, from its size and weight, caused much inconvenience. The cervix was obliterated; and the os externum, somewhat patulous, was pressed forwards against the upper edge of the pubes. The sound could not be passed, but with the aid of a gum elastic catheter the uterine cavity was found to extend eight inches upwards and forwards in front of the main portion of the tumour.

On September 22nd, 1886, chloroform (with ether at intervals) having been administered, a preliminary incision four inches long between the pubes and umbilicus was made. When the diagnosis had been satisfactorily confirmed, the abdominal incision was gradually enlarged until it extended from the pubes to within an inch of the ensiform cartilage. Only then could the tumour with difficulty be brought through the opening. An elastic tourniquet was placed round the uterus just where the vaginal walls joined it. With a large trocar and cannula a pint and a half of black fluid blood was drawn off from the highest part of the tumour. The broad ligaments were next tied in sections and divided as low as possible; but, in order to reach the lowest portions, it was found necessary to cut into the uterus and remove a large portion of the tumour. In this way the pedicle was more readily handled. The uterine arteries were tied with silk and divided. The uterus was next transfixed just above the junction with the vaginal walls, and tied in two portions with strong silk ligatures. The remainder of the uterus was now amputated half an inch above the last ligatures, a small posterior flap of uterine tissue and peritoneum being reserved for the closing in of the end of the stump (pedicle). After all hæmorrhage was well controlled and the tourniquet removed, the flap was brought forward and firmly sutured (with five silk sutures) to the anterior edge of the uterine wound. The loose peritoneum was gathered in with a continuous catgut suture, and closed over a neat stump. The abdominal cavity having been cleansed with warm water and all fluid sopped up from the pelvic cavities, the abdominal wound was closely sutured with silver wire in the customary way. A dressing of lint and carbolic oil (1 to 20), with a liberal supply of cotton wadding, was used.

On September 24th the evening temperature was 99.6° F., the pulse 120. On September 26th the wound was entirely healed; the evening temperature was 99.6° F. On September 28th the evening temperature was 101.6° F. On October 3rd the evening temperature was 102° F., and the pulse 114. Flatulence caused pain, and was relieved by an enema of soap and water. On October 4th the evening temperature was 101.6° F. After this date the temperature gradually became normal, and on October 13th the patient was considered convalescent, and allowed to recline in a semi-recumbent posture. On October 28th and 29th she menstruated, with all her usual symptoms. On November 17th to 19th she menstruated again, with usual sensations. The patient wrote saying that she had again menstruated on December 8th and 9th. She had been in the habit of menstruating every three weeks before this illness.

* NOTE.—Owing to absence from home I have not had an opportunity of hearing whether menstruation occurred after December, but its reappearance on three occasions with a certain degree of regularity after the removal of uterus and appendages seemed to me to be of sufficient importance to warrant the publication of a few notes of the case. I am quite aware that such a phenomenon has been observed after double ovariectomy. The specimen of uterus and ovaries is now in the Museum of St. Bartholomew's Hospital.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, FEBRUARY 21ST, 1888.

Sir JAMES PAGET, Bart., F.R.S., F.R.C.S., President, in the Chair.

Parasitic Fetus.—A Hindu, aged 17, presenting a large parasitic foetus, was exhibited to the Society by Mr. BLAND SUTTON and Mr. S. G. SHATTOCK; a full description of the foetus was read by the latter gentleman, who stated that the parasite was incapable of spontaneous movement, but sensations were perceived; urine was passed through the penis of the parasite; the penis was capable of erection; the parasite perspired when the boy perspired; the surface temperature was low (95° F.). The report, in discussing the origin of such parasites, favoured the theory that they were due to an abnormal cleavage of a single ovum. [A fuller description and illustration is published at page 436.]—The PRESIDENT asked whether spontaneous or reflex movement, or movement in response to electrical stimuli, had been noted in this or other cases.—Mr. DORAN inquired whether in other instances the parasite had suffered from visceral disease; such an occurrence would probably have an injurious effect on the autosome. He observed that in this case there was certainly one kidney, and the report stated that intestine also was present.—Mr. SHATTOCK stated that no spontaneous or reflex movements had been observed.

Periosteal Lipoma.—Mr. D'ARCY POWER exhibited a specimen of a comparatively rare form of congenital fatty tumour, to which the name "periosteal lipoma" has been applied. The patient, a boy, aged 9, under the care of Mr. Thomas Smith, presented a soft, painless, elastic swelling, occupying the outer aspect of the upper third of the left thigh; the skin was freely movable, but the superficial veins were distended. The tumour was incised and removed; it was firmly attached to the periosteum, just below the lesser trochanter; it weighed 15 ounces, and measured 6 by 5 inches. It was only partially encapsuled, and consisted of several lobes held together by areolar tissue; the growth was very firm, and on microscopical examination was found to consist of collections of fat cells, with thick intervening bundles of connective tissue. Mr. Power referred to Mr. BATHIN's opinion that such growths commence as fibrous or fibro-cellular tumours, the formation of fat being a later change, and suggested that there was no special reason why lipomata should not spring from the periosteum, since they are connective tissue growths which might commence as localised proliferations of cells, which rapidly became infiltrated with fat. He also commented on the absence of a capsule over the greater part of the growth, and stated that whereas the fat in the encapsuled portion was mingled with so much fibrous tissue that the growth might in this part be regarded as a fibro-lipoma, in the diffuse portion it was simple fatty tissue.

Mixed Tumour of Parotid.—A specimen of mixed tumour of the parotid containing cartilage cells was shown by Mr. CHAVASSE. The patient was a woman, who first noticed the tumour at the age of 15. It was the size of a pea, and did not enlarge much for fifteen years; then it grew rapidly, and still more so after an ineffectual attempt at removal. The tumour was successfully removed subsequently, and weighed 20 ounces. The growth consisted mainly of lobuli of fibro-adenoma with acini in certain parts; there were areas of cartilage; in others the matrix was undergoing myxomatous change, which was probably a secondary degeneration. As to the origin of the cartilage, Mr. Chavasse thought that it was due to misplaced aural cartilage, which, acting as an irritant, had led to adenomatous growth from the parotid. He thought that the prognosis in these so-called enchondromata of the parotid was favourable, except where the sarcomatous elements predominated.—Mr. STEPHEN PAGET supported the

theory of their embryonic origin, and referred to a paper by Mr. Jacobson in the *Guy's Hospital Reports*. Most of the cases recorded had been women.

Congenital Mitral Stenosis and Pulmonary Endarteritis.—Dr. G. F. CROOKE showed specimens from the case of a man, aged 34, who had had scarlet fever when a child; and rheumatism in one shoulder at the age of 29. There was no history of syphilis, and his occupation was not laborious. About eighteen months before admission he began to suffer from pain in the left side and shortness of breath. When admitted there was œdema of both legs, and a loud systolic murmur was heard at both bases and at the aortic area; the urine contained albumen and hyaline casts. He died somewhat suddenly after slight exertion. The *post-mortem* examination showed pericardial effusion, pulmonary dilatation, incompetence of the tricuspid orifice, and narrowing of the mitral orifice, but no evidence of valvular lesion. The right side of the heart was hypertrophied and dilated. The mitral stenosis was probably congenital; the subdivisions of the pulmonary arteries in the lungs and the vessels were found to be the seat of endarteritis and atheroma.—Dr. WILKS had seen two such cases. They negatived the theory that atheroma did not affect the pulmonary artery and its branches. There was always great hypertrophy of the right ventricle where there was this pulmonary arteritis and mechanical causes were at work. He did not think that it was a sequence of congenital mitral stenosis or of such stenosis occurring in early life, that led to imperfect growth of the lungs, so that the chest and all the pulmonary organs were dwarfed.—The PRESIDENT asked whether there was extensive clotting in the diseased vessels.—Dr. CROOKE said there were no clots in the larger vessels.—The PRESIDENT said that he had described in papers contributed to the *Transactions of the Royal Medical and Chirurgical Society* some forty years ago the occurrence of clotting in arteries, and had expressed the opinion that the process was exactly analogous to thrombosis occurring in veins, that, in fact, it was due to arteritis. It was a curious instance, he thought, of intellectual blindness that the possibility of embolism had never occurred to him during that investigation; several of the cases would, now that our eyes were open to the possibility, at once suggest embolism.

Complex or Vertical Hermaphroditism.—A specimen of complex or vertical hermaphroditism was shown by Mr. C. STONHAM. The child had died after an operation for the relief of a hernia, which was found to contain a uterus. On the right side was a hernial sac, containing organs which appeared to be those of a normal female, but the apparent ovaries were found to be testicles; there was a uterus ending in a vagina, which was in relation with a prostate gland; there was a well-formed bulb; no vesiculae seminales were seen. The external organs were those of the male, with undescended testicles; there was partial hypospadias; the bladder was normal in size and shape, and its neck was surrounded by the prostate; the uterus was well formed, and opened into the vagina; the testes were attached to the cornua of the uterus; immediately below the testes was the Fallopian tube; the epididymis lay below the testis. The mother had had fourteen children and eight miscarriages; the fifth and six children presented a well-marked penis and scrotum, but no testes; one of the mother's sisters was reputed to be an hermaphrodite, but had borne a child. Mr. Stonham referred to the literature of the subject, and said that Foerster had figured a very similar case in his *Atlas*.—Dr. WILCOCKS mentioned a family in which one boy had hypospadias, while a younger child, aged 3½, a girl, had large mammae, hair on the pubes, and had menstruated four times.—Mr. BLAND SUTTON said that the case belonged to the class of free-martins; it showed that the theory that the prostate represented the uterus was a mistake, and that at most it represented only the cervix.—In reply to Mr. JONATHAN HUTCHINSON, jun., and Mr. C. B. LOCKWOOD, Mr. STONHAM said that the bladder was not pulled down, that there were no muscular fibres representing the gubernaculum, and that in using the term "vertical hermaphroditism" he had followed Sir J. Y. Simpson.

Papilloma of both Fallopian Tubes and Ovaries.—These specimens were exhibited by Mr. ALBAN DORAN. They were removed from a woman aged 31, married twelve years, and sterile. Seven years ago she had a severe attack of pelvic inflammation; a tumour was noticed, but it disappeared. Twelve months ago it was again discovered. Ultimately Dr. Bantock performed an exploratory operation. Two tumours were found and removed. They proved to be cystic ovaries united to cystic tubes. Both tubes and ovaries bore abundant papillomatous growths. There was no free

fluid in the peritoneum, and no papillomata were diffused beyond the cysts. The patient recovered. She had menstruated till within a month of the operation in December, 1887, although both tubes and ovaries must for long have been degenerate. The disease appeared to represent a form of atrophy due to old chronic inflammation, resembling in this respect the most frequent form of tubo-ovarian cyst. Only two other cases where papilloma of the tube constituted a distinct disease had been described. In the first, the tube was unobstructed at its ostium, and the peritoneum was filled with fluid; in the second, the tube was closed, and there was no peritoneal effusion. The latter conditions existed in the present case, which differed from the others in being bilateral and involving the ovaries.—Dr. HORROCKS inquired whether there was any history of gonorrhœa or syphilis.—Mr. DORAN said that in the first case infection was impossible, in the others it was possible but not very probable.

Card Specimens.—Mr. C. STONHAM: Tumours of Bone: (1) Spindle-Celled Sarcoma of Femur; (2) Cystic Sarcoma of Femur; (3) Cystic Myeloid Sarcoma of Femur and Tibia; (4) Spindle-Celled Sarcoma of Tibia; (5) Spindled-Celled Sarcoma of Humerus with Fracture.—Mr. JOHN C. LUNN: Special Meningitis following Disease of Ear.—Mr. T. F. CHAYASSE: Vesical Calculus.—Mr. S. G. SHATTOCK: Dermoid Cyst of Neck.—Mr. H. A. LEDIARD: Enchondroma of Hand.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 20TH, 1888.

J. HUGHLINGS JACKSON, M.D., F.R.S., President, in the Chair.

Abortive Treatment of Syphilis.—Mr. JONATHAN HUTCHINSON read a paper on this subject, which is published in full on page 413.—Mr. JAMES BLACK noted the case of a woman who, after having given birth to eight healthy children, became infected, and then had six consecutive miscarriages. She was put under mercurial treatment, and subsequently gave birth to a perfectly healthy child, at term, free from any mark of the disease. He expressed a doubt as to the propriety of commencing the mercurial treatment before being sure of the diagnosis.—Mr. J. ASTLEY BLOXAM expressed the interest he felt in the subject brought before them. The thought had often occurred to him as to when one ought to attack a patient with mercury. The great question was as to whether or not the patient had syphilis. So far as the induration went, an experience of some 90,000 cases had led him to conclude that it was quite without value in the diagnosis. He said that only a general and symmetrical enlargement or hardening of the glands sufficed to place this beyond a doubt. He thought that six months' treatment was altogether inadequate to effect a cure of the disease, many of his patients carrying it on with benefit for from twenty to twenty-three months. So long as the induration of the glands persisted, so long the patient was liable to syphilitic manifestations on ceasing the treatment. With respect to the mode of administration, he had tried pretty well all the plans, but preferred the subcutaneous injections which he had practised since 1884. He had seen many cases in which the secondary symptoms were apparently absent, but maintained that on close examination some manifestations were always to be found, especially in the loins. He agreed that syphilis was probably due to the presence of a parasite, and that the sooner mercury was given the better.—Mr. BERNARD PITTS acknowledged the indebtedness of the profession to Mr. Hutchinson for the diminution in the dose which he had brought about. He mentioned that the advantage of the small doses was the non-liability of the patients to pyralism, involving a discontinuance of the treatment for a time. He observed that it would be hard on the patient to condemn him to a long course of treatment without being sure of the diagnosis. His own plan was to commence the mercurial treatment if the sore resisted local measures, or showed a tendency to spread phagedenically. If the sore yielded at once to the influence of the mercury, he continued it.—Mr. MARMADUKE SHEILD asked Mr. Hutchinson to give a definite opinion as to the merits of excision of the primary sore. He also asked for an opinion as to the combination of iron and quinine with the mercury, to combat the anæmia and debility which often followed the use of the latter.—A FELLOW said he was the first to suggest excision of the primary sore when a surgeon in the army. He had been led to suggest this by observing the good results which followed excision in cases of sores, complicated with phimo-sis. Cases where this operation was practicable were of course rare, but the results obtained by the sur-

geons who systematically excised were better than those obtained by the others. He added that in the army it was often impossible to carry out an uninterrupted treatment, but even with an intermittent treatment the results were far better than when no treatment at all was resorted to. He said that the best preparation of mercury was the one which caused least irritation, and attributed intolerance either to too large doses or to error in the form or time of administration. Mercury was a tonic, and when it produced debility it was advisable to stop.—Mr. H. DE MÉRIC said he had never seen a case of syphilis in which mercury had absolutely prevented secondary symptoms. He did not attach much importance to induration of the sore; induration did not necessarily imply syphilis, nor syphilis induration. The great point was the induration of the glands.—Mr. MALCOLM MORRIS said that surgeons generally waited for the appearance of secondary symptoms before resorting to mercury. He suggested that as induration of the glands indicated elaboration of the poison, the effect of the early administration of mercury in stimulating metabolism might really aid in the prompt dissemination of the virus.—Mr. JONATHAN HUTCHINSON, in reply, pointed out that in his opinion the infection of syphilis consisted in a specific microbe. Mr. Morris's views as to the possible effect of mercury on the glands in facilitating dissemination of the poison required to be put to the test of experience. He thought that the character of the sore afforded much more information towards a diagnosis than the glands, respecting the condition of which he had often been in doubt. Well-marked induration of the sore, in his experience, meant syphilis, but he added that many specific sores did not show this induration. He had admitted that slight transitory eruptions might be found even in the most successful cases, but nothing that could be compared with the ordinary secondary symptoms. Although some of his patients had been apparently cured in six months, he did not consider that this period was sufficient in the general run of cases. He thought iron might be given where required, but he objected to quinine, because it prevented pyralism, and might be supposed to oppose a resistance to the action of the mercury. With reference to excision, he thought that the operation might be desirable whenever practicable, but its influence would depend largely on the site and age of the primary sore. Once the induration was marked the system was infected. With small doses of mercury, its depressing effects were done away with. He said that the fear of mercury dated from the time when it was the custom to give it in large doses. He did not advocate beginning a mercurial course indiscriminately before a diagnosis could be made: but many patients who were nervously alive to the consequence of syphilis gladly consented to begin it at once, so as to reap the advantages. In any case it should never be postponed beyond the period of induration of the sore. He alluded, in conclusion, to the value of the thermometer as an indication of the approach of secondary symptoms.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, FEBRUARY 16TH, 1888.

WILLIAM SEDGWICK, M.R.C.S., President, in the Chair.

Some Cases of Hysteria.—Dr. STEPHEN MACKENZIE read a paper on some cases of hysteria, with remarks on the nature of hysteria. He narrated two cases. The first was that of a girl, aged 21, with emaciation and profound anæmia, complaining of constant and severe pain, increased by food. There had been much vomiting. There were no physical signs of organic disease, and it was regarded as hysterical. Food was regularly and, if necessary, forcibly given; iron was administered, and sedatives withheld. The patient made a slow but steady recovery, the corpuscular richness increasing from 50 to 93 per cent., the hæmoglobin increasing from 30 to 70, and the body weight from 4.2 to 6.7 stones. The patient had remained well two years, in all except the non-return of the menses, which had disappeared before the commencement of the disease. The second case was that of a young lady, aged 19, who, from gastric pain, had gradually ceased taking food until she was reduced to a condition of extreme emaciation and weakness. The cases were regarded as apepsia and anorexia hysterica. The term "hysterical" being employed occasioned the author to explain what he understood by the term. He thought the current view in the profession, as well as out of it, was that hysteria was "a want of self-control," "a giving way to the feelings." The author pointed out that this, though in his

opinion correct, was a purely metaphysical explanation. He thought that the term "hysteria," though etymologically incorrect, misled nobody nowadays, and it was a convenient label, distinctive not descriptive. It was admitted by all that hysteria was sometimes seen in the male. The greater frequency of hysteria in woman was due to education and the whole circumstances of their lives favouring the development of their emotional nature. Passing to the physical aspect of the question, he pointed out that, whether regarded from the psychical or the physical side, hysteria afforded an illustration of the doctrine of dissolution formulated by Herbert Spencer, and extended by Hughlings Jackson. He drew attention to the widely representative character of the physical basis of the emotions, so that when these were powerfully excited there occurred the most widely spread and varied movements of the muscular system, not only in the whole muscular system, but in the vascular and secretory. On the other hand, there were still higher arrangements of the nervous system which "inhibited" the nervous arrangements (called centres for convenience) forming the anatomical substrata of the emotions. This was clearly admitted by the expression "the control of the emotions." In hysteria there was a suspension of function of the so-called inhibitory "centres," which occasioned the negative element—loss of inhibitory power (psychically, loss of control), and the positive element—overaction of the nervous arrangements constituting the physical basis of the emotions (psychically, outburst of the emotions). This "suspension of function" of some of the highest nervous arrangements which inhibit the nervous arrangements forming the physical basis of the emotions, might be brought out by all kinds of debilitating influences, including organic disease. The practical bearings of these views were pointed out, but the gist of the paper was to put on a physical basis the metaphysical theory that in hysteria there was a want of self-control, and a "let go" of the emotions.

Cases of Hysteria.—Dr. LEES narrated two cases of hysteria in boys. The first was a boy of 8, who had vague pains, capricious appetite, asserted inability to swallow and to walk, with some tonic spasm of the muscles of the lower limbs, especially in the adductors of the thighs. There was marked increase of the knee-jerks, normal cutaneous reflexes, no spine disease, and no anaesthesia. The treatment was mainly moral, and the boy was practically well in three weeks. The second case was of a different type. It was that of a boy, aged 11, intelligent and patient, who had severe headache, patches of anaesthesia, amblyopia of the right eye, and defective hearing in the right ear, but no motor weakness, and no spasm. The anaesthesia changed its site several times during six months, affecting different areas, sometimes in the right side, at others in the left. The amblyopia was found to be due in part to posterior polar cataract, but only in part, for it amounted to mere perception of light. One day it was found that he had double temporal hemianopia, the temporal halves of both retinae being insensible to light, but the next day this condition had vanished, and so had his auditory defect and much of his anaesthesia. He improved considerably under treatment, and when last seen had lost his headache, and almost lost his anaesthesia. No doubt these two cases must both be classed as "hysterical," and yet they differed from each other completely. In the first the affection was mainly a moral one, and the objective symptoms were purely motor; in the second there was no moral element, and the symptoms were entirely sensory, and discoverable only by clinical investigation. Yet it seems likely that the difference in symptoms may have been a result simply of the different brain-areas affected, and that a similar condition, a kind of torpidity of some of the nervous centres, may have existed in both.

Death with Symptoms of Hysteria.—Dr. MAGUIRE and Mr. STILCOCK reported a case of death from functional neurosis, in which the symptoms at one time resembled those of hysteria. The patient had complained of pain in the back of the head and falling sight for twelve months. Two months after a blow on the back of the head sight was lost almost entirely. On admission into hospital the gait was tottering, memory impaired, speech slow and drawing. There was no loss of power or of sensation, and the knee-jerks were exaggerated. No change could be detected in the fundus or media of either eye, nor was any other physical sign of disease discovered. The patient became restless at night, and three days later was found comatose, not responsive to any form of stimulation, lying with the mouth open, and breathing stertorously. Copious perspiration was observed on the right side of the face and neck, none on the left, and the pup-

of the right eye was slightly contracted. No diaphragmatic respiration could be detected. The patient died about twenty-four hours later; and at the *post-mortem* examination, after the most careful search, no morbid condition, macroscopic or microscopic, was found. Dr. Maguire related two similar cases which had been followed by recovery. The patient, a medical man, was comatose for more than two months, and during this time had a temperature never below 100° F., and occasionally reaching 102°. Perfect recovery followed; but a second and similar attack followed, four years after the first. Dr. Maguire considered that at the present time such cases as these were of the utmost importance, in that grave organic disease, for which possibly operative treatment might be proposed, was so closely simulated by purely functional disturbance.—Mr. LLOVELL advocated an improvement in the terminology of the subject, and described a state to which he thought the term "neurokinesis" was applicable. He also suggested a more rational and considerate treatment of those who were usually considered to be hysterical.—Dr. HUGHINGS JACKSON said many so-called cases of hysteria were cases of nothing, and a number of cases were narrated to illustrate this proposition.—Dr. GRANT HEWITT thanked Dr. Mackenzie for his lucid exposition of the mechanism of the hysterical derangements. His own experience of hysterical cases in women had taught him the fact that general malnutrition was almost invariably present, and probably the basis of the whole case. Certainly the uterus showed signs of this malnutrition in such cases, its tissues being soft and deficient in normal firmness to a remarkable degree. Probably the central nervous system was in like condition of malnutrition, and thus there arose increased liability to reflex disturbances. He had observed several cases of hysterical convulsions in women, where the excitation plainly came from the uterus, as was proved by the cure of the convulsions by appropriate treatment of the uterus. As regards the pain described by Dr. Mackenzie in his first case, he had seen a case very like it where the pain was undoubtedly due to antelexion and version of the uterus.—Dr. FITZPATRICK thought that during the last fifteen years hysteria had become less prevalent, and attributed this to the better hygienic conditions under which young ladies lived.—Dr. SQUIRE agreed with Dr. Hughlings Jackson that it was necessary to distinguish between hysteria and shamming: the former class was characterised by an absence of motive, the latter had originally a motive.—Dr. EWART thought nerve inanition was an important factor in hysteria, and ought to be especially treated.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, FEBRUARY 15TH, 1888.

JOHN SMITH, M.D., President, in the Chair.

Successful Trephining over Motor Areas for Arrested Development of Limbs and Complete Loss of Functional Value; Commencing Return of Functional Activity.—Dr. FELKIN showed a girl, aged 17, on whom, at his suggestion, Mr. Hare had operated, with a view to the recovery of lost functional activity in the right arm and leg. When a young child, the patient had sustained serious injury to the head. Apparently as a result of this, an arrest of development had taken place in the right arm and leg, while there was an almost complete disappearance of functional activity. In many of its features the case simulated poliomyelitis anterior acuta. Dr. Felkin, into whose hands the case had fallen but recently, was able to trace a slight depression in the scalp over the left motor areas. He consulted Mr. Hare, who, after careful examination, agreed with Dr. Felkin that it was a case for operation. Mr. Hare accordingly operated three or four weeks ago. On exposing the skull, they discovered evidence of the existence of an old depressed fracture, over whose site Mr. Hare trephined. Two complete circles of bone were removed, while additional portions were removed by means of Hey's saw. From the space thus exposed a cyst was found to project. This was evacuated and its connections disturbed. Projecting internally from one of the portions of bone removed was a horn-like process of bone, which doubtless had been the cause of additional irritation. The dura mater was not incised. Small portions of bone were planted on the exposed surface of the dura, and the wound closed, a small catgut drain being inserted. The wound healed by the first intention, and the patient did not present a bad symptom from first to last. No rise of temperature occurred. Careful examination with the dynamometer revealed distinct evidence of returning functional activity, while certain movements of the forearm were

accomplished for the first time. In addition to the great interest of the operation itself, the additional interesting problem was raised as to how far they might look for an improvement in the state of arrested growth of both upper and lower limbs.

Animal Tuberculosis in Relation to Consumption in Man.—Principal WALLEY, of the Royal Dick Veterinary College, Edinburgh, read a paper on this subject. After dwelling on the comparative neglect with which this important subject had been treated, he sketched the history of the pathology of tuberculosis. So early as 1872 he had been inclined to think that tuberculosis in cattle must be due to some specific poisonous principle, and this opinion he had indicated in an essay published that year. The bovine tribe were most liable to the disease; sheep showed a remarkable immunity. As to the horse there was some difference of opinion. It was sometimes said that the horse was not attacked. Certainly there had been confusion, as there had been in considering the question as a whole, through the confounding of lymph adenoma and tubercle proper. Some of the cases described as cases of tubercle in the horse were undoubtedly lymphadenomatous. His colleague, Professor MacFadyean, however, had recently had opportunity of studying a true case of tubercle. There was also some difference of opinion regarding the pig. It was usually regarded as easily affected, but a recent authority had contradicted this view. In the dog it was a very rare occurrence, as in the cat. Water fowl were seldom attacked, while barn-door fowl were very liable to it. Wild animals were far less prone to it, in their native state, than domesticated animals. Speaking of the chances of propagation, Professor Walley indicated his belief in the possibility of congenital tuberculosis. A number of observations pointed to this, while theoretically there seemed no difficulty in supposing it possible for the tubercle bacilli to pass from mother to foetus in the same way as it was admitted that the bacillus anthracis did. It had not yet fallen to his lot to observe a case, but several such were on record, both abroad and at home. Propagation might further result from the ingestion of various affected foods (meat, milk, etc.), and by inhalation. Experimentally it had been induced both by the subcutaneous, intravenous, and intraperitoneal methods. Professor Walley then discussed fully the different secretions and organs which became affected, and illustrated his statements by exhibiting a large collection of morbid specimens. In opposition to the statement that the trachea and bronchi were never primarily affected he was able to show specimens. Turning to the practical side of the question, he deprecated the statement of the *Lancet* that veterinarians had been apathetic on this subject. He was of opinion that a charge of apathy might be lodged with much greater justice at the door of the medical profession. As to the identity of bovine and human tuberculosis, he thought there was now no room for reasonable doubt. All the lines of evidence pointed in this direction. The immediate practical issue was what should they do with a view to minimising the possibility of infection from animals to man? There was no doubt that the milk from tubercular cows was distinctly dangerous. The work of Professor Bang and others had proved this conclusively. He was inclined to believe with many observers that there was danger from the milk of such cows only as showed tubercular sores on the udder. They must have powers granted to them to condemn cattle which were manifestly tubercular. This was a most important department of hygiene, in connection with which he held that medical men ought to combine with them in asking from the Privy Council that such powers be granted to their inspectors. As inspector for the city of Edinburgh, he occupied the happy and unique situation of being allowed by the Lord Provost and magistrates to exercise his own discrimination in the matter.—The PRESIDENT congratulated the Society on being the recipient of so important a paper. The subject was one worthy of their fullest consideration. Their thanks were due to Principal Walley.—Professor MACFADYEAN, of the Royal Dick Veterinary College, congratulated the Society on taking up this important subject. In his opinion, the identity of bovine and human tuberculosis was clearly established on an experimental and a histological basis. Alleged differences in size of the specific bacillus in the two cases were capable of satisfactory explanation. Infection might be conveyed from cattle to man by the ingestion of meat and milk. It was their duty to endeavour to obtain such regulations as might be expected to meet so serious a danger. Human and comparative pathologists would find mutual benefit by combined action. In illustration, he referred to Dr. Philip's recent work on certain morbid products obtainable from tubercular ex-

creta, and suggested the possibility of obtaining these in larger quantity from their public abattoir.—Dr. WOODHEAD thought Principal Walley rather hard on the medical profession. Discussing the question of identity, he thought too much had been made of mere difference of size. They all knew that the same organism varied somewhat under different conditions of growth. Further, he had prepared, in exactly similar way, specimens of the bacillus from human and bovine sources, and had submitted them to a number of qualified observers, and not only could they not say which specimen came from a given source, but it was impossible to find any difference in the series. Regarding the difficulty of inoculating certain animals from certain others, they must bear in mind the difference of temperature which existed among different species of animals. Much had been made of the comparative influence or non-occurrence of tubercular mammitis in the human subject. But the conditions were very different. The udder of the cow was made to afford milk considerably beyond the normal period of lactation, and it was submitted to less delicate handling.—Dr. LITTLEJOHN spoke of the importance of this question from the point of view of public health. He found, for example, that of forty-two cows slaughtered in Edinburgh on account of disease, seventeen had suffered because of tubercular disease. They ought to combine with their veterinary colleagues and petition the Privy Council for powers to destroy all animals manifestly tubercular. But they must remember such a measure could not be a local one, else Edinburgh would become a sink for all the tubercular animals of the country. The whole thing became a question of money, as compensation must be granted to the owners of such cows. With regard to the question of infection by sewage, it became an interesting problem whether the Craiginny meadows (which receive much of the concentrated Edinburgh sewage) might be unsuited as pasture ground. A practical difficulty occurred as to the date at which they should condemn animals. It was matter of common observation in the human subject that phthisis was curable, as was proved by *post-mortem* examination. Doubtless the same curative process occurred in animals. In addition to all this, there was need for the utmost care in the inspection of byres and dairies.—Professor GREENFIELD thought Principal Walley had unduly magnified the work done by the veterinary profession in comparison with what had been effected by the medical profession. He should have been inclined to reverse the order. As to the main issue, he felt inclined to say that, in spite of much that had been stated and written, no satisfactory points of difference between human and bovine tuberculosis had been established. While they could not expect to have the more exact experiment undertaken—the inoculation of the human subject directly from the cow—much important assistance might be afforded by a series of experiments in which inoculation of the calf was attempted from the human subject. He did not wish to say too much, but he was doubtful if they could expect all the good results suggested by the compulsory slaughter of cattle.—Dr. JAMES admitted the identity of the two affections. But in both instances the nidus was the more important factor. The bacillus was probably ubiquitous. It depended on the state of the individual whether it became noxious or not. In other words, improve the vital activity of the tissues and the bacillus remained harmless either to men or animals. Their preventive treatment of phthisis illustrated this. It was further suggested by the comparative rarity of tuberculosis in the more active horse and dog, as distinguished from the sedentary cow. Their best line of treatment of the present evil lay in improving the sanitary conditions under which their cows lived. The mere stamping out of the diseased animals would do no lasting good.—Mr. CATHCART and Dr. PEEL RITCHIE also took part in the discussion.—A vote of thanks was accorded to Principal Walley.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

FRIDAY, FEBRUARY 3RD, 1883.

CHARLES F. MOORE, M.D., President, in the Chair.

President's Address.—The PRESIDENT delivered an address on the importance and advances in preventive medicine.

The Coachford Poisoning Case.—Dr. C. YELVERTON PEARSON (of Cork) read a paper on the medico-forensic aspects of the Coachford poisoning case. The history of the case was shortly related, then an account was given of the *post-mortem* examination, and the various points of interest and peculiarity in it were discussed at

some length. A very full description followed of the different steps of the chemical analysis, and some of these were specially commented on. Such evidence as was necessary for a medical consideration of the case was then related, such as the symptoms observed during life, the nature of certain drugs found in the house of the accused, the purchase of poison, and the destruction of some drugs by the prisoner's sister, etc. The theory of the case as presented by the Crown was briefly described, and certain omissions pointed out, after which the weak nature of the defence was commented upon, and numerous matters raised were dealt with in a critical manner. It was argued that there was nothing in the evidence that was necessarily inconsistent with the termination of life by strychnine.—The Rev. Dr. HAUGHTON said Dr. Pearson had taken the straightforward, manly, and wise course in appealing from the newspapers and the lawyers to a court of his brother medical men, who were the competent judges of the manner in which he had discharged a most responsible and painful duty. It was a difficult thing to avoid mistakes in a complex case, and Dr. Pearson had made one which would teach him not to trust to memory before lawyers, though nothing but the art of lawyers could distort his evidence into the statement that two and three-quarters or three grains of arsenic were found in the liver. But suppose he had stated he found three grains in the liver itself; that was a perfect possibility. It was not generally known that had Palmer (who was hanged for poisoning his horse-dealing friend with the, in his time, new poison, strychnine) been acquitted, he would have been placed in the dock again on a charge of poisoning his mother with antimony. Both arsenic and antimony made for the liver, and he had himself weighed in London a packet of antimony which was taken from the liver of Palmer's mother, and it sealed between six and seven grains. If the arsenic was slowly administered such a quantity as three grains in the liver was exceedingly possible. He had, however, more experience of strychnine poisoning than of metallic poisoning. In conjunction with Dr. Apjohn and Dr. Emerson Reynolds, he had the task of ascertaining whether or not the celebrated greyhound, Master Magrath, had died of strychnine, and he established the fact that he had not died of strychnine. In other cases he established the fact to which Dr. Pearson had called attention, namely, that strychnine was an indestructible poison for many weeks, in fact, remained absolutely perfect, undisturbed and intact in the bodies of animals that had lain ten weeks in their graves. The strychnine part of the poisoning in Mrs. Cross's case was, however, a difficulty in his mind. There was no solution for the screams. But suppose, when he found his wife would not die, he adopted a practice known in his (Dr. Haughton's) native county of Carlow, of putting a pillow on the objectionable person's face and sitting on it for ten minutes, she would give a scream first; and it was quite possible that in Mrs. Cross's case a pillow was the immediate cause of death and not the strychnine. In any case, he was certain the whole world was convinced that a righteous judgment was come to.—Sir CHARLES CAMERON said, from the conclusions drawn from his experiments, he thought Dr. Pearson had conducted the investigation in an admirable manner, and that the results were such as any competent chemist would have arrived at under the same conditions. He agreed with Dr. Haughton as to the length of time strychnine might remain in the stomach and viscera and body generally of an animal. In the case of a Mr. King, who was poisoned at Limerick, it was necessary that the viscera of a dog should be examined, and he produced nearly half a grain weight of strychnine from the body fourteen days after death. A dog had been given some bread and butter, and the animal died shortly afterwards. Four months later an inspector of constabulary brought him the dog, and, having operated on the animal, he extracted more than a quarter of a grain. With regard to the Palmer poisoning case, there was no strychnine detected, and Professor Taylor was subjected to very strong animadversions on that account. He did not agree with the statement in Meymott Tidy's *Medical Jurisprudence*, that when arsenic was taken in small quantities extending over a lengthened period there were greater lesions.—Dr. PEARSON observed that the statement was that when taken for a long time the intestines were more apt to be affected.—Sir CHARLES CAMERON said he met with a case in which a very small quantity of arsenic was taken by cows, and four or five died from arsenical poisoning. They had been given each about a pound and a half of Glauber salts, containing 0.47 per cent. of sulphuric acid. A very small dose caused death, but no lesions were detected in the stomach. Being interested in the fact that the one-hundredth part of a grain could be weighed, he asked whether

any crystalline bodies from muscular tissue might possibly be included in that very minute quantity. He had often found crystals of sulphur assuming the form of crystals of arsenic, so as to deceive him. Sulphur gradually precipitated in the crystalline form, and he had been deceived in the appearance of crystals, thinking they were arsenic until he found they were nothing more than crystals of sulphur.—Mr. DOYLE said he was one of the minority who as yet did not see evidence brought forward on which to condemn Mr. Cross. A witness was sworn to tell the truth and the whole truth, and therefore he should give all the facts connected with the case; and yet Dr. Pearson now stated he found in the body ptomaines, of the discovery of which he did not tell the jury at all. They all knew that ptomaines constituted a most deadly poison—the most deadly poison they knew of, which was formed in their own bodies. Suppositions should be put out of the question in a matter of life or death. There was the supposition about using arsenic as a cosmetic. Dr. Pearson supposed that, if used as a cosmetic, it must have been in the liquid and not in the solid form. But they knew that, even if used in the liquid form and applied externally to the body, it was a curious fact that it always made to the stomach, and would be found there. As to the absurdity of Mr. Cross not recognising typhoid fever, there were hundreds of medical men who would not recognise a case of typhoid fever. There might have been typhoid and the poisoning too. The two conditions were not incompatible.—Dr. TICHBORNE said there was no difficulty in detecting strychnine. The only difficulty was in getting chloroform sufficiently pure to stand the reaction of the sulphuric acid. As regards the arsenic, while he did not like to dogmatise, he doubted about the liver being able to absorb 3 grains. At the same time Dr. Pearson stated there were 1.20 grains. He wished to know did that mean As or As₂O₃.—Dr. PEARSON: It is the oxide.—Dr. QUINLAN thought the case was a plain one. The idea that Mrs. Cross took arsenic for her complexion, as was the custom of women in the eastern parts of the Austrian Empire, was not entertained, for Mrs. Cross was a woman of mature age. The next hypothesis was that it was administered medicinally. From his own experience, arsenic was always given in the fluid form in minute doses, and it would be impossible in that way to produce the crystals in the stomach and duodenum. Moreover, the condition of the arsenic in the undissolved state showed that the quantity found must have been administered in the last few hours. As regards Dr. Haughton's view, he did not believe the "Carlow method" had been used, or Mrs. Cross would have exhibited symptoms of suffocation.—Sir CHARLES CAMERON asked whether the ptomaine was not an oily ptomaine, and quite unlike a crystalline body such as strychnine.—Mr. BROOMFIELD did not see any force in the argument as to how the arsenic was administered. Mr. Cross would not be more likely to give it in the crystalline form than any other medical man to prescribe it, or conversely, he would be just as likely as any other medical man to administer it in the fluid form.—Dr. QUINLAN suggested that it could be easily administered in sago or other food.—Mr. KENNEDY inquired whether there was anything in the evidence pointing to the way in which the strychnine was administered—for instance, any found in unfinished food.—Dr. PEARSON—There was no evidence on that point.—Mr. McCULLAGH, without questioning the justice of Mr. Cross's sentence, said he knew of ladies taking arsenious acid diluted, again and again; it was quite common.—Dr. PEARSON, in reply, said most of the criticisms would not have been called for had he read his paper, *in extenso*. That Mrs. Cross's screams were due to smothering, as suggested by Dr. Haughton, he did not believe. Mr. Cross was a man over six feet high and extremely powerful, and if he were to employ force he would not be likely to do so in such a way as to allow a weak woman to continue screaming four or five minutes. Therefore, in assuming smothering, the screaming was out of the question. But there were two possible explanations. The screaming might be due either to the painful convulsions produced by strychnine if administered at the time in a poisonous dose, or the arsenic might have caused convulsions at the close. He did not swear she died of strychnine poison. The quantity he found was a medicinal one. But assuming the strychnine was not given with the intention of shortening life, it must be accounted for in another way. He accounted for it as having been given accidentally. Mr. Cross did not keep his medicines in a very careful manner, and the strychnine might have been left knocking about the surgery. In like manner, if the evidence went to show that the lady died from a single dose of arsenic, Mr. Cross could never have been convicted; because it might be shown she took it by accident. But

the symptoms described by Miss Jefferson, commencing on the 10th of May, precluded the idea of arsenic having been administered in medicinal doses or taken by accident. Mr. Doyle had observed that it was his duty to have mentioned to the jury that there was a ptomaine. But a ptomaine could not possibly be confounded with strychnine, and was to be regarded as a product of putrefaction, as he believed it was, and therefore a normal product of the body; so that he might as well be expected to tell the jury he found fat and all the other components of the human body. He had satisfied himself that he also found strychnine, with which no ptomaine could be confounded, having regard to the manner in which he tested for strychnine, as described in his paper. Mr. Doyle had also suggested that arsenic applied externally produced the physiological effects on the stomach; but did he suggest that external application would cause white arsenic to be present in the solid form in the intestines?

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, FEBRUARY 2ND, 1888.

M. M. DE BARTOLOMÉ, M.D., President, in the Chair.

Small-pox at Swinton.—Mr. W. MAKEIG JONES read a short paper on an outbreak of Small-pox at Swinton, and how it was dealt with. He had long urged the Local Board to make provision for such cases, but it was not till the outbreak really occurred that they consented to do so. The first cases were reported on November 29th, 1887, and on December 3rd was commenced the work of transforming an old hovel of a disused pottery into a hospital. The entire work was designed by the surveyor, Mr. J. C. Haller, M.I.C.E., and under his personal supervision was carried out with such despatch that on December 14th it was completed, and four cases were removed into it, and four more on December 10th. The hospital consisted of a brick building, 30 feet in diameter, divided into two semicircular wards, each 12 feet high, surmounted by one of Boyle's 3-feet ventilators. The administrative department, adjoining the wards, built of double-lined wood, consisted of an entrance passage, kitchen (16 by 14), bath-room (10 by 8) with hot and cold water, and a nurses' bedroom (12 by 10), all 10½ feet high. The cost was: for materials and labour, £128; stoves, water, bath, hot and cold water fitting, £44; 16 beds and furniture for all the rooms, £50 18s.; total, £222 18s. Up to the present only twenty-four cases had occurred, and only two during the last fortnight. In an adjoining village, with rather more than half the population, and where no steps had been taken to isolate the cases, nearly 200 had occurred.

Small-Pox at Sheffield.—Dr. SINCLAIR WHITE related the history of the small-pox epidemic in Sheffield from its commencement in March last up till the end of last year. In the absence of compulsory notification it was impossible to be accurate as to the number that were attacked; it was thought that 10 per cent. were not heard of. In one way or another 2,728 cases had come to the knowledge of the Health Department. Particulars as to vaccination were ascertained in respect of 2,580 cases; 2,198 were said to be vaccinated, and 382 unvaccinated. It might be said that about 90 per cent. of the people of Sheffield were vaccinated; 277 deaths were caused by the disease; in 23 cases it was not known whether vaccination had been performed. Of the remaining 254 deaths, 97 occurred among the 2,198 vaccinated, and 157 among the 382 unvaccinated. These figures corresponding to a death-rate of 4.4 per cent. among the vaccinated, and 41.3 per cent. among the unvaccinated. Taking only the cases occurring in children under 10, much more accurate and striking facts were disclosed. Of the 100,000 children in Sheffield, from official reports it appeared that 95,000 of these were vaccinated, and 5,000 unvaccinated. Among the vaccinated there were 207 cases, and 2 deaths, while there were 146 cases and 70 deaths among the unvaccinated. In other words, among the vaccinated children, 1 in 458 caught the disease, and 1 in every 47,500 died, while among the unvaccinated, 1 in every 34 caught the disease, and 1 in every 71 died. The epidemic showed that primary vaccination should not be relied on after 10, and he alluded to the efficacy of revaccination as exemplified in upwards of 50,000 who had been revaccinated during the last year. He did not think small-pox was to any great extent infectious during the first three days of the eruption; early removal to hospital, and sulphur fumigations had proved in his hands very successful. Referring to the regular periodic epidemics, it was mooted whether, having regard to the fact that small-pox was terribly fatal when contracted for the first time by any race of people, the children of persons who had not

suffered from small-pox were not more liable to the disease than the children of parents who had suffered from it.—Dr. BARRY, Local Government Board inspector, pointed out that the figures quoted with respect to small-pox and vaccination should be accepted with caution, as the returns had not yet been finally verified. From the information which he already possessed he believed that considerable corrections would have to be made in the published figures. Dr. Barry alluded to the statistics of the outbreaks of 1857-58 and 1871-72, showing that in 1857-58, in the north district of Sheffield (the only one he had yet worked out) there were 179 deaths among children under 10 and only 11 at other ages; and in 1871-72 the deaths under 10 were 167, and above 10, 88. In the present outbreak these proportions had been reversed, and up to December 31st, 1887, the deaths under 10 had been 72, and those at other ages 182. It was to be noted that at the first period vaccination was practically voluntary, at the second the Vaccination Acts were badly enforced, and at the third the Acts were efficiently enforced.—Dr. WHITELEGGE (Nottingham) supported Dr. White's contention as to the liability of pregnant women. They had had three such cases out of a total of twenty-three cases at Nottingham. He did not think that the excreta were so infective as some supposed. He entirely disagreed with the assertion that small-pox was not infectious during the first week. It was very infectious then, but might become more so later on. He related cases in support of this.—Mr. E. SNELL (Nottingham) spoke of the advantages of fresh vaccine lymph over stored. He thought the profession should urge on the Local Government Board to instruct public vaccinators to supply fresh lymph—with the source—to practitioners in their towns, and for them to be remunerated for so doing. This was preferable to the present plan of sending it first to the authorities; fresher lymph and proportionately better results would be obtained. Referring to the undoubted popular prejudice in favour of calf over humanised lymph, he thought animal vaccine stations should be established in the provinces, as in London.—Dr. DYSON, referring to the marks after vaccination, remarked that the size of the cicatrices depended a great deal on the temperament of the subject. Information was required as to what constituted "taking" after revaccination in many cases.—Remarks were also made by Mr. A. JACKSON, Dr. BOOBYER (Nottingham), and the PRESIDENT.—Mr. JONES, in reply, said he thought small-pox was not contagious in the early stages. He agreed with Dr. Dyson that the size of the cicatrix depended in a great measure on the patient's constitution—strumous, etc. He did not think that old lymph always failed; he had had good results with lymph five months old, and referred to Dr. Cory's opinion that after a time it recovered its efficacy.—Dr. WHITE also replied.

HALIFAX, NOVA SCOTIA BRANCH.

THURSDAY, JANUARY 12TH.

W. B. SLAYTER, L.R.C.P.Lond., in the Chair.

Bisulphide of Carbon in Pulmonary Diseases.—Dr. DE WITT read a paper on the treatment of pulmonary affections with bisulphide of carbon as a substitute for Bergeon's treatment, and the administration of water impregnated with sulphuretted hydrogen gas. He used 2 to 3 drachms of the bisulphide in 24 ounces of peppermint water, and gave 1 to 2 ounces of this mixture daily in milk. A number of cases successfully treated were detailed. Its action as a microbe-destroyer was supposed to be equal to that of the sulphuretted hydrogen injections. Cod-liver oil and the usual appropriate dietetic treatment were prescribed at the same time.—The Hon. Dr. PARKER stated that he had had but a limited success with Bergeon's apparatus. He cited a case of dysmenorrhœa treated by Sir James Simpson and himself in Edinburgh, many years ago, by injection of the gas *per vaginam*—the first time he had seen it in use. He had no experience of carbon bisulphide.—Dr. CAMPBELL considered carbon bisulphide as one of the hydrocarbon group, others of which, such as kerosine oil and sweet spirits of nitre, had been found equally useful in pulmonary affections.—Dr. SLAYTER, speaking of Bergeon's apparatus in phthisis, proposed at the next meeting exhibiting some preparations showing the action of sulphuretted hydrogen gas on the bacilli in phthisical sputa. In cocaine spray we had a more efficient drug than carbon bisulphide in spasmodic asthma.

Cocaine Poisoning.—Dr. SLAYTER related a case of cocaine poisoning. He had hypodermically injected 15 minims of a 10 per cent. solution of cocaine hydrochlorate into the toe of a patient previous to operation. In ten minutes the patient became cyan-

nosed, and developed an epileptiform fit. This passed off after a few minutes, and the operation was proceeded with, but he remained dazed for a couple of hours, and suffered from pain and smarting in the eyes for twenty-four hours. He had never suffered from epilepsy.

Telephonic Stethoscope.—Dr. SLAYTEN then exhibited a patent stethoscope with a telephonic arrangement for intensifying sounds.

Specimens.—Dr. CAMPBELL showed the following specimens:—A Humerus with a well-developed Hook-shaped Process at the lower end of the internal Border; an Atlas and Axis abnormal in character, there being a Gap of quarter of an inch in the posterior Arch of the Atlas, compensated for by an over development and widening of the spinous process of the Axis; a detached Septum Nasi (due to a blow) removed from a patient on plugging the posterior nares for epistaxis.

Cerebral Lesion in a Heifer.—Dr. CAMPBELL also desired a committee of the Branch to examine and report on the brain of a young heifer which he had lately obtained in the country. The animal, somewhat stunted in growth, but with normal muscular and joint development, had a peculiar gait in walking on the level, with a strong inclination to the left, and a peculiar rotatory motion in descending a hill. He diagnosed a brain lesion or defective development on the left side in the fissure of Rolando, which is supposed to preside over movements of the right hind leg.

PATHOLOGICAL SOCIETY OF MANCHESTER.

WEDNESDAY, FEBRUARY 8TH, 1888.

A. W. STOCKS, M.R.C.S., President, in the Chair.

Rare Forms of Eye Disease.—Dr. MILES showed specimens illustrating the rarest forms of eye disease. Amongst these were examples of ciliary tumours comprising (1) a Ciliary Myoma (Vose Solomon's case, kindly lent by Mr. Priestley Smith); (2) a Myosarcoma of the Ciliary Muscle; (3) a Sarcoma (spindle-celled) of the Ciliary Muscle which had become Extra-ocular; (4) a case of Intra-ocular Thickening of the Sclera, so great as almost to Obliterate the Vitreous Cavity. With these were sections of Two Ciliary Tumours, one of them being from Professor Hirschberg's collection.

Abnormal Shoulder-joint.—Dr. BASIL showed a specimen of Diseased Shoulder-joint, with Fractures of the Clavicle and Acromion Process of the Scapula.

Leucin and Tyrosin.—Dr. J. DIXON MANN showed some preparations of leucin and tyrosin from a case of malignant disease of the liver. He also showed preparations of leucin illustrative of its varied physical appearance in relation to its degree of purity.

Bone Grafting in "Club Hand."—Mr. G. A. WRIGHT showed a specimen from a case of so-called "club hand" in which the radius and thumb on each side were absent. The ulna had been fractured and repaired *in utero*. Bone grafts from another child were implanted in the position of a radius, and were apparently growing, but the child died from intestinal catarrh a fortnight later.

Sloughing Ulceration of the Larynx.—Dr. T. HARRIS exhibited a preparation obtained from a man, aged 52, who had been suffering from incompetence of the aortic and mitral valves. The laryngeal lesion was not suspected during life. During the last three or four days of life his voice was very feeble, somewhat hoarse, and his breath was very offensive; he had also expectorated a small amount of blood; there was no evidence of laryngeal obstruction. At the *post-mortem* examination there was found, in addition to the cardiac lesions, a patch of sloughing on the left side of the interior of the larynx, extending from the base of the left arytenoid cartilage to just below the true vocal cord of the same side, the posterior half of which was destroyed. The patch was about the size of a shilling, was of greyish yellow colour, had clearly defined and sharply cut, but not indurated, margins, and was half an inch deep, extending down to the inner surface of the left wing of the thyroid cartilage, but there was no necrosis either of that or of any other cartilage. The patch was evidently of quite recent and acute origin. The remaining part of the mucous membrane of the larynx was congested, and the ary-epiglottidean folds were œdematous. There was no foreign body in the larynx, nor any evidence of syphilis in any of the organs, neither were there any infarcts in any part.

Sloughing Pharyngitis.—Dr. HARRIS exhibited a rare preparation of sloughing of the pharynx. The disease, which was not

diphtheritic, had extended to the larynx, and rendered tracheotomy necessary. The specimen was from a man, aged 60, and the disease had commenced six days before death.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THURSDAY, FEBRUARY 9TH, 1888.

G. H. HUME, M.D., President, in the Chair.

Cases.—Dr. BRADLEY showed a man, aged 80, who had amputation of forearm performed for injury. Though the patient was the subject of Bright's disease the operation had been successful.—Mr. BLACK exhibited two boys upon whom he had successfully performed amputation for disease of hip-joint. In one the acetabulum had been perforated by disease.—Dr. LIMONT showed a man, aged 33, suffering from Charcot's joint-disease.—Dr. OLIVER, in the absence of Dr. HEATH showed a patient with deformed tibia. There was a history of injury twenty-six years previously, and again five years before. The disease was regarded as chronic osteitis or pathological hypertrophy.—Dr. CANE, in the absence of Professor PHILLIPSON, exhibited a man in whom empyema had been successfully treated by incision and drainage.—Dr. H. S. BAUMGARTNER exhibited a child with deformed hand, the supposed result of maternal impressions.—Dr. CANE showed for Professor PHILLIPSON a woman subject to epileptiform attacks, who was believed to have a cerebral tumour.

Empyema Treated Successfully by Incision, Perflation, and Drainage.—Dr. OLIVER exhibited a man who had suffered from pyo-pneumothorax. A quart of pus had been removed from his chest previous to admission. An incision anteriorly, also one latero-posteriorly, was made, and perflation by means of carbolic air was carried out. The patient made a good recovery.

Nephrorrhaphy.—Dr. DODD showed a man previously under the care of Dr. DRUMMOND, who gave to the members the history of the case. After experiencing severe strain eight years ago, he had since complained of pain in the back. The right kidney was freely movable; the left also, but very slightly so. Mr. Dodd operated in the usual manner, employing silk sutures. The man made a good recovery, and was fit to follow his employment.

Dislocation of Lens.—Mr. PAGE exhibited a boy whose right lens had been dislocated as the result of accident. There had been rupture of the eyeball. The lens could be seen undergoing changes of colour and texture.

Laparotomy for Extra-Uterine Pregnancy.—Mr. RUTHERFORD MORISON showed a specimen removed in the early months of pregnancy. A cyst-like mass could be felt lying behind the uterus. There was severe uterine hæmorrhage. At the time of the operation hæmorrhage of such a severe character occurred from the sac that plugging had to be resorted to, the operation for the time being abandoned. A few days subsequently, after repeated intercurrent hæmorrhage, the foetus was removed, and the patient recovered.—Dr. MURPHY, who assisted at the operation, alluded to the difficulties encountered.

Museum of Anatomy and Physiology, Newcastle.—Dr. MEARS read a paper on this subject. Three things he thought were necessary for a museum to be complete; (1) a full series of normal specimens, and the notes and histological descriptions; (2) abnormalities; (3) pathological specimens.—The PRESIDENT regarded Dr. Mears's paper as a valuable contribution to the *Transactions* of the Society, and hoped members would aid Dr. Mears in carrying out his scheme.—Dr. MANTLE, Mr. PAGE, Dr. JAMES DRUMMOND, and Dr. OLIVER, made remarks also in favour of the scheme.

Specimens.—Dr. OLIVER showed specimens of Tuberculosis of Heart and Pericardium; and Heart and the Cord stretched transversely across Anterior of Left Ventricle.—Dr. BRADLEY showed an Aneurysm of the Aorta, which had burst into the Oesophagus.—Dr. BRADLEY also showed an Umbilical Cord with True Knot upon it.—Dr. MURPHY showed a Parovarian Cyst.—Mr. DODD showed a Sarcoma of the Tibia.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

FRIDAY, JANUARY 27TH, 1888.

A. S. UNDERHILL, M.D., in the Chair.

Recovery from Paraplegia due to Spinal Caries.—Dr. STICKLING showed a case in which recovery from complete paraplegia, of over two years' duration, due to spinal caries, had taken place

The patient, a man, aged 22, was admitted into the Workhouse Infirmary in August, 1885. He had lost the use of his right leg three weeks before admission, and a week later that of the left also. When admitted he was completely paraplegic, there being ankle clonus and exaggeration of knee-jerk on both sides, with loss of the abdominal reflexes. The epigastric and cremasteric reflexes were present. There was also analgesia of both lower extremities, but no complete anaesthesia. The seventh dorsal spine was prominent, and tender on percussion. During his stay in bed, which lasted two years and three months, he had four plaster jackets put on, wearing each for about three or four months. He had cystitis and bedsores. At the end of two years and three months he could move his toes, and power gradually returned, till in a month's time he could stand, and in another month could walk. The curvature of the spine had increased very considerably, but there was now no pain or tenderness. There was now no ankle clonus or anaesthesia, and the patient walked perfectly well.

Lympho-sarcoma of Posterior Mediastinum.—Dr. CARTER showed a specimen of lympho-sarcoma of the glands in the posterior mediastinum, extending thence into the right lung. The patient was a railway porter, aged 37. His family history and previous history were good. His symptoms dated from a year back, with a succession of bad colds, from which he never completely recovered. Some two or three months before admission to the Queen's Hospital he was troubled with dyspnoea on exertion, constant cough, and abundant muco-purulent expectoration. He began at the same time to emaciate rapidly. At no time had he any pain. At the time of his admission the symptoms and signs were those of progressive consolidation of the right lung, with dilated bronchi; there was some dulness on percussion in the right interscapular region, and slight stridor. A diagnosis of mediastinal tumour was made, which was supposed to have caused secondary broncho-pneumonia by direct pressure on the right main bronchus. He grew weaker, the stridor became more marked, and he died in a paroxysm of dyspnoea three weeks after admission. Dr. Carter also showed a gelatine model of the specimen, which had been prepared according to Professor Cathart's method.

Addison's Disease.—Dr. MACMUNN read a paper on the pathology of Addison's disease, and the functions of the adrenals.

Cerebral Cyst.—Dr. CROOKE showed a specimen of cystic cavity of right cerebral hemisphere.

REVIEWS AND NOTICES.

THE DUTIES AND CONDUCT OF NURSES IN PRIVATE NURSING.

An Address Delivered at the Boston Training School for Nurses.

By WILLIAM L. RICHARDSON, M.D., Visiting Physician of the Massachusetts General Hospital, etc. London: Field and Tuer; Simpkin, Marshall and Co.; Hamilton, Adams and Co. 1887.

SICK nurses, or nurse tenders, as they are perhaps more happily called in Ireland, have received so much indiscriminate praise, that it may well be that a little plain speaking may sometimes be useful; if this be so, it is not to be wondered at that "the lady superintendent of the largest hospital in London," after reading Dr. W. L. RICHARDSON'S address, "at once asked for fifty copies, for distribution among her own staff of nurses." The address was given at the end of a year's course of hospital training, and it is creditable alike to the lecturer and his class; only an accomplished and experienced physician could have spoken so much to the point, and only honourable and earnest women could have been so frankly addressed.

Very wisely, Dr. Richardson spoke first of the nurse's duties in the household: "Always," he said "enter on your new office quietly, as one who is willing to assist, and not as though you were a trained professional who had come to usurp the place of those who are only too anxious to administer to the wants of the patient.....Be especially careful as regards your relations with the servants. They will naturally look upon you as an interloper.....If you have occasion to go into the kitchen for any purpose, make friends with the cook, who will usually be found in an aggressive mood, but who can be very easily persuaded to be your friend." There are, in fact, a great many injunctions as to what not to do in the address, as for instance: "Never have a

prescribed line of duties beyond which you are unwilling to go. It should be a nurse's aim to do whatever can be done to comfort or relieve her patient, to assist the physician, and to help the family." "Be careful never to appear mysterious in what you are doing, and never to whisper in the sick room, a fault which many people have, and which is sure to awaken suspicion in the minds of nervous patients that something is going wrong." "Be careful never to have confidential talks with the physician, the nature of which you afterwards endeavour to surround with mystery." "Never under any circumstances relate your experiences. Educated in a hospital and familiar with the daily incidents of surgical and medical wards, nurses are apt to forget that, to the laity unaccustomed to such scenes, their description is painful and often disagreeable." To this last maxim exception may be taken, it would perhaps be to expect a perfection to which the female sex will never attain, and after all the laity do not always dislike to have their unaccustomed palate tickled by the relation of astounding operations, or awful accidents; too often, indeed, the nurse and the patient have few topics in common, and the wonderful hospital stories are heard with a kind of incredulous interest. "No greater nuisance exists in the sick room than a talkative nurse," Dr. Richardson truly says, but even he allows her to take part in the conversation if the patient leads the way. Some sound advice is given on the duty of a nurse to the physician, and to other nurses in attendance on the case.

If nurses in attendance on private cases would act in the spirit inculcated in this address, we should cease to hear of cases where women technically competent have made themselves dreaded by the household and the physician, for whom or with whom they have been engaged to work. The volume, which is well printed and daintily got up, would form a suitable present for a young woman about to leave the training school and commencing private nursing.

DE L'ÉTAT DE LA DENTITION CHEZ LES ENFANTS IDIOTS ET ARRIÉRÉS. Contribution à l'Étude des Dégénérescences dans l'Espèce Humaine. Avec 32 gravures dans le texte. Par ALICE SOLLIER, née MATHIEU-DUBOIS, Docteur en Médecine, Ancienne Externe des Hôpitaux de Paris et de l'Hôpital des Enfants-Malades. [On the State of the Dentition of Idiot and Backward Children.] Paris: Aux Bureaux du Progrès Médical.

MADAME SOLLIER has taken advantage of clinical work amongst idiot and epileptic children at the Bicêtre, where she devoted herself to the study of the dental pathology of the patients. This work contains over 100 clinical reports. Each report includes a heading which consists of a summary of the family history and the symptoms of the patient, together with a note of the general peculiarities of the dentition; then follows a full description of the teeth, which forms the main part of the report. In some cases good drawings are given. With the general histories we have nothing to do, excepting that we feel surprise at the nomenclature, which is as specialised as in all other forms of special literature. Those useful gentlemen the compilers of dictionaries of scientific terms must be ready to explain the meaning of *Gâtisme*, *Mérycisme*, and *Clastomanie*; for in this case, where the book is meant for dentists, its readers cannot be expected to comprehend the dialect of psychologists. "Gâtisme," it ought to be said, means the involuntary passage of urine and faeces; whilst "Mérycisme" is a term applied to cases where the patient ruminates, not mentally, but literally. Both terms refer to lunatics only.

The authoress finds that idiocy, with or without epilepsy, pre-disposes about 91 per cent. of its victims to dental deformity and disease. Congenital idiocy has no more special influence in this respect than idiocy developed during the first dentition. The deformities and lesions are almost exclusively associated with the second dentition. In Dr. Sollier's experience the first was found to be precocious in eight out of sixty cases, but in a quarter of the whole series the first dentition was retarded. Early casting of the milk teeth was very rare (1 per cent.), whilst in 11 per cent. it was delayed. In 36 per cent. of the series the second dentition was delayed; this phenomenon was commoner in the idiots (26 out of 60) than in the epileptics (10 out of 40). In 14 per cent. there were dwarfed teeth; in 11 per cent. giant teeth. Abnormalities other than giantism and dwarfism were found in 53 per cent.; absence of teeth, excluding retarded eruption at the period of second dentition, was noted in 11 per cent. Giant teeth were

often found where others had not developed; or else they represented ankylosis of two adjacent teeth. In only 2 per cent. were supernumerary teeth discovered. Anomalies of implantation were very common (34 per cent.); but anomalies of actual position in relation to other teeth were very rare and ill-marked. Anomalies in the direction of the tooth—crookedness, obliqueness, etc., were the most frequent of all malformations, and chiefly affected the canines and incisors. Erosion (loss of substance of the enamel over a greater or less area of the surface of the tooth) was often associated with convulsions, but was most frequent in cases where there had been no convulsions; thus Dr. Sollier concludes that idiocy, with or without epilepsy, can by itself cause erosion. In 41 per cent. of the whole series there was longitudinal grooving of the enamel; in 58 per cent. the edges of some of the teeth were notched. Both these peculiarities, especially the notches, more often coincided with convulsions than did erosions. Caries and crustation of tartar were evidently accidental accompaniments of idiocy and epilepsy. The articulation of the upper and lower dental arches was defective in 43 per cent. In 38 per cent. each arch showed deformity. The authoress turns attention to an undescribed anomaly of this class, where the level of the two halves of the arch is unsymmetrical. In 45 per cent. of the series the palatine vault was deformed. Yet Dr. Sollier carefully describes 9 cases of idiocy, and imbecility with epilepsy, where none of the characteristic lesions above described could be discovered. In conclusion, we may say that Dr. Sollier's *Etat de la Dentition chez les Enfants Idiots* is a valuable clinical record, representing one of the best features of French medical literature.

NOTES ON BOOKS.

Annales des Maladies de l'Oreille, du Larynx, etc. (Edited by A. GOUQUENHEIM. January, 1888.)—The present number of this journal contains the following original articles: 1. One by H. Chatellier in the form of a letter on acute otitis media produced by pneumococci, as described by Professor Zaüfal. 2. An article by Dr. Couetoux, of Nantes, on deafness from a medico-pedagogic point of view. 3. A report by Clarence J. Blake of two interesting cases showing the effects of pressure exerted by polypi in the middle ear (between the external tympanic wall and the long process of the incus); and 4. The conclusion of Hooper's memoir on the anatomy and physiology of the recurrent laryngeal nerves. Numerous abstracts, a bibliography, and a supplement containing full particulars of the forthcoming congress for the study of tuberculosis (in man and animals) which is to be held in Paris in July, 1888, complete the number.

REPORTS AND ANALYSES.

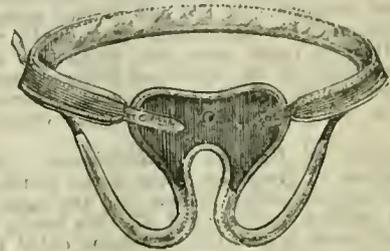
AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A TRUSS FOR INGUINAL AND FEMORAL HERNIA OF ONE OR BOTH SIDES.

THE accompanying woodcut shows a form of truss that has been made for the last four years or more, by Mr. Joseph Critchley, 88, Upper Pitt Street, Liverpool, and which I prefer to any other under certain circumstances. It consists of a padded steel plate that covers the pubes and both inguinal and femoral apertures, being held in place by a strap round the waist and two between the thighs. The plate is almost triangular, its upper side with rounded corners lying horizontally above the pubes, but instead of a lower angle there are two wings, and between them a space cut out to fit around the male genitalia, which are thus closely embraced at their root.

The instrument was copied or adapted by Mr. Critchley from a simple one sent to him for repair, and from an illustrated description in some journal, the recollection of which he has quoted to me, but the reference to which neither he nor I have yet found. This truss is not of use for large, unwieldy, or wide-necked herniæ. Nor is it in any sense a spring truss, or one that can by pressure

lead to the curative adhesion of a hernial sac. But it is of value in small, narrow-necked herniæ, femoral and inguinal, of one or both sides; and is an admirable protection when hernia is threatened, but not yet descended. This condition, noticeable in some persons who have a flabby abdomen, is more striking in similar cases where herniotomy has been done, with closure of the sac, whether for strangulation or not. It thus usefully supplements an operation for radical cure in cases where a too obvious impulse threatens a return, and may be an essential factor of success, tardily secured after previous failure without it.



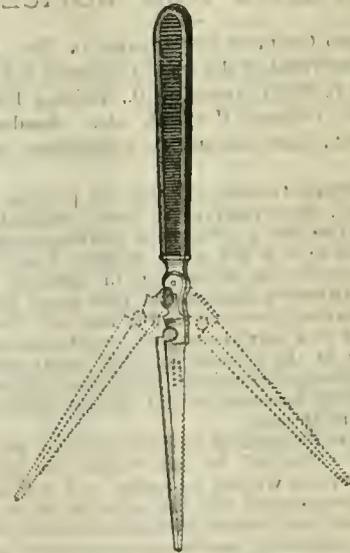
I think very highly of this truss in the selected cases for which it is useful, and take this opportunity of recommending it to those who have not heard of it. By trying on oneself even a casual sample, a good idea of its value is readily had, and a sense of security, protection, and comfort felt in the parts to which it is applied. The weight varies with its strength, but the heaviest are not irksome when in place, and are about the strongest and most durable trusses made. But even these get inevitably worn after prolonged use, in the severe wear and tear of artisans.

In ordering, give the usual circumference round the pelvis, and make a paper pattern roughly fitted to cover the hairy pubes, and cut out below to fit around the genitals in the case of males.

RUSHTON PARKER, Professor of Surgery in University
College, Liverpool.

REVERSIBLE NASAL SAW.

THIS instrument has been designed and made for the removal of cartilaginous and bony obstructions in the nasal passages. The advantages it possesses are, fineness of the blade, and, by means of a screw at the junction of the blade and the handle, a reversibility which enables the operator to work from above or from



below, or at any angle that may be necessary. The serrated edge extends along from half to three-quarters of the blade, so as to avoid injuring the skin of the entrance to the nares. I have hitherto had two sizes made—one for fine, the other for coarser work. The maker is Mr. Young, Forrest Road, Edinburgh.

G. HUNTER MACKENZIE, Edinburgh.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

 The British Medical Journal.

SATURDAY, FEBRUARY 25TH, 1888.

DEGREES FOR LONDON MEDICAL STUDENTS.

THE official document which we publish on another page indicates dryly the extent and character of the opposition which is likely to be made to the scheme of the two Colleges, and the status accorded to claimants for alternative schemes. We may say at once that although the discussion of the points at issue by the aid of counsel learned in the law will no doubt do much to clear up various questions of right and justice involved in the issue, we do not think that any merely legal arguments can cover the whole ground, or lead to a result likely to satisfy the interests of the public and the profession. The limits within which legal arguments must necessarily be confined, and the technical character which lawyers instructed by brief are bound to impress on their subjects, are apt to narrow as well as to complicate the broad issues, which are the most important in such a question. What we are all concerned in is that arrangements shall be made by which the most satisfactory elements in the various schemes now before the Privy Council can be fused, and the best possible institution provided for graduating London students of medicine under conditions favourable to the adequate testing of their qualifications as practitioners. Such an institution should be conducted by persons so well in touch with the educational institutions of the metropolis, that the examinations shall have a useful influence on the progress of medical instruction, and not, as often happens, tend to cramp and fetter free development to meet the ever-changing needs of scientific and social progress. Such an investigation, we repeat once more, can only effectually be made by a Royal Commission, and we see with satisfaction that the view which we have steadily urged on this subject has been adopted by the Senate of the University of London. An important and very fully attended meeting of that body was held on Wednesday last, to discuss a motion in this sense standing in the name of Lord Justice Fry. The upshot of the prolonged debate which then took place was a practically unanimous decision that a Royal Commission on the provisions at present existing in London for granting degrees in the various faculties had become a necessity, and Earl Granville, the Chancellor of the University, undertook to urge this view upon the Lord President of the Council. Should it be necessary to bring

the subject before Parliament in order to attain this end, Lord Granville will have the powerful support of the Earl of Derby, the Earl of Kimberley, and Lord Herschell, who are also members of the Senate of the University.

It is unfortunate that the metropolitan medical schools, which are so deeply interested in this question, have been so slow to move. They have at length begun tardily to act, and are only beginning to consider the question at a date when it will be difficult for them to acquire a *locus standi* before the Privy Council, and under circumstances which are otherwise unpromising, and portend, it may be feared, inadequate action.

It is of course obvious that many of the most influential personages on the staff of those schools may consider that their mouths are shut and their hands are tied by their connection with the two Colleges which have taken the first proceedings in the matter; and it is broadly stated that very powerful influences are at work to paralyse their action now, as they have availed to delay them until this late hour. Of course platitudes have been freely used to suggest that inasmuch as a large number of the senior teachers are at one time or another members of the Council of one or other of the Colleges, schools will have an indirect representation in the government of the new graduating University for which the two Royal Colleges seek.

It ought to be a sufficient answer, in the minds of men of common sense, that indirect representation is one of the worst forms under which abuse cloaks itself; still more so, and most of all, when that representation is not a representation *ad hoc* on any fixed principle, but a mere matter of chance combinations devised for altogether other purposes. Without implying any disrespect to the other qualities of the Council and Board of Censors of the Royal College of Physicians, it will not be pretended that they are elected with any reference to the special capacity of their members for the management of medical education or for the organisation of medical schools. On the contrary, it is precisely those persons who have least time, and least direct interest in such matters, who are most apt in their advanced years to have acquired influence and position on various committees of the Colleges. No definite rule could be laid down in this respect in one direction or the other, and the exceptions on either side would probably be as numerous as the examples which would be quoted in favour of either proposition. It is quite obvious, however, if the schools and the teaching bodies of London claim, as we think they should most strongly and justly claim, to be represented as such on the governing body of any graduating institution or university in the metropolis, that representation should be direct, and should have a special reference to its purposes. The representatives should be selected by the schools themselves, should be in direct contact with the teaching bodies which they represent, and responsible to them for the expression of the views of those bodies. All this is well set out in brief in the memorial of the Westminster Hospital School. But it is idle to conceal that not only what are called higher influences are adverse to the bold and definite assumption by the various schools of the position which

they are entitled to take up, but there is apt to be a division of opinion and an inconsistency of action arising out of unexpressed, but still active, jealousies.

The great schools, as they are sometimes called, are not a little jealous of the smaller schools; and the initiative action of King's and University Colleges, however carefully guarded by a formal statement of a full respect for the rights and powers of other institutions, could hardly fail to excite some feelings of alarm and some of jealousy. If, however, laying aside smaller considerations, the schools could satisfy themselves that in a new scheme for a teaching university in London all claims would be fairly recognised, and all rights fairly represented, and all duties equitably enforced, there ought to be no difficulty in such conjoint action as should enable the schools, even at this late hour, to assert themselves before Parliament and before the Privy Council, to aid in obtaining for London a teaching university founded on the widest and most secure basis.

THE BIRTH-PLACE OF CONSUMPTION.

THAT phthisis is cultivated, if it does not actually originate, in overcrowded and ill-ventilated dwellings, is a truism of sanitary science; yet it is very difficult to produce reliable statistics which support this dictum by quite unimpeachable evidence.

The reason of this difficulty is not because there is lack of material for an inquiry, or because there is any want of eager observers to deal with the material existing. It is that there are so many factors to be considered, so many sources of fallacy to be avoided, that the results obtained have hitherto, for the most part, been little better than valueless; nay, in some respects even worse, since they have left the etiology of consumption a hopelessly confused and heterogeneous mass of contradictory facts and deductions, which not even the most industrious and clear-sighted can reduce to order and coherence.

Nothing, for instance, seemed more conclusive than the result of Dr. Buchanan's inquiry into the effect of the drainage of towns upon the death-rate from consumption, and his subsequent and more extended one, in 1867, into the relation existing between the moisture of soils and the incidence of that disease. Yet Dr. Kelly, the Medical Officer of Health for East Sussex, has recently thrown the greatest doubt upon the trustworthiness of Dr. Buchanan's deductions, by showing, in the first place, that a decrease in the death-rate from phthisis had been by no means confined to towns where the drainage has been improved, but was universal throughout England; while in the districts examined by Dr. Buchanan, in his second inquiry, the topographical incidence of phthisis during the period 1861-70 was quite other than it had been in the years 1851-60, the time to which his statistics apply.

We fear, too, that Dr. Arthur Ransome's inquiry into the breeding-ground of consumption must be relegated to the limbo of unreliable statistics, where so many previous efforts have preceded it.

In a paper, read before the British Association at Manchester in 1887, and subsequently published as one of that remarkable

and creditable series, the Manchester Health Lectures, he considered certain portions of Manchester and Salford, and the conclusions to be drawn from an examination of their death-rate. He selected one district of Manchester and two of Salford, as being among the most unhealthy districts of those towns. He first visited each selected area for himself; and then, obtaining from the various health-officers the death-statistics of each region, from these factors he drew the conclusion that such places as these were the actual breeding-ground of consumption.

In Dr. Ransome's first district (Anecoats No. 1) there was a population of 5,600 persons; of these, 150 had died from consumption in a period of five years, giving a phthisis death-rate of 5.3 per 1,000 per annum. In his second district (Green Gate, Salford) there was a population of 2,600, with an annual phthisis death-rate of 6.2 per 1,000. In his third district (Regent Road, Salford) there was a population of 791, and a phthisis death-rate about equal to that of the last-mentioned area.

Dr. Ransome notices, as a first deduction, that the phthisis death-rate in these districts is more than double the rate for England and Wales. This seems to us an extremely unfair comparison. These eminently unhealthy districts of Manchester and Salford should have been compared with the whole city of which they form a part, and again with better sanitated districts of other towns occupied by the same class of workers. Indeed, it appears from some statistics published in volume VI of the *Sanitary Record* by Dr. Ransome himself that during the period 1865-76, while the consumption death-rate for England was only 3.54, that for Salford was 5.12; for the registration district of Manchester, 6.10; and for the township of Manchester in 1874, 7.7. So it appears that the districts selected by Dr. Ransome as the breeding-grounds of phthisis, instead of owning a phthisis death-rate considerably higher than the more healthy regions of the whole area of which they form a part, have really one slightly lower. This seems to us a grave element of fallacy, vitiating all Dr. Ransome's subsequent conclusions.

Of course the generally high death-rate of the inhabitants of Manchester from consumption is at least partly accounted for by the cold and humid climate of Lancashire, partly by the unhealthy occupation of the majority of the inhabitants. In the latter relation some remarks of Dr. Greenhow's made in 1861 still retain their importance. He said that the inhalation of dust in factories was one of the main predisposing causes of phthisis, and that another cause was the working in ill-ventilated and overcrowded factory rooms or workshops. Among the trades and places which he specially instanced as examples of this fact are the cotton-mills of Blackburn, a town having a like industrial population and a like excessive phthisis death-rate with that of Manchester.

Dr. Ransome's further and more important observations on the exact incidence of consumption in special streets and houses of his district are vitiated by this initial fallacy, and moreover possess certain elements of uncertainty of their own. His remaining conclusions are as follows:—

"2. That, although the phthisis deaths are distributed through-

out the [Ancoats] district, yet it is noticeable that at least 15 per cent. take place in the comparatively few houses contained in the same courts opening by passages into the street.

"3. The longest and widest streets in the district are Jersey Street, with ten deaths, and George Leigh Street, with eight deaths; but the number of deaths in these streets is approached by the mortality of eight in Hood Street, which is only half their length, but which is a mere lane, blocked at each end so as to obstruct free ventilation. Silk Street and Primrose Street are each credited with nine phthisis deaths. Again, Henry Street, which is a long thoroughfare, has only four such deaths, while Boord Street, a narrow *cul-de-sac*, only a quarter its length, has seven."

"4. The reappearance of the disease in the same house, as indicated by the occurrence of two or more deaths in them within the space of five years, is also most common in the more confined areas."

In the first place the element of inexactitude is introduced by the use of such comparisons as the relative length of streets. According to Dr. Mapother the smallest and least sanitary houses in Dublin until lately possessed an average population of twelve per house, and even more. A comparison of such a district as this with a larger street whose population was only the normal six per house, would be most inexact, unless this were taken into full account, since the smaller district would contain the larger population. Again the question of occupation intrudes as a disturbing element—it is likely, *primâ facie*, that the larger street would possess some shops, a portion, at least, of whose occupants would be kept out of the cotton factories, while the smaller lanes would be exclusively occupied by inhabitants, almost the whole of whose adult members would be employed in these places.

Again, an examination of the ages of those returned as dying from consumption requires to be made. Are many of them young children? If so, how far does the fact of the employment of their mothers out of the home during the day and their consequent neglect and mal-alimentation while infants enter into the question of the etiology of their deaths? It is certain that during the cotton famine of 1861-5 the infant mortality in the cotton district decreased, owing to the enforced presence at home of the female population.

We by no means seek to impugn the accuracy of Dr. Ransome's conclusions; we only desire to show that they are imperfect. We are strongly of opinion that sanitary statistics, to be of any real value, must be so exhaustive as to exclude any source of doubt or fallacy to the furthest extent, otherwise they are valueless and misleading. Nothing, or very little, must depend on probability, everything on proof.

Dr. Parkes collected in his great work on hygiene a number of accurate and model statistics, which prove that overcrowding and improper ventilation are fruitful causes of phthisis. It is to support and enlarge these that newer statistics are desirable, but at present they remain almost alone.

We require patient and accurate observers, whose observations extend over wide areas and through prolonged periods; who have no bias as to probability of causation, but who will

collect a mass of accurate statistics as to population, both gross and relative, as to ventilation, as to food and clothing, occupation, heredity, climate, and race. Then, and not till then, the etiology of consumption will be made clear, and one of the most fearful scourges of the human race traced to its true breeding ground, and, being so traced, made capable of diminution and perhaps of ultimate destruction.

WE understand that a considerable number of cases of diphtheria have again occurred among the nurses and students at Guy's Hospital.

A LETTER in similar terms to that addressed to the Association of General Practitioners (published at page 434), has been received by all the bodies which have presented petitions relative to the petition of University and King's Colleges, in favour of the creation of a teaching university, to be called the Albert University.

THE LATE SIR GEORGE BURROWS.

WE understand that a Committee has been formed of Fellows of the College of Physicians and others for the purpose of obtaining, with the consent of Sir Frederick Burrows, a replica or copy of the portrait of his late father, Sir George Burrows, painted by G. Richmond, R.A., to be presented to the College, and that a subscription will be opened for carrying out this intention.

POST-GRADUATE COURSE FOR DENTISTS.

WE are informed that arrangements have now been made for the establishment of a post-graduate course at the Dental Hospital, Leicester Square. The course, which will commence in April, will consist of lectures and demonstrations by members of the staff, and will be open to all registered practitioners. The instruction will be as comprehensive and at the same time as practical as possible.

THE PATHOLOGY OF CHRONIC ALCOHOLISM.

AT the end of the meeting of the Pathological Society on Tuesday last, the President, Sir James Paget, announced that the Council had decided to set apart three evenings in the early part of next session for the discussion of the pathological changes produced by chronic alcoholism and the exhibition of specimens relating thereto. Dr. Payne has been invited to open the discussion.

CHARING CROSS HOSPITAL SCHOOL.

A STRONG representation has been received by the Council from the staff of the School, with reference to the urgent necessity for increased accommodation for students, the number of whom has increased from 134 in 1881 to 224. The Council are convinced of the immediate necessity for enlarging the building, and negotiations are now proceeding for acquiring a site on the east side of the school of the Bedford estate, the lease of which has just expired. The estimated cost of the extension is £5,000, towards which special contributions are invited.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.

A MEETING of the British Medical Temperance Association was held in the rooms of the Medical Society of London, on Tuesday last, at which Dr. Alfred Carpenter, J.P., read a paper on Difficulties of Diagnosis between Symptoms Produced by Disease and by Drugs. He gave two typical cases in which most serious symptoms of coma were due to the previous administration of alcohol. Dr. Norman Kerr gave particulars of 115 completed cases which have passed through the Dalrymple Home for Inebriates during the last four years and a half; 54 had been under the Act,

and 61 private. Of the 115 cases, 8 per cent. were produced by wine and beer only, the rest took spirits as well, or alone. Eight patients had been expelled. The average time of residence was seven months; 52 cases were reported doing well, 4 improved, 36 had not improved, 1 insane, 4 dead, 18 not heard from.

THE NATIONAL PENSION FUND FOR NURSES.

STEADY progress is, we are informed, being made with this fund. Sir Edmund Hay Currie has been elected a vice-president, and the General Purposes and Finance Committees have now been organised. Twenty thousand pounds has been paid into the Court of Chancery as security for the policy-holders and annuitants, and several thousands of pounds more have been promised for the Bonus Fund. Applications are coming in daily from nurses in all parts of the country to the Secretary at the office, 38, Old Jewry, and some have been received from Malta and one from Australia.

THE MEDICAL SCHOOLS AND THE PROPOSED TEACHING UNIVERSITY FOR LONDON.

A MEETING of delegates of the metropolitan medical schools was held at the Middlesex Hospital on Wednesday afternoon to consider the scheme for a teaching university put forward by University and King's Colleges. The delegates present were Dr. Norman Moore (St. Bartholomew's Hospital), Dr. Mitchell Bruce (Charing Cross Hospital), Dr. Frederick Taylor (Guy's Hospital), Dr. Curnow (King's College), Mr. Frederick Treves (London Hospital), Dr. Coupland and Mr. Pearce Gould (Middlesex Hospital), Mr. Malcolm Morris (St. Mary's Hospital), Dr. R. W. Reid (St. Thomas's Hospital), and Mr. Berkeley Hill (University College). It will be seen that all the metropolitan medical schools were represented at this meeting, with the exception of Westminster (which had already, as was stated last week, petitioned in favour of the proposal of the Association for Promoting a Teaching University) and St. George's Hospital. After considerable discussion the further consideration of the scheme was postponed to a meeting which will be held on February 29th.

ROYAL COMMISSION ON THE BLIND, DEAF, AND DUMB.

A ROYAL COMMISSION is now sitting to consider the educational position of "the blind, deaf, and dumb, as well as such other cases as from special circumstances would seem to require exceptional methods of education." Education is a part of hygienic science, for no brain is likely to work well in social life, and bear without harm the shocks and strains it is sure to receive, unless it be trained and exercised during early years. A knowledge of and the care of these unfortunate children come within the scope of professional work, and lead us to consider these questions of cerebral hygiene. As to the work of the Royal Commission to which we have referred, diagnosis is as important as treatment, the children must be known and selected before they can be submitted to "exceptional methods of education." Diagnosis of the blind, the deaf, and dumb, may be easy, and the teachers and ordinary inspectors may pick out such children; but when we come to the cases of idiots, the feeble-brained children, and other cases which seem to require exceptional methods of education, more knowledge and skill are required to make a wise selection among the children in the school. It is well known that a large class among the school population differ from the average of normal and perfectly strong children, being often unable to attend school on account of frequently recurrent headaches, nervousness, slight chorea—children who are altogether over-mobile; such cases are often unable to follow the ordinary curriculum, and certainly require exceptional methods of education. It is to be regretted that the definition of mental and other brain states is so difficult

to put in words; but after all it is not a wordy definition of certain brain states that we would wish to bring under notice of the Royal Commission, but a class of children whom we can define by what we see in them, though no one term indicates them as a group. As to the exceptional methods of education that such children require, we would rather say upon what principles it should be conducted, than name any "special system." We have seen infant-classes in Board Schools, and the work in the upper classes of schools for imbeciles conducted in very similar manner. It must not be thought that such "exceptional children," as we speak of in schools, are necessarily feeble minded; to be feeble brained is not necessarily to be imbecile; nervousness, headache, over-mobility, over-impassionability, etc., need not prevent mental action being quick, but do prevent a child from running through an immovable curriculum. To exempt such children is not to mend the evil, they ought to be kept in school, in classes suited to their requirements.

THE ILLNESS OF THE CROWN PRINCE.

As so many discouraging rumours have been put about during the past week, we are gratified to be in a position to give an assurance, on the highest authority, which will have the effect of diminishing the public anxiety. The Crown Prince is now beginning to make satisfactory progress; the cause of the unfavourable local symptoms mentioned in the bulletins published at the beginning of this and the end of last week was mainly mechanical. The tube at first inserted into the larynx did not fit well, and there was some delay in obtaining one which could be worn comfortably. Surgeons are familiar with this difficulty, which is often a source of still greater suffering to the patient and anxiety to his medical attendants than in this case. Every individual must be provided with a tracheotomy tube of a size exactly adapted to the contour of the throat and windpipe, which are subject in individual cases to many variations. This difficulty, we now learn, has been overcome; a tube of large calibre, specially constructed in this country, has now been adjusted, and the irritation produced by the ill-fitting tubes has passed away. The Crown Prince is now not only able to breathe through the tube with ease, but by stopping the opening is, we are informed by telegram, now able to speak in a strong, though hoarse, voice, and to carry on a conversation with ease. As the operation was only performed a fortnight ago, this may be considered an extremely satisfactory result. As to the true nature of the disease of the larynx, which has caused the obstruction of the larynx and necessitated tracheotomy, no new light has been afforded, but we learn that the swelling on the right side of the larynx is much less.

THE OFFICIAL REPORTS ON THE ILLNESS OF THE CROWN PRINCE.

THE *Berliner Klin. Wochenschrift* of February 20th refers to the recent publications of Professor Virchow and Sir Morell Mackenzie to the following effect:—"The above publications come at an opportune moment, for both of them are calculated to allay the excessive anxiety of the public caused by the performance of tracheotomy (on H.I.H. the Crown Prince) and the possible consequences of that operation. It is now clear even to the non-medical public that tracheotomy does not constitute a verdict in itself either for or against the previous treatment and opinion of the disease on the part of the surgeons in charge of the case. It is clear, too, that the operation has not come unexpectedly to those surgeons, and that it is by no means a last resource. That everything is being done in the after-treatment—and this is for the present the most urgent part of the task—that human agency can do, is beyond question. We have at least the satisfaction of knowing that our first surgeon, von Bergmann, is present in the case, and we hope that he will not remain apart (*fern bleiben*) in

its further treatment. At first sight the mention by Virchow of 'epidermoidal nests' might raise alarm; but the same conditions are evidently present as those referred to by Virchow in his reports of last year, his address on pachydermia laryngi, and his publications regarding his previous reports. Therefore we may not yet give up the hope of a happy termination of this painful crisis; but no one, and least of all we medical men, ought to be surprised if, in such a tedious and severe affection, various contingencies arise, and one day cannot be prophesied from another."

EFFICACY OF VACCINATION AND REVACCINATION.

THE report by Dr. Sinclair White of the history of the small-pox epidemic in Sheffield from its commencement in March last up till the end of last year furnishes some very striking and instructive figures which ought to convince even the most obstinate opponents of vaccination of the unwisdom of their course. Thus it appears that 90 per cent. of the people of Sheffield being vaccinated and 10 per cent. unvaccinated, 97 deaths only occurred amongst the 2,198 vaccinated persons who were attacked, and 157 among the 382 unvaccinated persons who were attacked, the death-rate among the vaccinated being 4.4 per cent., the death-rate among the unvaccinated 41.3 per cent. This, however, relates to the whole population, including those who, not having been revaccinated, had in adult age lost the protection which revaccination would have afforded, and were but imperfectly protected. If the cases of children under 10 years of age be examined the result is still more striking. Of the 100,000 children in Sheffield 95,000 were officially reported as vaccinated and 5,000 as unvaccinated; among the 95,000 vaccinated children there were only 2 deaths, and among the 5,000 unvaccinated there were 70 deaths. It should be noted that in the outbreak of 1857-8, when vaccination was practically voluntary and not compulsory, the figures were exactly reversed. There were 179 deaths among children under 10, and only 11 deaths among the whole population above that age.

AN OUTBREAK OF DIPHTHERIA AT CHELMSFORD GRAMMAR SCHOOL.

THERE has been a serious outbreak of diphtheria at the Chelmsford Grammar School, as to which contradictory reports have been published. We have received an authoritative statement, from which it appears that two of the pupils, Thompson and Belcher, returned to school on January 24th. On the evening of the same day Thompson was taken ill, but being a weekly boarder returned home in the usual course on Saturday, the 28th. He came back to school on Monday, the 30th, in good health, complained of headache on Thursday, February 2nd, and of sore throat on Friday, the 3rd; in the evening of that day he was driven home in an open trap, and was seen later in the day by his medical attendant, who pronounced the case to be one of advanced diphtheria. He died on the following Tuesday, February 6th. Belcher, who on his way passed through London in a railway carriage with the windows open, had on the 26th sore throat and discharge from the nose, which it is stated bled two or three times. On February 5th Dr. Holland found his throat to be red and injected, but did not, it is said, pronounce it diphtheritic, and the boy returned to his fellow boarders. Dr. Gimson is said to have attended this patient on February 12th, and found him suffering from diphtheria. Another boy, Hardy, was also attacked, but recovered. Tweed, who complained of sore throat, pronounced to be diphtheria on February 5th, died on Sunday, the 12th. There were two other boys, but they escaped. All these five boys were in one dormitory, and all of them were boarders in the house. No case occurred among the day boys. The boys were isolated on February 5th, the day on which Belcher's tonsils were found to be reddened and injected, the master having their throats

examined in consequence of being informed by Mr. Thompson that his son had diphtheria. It is difficult to fix absolutely the date of contagion, but the opinion is held that the disease was imported by the boy Belcher, who it is thought might have contracted it in the railway carriage. The mischief was undoubtedly aggravated by the fact that the disease was overlooked by the head master, and by his failing to call in medical advice; it is felt that Thompson should not have been moved as he was, but for this the father was equally to blame with the master. The case of Hammett, seen by Mr. Carter in his capacity of medical officer of health, has not, as reported in the press, ended fatally. It is satisfactory to hear on trustworthy authority that there are no defects in the sanitary arrangements of the schoolhouse. The school itself has been shut up since Sunday, February 12th, the only boy remaining being Hammett, who is still ill.

THE DONDEERS MEMORIAL FUND.

SUBSCRIPTIONS to the Donders Memorial Fund may be sent to either of the secretaries of the Joint Committee appointed by the Ophthalmological and the Physiological Societies, Dr. W. A. Brailey, 11, Old Burlington Street, W., and Professor Gerald Yeo, King's College, London. As we stated a couple of months ago, the occasion of the memorial is the approaching retirement of the eminent physiologist and ophthalmologist from his professorial chair in the University of Utrecht. Professor Donders attains his seventieth year on May 27th, 1888, and the law requires his resignation to take effect from that date; he has been connected with the University for more than forty years, and is at present Professor and Director of the Physiological Laboratory. It is intended that the fund now being raised shall be devoted to some purpose approved by Professor Donders which shall connect his name in a permanent way with the spot where he has lived and worked for so many years, by the creation of a fund devoted to a scientific purpose, and which shall be known as the "Donders Memorial Fund." The rules and special destination of the fund will be drawn up and fixed with the concurrence of Professor Donders, and will be in full accord with his wishes. It is intended that the co-operation of our countrymen should be rather for the purpose of paying a tribute to the world-wide reputation of Donders than of collecting any large sum of money. It is proposed that the amounts contributed by the several donors be not specified, but that they be grouped into a common sum for transmission to the Dutch Committee for any scientific purpose Professor Donders may choose, and that the names of those contributing be inscribed in a suitable form for presentation to Professor Donders. For this reason, smaller as well as larger subscriptions will be acceptable. The English Committee is working in connection with the committee formed in Holland for the same purpose.

THE HOSPITAL FOR CONSUMPTION, BROMPTON.

IN consequence of cases of sore throat occurring among the nurses and servants in July last, the committee of the Hospital for Consumption, Brompton, ordered a searching inquiry to be made by Mr. Rogers Field, M.Inst.C.E., into the drainage of the old building. Portions of this were found defective, partly owing to bad workmanship and partly to the low level of the portion of the building containing the kitchen, the inmates of which had suffered from time to time from sore throat. The committee, therefore, wisely decided to close the old building for some months, and to execute the necessary repairs which, in addition to a complete new system of drainage, include the building of a new kitchen at a higher level, and two commodious dining halls in connection with the Victoria and Albert Galleries. These works are approaching completion, and half the old hospital has been already reopened for patients. The usual Wednesday lectures and demonstrations are now held at 4 P.M., in the large Recreation Theatre of the new

building, which is specially adapted for clinical demonstrations. Those by Dr. Acland, on Mitral Stenosis, have been largely attended. Dr. Theodore Williams will lecture on February 29th and March 7th on the Pathology and Modern Treatment of Bronchial Asthma; and on March 14th will demonstrate the Uses of the Pneumatic Cabinet in Lung Disease. This instrument, invented by Ketchener, of New York, ingeniously combines both atmospheric rarefaction and compression, and is a new departure in aëro-therapeutics.

THE NEW SMALL-POX HOSPITAL AT SHEFFIELD.

THE erection of the small-pox hospital at Lodge Moor was practically completed on Saturday, February 18th. It is less than three months since the contractors, Messrs. Bissett and Sons, were commissioned to proceed with the work. The electric light has been made use of to expedite the construction of the hospital. The building is entirely composed of wood, and contains a dozen wards, which are faced with red wood, and painted; the roofs are covered with thick tar felt. The walls and roof are constructed of a double thickness of boards, with an air-tight cavity of nine inches, with a thickness of felt under the outer boarding of the walls, and the whole is lined with thick Willesden paper. Each ward is heated by a large stove in the centre; air is admitted by gratings near the floor, and is heated by passing over hot-water pipes. Arrangements have been made for the escape of foul air. At present there is accommodation for 90 patients, which can be increased to 120 if necessary. Each ward building has a space of 12 feet by 12 feet, and a cubic space for each patient of 2,000. Close to the patients' rooms are the nurses' bedrooms, whilst in convenient places are attached to each ward nurses' duty rooms, bath room, lavatory, earth closet, closet for sink, coal, coke, and stores. The situation of the hospital will expose it to cruel blasts in the winter. It is four miles from the Sheffield parish church, but communication by telephone with the town is being established. When the hospital is fully occupied there will be a staff of eighteen nurses and sixteen servants. Dr. J. Pearson has been appointed resident medical officer, and Miss Batchelor matron. This building is additional to the Borough Fever Hospital, which is also available.

THE ASSOCIATION OF FELLOWS OF THE COLLEGE OF SURGEONS.

THE Committee of this Association is about to present to the Lord President of the Privy Council a rejoinder to the "reply" of the Council of the College to the Association's statement previously submitted to his lordship. The rejoinder in full will shortly be published in the JOURNAL. The "reply" appeared in our columns on February 4th. In the rejoinder, the Committee of the Association declare that the reply is so misleading that the Lord President's attention is directed to a criticism of its clauses. With regard to the number of Fellows, the electors of the Council, it is steadily diminishing. Though the Fellowship is a requirement for most hospital appointments in London and the provinces, other important surgical qualifications have recently arisen which may make those who hold them eligible for similar appointments in future; then the supply of Fellows by examination would decline yet more rapidly, and the electorate would thus become too small a body for the proper discharge of its functions. Increase of the Fellows by large annual elections would deteriorate the qualification. Sir Benjamin Brodie is then quoted to prove that the Fellowship was initiated by him and originally intended for the introduction of men of higher professional and scientific education, rather than for electoral purposes. It is not correct to say that any Member of two years' standing may present himself for the Fellowship examination, which demands time and money. The so-called privileges of Members are trifling, and their admittance

to the College Museum rests on Act of Parliament. Members are not eligible on the Court of Examiners, but only to certain junior examinations. The passing of a by-law by appeal to the Fellows and Members would not cause "delay and difficulty," as the "reply" endeavours to make out. The question of the election of the President is then explained, and the rejoinder notes that the recent salutary change is the result of pressure from without, which may not continue; and that, if the Council are the best judges of the qualifications of their own members for the Presidency, they have never exercised such judgment, but have, until eighteen months ago, passed the office round in rotation. The College is truly a political institution, and not private. The results of inquiries recently made by the Council are misleading. The Association justly complained that the complete conjoined scheme was not submitted to the whole body of the College of Surgeons as it was to the Fellows of the College of Physicians, and the "reply" attaches undue importance to a resolution on the scheme hastily passed at the general meeting in 1884, neglecting others of equal importance passed almost unanimously in recent and fuller meetings. It is true that the proposal for wholesale annual elections of Fellows was never discussed at a Council meeting, but this was owing to opposition from the Association; and it is certain that the proposal was made. On the above grounds, and on others which will be open to the perusal of our readers next week, the Association declares that the reply leaves the statement unrefuted. In order to prove that the sentiments of the rejoinder are not unrepresented on the Council, the Lord President's attention is directed to the amendment, which was moved and seconded by Mr. Macnamara and Mr. Willett, at the meeting of the Council at which the reply was settled. We publish the amendment this week. Thanks are cordially due to the two members of Council who proposed and seconded it, and we must all feel satisfaction that there are such bold advocates of reform amongst the elect at Lincoln's Inn Fields, men who are doing their best to make into law the recent improved procedures in respect to annual meetings and the election of the President.

PLAGUES ANCIENT AND MODERN.

AT a meeting held at the Parkes Museum on February 16th, Sir Douglas Galton, K.C.B., D.C.L., LL.D., F.R.S., in the chair, Dr. J. F. Payne gave a lecture on Plagues Ancient and Modern. The lecturer compared the distribution of certain specific diseases over the globe to the geographical distribution of plants and animals. They were native or indigenous in certain centres or regions, from which they had at certain times migrated. The history of their migration was the history of epidemics. From the history of the oriental plague—of which the Black Death in the fourteenth century was the most destructive outbreak—it appeared that this great pestilence was derived from Asia. Contemporary witnesses had observed, and indeed accompanied, its march from the borders of Tartary to Italy. The probability was that its original starting-point was still further East, in China or possibly in India and in confirmation of this it was shown that the true plague, in a form closely resembling the Black Death, still exists or has existed within the last few years in both India and China. The original seat of the disease must therefore be placed in one of these countries, probably in China, and its invasion of Europe in the fourteenth century was an instance of migration from its original home. The historical sweating sickness, which prevailed in England in the time of the Tudor kings, was next spoken of. It was thought to be a disease imported from France by the foreign mercenary soldiers of Henry VII, and owed its extraordinary severity to the fact that it was a new disease in England since diseases often spread in a new country with great rapidity and virulence. Another instance was afforded by the introduction of European measles into the South Seas, where, especially in

Fiji, it had caused an enormous mortality. A disease closely resembling the sweating sickness still recurred from time to time in certain parts of France, and a considerable epidemic of it was observed only last year, when it spread through numerous villages and caused a not inconsiderable mortality. In both these cases the old historical pestilences were to be found still existing in modern times, but at a distance from countries in which their most destructive visitations had occurred.

DOG MUZZLING AND RABIES.

A DEPUTATION consisting principally of members of Parliament representing divisions of Lancashire, introduced by Sir Ughtred Kay Shuttleworth, M.P., waited upon the President of the Privy Council (Viscount Cranbrook), on February 16th, asking that the same regulations with regard to the muzzling of dogs should be enforced in boroughs as existed in other parts of the country. Sir Ughtred Kay Shuttleworth pointed out that the regulations enforced by the county authorities were not adopted by the borough authorities, and consequently the efforts of the county authorities were defeated. Other speakers advocated that an order should emanate which would apply to the whole of England. Colonel Moorson, the chief constable of Lancashire, cited statistics showing decrease in the disease as the result of muzzling regulations being enforced. Viscount Cranbrook said, in reply, that the subject was not so easy to deal with as some persons imagined. The House of Lords' Committee, on the subject last year, found that there would be some 300,000 dogs exempted from registration, but he thought it quite possible that it might be well to give extended powers for the destruction of stray dogs. He thought that Lord Mount Temple had a Bill before the House of Lords, or was about to introduce a Bill, which might make it unnecessary for the Government to introduce one of the kind. No doubt such regulations as had been enforced had done a great deal of good. In London the disease had been reduced materially, the number of cases had been brought down to units where it had been tens. He could not hold out any hope that the Privy Council would take the responsibility of making a law for the whole country, but perhaps the deputation would be satisfied with the assurance that the subject was very strongly before him, and that he was very anxious to assist in getting rid of the disease.

A SELF-SUPPORTING PROVIDENT DISPENSARY.

We have received last year's report of the Battersea Provident Dispensary, and can congratulate that institution on its continued success; it may be fairly considered to be self-supporting, the small amount of voluntary subscriptions (£82 9s. 4d.) not seriously affecting the working of the institution. The rules for benefit members are for the most part well adapted for successful working, and the insisting on a wage limit, with payments in proportion to earnings, is decidedly to be commended; on the other hand, we must emphatically condemn the principle of admitting members when sick on the payment of special entrance fees; this, in our opinion, is altogether contrary to the provident principle. There can be no doubt that institutions of this kind are a boon to the industrial classes of our great cities, and that by their means a large proportion of the working classes are enabled to obtain efficient medical attendance in sickness at a very moderate rate. While, however, duly estimating the great advantage of this to the community at large from a public point of view, it cannot be denied that it bears somewhat hardly on the profession as a class; we do not consider the 11s. 2d., which seems to have been the average confinement fee, adequate remuneration for attendance on midwifery cases by qualified medical practitioners, and we also think that any institution which undertakes midwifery at such low rates competes somewhat unfairly with the neighbouring practitioners. We observe that 25,000 professional visits were made in

the year at patients' own houses, by the five medical officers, for a remuneration of £893, or at the rate of £179 for 5,000 professional visits, which we may assume would have been the amount received by each had the work been equally divided; the payment for work done does not seem very munificent. Many busy practitioners would consider 5,000 professional visits, with corresponding consultations at home or at a dispensary, a very fair year's work; and for our own part we do not think there are many who would have the inclination or the time to do much in addition to this, so that it would seem that the medical staff of the Battersea Provident Dispensary must devote nearly the whole of their time to the duties of their office, and, under these circumstances, we cannot consider the scale of remuneration by any means liberal, although we are told it is 60 per cent. of the entire contributions of the members. On the other hand, it is observed by the able and public-spirited clergyman who is the chief promoter of this flourishing institution, that if the rate be "not liberal," it is the profession itself which reduces it. The Battersea Provident Dispensary is described as surrounded by dispensaries, at which, "Advice, 6d., and medicine, 1s.," is given to persons when sick, and where 10s. is charged for confinements. The medical men of the neighbourhood are said to show great willingness and even anxiety to be put on the staff of the dispensary. It is to be remembered, too, that the medical man gives nothing but his advice. The medicine is made up at the drug store in the building. There is no booking of debts, or collecting them, or unpleasant reception of sixpences and shillings from poor folks. It is stated that a medical officer who was most sought after during the last year, a comparatively young man, received a cheque of about £300 clear for each half year.

SCOTLAND.

SMALL-POX IN PORT GLASGOW.

A CASE of small-pox has occurred in a densely populated portion of Port Glasgow. The Greenock Infirmary authorities refused to admit the case to their institution. In the meantime the case has been isolated, and revaccination has been performed on those who were at the time in the same house.

A DANGEROUS WATER SUPPLY.

THE town of Newmilns, in Lanarkshire, seems to be in a very bad way as regards its water supply. The prevalence of fever in certain districts led to an examination of the water, which is obtained from a number of wells. The report stated that the water of one well was a mixture of 1 part of sewage, with 9 of water; of another, 1 part sewage, with 25 of water; of a third, 1 part sewage, with 3 of water; a fourth, 1 part sewage, with $2\frac{1}{2}$ of water; and a fifth, 1 part sewage, with 4 of water. Four other wells were contaminated to a large extent, and only one supplied water free from sewage contamination. A public meeting is to be called to consider this serious state of affairs.

QUEEN MARGARET COLLEGE, GLASGOW.

THIS College is the only one for women which exists in Scotland on lines similar to that of Girton and Newnham. Some years ago an effort was made to ensure the permanence of the institution by the raising of an endowment fund. The buildings of the College, which cost £12,000, were purchased by Mrs. Elder, widow of the well-known Clyde shipbuilder, but will not be absolutely conveyed to the trustees of the College till the endowment fund reaches £20,000. The effort to raise that sum was allowed to pause for a time owing to the extreme depression of business, but it has been again revived, and a sum of nearly £12,000 has now

been reached. During the few years in which the institution has existed its value in affording educational facilities to women has been abundantly proved, and the advantages it offers have been extensively made use of. It is to be hoped that the endowment fund will soon reach the desired amount, and that by the endowment of chairs and the addition of new lectureships, the value of the institution may be still more increased.

ST. MUNGO'S COLLEGE, GLASGOW.

THE prevailing impression with regard to the Bill for the erection of the Glasgow Royal Infirmary into a College of the University is that there is not the remotest prospect of its being advanced to any considerable stage. It is believed that this session the Government means to push forward the Scottish Universities Bill in earnest, and that the chances of a Universities Act coming into existence are better than ever before. Obviously, the question of the affiliation or erection of colleges is one which should come before the Commissioners appointed under such an Act. The satisfactory thing is that university reform, so long talked of, is likely, in part, at least, to be soon realised; and it will be in every way advantageous that the universities as they are be reformed from within before they become extended by the addition of new colleges.

DIPHTHERIA SUBSEQUENT TO MEASLES.

EDINBURGH has recently been visited by a somewhat severe epidemic of measles, and in several cases croup or diphtheria has supervened or complicated the disease. Two or three cases of the latter have required the operation of tracheotomy.

CHAIR OF BOTANY, EDINBURGH.

THE following are the candidates for the Chair of Botany in Edinburgh University (vacant by the death of Professor Dickson), from whom applications and testimonials have been received: Isaac Bayley Balfour, Sherardian Professor of Botany, Oxford; James W. H. Traill, Professor of Botany, Aberdeen University; William Ramsay Macnab, Professor of Botany, Royal College of Science, Dublin; Patrick Geddes, Senior Demonstrator of Botany, Edinburgh University, and Lecturer on Botany, Heriot Watt College; and George R. M. Murray, Senior Assistant, Department of Botany, British Museum, and Examiner in Botany, Glasgow University. The curators of Edinburgh University are the patrons of the Chair, and will probably make an appointment to it this week.

OVERCROWDING AND FEVER IN GLASGOW.

AT a meeting of the Glasgow Town Council held on Monday, a most interesting report was presented by Dr. Russell, medical officer of health, bearing on the relation of overcrowding to the production of the exceptionally large number of cases of enteric and typhus fevers which have occurred in Glasgow during the past fortnight. The number of cases of fever registered was thirty-nine, as compared with twenty-six, namely, twenty-two cases of typhus and 17 of enteric fever. This is the largest number of cases of typhus registered in one fortnight since December, 1885. As usual, the first cases were certified and admitted as enteric fever. The first case, a boy, aged 11, was admitted to hospital on January 16th, but in two of the families from which cases were next removed there was evidence of previous illnesses of children dating back to the new year. It is a frequent experience that typhus begins with the youngest children, and passes unrecognised among the frequent illnesses of children in these localities. Of the fourteen families infected, nine occupied houses of one apartment, four of two apartments, and only one of three apartments. This latter was a case in which a respectable old couple had the services by day of a girl aged 14, who slept in an overcrowded house of one apartment in Richard Street. This was one of the houses in which the appearance of recognised typhus was

preceded by sickness in a child. The girl and the old lady she served both sickened with typhus on the same day, which gives almost a demonstration that typhus was in the house and was transplanted by the servant to the mistress, so as to take root in both at the same time. That is the only assured case of individual infection traced. The circumstances of the other cases are the commonplace ones of overcrowding and dirt. Special house-to-house inspection revealed great overcrowding in certain streets. The want of compulsory power to effect removal to hospital is most felt. There is no other way of getting the clothing of such persons disinfected. One young man thought so much of his new suit of clothes as to abscond with them.

MEDICAL OFFICERSHIP OF HEALTH, ABERDEEN.

THE public conscience of Aberdeen is greatly exercised at present on the subject of the duties of the medical officer of health, and the extent to which the individual who is appointed to that office should devote himself to its duties. A public meeting for the discussion of the subject was held in Aberdeen on Saturday last, and a resolution was adopted to the effect that the medical officer of health should devote his entire time to the duties of the office, and that he should either reside at the city hospital, or that regulations should be made whereby frequent visits might be made to the hospital so as to secure ample medical supervision and general efficiency at the institution. The same topic was the subject of a prolonged discussion in the Aberdeen Town Council on Monday. It was resolved that the salary to be paid should be £300 per annum, and that the medical officer of health should visit the City Fever Hospital at least twice a day, but that he need not necessarily reside there. The Public Health Committee had recommended that the officer should reside in the hospital, but by twelve votes to nine the above resolution was adopted. As a sequel, Dr. Maitland Moir, convener of the Public Health Committee, intimated his resignation of that office.

IRELAND.

DR. CROKER KING.

THIS gentleman, who has been suffering from gangrene of the foot, is somewhat better. A definite line of demarcation has formed, and it is hoped that the result will be satisfactory.

NORTH DUBLIN UNION.

A sworn inquiry was held at the North Dublin Union on Tuesday, February 21st, regarding the quality of meat supplied to the paupers. Dr. Kenny, M.P., one of the medical officers, said he had often rejected meat as unfit for human food. He had found pieces actually green. On one other occasion he found the meat too fibrous and fat. On one occasion he rejected the whole of the meat for the inmates of the new buildings. Dr. Minchin said he had never observed the meat to be bad.

MERCER'S HOSPITAL.

AT a meeting of the Hospital Fund Committee last week, a motion was passed omitting Mercer's Hospital from the list of hospitals entitled to a share of next year's grant. This action was proposed by the Rev. Dr. Haughton, and there were only one or two to say a word in defence of the hospital. It was pointed out that the inevitable result would be that the Corporation would also withdraw its grant. An ex-governor stated that he was dissatisfied with the management, and particularly with the intention to spend some thousands on new wards while it was found impossible to keep all the existing beds open. Finally, the Committee adopted Dr. Haughton's proposal with but one dissentient. A morning journal calls loudly for the retirement of those governors who have never given a penny to the funds. As to the

expenses incurred by the late investigation, it says: "We think that these expenses ought to be borne by the individual members of the Board, and that those who have so long posed as philanthropists at a cheap rate ought now to put their hands in their pockets, and pay up the costs involved by their own incompetence and mismanagement." This is the general opinion.

FOOD-POISONING.

A NUMBER of adult inmates and children of the Belfast workhouse have suffered poisonous symptoms after eating portions of buns supplied to them. The medical officer found twenty-three children on the floor vomiting, and some of them screaming. Ten of the men had to be removed to the hospital, but all have recovered. The guardians have directed an analysis of the remaining buns to be made.

THE DISMISSAL OF DR. MAGNER.

A MEETING of the Timoleague Dispensary Committee was held recently, in reference to a communication from the Local Government Board relative to Dr. Magner, who had been elected a few weeks since to the post of medical officer of the district. The letter stated that the conviction and sentence of Dr. Magner, for criminal conspiracy, having been confirmed on appeal, the Board declined to sanction the appointment of Dr. Magner as medical officer to Timoleague dispensary district; and requested the committee to appoint another person as medical officer. The committee adjourned until this week to consider the matter.

DEATH OF THE PROVOST OF TRINITY COLLEGE.

THE death of the Rev. J. H. Jellett, Provost of Trinity College, occurred on Sunday evening, after a few days' illness; it has caused widespread regret. He was a very distinguished mathematician, but in medical circles his loss will be most felt, because of the enlightened encouragement which he gave to the development of the medical school connected with his university. He died of acute pyæmia. On Thursday he complained of sore throat, followed by rigors. On Saturday an abscess had developed near the elbow, and it was at once opened; but he gradually sank, and died on the following evening. His funeral was very largely attended.

ALLEGED DEATH FROM STARVATION.

Mrs. CROOKE, of Coachford, County Cork, who was arrested on a charge of having caused her husband's death, has been allowed out on bail until the trial takes place. The following is the evidence of Dr. Crawley, who made a *post-mortem* examination of the deceased with Dr. White:—The body was greatly emaciated, in fact it was a mass of skin and bone. There was hardly any subcutaneous fat, and only a trace in the omentum. The bladder was contracted and empty; the lower bowel was also empty; the intestines were empty and collapsed; the stomach contained some gas and a small quantity of some coloured fluid and a little mucus; the coats were thin; the kidneys were healthy, no surrounding fat; liver small, but healthy; gall bladder greatly distended. On opening the chest some old pleuritic adhesions were found, and in the upper portion of the lungs a number of caseous deposits; all the organs were bloodless; the heart somewhat enlarged, with a tendency to fatty degeneration; the right ventricle contained a small quantity of blood, the other chambers were empty; the aortic valves were defective. In his opinion the cause of death was due to starvation in a man reduced by chronic pulmonary disease; he believed if he had had proper treatment and diet he might have lived for a number of years.

THE MEDICAL SERVICE AND THE INTERESTS OF THE PLANTERS AND COOLIES IN BRITISH GUIANA.

WE have already on several occasions referred to the agitation against the new constitution of the medical service of British Guiana, which has indirectly led to a political crisis in the colony. The main issue has been obscured by the introduction of a variety of collateral interests and subsidiary incidents, but the broad facts, as they appear in the official reports of the colony, are of sufficient importance to warrant further reference to them here.

The Medical Service.—By the passing of the Medical Ordinance in August, 1886, the position of the Medical Service underwent a complete change; in particular the Immigration Medical Service ceased to be a sub-department of the Immigration Department, and became an integral part of an independent Medical Department, which, among other duties, was responsible to the Government for the medical and sanitary state of the immigrants.

Immigrants.—The immigrants are chiefly coolie labourers from the East Indies, who enter into indentures to work for five years on the sugar estate for which they are required. At the end of that time they are free to move to other estates or to leave the colony, but cannot claim a free return passage until after the expiration of ten years in the colony. It will be admitted to be the duty of the Government to see that the rights of the coolies are maintained, since they have themselves no constitutional means of asserting them.

Constitution of the Colony.—The constitution of the colony is peculiar and obsolete. Legislative authority is exercised by the Court of Policy, a body of ten members, divided into two sections—(1) the official section consisting of the Governor and the four heads of the principal Government offices, and (2) the elective section consisting of five persons, who must be owners of land in the colony, chosen by the Court from a double nomination sent up by seven persons who form a body called the College of Electors holding office for life. The elective section thus represent the planters, and from the perusal of official reports and of the local newspapers it may be gathered that Sir Henry Irving, the Governor, who has just retired, when advising improvements in the sanitary and other surroundings of the coolies and of the free labourers, has frequently found himself in conflict with the elective members of the Court of Policy and with the organs of planter opinion in the press.

The Medical Inspector's Report.—In 1886, as has been stated, the medical and sanitary care of the immigrants was among the duties taken over by the Medical Department; it therefore became the duty of that department to make itself acquainted with the existing state of the dwellings on the estates, and of the hospitals required to be provided on each estate. The office of medical officer to the Immigration Department having been merged in that of medical inspector under the new Medical Ordinance, this officer (Dr. A. D. Williams) undertook to make, during the course of his inspections, a detailed report on the medical and sanitary state of the immigrants. Some idea of the magnitude of the human interests involved may be gathered from the fact that the population of the estates inspected was estimated in the middle of 1886 at 70,312, the total population of the colony at the same date being estimated at 274,311. The report pointed out a number of particulars in which the planters were represented to have failed in their duty. With regard to the *Estate Hospitals*, overcrowding, especially in the wards for women and children, imperfect ventilation, bad latrines, general faulty design, and insufficient supply of bedding and clothing were among the chief defects noted separately or simultaneously in a large proportion of those inspected. With regard to *dwellings*, bad design, disrepair, defective ventilation, absence of any provision for removal of excrement, defective drainage, contamination of water supply by excremental products and surface drainage, were defects found very frequently to exist. With regard to *immigrant ships*, defective ventilation and inadequate hospital accommodation are noted. The report concludes with a number of statistical tables and comments thereon.

The *death-rate* among indentured immigrants is stated to be 27.4 per mille, which, when it is remembered that the immigrants are young adults selected in Calcutta as healthy, is undoubtedly high; it must however be noted that in another part of the report it is stated that a large proportion of them are affected by chronic visceral and intestinal diseases when landed; the death-

rate in hospital was equal to 18.8 per mille of the estate population; of the deaths occurring on the estates, but out of hospital, a very large proportion, estimated at 6 to 10 per cent., were due to accidents or other forms of violence. Suicide and wife murder account for a certain number, and the majority of the others were attributed to unprotected machinery and faulty construction of tramways.

Villages.—Dr. Williams's report stated that the larger villages, inhabited chiefly by the negroes born in the colony, had been greatly improved by main drainage, but that many of the smaller villages where this had not been done were worse than the estate dwellings: the most exaggerated insanitary conditions were found in certain free coolie communities squatting on uncultivated parts of sugar estates.

The Indignation of the Planters.—The elective members of the Court of Policy, representing the planters, denied the general accuracy of the statements in the report, and asked Dr. Williams to substantiate them by giving specific details. Dr. Williams was about to leave the colony on leave of absence, but in consequence of the demand made by the elective members of the Court of Policy, the Governor, Sir Henry Irving, required him to stay for another month, in order to furnish explanations to the Government. At the end of this period, and having discharged this duty, Dr. Williams was allowed to proceed on leave. The elective members took great umbrage at this, and demanded that Dr. Williams's report should be withdrawn. The Governor offered to furnish to them the additional particulars reported to him by Dr. Williams, in explanation and extension of his previous report. The elective members, however, being exasperated by what they considered the unconstitutional course of the Governor, withdrew from the Court of Policy, and thereupon ensued a deadlock in the government of the colony. Appeals were made to the Colonial Office by both parties; the Secretary of State decided that the report could not be withdrawn, but directed the Governor to make public all the information in his possession bearing on this subject. The further facts and details which Dr. Williams had been required to furnish were then published, and the elective members subsequently resumed their duties; before this however, Dr. Grieve, the surgeon-general of the colony, who had been absent on leave, returned, and in a report dated October 24th, which he has forwarded to us, had stated that the requirements of the immigration ordinances, and the regulations under them, had not been enforced in their entirety and, passing in review the various heads of Dr. Williams's report, confirmed their general accuracy. We are informed that Mr. Alexander, the immigration agent, has recently issued a report on Dr. Williams's report, in which he enters into a minute analysis, and traverses a large proportion of the statements, but this has not reached us.

Present State.—Improvements have already been made in the Estate Hospitals. Addressing the Surgeon-General on November 3rd, 1887, the Government Secretary writes: "As regards the sanitary condition of the immigrant population on the estates, the report of Dr. Williams appears to disclose a state of things which is prejudicial to health, and which, in the event of an invasion of epidemic disease, might be productive of serious consequences.....The conclusion to be drawn from Dr. Williams's report is, that there has been more or less sickness and mortality among the immigrant population which is preventable, being due to causes which are remediable, the chief amongst which causes are insanitary conditions." Dr. Grieve is requested as soon as possible, to satisfy himself as to the actual sanitary condition of the estates. Sir Henry Irving's term of office having since expired, he has been succeeded by Viscount Gormanston, and we may venture to express the hope that the new Governor will hold the balance true between the pecuniary interests of the planters and the welfare of their coolie labourers.

ROYAL COLLEGE OF SURGEONS.

At the extraordinary meeting of the Council of the College, on January 19th, after the reading of the reply of the Council to the statement presented to the Lord President of the Privy Council by the Association of Fellows, the following amendment was moved by Mr. Macnamara and seconded by Mr. Willett, but was lost, two members only voting in its favour:

"That paragraph 5 and all the succeeding paragraphs be omitted, and that in place thereof the following be inserted:

"5. The Council desire to state that they are in accord with the four resolutions passed at the meeting of Fellows and Members on

the 24th March, 1884, which are set out in paragraphs 9 to 12 of Mr. Pellock's statement to the Privy Council.

"6. The Council believe that the authority and influence of the College would be enlarged and strengthened if the proposed supplementary charter contained clauses giving effect to those resolutions.

"7. The Council are of opinion that the precedent established in 1843, when in the charter obtained in that year provision was made for calling an annual meeting to elect members of Council, should be followed now that the Council have decided to call an annual meeting to which a report from the Council shall be presented.

"8. Seeing that the practice of annual election of the President by seniority merely has ceased to exist, the present President being in his third year of office, the Council are ready to consider whether the continuance of this altered custom should not be ensured by empowering the Fellows to elect the President and Vice-Presidents on some scheme of the candidates for those offices being nominated by the Council and the Fellows. Such a scheme, when settled, would require to be enacted by the charter, as it would entail the calling of an annual meeting of the Fellows.

"9. The Council recognise the fact that, unless the calling of the annual meeting of Fellows and Members and the alteration in the customs of electing the President are made obligatory by the terms of the charter, there is a risk of these concessions becoming inoperative, inasmuch as at present their continuance depends only on the decision of the Council.

"10. The Council regret that, when issuing a circular to the Fellows in 1887, with the object of obtaining their opinion on the questions of Members of the College being empowered both to vote at the election of members of Council and to be eligible for seats in the Council, they did not address inquiry to the Fellows with the object of learning their opinion as to the Fellows electing the President; but, seeing that during the four years the agitation of this subject has lasted no remonstrance from any Fellow has been received by the Council, it may be assumed the Fellows at large really desire this change. Moreover, it would appear inconsistent to speak of the Fellowship representing a higher grade than the Membership, and to admit the qualification of the Fellowship as an elective body for the membership of the Council, and yet to doubt the capacity of the Fellows to elect their own President, or, if capable, to infer that they are not to be trusted with the duty. The Council feel that this change will have the effect of approximating the constitution of the College to those of all the Royal Colleges of Physicians or of Surgeons in England, Scotland, and Ireland, in every one of which, with one exception (namely, the Royal College of Surgeons of Ireland) the Fellows meet at stated periods in their respective Colleges to discuss and approve the acts of the Council."

The above is published as part of the minutes of the Council which are suspended in the hall of the College. Being of considerable importance, we publish it in full.

MEDICAL DEGREES FOR LONDON STUDENTS.

The following letter has been received by the Honorary Secretaries of the Association of General Practitioners.

59,652.

Council Office, February 17th, 1888.

SIR,—I am directed by the Lord President of the Council to inform you that the Lords of the Council have determined to hear counsel in the matter of the petition of the Royal College of Physicians of London and of the Royal College of Surgeons of England for a charter to incorporate the Presidents and certain Members of those Colleges under the name of "The Senate of the Physicians and Surgeons," with power to grant degrees in medicine and surgery, but that their lordships will not be prepared to do so before Monday, April 16th next. His lordship instructs me to state that you will be duly informed of the day and hour when they are definitely fixed.

The Lord President further instructs me to transmit to you a list of petitioners, together with the names and addresses of their agents, with a view, where practicable, to a joint case being submitted to their lordships.

I am to add that twenty-five copies of the case to be submitted (printed in accordance with the directions contained in the rules established by Order in Council of March 24th, 1871) should be lodged at this office on or before March 31st next.—I am, Sir, your obedient servant,

(Signed) C. L. PEEL.

SENATE OF PHYSICIANS AND SURGEONS.

	Precis of Petitions, etc.	Agents and Others.
From the ● Royal Colleges of Physicians of London and of Surgeons of England.	Petition for a charter to incorporate the Presidents and certain Members of those Colleges with power to grant degrees in medicine and surgery.	Messrs. Field, Roscoe and Co., 36, Lincoln's Inn Fields, London, W.C.
Association of General Practitioners.	Letter requesting that they may have an opportunity of urging their views with regard to the application for the grant of the charter.	H. W. Verdon, Esq., M.D., 414, Clapham Road, London, S.W.
Cambridge University.	Request that they may have an opportunity of making a representation before the charter is granted.	The Vice-Chancellor, St. John's Lodge, Cambridge
London School of Medicine for Women.	Request that in the event of the charter being granted provisions may be made that examinations should be open to women as well as to men.	Mrs. Garrett Anderson, M.D., 30, Henrietta St., Brunswick Square, London, W.C.
Faculty of Medicine of Queen's College, Birmingham, and associated hospitals.	Pray that in the event of the charter being granted the students of Queen's College and other provincial medical schools may be admitted to examinations for degrees.	A. H. Carter, Esq., M.D., 2, Temple Row, Birmingham.
The Owens College, Manchester.	Pray that in the event of the charter being granted the interests of provincial students may be protected.	The Principal, The Owens College, Manchester.
The Victoria University, Manchester.	Pray that the charter may not be granted.	The Vice-Chancellor, The Victoria University, Manchester.
Trinity College, Dublin.	Similar prayer.	Messrs. Law, Hussey and Hulbert, 10, New Square, Lincoln's Inn, London, W.C.
Edinburgh University.	Similar prayer.	Messrs. Dumford and Co., 38, Parliament Street, Westminster, London, S.W.
Durham University.	Similar prayer.	The Warden, University of Durham.
London University.	Request that the charter may not be granted without their having an opportunity of being heard on the subject.	The Registrar, London University, Burlington Gardens, London, W.
University and King's Colleges, London.	Request to be heard before the charter is granted.	The Secretary, University College, London, W.C.
Glasgow University.	Pray that the charter may not be granted.	W. A. Loch, Esq., 3, Westminster Chambers, Victoria Street, Westminster, London, S.W.
Aberdeen University.	Similar prayer.	The Principal, University of Aberdeen.
The Yorkshire College.	Similar prayer.	The Dean of the Medical Department, Yorkshire College, Leeds.
Society of Apothecaries.	Oppose grant except on condition that their Licentiates shall be at liberty to present themselves at the examinations, and that their diploma shall be a qualification for candidates at such examinations.	Messrs. Upton, Atkey, and Upton, 14, Austin Friars, London, E.C.
Royal University of Ireland.	Against the grant of the charter.	The Secretaries, the Royal University of Ireland, Dublin.
Association for Promoting a Teaching University for London.	Request to be heard in the matter.	John Marshall, Esq., 10, Savile Row, London, W.
Oxford University.	Pray that the charter may not be granted, at least until provision is made to ensure that candidates for degrees shall have received a sufficient preliminary education in literature and science.	The Registrar of the University, Oxford.

desirable to raise opposition in Parliament, and to communicate thereon with the Medical Council and with the Privy Council. It will appear from the following statement by the President of the Pharmaceutical Society that amendments have been made in the Bill as now put forward with the object of meeting these objections. In submitting the amended Bill to the Council of the Society he spoke as follows:

The objection to the waiving clause was raised by the Parliamentary Bills Committee of the British Medical Association, who were under the impression that at some time or another the Council might possibly waive everything to everybody with a view to making money. It appeared that that sort of thing had been done by certain medical examining bodies, and consequently it was thought, rather unfairly, that it might be done by a pharmaceutical examining body. To meet that objection the waiving clause had been struck out. Lastly, there was an objection by the Parliamentary Bills Committee of the British Medical Association, which was pressed so far as to result in a visit by the President of the Medical Council to the Privy Council on the subject. That Committee seemed to think there was a possibility in future that chemists and druggists qualified under the Act might be considered medical men, because one of the subjects of the course of study was *materia medica*. This objection seemed rather far fetched, inasmuch as this subject had already been examined in under the Acts of 1852 and 1868. But as there was so much jealousy nowadays, and young medical practitioners, no doubt, like others, felt the struggle for existence very keenly, it was thought as well to pay some attention to these scruples. In the House of Commons *materia medica* meant "medical materials," and perhaps in that House there might not be a clear distinction between an understanding of these things and the practice of medicine. He did not think it was a compliment to the House of Commons to suppose such a thing. The Society had no desire to encourage medical practice among chemists and druggists, its desire being to produce educated pharmacists, and as the better this was accomplished the less likely were such men to attempt to practise medicine, the Committee had fallen in with the suggestion of the authorities of the Privy Council that certain words should be introduced, to the effect that this Bill should be read as one with the previous Pharmacy Acts. Accordingly, in Clause 4 the Committee had inserted the words: "and this Act shall be construed as one with the Pharmacy Acts, 1852, 1868, and 1869." That meant that, as there was in the Act of 1852 a clause which stated that nothing therein contained should entitle the Society to examine in medicine, surgery, or midwifery, that clause would be considered to be incorporated in the present Bill. These were the changes which had been introduced into the Bill of last year to meet the objections which had been raised; but as it was possible that still further objections might be raised during the progress of the Bill, he hoped that the Committee would be empowered to deal with them if they arose.

ROYAL COMMISSION ON HIGHER EDUCATION IN LONDON.

WE have authority to state that Lord Granville, as Chancellor of the University of London, supported by Lord Derby, Lord Kimberley, and Lord Herschell, members of the Senate, will at once urge upon the Government the desirability of appointing a Royal Commission to inquire into the present state of the higher education in London, as well as the claims raised by various bodies to confer degrees in medicine. We may add that, in the meantime, the Privy Council have received no less than fifteen petitions from universities and other public bodies against the application of the Colleges of Surgeons and Physicians of London to grant such degrees, and that on or after April 16th these various bodies will be admitted to appear by counsel before the Privy Council. The question is one of such great complication and importance, that we can confidently assure the Government that the course pursued by Lord Granville is that which will best meet the views of the medical profession.

THE PARLIAMENTARY BILLS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION AND AMENDMENT OF THE PHARMACY ACT.

The Council of the Pharmaceutical Society has made arrangements for the reintroduction of the Pharmacy Acts Amendment Bill. It will be remembered that, in laying this Bill before the Parliamentary Bills Committee, the Chairman pointed out certain clauses which were objectionable, and to which it was thought

RESORCIN IN DIPHTHERIA.—Dr. Taja has treated 36 cases of diphtheria with resorcin spray, 34 of these recovered. The mortality in the same epidemic, where this treatment was not followed, amounted to 93.28 per cent.

THE CASE OF PARASITIC FŒTUS.

IN the JOURNAL for February 11th we mentioned the case of Laloo, the Indian youth who is now being exhibited in London. Messrs. Sutton and Shattock presented a systematic report on the case to the Pathological Society, at its meeting on Tuesday last. A short account of what is known of Laloo may interest our readers. When the practitioner is called in to a labour, and finds that a monster is born alive, the chance of its living must be a matter of high importance for him to determine. Laloo and A-Kee both lived to be youths, and Laloo lives still in very good health, with a whole trunk hanging from his epigastrium. Bartholin's case, Lazaro Coloredo, of Genoa, born in 1716, lived to manhood with a parasitic fœtus, consisting of a head, trunk, arms, and one lower extremity; the face of the parasite had closed eyes and distinct ears and lips. The mouth bore teeth, saliva continually dribbled from it, and it did not take in any nourishment, yet was said to breathe distinctly. A small beard grew from the parasite's face at puberty. Coloredo was probably the most extreme case of monstrosity who ever lived beyond infancy.

Of double monsters, there is one division where the two organisms are each self-supporting (autosites), and of nearly equal size. The union may be very close, the trunk or even the cranium being more or less fused; such monsters cannot live; or it may be less intimate, the lower part of the trunks being partially united, as in Millie Christine, the "two-headed nightingale;" or, lastly, the union may consist of a mere band joining two perfectly distinct,



well-formed human beings, as in the Siamese twins. In the second division of double monsters, one of the twins undergoes arrested development very early in life, and becomes a "parasite," hanging from its brother the "autosite."

The parasite nearly always consists of trunk and limbs without head, rarely of head and trunk, with arrested development of the lower extremities, very rarely of an ill-formed head alone. The parasite is generally attached to the lower part of the sternum of the autosite (thoracopagus parasiticus, Laloo's case), but it may lie posteriorly, joined to the sacral region (pygopagus parasiticus), or very rarely to the face of the autosite (prosopopagus parasiticus). In pygopagus parasiticus the parasite may be represented by a mere rudimentary limb growing from the sacral region of a well-formed autosite. But there is evidence that the "congenital sacral tumour," even when destitute of any trace of the formed structures of a human body, really represents a parasite. The anomalous sacral appendage in the case which Mr. Owen exhibited at the Pathological Society on February 7th (JOURNAL, February 11th, p. 208), was in all probability a parasitic fœtus. Lastly, the parasite may be entirely subcutaneous; thus an ill-

developed minute fœtus has been discovered in a subcutaneous cyst in the epigastrium of a child not quite 3 years old.

Laloo, of Oudh, is thus an example of thoracopagus parasiticus. From notes taken from a previous report made abroad, and from what we have observed, we learn that he is now 17 years of age. At birth the head of the autosite presented, the hands of the parasite encircling his neck. Laloo's father, mother, brothers (two), and sister were not deformed. His mother was about 25 when he was born, and her firstborn saw the light a year before Laloo. This excludes any theory in the present case of early Oriental marriages as a cause of monstrosity. At the age of 2 Laloo had small-pox; the parasite and autosite are slightly marked. Laloo is short, slenderly made, of very dark complexion, with sharp Asiatic features and straight black hair. He, the autosite, bears no other deformity beyond his parasite. The parasite is firmly adherent to the autosite, at the lower part of the right side of the sternum close to the ensiform cartilage. The woodcuts, from a photograph taken two years ago, give a fair idea of its appearance. The parasite is divided by a very deep groove in the integuments into two parts. The first and smaller part includes both upper extremities and the rudimentary shoulder-girdle, the integument bearing mamme. This part appears as though it were attached to the autosite and to the other part of the parasite by two ball-and-socket joints. The larger division of the parasite consists of the lower part of the trunk, a well-developed gluteal region, which looks forward and to the left, and the lower ex-



tremities. This division appears to be attached to the autosite an inch below and to the right of the smaller part, and is not so freely movable. The skin bears the mark of an old burn from a paraffin lamp. The anterior part of the parasite's body lies towards the autosite, and bears a well-formed penis (shown in the woodcut) surrounded by pubic hair, but no testicles. There is a notch between the glutei, which bears a distinct though rudimentary anal involution of the integument. A rudimentary iliac crest and a diminutive sacrum can be felt. It must be remembered that a parasite is destitute of a vertebral column. This curious deficiency is well shown in specimen 129 in the Museum of the Royal College of Surgeons, Teratological Series. It is a kitten's skeleton bearing a thoracopagus parasite. The latter consists of the bones of the lower extremities, free, and the bones of the upper fused together. A ligamentous band, running to a wide oval fissure in the sternum of the autosite, is the sole representative of anything like a central axis.

The upper extremities in Laloo's parasite can be freely rotated in every possible direction at the shoulders; the autosite can cause them to clasp his own neck, as shown in the woodcut. The right elbow-

joint is ankylosed, the forearm disproportionately short; the hand, which bears four fingers and no thumb, is flexed on the wrist. The left thumb is flexed on the malformed wrist; the fingers are finely formed, but small and webbed. The thighs are well-developed, the knee-joints appear imperfect, the legs are strongly flexed on the thighs, and a sharp fold of redundant integument lies over the popliteal regions. There is talipes varus on both sides; the feet are not disproportionately small. The left toes are perfect, the right foot bears but three.

The integuments of the parasite are not highly sensitive. Urine flows away from the urethra frequently, and the autosite cannot recognise any desire for micturition from the parasite, nor feel any sensation during the passage of urine from the parasite till he feels that fluid damping his body. This we could prove when we superficially examined Laloo; the day was cold, the parasite was exposed naked for ten minutes whilst the autosite was well wrapped up, and felt no desire to make water. The parasite is evidently acardiac, but there is distinct evidence that it has intestine. In a foetal pig with a thoracopagous parasite (Museum R. C. S., No. 123) the parasite has a small piece of intestine connected with that of the autosite by a long narrow gut. Such an arrangement would be a source of danger to an autosite, especially should the parasitic diverticulum be to the least degree pervious where it joins the autosite's intestine. One kidney at least must be present. Whether the presence of a urinary apparatus is or is not a source of danger to the physiological commonwealth of which the parasite and autosite must necessarily consist is a question not easily solved.

These cases of "heterologous union," or "heterodidymus," are developed apparently in a manner succinctly expressed by Mr. Benjamin Lowne: "a second embryo becomes wedged in between the visceral arches or laminae of another before they unite." Hence, the development of the second is arrested. Abnormalities of the viscera of the autosite adjacent to the attachment of the parasite are frequent; thus the liver may bear an unusually large number of lobes, or there may be two gall-bladders.

Of Laloo's adventures we need say little. He was in this country a few years ago, but was prevented from exhibiting at the Indian Exhibition, owing to some question of the right of his guardians to make a show of him. We are informed that at one place where he was displayed to the public his exhibitor was ordered by the authorities to desist, as he constituted an "indecent exhibition." Any attempt to amputate the parasite, or even a part of the parasite, would clearly be dangerous; surgery of this kind is known to be highly unsatisfactory.

A very complete description of parasitic monsters may be found in Dr. A. Förster's *Missbildungen des Menschen*; of Laloo we shall hear more when the next volume of the *Transactions of the Pathological Society*, containing Messrs. Shattock and Sutton's report, is published.

ST. GILES (Population, 45,178).—*Insanitary Areas: Glanders in a Horsekeeper*.—Some years ago, the Shelton Street area, a part of this district, was reported upon as insanitary, and in each successive report has Mr. Lovett drawn attention to its defective condition. In the report for 1886, we again find it referred to as exercising an injurious effect on the death-rate; but during the past session, and since that report was made, Parliamentary powers have been obtained for dealing with this area. In the subdistrict of St. Giles South, which comprises this group of streets, there was an increase in the death-rate, but in both the other subdistricts a considerable reduction. In Shelton Street itself the rate for the year was as high as 53.5 per 1,000. The zymotic death-rate was slightly in excess of that for all London: deaths from measles, whooping-cough, and diarrhoea being above the average. Mr. Lovett states that in no two diseases are the dangerous symptoms more commonly overlooked than in whooping-cough and measles. The latter disease was particularly fatal among the children in the poorer parts of Bloomsbury, especially during the summer months. Many of the nights being unseasonably cold, the disease became complicated with bronchitis and pneumonia, which quickly produced fatal results. Deaths from typhoid fever were very few, and so were those from scarlet fever. Typhus fever attacked four children, members of one family, residing in Nottingham Court. After removal to hospital, no further ease was reported. Towards the end of the year a milk seller's horsekeeper was stated to have died from glanders. Apparently there was no illness among the horses, and a veterinary surgeon had certified to their healthy condition.

ASSOCIATION INTELLIGENCE.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, and a further portion of the Report upon OLD AGE have been completed, and will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has just been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 420, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above districts will be held at the Grand Hotel, Brighton, on Thursday, March 22nd. F. W. SALZMANN, M.R.C.S., will preside. Meeting at 3.30 P.M.; dinner at 5.30 P.M.; charge 6s., exclusive of wine. The following papers will be read: Dr. Starling: A case of Fibroid Induration of the Stomach (with specimens). Gentlemen desirous of making any communication to the meeting should write to the undersigned or to Dr. Gostling, West Worthing.—T. JENNER VERRALL, Honorary Secretary, 97, Montpellier Road, Brighton.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at Ashford, on Thursday, March 15th. Dr. Wilks in the chair. Anyone wishing to send communications should inform the Honorary Secretary at once.—W. J. TYSON, 10, Langborne Gardens, Folkestone.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session will be held at the Museum and Library, Bristol, on Wednesday evening, February 29th, at half-past seven o'clock; G. F. BURDER, M.D., President. The following cases will be exhibited at 7.30 P.M. precisely:—F. St. John Kemm, M.D.: Graves's Disease Treated with Strophanthus. C. A. Wigan, M.D.: Pseudo-Hypertrophic Paralysis. J. Michell Clarke, M.B.: 1. Infantile Hemiplegia (without Atrophy)—three cases. 2. Infantile Paraplegia (with Atrophy). 3. Infantile Paralysis of Muscles passing from Spine to Scapula. E. Markham Skerritt, M.D.: 1. Advanced Bulbar Paralysis. 2. Complete Special and General Hemianesthesia. The following communications are also expected:—H. Ormerod: Spina Bifida, with Specimens. C. P. COOMBS, M.D.: On Splenic Leukemia. N. C. DOBSON: A Case of Hydatid Cyst of the Omentum. C. F. PICKERING: The Treatment of Discharge from the Ear. W. J. PENNY: A Case of Acute Intestinal Obstruction, with Early Operation and Successful Result.—E. MARKHAM SKERRITT, R. J. H. SCOTT, Honorary Secretaries, Clifton.

EAST SURREY DISTRICT: SOUTH-EASTERN BRANCH.—The spring meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 8th, at 4 P.M., W. F. R. BURGESS, M.D., of Streatham, in the chair. Dinner at 6 P.M.; charge, 7s., exclusive of wine. The following papers have been promised: Mr. Noble Smith: On Hip-joint Disease, with diagrams. Dr. P. T. DUNCAN: On Simple Catarrhal Fever. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, P. T. DUNCAN, M.D., Croyden.

BRITISH GUIANA BRANCH.

THE annual meeting of this Branch was held at the Public Hospital, Georgetown, January 6th, 1888. There were present Dr. GRIEVE, the Surgeon-General, in the chair; Drs. Anderson, Hillis, Wallbridge, Honiball, Veendam, Massiah, Delamere, Rannie, Reid, Hill, Hulton, Law, Fulton, Teixeira, E. G. Leary, Ozanne, and the Secretary.

Letters of apology and telegrams were read from those who were unable to attend.

Chairman's Address.—After the minutes of last meeting had been read and confirmed, the CHAIRMAN delivered a short address,

in which reference was made to the very successful year the French had just closed. A general view of the progress of medicine was taken, special mention being made of the transmission of disease from lower animals to man. The political status of the profession in the colony was touched upon.

Vote of Thanks.—A vote of thanks was given to the Surgeon-General for his address.

Dr. Massiah's Motion.—Dr. MASSIAH brought forward the motion standing in his name; this was seconded by Dr. E. G. LEARY. Dr. LAW moved an amendment to the effect that the Committee should strictly confine itself to the pathological condition of the bone, and after some discussion this was carried by a majority of seven.

Notice of Motion.—Dr. HONNALL handed in notice of motion as to the Surgeon-General being *ex officio* President, and as to voting by proxies.

Specimens.—Notice was read by the SECRETARY of specimens sent by Dr. A. Dickson of Ovarian Pregnancy, Guinea Worm, etc.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Cocaine Poisoning.—Variations of Microbes under Cultivation.—

Transmission of Tubercle by the Air Passages.—Farcy in Man.

Dr. J. DÉJERINE records an interesting case of poisoning by subcutaneous injections of cocaine. The patient was a young dentist, aged 26. M. Déjerine found him in a semi-comatose state, with generalised muscular contraction of the arms and legs. The arms were slightly bent, the legs were stretched out; the knee-jerk was not discernible owing to contraction. The pulse was quick but regular (120), the breathing hurried; the eyes were closed, the pupils dilated and insensible to light. There was complete unconsciousness. The following lesions were detected on the skin: There was a pustular crusty eruption, consisting of pustules the size of a pea, covered with a blackish-grey dry scab, on the anterior external surface of the two arms and on the anterior part of the legs and thighs. This eruption resembled the scabs of syphilitic rupia. On returning to consciousness the patient rose and walked about, with his eyes closed on account of the painful sensation caused by light on the eyeballs. He gave the following particulars as to the cause of the attack: Six weeks previously he began to give himself subcutaneous injections of cocaine. He began with doses of 1 centigramme, and gradually increased the quantity until he used 50 centigrammes. The injections produced agreeable sensations and sexual desire followed by emission. The evening on which the attack above described took place he had injected 1 gramme of cocaine at 10 o'clock. He employed three syringes and a warm solution. At the third injection he fell down unconscious. The next day Dr. Déjerine again examined the eruption, which seemed to be due to localised gangrene of the cutis, resulting from the injections with cocaine, which the patient introduced into and not under the skin. At the spot where the injections were made there were white patches insensible to the touch. The patient stated that when M. Déjerine pinched him in different places during the state of coma he was aware of the fact, but felt no pain whatever. He was, therefore, sensible to the contact of an external object, but insensible to pain. The patient recovered. M. Déjerine considers that if the patient had not gradually accustomed himself to progressive doses of cocaine the dose of 1 gramme would have proved fatal.

MM. Léon Guignard and Charrin, at a recent meeting of the Académie des Sciences, described the results of their experiments on the morphological variations of microbes, and more particularly of the pyocyanine microbe. This microbe, in broth cultivations, appears as an active bacillus, about twice as long as it is broad. The cultivation, placed in a stove at a temperature of 35° C. (95° F.), becomes covered with a film, beneath which a greenish-blue colouring matter is observed, which gradually turns yellow. The bacilli collect their contents into one or two corpuscles; the membrane swells round these corpuscles, which constitute encysted cells or arthrospores. The microbe may be made to assume various forms by adding different mineral or organic acids to the broth. If a small quantity of carbolic acid or creosote be added, it appears as a bacterium. With naphthol

at 0.25 per 1,000, thymol at 0.50 per 1,000, or alcohol at 40 per 1,000, bacilli of different lengths are obtained. These are either separate or joined together by pseudo-filaments or filaments tangled together, forming a network on the surface of the cultivation. These different forms are transitory, and the normal bacillus shortly reappears. If bichlorate of potassium at 0.10 per 1,000 be added to the broth, the cultivation presents a collection of tangled filaments during five or six days; at the end of this time they are replaced by the normal bacillus. If 3 per 1,000 of boric acid be added, the development of the bacillus is retarded, but it continues to produce pyocyanine. With 5 per 1,000 of boric acid short filaments are obtained; with 6 or 7 per 1,000 of the same substance straight or curved bacilli, crescent or ring-shaped, are obtained. If these bacilli do not divide they assume spiral forms. The microbe then ceases to produce pyocyanine, and gradually reassumes its normal form. Bacilli cultivated in broth, to which 0.75 of creosote, or 2 grammes of salicylic acid has been added, form a collection of durable, spherical cells, which resemble micrococci. These cells constitute a means of reproduction, for when replaced in the cultivations of pure broth they reappear as normal bacilli, and produce pyocyanine. These experiments show how far experimental polymorphism may be carried, and the variety of forms which the pyocyanine microbe may be made to assume. These forms, however, are but transitory, and the normal bacillus which produces the pyocyanine invariably reappears.

At the same meeting MM. Cadéac and Malet gave an interesting description of their experimental reappearances on the transmission of tuberculosis by the respiratory passages. Three series of experiments were made. 1. Forty-six animals (rabbits and guinea-pigs) were made to inhale a portion of tuberculous detritus; of this number two only became tuberculous; the respiratory passages of these animals were irritated by inhalations of bromine. 2. The atmosphere in boxes containing rabbits was saturated with tuberculous fluid. All the animals contracted tuberculosis. 3. Tuberculous substances were introduced into the trachea of some rabbits by means of injections; the animals shortly became tuberculous. MM. Cadéac and Malet conclude from their experiments that when the tuberculous bacillus enters the respiratory passages by means of an inert fluid, these passages constitute a favourable agent for the development of tuberculosis. The bacilli are almost unable to introduce themselves into the respiratory passages when they are incorporated in a fine dust.

M. Bucquoy had a case of chronic farcy under his care. The patient was a man, aged 46, who had suffered from abscesses in the muscles and areolar tissues in different parts of the body for several months. The first of these abscesses proceeded from a wound in the hand, accompanied by lymphangitis of the arm, with suppurating glands in the axilla. Fresh abscesses appeared, the general condition became worse, and the patient died. At the necropsy a number of farcinous abscesses were found, two of them were intracranial, one in the meninges and another in the brain; the mucous membrane at the base of the tongue and glosso-epiglottic folds was ulcerated; this last symptom is regarded by veterinary surgeons as characteristic of glanders. The patient had driven a horse belonging to a stable in which several cases of glanders had occurred. While the patient was alive Dr. Bucquoy made inoculations and cultivations with the virus. He found that asses resisted the action of this virus. M. Bucquoy regards this as one of glanders. The farcinous character of the affection and its marked appearance were probably due to the quality of the virus, its mode of transmission, or the medium in which it developed.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Pilocarpine in Bright's Disease.—Thoracocentesis in Empyema.—

The Chair of Anatomy in the University of Vienna.

Drs. D. Benezúr and S. Csáthy, assistants to Professor Wagner in the medical faculty of Buda-Pesth, give in a recent number of the Hungarian medical periodical, *Orvosi Hetilap*, the following summary of a series of articles on the effect of pilocarpine chloride in Bright's disease, published in that journal: 1. The patients become accustomed to the pilocarpine, and even large doses, such as 6 centigrammes, do not at a later period produce such disagreeable after-effects as doses of 1 centigramme at the beginning of the treatment. The injections of pilocarpine should not be discontinued in consequence of symptoms which had been con-

sidered as being dangerous. 2. The effect of pilocarpine on the daily secretion of saliva, sweat, and urine, as well as on the daily oscillations of the amount of hæmoglobin in the blood, is in most cases regulated by the stage of the disease and by the quantity of liquid which had been taken. 3. The œdema disappeared the more rapidly the larger the dose of pilocarpine given, and the less the quantity of liquid which the patient has taken. 4. Pilocarpine considerably increases the density of the blood for from four to five hours. 5. The hydræmia in Bright's disease does not depend on the amount of the œdema. 6. The quantity of hæmoglobin in the blood diminishes, that is to say, the hydræmia increases when the general condition of the patient becomes impaired during the course of the disease. 7. When used according to the above-mentioned principles, pilocarpine will be found in most cases of Bright's disease, even when hot baths and other diaphoretics prove useless, always to diminish dropsy to such an extent that the patient is more or less protected against dangerous uræmic suffocative attacks. In this way it may be possible to obtain a relative cure; that is, in secondary granular contracted kidney.

Professor Wölfler, of Graz, recently communicated to the Society of Physicians of Styria a case of empyema cured by simple puncture. The empyema had developed spontaneously, and was probably due to tuberculosis. Puncture was performed with a trocar between the sixth and seventh ribs, on the left side, and the pus was evacuated by siphon drainage. The lower end of the india-rubber tube communicated with a bottle filled with anti-septic fluid, and was left in till no more pus escaped. Healing took place very rapidly, and this method was apparently preferable to extensive resections of ribs. Professor Wölfler had lately successfully treated three patients by this simple method. They were instructed to carry the bottle, together with the drainage-apparatus, until no more pus escaped.

The professional body of the Vienna Medical Faculty appointed, at a recent meeting, a committee to choose from among the candidates one to be recommended for the chair of Normal Anatomy vacant by the death of Professor v. Langer. The committee consists of the dean of the Medical Faculty (Professor Kundrat) and Professors Billroth, Albert, Meynert, and Jolkt.

SAN REMO.

[FROM OUR OWN CORRESPONDENT.]

THE condition and progress of the Crown Prince has been the one absorbing topic here for the past ten days. The dyspnoea to which I alluded in my last letter increased so much on Wednesday night, that on Thursday morning Sir Morell Mackenzie requested Dr. Bramann to perform tracheotomy. Dr. Bramann asked that a few hours should be given in order to see whether the breathing might not become less embarrassed, and Professor von Bergmann, according to arrangement, was telegraphed for. During the day, however, the stridor increased, and at 3.30 the operation was skilfully performed without any complication occurring. I understood that Sir Morell Mackenzie was opposed to the administration of chloroform; but finding that Dr. Bramann invariably used this anæsthetic he advised the Crown Prince to submit to it, so that the statement telegraphed by the Berlin correspondent of the *Times* that "the Crown Prince consented to take chloroform in spite of the opposition of Sir Morell Mackenzie" is quite without foundation.

The after-treatment has been entirely in the hands of the German surgeons Professor von Bergmann and Dr. Bramann. It is said there has been great difficulty with the cannulas, several different tubes having been tried, but all of them causing irritation of the mucous membrane of the trachea; and, up to the present time, the mucous discharge continues to be tinged with blood, but the physicians in charge are very reticent on this point. There is a good deal of coughing at night, due to tracheal irritation; and narcotics are administered, but they are not altogether effectual; so that the Crown Prince has all the disadvantages of this class of remedies without the usual benefit. In this way it is feared his general health may suffer, and the recovery from the operation may be long and tedious. On closing the cannula the breathing is found to be much more free than before the operation. The voice also is considerably stronger. The patient is never left without a medical man, Sir M. Mackenzie and Professor von Bergmann taking their turn of watching with the rest.

The Crown Prince rises at 11 o'clock and remains up until 9, and is frequently to be seen at the window of the villa bowing to the people. His appetite has quite returned, and he has shown throughout this trying time, with the Crown Princess, the greatest bravery and fortitude.

At the frequent consultations that have been held the essential nature of the malady from which the Crown Prince is suffering has never been made the subject of discussion, so that the supposed differences between the English and German medical men on this point have no foundation whatever.

Sir Morell Mackenzie is remaining, at the urgent request of both the Crown Prince and Princess; but his position at the present moment is more that of a spectator than an active participator, and it is stated that he is not at all satisfied.

The Grand Duke and Duchess of Baden (sister of the Crown Prince) are staying here.

The Prince of Wales arrived on February 20th at the Victoria Hotel, and San Remo is very full, never certainly having had so many Royal and distinguished visitors at one time before. The picture painted by the Crown Princess and sold at the recent art exhibition for the benefit of the Home for invalid ladies, realised £65, and was finally purchased by Dr. Schidrowitz, the London correspondent of the Berlin *Tageblatt*. The institution benefited to the extent of over £100 by the exhibition. After over a month of fine weather we have had a short spell of sharp cold, but it is now warmer, and, heavy rain having fallen, the early Italian spring is to be anticipated.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Railway Medical Service.—Students' Duels.

As the *Intelligenzblatt für Stadt Bern* (February 3rd) says, all the stations on the Amalgamated Swiss Railways (*Vereinigte Schweizerische Bahnen*) have recently been supplied with the so-called *Sanitätskisten* (manufactured at the well known International Dressing Materials Factory at Schaffhausen), that is, with cases containing all necessary articles (bandages, splints, drugs, etc.) for first aid in cases of accident. Each case also contains printed directions how the appliances are to be used. Practical instruction has also been given to the officials at each station.

The absurd and barbarous custom of duelling, which still survives with astonishing pertinacity amongst German students from one generation to another, has recently given rise to two sad accidents in Bern. One of the combatants had the whole of his nose slashed off, while another, who was on the point of taking his M.D. degree, had his right arm so entirely disabled by a foil that his medical career has come to a premature end. These accidents, however, did not prevent another series of duels, which took place on February 4th (that is a couple of days after the above mentioned accidents), in Bern, between several members of the Corporation Helvetia, and as many students from the University of Zurich, who had come to Bern expressly for the purpose. We learn from the *Berner Stadtblatt* of February 7th, 1888, that this time no noses were lost and no limbs were maimed, though a good many flesh wounds were inflicted. The police, acting on "information they had received," succeeded in surprising one set of combatants in the morning, and in confiscating the weapons and other fighting gear. This did not, however, cool the ardour of these noble "sportsmen," who managed to bring off some exciting "events" at another place the same afternoon.

CORRESPONDENCE.

THE ELECTRICAL TREATMENT OF UTERINE TUMOURS.

SIR,—In the last number of the *Birmingham Medical Review*, for February, 1888, there is a report of a meeting of the Midland Medical Society, at which Mr. J. W. Taylor read an important paper on the Use of Electricity in Gynecology. A discussion followed, in which, as a matter of course, Mr. Lawson Tait made himself conspicuous. Taking it for granted that his prejudices were realities, and jealous that any one should make an advance in gynecology beyond his own standpoint, without his sanction or assistance, he latched out into a reiteration of assertions about my treatment of uterine tumours, in which caution and

error are so intermingled that I feel obliged to contradict and expose him.

1. Mr. Tait declares that my method "is full of dangers, and we shall hear in future of some of the disasters which are occurring from this treatment of to-day. Six deaths were known to have occurred in a single month in patients who were under Apostoli's care."

There is here as much misrepresentation as it is possible to put into so many words. In the month of August last, I gave, at Dublin, a full and complete account of the statistics of my practice. Not one case was omitted. I may safely affirm that since then, the innocuousness of my treatment, as I have carried it on myself, has been uninterrupted. Not a single "disaster," so far as I am aware, has happened. I call upon Mr. Tait to bring forward proof of what he says.

I wish that the fullest light should be thrown upon the unwarrantable insinuation, which I defy him to substantiate. And, that he may have no excuse on the ground of imperfect information, I offer to present to any honourable and competent delegate he may choose to send over all my patients without exception, and to facilitate in every possible way any researches he may wish to have made, so that he may obtain an independent report upon the results of my practice from the year 1882 to the present time.

Science is never advanced by equivocal statements. Incontestable facts are what is wanted, and on this score I am conscious that I stand upon unassailable ground.

But how is it that Mr. Tait lets himself fall into monthly self-contradictions? On the 10th of December last the honoured Thomas Keith announced in the JOURNAL that, following my example step by step, he had made no fewer than 1,200 applications of the electrical treatment of uterine tumours on 100 patients in less than five months, with success. He finished his remarks by saying: "So strongly do I now feel on this subject that I should consider myself guilty of a criminal act were I to advise any patient to run the risk of her life—and such a risk—before having given a fair trial to this treatment."

Mr. Tait's comment (JOURNAL, December 17th, 1887) upon Keith's words is this: "That the great point of Dr. Keith's important paper is the evidence he gives for at least the primary success of Dr. Apostoli's treatment. With such a witness, the conclusion is inevitable that the treatment must be tried, no matter what difficulties may be encountered in the task."

On December 17th, then, he (Tait) must have been in total ignorance of my reputed "disasters" (the six cases of death in one month), which he brought up in array on January 29th, 1888, as an utter condemnation of my system—the same system which a month before he had pronounced it to be an inevitable duty to put on trial.

His attack upon me personally thus refuted, Mr. Tait would probably fall back upon a denouncement of the treatment as practised by others. But who will believe his prognostications of danger, when it is known that my method has been adopted and applied some thousands of times by the most enlightened British gynaecologists, who are not unknown to Mr. Tait and among the Americans, by such men as Engelmann (of St. Louis), Mundé, E. K. McGennis (of New York), A. H. Buckmaster (of Brooklyn), W. Baker and John Homans (of Boston), Franklin Martin (of Chicago), J. H. Kellogg (of Montreal), and many others whom I might mention.

Assuredly everything badly done in medicine is dangerous, and women have died after uterine or even vaginal examination. But is this equivalent to saying that such practices are lethal in themselves? My cauterising operations are much the same thing as massage or scraping of the uterine mucous membrane, everyday performances not in the least jeopardising life. Will any one presume to characterise them as *ipso facto* dangerous operations? Yes; such they may be, supposing them to be done by dirty and unskilful hands.

Would anyone in his senses think of holding me responsible for all the stupidities done in my name? I have written and laid down rules for the practice of my method; they ought to be observed. If, from ignorance or wilfulness, they be neglected, neither I nor the electricity ought to be blamed. On this question I think my long experience of so many thousand cases gives me a right to speak with some authority.

However, if Mr. Tait still remains unconvinced, I will give him another means of calming his unnecessary fears. He shall have the names of every surgeon, either in France or abroad, and more

particularly in England, to whom my electrician, M. Gaiffe, has supplied batteries and instruments. It may be concluded that by this time they have put them to use. Let Mr. Tait inform himself of the consequences of what they have done. There may have been some malpractice, but I am persuaded that, upon a review of the whole of the skilled work, Mr. Tait will be forced in honour to admit that he has exaggerated the perils of my procedure. I expect no more than this, and I certainly am indifferent as to whether he recants his oburgations, or professes a repentant conviction of the excellence and all-sufficiency of my method.

Perfection does not exist in medicine, and I, at least, have no such exalted notions. I am modest enough to be satisfied, and shall feel myself fully compensated if I see electrotherapy take an honourable place in gynaecology side by side with the knife.

2. Mr. Tait adds a reproach which I need only mention to show its absurdity. He ironically says that, till the present time, I and my system were unknown to my compatriots. It is true I have never sought an illegitimate notoriety, but have contented myself with scientific approbation. If Mr. Tait's "leading Parisian gynaecological entertainers" refrained from mentioning my name in his presence, knowing the susceptibility of their guest, it is only a proof of their tact and good sense, and shows that neither I nor they were offensively fussy. But, after all, what does my obscurity matter? What was known of Mr. Tait fifteen or twenty years ago? It would have been inexcusable if I had prematurely asked for adhesion to my views.

3. "Skilled electricians assured him (Mr. Tait) that the galvanometers used by Apostoli are absolutely worthless as indicators of dosage." This is really frivolous, and Mr. Tait again shows how easily he can be led into error. The galvanometers made by Gaiffe, medically speaking, give an exact dosage, with an outside deviation of from one to five milliampères, which actually is of no practical importance. If my word be not sufficient, I will send the galvanometers I have in use to be tested by Mr. Tait's own "skilled electricians."

4. Mr. Tait repeats the old tale of Dr. Althaus having practised my method before my time. Really there are some blunders which are irrefragable. I thought that my letter (JOURNAL, November 26th, 1887) to Dr. Althaus, whose merits in electro-therapeutics all acknowledge, was conclusive. Not so, it appears, to Mr. Tait, though it is for me, seeing that Dr. Althaus (the imputed though silent father of the electrical method of treating uterine fibroids) has publicly (JOURNAL, December 3rd, 1887) waived his claims to the said priority, and admitted my priority in this particular application of electricity in gynaecology.

In all the correspondence on this subject, the contradictions of Mr. Tait and Dr. Althaus stand out most prominently:—(a) He (Mr. Tait) maintains that he and Dr. Althaus employed a current stronger than any I name. Dr. Althaus denies this (JOURNAL, 29th October and 3rd December, 1887), pointing out that his battery was defective, and that he had no such current as mine. (b) Mr. Tait pretends that the practice of Dr. Althaus was better than mine. Althaus again deposes against his own colleague, and admits that his method was imperfect and fell short of mine. He candidly closes his observations by an assurance that "if I should by the use of higher currents and greater attention to details, prove my case to the satisfaction of the profession, no one would be more delighted than myself."

The question between Mr. Tait and Dr. Apostoli is now before your readers. Let them form their own conclusions.—I am, etc.,
Paris, February 20th. G. APOSTOLI, M.D.

VENTRAL NEPHRECTOMY FOR HYDRONEPHROSIS.

SIR,—In answer to my criticism on the above named case, wherein I suggested that the patient should first be allowed the chance of recovery by simple aspiration, and illustrated it by the usual practice in hydrocele, Mr. Hunter replies that "there is no analogy between hydrocele and hydronephrosis, either in their pathology or treatment." As regards treatment this is incorrect, since both affections have been known to be permanently cured by simple tapping, and I carried the analogy no farther.

As regards pathology I did not suggest analogy, but where the resemblance breaks down the advisability of tapping a hydronephrosis becomes the more apparent, for in this affection we are seldom dealing with a perfectly closed sac as in hydrocele, and tapping gives a chance for the temporary obstruction to be removed. That such an operation is harmless, and that it has

proved effectual, should be a strong argument for its adoption as a step preliminary to nephrectomy.

I am not one to decry operations, however complicated or severe, provided the ends to be obtained justify the means employed. But it is scarcely reasonable to pass through the peritoneum to reach an organ that lies altogether behind that membrane if the organ can be removed through the loin. That the latter is the safer operation recent experience abundantly proves. Mr. Hunter thinks his case could not have been removed through the loin, but the report of the case does not convey to me that impression.—I am, etc.,

R. CLEMENT LUCAS, B.S., F.R.C.S.

18, Finsbury Square, E.C., February 20th.

"THE OATH OF HIPPOCRATES."

SIR,—In a book entitled *Uriconium*, by Thomas Wright, F.S.A., I have found a translation of a remarkable oath preserved in Greek, and attributed to Hippocrates, which in early times all students were obliged to take before they were allowed to practise. Do you not think it would be a good thing if we were obliged to subscribe to some modified form of this oath? Would it not perhaps prevent that column of complaints about medical etiquette which appears weekly? If you think it is of enough interest, I shall be glad if you would print it.—I am, etc.,

FRANK BROADBENT, M.D.

South Collingham, near Newark, February 10th.

"I swear by Apollo the Physician, by Æsculapius, by Hygeia, and Panacea, and all the gods and goddesses, calling them to witness that I will fulfil religiously, according to the best of my power and judgment, the solemn promise and the written bond which I now do make. I will honour, in the same degree as my parents, the master who has taught me this art, and endeavour to administer to all his necessities. I will consider his children as my own brothers, and will teach them my profession, should they express a wish to follow it, without remuneration or written bond. I will admit to my lessons, to my discourses, and to all my other methods of teaching, my own sons, and those of my tutor, and those who have been inscribed as pupils and have taken the medical oath, but no one else. I will prescribe such a course of regimen as may be best suited to the condition of my patients, according to the best of my power and judgment, seeking to preserve them from anything that might prove injurious. No inducement shall ever lead me to administer poison, nor will I ever be the author of such advice; neither will I contribute to an abortion. I will retain religiously the purity and integrity both of my conduct and of my art. I will not cut anyone for the stone, but will leave the operation to those who cultivate it. Into whatever dwellings I go, I will enter them with the sole view of succouring the sick, abstaining from all injurious views and corruption, especially from any immodest action towards women or men, freemen or slaves. If, during my attendance, or even unprofessionally in common life, I happen to see or hear of any circumstances which should not be revealed, I will consider them as a profound secret, and observe on the subject a religious silence. May I, if I religiously observe this oath, and do not break it, enjoy good success in life, and in the practice of my art, and obtain general esteem for ever; should I transgress and become a perjurer, may the reverse be my lot."

. Although this so-called Oath of Hippocrates is in many respects a most excellent one, we do not recommend its compulsory adoption by the General Medical Council. The day of Test Acts is past, partly because the feeling of the age is against such compulsion, principally because they have been found utterly inadequate to accomplish their aim. The man, for instance, who would perform any of the dishonourable actions mentioned in "the oath," would not hesitate to take it without the least intention of keeping its promises. The only persons who would object to it are those men of tender and merbid consciences, who would be quite incapable of wrong-doing, but who would scruple to take the oath.

We regret as much as our correspondent the unsatisfactory relations too often existing between members of the same profession, who should be as brothers. But we see the remedy for this condition of things, not in oaths and assertions, but in the cultivation and inculcation of a noble spirit of mutual trust and toleration, which we trust will be impressed upon the students of the coming generation by their teachers, both in word and example.

In proportion as homœopathy and other quackeries are relegated to obscurity; as every member of our profession devotes himself

to the cure of disease, rather than to pleasing his patients; as we become men of science and gentlemen, an end to squabbles and disputes will be found. Meanwhile, how far courts of honour, subscribed to by members of our profession, before which cases of difficulty and wrong could be brought, would be of use is a matter for controversy. We recommend rather the old-world precepts for the conduct of members of our profession: To love one's neighbour as oneself, and to do to all men as we would like them to do to us.

THE APPOINTMENT TO HAYWARD'S HEATH ASYLUM.

SIR,—Both your correspondents have failed to grasp the true significance of the recent appointment of medical superintendent to Hayward's Heath Asylum, and I think that your note appended to H.'s letter is quite aside from the question at issue. I appeal on behalf of the assistant medical officers of English asylums against the insult inflicted upon them by the gross injustice of this appointment. Although the terms of the advertisement excluded a large number of otherwise good candidates, still there were several who possessed the necessary qualifications, and these gentlemen, from want of personal influence with Chancery Lunacy Commissioners, have been superseded by a candidate whose only recommendation, if we except his age, was the energetic support of certain Commissioners, no part of whose duties consists in active interference in such appointments. There is little encouragement in the results of this appointment to men who are devoting the best part of their lives to obtaining a practical knowledge of insanity and the management of asylums if such appointments, for which they are most eligible, are to be given to men with no such experience. It is gratifying to note that the Medico-Psychological Association intend taking the matter up and have called a special meeting to discuss the question in all its aspects.—I am, etc.,

I.

SIR,—With reference to your editorial note underneath a letter referring to the above matter in the *JOURNAL* of February 18th, I should, with your permission, as a matter of simple justice to the present generation of assistant medical officers, like to point out that at least six of their number (all of whom were candidates) actually more than satisfied the exceptionally restrictive requirements of the Sussex committee as to medical degrees and qualifications. A list to verify this statement accompanies this letter. A public announcement that these men included those who have had many years' experience at such asylums as Bethlem, Colney Hatch, Rainhill, Northampton, and Devon is sufficient answer to any statement as to the age of the present regulations, and it is surely all that is required in the way of criticism as to the extraordinary nature of the recent appointment.—I am, etc.,

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

February 18th.

RULING OF THE JUDGES IN CASES OF INSANITY.

SIR,—Having been subpoenaed as a witness during the past week in two murder cases in which the plea of insanity was raised, it might be interesting to state the different view entertained by the two judges who tried the cases.

I attended at Maidstone on Thursday, in the Ramsgate shooting case. Mr. Justice Mathew presided. The medical men who tendered their evidence were asked whether at the present time the accused was of sound or unsound mind? On their answering that he was of unsound mind and unable to plead, the jury so found.

On arriving at Leeds the same evening, I found that Mr. Justice Day had refused to allow the experts to state whether they considered the prisoner of unsound mind; he said they could only state facts, and that he would not allow any medical expert to usurp the functions of a jury. The jury were, Mr. Justice Day remarked, the proper persons to decide this question. Such contradictory ruling makes it awkward for those professional gentlemen who are summoned as experts, and there should be a meeting of the judges, as in Macnaughten's case, to decide what questions a medical expert might answer in a court of law.—I am, etc.,

L. FORBES WINSLOW, D.C.L. Oxon.

70, Wimpole Street, Cavendish Square, W.

SUCCESSFUL VACCINATION.—Mr. T. Garrett Horder, L.R.C.P. Ed., has received the Government grant for efficient vaccination in the Cardiff District of the Cardiff Union.—Mr. W. Duncan, public vaccinator for the Nunney District of the Frome Union, has received the Government grant for efficient vaccination.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, February 16th.

The Pharmacy Acts.—The Earl of MILLTOWN presented a Bill for the amendment of the Pharmacy Acts, which was read a first time.

Friday, February 17th.

The Safety of Theatres.—The Earl of STRAFFORD, in asking the Government whether there was any objection to produce the report made by Captain Shaw in 1882 upon the condition of the London theatres, and their probable safety from fire, referred to the fact that there were 50 theatres in London, with a holding capacity of 70,000 persons, and upwards of 475 music halls, 31 concert halls and so-called palaces, with a holding capacity of 445,000. Within the last few years there have been some terrible calamities from the burning of theatres; the Ring Theatre at Vienna, the Opéra Comique at Paris, the principal theatre at Exeter, the Grand Theatre at Islington, the theatre at Bolton, had all suffered in this respect; and it was clear that better precautions ought to be adopted for the security of the audiences.—Lord MAHERONNE, as Chairman of the Metropolitan Board, stated that every theatre in London had been thoroughly and efficiently inspected. In his opinion the publication of the report would produce unnecessary alarm, because it had been considered and acted upon, and many of the defects which it pointed out had been remedied. Some theatres had been shut up because they were not in a proper condition as to safety, and every new theatre had been thoroughly inspected. Many music halls had been dealt with, and others were still under the consideration of the Board.

Monday, February 20th.

Sanitary State of Dublin Barracks.—Earl BEAUCHAMP moved that the return of all cases of febrile disease in the Dublin garrison since January, 1881, ordered to be printed September 9th, 1887, be continued to December 31st, 1887. Taking the return for 1884, he found, in regard to enteric fever, that Dublin showed the greatest number of cases and the highest ratio of admissions to hospital per 1,000 men.—Lord HERSHELL said he had reason to believe that matters were not in the slightest degree better during the last part of 1887 than they were during the earlier part of the year. The fact that the remedy would be costly was no justification or excuse for sending men to a place where they must contract a serious and dangerous disease.—Lord HARRIS said the Government did not shut their eyes to the serious condition of the barracks in Dublin. The report which had been received from Dr. Grimshaw and Sir C. Cameron showed conclusively in what an insanitary condition the barracks, and especially the Royal Barracks, were.—The Duke of CAMBRIDGE thought it was possible to exaggerate the condition of these barracks. He had lived in them himself for years. Enteric fever was exceptionally prevalent just now, and Dublin barracks were having a share of it. He agreed, however, as to the importance of inquiry to see what was the reason why the barracks were less healthy now than they were formerly, and of measures being taken to remedy the evil as far as possible. In future the difficulty would be met to some extent by the new barracks now in the course of erection.—Earl BEAUCHAMP expressed his readiness to substitute in his motion the medical report for the return.—Lord HARRIS assured their lordships that the present Government, having the information of the experts, did not intend to delay dealing with a matter of so much importance.—The motion for the production of the medical report was agreed to.

HOUSE OF COMMONS.—Thursday, February 16th.

Rabies in Dogs.—Mr. RITCHIE, replying to Viscount CURZON, said that the subject of rabies in dogs was receiving the attention of Her Majesty's Government, and the Privy Council Office were in communication with some local authorities with reference to the restrictions which might be necessary in connection with it. If it should be considered that further powers were required, they would be asked for. The average annual number of deaths in England and Wales during the ten years referred to was 40, and the average number in London from 1878 to 1887 was 7. The total number of deaths in England and Wales from hydrophobia in 1885 was 60, of which 27 were in London; in 1886 it was 26, of which 9 were in London. The number of deaths in London in 1887 was 2. He was unable to supply the total number in England and Wales for 1887.

Organisation of the Medical Department of the Army.—Mr. E. STANHOPE, in answer to a question put by Sir W. BARTELOT, said the whole question of the organisation of the Medical Department of the army had been engaging his earnest attention. Several points of detail were still under consideration; and on introducing the Army Estimates he would endeavour to explain fully the arrangements contemplated.

The Safety of Theatres.—Mr. MATTHEWS, replying to a question put by Sir S. NORTHCOLE, said the Government had under their consideration the question of the greater safety in construction of theatres, both in London and the provinces, and the expediency of introducing a Bill dealing with the subject.

Friday, February 17th.

Vaccination.—Mr. RITCHIE, in reply to questions by Mr. BRADLAUGH and Mr. PICKERSGILL, said that the Order of the Local Government Board dated October 31st, 1874, relating to prosecutions in vaccination cases, was not binding upon boards of guardians. The Order was merely a communication, and it rested entirely with boards of guardians to exercise their discretion in the matter.

Saving of Life at Sea.—Sir J. FERGUSSON informed Mr. H. VINCENT that it was the intention of the Government shortly to introduce in the House of Lords a Bill for the better saving of life at sea.

Monday, February 20th.

The Water Supply of the Country.—Sir H. ROSCOE called attention to the printed correspondence which has appeared from eminent authorities as to the possible danger of a water famine occurring during dry summers, and asked whether, in view of the vast importance of the question of the proper storage of water throughout the kingdom, the Government would consider the advisability of appointing a Royal Commission to inquire and report on the whole subject.—Mr. W. H. SMITH, in reply, admitted the seriousness of the question, but thought it impossible for any steps to be taken now which would affect the water supply of the ensuing summer. Looking to the fact that large sums of money had in late years been borrowed by local authorities for the purpose of providing water, the Government hardly thought a Royal Commission, such as suggested, advisable.

Measles in the Island of Lewis.—The LORD ADVOCATE, in replying to a question of Dr. CAMERON, stated that in Stornoway burgh there were a large number of cases of measles, and 4 deaths; Stornoway parish, many cases and 18 deaths; Barvas parish, nearly 300 cases and 1 death; Lochs parish, 300 cases and 16 deaths; Uig, 2 cases and no death. The disease has been on the whole of a mild type, and in all these places medical attendance was given and the sick supplied with medicine and such necessaries as were ordered by the medical men. Isolation, wherever practicable, was insisted upon.

Wednesday, February 22nd.

POLICE AND SANITARY LEGISLATION.

On the motion of Mr. STUART-WORTLEY, it was resolved that the Committee of Selection do appoint a Committee, not exceeding nine members, to whom shall be referred all private Bills promoted by municipal and other local authorities, by which it is proposed to create powers relating to police and sanitary regulations which deviate from, or are in extension of, or are repugnant to, the general law; that Standing Order 173A be applicable to all Bills referred to the said Committee; that the Committee have power to send for persons, papers, and records; that five be the quorum of the Committee.

NAVAL AND MILITARY MEDICAL SERVICES.

PRIZE OFFERED FOR PUBLIC COMPETITION BY HER MAJESTY THE EMPRESS OF GERMANY.

On the occasion of the fourth International Conference of Red Cross Societies, which was held at Carlsruhe last year, in the month of September, the Empress of Germany generously placed at the disposal of the meeting a sum of 6,000 marks (about £300), together with three gold and nine silver medals, to be employed as prizes in any competitive undertaking which the conference might consider likely to be useful in promoting Red Cross work. After full discussion of the subject, it was decided at the conference to devote Her Majesty's gift to a competition on "the best interior arrangements of a portable hospital, that is to say an indication of the most suitable articles and the best means of procuring them, for furnishing and carrying on the work of a portable hospital calculated for a fixed number of sick and

wounded patients." It was also settled that the Central Committee of the German Red Cross Societies, of which Count von Stolberg is the president, should undertake the arrangement and publication of the detailed programme for the competition. This programme has now been issued, and we are requested to make known the conditions agreed upon for the competition. They are too lengthy for us to publish them *in extenso*, but an indication of the leading points among them will suffice, as it is announced that information in all particulars regarding the competition may be obtained by inquiries addressed to the Central Committee of the German Associations of the Red Cross, No. 73, Wilhelmstrasse, Berlin.

1. It is assumed that hospital accommodation for 60 patients has to be provided rapidly, and that to meet this urgent need, 3 huts have been erected, each 15 metres long by 5 wide, with walls 2.25 metres high, and an elevation of 3.65 metres to the top of the roof. Each hut can contain 18 or, in case of need, 20 beds. One or two other huts, with interior partitions, are destined for the accommodation of a staff of 2 surgeons, 2 purveyors or stewards, 1 cook, and 6 attendants on the sick. The question is how to dispose of these erections to the best advantage, keeping in view the attention to be given to the needs of the sick and wounded patients. All objects intended for the purpose named must be capable of being readily packed and transported, either by railway, or by country vehicles. Attention must, therefore, be given to reduction of bulk and weight as far as possible.

2. The objects above mentioned have reference to the bedding and all the furnishing of the space reserved for the patients, including the means of heating and lighting, the utensils for the sick, surgical instruments, medicaments, bandages, linen, clothing, cooking utensils, table articles, and, lastly, aliments and beverages necessary for three days. All articles must be furnished of their natural size, but only a single specimen of each. Models of reduced dimensions will not be admitted.

3. Each competitor will furnish a description of the objects he exhibits either in German, French, English, or Italian, and, if needed, explanatory drawings. The description must include (a) a plan of the constructions intended for the steward's duties; (b) a list of the different objects for the service, and an indication of the number of the sick and of the *personnel* they correspond to; (c) the precise cost of the various articles, where they are procurable, how they are to be packed, and the cost of packing; and (d) an approximate estimate of the number, dimensions, and weight of the packages, with a statement of the number of vehicles required for their conveyance.

4. Objects intended for the competition must be sent to Brussels before August 15th, 1888, and should be addressed: "Au Comité Exécutif du Grand Concours International des Sciences et de l'Industrie, Rue du Palais 22, à Bruxelles." Each competitor must send to the same address a notice specifying the amount of space he will require before July 15th next. This space will be allotted free of cost.

5. An international jury will be appointed to award the prizes.

6. The exhibition of the articles sent for competition will take place in an annexe to the Brussels Universal Exhibition, and will last from September 1st to the 30th, 1888.

It may be remembered that an international exhibition of hut portable hospitals took place in Antwerp in the autumn of the year 1885, in competition for a prize of 4,000 marks and a gold medal, which the Empress of Germany at that time placed at the disposal of the Red Cross Societies. The present competition, if it excites the same interest and attracts as many competitors as the competition of 1885 attracted, will complete the humane and valuable undertaking which was then commenced.

AN AMBULANCE COMPETITION TROPHY.

The suggestion made by Sir Guyer Hunter, M.P., at the Mansion House, last Saturday, on the occasion of the distribution of certificates to the successful candidates of the Ambulance Department of the Volunteer Medical Association, was one which if carried into effect would be likely to do much to create a healthy rivalry, and, as Sir Guyer Hunter observed, "be of service in increasing and making more perfect the work of the Ambulance Department." He expressed the hope that in course of a short time they might be able to obtain a shield, or some other similar object, which might be as the Elcho Shield was to the volunteers. The suggestion met with ready approval, and the Lord Mayor testified his concurrence by offering to give five guineas towards the object, an example which he hoped would be followed by others.

THE NAVY.

INSPECTOR-GENERAL JAMES NICHOLAS DICK, C.B., has been appointed Director-General of the Medical Department of the Navy. His commissions are thus dated:—Surgeon, August 17th, 1853; Staff-Surgeon, September 27th, 1861; Fleet-Surgeon, August 14th, 1863; Deputy Inspector-General, February 26th, 1869; and Inspector-General, February 27th, 1884. From the *Royal Navy List* we learn that he was Assistant-Surgeon during the Russian war in 1854-55, and served in *President*, flag of Rear-Admiral Price, being present at the attacks on Petropaulovski by the combined English and French Squadrons on August 31st and September 4th, 1854, when he was specially mentioned for his care of the large number of wounded. In September, 1854, he was also present at the capture of the Russian vessels, *Sitka*, of 10 guns, and *Anadir*, of 4 guns. In April, 1862, as Surgeon, was present in the boats of *Flying Fish* at the capture of a slaver in Rio Nunez, West Coast of Africa. In July and August, 1868, when in *Satellite*, was Senior Medical Officer in charge of the naval forces and Indian troops; in the operations on shore against pirates in the Nicobar Islands, Bay of Bengal. Was Senior Naval Medical Officer during the Abyssinian war, 1867-68, and for his services was specially promoted to the rank of Fleet-Surgeon (Abyssinian medal). During the civil war in Spain, when Fleet-Surgeon of the *Lord Warden* flag-ship in 1873, he proceeded into Cartagena during the bombardment as a volunteer to assist the wounded. Received from the Admiralty an expression of their high estimation of the zeal, energy, and skill shown by him in the performance of his duties in connection with the Royal Naval Hospital, Malta, of which he was the principal officer during the Egyptian campaign, 1882.

The following appointments have been made at the Admiralty:—T. D' A. BROMLOW, Fleet Surgeon, and G. T. COLLINGWOOD, Surgeon, to the *Impérieuse*; W. H. O'MEARA, Surgeon, to the *Cambridge*; J. H. DAWE, Surgeon, to the *Griffon*.

The following gentlemen who competed at the examination recently held at Burlington House, for appointment as Surgeon in the Royal Navy, have been granted commissions:

	Marks.		Marks.
Acheson, J. H.	3,130	Collingwood, F. W.	3,020
McElwer, J.	3,130	Levinge, R. T. A.	3,020
Fraser, P. W.	3,100	Ferguson, J. C.	3,010
Harvey, D'A.	3,045	Mowriyan, E. P.	2,990

THE MEDICAL STAFF.

SURGEONS P. J. B. O'SHAUGHNESSY and J. F. McMILLAN, who are serving in Bengal, have passed the examination in Burmese by the elementary standard.

THE INDIAN MEDICAL SERVICE.

SURGEON H. A. SHEPPARD, of the Bengal Establishment, has been superseded for absence without leave. He entered the service April 1st, 1886.

SURGEON U. N. MCKERJI, Bengal Establishment, is appointed to the officiating medical charge of the 5th Native Infantry, *vice* Surgeon C. J. Bamber, who has been transferred to civil employ.

SURGEON D. O. WÄRLIKER, Madras Establishment, has passed the examination in Burmese by the higher standard.

SURGEON-MAJOR G. BOMFORD, M.D., Bengal Establishment, is directed to officiate as Secretary to the Surgeon-General and Sanitary Commissioner with the Government of India during the absence on leave of Surgeon-Major A. Barclay, M.B.

SURGEON-MAJOR G. KING, M.B., Superintendent of the Royal Botanical Gardens at Calcutta, has leave of absence on private affairs for 2½ days.

BRIGADE-SURGEON C. SIBTHORPE, Madras Establishment, Fort Surgeon and Acting Surgeon at the General Hospital, is appointed to be Surgeon at the General Hospital.

SURGEON-MAJOR H. ALLISON, M.D., Madras Establishment, Assistant-Physician at the General Hospital and Acting Fort Surgeon, is appointed Fort Surgeon, with fort and marine duties.

SURGEON T. H. POPE, M.B., Madras Establishment, Civil Surgeon at Negapatam, is appointed Assistant-Surgeon at the General Hospital.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CASEY v. THE GUARDIANS OF ST. GEORGE'S-IN-THE-EAST.

(Before Mr. BARON HUDDLESTON and a special jury.)

THIS action was brought under Lord Campbell's Act by a widow, for herself and her children, to recover compensation for the death of her husband. The case as opened by the counsel for the plaintiff was to the effect that it had become necessary to restrain the deceased, who was at the time an inmate of the workhouse infirmary, but that, the straps not being properly fixed, he got loose and threw himself out of the window. The case for the plaintiff was that the guardians were guilty of negligence by their servants in not having the deceased properly secured in the condition in which he was known to be at the time.—Mr. Baron Huddleston asked whether the point raised in this case had not been before him previously.—Mr. Finlay replied that it was before his lordship sitting without a jury. The Court of Appeal thought there was no case of negligence made out against the guardians.—Mr. Baron Huddleston: I thought there was.—Mr. Finlay: Yes.—Mr. Baron Huddleston: That was the case of a window not being properly barred?—Mr. Finlay assented. The question of law as to whether an action would lie in such a case was not decided in

that case. Lord Justice Bowen said the question was one of very great difficulty. It had been decided in the Irish case of "Brennan v. the Limerick Poor Law Union." The deceased had in that case been suffering from delirium tremens. The decision showed that no action lay against the guardians, on the ground that they were acting ministerially in the matter, and that by the Poor Law Acts such a liability is not imposed upon them. There was, he supposed, no substantial difference between the Irish and the English Poor Law.—Mr. Baron Huddleston said that case was not quoted when the point was previously before him.—The evidence of some of the nurses and doctors having been heard, the learned judge ruled that there was no evidence of negligence in this case, and by his lordship's direction the jury found a verdict for the defendants.

MEDICAL AID SOCIETY.

A CORRESPONDENT writes to us with regard to the action of the Medical Aid Society at Hanley. In the JOURNAL of January 14th we gave our opinion of the character of this Society, and advised medical practitioners desirous of maintaining the dignity of the profession to have as little to do with it as possible.

Complaint has also reached us as to the system of "fouting" for patients alleged to be practised by agents of the London and Manchester and other insurance societies; it is stated that they not infrequently call on the patients of different practitioners and persuade them to leave their own medical men, and to employ the services of the medical men of their society for a small additional premium payment.

It has always been considered legitimate for insurance agents in the way of business to call on members of the public in the hope of getting them to take policies in their respective offices; but if, under the pretence of *bond fide* insurance business these societies are through their agents simply carrying on a wholesale traffic in cheap medical attendance, we cannot but think such practices worthy of the strongest reprobation of the profession.

W. J. B.—Our correspondent was well advised in leaving a situation for which he was admittedly unqualified, and continuance in which would probably have brought him into difficulty. Without a full report of the proceedings we are unable to form an opinion whether the decision of the county court judge was right or not. The solicitor, if properly retained, might be liable for negligence in failing to appear to conduct the case.

INDIA AND THE COLONIES.

NINETEENTH ANNUAL REPORT OF THE SANITARY COMMISSIONER FOR BENGAL (DEPUTY SURGEON-GENERAL R. LIDDERDALE, M.D.) FOR THE YEAR 1886.

IN the year under review there was a marked reduction in the prevalence of cholera, as compared with its incidence in 1885. In 1886 the deaths from this disease amounted to 118,363 persons, among a population numbering 66,163,884, that is, at the rate of 1.78 per 1,000; while in 1885, 173,767, or 2.62 per 1,000 of the population perished from this cause. The disease attacked 21,567 villages, or 2.33 per cent. of the total number of villages in the province, against 29,239, or 12.61 per cent., in 1885. In the urban circles 9,935 persons died of the disease, at the rate of 4.12 per 1,000 of the population; in the rural districts 108,433, or 1.70 per 1,000 of the population. As usual, the rainfall exercised a powerful influence on the prevalence of cholera. In 1885 the province was severely inundated, so much so that a large portion of it was kept under water to a late period; this, in the opinion of the Sanitary Commissioner, has the effect of materially reducing the usual severity of the winter prevalence of cholera in that year, and this abatement was prolonged into January and February of 1886. The first four months of the year had a rainfall below the average of several preceding years, but this was not followed by any marked exacerbation above the usual seasonal increase of deaths. March, April, and May have a smaller mortality than 1885.

There was heavy rain in May, June, July, August, and September, attended by a very considerable diminished mortality, but the winter prevalence of the disease was high, and culminated in severity in December.

It appears that the Government of India directed a table to be prepared, showing the meteorological peculiarities which obtained during defined periods of cholera outbreaks in certain selected thannas and towns. The Sanitary Commissioner does not seem to think that much, or indeed any, useful information has resulted. He thinks the whole subject has already been exhaustively considered by Drs. Lewis and Cunningham, and he adds the following significant paragraph: "We already know the conditions which

foster the disease, and what the Sanitary Department requires is more and more money to remove them, leaving to savants to puzzle out the problem of causation, while in the meantime we save useful lives." It is certain that until the health officers of Calcutta and the other great cities have either "more powers" to deal with the known causes which foster cholera, or the obstructive municipalities are by some means made to cease from obstruction, the death-rate from this disease will continue to be what it is, and Calcutta will continue to be what it is—a terror to Continental nations. Again and yet again we have warned the Government of India that unless some stringent measure in the direction indicated is taken, Continental Governments will take steps to protect themselves by international action that will affect the commerce of India very seriously. At this time a measure of municipal reform from Bombay is under consideration there, and it is a lamentable fact that great pressure is being brought to bear on the Government by nearly the whole of the wealthy and educated native community to emasculate the measure, by striking out the clauses which are intended to promote the health of the community, or indirectly to effect the same bad end by restricting the power of health officers. Cities that have grown up, no matter where, without knowledge of the laws of health, can only be made even tolerably wholesome to live in by a considerable expenditure of money under the supervision of sanitary engineers, and this is exactly what municipal bodies in India, under the almost sole guidance of wealthy but, as regards sanitation, ignorant native gentlemen will not permit. Has the governing race lost the art of governing? Has it become so emasculated in India that it must "lie low" at the bidding of the ignorant governed?

REGISTRATION IN CEYLON.

A REGISTERED PRACTITIONER writes: In the JOURNAL of January 7th it appears that an Order in Council has been published extending the provisions of the second part of the Medical Act, 1886, to Ceylon. That this is a step in the right direction is unquestionable, but, at the same time, I venture to hope that the privileges which are associated with the act of registration will be extended to us in their entirety, and that thereby we shall be enabled to overcome satisfactorily the present unjust and undignified restrictions that are imposed upon the medical men of the Ceylon Medical Service by the Government in the matter of fee-charging. At the present moment, no medical man in charge of an out-station is permitted to demand a fee from any Government servant who draws a salary under £25 a month. The largest number of my patients consists of Government servants with salaries ranging from £10 to £22 a month, and the majority of them are, in addition, landed proprietors, and yet, by reason of this grossly unfair ordinance, I am forced to attend upon them and their families without the smallest remuneration. Now, why should this be so? The "free" patient and the medical officer are both servants of one and the same Government, with the important difference though that, in my case, I am registered, hold a British qualification, and am privileged to claim a monthly salary of £7 4s. only. This being the case then, wherein lies the necessity or the justice of drawing this fine distinction?

It strikes me very forcibly that the "free patient" derives a considerable amount of gratuitous benefit by this curious arrangement. Without entering into a lengthy recital of the wrongs that are thus inflicted upon medical men drawing a meagre salary, I may mention that any number of instances could be cited where medical officers have had to go some distance to attend Government servants for fractures, typhoid fever, etc., and who, on forwarding their account for payment, have received the terse and pithy reply of "I am a Government servant." It is therefore only to be hoped that the Council will take into consideration the existing state of matters, and that, before extending the Act of Registration to Ceylon, it will exert its powerful influence to amend the anomalous position which medical men in the island are forced to occupy.

THE *Indian Medical Gazette* states that Sir James Hanbury, K.C.B., will shortly be gazetted Principal Medical Officer, Madras, and will probably be the successor of Surgeon-General Madden as Chief Medical Officer of the Forces in India.

MEDICAL MAGISTRATE.—Surgeon-Major Keogh, J.P. for Co. Kildare, has been placed on the Commission of the Peace for the Queen's County.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

MAINTENANCE OF THE PHYSIOLOGICAL DEPARTMENT.—At a meeting of Convocation held on February 21st, the ordinary motion was made to continue the grant of £500 per annum for the expense of the Physiological Department, a minimum which Professor Fowler said Dr. Burdon Sanderson had eked out by an annual payment of £100 from his private purse. Professor Freeman opposed the grant as an antivivisectionist; so did the Bodleian Librarian, who reviewed the history of the contest over the Physiological Department, and complained of the inequity with which an important minority had been treated. Mr. Macray said that he and others would feel bound to vote against grants to the department so long as the University left the question of vivisection unrestricted by its statute. The grant was carried by 102 votes to 22.

UNIVERSITY OF CAMBRIDGE.

OUR Cambridge correspondent telegraphs:—The following were, on February 23rd, admitted to the degree of M.B.:

Harrison, H. L., B.A. (St. John's); Light, E. M. (Clare). Mr. Light was also admitted to the degree of B.C.

UNIVERSITY OF BRUSSELS.

At the recent February examination the following gentlemen, having passed successively the first, second, and third Doctorates Examinations required by the University, were admitted to the degree of M.D.:

Des Voeux, H. A., M.R.C.S. Eng., L.R.C.P., L.S.A.; Dyer, S. G., M.R.C.S. Eng., L.R.C.P., L.S.A.; Hubbard, W. L., M.R.C.S. Eng., L.R.C.P., L.S.A.; Mathews, W., M.R.C.S. Eng., L.R.C.P. Ed., F.R.C.S. Ed.

OBITUARY.

PROFESSOR WAGNER.

THE death of Professor Wagner, the distinguished pathologist, on February 10th, is announced from Leipzig.

Professor Ernst Leberecht Wagner was born in Dehlitz in 1829, obtained his degree at Leipzig in 1855, was made extraordinary professor in 1859, and in 1863 ordinary professor of general pathology and pathological anatomy. After Wunderlich's death Wagner took over the direction of clinical medicine in the University of Leipzig. His profound pathological acquisitions were evidenced by numerous publications—for example, *On Uterine Cancer* (Leipzig, 1858), *On Fatty Metamorphosis of the Heart* (1864), *On Lymphadenoma Resembling Tubercle* (1871), and these labours throw his clinical activity into higher relief than is usually the case with physicians. "Of his many-sided and profound knowledge of pathology" (*Berliner Klinische Wochenschrift*, February 20th) "his distinguished exposition of Bright's disease is a witness; of his comprehensive medical culture his *Handbook of General Pathology*, a truly classical work, of which Uhle was co-editor. Subsequently to 1860 Wagner edited the *Archiv der Heilkunde*, which, in 1878, gave place to new undertakings. Wagner was distinguished as a diagnostician and teacher, and in general character, and his work will ever be remembered far beyond the scene of his activity."

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

WITTINGTON URBAN (Population, 21,000).—Dr. Railton's account of the incidence of epidemic disease during 1886 in the four townships comprised in this district is very interesting. The year's mortality was low, although two rather extensive epidemics of fever prevailed, which, but for the mildness of the disease, might have proved very disastrous. Measles also prevailed to a great extent in Chorlton-cum-Hardy in the early months of the year, and especially in the month of April. Six cases of diphtheria were reported, and of these 5 proved fatal. They were quite unconnected one with the other, the milk supply being from a different source in each case. Dr. Railton devotes a fair portion

of his report to a consideration of the mortality at the various age periods. Deaths of infants were at the rate of 9 per cent., which is slightly lower than in 1885. All the deaths from diarrhoea occurred in children under 5 years of age. The general death-rate was very low—12.0 per 1,000.

KENSINGTON (Population, 173,500).—*Hospitals of Asylums Board: Notification of Disease: Disease in Post Office Officials.*—Dr. Dudfield's annual reports may be regarded as exhaustive treatises on sanitary science, of which he not only expounds the theory, but relates the practice. His influence and interest are widespread, and acting under his advice the vestry of St. Mary Abbots, has become a real power in promoting improvements, and in controlling sanitary legislation. Dr. Dudfield has always attached the greatest importance to the work of the Metropolitan Asylums Board in connection with hospital accommodation, and may justly claim credit for originating many useful features of its present system. He for many years contended for the free admittance of all infectious cases upon the application of sanitary officials or of registered practitioners, and it was mainly at his instance also that the plan of removing small-pox patients out of London was adopted, and that the hospital-ships were instituted. His report for 1886, especially that part which deals exclusively with the prevalence of zymotic diseases in the district, shows that there was not a great deal of epidemic sickness during the year. Measles, whooping-cough, and diarrhoea were the most fatal, but the number of deaths in each instance was below the decennial average. Diphtheria was the only one of these diseases which showed a mortality in excess of the average. This increase, Dr. Dudfield thinks, may be apparent rather than real, and is possibly due to greater accuracy in diagnosis. The decline in the prevalence and fatality of certain diseases is taken as evidence of the beneficial results of the system of voluntary notification. The action of the postal authorities in reference to the notification of several cases of scarlet fever in the families of letter-carriers, etc., did not quite satisfy Dr. Dudfield's requirements, information having been withheld until the services of the disinfecting staff were called into requisition at the termination of the respective illnesses. The death-rate for the whole parish was 15.9 per 1,000, compared with 15.5, 15.1, and 16.1, in the three preceding years, being 1.4 per 1,000 below the decennial average, and 4.0 below the metropolitan rate. The infant mortality was lower than in some recent years, the number of deaths under one year of age being 686, or 15.4 per cent. of the total registered births.

CHELSEA (Population, 97,716).—*Diphtheria: Typhus Fever: Conviction for Careless Dispensing.*—The number of deaths registered in this parish during 1886, including the three subdistricts, was 1,909. The death-rate, therefore, was equal to 20.4 per 1,000. No deaths were recorded from small-pox, and there were only 7 deaths from scarlet fever. Dr. Edward Seaton states, as a curious fact, that exactly the same number of scarlet fever deaths occurred in each of the two preceding years. Diphtheria caused 28 deaths—a high mortality, as compared with other urban districts. Dr. Seaton's experience leads him to the conclusion that defective house drainage has very little to do with the production of this latter disease. "It is beyond question," says Dr. Seaton, "that many outbreaks of diphtheria, like scarlet fever, have been traced to milk, and it is also beyond doubt that in these cases the milk has not become contaminated by human agency, or by a polluted water supply. As in the case of scarlet fever, there are facts which point to a disease of the cow as the source of the mischief." People are careless about measures of isolation and disinfection in connection with diphtheria; but Dr. Seaton insists very strongly on the need for treating the disease as one of an infectious character. Some cases of typhus fever occasioned considerable anxiety, occurring as they did in a court occupied by poor people, necessarily living under unfavourable sanitary conditions. The utmost precautions were taken, and the patients removed to the hospital, and Dr. Seaton procured the assistance of the guardians and of other charitable societies in relieving cases of distress, which would otherwise have fallen ready victims to the disease. The new disinfecting station afforded valuable help, and its usefulness is becoming more generally recognised. One of the chief events of the year was the successful prosecution of a chemist and druggist for carelessness in dispensing a medicine.

POPULAR (Population: South district, 58,530; North district, 115,900).—*Prevalence of Measles and Diphtheria: Cutting off*

Water supply.—Measles was the only zymotic disease that was seriously epidemic during 1886. In each division the deaths are reported to have been excessive. So prevalent was the disease in the south district during the month of December that Mr. Corner caused a special inspection of houses to be made, with the view of ascertaining if defective house sanitation were contributing to the fatality. The results, however, showed that such was not the case generally. Dr. Russell Talbot's explanation is, perhaps, more probable: that sufficient means for isolation were not available. No death occurred from small-pox during the year, and only 6 cases were recorded. Diphtheria and croup were fatal in 36 instances in Poplar and 14 each in Bow and Bromley. Bad storage of water, the presence of sewer gas in houses due to faulty drains and fittings, want of water to closets, and defective or absent traps, were not infrequently found in connection with the cases. In a fatal case at Millwall the suspicious connection of want of water and diphtheria was shown. The premises had been without water three days, the company having cut off the supply to enable alterations to be made. Twenty-four deaths occurred from enteric fever, 16 in the north and 9 in the south district. One death, undoubtedly due to defective sanitary conditions, was specially lamentable, the victim, the head of the house, having, on entering it nine months previously, expended money freely with the object of securing a healthy home; a daughter, who sickened later on, nearly lost her life. The deaths in Poplar were 1,043, and in Bow and Bromley 2,481. Diarrhoea prevailed but little during the summer.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, 18th February, 5,516 births and 3,764 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 21.9 and 22.2 in the two preceding weeks, declined during the week under notice to 20.9. The rates in the several towns ranged from 14.1 in Birkenhead, 14.2 in Sunderland, and 15.4 in Bradford and in Cardiff, to 26.7 in Norwich, 26.8 in Preston, 29.3 in Manchester, and 29.4 in Wolverhampton. The mean death-rate in the twenty-seven provincial towns was 21.2 per 1,000, and exceeded by 0.6 the rate recorded in London, which was 20.6 per 1,000. The 3,764 deaths registered during the week under notice in the twenty-eight towns included 405 which were referred to the principal zymotic diseases, against 507 and 491 in the two preceding weeks; of these, 170 resulted from whooping-cough, 61 from scarlet fever, 40 from "fever" (principally enteric), 38 from measles, 37 from small-pox, 35 from diphtheria, and 24 from diarrhoea. These 405 deaths were equal to an annual rate of 2.2 per 1,000; in London the zymotic death-rate was 2.6 per 1,000, while in the twenty-seven provincial towns it averaged only 2.0, among which it ranged from 0.2 in Bradford and 0.3 in Hull, to 3.6 in Nottingham, 3.8 in Oldham, and 6.0 in Sheffield. Measles caused the highest proportional fatality in Wolverhampton, Nottingham, and Plymouth; scarlet fever in Halifax, Oldham, Preston, and Birkenhead; whooping-cough in Brighton, Salford, and London; and "fever" in Nottingham and Norwich. The 35 deaths from diphtheria in the twenty-eight towns included 18 in London and 5 in Liverpool. Of the 37 fatal cases of small-pox recorded during the week under notice 30 occurred in Sheffield, 2 in Bristol, 2 in Leeds, 1 in London, 1 in Nottingham, and 1 in Manchester. The Metropolitan Asylums Hospitals contained 6 small-pox patients on Saturday, February 18th, of which 1 had been admitted during the week. These hospitals also contained 1,395 scarlet fever patients on the same date, against numbers declining steadily from 2,600 to 1,453 in the eleven preceding weeks; there were 104 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 5.9 per 1,000, and was slightly below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 781 births and 563 deaths were registered during the week ending Saturday, February 18th. The annual rate of mortality in these towns, which had been 22.4 and 22.5 per 1,000 in the two preceding weeks, was again 22.5 during the week under notice, and exceeded by 1.6 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the lowest rates were recorded in Greenock and Leith, and the highest in Glasgow and Paisley. The 563 deaths in these towns during the week under notice included 62

which were referred to the principal zymotic diseases, equal to an annual rate of 2.5 per 1,000, which slightly exceeded the mean zymotic death-rate during the week under notice in the large English towns. The highest zymotic rates were recorded in Glasgow, Perth, and Paisley. The highest proportional fatality of whooping-cough occurred in Glasgow, and from measles in Dundee. The 13 deaths from diphtheria recorded in these Scotch towns included 6 in Glasgow and 5 in Edinburgh. The mortality from diseases of the respiratory organs during the week under notice in these towns was equal to 6.5 per 1,000, against 5.9 in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, February 18th, the deaths registered in the sixteen principal town districts of Ireland were equal to an annual rate of 28.3 per 1,000. The lowest rates were recorded in Kilkenny and Wexford, and the highest in Limerick and Drogheda. The death-rate from the principal zymotic diseases in these towns averaged 3.1 per 1,000, and was highest in Belfast and Newry. The 175 deaths registered in Dublin during the week under notice were equal to an annual rate of 25.9 per 1,000, which showed a marked decline from the high rates in recent weeks. The 175 deaths included 17 from the principal zymotic diseases (equal to an annual rate of 2.5 per 1,000), of which 7 were referred to scarlet fever, 4 to whooping-cough, 2 to "fever," 2 to diarrhoea, 1 to measles, and 1 to diphtheria.

REPUDIATION OF OVERSEER'S ORDER BY A BOARD OF GUARDIANS.

A COUNTRY MEMBER writes: On October 12th last a boy was brought to me suffering from extremely severe lacerated wound of hand, demanding immediate amputation of thumb. The operation satisfactorily concluded, the mother of the child informed me that neither she nor her husband were in a position to pay for a medical man; so I told her she must get me a "note" from the parish authorities of the Union for which I act as medical officer; this was brought me the following morning in the shape of an overseer's order. I reported the case in the usual manner to the Board of Guardians every fortnight during my attendance, which only ceased, owing to the severity of the injury, about ten days or a week ago.

I hear nothing from the Board on the subject till I send in my bill at Christmas, when I am informed that they refuse to pay me my fee (£2) for attendance on the case, and on my demanding the reason subsequently stated that "they consider A. W.'s case was one in which the overseer should not have given the order, and they decline to confirm it." Can they do so?

* * * Our correspondent should immediately take out a summons against the Board of Guardians, when he will be promptly informed by the county court judge that the Board of Guardians are, under the special circumstances, liable for the claim, and cannot dispute the legality of the same.

CERTIFICATES OF SUCCESSFUL VACCINATION.

M.B., C.M. asks: Can I, after having vaccinated a child brought to me from a distance, subsequently sign a certificate of successful vaccination on the word of the mother, without having myself seen the child? I am practising in a country district, and children are frequently brought to me for vaccination from a distance of six or eight miles. The parents strongly object to bringing the child back for examination on account of the expense to my (the year) bad weather. Similarly they object on the score of expense to my making a visit for the purpose of seeing whether the vaccination be successful or not. Hitherto I have refused to certify without seeing the child, and in consequence have roused the indignation of one or two patients for having, as they said, "refused to take their word." Apparently my predecessor had been in the habit of certifying without seeing.

* * * The intention of the Act is that the vaccination should be inspected. It is only by such means that the operator can be certain of certifying correctly. Read Form (A) in the Schedule, Vaccination Acts, 1867 and 1871.

ALPHA.—The duties of medical officers of health and of inspectors of nuisances have been defined by the Local Government Board, and an application to the Board would doubtless procure for you their memorandum.

MEDICAL OFFICER OF HEALTH.—The best book is, we think, Wilson's *Handbook of Hygiene*, but we are not prepared to state that this book will enable the candidate to reply to every question.

At a meeting held on February 16th, 1888, the Wigan Medical Society unanimously passed the following resolution:—"That it is inadvisable amongst members of the medical profession to issue circulars or to use a systematic canvass for club appointments."

THE LATE PROFESSOR BOHN.—Dr. H. Bohn, Extraordinary Professor of Pediatrics in the University of Königsberg, died on February 5th, after a long illness. His best known works are *Diseases of the Mouth in Children*, *Handbook of Vaccination*, the *Description of the Acute Exanthemata* in Gerhardt's *Handbook of Children's Diseases*, and numerous contributions to the *Jahrbuch für Kinderheilkunde*. Although Bohn had to work under unfavourable conditions, without adequate clinical material, he nevertheless produced scientific results of permanent value.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following Vacancies are announced:

- BIRMINGHAM GENERAL HOSPITAL.**—Assistant House-Surgeon. Applications by February 25th to the House Governor.
- BRISTOL DISPENSARY.**—Surgeon. Applications by March 8th to E. Stock, Esq., 57, Queen Square, Bristol.
- CANCER HOSPITAL, Brompton.**—Registrar. Salary, £50 per annum, with board and residence. Applications by March 6th to the Secretary.
- CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.**—Two Assistant Surgeons. Applications by March 6th to the Secretary.
- COTON HILL LUNATIC HOSPITAL.**—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications by March 10th to the Medical Superintendent.
- DEWSBURY AND DISTRICT GENERAL INFIRMARY.**—House-Surgeon. Salary, £90, with board, etc. Applications by March 6th to the Chairman of the House Committee.
- FRENCH HOSPITAL, Leicester Square.**—Resident Medical Officer. Salary, £90 per annum, with board, etc. Applications to the Secretary.
- LEICESTER INFIRMARY AND FEVER HOUSE.**—Assistant House-Surgeon. Salary, £50, with board, etc. Applications by March 10th to the Secretary, 24, Friar Lane, Leicester.
- LINCOLNSHIRE COUNTY ASYLUM, Bracebridge, near Lincoln.**—Assistant Medical Officer. Salary, £150 per annum, with board, lodging, and washing. Applications by February 25th to J. W. Marsh, Esq., Superintendent.
- METROPOLITAN HOSPITAL, Kingsland Road.**—Junior House-Surgeon. Salary, £40, with board, etc. Applications by February 27th to the Secretary.
- MOUNTMELICK UNION, Coolrain Dispensary.**—Medical Officer. Salary, £115 per annum, and fees. Applications to Mr. P. Kelly, Honorary Secretary, Derryduff, Mountrath. Election on March 5th.
- OUGHTERARD UNION.**—Medical Officer, Oughterard Dispensary. Salary, £112 per annum and fees. Applications to Mr. Robert Mons, Honorary Secretary, Drumnakill Lodge. Election on March 7th.
- OUGHTERARD UNION.**—Medical Officer to the Workhouse, Infirmary, and Fever Hospital. Salary, £70 per annum. Applications to Mr. J. Gillmore, Clerk of Union. Election on March 7th.
- ROXBURGH DISTRICT ASYLUM, Melrose.**—Assistant Medical Officer. Salary, £80 per annum, with board and residence. Applications to Dr. Johnstone.
- ST. GEORGE'S AND ST. JAMES'S DISPENSARY.**—Physician. Applications to S. L. Bunnett, 60, King Street, Regent Street, W.
- TARBAT (ROSS-SHIRE).**—Medical Officer. Salary, £115 per annum. Applications by February 28th to Finlay Munro, Esq., Rockfield-by-Fearn, N.B.
- UNIVERSITY OF GLASGOW.**—Four Examiners in Medicine. Annual fee, £40 or £30. Applications by March 5th to the Secretary of the University Court, G. D. McLellan, Esq., 145, West George Street, Glasgow.
- WEST BROMWICH DISTRICT HOSPITAL.**—House-Surgeon. Salary, £80 per annum, with board. Applications by February 25th to William Bache, Esq., Churchill House, West Bromwich.
- YORK COUNTY HOSPITAL.**—Senior House-Surgeon. Salary, £100 per annum, with board, etc. Applications by March 1st to the Secretary.
- YORK DISPENSARY.**—Three Resident Medical Officers. Salary, £130 per annum, with furnished apartments, etc. Applications by February 29th to S. W. North, Esq., 84, Micklegate, York.

MEDICAL APPOINTMENTS.

- ASHLEY, S. D., M.R.C.S.,** appointed Resident House-Surgeon to the Brixton, Streatham, and Herne Hill Dispensary, *vice* A. G. Peacock, L.R.C.P., M.R.C.S., resigned.
- CALVERT, James, B.A., B.Sc., M.D.Lond., M.R.C.P., M.R.C.S.,** appointed Assistant-Physician to the Royal Hospital for Diseases of the Chest, City Road, London.
- GRIFFITHS, T. R.,** appointed Clinical Assistant to the Birmingham Borough Asylum, *vice* R. J. Fox, resigned.
- HAILES, D. G. Clements, C.M., M.D.Ed.,** appointed Consulting Surgeon-Oculist to the Redland Branch of Clifton Dispensary.
- JONES, E. Lloyd, M.B., C.M., R.A.,** appointed Junior House-Surgeon to the Western Dispensary, Marylebone Road, N.W.
- LUFF, A. P., M.B., B.Sc.Lond., M.R.C.S.,** appointed Assistant-Physician to the North-West London Hospital, Kentish Town Road, *vice* T. Glover Lyon, M.A., M.D., resigned.
- POWELL, H., L.R.C.P.Ed.,** appointed Medical Officer to the Silvermines Dispensary, Nenagh Union, *vice* J. H. A. Hall, L.K.Q.C.P.I., resigned.
- SUGDEN, E. S., M.B.Dur., M.R.C.S.Eng.,** appointed Senior House-Surgeon to the Birkenhead Borough Hospital, *vice* S. Hughes, M.B., C.M.Ed., M.R.C.S., resigned.
- THOMAS, J., M.R.C.S.Eng., L.R.C.P.Lond.,** appointed House-Surgeon to the Glamorgan and Monmouth Infirmary and Dispensary, *vice* Donald Paterson, M.D., resigned.

PRESENTATION TO DR. F. ERNEST POCOCK.—At the half-yearly dinner, on February 16th, of the Brussels Medical Graduates Association, Dr. Henry Lewis, of Folkestone, President, in the chair, a handsome illuminated address, with a gold repeating watch and massive silver centre-piece and soup tureen, was presented to Dr. F. Ernest Pocock, who has been honorary secretary of the asso-

ciation for nearly ten years. The presentation was made jointly by Dr. Jervis, the president, and Dr. I. Beresford Ryley, the founder of the Association, both of whom spoke in the warmest and most cordial manner of the indefatigable energy and acumen shown by Dr. Pocock in carrying out the work of the association. It was entirely owing to Dr. Pocock's efforts that the Brussels degree had been (under the recent Medical Act) placed upon the *Medical Register*. Dr. Pocock suitably responded, and thanked the association for their kind recognition of his services. Dr. Bowles, F.R.C.P., of Folkestone, in replying to the toast of his health, said that Indian medical students were at a great disadvantage in obtaining a degree in medicine, but that he hoped this was soon to be remedied. Among the other speakers were Dr. Danford Thomas, Dr. William Gayton, Dr. Nix, Dr. Barraclough, and Dr. Orwin.

THE WORKHOUSE INFIRMARY NURSING ASSOCIATION.—H.R.H. Princess Christian of Schleswig-Holstein, patroness of the Workhouse Infirmary Nursing Association, has written to the committee: "If I have an opportunity, I will certainly urge the claims of the Trained Nursing Association in workhouse infirmaries. I know from personal experience what good work it has done." The eighth annual report of this association showed that there has been during the past year a steady increase in the demand for nurses trained by the association. Sixty-three have been appointed to twenty-two infirmaries. Seventy-three nurses, of whom fifty-four are in London, and the remainder in the country, are now at work. Four vacancies were filled during the year at new infirmaries. Midwives from the association are at work at the infirmaries of St. Pancras, Camberwell, St. Luke's (Holborn), Marylebone, Kensington, and Hampstead. The Board of Guardians of St. George's-in-the-East have consented to fill the vacancies which occur in their infirmary with trained nurses, under the supervision of Miss Hughes, the matron appointed last year. Miss Louisa Twining has promised a donation of £100 towards meeting the increased outlay of the association in carrying out the work it has set to itself—that of abolishing the old system of pauper nursing, and replacing it by placing trained ladies and nurses in all our infirmaries. It is encouraging to find that fifteen boards of guardians subscribe to the society's funds.

HUNTERIAN SOCIETY.—The following officers of the Hunterian Society were elected at the annual general meeting on February 8th for the ensuing twelve months:—*President*: R. Clement Lucas, B.S. *Vice-Presidents*: Mr. G. J. B. Stevens; Mr. G. B. Hicks; Fletcher Beach, M.D.; Heinrich Port, M.D. *Treasurer*: H. I. Fotherby, M.D. *Trustees*: H. I. Fotherby, M.D.; Mr. D. de Berdt Moyell. *Librarian*: Mr. T. Rowing Fendick. *Orator*: G. E. Herman, M.D. *Secretaries*: F. Charlewood Turner, M.D.; Mr. John Poland. *Council*: Messrs. S. H. Appleford; T. E. Bowkett; P. L. Burchell, M.B.; F. M. Corner; J. S. E. Cotman; H. Gervis, M.D.; Dundas Grant, M.D.; W. Rivington, M.S.; Isaac Searth, M.B.; J. H. Stowers, M.D.; C. J. Symonds, M.S.; R. G. Tatham. *Auditors*: G. E. Herman, M.B.; Messrs. Waren Tay, T. Rowing Fendick, J. S. E. Cotman. *Library Sub-committee*: Messrs. F. M. Corner, S. H. Appleford, Walter Rivington, M.S.; Heinrich Port, M.D.; J. S. E. Cotman. In our notice of the dinner of this Society last week, the name of Buzzard was misprinted for that of Sir William Blizard, of the London Hospital, who in former years adorned the presidential chair, being the first president, and delivered the first oration.

THE WILLIAM F. JENKS MEMORIAL PRIZE.—The first triennial prize of 250 dollars, under the deed of trust of Mrs. W. F. Jenks, will be awarded to the author of the best essay on "The Diagnosis and Treatment of Extra-Uterine Pregnancy." The prize is open for competition to the whole world, but the essay must be the production of a single person, and must be written in the English language, or if in a foreign language must be accompanied by an English translation. All essays to be sent to the College of Physicians of Philadelphia, Pennsylvania, U.S.A., addressed to Ellwood Wilson, M.D., before January 1st, 1889. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. The Committee will return unsuccessful essays if reclaimed within one year. If the successful essay be published, which the trustees have the power of doing, the distribution of it is to be entirely under the control of the trustees under the deed. If not published, it is to be the property of the College of Physicians of Philadelphia.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.—The following gentlemen have been admitted as honorary members of this Society:—Sir Andrew Clark (London), Drs. Matthews Duncan (London), David Ferrier (London), Alex. Harvey (London), Thomas Keith (Edinburgh), William Bruce (Dingwall), Samuel Davidson (Wartle), Patrick Jamieson (Peterhead), William Lyon (Peterculter), Alexander Manson (Banff), Charles Smith (Kinnairdy).

INTER-HOSPITAL (RUGBY) CUP TIES.—Second round: St. Mary's v. London, resulted in a win for the former by 1 try (10 points) and 3 minors to 2 minors (2 points). The game was almost entirely confined to the forwards, and the result somewhat unexpected. The semi-final round is played this week, the final on March 1st.

INTER-HOSPITAL (ASSOCIATION) CUP.—Penultimate round: St. Bartholomew's v. St. Mary's. Played on February 14th, resulted in a draw, each side scoring one goal. St. Thomas's v. Guy's (holders). Played on February 17th, resulted in a win for the holders by 4 goals to 1.

Professor Brunetti, of the University of Pavia, has just been suspended by ministerial decree on the ground that he incited the students to rebellion against his colleagues.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Walter Hamilton Hilton Jessop, F.R.C.S.: Lecture I. On the Physiological and Pathological Conditions of the Pupil, and Accommodation.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Omerod: Two Cases of Friedreich's Ataxia. Mr. Marmaduke Sheild: (1) Ununited Fracture of Arm. (2) Loose Bodies in Knee-joint. Mr. Black: Case of Syphilis. Cases will also be shown by Mr. Stephen Paget, Mr. Pitts, Dr. Samuel West, and others.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Inspector-General Lawson: The Milroy Lectures.—Lecture III. Epidemiological Aspects of Yellow Fever.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. Henry Morris: Some remarks on the Radical Cure of Hydrocele, with notes of two Cases of Excision of the Tunica Vaginalis, followed by Recurrence of the Hydrocele. Mr. A. Marmaduke Sheild: A Case of Neglected Dislocation of the Head of the Humerus, followed by Paralysis of the Nerves of the Hand and Forearm, treated by Excision of the Head of the Humerus.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Walter Hamilton Hilton Jessop, F.R.C.S.: Lecture II. On the Physiological and Pathological Conditions of the Pupil, and Accommodation.

HOSPITAL FOR CONSUMPTION, Brompton, 4 P.M.—Dr. Theodore Williams: Pathology and Modern Treatment of Bronchial Asthma.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Inspector-General Lawson: The Milroy Lectures.—Lecture IV. Epidemiological Aspects of Cholera.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Annual meeting.

PARKES MUSEUM OF HYGIENE, 5 P.M.—Professor G. Sims Woodhead, M.D., on Milk and Disease.

HARVEIAN SOCIETY, 8.30 P.M.—Mr. Mansell-Moullin: The Surgical Treatment of Bimpyema. Dr. Spicer: On the Functions of the Uvula and Epiglottis.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Walter Hamilton Hilton Jessop, F.R.C.S.: Lecture III. On the Physiological and Pathological Conditions of the Pupil, and Accommodation.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, 8 P.M.—Mr. Percy Dunn will show Pathological Specimens. Mr. Roche Lynch will show a Specimen of Cancer of Bodies of the Vertebrae. Dr. Eccles will give a demonstration of Massage. Papers: Mr. Lunn: On a Successful Case of Oophorectomy. Dr. Inglis Parsons: The Treatment by Electrolysis of Fibroids of the Uterus.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

BELL.—On February 18th, at Morehall Bishop, Devon, the wife of Theodore Bell, M.B., B.Ch. (Univ. Dublin), of a daughter.

O'CONNELL.—On January 30th, at Neemuch, Central India, the wife of Surgeon D. V. O'Connell, M.D., Army Medical Staff, of a daughter.

DEATH.

GREENER.—On February 11th, at Riverside, Cardiff, Marjorie Grace, infant daughter of Michael and Florence Greener.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY	10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.
TUESDAY	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital; Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department);
WEDNESDAY	10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.
THURSDAY	10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.
FRIDAY	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.
SATURDAY	9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., 3; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu. F., 1.30; o.p. W. S., 1.30; Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.15; St. Bartholomew's.—Medical and Surgical daily, 1.30; Obstetric, Tu. Th. S., 2; o.p. W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p. Tu. S., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., Tu., 2; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. S., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.30.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Tu., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUESTIONS.

CANIS has a case before him now (in advanced life) where a simple enema, though satisfactory enough to empty the bowel, leads to great acceleration of pulse, with loss of all rhythm and rise of temperature. What is the explanation of this; does the injection reverse the peristalsis and react upon the heart?

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION asks: What constitutes the "National Dispensary?" A "cheap" (possibly "naughty" also) dispensary has been opened at Tunbridge recently as the "Tunbridge Branch" of the above.

SUPPLY OF MEDICINES FOR A CHARITABLE INSTITUTION.

A MEMBER asks: What would be a fair sum for a charitable institution, containing seven adult female beds and one cot, to pay their medical officer for the supply of medicines? Professional services are given gratuitously. The cases admitted are non-contagious and suticute ones. Each patient pays 5s. a week towards her maintenance.

ANSWERS.

DR. A. has omitted to forward his name or card.
T. L. L.—Dr. Albin Meunier's products for the treatment of pulmonary affections can be obtained at Roberts's, 76, New Bond Street, London. The general depot is at Paris, Pharmacie Vicario, 17, Boulevard Haussmann.

R. F. (Linfield).—Another point of view is that it is for the respective Colleges to enforce their own by-laws in respect to titles, if they wish to do so, but any infringement of those by-laws should be brought before the properly constituted authorities.

DR. J. N. DEAN (Ardwick).—The case described by our correspondent ought also to be referred in the first place to Mr. East.

GLYCERINE AS AN INJECTION.

DR. C. J. R. MCLEAN (Yeaton) writes, in reply to W. H. B., "I have given glycerine as a rectal injection in a number of cases with very satisfactory results with a common glass syringe such as is used for urethral injections."

MR. WILLIAM PROWSE states that glycerine is quite as effectual in stimulating the rectum when it is diluted with an equal quantity, (or more) of water. He would add that glycerine is no cure for habitual constipation; all that it does is to cause a peristaltic action of the lower bowel (the rectum) only, and certainly does not remove any cause existing higher up; not even in the transverse or descending colon. The injection can easily be made with a small india-rubber bottle, taking care to wash it out and drain.

TOLERANCE OF LARGE DOSES OF MORPHINE.

DR. PHINEAS PITTS LANGFORD asks as to the quantity of morphine which may be given subcutaneously with impunity in a case of carcinoma uteri. He has a case where injections have been given since March last in doses ranging from one-sixth of a grain to twelve grains daily. The latter quantity has been administered for the last three months, 20 minims of a 1 in 5 solution being injected three daily. During the last three weeks beneficial effects seem to have ceased, as far as relieving pain and obtaining sleep are concerned. Ten days since his patient made up her mind to give up the drug, as she seemed to obtain no benefit from it. Strange to say, she has not apparently suffered from its loss, and she is now better than she was two months since. He states that she has had one bad attack of morphinomania which lasted seven days, during four days of which administration was stopped. Before she ceased having morphine this last time she was suffering from incessant vomiting and very great prostration. The vomiting has now ceased, and she has apparently no pain, and is sleeping well, and taking more nourishment than she has done for some time past. She is very much emaciated, but her mind is clear and memory good; no diarrhoea.

* * * It is difficult to fix with precision the degree of tolerance of opium. Idiosyncrasy and habit vary greatly in their influence.

TREES FOR TOWNS.

R. HUGHES (Bala) asks what kind of trees are most suitable for towns, both for sanitary purposes and beauty.

* * * The following is a list of trees and shrubs which have been found to do best in smoky districts, furnished us by Miss Wilkinson, hon. landscape gardener to the Metropolitan Public Gardens Association, 83, Lancaster Gate:

Plane (one of the best for London, but does not thrive in north country towns)	Willow (especially good for moist places)
Poplars (very quick growing)	Thorns of sorts
Birch	Laburnum
Ash	Almond
Maple	Double cherry
Sycamore	Fig (grows well in London and the south)
Silver birch	Mulberry
Lime (is often attacked by vermin)	Lilacs
Horse chestnut	Mountain ash
Beech	Elders of sorts
Purple beech	Alder (grows in moist places)
Tulip tree	

It has been found by experience that for London planting planes, poplars, willows, and in some places silver birch and flowering shrubs grow better than any others.

APPEALS TO THE BENEVOLENT.

DRS. A. M. MACRAE and R. ROSS (Stornoway).—The benefits of the Society for the Relief of Widows and Orphans are, we are informed, confined to subscribers. The case would, however, probably come within the scope of the

British Medical Benevolent Fund, and our correspondent had better in the first place apply to Mr. Edward East, 16, Upper Berkeley Street, Portman Square, London, W., Honorary Secretary for cases.

CONSTIPATION DURING PREGNANCY.

MR. WILLIAM PROWSE, in reply to "Rhubarb," who asks for a remedy for constipation in pregnancy, recommends the administration of 10 minims of the Prussia tincture of colocyth pulp. (with or without the aniseed) in half a wineglassful of water at bedtime twice a week; it is the best remedy for habitual constipation. The dose should be varied according to the age and strength of the patient, and care should be taken not to overdose—sufficient to produce one solid evacuation, and not more.

DR. W. HESBY writes: In reply to "Rhubarb," I would advise him to try cascara sagrada, twenty to thirty minims of the fluid extract, two or three times a day until a regular action is obtained. I cannot speak too highly of the use of glycerine as an injection; I have used it very frequently of late, although my first trial of it was two years ago, when I prescribed one drachm to be diluted with a tablespoonful of water, and used every morning. I now use one drachm with a little water, and use a syringe of vulcanite with a glass barrel; this holds about half an ounce; to this a bona fide enema, similar in shape to that on a child's ball enema, is fastened. The nozzle should be at least two and a half inches in length; an ordinary glass syringe is useless.

DR. J. WALTERS (Reigate) recommends ext. cascara sagrada with pil. rhei co. gr. ii-iii, as he has found it most beneficial against obstinate constipation in pregnancy.

DR. SPENCER SMYTH (Forest Hill) recommends a pill containing cascara, capicum, and olix vomica.

GYNÆCOLOGICAL PRACTICE.

DR. D. A. FRASER (Totnes) thinks "Country Member" would find Fraser's surgeon's combination chair, made by Mr. W. Harris, cabinet maker, Esplanade, Burnham, likely to suit; complete £5 5s. in oak or mahogany.

BISKRA PUSTULE.

T. H.—Duclaux on Biskra Pustule (*Bulletin de la Société de Biologie*, 1888); Chantemesse (*Annales de l'Institut Pasteur*, October, 1887); Poncet (*idem*, November, 1887).

TAXES ON CARRIAGES AND HORSES.

C. J. R. M.—If our correspondent refers to licence for carriage and man-servant, there is no exemption by reason of their being necessary to practice. This is one of the hardships of the carriage tax, as one of the hardships of the inhabited house duty is that full duty is charged on a house where a profession is carried on, whereas two-thirds of the duty only are payable where there is a shop. If he alludes to income tax, the expenses of his carriage, horse and man-servant are a professional expense, and as such may be deducted. See for further particulars Chapman's *Income-tax: How to get it Refunded*, to be obtained at 25, Colville Terrace, W. To send in his accounts to the surveyor, he should get forms for balance sheets, and three years' returns at the same address.

"PSEUDOMANIA."

ALETHES (Cambridge): Lying, like theft, may be a symptom of insanity. Either of them must be taken in conjunction with other symptoms, and the whole condition and all the circumstances of the individual case be taken into consideration. Lying alone, or theft alone, would not constitute insanity. Prichard and others have described cases of so-called "moral insauity" (not a happily chosen name), in which lying (unusual to the patient) was one among other symptoms.

NOTES, LETTERS, ETC.

RECIPROCITY OF PRACTICE.

DR. EDWARD DRUMMOND (Rome) writes: I very much doubt if any good is likely to arise from a petition to the Swiss Federal Government on the subject of permission being given to English medical men to practise in Switzerland.

I had a correspondence some years ago with the Swiss authorities at a time when I thought of alternating my winter work in Rome with summer practice in the Engadine. Although influentially supported by our own embassy, I found that, if I practised in Switzerland at all, it must be *sub rosa*, which my own dignity forbade.

I had a like difficulty about Homburg, where my name was not allowed to appear in the *Kurliste*, and where my right to practise was denied unless I passed a "Staats-Examen." The late Lord Amphilil did his best to procure me a special permission, but in vain, although the shrewd Teutons did not disdain in advertising Homburg to refer to my articles on the baths, climate, etc.

It is not sufficient to have obtained a German degree. The Staats-Examen is essential, and yet half the prosperity of Homburg is due to English money. English visitors would prefer an English physician, but he can only practise under penalty. The German physician practising in England can easily obtain some sort of diploma on easy terms from one of our own corporations, and if he did not he would not be likely to be molested.

The Italian law seems to me the most equitable. No one can attend Italians in Italy without a degree from an Italian university, but any medical man of a foreign nationality can attend foreigners in Italy, provided that he shows himself to be legally qualified to practise in his own country when called upon by the authorities. To this is due the circumstance that whereas when I came to Rome I was the fourth English physician, there are now eight or nine. Still I feel sure the Italian law is the best solution of the difficulty, and might very well be adopted at home.

THE TITLE OF DR.

HONESTAS writes: Your reply to "Anxious One," in the JOURNAL of February 11th, that the Royal College of Physicians of Edinburgh has always discouraged its Members and Licentiatees from using the title of Dr. is quite erroneous.

In 1845, Dr. Grace, of Thornbury, wrote to the Secretary of the College, asking for information on this subject. The official reply was that "he was (as a Licentiate) legally entitled (by the charter) to call himself doctor, and to add the prefix on his door-plate, etc." (see the JOURNAL, February 7th, 1885). This secretary was the distinguished Rutherford Haldane, afterwards a member of the General Medical Council.

At the present time the College undoubtedly discourages the assumption of any other title than that of physician by its Licentiatees, but this does not alter the fact that for many years it gave candidates to understand that the licence carried with it a right to the title of Dr., and in all official communications this prefix was used.

I hope all old Licentiatees and Members will make a note of the law as laid down by the College in their letter to Dr. Grace.

A SOCIETY FOR SUPPLYING CLOTHES TO CHILDREN IN HOSPITALS.

MRS. H. GOODWIN STEPHENSON, Honorary Secretary of the Society for Making Clothes for the Sick Children in London Hospitals, will be glad to receive applications for membership, and to supply rules, patterns, and all further particulars on receipt of two stamps and a letter addressed to her at 26, Dorset Square. There are now over 1,000 members of the society, and parcels of clothes are sent monthly to twenty-five institutions in turn. Each member is required to supply four garments yearly, and to provide her own materials, but no subscription is asked for. The clothes are much valued by the various hospitals.

WOMEN AS PHARMACISTS.

MRS. ISABELLA S. CLARK KEEB, herself a pharmaceutical chemist, recommends pharmacy as an employment for women, in an interesting paper on the subject in *Atlanta* for this month. There are at present ten women pharmacists on the registry of the Pharmaceutical Society, of whom four are in business, three in England and one in Wales; of the others, some hold appointments in hospitals and dispensaries, and one or two give private lessons in pharmacy.

CARRIAGES FOR REMOVING INVALIDS.

MESSRS. H. and J. READING, 14 and 15, Riding House Street, Langham Place, London, write: We notice in the JOURNAL of February 18th an illustrated article from Mr. Richard Davy, of the Westminster Hospital, in the last paragraph of which he states "that until lately no regard has been given to the removal of an invalid," we may beg leave to mention, as must be known to most of your readers, that for the last fifty years our invalid's cot carriages have been used for that purpose, and with such gratifying results that not one single complaint of an injury done to an invalid during transit has been made, among the thousands we have moved to all parts of England, Ireland, Scotland, and to the Continent.

Our carriages have the advantage of conveying an invalid from bedside to bedside without having to be moved off the couch, no matter how far the distance, which obviates the necessity, which occurs in other carriages, of taking the patient out, and transferring him to a railway carriage or guard's van, where he runs a great risk of taking cold and being much shaken.

We may also mention that we never have any inconvenience with the railway companies; on the other hand, they facilitate our object by even allowing our carriage to be placed in the middle of a train to lessen the little vibration that may ensue; but as we have special means of strapping our carriage to the truck, in addition to their arrangements, such vibration is reduced to a minimum.

We shall have the greatest pleasure in showing and describing our carriages to Mr. Richard Davy or any other medical gentleman interested in the object of the removal of invalids, and we are sure that we shall convince them that our mode of removal supercedes all others, and will continue to merit the patronage hitherto bestowed on us by the profession.

IDIOSYNCRASY TO QUININE.

H. G. H. writes: A patient who consulted me the other day after I had prescribed for him suddenly asked me if I had ordered him "quinine" in any form or other, and on informing him that I had not, I asked him the reason. "Why? well," he said, "I really cannot take it. I have tried it several times, and every time it produces the same effect," namely, intolerable itching all over the body, but more particularly the hands, between the fingers, which lasts for about two or three hours. The first time he tried it was about nine years ago, with the same result then as now, and every time that he takes it (unaware, of course, as he will otherwise not take it upon any account) he has this most fearful itching of which he complained. In all "Therapeutics," articles upon quinine, etc., that I have read, I have not seen this mentioned. I wanted him to try a dose or two, with the intention of combining it with some liquor arsenicalis, as a preventive to this most intense itching; but nothing would induce him to try it, although he said he wished so much to be able to take quinine.

COMMUNICATIONS, LETTERS, etc., have been received from:

J. Walters, M.B., Reigate; Dr. Longford, London; Surgeon H. G. Wyatt, Curragh Camp; Messrs. Ingram and Royle, London; Dr. O. Coleman, Surliton; Dr. Webb, Neuilly-sur-Seine; Miss F. Wilkinson, London; Mr. R. H. Johnston, Bungay; Mr. J. M. Balfour, Monialive; Mr. S. J. Lilly, Leicester; Mr. T. J. Verrall, Brighton; Dr. A. M. Edge, Manchester; Mr. H. Williams, Liverpool; Dr. J. Wight, Aberdeen; J. Ferguson, M.B., Perth; T. H. T. Pullin, M.B., Sidmouth; Dr. Edwards, London; Mr. A. W. Mayo Robson, Leeds; Mr. A. Durey, Paris; The Secretary of the Income Tax Repayment Agency, London; Messrs. Pally, Kelly and Co., Redruth; Mr. M. Sharman, Leicester; Mr. W. E. Bridges, Parandhee, near Poona; Mr. R. V. Kelly, London; Dr. D. A. Fraser, Tones; Mr. W. Berry, Wigan; Our Swiss Correspondent; Vesical Calculus; Mr. J. G. Horder, Cardiff; Mr. T.

S. Ellis, Gloucester; Dr. D. A. C. Hood, London; Mr. J. H. Thomas, Wellingtonborough; Dr. F. Trussillan, Ebbw Vale; Mr. M. Howes, Stafford; Dr. J. K. Spender, Bath; The Director-General of the Army Medical Department, London; Dr. W. Sedgwick Saunders, London; Dr. Mickle, London; Mr. Davies, Sherborne; Mr. W. Duane, Bristol; Our Glasgow Correspondent; Dr. Andrew Currie, Sydney; Dr. T. Oliver, Newcastle-upon-Tyne; Brigade-Surgeon R. P. Ferguson, Shorncliffe; Dr. Norman Kerr, London; Dr. J. Dowling, Tipperary; Mr. A. F. Hawkins, Birmingham; Mr. G. Mahomed, Bournemouth; Dr. Ralston, Manchester; Dr. S. D. Chippingdale, London; Messrs. Slack and Brownlow, Manchester; Mr. A. E. Wilmot, Burnham; The Honorary Secretary of the Jamaica Branch of the British Medical Association, Kingston; Mr. T. H. S. Pullin, Sidmouth; Dr. F. de Havilland Hall, London; Dr. J. Rogers, London; Mr. A. Evans, West Bromwich; Mr. T. J. Gallwey, Newcastle; Mr. S. R. Dyer, London; Mr. W. P. Fotherham, Newry; Mr. C. F. Hoffer, Bilston; Dr. R. Barnes, London; The Secretary of the British Guiana Branch of the British Medical Association, Georgetown; T. D. Greenlees, M.B., Stone; Dr. Apostoli, Paris; Mr. J. J. H. Jackman, Dunmore East; Dr. J. W. Moore, Dublin; Dr. W. Sykes, Mexborough; Mr. Hollaod, London; A Member of the British Medical Association, Tuobridge; Dr. Beaven Lake, Trinidad; Mr. E. White Wallis, London; Mr. J. T. Neech, Oswestry; Mr. R. Clement Lucas, London; Mr. S. White, Sheffield; Mr. F. Stock, London; Dr. Robertson, Ventnor; Messrs. H. and J. Reading, London; Mr. W. H. Powell, Ross; Mr. W. D. Moore, Cardiff; Dr. E. Markham Skeritt, Clifton; Dr. H. A. Gordon, London; The Secretary of the British Medical Temperance Association, London; Dr. C. Halls, Clifton; Dr. Ritchie, Saltburn-by-the-Sea; Dr. F. C. Turner, London; Dr. W. F. Haslam, Birmingham; Mr. F. J. Dixou, West Bournemouth; Dr. Greenwood, jun., London; Dr. R. Paramore, London; The Proprietors of the *Graphic*, London; Mr. Francis Hawkins, London; Old Subscriber; Mr. T. W. Hainford, London; Mr. R. Davies, Petersfield; A. Gray, M.B., Dalton-in-Furness; Mr. W. H. Greening, London; Mr. G. F. C. Masterman, Stourport; Messrs. T. Noakes and Son, London; Mr. W. Smith, London; Mr. M. Greener, Cardiff; Mr. F. A. Southam, Manchester; The Honorary Secretaries of the Nottingham Medico-Chirurgical Society; Surgeon M. W. Kerin, Cork; Mr. J. W. Orr, Wellingtonborough; The Secretary of the Cancer Hospital, Brompton; Mr. E. N. Close, Streatham; Dr. M. C. Furnell, The Riviera; Mr. J. W. Macalister, London; Dr. E. Elveing, London; Dr. R. Haygard, Hull; The Equitable Telephone Association, London; Dr. Tatham, Salford; Dr. P. T. Duncan, Croydon; Mr. K. D. Young, London; Mr. W. W. Patterson, London; Mr. E. C. Barnes, London; Dr. A. W. Orwin, London; Mr. A. Ambrose, Buckhurst Hill; Mr. E. S. Reynolds, Manchester; Mr. W. S. Low, London; The Secretary of the Volunteer Medical Association, London; Messrs. H. Sell and Co., London; T. Bell, M.B., Morchard Bishop; Mr. Dean, Manchester; The Editor of the *Liverpool Journal of Commerce*; Mr. R. J. Hamilton, Liverpool; Mr. E. H. Carter, Chelmsford; Mr. F. F. German, Seaford; Mr. E. Trimmer, London; Dr. Wallace, Greenock; The Librarian of the Société Medico-Chirurgicale de Liège, Liège; etc.

BOOKS, ETC. RECEIVED.

Transactions of the College of Physicians, Philadelphia. 3rd series. Vol. ix. Philadelphia: P. Blakiston, Son and Co. 1887.
 Transactions of the Academy of Medicine in Ireland. Vol. v. Edited by William Thomson, M.A., F.R.C.S. Dublin: Fannin and Co. London: Baillière, Tisdall and Cox. Edinburgh: Macaclachlan and Stewart. 1887.

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REMARKS

ON

ALBUMINURIA A FREQUENT RESULT OF SEWAGE POISONING.

BY GEORGE JOHNSON, M.D., F.R.S.,

Emeritus Professor of Clinical Medicine; Consulting Physician to King's College Hospital.

IT is notorious that a great variety of diseases may result from drain poisons. With our present system of drainage a town sewer may contain, not only excremental matter in various stages of decomposition, but with this may be combined the specific contagia of such communicable diseases as cholera, typhoid, scarlet fever, erysipelas, diphtheria, etc. That typhoid fever, some forms of diarrhoea and dysentery, diphtheria and various forms of sore throat, not presenting the specific characters of diphtheria, may result from defective drainage is a matter of daily observation. I have seen several cases of profuse purulent discharge from the inflamed mucous membrane of the fauces demonstrably the result of septic sewer poisoning. In other cases, with less apparent inflammation of the mucous membrane, the lymphatics beneath the jaw have become swollen and painful, and in one case this resulted in an abscess.

Pleuro-pneumonia is another form of acute disease which not rarely may be traced to the same cause. I have seen many instances of this. Last summer I was asked by a friend to see his groom in a mews at the West End of London. The young man had been in good health until the day before, when, without previous exposure to cold, he was seized with a rigor. I found him with a temperature of 104°, the pulse and breathing were rapid, and he had pain in the right side of the chest. Although the physical signs had not then become developed, I felt sure that the disease would prove to be pleuro-pneumonia, and I at once sent him to the nearest hospital, St. George's, where, under the care of Dr. Whigham, the disease took the usual course, and ended in a speedy and complete convalescence. He had come up from the country with the rest of his master's establishment a fortnight before, and had slept in a room close by a filthy untrapped closet. Looking upon this as the septic source of his disease, I had a double reason for insisting upon his prompt removal to the hospital: first, that he might have better attendance; and, secondly, that he might escape from the poisonous atmosphere in which his disease had been contracted.

The coachman, who had come up at the same time, and who occupied an adjoining room, after feeling unwell for some days, got an abscess in one eyelid.

The coachman's mother, who was acting as housekeeper and nurse, immediately after the removal of the groom, had a rigor, followed by severe pain in the limbs; temperature, 102°. I sent her at once into King's College Hospital, where, in a few days, the pain ceased, the temperature became normal, and she was convalescent.

There can, I think, be no question that these three distinct forms of illness, occurring within a few days of each other, were the result of septicæmia, from the one common source of drain poisoning; and the master, on being informed of the insanitary condition of the premises occupied by his servants, at once gave orders for the defective drainage to be made good.

In addition to other forms of disease, the result of drain poisoning, I have met with a number of cases of albuminuria which have been clearly traceable to that cause, and the main object of this communication is to direct attention to the fact that amongst the many causes of blood contamination and consequent albuminuria, sewage poisoning is a by no means infrequent one.

The occurrence of a case of typhoid or diphtheria in a house would, as a matter of course, excite attention to the drainage and the water and milk supply. I am anxious to show that, in the absence of other probable exciting causes of albuminuria, the possibility of sewer poisoning should be constantly borne in mind. It is needless to insist upon the practical importance of discovering the exciting cause of a disease, and thereby enabling the patient to avoid continued exposure to the morbid agency.

CASE I.—The following typical case was seen by me with Mr. Galton, of Brixton, and Dr. Langford, of East End, Finchley, on January 3rd, 1887. Mr. L. H., aged 40, had been ailing on and off since August, 1886, but he had been worse during the last month. There had been soreness of the throat and neck, with occasional rigors and a temperature of 102°. A week before my visit the urine had been tested and found highly albuminous. It was now turbid with urates; specific gravity 1030; contained (as ascertained by Esbach's method) 7 grammes per litre of albumen, and when cleared by warmth many small hyaline casts, with some epithelial and leucocyte casts, were seen. The urine was scanty, the pulse full and throbbing; no œdema. The patient was of temperate habits, he had not been exposed to cold, and in the absence of other apparent exciting cause I expressed my conviction that drain poisoning had been the cause of the sore-throat, occasional rigors, and albuminuria. On subsequent inquiry, it was found that sewer gases had been escaping into his house from two untrapped waste pipes, one connected with a washing basin in a lavatory, the other with a bath, and both going direct into the drain. At the time of my visit the patient was staying at the house of a relative, and he remained there until he recovered. He was treated in the usual way by rest in bed, milk diet, warm baths, and purgatives. In about a week the albumen began to decrease; in three weeks it had entirely disappeared, and it has not recurred. I saw him in May last year and in January of the present year, with Mr. Galton, for another complaint, and on each occasion the urine was found to be quite normal.

It is highly probable that if the cause of this man's illness had not been discovered and removed, continued exposure to the sewer poison would have resulted in an incurable disorganisation of the kidneys, as it had done in several cases that have come under my observation.

I will now give an outline sketch of three of these cases, omitting dates and details, the publication of which might give pain to the relations and others connected with the cases.

CASE II.—A national schoolmaster consulted me at my house. He had been out of health for a year. For six months the urine had been blood-tinged. Now specific gravity 1010, slightly blood-tinged, albumen 3 grammes per litre, many epithelial casts, and some blood-tinged. There was a double aortic murmur at the base and a single systolic mitral at the apex. A modified collapsing pulse (see Chapter xxxv of my *Medical Lectures and Essays* "On the diagnosis of co-existing aortic and mitral incompetence"). The legs were œdematous; there was much dyspnoea; he was pale and emaciated, and hopelessly ill. It is probable that the double valvular disease was a result of uramic endocarditis. He was living in the basement of a schoolhouse, where there was conclusive evidence of a blocked drain in the fact that after a rainfall the area was always flooded. His wife had suffered from dysentery soon after they entered the house four years before, and often since from diarrhoea. The doctor who attended her for the dysentery said they ought not to remain in the ill-drained house. I wrote to the clergyman who sent him to me, and expressed my conviction that the illness of his schoolmaster was caused by the insanitary condition of the schoolhouse. The poor man was a total abstainer, and had been exposed to no other probable exciting cause of disease.

CASE III.—Mr. W., aged 35, had enjoyed uninterrupted good health until two years before I saw him (in December, 1887), he went to live in a recently built house a few miles from London. From that time he began to suffer from disorder of the stomach and bowels, with almost constant diarrhoea. On two occasions, in 1886 and 1887, while he was away in Scotland for three weeks, these troublesome symptoms entirely passed away, but they re-appeared within a few days after his return home. Six weeks before my visit general dropsy appeared, and then the urine, which had not before been examined, was found to contain a large amount of albumen. It was of the rather light colour indicative of chronic disease, specific gravity 1020, and contained fifteen grammes of albumen per litre—the largest amount I have ever found. It deposited a cloudy sediment containing numerous hyaline and oily casts, with scattered oily cells. In the absence of other probable exciting cause of the renal disease, I inquired about the drainage. There were two closets in the small house—one on the ground floor, the other on the first floor near the patient's bedroom. The patient's wife had occasionally noticed a bad smell, and a friend who often visited them had complained of an unpleasant "earthy smell" whenever he

entered the house. A case of typhoid fever had recently occurred on the premises. I expressed a decided opinion that a drain poison was the cause of the renal disease, and advised that the condition of the drainage should be thoroughly investigated.

I have since learnt from the gentleman whom I met in consultation, and from the patient's wife, that after my visit the drainage was examined, with the following result. Peppermint water having been poured into the upstairs closet was at once detected by its odour in the hall; and beneath the hall floor there was found a defective joint in the soil pipe from the closet, so that sewage had escaped into the earth upon which the floor of the hall rested. The sitting room, which was generally occupied by the patient and his wife—they have no children—opened into the small hall. Here then is the explanation of the "earthy smell" which had often been noticed; and I have no doubt that the chronic diarrhoea and the albuminuria were directly due to the same cause. The fact that the health of the patient's wife, who had been even more continuously exposed to the same poison, had not apparently suffered, is quite consistent with this explanation of the husband's illness. We have frequent opportunities of observing that out of a number of persons exposed to the same morbid agency, only a small proportion become seriously ill. Additional evidence that the diarrhoea was excited by the sewer poison is afforded by the fact that this symptom, which had continued until the time of my visit, and for some days afterwards, ceased almost immediately after he left home to stay with a friend for five weeks. The defective drainage was made good during his absence, and during the fortnight since his return home there has been no return of the diarrhoea. His general condition, too, is reported to have improved, and the albumen has diminished by one-third.

CASE IV.—Miss B., aged 35, had been more or less ill since she had undertaken the management of a country hotel six months before I saw her. During the last six weeks the urine, which had not before been examined, was found to be blood-tinged. At the time of my visit the urine was brightly blood-tinged, specific gravity 1012, contained albumen (8 grammes per litre), and deposited granular and hyaline casts and oily cells. The secretion was very scanty. The patient was very pallid and feeble; there was frequent vomiting; temperature 102°; much dyspnoea, with a rapid and feeble pulse. The prognosis was most unfavourable. When I saw her a second time three days later, the symptoms were worse; there was almost complete suppression of urine, and she died on the following day.

This lady was in good health when she took up her residence in the hotel. The drainage was found to be bad, and the drains were opened and repaired while she remained in the house. I have no doubt that the illness, which commenced soon after, and which culminated in fatal degeneration of the kidney, was the result of drain poisoning.

The medical attendant who sent me the account of the defective drainage which was discovered in connection with Case 3, ended his report by saying: "I very much doubt whether the profession at large is sufficiently alive to this subtle cause of albuminuria."

It is hoped that the publication of these illustrative cases may serve to direct more general attention to this frequent, though often unsuspected, source of renal disease.

In connection with this subject, it is not without interest to remark that amongst the numerous diseases which may result from defective drainage and consequent sewage poisoning, diphtheria is, in a very large proportion of cases, associated with albuminuria, a fact which Dr. Wade was the first to make known.

The history of such cases as have been here briefly recorded serves to illustrate a principle which cannot be too much insisted upon, namely, that the treatment of symptoms by drugs forms but a small part of the art of healing, and that one of the main objects of rational medicine is to trace disease to its cause. What a melancholy exhibition of unscientific impotence is the attempt to arrest by opiates and other astringents a diarrhoea, the result of perpetually inhaling a septic drain poison!

It can scarcely be doubted that the diarrhoea and the albuminuria having such an origin are the result of a physiological effort by the bowel and the kidney to eject the poison and its noxious products from the system; and it is obvious that an essential condition of successful treatment in such cases is the discovery and removal, or avoidance, of the exciting cause of the symptoms.

ST. THOMAS'S HOSPITAL was visited by the Queen of Sweden on Tuesday last.

LECTURES

ON SUPPURATION AND SEPTIC DISEASES,

Delivered at the Royal College of Surgeons, February, 1888.

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LECTURE II.

We have thus found that these pyogenic cocci are constantly present in suppurative affections; that they can cause suppuration both in animals and in man, as evidenced by experiments, and also by the microscopical observation of the changes which occur at the seat of infection; and, further, that true acute suppuration does not occur naturally when these organisms are absent. It would therefore appear as if, with the discovery of the pyogenic organisms, the etiology of acute suppurative affections was satisfactorily settled. This, however, is hardly the case, for the following considerations, among others, render it evident, that in most cases other factors in addition to the micro-organisms must come into play. Thus we find a great variety of morbid processes caused by the same organisms. The staphylococcus pyogenes aureus can set up a superficial inflammation of the skin, a boil, an abscess, acute ulcerative endocarditis, or even pyæmia; and the streptococcus pyogenes causes sometimes phlegmonous inflammation, sometimes peritonitis, sometimes puerperal fever, and sometimes pyæmia. Then, again, we have the fact, on which I have not as yet dwelt, that, in order to produce these suppurative affections in animals, various conditions, such as the injection of large numbers of the micro-organisms, are essential.

That these organisms are not of themselves able in most cases to set up these suppurative diseases is evident also from the fact that they are frequently present in the blood without producing any suppurative affection. Thus Ogston states that in cases of septicæmia in man the micrococci are present in the blood, and are excreted in a living state in the urine, and he makes no mention of the occurrence of secondary abscesses. Ogston's statement has been confirmed by von Eiselsberg, who examined the blood of almost all cases in Billroth's *clinique* who were suffering from septic fever, and was able to demonstrate the presence of staphylococci and streptococci, most frequently of staphylococcus pyogenes albus, in the blood; and yet apparently no abscesses formed. In the case of acute osteo-mylitis also Garré has found the pyogenic staphylococci in the blood, although the patients did not suffer from abscesses in more than one situation. In connection with acute osteo-mylitis, perhaps the most interesting observations are showing that these organisms may exist in the blood without doing any harm are those in which children have been born suffering from this disease while the mothers, through whose blood only the organisms could have come, have apparently been in good health. As an example of this I may mention a case published by Rosenbach in a paper on acute osteo-mylitis.

E. A., aged 30, was delivered of her fifth child in June, 1858; she had been married ten years, and all her other children were living and healthy when born; she was not aware of having suffered any fright or injury to account for the disease in the child's leg. The latter, a full-grown boy, was born dead at full time, and had apparently been alive quite recently. Attention was at once drawn to the right leg, which was swollen and showed distinct fluctuation both in front and behind. Immediately below the patella there was a bulla on the skin; the whole leg had a marked erysipelatous character, and on making an incision a large quantity of pus was evacuated, and it was then found that the greater portion of the soft parts of the leg was destroyed, and that there was scarcely any muscular substance to be seen. Further investigation showed that almost the whole of the periosteum of the tibia was detached and the bone was in a state of necrosis. At the lower part a small portion of the periosteum was inflamed, but still adhering to the bone; at the upper part the epiphysis of the tibia was almost entirely separated from the

shaft, and was only connected with it by a few membranous threads.

Then we have a very interesting paper by Escherich on the presence of pyogenic cocci in the milk of women suffering from puerperal fever. In a considerable number of these cases he demonstrated the presence of the same pyogenic cocci in the milk from both breasts, and in these cases there was every reason to believe that the organisms had reached the milk from the blood; more especially there was an entire absence of any disease or ulceration of the nipple; and yet in these cases there were apparently no abscesses either in the mamma or elsewhere. Escherich's observations have been confirmed by Longard, and both of these investigators have made experiments on animals which had just brought forth young, which show that very shortly after the injection of these organisms into the blood they appear in the milk.

These pyogenic cocci have also been found in the blood in various febrile diseases, and not necessarily in association with suppuration. Thus, in scarlet fever Loeffler found the streptococcus pyogenes, or an organism indistinguishable from it, in the diphtheritic membrane in cases of scarlatinal sore-throat, and he observed that in some cases these organisms penetrated from the surface into the body. Fränkel and Freudenberg have also investigated the organisms of scarlet fever, and have found that the streptococcus pyogenes is present in the blood in a considerable number of cases, without, however, apparently giving rise to any suppurative or septic affections.

I need not go into further details to show that these micro-organisms do not necessarily of themselves set up suppuration and septic diseases when present in the body; in the following considerations sufficient evidence of this will be brought forward.

CONDITIONS NECESSARY FOR INFECTION.

The conditions which are necessary to enable these organisms to live and act in the body may be considered according as they chiefly affect the body, or according as they chiefly affect the microbe. We have also some conditions—such as temperature, season of the year, locality, moisture, etc.—which must be grouped under a third heading; for, with regard to these, we do not know whether their influence is due to some action which they exert on the body, or to some effect which they produce on the microbe. In considering these conditions, it is not possible to draw a sharp line between the various groups, because a number of these conditions are almost always combined in the same case; but I shall, as far as I can, endeavour to avoid repetition, and at the same time to treat of the various facts under their chief headings.

Had time permitted, I should have liked, before entering on the consideration of these conditions, to have traced the fate of the pyogenic organisms in the body when they fail to get the upper hand. And we should have found that these organisms disappear in a very remarkable manner from the blood; that they are, in fact, apparently rapidly killed in the blood, or deposited from it in various tissues and organs, or possibly excreted through the various excretory glands. The rapidity with which some organisms disappear from the blood is very remarkable; it is in many cases a matter merely of minutes, certainly of an hour or two; and this disappearance of the organisms from the blood must be due to an active destructive action of the constituents of the blood on them; mere unsuitability of soil is not sufficient to account for the rapidity of the phenomenon. We should also have seen that there is good reason for believing that these organisms may be excreted by the various excretory glands, although this is a matter about which there is still considerable dispute. That they are so excreted by the kidneys is shown by various observations; and this is an important point to remember, as probably explaining certain cases of pyelitis occurring in patients who have never had any instrument passed, and whose urethra and bladders are perfectly normal, the occurrence of these cases being explained on the supposition that the organisms had entered the blood in a living state, were excreted by the kidneys, and afterwards, as in the example of which I showed a drawing at last lecture, found a suitable pabulum in the urine and grew in the pelvis of the kidney. As regards excretion from the mamma, I have referred to the observations and experiments made by Escherich and Longard; and these facts are of interest in connection with mammary abscess, as showing that the organisms which set up these abscesses may arrive at the gland from the blood, and either grow in the tissues or in the acini of the gland after excretion; although without doubt the great majority of abscesses of the mamma are

caused by the spread of the organisms inwards, either along the milk-ducts or from cracks in the nipple. We should also have seen reason to believe that the salivary glands, more especially the parotid, occasionally take part in this excretion of pyogenic organisms, thus again offering a possible explanation of the not infrequent occurrence of abscesses in the parotid gland after suppuration elsewhere.

The study also of the exact mode in which the body carries on the battle with the microbes, more especially the study of the investigations which have been set on foot as the result of Metschnikoff's experiments on phagocytosis, would have furnished us with much interesting and suggestive material for consideration, and we should have seen what an important part the leucocytes play in the destruction of micro-organisms and in the limitation of inflammatory affections, although the evidence does not as yet seem to be sufficient to support Metschnikoff's idea that these cells act by taking up the organisms into their interior, and there killing them.

I must, however, omit the consideration of these matters, and pass on to the discussion of the conditions which enable or hinder these organisms to act; and the first condition, and an essential one, which we have to notice, is that an opportunity must be afforded to the organisms of resting for a time in the part in which they exert their action. If they are floating in the blood current they must be arrested at some part, and not only must they be arrested, but, as we shall see, they must find, at that spot, conditions suitable for their growth.

Embolism.—Such mechanical conditions, causing the arrest of organisms, are brought about by embolism, thrombosis, injury, etc. The importance of arrest of organisms has been beautifully shown by Ribbert in some experiments which he performed with a pathogenic species of mucus. When the spores of pathogenic aspergilli are injected into the blood, deposits are formed in various organs, and also in large numbers in the various muscles. In the case of mucus, however, Ribbert noticed that while the spores, when injected into the blood stream, gave rise to deposits in various organs, the muscles remained only slightly or not at all affected. On looking into the matter, it was seen that the spores of mucus were very small, much smaller than those of aspergillus; and Ribbert thought it possible that the reason why masses occurred in the muscles in the latter case and not in the former, was that, on account of the larger size of the aspergillus spores, they were caught in the capillaries of the muscles, while the mucus spores passed through them. He therefore sought to increase the size of the mucus spores before their injection into the blood, and this he did by keeping them for a short time in a nutrient fluid, at the temperature of the body. As a consequence, the spores swelled up and commenced to sprout, and when he found, under the microscope, that this had occurred, he injected the material into the circulation. The result corresponded entirely to his expectations; in contrast to the control experiments, he found that in these cases fairly numerous deposits of fungi were present not only in the organs but also in the muscles of the back and extremities.

Referring, however, more especially to experiments with the pyogenic organisms, we have several facts of a similar nature with regard to their action on rabbits. The injection of moderate quantities of staphylococcus pyogenes aureus into the circulation of rabbits is followed, as a rule, only by abscesses in the kidneys, the other organs apparently remaining unaffected; but a number of experiments which have been made, among others by Ribbert, on the production of myo- and endocarditis in these animals, have shown that abscesses can be set up in other organs if the pyogenic cocci are attached to gross particles, which cannot pass the capillaries of these organs. Thus, Ribbert was able to produce myocarditis by using a cultivation of staphylococcus pyogenes aureus on potatoes if he took care, in removing the cultivation from the surface of the potato, to scrape off also the superficial layer of the potato itself. If this mixture of potato granules and organisms was rubbed up with water, so as to form a fine emulsion, and then injected into the circulation, the result was the production of deposits of organisms in the muscular tissue of the heart, as well as in other organs, leading to myocarditis; if the particles of potato were very fine, only myocarditis resulted, but if they were coarser, endocarditis occurred as well.

Bonomé investigated nine cases of gangrene of the lungs in man, and found in three of them staphylococcus pyogenes aureus alone, in five staphylococcus pyogenes albus alone, and in one both organisms together. He tried to set up gangrene of the

lings in rabbits by the injection of these organisms into the circulation, but he failed to do so if only the cultivations of these organisms were employed. He succeeded, however, by taking pieces of the pith of the elder tree, breaking them up into very fine fragments, mixing these fragments with the cultivation of the pyogenic organisms, and then injecting this mixture into the jugular vein. The result was numerous deposits of cocci in the lungs, leading, as shown in the last lecture, to extensive coagulation necrosis of large tracts of these organs, and, as a consequence, to extensive gangrene. Injection of the fragments of pith alone caused no effect.

In the same way Rujis found that if he injected a small quantity of a fluid cultivation of staphylococcus pyogenes aureus into the uninjured eyes of rabbits suppuration did not result, and he concluded that the reason was that the cocci were carried away too quickly by the lymph stream; for if he soaked sterilised cotton threads in the cultivations, and then introduced portions of these threads into the anterior chamber of the eye, suppurative panophthalmitis occurred.

The last experiment that I shall mention is one by Pawlowsky, who found that, by the simultaneous injection of sterilised cinna- bar, and of cultivations of staphylococcus pyogenes aureus into the circulation, he produced abscesses in various organs—in fact, the typical picture of pyæmia.

The great importance of these facts in explanation of the etiology of pyæmia will be at once evident. Whether cases of pyæmia occur in man, like those described by Koch in the case of rabbits, as the result of the growth of cocci in the blood, their entanglement of blood-corpuses, and the consequent formation of emboli, we do not know; but it is very doubtful if this takes place, for the same cocci which seem to be the cause of pyæmia may, as we have said before, be often present in the blood in considerable numbers without causing abscess or embolism. It is easy, however, to understand that the ordinary pyogenic cocci may cause pyæmia if they enter the blood attached to portions of blood-clot, or other solid material. This, in fact, is evident from the experiments mentioned, and thus the importance of thrombosis and embolism as factors in the production of pyæmia is clearly established. These emboli are not always necessarily emboli composed of detached portions of blood-clot; in some cases, probably, especially where the streptococcus pyogenes is the active agent, the organisms grow in the lymphatic vessels, and the emboli are formed there and arrive at the blood with the lymph stream. Probably in pyæmia other factors also come into play, such as large dose of the organisms, general depression of vitality, possibly also greater virulence of the organism; but it is evident from these considerations, and from the clinical and pathological facts, that embolism must play an important part. Pyæmia must thus be clearly distinguished from multiple abscesses, the so-called chronic pyæmia, where embolism does not probably play any part but where the cocci are able to circulate in the blood and are deposited in some part weakened by injury or other depressing cause.

The mere arrest of these pyogenic organisms in the circulation, although an important factor, is not, however, as a rule sufficient of itself to lead to the production of disease. This is very well seen in the case of rabbits. Inject a considerable number of pyogenic cocci into the circulation of a rabbit, and kill it within twenty-four hours, it will be found that masses of organisms are present in the capillaries of the lungs and other organs of the body; but allow such an animal to live for forty-eight or seventy-two hours, and it will be seen, on killing it, that the organisms have disappeared from the various organs, with the exception of the kidneys (Ribbert). Here we have evidence that, although the organisms had been able to stick in the various organs, the other conditions were not favourable for their growth and action; and in the case of embolism it is probable that the material to which the cocci are attached of itself aids their growth by causing injury to the endothelium of the blood-vessels, and thus leading to the production of a weak spot: in the case of emboli composed of blood-clot the emboli are saturated with the products of the cocci, and are thus still more likely to injure the part. We must therefore pass on to the consideration of other conditions which aid the action of these organisms, and the chief of these is what we may vaguely term general and local depression of vitality.

General and Local Depression of Vitality.—That general depression of vitality can enable these organisms to live in the blood for a considerable time has been shown by a number of experi- ments. For example, I found, in experiments on the presence or

absence of organisms in the living tissues, that while organisms were absent when the animal was in a good state of health, yet if the vitality of the animal was depressed—say, by administering large doses of phosphorus for some time—organisms could be found at times in the blood and tissues of the body. The same conclusion must be drawn from the following experiment. If of a putrefying fluid not containing pathogenic organisms, varying quantities are injected into the circulation of animals, it will generally be found that after twenty-four hours the organisms have entirely died out in those animals which received a small dose, while in those in which a larger quantity—say, 1 cubic centimètre—was injected, in other words, in those whose vitality was depressed by the introduction, at the same time, of a quantity of the poisonous chemical products of these bacteria, organisms may still be found alive. This is a fact which has been confirmed by a number of observers; but as I shall have again to refer to experiments from which similar conclusions may be drawn, I shall pass on to what is much more important for the matter under discussion, namely, the result of local depression of vitality.

A number of experiments show that when the vitality of a part has been lowered by cutting off the blood-current for a comparatively short time, organisms grow in that part much more readily and luxuriantly than if the blood stream had not been interfered with. To mention one or two examples: according to Cornil, a septic nephritis is readily obtained by ligaturing the renal arteries for some hours, and then, after removal of the ligature, injecting pyogenic organisms into the blood.—Heubner's experiments on the artificial production of diphtheria also show, in a very marked manner, the effect of local depression of vitality as the result of cutting off the blood stream temporarily. Heubner arrested the circulation in the fundus of the bladder for two hours by the application of a ligature to the vesical arteries. After removal of the ligature there resulted intense congestion and œdema of the submucous tissue, while, at the same time, as the consequence of the temporary inanition, the epithelial cells died; after the circulation was again restored, there was a great exudation of blood plasma and cells, in fact, coagulation necrosis occurred on the mucous surface. Heubner found that if, at the same time, that the circulation was restored, septic bacteria were injected into the blood, they accumulated in large numbers in the affected part of the mucous membrane of the bladder; and set up extensive disease.—In order to obtain these results, it is, however, necessary that large numbers of bacteria should be present in the blood, and this factor can only very rarely come into play in Nature, where the number of bacteria is seldom sufficiently great. Thus, in this case of strangulated hernia, even where the circulation has been arrested for a considerable time, comparatively little harm is done, and unless actual gangrene of the bowel wall has occurred, bacteria are very seldom found in the fluid contained in the sac of the hernia, nor does bacteric peritonitis occur.

In conclusion, I may mention an experiment of Cornil's, who states that if a slight nephritis is set up, either by cantharides or in some other way, and if then pyogenic organisms are injected into the blood, a septic nephritis occurs. This last experiment leads us to the consideration of a very important factor in the production of local depression of vitality—namely, inflammation.

Inflammation.—Inflammation is frequently looked on as a predisposing cause of these suppurative diseases, and it has been held that inflammation leads to the formation of a weak spot where bacteria can settle and develop; and that, while inflammation can be set up by other causes than micro-organisms, the pyogenic cocci are very apt to become added to it, and then suppurative results. On the other hand, in old times, when wounds were allowed to become septic, it was generally held that the patient was safer when the surface of the wound had become covered with granulations than before granulation had taken place. We have also seen, in considering the anatomy of abscess, that as the granulation tissue increased in amount, so the penetration of the organisms into the body was rendered more difficult, and they remained more and more limited to the interior of the abscess. In the case of erysipelas, the cessation of the inflammation seems to stand in some relation to the accumulation of leucocytes in the part. In the case of tubercles, also, which consist of a central mass of epithelioid cells and an outer wall of leucocytes, I believe that the external circle is purely an inflammatory circle; and is of great importance in limiting the spread of the tubercle bacilli. That preliminary inflammation is not essential to enable the pyogenic organisms to act is shown by many facts, such as Garró's and Boekhardt's experiments on themselves, and similar experi-

ments performed by Grawitz with reference to acne contagiosa of horses, where the organisms which are the cause of the disease produced it when rubbed into the skin.

To explain the facts of the case, I must shortly recall the chief points as regards inflammation. Inflammation which has gone on for some time may be divided into three stages. In the first stage we have the preliminary dilatation (or it may be, in some rare cases, contraction) of the vessels, the increased flow of blood through the part and along with this, increased flow of lymph, soon followed by slowing of the circulation, and ultimately by inflammatory stasis, with, at the same time, exudation of blood plasma and corpuscles. In the second stage the irritation is continued, and the tissue originally attacked by the inflammation is removed and its place taken by granulation tissue. In the third stage the irritation has ceased, and retrogressive changes occur, leading to the formation of a scar.

If we consider the state of the tissues in these three stages we see that in the first stage, as was long ago pointed out by Sir Joseph Lister, the vital activity of the tissue is suspended, the functions of the tissues are, so to speak, paralysed; in other words, the tissue has become an extremely weak tissue, and one unable to resist in any way the entrance of the parasites. In the second stage this weak tissue has been removed, and its place has been taken by young, vigorous, healthy granulation tissue, which has probably great power in repelling the attacks of the organisms. Lastly, in the third stage this granulation tissue is getting older, and becoming converted into less active tissue. The first stage of inflammation is partly defensive and partly reparative, and always occurs after every injury. The second stage may be looked on as a purely defensive stage, the irritant still continuing to act. In the third stage the irritant has gone, and processes leading to permanent repair take place. The relation of inflammation to infection may perhaps be best illustrated by regarding it as an instance of instinctive action. The first effect of the irritant is to damage the part, and the first result is dilatation of the blood-vessels and increased flow of blood and lymph; the part, in fact, is flushed with blood, as if an attempt were being made to wash away the irritating cause (Landerer). This is a process which is probably constantly occurring in our bodies with satisfactory results. If the irritant continues to act it is very soon found that these attempts are ineffectual, and the next instinctive method of protection is to get rid of the injured tissues and to supply their place by young, strong, healthy tissue—granulation tissue. Finally, when the irritating cause has been got rid of, the vigilance of the part is, so to speak, relaxed, and the tissues proceed to develop into a less active and less vigorous tissue, namely, fibrous tissue.

Clinically, the organisms enter during the first and last stages, more especially during the first, and not, as a rule, during the intermediate stage, unless, indeed, while growing outside the new tissue, on the surface of the wound, they can so injure it as to reduce it again to the position of a weak tissue—to the first stage, in fact. This is very well shown in a series of experiments made by Huber on the localisation of virus. Huber performed his experiments on rabbits, and set up inflammation in one ear by rubbing in croton oil, the other ear being left intact for purposes of control; the infective material employed was virulent anthrax bacilli, and these were introduced into the body as far as possible from the seat of inflammation, namely, at the root of the tail. According to the stage of inflammation which he desired to study, Huber applied the croton oil before or after the infection with anthrax bacilli. The result of these experiments was, in the first place, that the bacilli were not found outside the vessels in the tissues of the inflamed part in any stage of the inflammation; and, in the second place, that their presence inside the vessels was dependent on the stage of the local affection. Thus in the first stage, where there was inflammatory oedema, this stage reaching its height in about seven hours and a half, there was a very marked increase in the number of the bacilli in the capillaries of the inflamed part, as compared with the number which were present in a similar part of the opposite ear. As the inflammation passed into the second stage, the number of bacilli in the capillaries of the inflamed part gradually diminished, till, when this stage was at its height—after forty-eight hours—the bacilli had completely disappeared, although they were present in large numbers in the capillaries of the other ear. During the third stage, where the inflammation had subsided, and where new tissue was being formed, bacilli again appeared, and were found in considerable numbers in the newly-formed vessels. Ultimately, when the

scar had been formed, there was no difference as regards the number of bacilli in the capillaries of the scar and the number in the capillaries elsewhere.

It has been found, as regards the pyogenic cocci, that if they are circulating in the blood, the induction of a severe inflammatory action does not lead to their deposit in the part, while if the inflammation is less severe, they can apparently pass out of the blood-vessels and set up suppuration. Thus, Rinne concluded from his experiments on suppuration that a violent inflammatory action did not produce a *locus minoris resistentiæ*, but that the slighter injury caused by the chemical products of the bacteria themselves sufficiently weakened the part to enable the organisms to grow in it.

Acute osteo-myelitis and local tubercular diseasea frequently stand in some relation to injury, but they are not, as a rule, attributed to severe injuries, but usually to some slight blow or sprain. In a phthisical individual fracture of a bone or some other severe injury is not followed by the development of a local tuberculosis, whereas a slight sprain is very commonly mentioned as the exciting cause of such a process, the probability being that the severe injury sets up too great reaction to enable the organisms to act, while the slighter injury simply weakens the part.

Cold.—Another point which has been much discussed, in relation to inflammation and suppuration, is the effect of cold. It is generally assumed that cold is a frequent cause, or at least a very predisposing cause, of inflammation, as, for example, in the production of pneumonia. That cold may play an important part as one of the factors in that disease is very probable, but it is needless for me to say that we are constantly subjected to violent changes of temperature without the production of inflammatory disease, so that it seems as if when a result is obtained some other factor comes into play.

That cold can cause inflammatory affections where the conditions are suitable is evident as regards the external surface of the body from the production of chilblains, the tissue thus weakened being brought into a condition rendering it very liable to attack from organisms.

As regards the effects of cold on the internal parts of the body, some very interesting observations have been made by Lassar. A number of rabbits were shaved, or deprived of their hair in some way or other. These animals, when kept at a suitable and equable temperature (about 20° C.) and well fed, remained in good health. But on being taken out of the warm room and plunged into ice-cold water for from one to three minutes, then dried carefully, chafed, and warmed again, they almost always, in the course of one or two days, showed albuminuria, increasing at a later period, often to a great extent, and accompanied by the presence of hyaline cylinders in the urine; at the same time, the rectal temperature was as much as 1.5° C. above the normal. These animals often recovered from the albuminuria, but were again similarly affected when again exposed to cold. On microscopical examination of the organs, they were seen to be in what Lassar terms a state of "interstitial inflammation;" the organs chiefly affected being the kidneys and liver, but also in some cases the lungs, muscular tissue of the heart, and the sheaths of the nerves. In the organs it was seen that there was no degeneration of the interstitial tissues, but the blood-vessels, especially in the lungs and liver, were often enormously dilated, the arteries filled with thrombi, and large numbers of leucocytes in the tissues in the neighbourhood of the veins. The effect of cold in these experiments seems, in fact, to be the production of what is probably a weak tissue, and one therefore liable to attack from organisms.

As to the relation of pyogenic organisms to animals acted on by cold, I only know of experiments by Grawitz on the relation of peritonitis to cold, but his experiments are not sufficiently satisfactory. He shaved the skin of the abdomen in young animals, covered it for from half to one hour with warm compresses, and then, suddenly removing these, allowed a draught of ice-cold air to play on the part for twenty to forty minutes. This caused no bad effect on the peritoneum, nor was any bad result produced on that membrane when organisms were simultaneously injected into the intestinal canal or into the blood; and in one experiment the cocci were injected directly into the abdominal cavity, also without setting up peritonitis. In the last experiment, however, the cocci were injected three-quarters of an hour before the commencement of the exposure to cold; and it is highly probable that, under the circumstances, they had died or had been removed by the healthy peritoneum before the application of the cold, and this is the more likely to have been the case seeing that the

activity of the peritoneum was probably increased as the result of the warm compresses applied to the skin over the abdomen.

Injury.—An important cause predisposing to the occurrence of suppuration is injury, which probably acts in two ways; in the first place by setting up the early stage of inflammation, and in the second place by leading to effusion of blood, and thus enabling any pyogenic cocci which may be circulating in the blood to pass out of the vessels, and find in the cellular tissue a suitable place for their development.

The effect of injury is well shown in experiments which have been made on the production of acute endocarditis. In order to induce this disease in animals by injection of the pyogenic cocci into the blood, it has been found either that the number of cocci employed must be very large, or that they must be attached to gross particles, as has already been mentioned, or that some injury must be caused to the valves before their injection. Wyssokowitsch and others have performed experiments of this kind, and have found that, by introducing a rod into the jugular vein, they were able to cause laceration of the valves, and that then, on subsequent injection of staphylococci into the blood ulcerative endocarditis occurred. The effect of the injury in this instance is no doubt chiefly to lead to loss of resisting power in the endothelial and connective tissue cells, as the result of the early stage of inflammation induced by it.

The relation of injury to certain inflammatory diseases in man is generally accepted, and I need only instance the case of acute osteo-myelitis, which is frequently attributed to an injury. In experiments on animals, on the production of acute osteo-myelitis, it is, as a rule, necessary not only to inject the pyogenic organisms into the blood, but also to cause some injury to the bone. If this is done, especially where large numbers of cocci are introduced into the circulation, the animals generally die in from twelve to fourteen days, much emaciated, and showing pus at the seat of fracture, pus in the medulla, and necrosis of bone. With regard to man there are several cases on record in which the relation of injury to this disease is very strikingly shown, and the fact that the disease occurs much more often in males than females, and especially in young males, is usually attributed to the fact that injuries are sustained more frequently by boys than girls. At the same time, the number of cases of acute osteo-myelitis in man, in which the direct relation to an injury can be satisfactorily traced is, in reality, comparatively small; and that injury, though it plays a part in some instances, is not an essential condition for the production of the disease is shown by its occurrence after acute fevers, and also by the fact that it is limited, as a rule, to certain favourite seats. When, however, the disease affects bones, or parts of bones, which are not usually attacked, a history of injury or cold can generally be obtained to explain its occurrence in these abnormal situations.—In the case of wounds also we must not forget that the injury done to the surface of a wound during an operation by the knife and the manipulations sets up the early stage of inflammation, and that thus the surface of a wound is, for a few hours at any rate, a weak surface, and unable to resist attacks from organisms.

That one great explanation of the value of injury in aiding the occurrence of suppurative diseases is the extravasation of blood from the vessels is shown in a very striking manner by experiments on symptomatic anthrax, a disease to which I shall have to allude in detail presently. I may say here that this disease is caused by bacilli, but is not set up if the bacilli are introduced into the circulating blood; in order to produce it the bacilli must act in the cellular tissue. After injection of the organisms into the blood the animals remain well, and the bacilli very soon disappear; if, however, shortly after the injection of bacilli into the blood, a bruise is produced in some part of the body, the bacilli pass out of the vessels into the cellular tissue along with the blood, grow there, and soon cause the formation of the characteristic tumours, the spread of the disease, and its fatal termination.—In man it is sometimes seen that bruises in weakly individuals are followed by suppuration, and I have already published the case of a drunkard who had albuminuria, and was in a very low state of health, and who, whenever he received a bruise, developed an abscess at that part. In his depressed state the pyogenic cocci were probably able to live in his blood, and the injuries, by setting up the early stage of inflammation, and thus further weakening the tissues, and also by leading to the effusion of blood containing the organisms, gave rise to the formation of abscesses.

Irritating Chemical Substances.—Another important cause of depression of vitality is the action of irritating chemical sub-

stances. The effect of these chemical substances is probably that, when concentrated, they destroy the vitality of the tissue by their caustic effect, and, when more dilute, they set up the early stage of inflammation, which also occurs in the former case in the vicinity of the dead part.

The effect of these substances in procuring a weak spot at which the organisms can develop is, no doubt, the explanation of Kocher's results with regard to acute osteo-myelitis in dogs. He found that if digestive disturbances were induced by the introduction of large quantities of septic material into the intestinal canal; and if, at the same time, a bone was injured by the injection of ammonia, or other irritating chemical substances, into it, acute osteo-myelitis occurred at the seat of injury; while the injection of the chemical substance alone only produced temporary reaction. These experiments, however, were only few in number, and are not completely satisfactory because it is possible that the organisms spread in along the needle track, and did not reach the part from the blood.—It has also been found that if irritating chemical substances are injected subcutaneously into rabbits, and if at the same time large numbers of pyogenic cocci are injected into the veins, suppuration frequently occurs at the seat of injection, the suppuration going hand in hand with the development of the pyogenic organisms which have reached the part from the blood.

Many of the former experiments on the production of suppuration by means of irritating chemical substances which frequently resulted in growth of micro-organisms in the part and, as a consequence, the occurrence of suppuration, show how the presence of irritating chemical substances placed the parts in a condition which diminished their resisting power against the action of micro-organisms.—Grawitz and de Bary found that if croton oil was injected into rabbits subcutaneously, it caused inflammation and sometimes suppuration; if, however, the pyogenic organisms were also present, suppuration always occurred; although these cocci alone in small numbers are unable to produce suppuration in the normal subcutaneous tissue of dogs or rabbits.

If I may venture to apply these facts to the treatment of wounds, it seems to me that if the views which I have attempted to develop as to the importance of a granulation wall as a barrier against micro-organisms are correct, it is questionable whether, in the case of wounds which have become septic, it is well to wash them out with irritating antiseptics, as is so often done at present. That it is well to remove the decomposing discharge, both by free drainage, and also by washing out the wound in some cases, is of course evident, but, where strong, irritating antiseptics are employed, unless they are able to kill all the micro-organisms present in the wound, and thus render it aseptic, the result of their injection might be, I think, that they will injure the granulation wall, and thus produce a weak spot in which the pyogenic cocci present in the wound can develop, and through which they may be able to enter the body. Thus it has been found that in cases of tubercular disease of joints and bones accompanied by suppuration, general tuberculosis—more especially tubercular meningitis—occurs by far most frequently where the sinuses have become septic, and more especially when, in addition, these septic sinuses have been much irritated by futile antiseptic injections. Hence it seems to me that, except in cases where there is reasonable ground for believing that the injection of these antiseptics into septic wounds will completely eradicate the organisms, it is better to avoid the use of irritating antiseptics such as carbolic acid, and if it is thought well to wash away the discharge, to employ some fluid which will not injure the granulation wall.

Except in the case of wounds, the chemical substances which aid in enabling the bacteria to gain a foothold are the products of the organisms themselves. That various bacterial products are highly poisonous is now well known, and in the case of putrefactive and pyogenic organisms, these products are able not only to cause local trouble, but also to set up fever, to depress the vitality of the patient, or, it may be, even to cause death. With regard to these general effects of the chemical products of bacteria, it is unnecessary for me to enter into further detail, for the fact is now so well known that in most books on surgery we find, in addition to septicæmia and pyæmia, a third group of general septic diseases due to the action of these products described under the title of septic intoxication or, as Dr. Matthews Duncan has termed it, "sapremia." I may therefore at once pass on to the local effects of the products of bacteria and their action in enabling the organisms to live and multiply in the part.

In some experiments which I performed recently with an

organism described by Hauser, under the name of proteus vulgaris—an organism not uncommonly present in putrefying materials—I diluted the growth in gelatine, with a certain amount of water before injection. In some cases, however, I used for dilution, instead of water, boiled meat infusion, in which the same organisms had been growing, that is to say a fluid containing the products of the growth of these bacteria, and I found, for example, that while $\frac{1}{3}$ cubic centimetre of the mixture prepared by the addition of water never killed the animals experimented on, where the dilution was made to the same degree with the boiled meat infusion, they died from the same dose after about forty-eight hours. In the second case a larger quantity of the products of the bacteria, these products being very poisonous, was introduced than in the first case, and to this we must ascribe the difference in the result.—In experiments on guinea-pigs with the cholera bacillus, Hueppe has found that infection occurs more certainly, and with less material if there has been preliminary action on the intestine of the poisonous products of the cholera bacilli, or even of the ptomaines of other bacteria; and Flügge and Wyssokowitsch have shown that bacteria which are not usually pathogenic in the animals employed for the experiments can penetrate into tissues previously weakened by bacterial poisons.

Among the products of the putrefactive fermentation, there are two substances which have been found to be highly irritating, namely, cadaverine and putrescine, and I have previously referred to the experiments made by Grawitz and Scheuerlen, which show that, as the result of the injection of these substances, inflammation and suppuration may occur, according to the strength and quantity of the solution employed. Grawitz found, further, that suppuration certainly occurs if, at the same time that a comparatively dilute solution of cadaverine is injected, pyogenic cocci are introduced.—The chemical products of the pyogenic cocci are also, according to Grawitz, irritating to the subcutaneous tissues of dogs and rabbits, when introduced in sufficient quantity and concentration. Thus, he found that if sterilised cultivations of pyogenic cocci were injected in large quantities into dogs—for example, 4 cubic centimetres of a sterilised cultivation of staphylococcus pyogenes aureus—suppuration occurred, the pus being free from organisms.

As regards the products of these pyogenic cocci, Brieger, who is the great authority on this subject, states that he has been unable as yet to obtain any toxine from the cultivations of these organisms. Cultivations of staphylococcus pyogenes aureus on moist beef or veal yield large quantities of ammonia, as does also the staphylococcus pyogenes albus; the latter produces, in addition, considerable quantities of trimethylamine. Streptococcus pyogenes likewise produces ammonia and trimethylamine. That the ammonia must irritate the tissues is, of course, evident, and it is probable that in the nascent state it is still more irritating; while as regards trimethylamine, though it is not an alkaloid, it is in Brieger's opinion probably a descendant of, or very closely related to, the ptomaines, and, when present in considerable quantities in the body, is very hurtful to it. These organisms also produce a peptonising ferment, and can thus peptonise and dissolve coagulated albumen, and this property is of great importance in suppuration. When sown in milk they rapidly set up a pure lactic fermentation, leading to the production of large quantities of lactic acid, as the result of which the milk coagulates if kept for some days at the temperature of the human body. This production of lactic acid is an important fact, as it probably also takes place sometimes in wounds, causing acidity of the discharge, and in abscesses causing the well-known watery pus. Whether ptomaines will yet be found in the case of pyogenic cocci we cannot say; but the occurrence of fever in suppurative diseases may possibly, as Baumgarten suggests, be explained simply by the increased tissue change, as the result of their growth, the products thus formed requiring increased combustion, and perhaps also stimulating the thermic centres, and hence causing elevation of temperature; and in support of this view Baumgarten refers to the fever which occurs in trichinosis, where there is no idea of any action of ptomaines.

Seat of Inoculation and Anatomical Arrangement of the Part.—Much depends also, as regards the effect of these organisms, on the seat of inoculation and the anatomical arrangement of the part. These conditions are of importance in two ways. In the first place, certain organisms will not grow everywhere in the body, they will only grow in certain tissues; and in the second place, in some cases—especially in the case of the pyogenic organisms—the resulting disease varies chiefly according to the anat-

omical arrangement of the part in which the organisms are growing.

Some organisms, such as the higher fungi, seem only to be able to act if they are present within the capillary blood-vessels or large serous sacs; the bacillus of malignant œdema acts only in the cellular tissue; the micrococcus of erysipelas possibly only in the lymphatic vessels. As this is an important matter, I may refer in some detail to a few examples which show the great influence which these conditions exert on the development and the character of the resulting disease. In some experiments which I performed with Hauser's proteus vulgaris, I met at first with some very interesting difficulties. I injected the cultivations into the backs of rabbits, and I found that the results obtained varied in a manner very difficult to understand. After considerable investigation I found that the differences depended on the seat of inoculation; that, if the material was injected superficially to the muscles, a different result might be obtained to that which followed injection into the substance of the muscles. Thus quantities of a cultivation which, introduced into the subcutaneous tissue, would only have caused a large abscess, were followed, when injected into the muscles, by the death of the animal; and, further, a small dose, which would have been without apparent effect on the subcutaneous tissue, was sufficient to produce an abscess when injected into the muscles. What the explanation of this difference is I am unable to say. It is possible, however, that some chemical substance in the muscle is readily broken up, and readily gives rise to poisonous compounds; and that this substance does not exist, or is present in less amount, in the subcutaneous tissue. Similar differences, according as injections were made into the subcutaneous tissue or into the muscles, were noticed in the case of several other bacteria.

Perhaps the best example of the great influence exerted by the seat of inoculation and anatomical arrangement of the part is furnished by the disease known in this country as "black leg," in Germany as *Rauschbrand*, and in France as symptomatic anthrax. This disease has been investigated by a number of observers, chiefly by three French observers, who have worked together, namely, MM. Arloing, Cornevin, and Thomas. The disease affects chiefly cattle and sheep—more especially cattle—and is characterised by the rapid appearance of irregularly limited swellings of the skin and muscular tissues, these swellings being at first very painful and tense, but rapidly becoming painless and crepitating. The disease is accompanied by fever, which is often very high, and it is almost always fatal, usually after a duration of from thirty-six to forty hours. The cause of the disease has been demonstrated to be a bacillus which grows without oxygen, and thus belongs to Pasteur's class of anaerobes. These bacilli are remarkable in various ways, more especially in the conditions under which they exert their pathogenic action. In order to cause the death of the animals, the organisms must be introduced either into the subcutaneous tissue or into the muscles; if they are injected into the veins or into the bronchi they do not cause the death of the animal, but apparently after a time die out, leaving the animal, however, protected against the disease. And I have already mentioned that if, after the virus has been injected into the veins, a bruise is caused in some part of the body, the organisms reach that spot from the blood, grow there, and set up the disease. If inoculations are made quite at the tip of the tail in cattle, the result is only a moderate amount of reaction, even when large quantities of the material are introduced; the more proximal on the tail is the seat of inoculation, the more readily is a result obtained. The explanation of this fact is apparently partly the dense nature of the connective tissue at the tip of the tail, and partly also the low temperature of the part. That the density of the tissue in the tails of cattle interferes with the spread of the infection is evident, because sheep, at the tips of whose tails the cellular tissue is loose, react markedly on inoculation in that part. As regards the temperature of the part, it has been found that if, after inoculation, the tail is wrapped in bad conductors of heat, the local temperature can be so raised that considerable reaction occurs, and *vice versa* in the case of sheep. If, after inoculation, the part is kept cool by the application of ice-bags, the violence of the local reaction is much reduced.

As regards the pyogenic organisms, most of them act in the cellular tissue to which they gain access, as a rule, after the destruction of the epithelium. The gonococcus is, so far as we know, the only pyogenic organism in man which is able to penetrate uninjured epithelium; and with regard to the micrococcus, it is very striking that it only attacks certain mucous membranes,

and apparently cannot develop in any other tissue of the body, unless, perhaps, in the joints in which, according to Kammner, it is present in some cases of gonorrhœal rheumatism. (It must be said, however, that some investigators have failed to confirm this observation.) Bumm states that pure gonorrhœal pus may be injected into the subcutaneous cellular tissue without causing any reaction, and that if, after twenty-four hours, an incision is made, and some of the pus which was injected is removed, it will be found that the cells are still in good condition, but that the cocci have disappeared; this fact is of interest also as showing that pus, apart from the micro-organisms which it contains, does not exert any pyogenic action. Also, as I have previously said, when suppurative bubo occurs after gonorrhœa, the staphylococcus pyogenes aureus or albus is present in the pus from the gland, and not the gonococcus; suppurative bubo being therefore the result of a mixed infection, and not a necessary complication of gonorrhœa. The same is the case in abscesses outside the urethra in connection with gonorrhœa.

Kitt has found that, in the case of the coccus of mastitis in cows, the organisms only exert their pathogenic action when they are present in the ducts or acini of the mamma; if injected directly into the tissue of the mamma they cause no suppuration.

The anatomical arrangement of the part is probably a very important factor in the production of acute osteo-myelitis. This disease is, as we have seen, due to the action of the pyogenic cocci, and it not infrequently stands apparently in some relation to an injury. But the injury and the presence of the cocci do not explain the whole of the etiology of the disease, more especially they do not explain why it is that the disease is almost entirely limited to certain bones and to certain parts of bones. Not that most of the bones in the body may not, under certain circumstances, become the seat of this affection, but as a rule the disease has certain very favourite seats, such as the femur, especially its lower end, the upper and lower ends of the tibia, the upper end of the humerus, and the radius. Now these are the bones which grow most rapidly, and in them the disease commences during the period of growth, and most usually in the neighbourhood of the epiphysal line, where the growth is of course most active. Thus the fact that the bones are growing helps apparently to determine the seat of the disease, possibly because there is a large amount of young indefinite tissue at these parts, possibly also because there are plenty of blood-vessels, and also perhaps because the circulation in the ends of the bone is apparently less rapid than elsewhere (Neumann). It is interesting also to note, as showing probably the influence of similar conditions, that when this disease attacks infants, it is usually limited to the neighbourhood of the epiphysal line, giving rise to acute epiphysitis. At the same time, the anatomical peculiarities will not suffice to explain all the facts because in growing animals, belonging to species not insensitive to this poison, the disease is not produced by injection into the circulation, unless some other determining cause, such as injury, comes into play; and because also the disease not infrequently occurs after acute fevers, such as typhoid fever. As regards the anatomical arrangement of the part in its relation to acute osteo-myelitis, all that we can say therefore is that there is some peculiarity in growing bones, not necessarily limited to the growth at the epiphysis, which has an important influence on the production of the disease.

PLACENTA PRÆVIA.¹

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THE theory and treatment of placenta prævia have been so frequently the subject of discussion, that it may seem to require an apology for bringing it before the Section. But it must, I think, be conceded that the conflicting ideas or dogmas urged as to the proper treatment prove that the true theory that can alone govern a rational scheme of treatment is not yet fairly recognised.

It will be my endeavour to put this fundamental point in a clearer light. I cannot better expose the unsettled and irrational practices that prevail than by briefly stating some of them.

¹ Read in the Section of Obstetrics at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

Some still advocate the old "*accouchement forcé*," pure and simple, or with slight mitigation, and these have the recent authority of Spiegelberg.

Schroeder, perhaps the greatest representative of modern German obstetric science, sums up the treatment thus: "Rupture the membranes, draw down a foot, and wait during extraction."

Some contend that the whole treatment consists in bimanual turning. This operation finds, as I long ago pointed out, useful application (*Lancet*, 1861); but it is really the "*accouchement forcé*," mitigated. Some think the whole treatment consists in plugging.

The following criticism by Ludwig Miller in his work on *Placenta Prævia* (1877) is, with few exceptions, singularly just: "Smellie did not follow any one method exclusively, but acted according to the indications of the case in hand. In this he made a step in advance, which places him higher than all his predecessors, and many of his successors."

It may be urged generally against the more rapid or forcible methods that they are fraught with danger to the child. Following the practice of the elder Simpson and of some of the older teachers, those who advocate these methods assume that the conditions are so perilous to the child that they are justified in leaving the child out of consideration, well satisfied if they can save the mother.

I cannot atop to discuss the fallacies which entangle this argument. I will simply state, as the result of extensive clinical experience and anxious casuistical analysis, that those methods which are the most successful in saving the mother are often exactly those which give the best chance to the child. Here, as in other of the great clinical problems in obstetrics, the guiding principle should be to seek for a solution which offers the greatest security for both mother and child, not condemning either.

It is no longer permitted to us, without ample proof of clear necessity, to sacrifice the child in order to save the mother. The cases in which the two lives are supposed to stand in antagonism are vanishing before the light of modern science and skill. And in no conjuncture is this more true than in the treatment of placenta prævia. Countless infants have been sacrificed on the altar of false theories. My own experience gives 33 per cent. of children born alive; and that, concurrently with a larger saving of mothers than has been secured by other methods.

A gross fallacy, which vitiates the teaching and practice of many men, is to regard the particular manipulation which they most affect as constituting the whole treatment of placenta prævia. If they had grasped the true theory, and had the faith that lends to action, they would have seen that there is no one method of treatment, but that several operations come into use in accordance with the stage of the labour, and the particular conditions of the case in hand.

Since I first sketched my theory of placenta prævia in the *Lancet* in 1847, and especially since the publication of my *Lectures on Placenta Prævia* in 1857, the leading idea of that theory has been largely recognised. Thus it is now admitted that there is a well-defined boundary between the lower zone of the uterus and the body of the uterus proper; and that the lower zone is distinguished from the upper zones of the uterus by peculiar attributes.

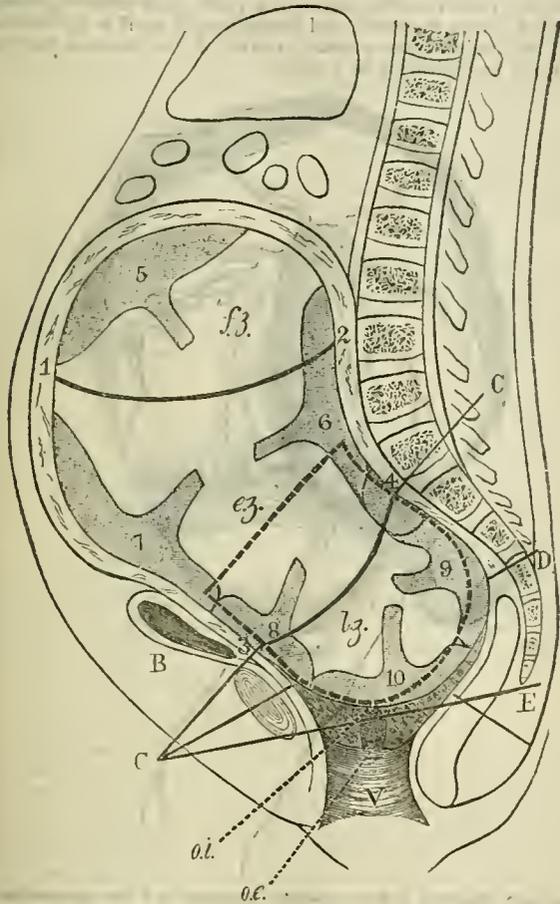
The theory of placenta prævia, developed from my original conception is depicted in the following diagram, (No. 1), and is summarised as follows:

The pregnant uterus is divided into three zones: the upper or fundal (*f.z.*, Diagram 1); the equatorial (*e.z.*) and the lower (*l.z.*). The fundal zone is divided from the equatorial by an imaginary line (1-2), the upper polar circle. This line has not been anatomically demonstrated, nor has it been recognised by anyone but myself; but it serves to mark a distinction, which I believe is real, between the properties of the upper and the equatorial zones in their relations to placental attachment and to hæmorrhage.

The equatorial zone is divided from the lower zone (commonly, of late, called the lower uterine segment), by the line 3-4. This is Barnes's boundary-line (1847-1857), since then sometimes called Braun's or internum, Band's ring, or Schroeder's contractions-ring.

The fundal zone (5) is the seat of fundal placenta, the region of safest and most typical normal attachment. The equatorial zone (7) is the seat of lateral or equatorial placenta. It disposes, I believe, to what is called accidental hæmorrhage, but may be fairly regarded as a comparatively safe normal attachment. This is still more true when the placenta is attached partly in the fundal zone and partly in the equatorial, as

seen (6). Danger especially begins when the placenta descends partly into the lower zone, as at 8-9. This constitutes partial placenta prævia. The part of placenta invading the lower zone is liable to premature separation. Complete placenta prævia, or placenta prævia centralis, occurs when all or the greater part of the placenta grows within the lower zone, and covers the os internum.



Explanation of Diagram 1.

1-2. Upper polar circle. 3-4. Lower polar circle. (This lower polar circle is Barnes's boundary line, 1847-1857; Branne's os internum, 1872; Bandl's ring, 1876, more lately Schroeder's contractions-ring), f.z. Fundal or upper zone. e.z. Equatorial or middle zone. l.z. Lower zone or lower uterine segment. n. Bladder. v. Vagina. o.i. Os internum uteri. o.e. Os externum. 5. Fundal or safe placenta. 6. Fundo-lateral placenta. 7. Lateral or equatorial placenta. 8. Partial placenta prævia. 9. Placenta prævia lateralis. 10. Placenta prævia centralis. c.c. Conjugate diameter of brim. c.d. Conjugate diameter of cavity. c.e. Conjugate diameter of outlet. The thick interrupted line represents the position occupied by the foetal head presenting.

In such cases as the last the gestation may not inaptly be called ectopic, inasmuch as the ovum, or an important part of it, is developed in the lower zone of the uterus, a region not adapted by Nature for the process.

The thick interrupted line in the lower zone marks the position occupied by the foetal head. The boundary line 3-4 nearly corresponds with the equator of the foetal head, and frequently nearly with the pelvic brim.

I think Bandl has exaggerated the anatomical differences between the middle and lower zones of the uterus. In specimens that have come under my observation [Drawings by Dr. Barnes were exhibited.] the course of the musculature is continuous, the wall not being materially thinner in the lower zone before labour. Of course, under the distension caused by the passage of the head, the lower zone and cervix may be thinned to the extent he depicts.

I will not in this place attempt a full discussion of the various theories emitted as to the cause of the hæmorrhage. I will only

state briefly some of the conclusions, more or less provisional, at which I have arrived. We may fairly start from two fundamental propositions: 1. The source of the hæmorrhage is the uterine vessels; 2. These vessels are torn across by the detachment of placenta from its uterine connection. The difficulty is to demonstrate what causes this premature detachment. Is it contraction of the uterus, causing such a diminution of its area that the placenta cannot follow? If this diminution of area of the uterine wall be the cause, we must postulate active uterine contraction. This is usually assumed to take place. No doubt sometimes it does. Possibly the frequent peristaltic movement of the uterine wall may occasionally pass the normal limit, and thus a degree of contraction may occur sufficient to throw off adhering placenta. Possibly uterine contraction more active, even spasmodic, may occur. But it is a matter of clinical observation that in many cases hæmorrhage sets in before there has been any obvious contraction of the uterus. It comes on when the subject is asleep; she is awakened, not by pain, but by the flooding. The most frequent time is at a menstrual epoch. One factor then presents itself: increased vascular tension. This tells upon the uterine vessels and upon the placental vascular system. This tension disposes to rupture of the vessels. This rupture takes place at the weakest part, that is, in the vessels running between the uterus and placenta.

Another factor cannot be overlooked. The spongy cellular structure of the placenta favours accumulation of blood in it. The uterine arteries continue to pump in blood, but the return by the venous sinuses does not keep pace with the inflow. Hence the rapidly distended placenta becomes larger in area than the corresponding area of uterus. Frequently the distension of the placenta is so great that its cavernous structure gives way, and there is hæmorrhage into the substance of the organ. Thus the placental bulk becoming suddenly too large detaches itself from the uterus. This process does not necessarily involve, in the first instance, contraction of the uterus. Contraction is, indeed, pretty likely to follow under the reflex irritation induced. But it does not always follow, at least not to any appreciable degree. Why does the flooding so often persist? Because contraction does not set in.

The form of contraction that prevails in the lower zone or segment is retraction. Longitudinal muscular fibres are continued from the middle zone along the walls of the lower zone, even into the cervix and vagina. Their action is to pull up or retract the lower zone, opening the cervix, thus aiding the driving power of the body of the uterus and the abdominal muscles in canalising the passage and forcing the fetus through it. When this retraction is retarded there is hæmorrhage; when retraction goes on well hæmorrhage ceases. An obstacle to efficient retraction is the partial adhesion of the placenta. Detach this, and frequently the vital power not being reduced too low, efficient retraction sets in. This is a matter of direct clinical observation, that is, to those who have the faith and courage to observe, not blindly thwarting Nature by rushing to the brutal expedient of "forced delivery." Those who intercept the natural order of a physiological process, are not entitled to give evidence in contradiction of those who have watched the process throughout. They are out of court.

There is still another condition of the placenta that disposes to self-detachment. This is alteration of its texture from fibrinous, indurations, fatty degeneration, or other condition impairing the natural homogeneity. Some such change is especially apt to occur in the praevial flap of placenta. In my *Obstetric Operations* and in the *System of Obstetric Medicine and Surgery*, written by myself and Dr. Fancourt Barnes, I started another theory of the cause of premature detachment and hæmorrhage; this is that the placenta, growing more rapidly than the corresponding uterine area, shoots out beyond this area, and so leads to detachment. It has been objected that there is no proof of this. It is true there is no direct proof; but, on the other hand, it is not disproved by simply denying it; and the argument from analogy with the history of tubal ectopic gestation is very strong. In cases of this kind the rupture of the sac and hæmorrhage take place mainly because the sac is not adapted to keep pace with the rapid growth of the ovum about the third month; the sac bursts, and there is effusion of blood. Now I have shown that placenta prævia is a form of ectopic gestation. It is a legitimate deduction that the processes of both are similar.

The case may be summed up in the following propositions:—
1. The hæmorrhage comes mainly from the bare uterine surface, and is arterial. (Simpson thought it was from placenta.)

2. In the progress of many labours, there is a stage when the flooding is spontaneously arrested. (The old dogma was, that the hæmorrhage was unavoidable, and must go on until delivery; and this dogma still governs the practice of many men, precipitating them into rash action.)

3. This spontaneous arrest does not depend upon total detachment of the placenta, nor upon death of the child, nor upon syncope of the mother, nor upon pressure upon the lower segment of the uterus bared of placenta, although one or more of these conditions may favour it.

4. The constant conditions of this physiological arrest are contraction of the uterus, active or tonic, thrombosis, or clotting at the orifices of the vessels, and

5. The physiological arrest of flooding is neither permanent nor secure until the whole of that portion of the placenta which had adhered within the lower zone is detached, this being the portion which is liable to be detached during the opening of the lower segment of the uterus to the extent necessary to give passage to the child. The limit of dangerous placental attachment corresponds to the equator of the child's head (*vide* Diagram 1, 3-4). Below it, the lower segment must dilate; above it the placental attachment is normal, and the uterine region need not and does not dilate. On the contrary, it contracts to force the child into the lower zone, which undergoes canalisation, continued by the cervix and vagina.

This boundary line, revealed to me by close clinical observation and physiological study, has since been demonstrated by anatomical research by others. The illustrations exhibited show this. My boundary line, described in 1847-1857, and many times since, became Braune's *os internum* in 1872, Bandl's ring in 1876, and more lately Spiegelberg's lower boundary of contracting part of uterus, and Schroeder's "contractions-ring." I think I am entitled to claim it as my discovery, if priority goes for anything. But I go further, and submit that these and other writers, although recognising this fundamental fact of a definite boundary line, and attaching their names to it, have failed to grasp its full significance. Had they formed a clear conception of its importance, they would have drawn the obvious therapeutical deductions, and would have made it the guiding principle of treatment. Instead of this, their treatment remains simply empirical. Imperfect in physiological conception, it is barren in therapeutical issue. Attempts have been made to define the extent of the lower zone by measuring the distance from the *os internum* to the boundary line. These are based upon the fallacy that all cases are alike. The uterus and the foetal-presenting part vary in absolute and relative proportions, according to the development of the uterus and the size of the child. It is idle to pretend to fix a constant boundary line, measured by tape or rule. My estimate is based on the observation of cases at term, and the measurement of foetal heads at the equator. The true limit is the height from the cervix to the equator of the foetal head.

6. When this stage of detachment has been reached, by Nature or by art, there is no physiological reason why any further detachment or flooding should take place until after the expulsion of the child, when, and not till then, the remainder of the placenta, which adheres to the middle and upper zones of the uterus, is cast off, as in normal labour. This preservation of the connection between placenta and the body of the uterus is commonly enough to preserve the child. It is chiefly in the extreme cases of central placenta prævia, in which the placenta is in greater part or wholly within the lower zone, or when as not seldom happens, labour sets in prematurely, that the child's life is compromised.

7. Adhesion of the placenta over the *os uteri internum* impedes the regular dilatation of the part; and, consequently, whilst such adhesion lasts, the ordinary course of labour is hindered or perverted.

8. Injury and inflammation of the uterine structures, particularly of the cervix, are especially likely to ensue upon delivery in placenta prævia. One of the purposes intended by Nature, in fixing the seat of the placenta in the fundal and equatorial zones, is the preservation of the parts, rendered highly vascular by connection with the placenta, from distension and contusion attending the passage of the child.

The treatment logically flowing from the foregoing physiological propositions is set forth in the following therapeutical propositions:—

1. The greatest amount of flooding frequently takes place at the commencement of labour, and frequently even before there is

any clear indication of labour; generally at what would have been a menstrual period. The cervix is always, from its being near the seat of placental attachment, highly vascular, and is frequently at this stage very rigid. Any attempt to force the hand through this structure at this stage, to detach the whole placenta or to deliver, must be made at the risk of injuring the womb. The dragging the child through the cervix, even when it has not been necessary to pass the hand into the uterus, is a proceeding affording slender chance of life to the child, and fraught with peril to the mother. Hence the indication to pursue a course of treatment as free from violence or precipitation as possible.

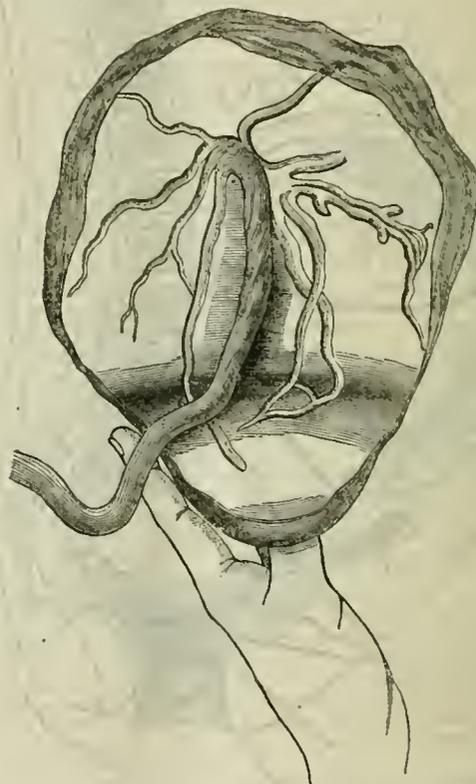


Diagram 2—Showing a flap of prævia placenta, and the demarcation between the prævia and equatorial portions of placenta, corresponding with the uterine boundary line. The finger shows how the prævia flap can be detached from the lower zone.

2. The entire detachment of the placenta is not necessary, and is not to be depended upon, to arrest the hæmorrhage. (Since my demonstration of this point, Simpson, I believe, abandoned the practice, and I do not think anyone now advocates it.)

3. Since the dilatation of the cervical portion must take place in order to give passage to the child, and since during the earlier stages of this necessary dilatation hæmorrhage is liable to occur, it is desirable to expedite this stage as much as possible, avoiding violence.

4. In cases where labour appears imminent, with considerable hæmorrhage, whilst the *os internum uteri* is still closed, the arrest of the flooding and the expansion of the *os* may be promoted by rupturing the membranes and the use of tents.

5. Since a cross-presentation or other unfavourable position of the child is apt to impede or destroy the regular contractions of the uterus, which are necessary to arrest the flooding, it is mostly desirable to deliver as soon as the condition of the *os uteri* will permit.

6. In some cases the simple use of means to excite contraction of the uterus, as rupturing the membranes or the employment of galvanism, may suffice to arrest the hæmorrhage.

7. In some cases in which it is observed that the *os uteri* has moderately expanded, or to a diameter of 1.25 inch or 4 centimètres, the placenta being felt to be detached from the lower zone, and the hæmorrhage having ceased, it is not necessary to interfere

with the course of labour, now become normal. Hæmorrhage rarely persists after full canalisation of the passage.

8. At the critical period, when the total detachment of the placenta or forcible delivery is dangerous or impracticable, the introduction of the index finger through the os, and the artificial separation of that portion of the placenta which adheres within the lower zone, is a practicable and safe operation. This proceeding is illustrated in Diagram 2, which represents the foetal surface of a placenta drawn from Nature. The flap at the lower part was prævial placenta. The shaded line exactly corresponds to the uterine boundary line. The flap itself corresponds to the lower zone of the uterus. It shows the compression of the foetal head. I have introduced the index finger to show how it is made to sweep behind the prævial flap to detach it as far as the boundary line.

9. The artificial detachment of that portion of the placenta which adheres within the lower zone will at once liberate the os internum from those attachments which impede its equal dilatation; and, by facilitating the regular contraction of this segment of the uterus, favour the arrest of hæmorrhage, and convert a labour complicated with placenta prævia into a natural labour.

10. The immature uterus, partly paralysed by loss of blood, cannot always be trusted to assume the vigorous action necessary to effect delivery; it is, therefore, necessary to aid canalisation by dilating the cervix artificially; this can be done safely and quickly by my caoutchouc water dilator. This has come into general use, and the testimony in its favour is conclusive. But one or two German teachers say it is not effective. The bags they have tried must be bad specimens, or skill in using them was wanting.

11. Sufficient dilatation being obtained, delivery may, if necessary, be accelerated by forceps, by turning, or by embryotomy, according to the special indications dictated by the condition of the child. If turning be resorted to, I insist strenuously upon the importance of delivering the after-coming head by the forceps, if there be any difficulty or delay in the passage of the head under manual traction. The forceps so applied takes off the constriction of the imperfectly dilated cervix from the child's neck; and traction bearing upon the head, facilitates moulding, and takes off all strain from the neck; axis-traction also is to be observed. In my hands, this proceeding has contributed materially to the saving of the child.

The measures that come into successive use are:—

1. Rupture of the membranes.
2. Apply a firm binder over the uterus.
3. A plug may be used to gain time, but it must not be trusted; watch closely.
4. Separate all the placenta that adheres within the lower zone, and observe closely. If no hæmorrhage, wait awhile. The uterus may do its own work; if not, dilate the cervix by the water bags. Again pause and observe. If Nature fail to deliver, we resort to the forceps, which gives the best chance to the child, or turn.

In following this order of procedure, we strictly follow the law of physiology. We do not force Nature, but obey her. Current medical literature is full of examples proving the value of these precepts, and not a few cases published as illustrations of the success of other methods, especially of turning, are more correctly explained by the fact, probable in many, certain in some, that in carrying out the operation of turning, the placenta had been detached from the lower zone. Where the principles enunciated by me have been thoroughly and intelligently observed, as has been done on a considerable scale, as by Dr. Murphy, the success has been unexampled.

An emphatic illustration of the treatment advocated by me is found in the following summary of the experience in placenta prævia in the practice of St. Thomas's Hospital for 1887 (*St. Thomas's Hospital Reports*) by Dr. Cory:—"Five cases occurred during the year. In one case there are no particulars; in two the placenta was partially separated, and delivery effected by forceps; both children were saved. In two the placenta was partially separated; version was performed, and the children were lost; all the mothers recovered." Dr. Cory adds:—"The lesson to be learned in these cases is well shown, namely, never attempt version if the head is presenting, and hæmorrhage has been stopped by the partial separation of the placenta."

LONGEVITY IN IRELAND.—Among the deaths registered in Ireland for the December quarter were the following:—Two at 100 years, two at 103, two at 104, one at 110, and one at 111 years respectively.

PATENCY OF THE UTERINE CANAL AS AFFECTED BY FLEXION OF THE UTERUS.

By GRAILY HEWITT, M.D., F.R.C.P.,

Emeritus Professor of Obstetric Medicine, University College; Consulting Obstetric Physician to University College Hospital.

THE effect of flexion of the uterus in interfering with the patency of the uterine canal is a subject on which a diversity of opinion exists. In the healthy normal uterus the tissues surrounding the uterine canal are of considerable strength and thickness, and under such circumstances a great degree of bending of the uterus does not occur; but when circumstances are otherwise, and the tissues are soft and non-resistant, possibility of severe bending is greater. When flexion is present, the thickness of the walls of the canal tend to preserve the patency of the canal, but it is evident that the calibre of the tube will be more likely to be diminished if at the same time the walls of the canal are relaxed, soft, and wanting in tonicity.

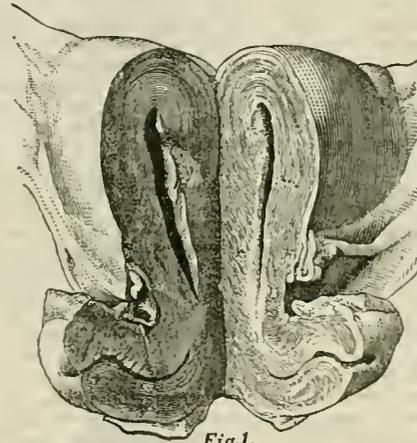


Fig. 1.

From the various conflicting descriptions of the state of the os uteri internum in cases of flexion, it is difficult to arrive at decisive conclusions, observations by means of the sound being difficult to make in a sufficiently uniform manner, and the sound itself being liable to alter the conditions actually present.

The following, as a piece of pathological evidence as to the condition in regard to patency of the canal in a case of ante flexion, may be considered worthy of attention.

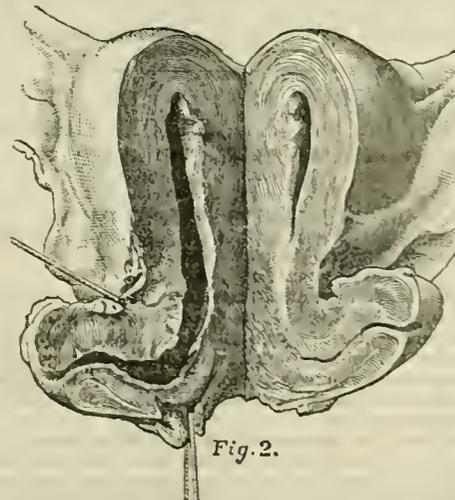


Fig. 2.

In the Museum of University College there is one of the few existing preserved specimens of acute ante flexion of the uterus. This specimen I had before described. Five years ago the speci-

men in question again attracted my attention, it having been meanwhile bisected antero-posteriorly so as to show the canal. Mr. Silcock kindly had photographs of the specimen taken for me so as to exhibit the condition of the canal more completely. The accompanying drawings are the result.

Fig. 1 exhibits the bisected ante-flexed uterus as it hangs suspended, the cavity of the uterine body being very evident, so, also, the cavity of the lower part of the cervix. But the upper part of the cervical canal for a length of three-quarters of an inch is hardly visible, and it looks as if obliterated at this situation. In Fig. 2 is shown the same specimen, but cords have been attached to the two sides of the apparently closed part of the cervical canal, and it is now seen that the cervical canal is only potentially, but not actually, closed. In point of fact the canal is really excessively compressed in the antero-posterior direction, the anterior closely in contact with the posterior wall (as shown in Fig. 1), and until opened out by the stretched cords, was virtually much blocked. It must further be noted that the section of the canal, which no doubt was intended to be made exactly in the middle line, was really made a little to the left of the middle line. The view of the interior of the canal of the cervix in Fig. 2, therefore, shows considerably more than half of the width of the canal. The shape of the canal at the virtually occluded part is not circular, but very much flattened from before backwards; in this case the shape of the canal, indeed, resembles very much the shape of a small, thin, india-rubber tube, compressed at a particular spot between the thumb and finger, and the result is that there is very great narrowing in one direction, but a widening in the opposite direction. Comparing, again, the uterine tube with one of india-rubber under compression, it is evident that the increased width of the tube is of no service so far as patency is concerned, so long as the compression in the opposite diameter continues to be exercised. It will be further obvious that, so long as the cervix continued flexed, as in Fig. 1, there would be an impairment of patency, which would be relieved or diminished by taking off the compression in the antero-posterior direction. This might be done in the way shown after death; during life the straightening of the canal by a sound, or a dilator or a tent, would be effectual in procuring a free passage out of the uterus. It is also evident from inspection of the drawings that a forcible expulsive force, that is, uterine contraction, acting on fluid contained in the uterine cavity, would or might be sufficient to open out the canal at the compression-narrowing spot, and thus to secure an outlet for the retained fluid. It is also evident that any increase in the degree of flexion present would tend to still further close the canal.

Nothing is known of the history of the above specimen, but it evidently belonged to a rather young woman. The slight indentations in the body of the uterus are accidental, and due to pressure of a piece of glass placed so as to expose the interior of the body of the uterus.

The specimen undoubtedly favours the opinion previously expressed on the subject, that the patency of the uterine canal is liable to be greatly affected by presence of marked flexion of the uterus.

ELECTRIC ILLUMINATION OF THE MALE URETHRA BY MEANS OF THE NEW INCANDESCENT-LAMP URETHROSCOPE.¹

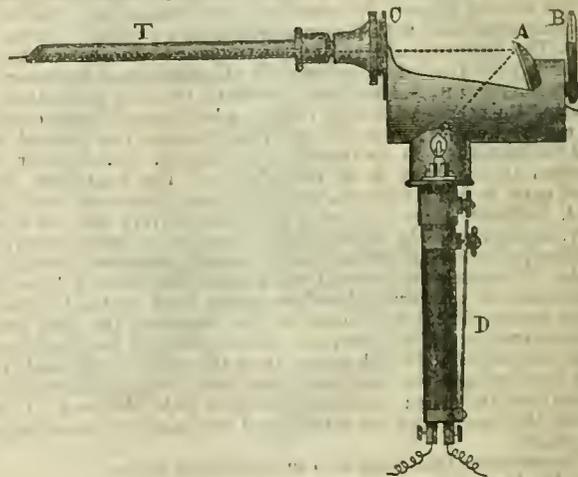
By E. HURRY FENWICK, F.R.C.S.

Assist.-Surgeon to the London Hospital and to St. Peter's Hospital for Stone and other Urinary Diseases.

SINCE April, 1887,² a simple, practical, and most efficient urethroscope has been placed in the hands of the profession, by means of which the entire urethra can be brilliantly illuminated; so that those diseases of that canal grouped for convenience under the term "gleet," which sometimes prove so rebellious, and are often obscure in their causes, can now be as scientifically studied as they can be effectively treated.

I have used the instrument in over fifty cases of gleet and stricture, and believe it to be the best and the most gene-

rally useful of any endoscope yet invented, for it can be adapted to every orifice of the body, even to the oesophagus. The instrument has been invented by Leiter, of Vienna, but it is only fair to explain that it combines, in reality, those various additions to Bozzini's "light conductor" of 1805, which mark the successive epochs in the development of urethral endoscopy. Thus its general construction is somewhat similar to the now twenty-five years old endoscope of Desormeaux-Cruise,³ but instead of the hot and cumbersome paraffin lamp of that period, or the still hotter and more complicated Nitze-Leiter urethroscope of 1879,⁴ Schall, of London, has substituted the incandescent lamp.⁵ Leiter has simplified the entire instrument, and has furthermore cleverly adapted a concave non-perforated reflector, which is the bone and marrow of the innovation. Although much good and sound work has been done by Oberländer by means of the Nitze-Leiter urethroscope, yet that instrument has never found favour or been in general use, because of its costliness, unwieldiness, and complication.



Leiter's Electric Endoscope for Urethral Examination.

Construction.—The incandescent-lamp urethroscope is made up of three pieces, D, B.C., and T. These pieces may be described as follows: 1. The handle D is made of caoutchouc, and carries on its upper end a small incandescent lamp, which is connected with the two binding screws which project from its lower end. A light steel spring forms the key. The handle fits into the bottom of the lantern B.C. 2. The lantern B.C. is a rootless gutter-shaped box, carrying at one end a fixed, obliquely-placed, concave mirror A for reflecting light along the urethral cannula T, and at the other the nozzle C for fitting on the urethral tubes. Two additional and important items of the lantern consist in small perforations around the lamp for ventilating off the heat, and a small movable lens B for myopic or hypermetropic observers. 3. A series of urethral cannulae T of various sizes and lengths. (Those supplied at present by Leiter are not long enough.)

A glance at the figure will show that the light from the lamp is cast directly along the tube, and that the observer's eye, which is placed at B, is shielded from the blinding light emitted by the lamp. It is worked by a small plunge battery of four cells.

Directions for Use.—Select a long cannula, and of a size suited to the mental calibre. Use glycerine as the lubricant. Pass the cannula up to the hilt after injecting a few drops of a 4 per cent. solution of cocaine. Every part of the urethra can now be examined as the cannula is withdrawn. If the cannulae are marked in inches, a note of the exact position of the diseased mucous membrane can be made for future reference. Frequently a drop of mucus, gleet, or the lubricant will obscure the surface of the mucous membrane; a pledget of cotton-wool on a stylet removes it, hence it is wise to use as little glycerine as possible. Should the wool slip off the end of the stylet it will be passed on urination, or may be removed by a hook-ended stylet applied through the cannula.

Capabilities.—The illuminating power is very considerable.

¹ Abstract of a demonstration of the instrument upon normal urethra as well as upon patients suffering from various urethral diseases—gleet of seven years' duration, etc.—at the Medical Society, January 27th, 1888.

² Dr. Brenner upon Leiter's Urethroscope, *Verhandl. der Deutschen Gesellschaft für Chirurgie*, xvi Congr., 1887, p. 92.

³ Desormeaux, *De l'Endoscope*, Paris, 1865. P. R. Cruise, *Die Endoscope*, *Deut. Quart. Jour.*, May, 1865.

⁴ Die Nitze-Leiterschen Urethroscope, *Berl. Klinisch. Woch.*, 1879, No. 48.

⁵ Leiter, *Neue Beleuchtungs-Apparate*, Wien, 1888.

Every section of the urethra can be thoroughly examined, and every detail of its surface can be as easily studied as if the canal were exposed to bright sunlight. Any change can, with practice, be detected immediately. But more than this; every diseased patch can be treated topically without withdrawing the cannula, for the reflector is so deeply placed in the lantern that bougies, or stylets armed with wool or medicaments, can be passed over its summit (Fig. 1 A, after twisting away the lens B), and down the cannula in the very axis of the light. Thus, as in the Desormeaux-Cruise instrument, the observer can govern the method and extent of his treatment, and watch the effect at the same time: The urethroscope has never been a popular instrument, and I believe it is due to this fact that so many of the long-standing, neglected gleet lapses into stricture. It is certain, however, that with a simple and practical urethroscope such as this is, and a greater visual knowledge of urethral disease, we shall have fewer false diagnoses of stricture; and, doubtless, fewer instances of normal urethra "worried into stricture" by unnecessary and harmful instrumentation.

ABSTRACTS OF THE MILROY LECTURES

OR

SOME GENERAL CONDITIONS WITH REGARD TO EPIDEMICS.

Delivered at the Royal College of Physicians of London, February and March, 1888.

By ROBERT LAWSON, L.R.C.S.E.D.,
Inspector-General (Retired) Army.

LECTURE I.—EPIDEMIC INFLUENCES.

AFTER thanking the President and Fellows for the honour done to him by selecting him to give the first series of lectures under the bequest of the late Dr. Milroy, the lecturer quoted two paragraphs from the testator's "suggestions for consideration by the Council of the Royal College of Physicians in relation to his bequest." In one the opinion was expressed that no question of medical doctrine stood "more in need of strict inductive examination than that of determining with accuracy the part which contagion—the communicability of disease from the sick to the healthy—plays in the development and spread of various maladies. . . . The correct solution of this problem thus becomes one of supreme importance in State medicine. This can only be effected by the patient investigation of numerous verified and authenticated facts in various localities and regions, and under different circumstances and conditions, apart from all previous speculation and any mere traditional or customary beliefs." In the other a strong desire was expressed "that more diligent and continued attention may be paid than has yet been attempted in this country to the study of the accurate geography of diseases, together with the exact chronology of the appearance and persistence of those diseases which are of only occasional and temporary occurrence; also the exact date of each epidemic prevalence or extra severity of the ordinary endemic maladies in different countries and localities, together with a brief notice of any exceptional feature or peculiarity characteristic of each aggravated manifestation of the malady in question, so that some record of its varying natural history may be preserved for the benefit of future times."

Passing then to the subject selected, the lecturer said that the terms "epidemic constitution," "epidemic influence," "pandemic influence," were merely conventional expressions embracing those factors which led to the diffusion and intensification of disease from time to time which were not referable to the individuals who suffered or the localities in which they resided. A study of the statistics provided by the Medical Department of the army showed that, though causes of insalubrity were more or less permanently present at various stations, severe epidemics of fever appeared at intervals only, leaving the respective stations comparatively healthy during the intermediate years, thus indicating the operation of factors during the epidemic years which were in abeyance during the intervening periods. From this it was concluded that the epidemic factor embraced large portions of the earth's surface at the same time, and that records of disease over an equally extended surface, and for many years in suc-

cession, were required to indicate the course these factors pursued.

A study of a large collection of notices of the occurrences of epidemics of fever and several other diseases led to the conclusion that in the case of fevers these outbreaks, besides embracing a considerable space in longitude, gave rise to epidemics in the respective localities they invaded, for the most part in a year with an even, or odd number. This conclusion was illustrated by quotations chiefly from the reports of the Army Medical Department. In Jamaica, for instance, the number of deaths from fever in the odd years (1817, 1819, etc.) was far greater than in the even years (1818, 1820, etc.), while the reverse held good in Ceylon.

An examination of the large body of evidence collected led to the further conclusion that epidemics of fever, which became developed at various points, from time to time, passed uniformly to the northward until they finally disappeared. The length of the course of individual epidemics varied much, but the disease generally appeared in each locality in the odd or even year which characterised it. From the combination of several details the period occupied in passing from the Cape of Good Hope to this country was found to be about six years.

A large mass of statistics was quoted in favour of the lecturer's views, and the general conclusion drawn was "that there is a factor concerned in the production of fever which determines its appearance at points more and more to the northward in successive years; that this factor revives periodically every second year, or at some multiple of two years, passing like a series of waves over a more or less extensive portion of the earth's surface. These waves can be traced from Buenos Ayres and Cape of Good Hope in 35° south, to northern Europe and Iceland, and in longitude from Ceylon and China to the west coast of America. To distinguish these I have named them pandemic waves. Of their intimate nature nothing is known at present, but as their position from year to year seems defined, approximately at least, by lines of equal magnetic dip, it is inferred they may be dependent in some way on that force."

THERAPEUTIC MEMORANDA.

SYRUP OF TAR IN WINTER COUGH.

TAR is undoubtedly one of the best remedies for chronic bronchitis and winter cough, but the difficulty is to know how to give it. In an article which appeared in the *JOURNAL* in 1875 I recommended that it should be given either in capsules or in pills made with lycopodium. Both these methods have their disadvantages, and I now use the syrupus picis liquidæ of the *United States Pharmacopæia* prepared as follows: "Tar, six parts; cold water, twelve parts; boiling distilled water, fifty parts; sugar in coarse powder, sixty parts, to make one hundred parts. Upon the tar contained in a suitable vessel pour the cold water, and stir the mixture frequently during twenty-four hours; then pour off the water and throw it away. Pour the boiling distilled water upon the residue, stir the mixture briskly for fifteen minutes, and set it aside for thirty-six hours, stirring occasionally. Decant the solution and filter. Lastly, in forty parts of the filtered solution dissolve the sugar by agitation without heat."

It is stated in most of the dispensatories that the syrup contains six grains in the drachm, but Mr. Tanner, of the Westminster Hospital, tells me that in reality it is not much stronger than the old-fashioned tar water. This, however, is a matter of little importance, for by the addition of a few drops of ammonia or other alkali it can be prepared of almost any desired strength. I usually give it in doses of from two to four drachms every three hours, or even oftener. It is by no means disagreeable to take, but should the taste be objected to it can be flavoured with syrup of Virginian prune made according to the following formula: "Wild cherry in No. 20 powder, twelve parts; sugar in coarse powder, sixty parts; water, a sufficient quantity to make one hundred parts. Moisten the wild cherry thoroughly with water, and macerate for twenty-four hours in a close vessel; then pack it firmly in a cylindrical glass percolator, and gradually pour water upon it until thirty-five parts of percolate are obtained. Dissolve the sugar in the liquid by agitation, without heat, add the glycerine and strain." The tar is an excellent stimulating expectorant, whilst the wild cherry is not without influence in allaying cough. The efficacy of the combination may be greatly increased by the addition of a little apomorphine. I use the 2 per cent. solution of the *British*

Pharmacopœia, and find that six minims may be given frequently without exciting nausea. Many patients take ten minims perfectly well; but in a few cases, in delicate women especially, it induces vomiting. During the last two years I have used this method of treatment in nearly a hundred cases of chronic bronchitis and winter cough, and have every reason to be satisfied with the result. The cough is relieved, expectoration is rendered easier, and the patient usually sleeps well the very first night. The syrup of tar alone without the apomorphine is admirably adapted for the treatment of the coughs and colds of children, and has none of the disadvantages of preparations containing opiates.

Weymouth Street, W.

WILLIAM MURRELL, M.D.

CLINICAL MEMORANDA.

OPHTHALMOPLÉGIA EXTERNA DUE TO ALCOHOL.

THE common causes of ophthalmoplegia externa are locomotor ataxy, syphilis, diphtheria, and exposure to cold. Though paralysis of the ocular muscles has been observed in chronic alcoholism, I am not aware that the condition to which the term ophthalmoplegia externa is applied has been met with, and its occurrence would seem to show that it may be produced by lesion of the nerves as well as by lesion of the nerve nuclei, alcoholic paralysis having been proved to depend upon peripheral neuritis.

The following case of chronic alcoholism, with ophthalmoplegia externa, is at present under my care.

J. B., a man, aged 50, was admitted into the workhouse infirmary on January 25th. His relatives stated that he had been drinking heavily for some years; and my friend, Mr. Newton, who attended him before his admission into the workhouse, tells me that he has been drinking for years, and that the drooping of the eyelids came on about a month ago, the patient having complained for some weeks previously of pains and cramps in his legs. The patient, on admission, was incoherent, constantly asking for drink, and unable to tell where he was or to give any account of himself. He was unable to raise his eyelids, there being drooping of both eyelids, the left being less affected than the right. There was slight external strabismus of the right eye. He was unable to rotate his eyeballs either upwards or downwards, but could move them readily from side to side. The pupils responded to light and accommodation, but sluggishly, and were small. The knee-jerk was lost on both sides, the plantar reflex increased. There was no paralysis of the legs or arms, but the calf muscles were exquisitely tender on being grasped, and pressure along the course of the posterior tibial nerves elicited great pain. He could point his toes, and there was no marked weakness of the extensors of the wrist or leg. The first metatarsal bone was fractured, and he said this was due to a chair falling on his foot. The muscles of the legs responded normally to faradism and galvanism. His memory was much affected, and he did not know where he was; he had no knowledge of time or place. When asked if he had been out he always responded in the affirmative, declaring that he had been several miles, and that he had had several glasses of whisky; in fact, he talked of nothing but drink. He took his medicine readily on being told it was whisky, though he thought the taste of it was very peculiar; in fact, he thoroughly illustrated the truth of the proverb, "In vino veritas," his speech betraying his previous habits.

Since his admission the patient has much improved, being now able to open his eyes, and the lids only drooping slightly. There is still considerable restriction of the movements of the eyeballs, but this is daily diminishing. The patient has had no alcohol since admission.

C. W. SUCKLING, M.D., M.R.C.P.

Birmingham.

SURGICAL MEMORANDA.

DISLOCATION OF THE RADIUS AND ULNA INWARDS.

AN example of this comparatively rare accident seems worthy of being recorded on account of the clearness of the signs and symptoms, and more particularly of the method of its production.

A young man, in driving a trap too sharply round a corner, capsized it, and was thrown out of it on the convex side of the curve. He alighted on the olecranon of the left side. The forearm being thus arrested by contact with the ground, while the rest of his body, including the left humerus, was still in projectile force, the humerus was carried beyond the forearm bones towards the outer

side, leaving the latter bones dislocated inwards. As usual, the dislocation was incomplete. The following signs were noted: The forearm was in a state midway between pronation and supination, and flexed at the elbow to an angle of 135°. There was marked bending of the forearm to the ulnar side, giving to the outer border a strongly convex outline, an appearance largely due to the prominence of the external condyle. This process, with the greater part of the capitellum, was easily felt from the surface, and so extensive was the laceration of the ligaments on the outer aspect of the joint, that the head of the radius could be separated from contact with the smooth ridge between the trochlea and capitellum to the extent of half an inch by forced ulnar flexion. The head of the radius had an inclination to displacement forwards, and the freedom of its movements was such as to suggest considerable yielding of the orbicular, as well as the external lateral, ligament. The greater sigmoid cavity of the ulna articulated with the under aspect of the internal condyle, which process was buried deeply. Very severe pain was complained of at this spot, intensified by pressure and movement, evidently due to the ulnar nerve being pressed. The olecranon, though prominent behind, was not raised above the inter-condylar line. There was no fracture of any of the bones, and passive movements were not so restricted as in some other elbow dislocations.

Reduction was easily effected by the usual method of placing the knee against the upper part of the forearm, and first extending, then flexing the joint, at the same time that the forearm was lifted outwards. When splinted it was thought desirable to place a pad on the front of the head of the radius to overcome the slight tendency to displacement forwards of this bone.

THOS. SINCLAIR, M.D., F.R.C.S.ENG.,
Professor of Surgery, Queen's College, Belfast.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

BRADFORD INFIRMARY.

A CASE OF HYDROPHOBIA TREATED BY THE BUISSON METHOD.
[Under the care of DAVID GOYDER, M.D.]

J. D., aged 49, farmer, a quiet, sober man, had always enjoyed good health. About the end of August, 1887, he was bitten by a strange dog on the outer angle of the left orbit, just under the end of the eyebrow. The dog was killed. Another dog, bitten by it just previously, was isolated, but had since shown no signs of rabies. The wound was not canterised, and healed readily in a few days. On October 30th the patient complained of a cold in the head and running from the eyes and nose, but did not complain of these symptoms afterwards. On this day he first noticed a slight pricking sensation in the seat of the bite, and complained of "neuralgic pain spreading from it, and also of headache on the left side, and spreading across the forehead." There was also some pain deep in the neck, immediately behind and below the left mastoid process, and a stiffness of the neck about this region and downwards from it. These sensations continued up to 4 P.M. of November 2nd, the pains and headache being almost constant, whilst the pricking sensation became less marked. On the morning of November 1st the patient felt "cold and starved," and in the evening his wife noticed a strange look in his eyes, which seemed "standing out," and also that he was continually "gasping" and drawing in his breath. He described his walk home that evening as terrible, having to "cover up his head and walk backwards" to avoid the effects of the wind, which "stopped his breath." He exhibited slight spasms on taking some brandy-and-water, and subsequently refused his tea, saying he could not swallow. In the night he once swallowed some brandy-and-water without difficulty. Shortly afterwards he started up, saying he felt "so low and queer," adding, "I believe I am going to leave you; I feel such a wanting here," pointing to his chest. Some warm milk was offered to him, when he got alarmed, and several times attempted to jump out of bed.

In the morning he procured some india-rubber tubing, and through this swallowed half a cup of milk in about half an hour. Dr. Hirst saw him at 11 A.M., and, recognising the nature of his case, advised his removal to the Bradford Infirmary, where he was

placed under the care of Dr. Goyder, and of the house-physician, Dr. Vaughan. Dr. Herbert Major and Dr. Hime kindly lent their valuable assistance. It was decided to give the sweating method of Buisson a thorough trial.

On the patient's admission into the ward at 6.30 P.M., on November 2nd, an attempt was made to sponge his face, but the pouring out of the water into the basin, as Dr. Hirst had already previously observed, brought on a spasm, and he begged so earnestly to have the jug and basin removed from the room, as he could not bear the sight or suggestion of water, that his request was acceded to. He complained of "catches" in his breath, and a feeling of suffocation from the slightest causes, either from a draught of air or the attempt to remove his clothes. Whilst being carried into the ward he exhibited this peculiarity, frequently giving vent to a high-pitched cry of a very suggestive character. Swallowing liquids, except in very small quantities, through his india-rubber tube, produced a sense of choking, and was dreaded by him. Solid food he masticated and swallowed without difficulty. He complained of throbbing in his chest, and of a sense of sinking in the præcordia. There was no priapism or salivation. His face and conversation were of a depressed character, his mind clear. Pulse 100, temperature 100.5°. Face anxious, pupils dilated, the right more than the left; skin moist and warm; general manner nervous. The application of a cold hand to the cicatrix on his forehead produced a sudden violent shrinking and a deep inspiration, almost spasmodic in character. A whiff of air blown on his face caused him to spring up from the lying to the sitting posture; then followed a prolonged, strong, and spasmodic inspiration, during which the jaws were set half open, the angles of the mouth drawn downwards and outwards, the eyes staring, the facial expression entirely changing to one of great distress and wildness: the hands were doubled and firmly clenched. This spasm lasted a few seconds, during which the pupils were extremely dilated, and assumed their more contracted condition after the spasms were over.

At 8 P.M. a combined steam and vapour bath was applied. On removal of the shirt a spasm was caused. During the bath two or three spasms were brought on by water dropping on to the body off the blankets. There was profuse perspiration during the one hour and a half the bath lasted. He was then rubbed dry with warm towels. He perspired gently for some time, expressing great satisfaction at the bath.

Between midnight and 2 A.M. one grain of morphine was given hypodermically to produce sleep and to allay the frequent spasms, but without effect. The pulse was then 120, temperature 98.5° F. Thirty-grain doses of chloral were then given every hour until 9 A.M. of November 3rd, but without any visible effect whatever, although 240 grains were administered.

At 10.45 A.M. half a pint of coffee was fairly well swallowed through the tube. The combined bath, aided by pilocarpine hypodermically, was then repeated, and also in the afternoon, producing as before profuse perspiration. About 3 P.M. the spasm appeared to be less frequent, and the restlessness not so great. The temperature was then 98°. Solid food was eaten, and enjoyed in the course of the day. During the night three-quarter-grain doses of morphine were twice given hypodermically, and seemed to produce a little sleep towards morning.

During the morning of November 4th the restlessness steadily increased. At 11 A.M. the temperature, which had risen to 100.2° in the night, measured 103°. The pupils were now equal, and measured one-eighth of an inch in diameter. Thick, ropy saliva appeared, at first excitedly rubbed off the tongue with a handkerchief, afterwards violently hawked up. The patient now got out of bed, put on his drawers and trousers. He said he felt stiff, and that he was going to die. When spoken to he answered rationally, but when left to himself he rambled and muttered. About 12.30 P.M. he became gay and shouted. Temperature 100.4°, pulse irregular in force and volume. Although but lightly clothed, he was bathed in profuse perspiration. At 12.45 P.M. he spoke rationally to the nurses, and for quite ten minutes did not have a spasm. At 1.0 P.M. he walked to a chair, talking pleasantly to the nurses. He tried to swallow some beef-tea, which brought on a deep spasmodic inspiration, accompanied by an expression of wild effort in face and manner; then suddenly he successfully gulped a mouthful down. This was repeated, the swallowing being accompanied by a kicking-out of the legs. At 1.30 he became violent, salivating freely, and excitedly rubbing away the saliva. Three-quarters of a grain of morphine were injected. At 2.50 the pulse was 150 and weaker, temperature 104.4°. Sixteen

ounces of clear urine were passed, specific gravity 1024, and pale yellow. Four minims of tinct. strophanthi were given. At 3.5 he was so excited that three-quarters of a grain of morphine were again given. At 3.18 and 3.40 there were outbursts of violence, but without spasms. At 4.10 a grain of morphine was injected. D. now became more and more violent, spitting in his attendants' faces, and at 4.40 he became so uncontrollable that chloroform was administered, under which he rapidly fell asleep. He died quietly at 6.55, having had one or two spasms at about 6.30, and one shortly before death. At 7.10 P.M. the temperature was 101.8°, and at 8.10, 103.8°.

In commenting upon this case, Dr. Goyder remarked that as Pasteur's method was here out of the question, the case had seemed to be a favourable opportunity for trying the so-called "eliminative" treatment of Buisson, although this treatment had already failed in the hands of some of the staff of Guy's Hospital. If the treatment consisted in producing diaphoresis, this had been essentially fulfilled, for from the commencement of the treatment until death the most profuse perspiration was present, not only during the baths, but also in the intervals between them. It had been objected that the Russian method advocated by Buisson had not been carried out, as the patient had not been sponged with cold water afterwards. Dr. Goyder submitted that this would have been impossible to carry out on account of the intense dread of water—"hydrophobia" in every sense of the word—exhibited by D., and he thought that no man who had seen a case of true hydrophobia would propose such a thing. He was reluctantly obliged to question the value of the Buisson method. The character of hydrophobia itself rendered it doubtful whether perspiration, however produced, could eliminate the poison, as it seemed to show an elective affinity for the nerves and brain, whilst zymotic poison generated and culminated in the blood. The outset of D.'s case illustrated this peculiarity. It began with pricking at the site of the bite; the irritation spread along the nerves, evidently towards the spine and brain, after which followed the spasms, directly proceeding from the medulla along the nerves of respiration and deglutition. The poison thereafter seemed to exhibit a stationary character, for a time at least, as the spasms were confined to the face, throat, and chest. During this interval the temperature sank to normal, then the patient began to be restless, the temperature gradually rose, the nervous system, though getting excited, was at first only pleasantly exalted, and at last, when it would appear as if the poison had spread to the universal cerebral structures, general, maniacal, and destructive excitement set in, rapidly speeding on to a fatal termination. This elective affinity for the nervous structures, in which the poison seemed primarily to generate, killing the patient by its excess of action, did not, it appeared to Dr. Goyder, offer a sufficient interval of time for its elimination by diaphoresis. The patient was practically beyond hope long before the first natural eliminative efforts—that is, the secretion of saliva—were established. Still, Dr. Goyder thought the Buisson method ought not to be decisively condemned before more exhaustive trials.

As to the *post-mortem* appearances, although it seemed so natural to assume that such violent spasms could not be produced without observable abnormality in the medulla, the most careful observation by Drs. Major, Vaughan, Hime, and Goyder had failed to detect the changes in the medulla recorded by Dr. Clifford Allbutt. The microscopical examination of portions of the brain and medulla, conducted by Dr. Major, whose large experience in this branch was a sufficient guarantee for its value, revealed no observable changes.

LONDON SANITARY PROTECTION ASSOCIATION.—The report of this Association, presented at its annual meeting held on February 25th at the Society of Arts, showed an increase of members over last year of 108. The number of inspections made during the year also showed an increase, the total being 1,488, including 451 first inspections and 602 annual. It is satisfactory to learn that the condition of the houses inspected for the first time showed a lower average than usual, the percentage of bad (rather bad and very bad) being 65, whereas on the average of the preceding six years that percentage was only 56. The treasurer's report showed a small balance of income over expenditure. Regret was expressed that charitable persons and public bodies had not made more use of the Association as a means to the improvement of the sanitary condition of working-class dwellings, a work in which the Association would be always willing to co-operate. It was remarked that large houses were often found to be more defective than small ones.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 28th, 1888.

G. D. POLLOCK, Esq., F.R.C.S., President, in the Chair.

Some Remarks on the Radical Cure of Hydrocele, with Notes of Two Cases of Excision of the Tunica Vaginalis, followed by Recurrence of the Hydrocele.—Mr. HENRY MORRIS read a paper on this subject. The history of hydrocele and its radical treatment were briefly referred to, as showing the frequent alternations between what might be called the "closed" and "open" methods of treatment, namely, injections on the one hand, and tents, setons, caustics, incision, and excision on the other. To be quite certain of a permanent cure the vaginal cavity must be entirely obliterated, either by firm universal adhesion of the two surfaces of the sac, or by the filling up of the sac by granulation tissue; but there was reason to believe that permanent cures had been effected by a simple change in the secreting capacity or character of the membrane. Although, on the whole, a more satisfactory mode of radical cure did not exist than the injection of small quantities of some irritating fluid, incision or excision was preferable under certain conditions. From a comparison of cases there did not seem to be much to choose, either as to duration of treatment or certainty of result, between injection on the one hand, and incision or excision on the other. The comparative values of injections, and of incision or excision, were alluded to. But it was pointed out that there was no method of radical cure yet devised which was not liable to occasional failure. The circumstances under which incision or excision was to be preferred to injections were the following: 1. When we were in doubt as to the precise nature or relations of the hydrocele sac, for example, whether the tumour was a congenital hydrocele, or a hydrocele of a hernial sac. 2. In some cases in which hernia complicated a hydrocele. 3. When a foreign body in the tunica vaginalis was the cause of the hydrocele. 4. When we had reason to think that the hydrocele was caused by, or associated with, a diseased condition of the testes, for which castration would be the right treatment. 5. When, as in a case lately under the author's care, a vaginal hydrocele was associated with an encysted hydrocele of the cord and a bubonocoele on the same side. The author's treatment of the cavity after incision was described. In conclusion two cases were related of recurrence of the hydrocele after excision of the sac.—The PRESIDENT observed that the behaviour of these cases of hydrocele was often capricious. In one case which he had long watched there had been no recurrence after one tapping. On the other hand, another had been twice tapped, and twice injected with iodine, with constant recurrence. A silver wire was then introduced for three weeks, with ample suppuration, but no permanent recovery; the sac was finally laid open, and lint put in day by day for a fortnight, and still, though it healed very well for the time, it recurred later on, until the patient finally declined any further treatment than simple tapping.—Sir JOSEPH FAYRE observed that during the years he had been in India hydroceles had come very frequently under his hands; they were not only much commoner than in England, but also much larger and with thicker walls. He had been inclined to consider them as part of a constitutional state, as being at least connected with, if not caused by, malarial fever. They were frequent precursors of elephantiasis. He had never removed a scrotal tumour without finding some hydrocele fluid. The sac was sometimes rigid, with cartilaginous plates, and bone was occasionally found in them. The fluid contained in such cases was full of plates of cholesterine. It was sometimes pale; sometimes granular and mixed with blood. For these no treatment availed to prevent recurrence except excision such as Mr. Morris had described. His master at Edinburgh, Professor Syme, had shown how necessary it was to use a strong injection of iodine, and to bring it in contact with all parts of the interior of the sac by manipulation. Some pain and thickening of the walls occurred, but cure at the time followed, and a recurrence was very rarely noticed. He was strongly of belief that the injection of two drachms of tinct. iodi, undiluted, would cure very nearly all simple hydroceles. That certainly should be first tried; and of other injections, of which he had tried many, none was nearly so good; for many cases one tapping was sufficient; and some Indian cases got well in England without any operation.—Mr. WILLETT had brought up a patient to show the Society in whom, as in Mr. Morris's case, operations had not led to cure.

He was a man aged 21, who had got hydrocele of the left side after a fracture of the thigh and a blow on the scrotum about two years ago. He was at first simply tapped and relieved for a time, then 2 drachms of tinct. iodi were injected undiluted into a sac containing a certain amount of fluid and well diffused. This was followed by a good deal of inflammation and by temporary relief, but subsequent return of the hydrocele, and this treatment was repeated three times at intervals of about six months. On his presenting himself for the fourth time it was determined to excise a portion of the tunica vaginalis; the tumour was grasped, an incision made, some 3 ounces or more of hydrocele fluid escaped, but it was found that the cavity was completely obliterated, and that the fluid had come from the meshes of a buboid growth. An attempt was made to peel off this buboid tissue, but its adhesion was too complete for that; it was broken down, and the wound closed.—Mr. BRYANT remarked that there could be no doubt there was not much unanimity in their treatment of hydrocele. It had been the universal custom in former days for all operators to inject iodine, and the questions then raised were chiefly as to the strength which it was best to employ. In his own practice he generally used 2 drachms of an equal mixture of the tinctura and liquor iodi undiluted. He advised that no fluid should be left in the sac before injection, for that was equivalent to dilution, and dilution to an unknown degree. Under these conditions he had had very few failures as far as he knew. He did not wish to be harsh on the plan of excision, which was becoming more popular with the growing confidence in the treatment of wounds. He described one case of incision and one of excision in which those operations had failed to bring about a radical cure, but injection with iodine subsequently had succeeded. Still excision was useful in some old cases of hydrocele with plates of cholesterine in the fluid. Next to iodine for injection he should choose hot water, which he had employed at someone else's suggestion, and had found to cause suppuration and radical cure by granulation tissue.—Mr. WILLETT asked to be allowed to observe that the fluid left in the sac in his case before injection of iodine was not left in accordance with his orders. He thoroughly agreed with Mr. Bryant in advising the injection of a strong solution of iodine into an empty sac. In reply to further questions he said that microscopical examination had done no more than show that the buboid tissue he had described was fibrous.—Sir J. FAYRE observed that he had several times found similar tissue, and had peeled it off if possible, or else excised it.—Mr. BRYANT thought it was probably organised lymph, such as he had found in some elderly subjects after operation.—Mr. CRIPPS said he was quite unfamiliar with the irritant action of hot water, and was inclined to attribute it to something other than the water.—Mr. TRAVES wished to express his opinion that Mr. Morris had been of considerable service to the profession in calling attention to the fact that there was no safe radical cure for hydrocele, which they were a little apt to fancy that there was, unless they took a good deal of trouble in following out the histories of their patients. He had been in the habit at the London Hospital of using for injection a solution of iodine known as Curling's, which was stronger than the tinct. iodi, B.P., and of leaving two drachms of that in the sac. He had followed out a great many of these cases, and found failure, that is, subsequent recurrence, in at least 25 per cent. Of cases of incision and excision which had been traced, he had found about the same percentage of failures, and he confessed that he thought that would be a not unusual percentage if the cases were thoroughly well followed up. He knew of no adequate explanation of the supposed curative virtue of incision or excision, if they were practised in a truly antiseptic manner, and little disturbance consequently involved. They could cure only by the accidents of wounds. His present practice in relapsing cases was to open the sac and have it all swabbed out with nearly pure carbolic acid. Even in these cases the part of the sac covering the epididymis and testis remained untreated.—Mr. WALSHAM had noticed failures after injection with undiluted tinct. iodi, and thought radical cure was only possible by granulation-tissue, and that any operation involving that was too serious to be risked in many cases, especially among the working classes, considering that they had the alternative of getting the tumour safely tapped every six months or so, and of suffering very little inconvenience meantime.—Mr. SNEED remarked, *à propos* of the yellow flaky tissue which Mr. Willett had described himself as finding, that he should expect it to be similar in origin and character to a substance

which he had sometimes found in other serous cavities, such as the pleura and peritoneum, and had taken to be an unusually good specimen of fibrin. If hydrocele fluid and serum were mixed in a glass, a similar specimen of fibrin would be obtained.—Mr. MORRIS was glad to think the subject had not been too commonplace for discussion. The capricious character of hydroceles, as the President had remarked, had been widely recognised, and had caused much oscillation in the methods of treatment even in one man's practice. He had himself seen one case in which no obvious change was produced immediately by an injection, and in which cure nevertheless resulted. Mr. Willett's case he took to be probably an exaggerated instance of trabecular adhesions rendered oedematous by hydrocele fluid. In using liquor iodi for injection, the increased strength in iodine was counterbalanced by the loss of the spirit as compared with the tincture. He had not any explanation to offer of the action of hot water. He had been much interested by Mr. Treves's experience, as he had not found a record of a case relapsing after treatment by excision.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 24TH, 1888.

W. H. BROADBENT, M.D., F.R.C.P., President, in the Chair.

Sequel of an Old Case of Ligature of the Carotid.—Mr. HOLMES furnished these notes. The case was published in the ninth and tenth volumes of the Society's *Transactions* as one of distal ligature of the left carotid for aortic aneurysm. The patient survived the operation for twelve years, and then died of phthisis. On *post-mortem* examination it proved that the thrill, bruit, and pulsation, which were thought to be caused by aneurysm of the aorta, depended on stenosis of the valves of the pulmonary artery, with dilatation of its left branch. There had been weakness and occasionally total absence of pulse in the left arm; but the cause of this was not explained by the *post-mortem* examination, which had been somewhat hurriedly made. The aorta and its branches were healthy as far as they were examined. The left carotid was obliterated in its whole extent. As the case had been used in discussing the propriety of distal ligature in aortic aneurysms, it was thought right to publish this correction.—Mr. CHRISTOPHER HEATH said that he took particular interest in this case because he had ligatured the carotid for the first time a year or two before. When he saw Mr. Holmes's case he certainly was doubtful as to its being an aortic aneurysm, though he was unable to suggest what else it might be. There was a distinct pulsating tumour after ligature. On the other hand, the age of the patient and the duration of the disease militated against the hypothesis of aneurysm, though the relief which followed operation might be thought to point the other way. He said there were no cases more difficult to diagnose than those of obscure tumours low down in the neck. He quoted a case which had been diagnosed as innominate aneurysm and turned out to be purely aortic. He hoped that a drawing would be made of the specimen, for insertion in the *Transactions*, before it was put in a bottle.

Laceration of Axillary Artery.—Mr. HOLMES described the case, which was that of a man, aged 54, in fair health, with no symptom of disease of the vessels. There was a systolic bruit. He had dislocated the left shoulder three weeks before. Attempts were made (January 24th, 1887) to reduce the dislocation by manipulation, by the knee in the axilla, and by extension vertically upwards. This was followed by the appearance of a large blood tumour. The progress of the case showed that this extravasation must have been caused by the rupture of some large vessel, though there was no loss of pulse at the wrist, no pulsation in the swelling, and no bruit. An operation was proposed, but the patient would not consent. Ultimately he began to sink rapidly, and died on April 23rd, apparently from septicæmia. *Post-mortem* examination showed no serious visceral disease, and only slight atheroma of the thoracic aorta. A small hole existed in the axillary artery. The vessel itself seemed healthy. The case was published as being probably the first in which the lesion had proved fatal from refusal of operation, and in which the parts had been obtained. It showed the great importance of timely operation in all cases where the extravasation went on extending, though there was no reason why so small a hole as existed in this instance might not close spontaneously, and similar symptoms had been present in cases which recovered without operation.—Mr. LUNN alluded to a case in which he had lacerated the axillary artery in an attempt at passive motion in an ankylosed arm. Soon after there was pain

and swelling in the axillary, with all the symptoms of ruptured vessel. Matters remained quiet for a day or two, when suddenly the arm swelled up, and the pulse on that side ceased to be perceptible. He then cut down directly on the tumour, but not being able to control the hæmorrhage he amputated at the shoulder-joint. The patient never rallied from the operation. At the *post-mortem* examination they found a great hole in the axillary artery. Although he had been blamed for doing so, he had published the case at the time, because he thought that they had often learned much from unsuccessful cases.—Mr. STEPHEN PAGET mentioned a case which had occurred in Sir James Paget's practice. The patient was a lady, who had a stiff arm, the result of rheumatism. For this, rubbing, galvanism, and passive movements were employed; after several applications movement was largely restored, when one day, to test the strength of the recovery, the patient rested her elbow on the mantelpiece, and threw the weight of her body upon it. She was soon after seized with pain in the axilla, with swelling. It soon became necessary to do something, and Sir James Paget cut down and found a rent, a quarter of an inch in diameter, in the long axis of the vessel. He ligatured the artery above and below the seat of injury, and the patient made a perfect and uninterrupted recovery.—Mr. HOLMES, in reply, said that Mr. Paget's case served to show how little violence sufficed to cause this grave injury when the parts had been matted together by past inflammatory changes. The noteworthy feature of his own case lay in that it was the only case on record in which the injury had been allowed to run its natural course in consequence of the refusal of the patient to be operated upon.

Ligature of Superficial Femoral Artery for Popliteal Aneurysm, without Rupture of the Coats of the Vessel.—Mr. J. R. LUNN gave particulars of this case. He said that the researches of Messrs. Ballance and Edmunds on the subject of the ligature of the arteries, which were published in Vol. 69 of the *Medico-Chirurgical Society's Transactions*, clearly demonstrated that it was unnecessary and inadvisable to rupture the coats of a large artery if it were desired to occlude it in its continuity. He determined, therefore, to adopt the method which was shown by the paper to be as efficient as, and apparently more safe than, the usual practice of dividing by the ligature the internal and middle coats. The question of the ligature of completely divided vessels, such as the main artery in an amputation stump, was quite another matter. He had usually employed catgut for large arteries, but in Messrs. Ballance and Edmunds's paper it was shown that even the best catgut might not hold for more than a few days when subjected to an environment of living tissue; and, on the other hand, that kangaroo tendon suitably prepared would resist the absorption process for two months, and also in other respects was admirably adapted for use in the operation of ligature in continuity. C. W., aged 45, widow, by occupation a needlewoman, was admitted in May, 1887, into St. Marylebone Infirmary, Notting Hill, with pulsating tumour in the right popliteal space. No history could be obtained of a blow, strain, or syphilis, etc. The urine contained no albumen. She noticed a pulsating swelling about the size of an egg behind the right leg, in the popliteal space, which gradually enlarged, and she was obliged to give up her work. The circumference of the pulsating tumour measured 16½ inches. After giving a fair trial to different methods of treatment, and having failed to make any impression upon the aneurysm, it remained only to advise the patient to submit to the usual operation of ligature of the superficial femoral artery, which she consented to. The usual antiseptic precautions were taken. When the sheath of the artery was opened, the vessel wall was noticed to be of a tallowy colour, and not the usual pinkish tinge of health. Wishing to try Mr. John Smith's suggestion, and ligate the vessel with a clove-hitch, and as Mr. Ballance had had some experience of the clove-hitch in his as yet unpublished experiments on the carotids of horses and asses, Mr. Lunn asked him to pass the kangaroo tendon, and occlude the vessel by means of a clove-hitch without rupturing the coats. This he did. The pulsation of the tumour was arrested immediately, and the woman made an uninterrupted and perfect recovery. The patient was kept in bed for seventy-two days after the operation. The case was offered to the Society as a contribution in aid of the advance of knowledge of the surgery of the arteries.—Mr. HEATH pointed out that they had two cases in which the clove-hitch with kangaroo tendon had been employed, which was a surgical novelty, involving as it did occlusion of the vessel without dividing the coats.—Mr. KEETLEY quoted the case of a man, aged 27, who came to the hospital with aneurysm of the femoral artery in the lower part of

Scarpa's triangle, about 4 inches long. He had only noticed it a fortnight before, and it rapidly increased in size. The upper limit of it came within 3 inches of Poupart's ligament. Not wishing to tie the external iliac, he ligatured the common femoral with kangaroo tendon, using a clove-hitch, with a reef-knot to fix it. The operation was performed on January 24th, and there had been no return of pulsation, and the man was doing well.—Mr. TURNER mentioned a case which occurred some three years since, in which he had ligatured the common femoral artery with common catgut, dividing the coats of the vessel. The artery had previously been ligatured with a silk ligature, which, in coming away on the sixteenth day, had given rise to profuse hæmorrhage. The man made a good recovery. The cases which had been brought before them showed that it was possible to deal with a vessel which they were formerly forbidden to touch.—Mr. HENRY MORRIS said the question would require some time before it could be authoritatively settled. It had yet to be proved that the method of ligaturing arteries without dividing the coats of the vessel presented any advantages. He thought that experience might show indeed that it was not as reliable. He mentioned the case of a man under his care who came to him in August with a tumour in the popliteal space of sudden onset, and rapidly increasing in size. There was pulsation in the arteries below. He cut down and turned out the clot. The artery was soft, and a good deal of arterial blood escaped from between the vessel and the bone. Ligatures of chromicised catgut were applied, and the man did well. Some days later pulsation returned at the upper part of the popliteal space, and that time he ligatured the femoral artery in two places with kangaroo tendon, dividing the artery between. He did well, but his leg became contracted, and he was subsequently anaesthetised to straighten the limb. No undue force was used, but within two or three days gangrene set in, and amputation was performed. Examination showed that the ligation was satisfactory in both cases. He called attention to the fact that pulsation was felt, although there was considerable extravasation. He approved of ligaturing the vessel above in some cases in preference to opening up at the site of extravasation.—Mr. TIMOTHY HOLMES said he always believed in ligaturing the common femoral instead of the external iliac artery, and he thought the prejudice against the course was based on a mistaken idea. He expressed himself in favour of the old-fashioned practice of tying a stout ligature tightly, so as to rupture the coats of the artery. The method of compressing the vessels was as old—at least—as John Hunter. In any case the advantage of such a modification was not obvious.

Amputation at the Hip-joint for Sarcoma of the Femur: Secondary Hæmorrhage: Ligature of the Common Femoral: Recovery.—Mr. BERNARD PITTS described the case. R. T., a draper, aged 30, came under Mr. Pitts's care in St. Thomas's Hospital on August 19th, 1887, with a hard tumour firmly attached to the left femur, at the junction of the middle and lower thirds. The tumour was first noticed four months before, and was then only as large as a pea; its measurement in August in the long diameter was between four and five inches. On August 24th, after an exploratory incision, a circular amputation was performed, and the limb removed just below the lesser trochanter, four inches clear of the periosteal growth. Whilst the vessels were being secured a longitudinal section was made through the removed bone, and the tumour showed the typical appearance of an osteoid sarcoma. The medullary cavity was involved as far upwards as within one inch of the lesser trochanter. An incision was then made on the outer side of the trochanter, and the remainder of the bone rapidly and easily disarticulated. The patient progressed well till the fifth day, when secondary hæmorrhage occurred from the stump. The bleeding into the dressings was considerable, and the patient was greatly exhausted. Finding that pressure on the common femoral controlled it, and since the patient would certainly have died if the flaps had been opened for a search for the bleeding vessel, a clove-hitch of kangaroo tendon was placed round the common femoral just below Poupart's ligament, and above the profunda. No return of hæmorrhage took place, and the patient made a good recovery, and left the hospital quite well early in November. Mr. Pitts, in his remarks, advocated the Furneaux-Jordan method of amputation, both on account of its safety, and also because it enabled the surgeon to stop short after the high amputation if the patient's condition, or the nature of the tumour, required it, and he proposed the following rule, namely, that in any periosteal sarcoma of the lower half of the femur, to amputate high in the thigh, and well clear of the disease; to have a longitudinal section of the femur made whilst

the vessels were being secured; and if it were found that the medullary cavity was infected, to remove the remaining portion; at the time, if the patient's state permitted, but, if not, at a subsequent operation. Mr. Pitts then stated the reasons why he had departed from the usual practice of opening the flaps when the secondary hæmorrhage occurred. He thought that ligature of the common femoral might now be safely tried, and the old fear of hæmorrhage at the seat of ligature was not felt by a surgeon who placed a flat tendon ligature on the vessel, and did not divide the coats, but merely closed the lumen of the vessel. Reference was made to the experiments by Messrs. Ballance and Edmunds, which so clearly proved that such a method of ligature was efficient. In conclusion, a case was referred to. A boy, aged 13, was brought last August to the hospital with a fracture of the thigh and a rupture of the popliteal artery. The effusion of blood had extended to Scarpa's triangle, and the boy was almost moribund. Mr. Pitts tied the common femoral with a flat ligature, without rupturing the coats. The boy died the next day, and at the *post-mortem* examination it was found that the artery was impervious to water, although the coats were entire. The ligature was placed on the vessel in order to give the boy a chance of recovering from his collapse, when an amputation was contemplated.—Mr. BRUCE CLARKE said that two years ago he amputated a child's femur for a sarcoma in the popliteal space. The mother refused to allow amputation to be performed higher than just above the seat of disease, and subsequently the disease recurred high up, where intervention was impossible. He advised removing the whole of the bone, but leaving the periosteum.—Mr. CHRISTOPHER HEATH recalled a case already published in the *Transactions*, in which he had tied the femoral artery in the early days of catgut ligatures, and in a few days pulsation returned. This was by no means the only case on record, and they tended to show that it was not safe to rely on anything less than the rupture of the coats. He suggested that it would not be safe to divide the artery between two ligatures in some situations, and mentioned a case where this had been done in respect of the subclavian, with death from the slipping of the knot. He expressed surprise that the question of the knot had not been discussed. Personally, he would prefer a reef-knot to a clove-hitch. He pointed out that Jordan's operation was not always applicable. He observed that present-day surgery was apt to be rather slow, surgeons not attributing sufficient importance to mere loss of blood.—Mr. HENRY MORRIS pointed out that his remarks as to dividing the artery between two ligatures only applied to the limbs.—Mr. LUNN, in reply, thought that in old people the employment of the broad ligature obviated the danger of tearing the coats of the artery.—Mr. BERNARD PITTS, in reply, asked Mr. Morris whether he would be inclined to divide the common iliac between two ligatures. He was satisfied that absolute security resulted from the changes which took place consequent on occluding the lumen of the vessel. The principle of surgery was that when the same result could be achieved with less damage, then it was to be preferred. He objected to leaving any periosteum when removing a bone for sarcoma as it would facilitate recurrence. He did not advocate Jordan's operation as such, but modified to suit the circumstances of the case.

Living Specimens.—The following were exhibited. By Dr. BARLOW: Case of Cured Subclavian Aneurysm.—Mr. SILCOCK: Case of Traumatic Meningocele.—Mr. FRED. TREVES: Patient upon whom Loreta's Operation on the Stomach was performed two months ago.—Mr. J. T. MORGAN: Case of Lymphangiectasis of Upper Lip.—Mr. MARSH: Case of Hairy Mole.—Dr. BROADBENT: Case of Subclavian Aneurysm cured by Pressure.

MEDICAL SOCIETY OF LONDON.

MONDAY, FEBRUARY 27TH, 1888.

J. HUGHLINGS JACKSON, M.D., F.R.S., President, in the Chair.
CLINICAL EVENING.

Case of Syphilis.—Mr. JAMES BLACK showed a woman who, after twelve miscarriages due to syphilis, bore a healthy child under mercurial treatment.

Bilharzial Epicystitis.—Mr. HURRY FENWICK showed a patient, aged 20, who had suffered from Cape hæmaturia for five years, and who had come under observation on September 23rd, 1887, with symptoms of extra-peritoneal perforation of the bladder of nine days' duration. Ten days previously, after severe exercise, the patient suddenly passed large quantities of blood, and was seized with extreme suprapubic pain. The abdomen was tympanitic in

its upper two-thirds, but absolutely dull in the suprapubic region. The dulness was not removed by catheterism of 8 ounces of clear urine. The entire recto-vesical pouch was found to be filled with a softish foetal-head-sized mass. He believed that pericystitis had been set up by incomplete perforation of, and leakage through, the posterior wall of the bladder, and that epicystitis and adherence of the intestines had resulted. A suprapubic incision was made for drainage purposes, but the prevesical space was found, on examination, to be free. The swelling in the recto-vesical pouch was gradually absorbed, and the patient recovered. He still passed bilharzial ova. Electric illumination of the bladder revealed multiple punctiform hæmorrhages of the base.—Mr. BERNARD PITTS asked whether any collection of blood was found on incision, and whether any oozing took place afterwards.—Mr. FENWICK, in reply, said the dulness he found was due to matting together of the intestines.

Two Cases of Friedreich's Disease.—Dr. ORMEROD showed a boy and a girl, the subjects of this peculiar form of hereditary ataxia. Both children walked imperfectly and awkwardly, and the patellar reflexes were wanting. Speech, vision, and hearing were apparently normal. A sister was quite healthy. Father asthmatic, and formerly a drunkard.—Dr. JACKSON asked whether any choroiditis was present. A patient of his own had nystagmus, and the pupils did not react to light.—Dr. ORMEROD, in reply, said he had not thoroughly examined the eyes. There was no history of syphilis or nervous affections in the parents.

Case of Ununited Fracture of Humerus.—Mr. MARMADUKE SHEILD showed a lad who had sustained a compound comminuted fracture of the right radius, from which pieces of bone had been at various times removed. No union had taken place, in spite of reiterated efforts with that object in view. The lad could use the hand fairly well, and Mr. Sheild insisted on the desirability of avoiding amputation in injuries of this sort in young people.—Mr. TURNER mentioned a case in which transplantation of medullary membrane was tried in a similar case, but without success. He mentioned that out of 48 specimens of false joints in the London museums, 16 were of the humerus, and 14 of the femur.—Sir Wm. MAC CORMAC thought, from the atrophied condition of the bone in this case, that efforts at inducing union would probably not be successful. He expressed a desire to see an attempt made with transplantation of bone, that being the only possible way of bringing about union.—Mr. SHEILD, in reply, asked Mr. BERRY, under whose care the patient passed immediately after the injury, whether the fragments had been wired.—[Mr. BERRY replied that he thought not]—because he thought that this ought to be done in such cases. He was afraid transplantation would be difficult to carry out successfully. He attributed the frequent occurrence of false joint after fracture of the humerus to the employment of four short splints, thus allowing considerable movement. He alluded to the danger of opening up the wound to secure union from the matting together of the nerves, vessels, etc.

Congenital Cysts in Mouth and on Chin.—Mr. BERNARD PITTS showed a boy, aged 14, with fluid swellings, one in the middle line of the chin, and the other in the floor of the mouth. The cysts had been tapped, but refilled, and he indicated the necessity for more radical measures of treatment.

Loose Bodies in the Knee-Joint.—Mr. SHEILD showed a man, with a history of syphilis two years previously, who had loose bodies in the knee-joint, one of which was the size of a filbert, causing continual irritation. It was suggested that the bodies might be ossified gummata, but he thought they were more probably synovial outgrowths, and advocated their removal.—Professor HUMPHRY agreed with the latter suggestion. He expressed himself sceptical with regard to the possibility of detachment of portions of the articular cartilages, and thought that the depressions found on the articular cartilages simulating the site from which such pieces had been detached were in reality due to absorption from pressure.—Mr. EDMUND OWEN asked whether there had been any synovial inflammation prior to the syphilis; also whether the patient was gouty. He mentioned two cases in which he had successfully effected the removal of similar bodies, without the spray, merely washing out the joint with sublimate solution.—Mr. SHEILD, in reply, said he regarded the spray as an additional safeguard. There had been no prior synovial inflammation, so far as he could ascertain.

Case of Limited Atrophy of the Face.—Dr. A. GARROD showed a girl, in whom, after a period of great anxiety, epileptic fits had supervened, with a curious atrophic condition of the forehead.

Spasmodic Twitching of the Ears.—Dr. BRAYOR showed a very

remarkable case of spasmodic twitching of the ears in a young girl, consecutive to general chorea. The twitching was rhythmical and persistent.—Dr. JACKSON said it was a most curious case, and he had never seen anything resembling it before.

Disease of the Nails.—Mr. SHEILD showed a case of disease of the nails, modified by treatment.

ROYAL ACADEMY OF MEDICINE IN IRELAND.
OBSTETRICAL SECTION.

FRIDAY, FEBRUARY 10TH, 1888.

JOHN RUTHERFORD KIRKPATRICK, F.K.Q.C.P., President, in the Chair.

Specimens.—Dr. COLCLOUGH HOBY exhibited specimens of mole pregnancy and *fetus compressus*. In the latter specimen the fœtus seemed to have reached about the fourth and a half month of utero-gestation. It was expelled a short time after the birth of a full-time child and before the expulsion of the placenta. The whole specimen seemed to be nothing more than a mass of adipocere. There was no trace of an umbilical cord, but the placenta was very large and apparently healthy.—Dr. S. M. THOMPSON exhibited two large calculi which he had removed by dilatation from the urethra of a woman 52 years of age.—Dr. MACAN said the stones were the most remarkable he had ever seen. Their extreme smoothness was most striking; they ought to be examined for the purpose of ascertaining of what they were composed. Professor Simon, of Heidelberg, had shown that, after the dilatation reached 2 centimètres the operator was on very dangerous ground. If he (Dr. Macan) had to deal with such a case, he would rather extract by means of an incision in the septum.—Dr. MACAN showed four specimens. The first was the head of a child born a few days before in the Rotunda Hospital. The woman had been undergoing a very protracted labour, and was brought into the hospital. On examination the head of the child was found to be encompassed with an elastic tumour filled with blood, and so disposed that it was difficult to detect the child's hair. Before delivery the child was known to be alive, although the fœtal heart could not be heard. The child was delivered with some difficulty with forceps, and was a very large one. The whole surface of the tumour was then of a bright crimson colour. Next morning it was incised, and the hair underneath was found to be cut off as sharply as if it had been shaved; he had never before seen anything exactly like it. The labour lasted twenty-four hours. While examining with his finger before delivery, the epithelium of the vagina came off under his finger, which he believed was due to an acrid secretion. The second specimen was an ovarian tumour, which was removed from a girl. When she first came she was in the seventh or eighth month of pregnancy, and had a very large abdomen. The tumour afterwards got smaller from day to day, and when he (Dr. Macan) first saw it, it was not the size of his hand. He thought this might have resulted from a rupture of a cyst, and the absorption of contained fluid. The next time he examined her, the tumour was almost as big as ever, and he diagnosed that another cyst had developed. When he operated he found an extremely short pedicle. The next specimen was a tumour removed from an unmarried woman, which had been eight or nine years growing. On the morning of the operation her temperature was 102.8°, and she had great pain in the abdomen. After making a large incision he first got hold of an enormous tube, from which a quantity of pus escaped, and then the opening was closed by a wisp of hair, which showed the tumour to be a dermoid cyst. She got on very well for some days, until suddenly one morning her temperature rose to 103°, her pulse being only 88, and a great swelling appeared in the right parotid region, from which it was obvious that she had parotitis on that side. This was an unknown complication to him until his attention was drawn to the JOURNAL of December 24th last, containing an account of seventeen cases, collected by Professor Bumm, of parotitis following ovariectomy. In nine out of thirteen of these cases suppuration followed, in two death resulted from inflammation, and in two others inflammation contributed to a fatal result. He (Dr. Macan) was unaware of the complication until Dr. Kidd told him that he saw the same thing after the operation of ovariectomy. The girl had since been going on extremely well, and that day she was up, but that evening her temperature was 101°, for which he failed to recognise any cause. The remaining specimen was an ovarian tumour, which he removed on the preceding day from a woman in the Rotunda Hospital. The diagnosis was very difficult, and

the operation was approached with great doubt. She was examined under ether, and the posterior wall of the uterus found to be very thin, but the tumour could be separated from the uterus with the sound. There was great difficulty in getting the tumour out through the pelvis, and there was an enormous pedicle, part of which was left behind. It was a ligamentous growth. There was a considerable quantity of pus in the tumour. Up to the present the woman was going on very well, the only danger being that some change might take place in the position of the pedicle that had been left behind.

Removal of Fibroid.—Dr. M'MORDIE read a paper on the successful removal of a large fibroid tumour.—Dr. ATTHILL, Dr. MACAN, and Dr. BARBOUR, of Edinburgh, took part in the discussion.

Report of the Rotunda Hospital.—Dr. SMITH read the report of the Rotunda Hospital for 1887. The gynaecological wards contain thirty beds. Four hundred and fifty patients were received during the year, being an increase of 106 over the previous twelve months. It was remarkable that retro-uterine hæmatocele occurred eight times, carcinoma thirty, and serious tubal disease only once. All the cases of carcinoma were too far advanced on admission into hospital to justify any radical operation. Nothing was left to be done except to palliate by thorough curetting and the application of Paquelin's cautery. The treatment in incomplete abortion and endometritis consisted of curetting down to the muscular coat of the uterus, and injecting equal parts of the liniment and tincture of iodine. Abdominal sections were performed eight times for the removal of ovarian tumours, once to remove the ovaries in a case of uterine fibromyoma, once to perform hysterotomy, twice for the radical cure of hernia, once for the removal of a double ovarian abscess, and once in a case of peritonitis, which proved carcinomatous, making in all 14, with 4 deaths. The uterus was curetted 105 times, including incomplete abortions 18, carcinoma 30, and endometritis 57, without any reaction following, showing that when properly performed this operation was entirely devoid of danger. The bimanual method of examination was practised and taught, with the patient in the dorsal position on a Schroeder chair. The uterine sound had been found most useful during the year as an aid in diagnosing many diseases of the endometrium. It detected with accuracy the patulous condition of the internal os, whether the mucous membrane were hypersensitive, thickened, or roughened, and it would demonstrate its tendency to hæmorrhage, if that condition were present. Schultz's pelvic diagrams were used to encourage accuracy of diagnosis, and Wyder's transparent plates as illustrations of pathological conditions. Antiseptic solutions were only employed where the hands or instruments had been engaged in septic cases. The stages of disinfection practised were, for the hands, 1st, thorough scrubbing for a couple of minutes with carbolic soap and a nail-brush in a 5 per cent. carbolic solution; 2nd, rinsing in fresh carbolic solution; 3rd, soaking for one minute in 1 in 500 corrosive sublimate solution. All instruments were disinfected by boiling in a 5 per cent. carbolic solution. For some time past irrigations of ordinary Vartry water had been employed in all ordinary operations about the uterus and vagina, such as curetting in the case of incomplete abortion, and as good results had been obtained as when solutions of carbolic acid or corrosive sublimate were used for this purpose.—Dr. ATTHILL said the proportion of cases of hæmatocele appeared to be unusually large. He was glad to find that cases of abdominal section were increasing in number. He would not say that in any of the 105 cases recorded the curette had been used injudiciously; but he thought there was a tendency to resort to it too often. He thought that in cases of uterine cancer it merely aggravated the symptoms, and in some cases accelerated death. For the purpose of washing out he thought that Vartry water was as good as the solution of carbolic acid.—Dr. MACAN said, as to curetting, he thought that, in cases of hæmorrhage with fetid contents of the uterus, the method, from its expedition, had a decided advantage over dilatation and removal by the finger. He only regretted that he had not been more energetic in the use of the curette in cases of cancer than he had been, because of the improved condition and ease it gave the patients before they died. The mortality in cases of hæmatocele had been increased by the inclusion under that head of cases of extra-uterine foætation.

GUY'S HOSPITAL.—The Treasurer of Guy's Hospital received last week an anonymous donation of £1,000 from H. A. N. towards the Guy's Hospital special appeal.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, JANUARY 20TH, 1888.

W. H. RANSOM, M.D., F.R.S., President, in the Chair.

Hydatid of Liver.—Mr. PRYCE showed a case of hydatid of the liver in a man aged 56, which was associated with a separate tumour of the abdomen due to the same disease.

Communications.—Dr. ELDER read notes on—(1) A Case of Missed Labour, and showed the patient; (2) Removal of the Breast for Intractable Eczema.—Mr. GIDDINGS read a paper on the Medicine of the Hippocratic Era.

Specimen.—Dr. Elder showed: (1) Ovarian Tumour; (2) Enchondroma; (3) Vesicular Mole.—Mr. KINGDON showed a microscopic specimen of the Bacillus Anthracis.

FRIDAY, FEBRUARY 3RD.

W. H. RANSOM, M.D., F.R.S., President, in the Chair.

Necrosis of Bone.—Mr. R. C. CHICKEN showed a young man on whom he had operated for diseased bone. From the humerus he had removed a sequestrum $4\frac{1}{2}$ inches long, involving in half its length the entire thickness of the upper third of the humerus. From the internal and external condyles, cuboid sequestra had been extracted. The elbow-joint was limited in motion owing to thickening, but a strong useful limb was left. From the right foot of the same patient the internal and middle cuneiform bones were excised, and two-thirds of the first metatarsal bone. The arch of the foot was supported by an accurately fitting cork. He had free movement of all his toes, and could walk long distances. The next case was a sequestrum from the middle and lower third of the femur, 5 inches long, involving the entire thickness of the shaft. The sinus occupied the line usually taken by Hunter's canal. The femoral artery could not be felt; it was probably enclosed in new bone. The case was of eight years' standing. The patient made a good recovery. In both of these cases amputation had been recommended. Mr. Chicken pointed out that in operations on large diaphysal necrosis of the femur there were three points which might prove sources of failure: 1. The method of operating. Two ways offered themselves; the removal of the sequestrum entire, or its division *in situ* by an oblique operation, and withdrawing in two parts. This might be called the "button-hole" operation. The first required the cutting away of a large portion of new bone and a very large incision through the soft parts. The second method required only a small incision, and the sequestrum could be removed through a very small opening in the new bone. 2. The drainage of the wound was often a source of great trouble. Sometimes the operation to establish drainage for a small exfoliation of the femur was more formidable than the removal of the bone. If the patient lay on the side opposite to that operated upon, and then flexed the hip- and knee-joints, causing the resected femur to cross the sound limb, the drainage was perfect and the position comfortable. 3. The button-hole operation could not be performed except with instruments which would divide the sequestrum as it lay imbedded in the new bone. The chisels of single bevel and the bone-forceps as supplied, were utterly inadequate. The great objection to the use of even the finest tempered double bevelled chisels was the injury caused by the hammering to the healthy bone. Mr. Sutton, of Nottingham, had made (from Mr. Chicken's design) a pair of cutting bone-forceps which divided a femur with ease, and were therefore capable of dividing any sequestrum. They were forged with care from the finest steel, and tempered most accurately, the parrot beak slipped easily around the dead bone, and held it whilst it bit. The screw gave any power required. The holes in the handles were roomy and smooth, to give play to the screw.

Malignant Disease of Larynx.—Mr. JOSEPH WHITE related two cases of carcinoma (one intrinsic, the other extrinsic in its origin) and drew attention to the influence of locality in its bearing upon the comparative malignancy of this disease as originating in the upper or lower part of the larynx; and pointed to the greater rapidity of growth, greater tendency to involve the neighbouring glands and other tissues, and more speedy termination in death, of extrinsic as compared with intrinsic carcinoma. He related other cases, showing the frequent obscurity of this disease in its earliest stages. He then discussed the question of operative treatment, and came to the conclusion that in cases of sarcoma, removal by operation was indicated; in intrinsic carcinoma this might also be tried, but not in the extrinsic form. Both in sarcoma and carcinoma, early tracheotomy might be very beneficial.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 8TH, 1888.

W. ROSS JORDAN, M.R.C.S., President, in the Chair.

Papilloma of Bladder.—Mr. JORDAN LLOYD showed a specimen of papilloma of the bladder removed from a man, aged 51, by suprapubic incision. The first symptom was slight hæmaturia with clots occurring during perfect health more than two years before. He remarked on the diagnosis of bladder tumours, and thought that spontaneous hæmaturia with clots in an apparently healthy man beyond 35 years of age, recurring from time to time without vesical symptoms of any kind, and without any objective evidence of other disease, ought to suggest to us the presence of vesical papilloma. Such growths could often only be discovered by suprapubic incision, which ought to be performed in preference to perineal incision.

Specimens.—Dr. HOGGEN showed some specimens of Cirrhosis of Liver in a Young Child, due to Alcohol.—Dr. SUCKLING specimens of *Trichocephalus Dispar*.

Communications.—Mr. BRACEY read a note on the Treatment of Tinea Tonsurans by Hot Oil.—Dr. HOLMES JOY read a paper entitled Notes on Puerperal Septicæmia.

Ataxia in a Brass-worker.—Dr. SUCKLING showed a case of ataxia in a brass-worker. The patient was a man, aged 54, who for many years had worked at bronzing. During the past eighteen months he had suffered from numbness of the feet and hands, and unsteadiness of gait. He had suffered also from attacks of vomiting, and shooting pains in his legs. He was very unsteady in walking, especially on turning round, and static ataxia was marked, for he could not stand with his eyes shut, swaying about and falling on closing his eyes. The pupils were unequal, but responded to light and accommodation; there were no changes in the fundus oculi. There was no decided anaesthesia or analgesia of the extremities, but he stated that he felt as though he was walking in wool. The knee-jerk was diminished, but could readily be elicited by Jendrassak's method. The man gave no history of syphilis, but there were pigmented scars on the legs. There was no green mark on the teeth, and he had not suffered from attacks of sweating or catarrh. Dr. Suckling pointed out that ataxia with numbness of extremities had been observed by Schloehow in workmen at zinc foundries, the ataxia being due to loss of muscular sense. The muscular sense in the above case was decidedly impaired, for he was unable to distinguish any weight less than four ounces suspended from the toes, and he could not distinguish between a four-ounce and an eight-ounce weight. He had decidedly improved under the administration of iodide of potassium.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

JANUARY MEETING.

Dr. T. W. HIME, B.A., M.B., President, in the Chair.

Retinoscopy.—Dr. J. JOHNSTON read a paper on retinoscopy, describing briefly the history of the test, the method of using it, and its advantages as a qualitative and quantitative test, especially in dealing with children, and in determination of astigmatism generally.—Remarks were made by Drs. GOYDER, HOBBOCKS, HIME, and BELL.

Destructive Diseases of the Eye.—Dr. BELL read a communication on some destructive diseases of the eye, with special reference to iritis. He stated that iritis was not common during the middle period of life, and that its causation was either traumatic or depended on some dyscrasia. He then showed how various classifications of iritis might be made, and mentioned several; at the same time, many of the different forms of iritis reacted on each other in such a way as to render the symptoms distinctive in only a few cases. In children under 6 months, and in certain rare cases where rusty spots appeared on the iris, the iritis was always due to syphilis, while serous iritis was always accompanied by white spots on the posterior layer of the cornea. The other symptoms of iritis which might or might not be developed, but which were common to all its forms, were a vascular zone on the sclerotic, change of colour and immobility of the iris, muddiness of the aqueous humour, pain and impairment of vision. With respect to treatment, special attention was drawn to the frequent use of atropine until the pupil was fully dilated, while mercury alone, or combined with iodide of potassium, was useful in all forms of iritis, with the exception of the traumatic.

Hydrophobia Treated by the Buisson Method.—Dr. GOYDER re-

ported a case which will be found in this day's JOURNAL at page 464.—Drs. HIME, BELL, WHALLEY, VAUGHAN, and others took part in the discussion.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 15TH, 1888.

JULIUS DRESCHFELD, M.D., F.R.C.P., President, in the Chair.

Xanthelasma.—Dr. LEECH showed a case of xanthelasma.

Forcible Feeding.—Dr. BASIL described several methods of forcible feeding. He thought that if it were resorted to as intelligently in general practice as it was in the best asylums, many cases would be greatly benefited by it. Such conditions were typhoid states in many of the continued fevers, prolonged coma in diseases not necessarily fatal, after some operations, especially those about the mouth, in cases of delirium, severe chorea, etc. Many forms of insanity could be treated at home if the general practitioners were to resort more often to the use of the stomach-tube.

Treatment of Phthisis.—Dr. RANSOME presented some notes on the treatment of phthisis by pure oxygen and ozone. Pure oxygen prepared by Brin's process had been supplied by that company, and had been largely administered, but without very definite results until it was ozonised and administered under pressure by means of Waldenburg's apparatus. Beneficial results had then been obtained in three patients who carried on daily inhalations for from three to five weeks.

Sarcoma of Choroid.—Dr. HILL GRIFFITH showed a patient with intra-ocular sarcoma of the choroid, and read notes of a case of sarcoma of the choroid growing from and confined to the central region of the eye, and exhibited the specimen. Dr. Griffith also made some remarks on the diagnosis of the affection, and illustrated his remarks by preparations.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, FEBRUARY 17TH, 1888.

J. SPOTTISWOODE CAMERON, M.D., Vice-President, in the Chair.

Incision of the Cyst in Hydatid Disease of Liver.—Mr. MAYO ROBSON described the case of a patient admitted to the Leeds Infirmary under the care of Dr. Churton, with a history of a swelling in the abdomen of fourteen days' duration, with pain for the last five days. He was looking ill and anxious on admission, with a temperature of 101° F., and there was a tumour in the abdomen yielding an impulse on percussion. The cyst was exposed by an incision outside the rectus muscle, and a multitude of small cysts were withdrawn through a trocar, the whole contents amounting to 120 ounces. The edges of the sac were stitched to the abdominal wound, and the cyst was irrigated and drained. The patient made a good recovery. Mr. Robson referred to the various methods of treating this condition, namely, simple puncture, puncture with the injection of a solution of mercuric chloride (5ij of a ℥ in 5000 solution) as advocated by Dr. Sennett, incision *à deux temps*, and opening by means of caustic paste. He preferred in such a case as above, when the symptoms were urgent, to incise the cyst in one operation, and clear out the daughter cysts.—Dr. EDDISON thought it was very important to know whether secondary cysts existed, as, if not, recovery would follow tapping. Even if the daughter cysts were killed by puncture they would remain as foreign bodies.—Dr. MAJOR thought that "hydatid fremitus" was rare and fallacious.—Mr. MAYO thought there was danger of the escape of fluid after simple tapping.—Dr. GRIFFITH had seen many cysts aspirated, but even when the fluid was very thin there had been no extravasation. He had seen only two cases of suppuration after tapping.—Mr. MCGILL advocated tapping as easy and safe. He had tapped one cyst six times. The severer operation could be done afterwards if necessary. In doing the operation described by Mr. Robson, he would prefer stitching up the peritoneum before the cyst.—Mr. MAYO ROBSON, in reply, said he would always tap in non-urgent cases. He had seen serious symptoms from drawing off small quantities of fluid.

The Treatment of Empyema of the Maxillary Sinus.—Dr. ADOLF BRONNER described this condition as liable to be produced by disease either of the teeth or nose, but in most cases he thought it was secondary to a condition of hypertrophic rhinitis, the disease of the teeth being secondary to this. In all cases of unilateral recurrent chronic rhinitis, this condition should be suspected. He preferred the method of opening from the middle

meatus of the nose by means of instruments devised for the purpose by Dr. Hartmann, of Berlin, and by Dr. Krause, which he exhibited. The usual plan of perforating through the alveolar process had the advantage of allowing good drainage, but there was a constant dropping of pus into the mouth, and food penetrated from the mouth into the cavity. He described four cases in which the antrum was opened from the nose, and washed out with boric acid or mercuric chloride solution. In one case the sense of smell returned after being lost for sixteen years.—Mr. TEALE said he had been treating chronic diseases of the mucous membrane of the nose by more vigorous measures than he used to adopt, namely, forcible scraping.—Mr. JESSOP had been using the curette much of late, operating with the patient's head hanging down. He referred to a case of lupus in which he had scraped a large amount of periosteum from the hard palate, but a complete covering to the bone was reproduced. He said that a similar condition might arise in the nose after forcible abrasion.—Dr. JACON preferred the galvano-cautery to the curette in hypertrophic conditions of mucous membrane.

The Prevention of Ophthalmia Neonatorum.—Dr. BELL, after reminding the Society that 72 per cent. of the blind in England were so from this perfectly preventable condition, and that there were 10,000 blind in the country, urged the Society to make some organised attempt to stay the spread of this disease. The affection occurred mostly among the children of the poor, attended by ignorant midwives. Antiseptic midwifery had reduced the mortality in lying-in hospitals from 8 per cent. to 1 in 500, and a similar result might be obtained by applying the same principles to the prevention of ophthalmia. A petition from the Ophthalmological Society to the Government that the registrars of births might disseminate the information had been referred on the score of the expense which would be incurred; but this was much overrated. The Committee of the Bradford Eye and Ear Hospital supplied the registrar of births with slips of paper on which were printed plain directions, which he gave to each person registering a birth; and the total cost for the Bradford district did not exceed 25s., at this rate it would cost but £30 for the whole of England.—Mr. JESSOP, Mr. MAYO ROBSON, and Dr. PURDY made some remarks.

Pathological Specimens.—1. Kidneys; Suppurative Pyelitis with Dilated Ureters; Bladder with slight Enlargement of Middle Lobe of Prostate. 2. Double Ovarian Cysts removed from a Pregnant Woman. 3. Ovaries and Tubes showing early Broad Ligament and Parovarian Cysts.

Apparatus.—Dr. TEMPEST ANDERSON: 1. A Simple Eye Speculum; 2. A Bench for Operations on the Eyes of Children; 3. A varying Cylindrical Lens.

REVIEWS AND NOTICES.

THE DISEASES OF THE BREAST. By THOMAS BRYANT, F.R.C.S., M.Ch. (Hon.) Royal University of Ireland; Senior Surgeon to, and Lecturer on Surgery at, Guy's Hospital; Vice-President, Chairman of the Court of Examiners, and Hunterian Professor of Surgery, Royal College of Surgeons of England, etc. London: Cassell and Co., Limited.

A MANUAL written by an experienced hospital surgeon must necessarily be of high value and interest, more especially when, as in this case, the author has already shown literary capacity in the same department of medical education. A good surgeon and lecturer cannot always teach by his pen, but Mr. BRYANT is endowed with that talent. In this work, the author has epitomised his clinical and surgical knowledge, whilst he has been aided in preparing the scientific department by Dr. Goodhart and Mr. C. Symonds, likewise making full use of the researches of Creighton, Butlin, and many other British and foreign pathological authorities. At the same time it must be understood that *Diseases of the Breast* is essentially practical rather than scientific. The eight pages of chromo-lithographs show, by the excellence of their execution and the truthfulness of their colouring, how greatly this branch of art has improved in this country. Mr. Bryant's subject is not the most difficult to demonstrate by the resources of the pencil and paint-brush, but diseased breasts have often been very badly drawn, whilst in this work they are delineated and coloured with great care. There are but thirteen woodcuts, all either drawings of diseased breasts and nipples or of the microscopical appearances of tumours, with the solitary exception of Fig. 6,

which represents the operation of excision of the breast. Operations on the breast, it is true, are not readily explained by drawings, but a few sketches explaining the devices for retaining drainage-tubes and other technical details would have been advisable. No instruments are figured, but in the surgery of the breast special apparatus is hardly ever employed.

A manual on Mr. Bryant's subject must be chiefly devoted to tumours, for obvious reasons; still we are glad to find that nearly one-fifth of the 351 pages of *Diseases of the Breast* includes descriptions of the nature and treatment of other morbid conditions. The management of abscess, and the prevention of suppuration in the early stage of inflammation, are subjects of the highest importance to practitioners. Mr. Bryant has quite rightly allowed an entire chapter to supernumerary breasts and nipples, not omitting the remarkable milk-producing tracts of integument or axillary lumps described by Dr. Champneys. Any medical man may come across pathological curiosities, and therefore naturally expects to find some account of them in his manuals. He has not always the time or opportunities required for searching for desired information in archives of learned societies. Mr. Bryant has not overlooked this truth. The latest researches have been noted, as, for example, the facts brought to light during a discussion on galactorrhœa, at the Obstetrical Society, in February, 1887. Amongst rarities which are particularly instructive, we may quote the author's remarkable case of syphilitic disease of the breast, which was infiltrated with gummata and sloughed out entire within two years. Mr. Bryant has not overlooked the singular cases of inflammation of the breast which last for months without suppurating, and where the chief symptom is œdema.

The chapters on tumours, however, are the most important in this book. Clinical facts in relation to the subject, very abundant as we all know, are well condensed, and the cases which illustrate the history of special tumours and special symptoms are carefully selected, and reported in a readable and instructive form. Mr. Bryant directs, in his description of the operation for the removal of a benign tumour in a young woman, that the growth should be shelled out of its capsule after a free incision of the latter. He apparently does not believe in any attempt to remove the tumour elegantly, with capsule uncut. He notes that large benign tumours, even up to seven pounds, may be removed from a gland, the breast thus left intact being capable of performing its true functions, and, that, under these circumstances, it is the surgeon's duty to attempt to save the gland, even when it may appear hopeless, especially in the case of a patient still in the child-bearing period of life. Mr. Bryant publishes cases which illustrate the frequency of enlarged axillary glands in association with adenofibroma, the enlargement disappearing after the removal of the tumour.

Mr. Bryant writes, in his first chapter on carcinoma: "All evidence tends to show that carcinoma of the breast, as of other parts, is in its origin more a local than a constitutional disease, and that it becomes a general one in a secondary way by what has been described as 'local infection,' and 'vascular or secondary infection.'" The author finds that out of his own 360 cases of cancer in women who had borne children puerperal mastitis had occurred at some antecedent period in 80, but it was almost impossible to make out that the cancerous tumour originated at the seat of scar or induration. Mr. Bryant has much to say on the obstinate eczema of the nipple which Paget and others have described as the frequent precursor of cancer. In the 600 consecutive cases of cancer in the author's own practice (see table, page 149), he has only recorded 3 cases of this form of eczema; but he also published notes of 3 more which have occurred in his experience, 3 out of the entire 6 proving their malignancy by a fatal termination without any operation being performed.

In conclusion, we may note that some instructive observations on the curious pedunculated papilloma of the nipple are to be found towards the end of the volume; and in the same portion of the work are some valuable clinical reports in cases of galactocœle, and a useful "Summary of the Diagnosis of Tumours of the Breast."

TREATMENT OF HYDATID CYSTS.—Professor Baccelli, of Rome, recommends that a measured quantity (10 centigrammes) of fluid should be withdrawn with the aspirator, and a corresponding quantity of a 2 per 1,000 solution of corrosive sublimate at once injected into the cyst. In two cases in which this plan was adopted, the tumour gradually diminished till it almost entirely disappeared, and in ten days the patients were able to get up.

EUTHANASIA; OR MEDICAL TREATMENT IN AID OF AN EASY DEATH. By WILLIAM MUNK, M.D., F.S.A., Fellow and late Senior Censor of the Royal College of Physicians, etc. London: Longmans, Green and Co. 1887.

WHEN the medical art can do no more to arrest the progress of disease, and when medical science can but sorrowfully attempt to estimate the short span of days or hours yet remaining, it is too often assumed by the laity and accepted by the profession that the physician has no further duty towards the patient. How erroneous this opinion is it does not take much experience of medical practice to learn, and most physicians worthy of the name will have learnt for themselves the lessons which Dr. MUNK has to teach in this essay on the means for procuring an easy death. The term "euthanasia" has been somewhat narrowed in its meaning during a controversy which took place in the magazines a few years ago, and is often made to signify the procuring death by easy means, whereas it ought to be understood to mean easy or painless dying.

The means for procuring euthanasia are well worthy of study; but there is one objection which may fairly be urged against this volume, namely, that the subject is not one which permits of being treated in a detached essay. Dr. Munk himself observes that "the process by which death is brought about varies greatly in different instances, and this according to the disease or the organ of the body from which it essentially results;" and we confess to being of the opinion of Sir Henry Hallford—"a master," says Dr. Munk, "in all that concerns the management of the dying"—who by his example showed that the subject ought to be considered in relation with each type of disease, and consequently made his observations "incidentally in the course of his various essays."

Apart altogether from any objections which may be urged on general principles to the selection of the topic, the book is disappointing in its performance. A lively recollection of Dr. Munk as the reviser, annotator, and continuer of the *Gold-Headed Cane* led us to take up his new volume with expectations which have not been fulfilled. An unnecessary amount of space is given to the quotation of authorities to prove that the last few moments of the death struggle are not attended by pain; in a work addressed to physicians, as may be presumed from the author's official connection with the Royal College of Physicians this is, it was hardly necessary to discuss at such length a matter about which there is very little question, even in the minds of the laity. Chapter I, on the Phenomena of Dying, and Chapter II, on the Symptoms and Modes of Dying, consist of little more than a long string of quotations from the published works of Sir Henry Hallford, Sir Benjamin Brodie, Sir Thomas Watson, and other writers who have treated of the phenomena of death in its various forms. We observe incidentally, as an instance of the great advance which has been made in the education of the profession, that it is hardly possible to imagine any practitioner of medicine in this country at the present day falling into the mistake attributed to a colleague by Sir Henry Hallford in a passage quoted at page 38.

When at length we reach, on page 65, the real subject of the book, we find the author, when he has to put before us knowledge which he has really assimilated, capable of many judicious observations; he comments, for instance, on the mistaken kindness of administering food, except in small quantities, adapted to the diminished digestive powers of the stomach; on the value of alcohol, especially of madeira, tokay, and brandy when taken with food; of champagne as a rapidly diffusible stimulant; of opium for the relief of pain, or of the sinking feeling in the epigastrium; and of ether in dyspnoea.

In conclusion, we may quote with approval, if not the English, at least the opinion expressed in the following sentence: "The fewer the drugs and the less of medicine we can do with in the treatment of the dying the better."

The volume is well got up in the old-fashioned style dear to æsthetic postasters. As a matter which also concerns the publishers as well as the author, we may mention that the volume contains too many examples of bad reading, as, for instance, on page 92, lines 1 and 2.

CONSUMPTION OF AQUAVIT AND BEER IN ST. PETERSBURG.—In 1886 the inhabitants of St. Petersburg (about 930,000) have consumed 1,951,701 vedros (1 vedro = 2.7 gallons = 12.3 litres) of spirits (40°), or 2.1 vedros per person; and 3,236,305 vedros of beer, or 3.5 vedros per one inhabitant. (*Vratch*, No. 4, 1888, p. 77).

THE YEAR-BOOK OF TREATMENT FOR 1888. London: Cassell and Co.

THE contributors to this *Year-book of Treatment* undertake each a department, and as they are twenty in number, and each of them competent for critical discrimination of the materials of the year, the result is the production of a condensed and handy book of about 334 pages, which affords a very useful retrospect. As is convenient in a book of the kind intended for English readers, a good deal of attention is given to foreign periodicals; and as cuttings are more easily made from American papers than from those of which the extracts need to be translated, the American journals come in for a very full share of attention. It would be idle to attempt to review a book which is itself made up entirely of small abstracts, but after careful examination we can say that the work is very well done, and we would select for especial commendation the articles of Dr. Mitchell Bruce, Dr. Goodhart, Mr. Arthur Cooper, F.R.C.S., Dr. Berry Hart, and Dr. Charles Henry Ralfe. That of Mr. Edmund Owen is somewhat diffuse, imperfect, and not altogether free from egotism. The section contributed by Mr. Reginald Harrison shows indications of haste and is not very complete. There is a very useful index of subjects. It may be a matter of some interest to the readers of the *JOURNAL* to learn that, as might have been expected, the immense sources of information and mass of original matter contained in its volumes are laid heavily under contribution, and that the acknowledged extracts from our pages are more numerous than from any other periodical. Moreover, it is noticeable that a considerable number of the articles referring to papers read at the annual meetings of the Association and of the Societies are really quoted from our pages, though not so credited, and so with various articles from Swias, German, and Russian sources. It would be more judicious and more correct if in all cases the double reference were given.

As in most compilations of the sort, there is a notable deficiency of the sense of proportion; thus, while some subjects of little moment are treated at great length, especially in the department of surgery, it may be noted that in more than one instance the leading subjects of the year are either passed over almost unnoticed, or but slightly developed. This is especially notable in the surgical parts of the book. Thus, to the work of Lawson Tait there is only one reference, the name of Apostoli occurs only once in the index of authors quoted, the name of Spencer Wells only once, and the name of Victor Horsley not at all. To those who are competent to form an opinion of what have been the chief surgical work of the last twelve months, this speaks for itself. Georgi finds a place four times and Fränkel six times, Senator three times, Cohn three times.

It would be well if the editor of such a book were to make up his own mind what were the principal subjects of the year, and to give his departmental compilers instructions accordingly. It is one of the disadvantages of a book of this sort that in respect to really moving topics of the year, as to which, of course, it should be the most useful, it is out of date almost before it is published. Thus Apostoli's treatment, which receives such a meagre notice, is dealt with in a way which gives no idea of the present position of the question, which has been so much influenced by the experience of Keith and others. Little insight can be gathered from this year book into the achievements of gynaecological surgeons, or of the surgery of the nervous system. Still, taken as a whole, the book is interesting and instructive.

NOTES ON BOOKS.

Animal Magnetism. By ALFRED BINET and CHARLES FÉRÉ, Assistant Physician at the Salpêtrière. (London: Kegan Paul, Trench, and Co.) 1887.—This work is an addition to that valuable collection, the *International Scientific Series*, and deals in a popular and untechnical manner with the history, progress, and phenomena of the condition which, under various names, has been exploited by charlatans and, more recently, investigated by scientific men. The authors, in their descriptions, apply to facts observed in the Salpêtrière Hospital, in accordance with the method inaugurated by M. Charcot, to whom we are indebted for so much of what we now know of the recalcitrant phenomena of hypnotism and suggestion. The reader is warned at the outset that the work only aims at giving an account of special researches, which, notwithstanding their number and variety, will not justify general conclusions. The earlier history of mesmerism is toler-

ably well known, but the subject has not been seriously studied so far in this country, although one of the earliest adepts, Mr. James Braid, was a surgeon practising in Manchester. He it was who, at a time when the matter was practically given up to quacks and mountebanks, directed the question into its proper field—that of observation and experiment. With all his ardour and success, however, Braid left no successor worthy of the name, and it remained for Professor Charcot to take up the subject and investigate it on scientific principles. A chapter is devoted to the application of hypnotism to therapeutics, but it would not seem that any services are to be anticipated from it except in the treatment of symptoms which, for want of a better expression, it has been agreed to call "hysterical." There is much reason, indeed, to credit hypnotism or its collateral conditions with the curative results which follow pilgrimages and the operations of "faith-healers." A far more serious and thorny question is that which bears on the medico-legal aspect. The impairment of volition which results from repeated induction of this condition is a factor of which the law ought to take cognisance, though at present our knowledge is not such as to warrant a didactic treatise of jurisprudence based thereon. The book is well written and exceedingly interesting and instructive, but the subject is not altogether a desirable one for perusal by the general public.

Athothis; a Satire on Modern Medicine. By THOMAS C. MINOR. (Cincinnati: Robert Clarke and Co. 1887.)—This satire, conceived and executed in a style which is now fortunately out of date, introduces to the notice of the reader Doctor Paulus Androcydes and his pet cat Anubis, the latter being in reality a certain Egyptian, Athothis by name, who dated from forty-five hundred years before the dawn of Christianity. Out of gratitude to the doctor for having restored to him his human and corporeal being by the aid of divers incantations and uncanny gestures, after so many centuries of metempsychotic vicissitudes, the Egyptian *reluctantly* forthwith dislocated his benefactor's soul from his body, and took him (or, rather, that part of him) off on a jaunt round the city, peering on their way into the modern sickroom, in which they found much to excite their ethereal hilarity, or, as the author expresses it, they indulged in "ripples of spiritual laughter." We need not follow the unhallowed couple on their round, which comprised visits to the modern consulting-room, hospital, and pharmacy. Wherever they went and whatever they saw afforded them an apparently much-relished opportunity for saying disagreeable things about the present condition of the art and practice of medicine. Among many valuable discoveries, they found that the modern hospital was run in the interest of the doctor rather than that of the sick, and that the label on a bottle in a modern pharmacy was no sure guide to its contents. Notwithstanding the large demands which the author makes on our literary credulity, the book is uncommonly dull reading, and the author's friends should dissuade him from carrying his observations in this direction any further.

REPORTS AND ANALYSES

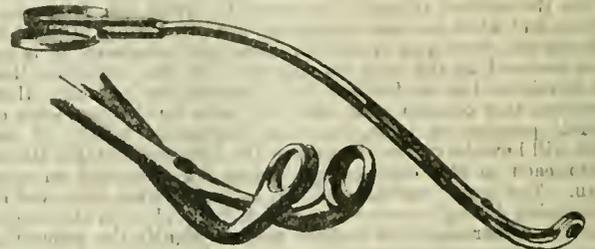
AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FORCEPS FOR POST-NASAL GROWTHS.

WHILST removing post-nasal growths with Löwenberg's forceps and the several modifications of it, I have found a certain defect in connection with all these instruments. This is that owing to the sharp edge only occupying a portion of the end of the instrument, it is frequently impossible entirely to cut off the piece of growth held between the blades, the portion not cut off having to be torn away, thus producing, in cases where the growth is thick and tough, more subsequent inflammation than would otherwise have resulted from the operation.

The reason given for the cutting edge being made only on the upper and posterior part of the instruments is that the growths are usually attached exclusively to the upper and posterior walls of the naso-pharynx, and that, therefore, a sharp edge is only required in those situations. Although what is thus stated with regard to the usual position of the growth is a fact, the deduction is erroneous, because the piece of growth grasped by the forceps

is frequently larger than the end of the instrument, and has an attachment greater than the length of its cutting edge, and a larger surface from before backwards than that covered by the blades. It is evident, therefore, that the instruments hitherto employed cannot remove such a piece entirely by cutting



In the instrument which has been made for me by Meyer and Meltzer, of 71, Great Portland Street, the defect mentioned above has been remedied by the entire circumference of the blades being made sharp, so that the piece of growth between them can be cut out completely. To further ensure the piece of growth which has been seized being thoroughly divided, one blade of the instrument has been made to pass inside the other, after the manner of punch forceps. The end of the instrument has also been fenestrated, to prevent a thick piece of growth interfering with the complete severing action of the blades.

The edge of the instrument has been made only moderately sharp because I have found that when the cutting edge of the forceps is very keen, the hæmorrhage which follows the operation is more profuse than when the blades are blunter.

The instrument was exhibited in the Annual Museum at the late meeting of the Association in Dublin.

3, Mansfield Street, W. T. MARK HOVELL, F.R.C.S.E.D.

AUTOMATIC APPARATUS FOR DISINFECTING AND DEODORISING SEWER-GAS AND SEWAGE (R. HARRIS REEVES'S PATENT).

THIS is an apparatus for the evolution of sulphurous acid gas and oxygen by means of an automatic mixture of strong sulphuric acid with a solution of permanganate of soda. The apparatus is placed in a chamber under the roadway, which is in communication below with the sewer by a ventilating shaft, and above with the external air by a grating. The sewer air, in its passage through the chamber, is deodorised by the sulphurous acid and oxygen before escaping into the outer atmosphere. The solution, formed by the mixing of the sulphuric acid and permanganate of soda, which contains a considerable percentage of permanganic acid, is allowed to overflow into the sewer below, where it becomes mixed with the sewage, and—if employed in sufficient quantity—deodorises it.

A very large number of processes for deodorising sewer air are now known to the sewage engineer, but very few have been found to be practically useful. Putrid sewage which gives off foul-smelling gases is undoubtedly a dangerous nuisance, but the proper remedy is to improve the construction of the sewers and form proper gradients, rather than to allow the nuisance to arise and then seek to remedy it by chemical disinfecting agents. Prevention is better than cure in sewerage as in other matters, and is also in the end a great deal cheaper. To deodorise putrid sewage or foul-smelling sewer air successfully, enormous quantities of chemicals must be used, at a proportional cost, or the result is not satisfactory. It is far better to replace the old sewers of "stagnation and deposit" by sewers constructed on modern principles, which convey everything away from the town in a fresh and undecomposed state. If this is done, sewer ventilation loses nearly all its difficulties. Mr. Harris Reeves also claims for his system that the solution containing permanganic acid, which overflows into the sewer, acts as a precipitant as well as a deodorant. It appears to us that it is not wise policy to add precipitating agents to sewage at a distance from the outfall and settling tanks. Such a proceeding, except in good sewers of rapid gradient, is likely to lead to deposit of sediment in the sewer, with consequent obstruction to the flow of sewage.

PRINCESS CHRISTIAN paid a visit to the London Hospital, Whitechapel, on Sunday afternoon, walking through several of the wards and to the nursing home.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 3RD, 1888.

ABERNETHY ON TUMOURS.

IT is a fault of the present age to ignore the work of preceding generations. We imagine that discoveries we have inherited from our fathers are really to be placed to our own credit. Thus a writer in a modern *System of Surgery* says of tumours: "Their anatomical classification was, a few years ago, little more than a suggestion."¹ Yet eighty years before this was written, John Abernethy had published in his monograph *On Tumours*² a new classification, which was a purely anatomical one, carried to as high a degree of perfection as was possible with the inferior histological knowledge and appliances at his command.

His system was eagerly adopted by his contemporaries as a great advance over all preceding ones. Even his initial definition of the word "tumour,"³ though by no means perfect, was a real improvement over that of any previous author. They understood the word in its widest meaning of "a swelling," and included in their descriptions diseases of arteries, veins, glands, tendons, joints, and bones, which had really nothing in common save the one feature, with what we understand to-day and what Abernethy understood by the word "tumour."

So widely was Abernethy's system accepted by his contemporaries, that it was not until many years after his death, and then only by a gradual process of replacement, that a clinical classification drove his anatomical one out of the field, to be in turn discarded in our own day in favour of an anatomical system not differing materially from his own.

Abernethy's theory of pathology was complete and attractive enough in itself; and it was perhaps the requirement of this theory which originally led him to attempt an anatomical classification of tumours. He began with an observation of John Hunter's,⁴ "that the cavity" (of a certain abdomen) "being opened, there appeared lying on the peritoneum a small portion of red blood recently coagulated. This, upon examination, was found connected to the surface upon which it had been deposited by an attachment half an inch long, and the neck had been formed

before the blood lost its red character." From this Abernethy concluded "that there can be little doubt but that tumours form everywhere in the same manner, the coagulated part of the blood being either accidentally effused or deposited in consequence of disease, become afterwards an organised and living part by the growth of the adjacent vessels and nerves into it. When the deposited substance has its attachments by a single thread, all its vascular supply must proceed from that part, but in other cases the vessels shoot into it irregularly at various points of its surface. Thus an unorganised concrete becomes a living tumour, which has at first no perceptible peculiarities as to its nature. Though it derives a supply of nourishment from the surrounding parts, it seems to live and grow by its own independent process. And the future structure which it may acquire seems to depend on the operation of its own vessels."⁵ Abernethy goes on to remark that the tumour is in structure sometimes like, but more frequently unlike, the part near which it grows; and on this ground he comes to the same conclusion as that set forth in the last paragraph, namely, "that in many cases the nature of the tumour depends on its own action and organisation; and that, like the embryo, it merely receives nourishment from the surrounding parts."

He explained malignancy by the following theory:—"The effused coagulable part of the blood," which on his hypothesis, was the origin of all tumours, might be deposited from the effects of accident, or from a common inflammatory process, or on the contrary it might be the result of some diseased action of the surrounding parts and vessels, which would influence the organisation and growth of the consequent tumour. In the former events he saw the origin of all innocent tumours, in the latter of malignant ones. Innocent tumours did not return after operation, because the parts surrounding, being merely the source whence the new growth procured its nourishment, had no power of reproducing it when once it had been removed. While malignant tumours, being originally produced by the diseased action of neighbouring vessels or tissues, was, upon removal, owing to a continuance of the same action, at once replaced by a second unhealthy effusion, which had in general the further development into a fungous growth.

Misled by the classificatory craze of his day, which saw no difficulty in arranging the morbid products of disease in as complete and interdependent a system as that introduced by Linnaeus into the kingdom of Nature, Abernethy classified tumours as follows:—

- Class:—Local diseases.
 - Order:—Tumours.
 - Genera:—I. Sarcomatous tumours. II. Encysted tumours. III. Osseous tumours. IV. Cartilaginous tumours.
- The first genus (sarcomatous tumours) he subdivided into eight species: 1. Common vascular, or organised sarcoma. 2. Adipose sarcoma. 3. Pancreatic sarcoma. 4. Cystic sarcoma. 5. Mastoid or mammary sarcoma. 6. Tuberculated sarcoma. 7. Medullary sarcoma. 8. Carcinomatous sarcoma.

⁵ Abernethy, *loc. cit.*, pp. 8, 9, 10.

¹ Holmes's *System of Surgery*, third edition, I, 243.

² "An Attempt to form a Classification of Tumours according to their Anatomical Structure" (Abernethy's *Surgical Essays*, 1804, I, 1).

³ "Such swellings as arise from some new production which made no part of the original composition of the body." Abernethy, *loc. cit.*

⁴ Related by Sir Everard (then Mr.) Home (*Transactions of a Society for the Improvement of Medical and Surgical Knowledge*, I, 231).

By "sarcoma" and "sarcomatous," Abernethy of course only indicates tumours having a firm or fleshy feel, and these terms are most nearly represented in modern nomenclature by the expression "solid tumour."⁶ They bear the relation to modern sarcoma of an original term of widest signification narrowed down in course of time by a gradual process of elimination, to a special significance which etymologically the word was never intended to bear.

Of Abernethy's "sarcomatous tumours," the "common vascular or organised sarcoma is represented nowadays by the word "fibroma," and his clinical description of the kind is admirably true and graphic. He believed this to be the original form of tumour produced by the organisation of an effused clot, and was even inclined to think that all tumours are, in the first place, of this structure. His second species "adipose sarcoma," is of course the same as the modern "lipoma."

It shows how far Abernethy was in advance of his contemporaries and successors in close and accurate observation, that Chelius should write, so lately as 1847: "The pancreatic and mammary tissues are to be considered as accidental modifications of the medullary."⁷ This is no doubt true of Abernethy's mammary sarcoma, but in his pancreatic sarcoma he was evidently describing "adenoma," the following characteristics being decisive. It was, in the first place, like the pancreas in appearance of structure, generally occurred in young adults, and most frequently in the female breast; although it sometimes caused lancinating pain and enlargement of neighbouring glands,⁸ it was most amenable to treatment, did not recur when removed, was encapsuled; while any enlarged glands at once subsided after the tumour was operated on.

Abernethy draws a clear and just distinction between cysts and cystic degeneration, making of the former a distinct class, and placing the latter as one of the species of his solid tumours under the term "cystic sarcoma."

It is almost certain that, in his tuberculated sarcoma, he anticipated Wilks by nearly fifty years, and that this species is the same as Hodgkin's disease. But by Abernethy's immediate successors, it was compared with quite other and distinct pathological conditions; they were not sufficiently observant to accept at its full value his careful diagnosis.

His remark on medullary sarcoma could be inserted in the most modern work (but only in the most modern work) on tumours: "The term cancer is objectionable, because it conveys an erroneous idea of the nature of medullary sarcoma; for this disease, though perhaps equally destructive, will be shown to be unlike cancer in its nature and progress."

Abernethy, then, deserves credit for having worked out an anatomical classification of tumours, which was far better than any which had preceded it, or rather was the first intelligent step in such a direction; and it was also a giant step, for his system will bear a very favourable comparison when viewed by the light of modern research with that of his successor South, or of Liston,

and, indeed, comes newer to our present classification than any previous one we know. His clinical observation was most accurate, and, with one exception (that of mammary sarcoma), every one of his species is accepted as a distinct one, even in the present fierce light of new histological processes and modes of research. His opinion that malignant tumours were of local origin is also in advance of his age. Yet few among us recognise this of Abernethy; we know him as a distinguished surgeon in his day, celebrated for brusqueness and impatience of manner, but occupying a larger space in our jest book than our system of surgery.

And this is the one great loss we have sustained by modern methods of original observation and research. Up to the time of John Hunter, men were obliged to read and quote the works of deceased authors, back to the very earliest age, in order to procure acceptance for their own views and discoveries. This was destructive of all originality, but preserved from oblivion the name and fame of the mighty dead. To-day we neglect the works of our fathers in favour of those of our own contemporaries and immediate predecessors. Our students grow up with a pitying contempt for the benighted conviction of the elder writers on disease. They are accustomed to rely on original observations for knowledge and for success. And so science is the gainer, but the individual is the loser; our discoveries are either falsified or forgotten when we die, and our very name slips into the sea of forgetfulness.

Who will undertake the great task of research required to bring out the great successes of our forefathers, to write a history of medicine, if only in unfinished portions, and to replace such men as John Abernethy on the pedestal they ought to occupy in the Temple of Fame?

THE METROPOLITAN WATER SUPPLY.

THE somewhat unceremonious rejection by the House of Commons on Tuesday last of the Bill promoted by the Grand Junction Waterworks Company, is not a cause for unmixed satisfaction; but if, by the attention thus drawn to the matter, the settlement of the important question of the water supply of the metropolis generally can be brought a stage nearer solution, Londoners are to be congratulated. We have long insisted upon the increasing unsuitableness of the Thames as a source of domestic water supply. At present the supply for more than half the inhabitants of "Greater London," that is to say, some two and a half millions of souls, is drawn from the Thames after that river has received the crude sewage of Staines and other towns, as well as such polluted tributaries as the Wey. It has been estimated that the sewage of some 70,000 persons enters the Thames above the intakes of the Metropolitan Water Companies. We would have been glad, therefore, looking at the matter simply from the point of view of the sanitarian, if the first real indication of an effort to obtain a purer supply had been allowed to receive a fuller and more scientific consideration than could possibly be given to it on a motion for the second reading of the Bill.

The course of the discussion seemed to show that the House

⁶ Excluding cartilaginous and osseous growths.

⁷ South's Translation of Chelius's *Surgery*, 1847, II, p. 648.

⁸ When inflamed (?).

was not acquainted with all the circumstances. The Grand Junction Waterworks Company have at present power to draw 20,000,000 gallons of water daily from the Thames, and this limit has not yet been reached. For this privilege they pay an annual rent to the Thames Conservators. Formerly they took all their supply direct from the river, but in 1882 they obtained permission to construct works at Hampton, by which they were enabled to intercept the pure spring water to be found in the gravel beds in that neighbourhood before it reached the Thames, and also to utilise those beds as natural filters. The good results which followed this experiment led other companies to take a similar course; but recently the progress of building operations in the vicinity of the works, and the erection of houses draining into cesspools, have seriously endangered the purity of the subsoil water. Hence the proposal of the water company to obtain their supply farther up the river, and to adopt the plan, advocated in 1884 in an interesting but neglected report by Mr. J. Thornhill Harrison, C.E., one of the engineering staff of the Local Government Board, of tapping the chalk and gravel beds in the neighbourhood of Dorney and Windsor, where vast quantities of pure water are obtainable.

The opposition to the scheme is based on the assumption that, if adopted, the volume of water in the Thames would be seriously reduced, that the mud would silt up, that even the foundations of Windsor Castle would be affected, and that the trees in the Park would be injured. It is urged that the beauty of the river would be impaired, and that the pleasure of a number of people would be interfered with, whilst the river would become dangerous to health in its upper reaches. If these consequences were certain to follow, no arguments could justify sanction of the scheme; but they are disputed by the promoters of the Bill, and Mr. Ritchie, with his official knowledge as President of the Local Government Board, could not accept them as proved. As Lord Randolph Churchill observed, it is a scientific question, which could only be satisfactorily ventilated before a Select Committee.

It is unanimously admitted that at some time, which has already been too long delayed, and which at the present moment seems as remote as it has seemed at any period since Sir R. Cross's ill-fated scheme fell to the ground, the water monopolies must disappear, and the ratepayers must take the matter into their own hands. It is very necessary, therefore, that Parliament should continue to look jealously on any tendency on the part of the water companies to increase the value of their undertakings. But, although the companies deserve little sympathy, their powers of supplying wholesome water must be the first consideration for sanitarians. We hope that ere long the whole question of the London water supply may be fully investigated by a Special Commission.

Meanwhile, the legal proceedings instituted by the Thames Conservators with the view of putting a stop to the discharge of the unpurified sewage of Staines into the Thames have received a check. The Local Sanitary Authority contend that they do not own the sewers in question, and that they have no power to

prohibit the discharge of the sewage. The question is to be argued in the Queen's Bench Division on some more or less remote date, and, pending the legal decision, London must continue to wait and endure.

RECENT RULING AS TO EXPERT EVIDENCE.

A recent ruling by Mr. Justice Day, at assizes in the North-Eastern Circuit, will scarcely commend itself as a means best tending to the promotion of equitable verdicts in criminal cases, when the plea of insanity is raised on behalf of the prisoner. In the case referred to, a prisoner having been indicted for the murder of two individuals, a jury was empanelled in order that it should be ascertained, in the first place, whether he was or was not in a fit condition to plead. A medical witness being asked the question whether, in his opinion, the prisoner, when examined by him, was sane or insane, it is reported that the learned judge would not allow the opinion of the medical witnesses to be given upon that point, and restricted their evidence to matters of fact as to what they saw or heard, in their examination of the case, bearing upon the question of sanity, which the jury were sworn to try, and with regard to which counsel were not permitted to elicit the expression of medical opinion. Practically, this ruling reserved to the jury, and to the jury alone, the right to express any opinion in the court—any opinion, that is, having influence on the trial—as to the existence or non-existence of insanity, that is to say, of a form of disease. The importance of this ruling is magnified, and not lessened, by the fact that the judge is stated to have expressed his intention to deal in a similar manner with the evidence of scientific and expert witnesses in any and every kind of case, whether medical or other.

In the case affording the basis for these remarks, evidence was given as to the existence of numerous and extraordinary delusions; and, after an inquiry lasting more than three hours, the jury found that the prisoner was fit to plead, and he was put upon his trial accordingly. Eventually, the jury found the prisoner guilty, but also found that he was insane at the time he committed the acts, and he was ordered to be confined as a criminal lunatic during Her Majesty's pleasure.

The ruling above mentioned is all the more open to criticism, as regards what its effect might be in certain cases, inasmuch as it followed immediately after a trial elsewhere, in which, as reported, the expression of medical opinion as to the sanity or insanity of a prisoner was permitted by Mr. Justice Mathew, and acted upon by the jury, under circumstances apparently quite similar to those under which the expression of such opinion was prevented by Mr. Justice Day, as we have already briefly recounted.

Earnestly desirous as the members of a jury are to hold the balances evenly, it is quite impossible that they can form as accurately-grounded an opinion as a medical expert upon the frequently difficult and delicate question of the existence or non-existence of insanity. For a man to have close and intimate

practical knowledge of some part of the field of science is, in some quarters, apparently a reason why his deliberately-formed opinion on a subject within the sphere of his studies should be suppressed in a court of law, and the point at issue be decided by untrained minds. Carry this to its logical conclusion, and we must set up ignorance as a chief qualification of those fitted to decide scientific questions!

In cases of the kind referred to; it would be well if independent and expert medical evidence was secured by the initiative of some public authority.

THE honour of knighthood has been conferred upon Dr. J. W. Tyler, C.I.E., the well-known superintendent of Agra Gaol. Sir John Tyler's duties brought him at the time of the Indian Exhibition, and again last year during the Jubilee, under the personal notice of the Queen, and it is, the *Pioneer* believes, at Her Majesty's own wish and instance that the honour comes to him.

THE LUNACY LAWS.

THE Lord Chancellor's Lunacy Bill was issued on Wednesday last. In a memorandum it is stated to be substantially the same measure as that which passed the House of Lords last year.

RETREATS FOR DIPSOMANIACS.

In perpetuating the Habitual Drunkards' Act of 1879 (limited to expire next year) a Bill introduced by Dr. Cameron, M.P., would enable the licensee of a retreat to appoint from time to time a deputy to act for him during his temporary absence. Such an appointment, however, must be approved by the inspector of retreats. Another modification of the Act deals with the attestation of an habitual drunkard's signature on his applying to be admitted to a retreat. The attestation by one magistrate is substituted for that of two.

THE UNIVERSITY OF LONDON.

THE next meeting of Convocation of the University of London will take place on March 6th. Mr. James Anstie, Q.C., Mr. E. H. Busk, and Mr. H. A. Nesbitt have been nominated for election to the Senate on that occasion, but the contest lies between the two first named. Professor Silvanus Thompson has given notice of a motion requesting the Senate to consider whether it would not be desirable to confer *ad eundem* degrees upon those graduates of other universities who hold professorships in University and King's Colleges, so that they might be admitted members of Convocation. Several motions referring to the schemes for reforming the universities and asking for further information or suggesting amendments also appear on the agenda paper.

POST-GRADUATE LECTURES, CHARING CROSS HOSPITAL.

THE second course commenced on Friday last by a lecture on Dyspepsia, by Dr. Julius Pollock. At the conclusion the members held their business meeting, Dr. Walford in the chair. The Secretary's report showed that 140 practitioners had joined, and that, on an average, 75 had attended each lecture. The issue of coupons, which are available for twelve months, and give the members more than two opportunities of using them, had given great satisfaction to the members. The staff and governors had greatly assisted in promoting the success of the class. The Treasurer's report stated that, after paying all debts, there remained in hand sufficient money to cover all the coupons in the hands of the members. A proposal to publish the lectures had been warmly taken up by the class, and arrangements were being made for carrying it out. It was felt by all concerned that the provision of systematic post-graduate teaching was a great boon

to the practitioners of London and the surrounding district. Votes of thanks were passed to the governors and the staff for their assistance, and to the Secretary and Treasurer for originating and organising the courses.

ROYAL MEDICAL BENEVOLENT COLLEGE.

THE May elections of the Royal Medical Benevolent College at Epsom are once more at hand, and the governors and subscribers are being importuned to pledge their votes for particular candidates in whom the writers take a kindly and special interest, and for whom they solicit support from their personal friends. Circulars, moreover, are being distributed with influential names attached to them specially to solicit such votes from the governors. Without any reference to any particular case, it is our duty once more to express our regret at the disregard of the conclusions arrived at after thorough investigation and discussion at the meetings of the governors. At these meetings it was resolved that, in the best interests both of the candidates and of the institution, such canvassing should be discontinued, and that the selection of candidates should be entrusted to a committee, who could carefully and dispassionately weigh the special claims of one candidate against another. A system of canvassing by which the candidates whose friends have funds at their disposal, or who may have the advantage of the sympathies of a few influential persons, or of persons attached to some especially large hospital or school, or have in other directions a large connection, ought to be condemned; by virtue of these quite adventitious circumstances, such candidates acquire unjust advantage over others whose claims may be overwhelmingly greater, but whose very necessities and friendliness, which should constitute their best claim, are thus turned to their disadvantage. Everyone must desire that the election to the benefits of the College should fall to those persons who stand in most need of it, and not to those who are most influentially connected, or who have the largest command of funds for the costly process of sending out circulars and of organising a canvass for votes. We would earnestly recommend the governors to abstain from all promises, and to reserve all votes until they have the opportunity of seeing the full list of applicants and the report thereon by the Committee of the Governors of the College.

WALSALL COTTAGE HOSPITAL.

THE medical profession has ever recognised the great discretion which nurses as a body have brought to the discharge of the important duties confided to them, and it is comparatively seldom that any individual member oversteps the sphere of duty which properly belongs to a nurse. An instance has unfortunately recently been afforded by the "sisters" of the Walsall Cottage Hospital. The sisters, we are informed, do nearly all the work of the out-patient department, and a recent inquiry has shown that they treat fractures without surgical supervision, and it is reported that over a thousand fractures have been thus treated. A well-informed correspondent relates the following incident: "A lad with a fractured fibula was sent there by a medical man. Several days after he inquired of the mother how the lad was; her reply was: 'The sister says it is not broken; it is only a bad sprain.' He told her to bring the boy out again. He said at once it was broken, and ought to have been put up four or five days ago. These things are of daily occurrence. The sister in charge carries things with a very high hand, and gives the wretched patients herrings on Fridays throughout the year, even if the doctor orders meat for them." Such high-handed proceedings only need to be known to be condemned, and it is not surprising to be told that the people of Walsall, for whose benefit the Cottage Hospital exists, are losing confidence in the institution under its present management. It would also seem to be desirable that the funds of the Walsall Sea-side Home should be audited and published,

and that this institution—now, we are informed, managed by “Sister Ellen,” of Walsall—should be put under the control of a committee properly elected by the subscribers in the customary manner.

REFUSAL TO ADOPT PASTEUR'S METHOD IN NEW SOUTH WALES.

RECENTLY representations were made to the Minister for Mines, New South Wales, in favour of the introduction of disease amongst rabbits with a view to their extermination. The proposal was regarded by Mr. Abigail with disfavour, and a notification has been published to the effect that heavy penalties will be strictly enforced against persons who introduce diseased rabbits, and that the officers of the department have been instructed to guard against the introduction of such animals. The reception which awaits M. Pasteur's emissaries, who have just sailed for the colony in the Orient Line mail steamer *Cuzco*, is therefore somewhat doubtful. Most bacteriologists share to some extent the fears of the Minister of Mines; it is felt to be doubtful whether we yet know enough of the potentialities of this minute organism to render such an experiment justifiable. M. Pasteur himself has done more than any other investigator to teach us how profoundly their virulence may be modified by environing circumstances. It is impossible to foresee what may be the ultimate consequences of the experiment which it is proposed to make on so gigantic a scale. The mere fact that the microbe is capable of producing fatal disease in two animals so dissimilar as domestic poultry and rabbits ought to serve as a warning that it may possibly develop into a pestilence affecting other species of animals, and even man himself; for it ought to be remembered that, once the disease is introduced into the rabbit warrens, it has passed beyond human control.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE quarterly meeting of the Medico-Psychological Association was held at Bethlém Hospital on Friday, February 24th, at 4 P.M. The chair was occupied by the President, Dr. Needham, and there was a very full attendance. Dr. Hughlings Jackson read a paper “On Post-Epileptic States.” A special general meeting was subsequently held to consider the recent appointment at the Hayward's Heath Asylum. Letters expressing great indignation were read from Drs. Clouston, Yellowlees, Brushfield, and others; and a petition, numerously signed by assistant medical officers, was read, protesting against the circumstances of the appointment. Resolutions were passed, “That this Association is of opinion that it is highly desirable that medical superintendents of asylums should have spent, before their appointment, some time as resident medical officers in asylums, or in the study of mental diseases in these institutions;” and “That the qualifications in medicine and surgery required for the medical superintendent of an asylum should not be such as to preclude the application of a large proportion of suitable medical men engaged in the department of mental medicine.”

THE EDUCATION AND REGISTRATION OF PLUMBERS.

LARGE and representative meetings have been held recently at Edinburgh and Dundee in connection with the national movement for the education and registration of plumbers. This movement is now spreading extensively over the United Kingdom, and we are glad to learn that at both these meetings, at which the trade, the medical profession, and the public were well represented, resolutions were passed such as those which have been passed in so many other great cities of the kingdom, warmly approving of the scheme, and appointing representative persons identified with health and public interests as well as the plumbing trade, to form local councils. The Edinburgh meeting had the

great advantage of the presidency of Sir Douglas Maclagan, than whom no person is better qualified to form a judgment on the subject, or possesses more entirely the esteem and confidence of his own profession, and of the public generally. It is obvious that the system of examination must be arranged so as to secure an adequate minimum; and the advantage of having representative local councils in each of the great cities acting together, and in co-operation with a central body on which they are fully represented, is very considerable. This is, indeed, the only condition under which public confidence can be secured, and a downward competition prevented. The petty local movement which has been started in Edinburgh will not, we are convinced, receive serious consideration when the true bearings of the question are generally understood, and we are glad to see that Sir Douglas Maclagan, as well as the plumbing trade generally in Edinburgh, fully appreciate the importance of establishing the movement on a national basis, while leaving adequate local freedom to the local councils.

NEW WING OF THE HOSPITAL FOR SICK CHILDREN.

A SPECIAL court of the governors of the Hospital for Sick Children, Great Ormond Street, was held on Wednesday, February 29th, under the presidency of Lord Aberdare, for the purpose of sanctioning the commencement of the construction of a new wing when the building fund amounted to £15,000. It was pointed out that the fund had been found insufficient for completing the new hospital proposed in 1870, and that only a part of it was finished in 1874, since which every effort had been made to secure funds for carrying on the work. They were enabled to raise a fund of £6,000 last year, and £10,000 was now available for the building. The Council had fixed on £15,000 as the sum necessary to have in hand before proceeding to build further structures. The meeting was asked to sanction expenditure for constructing the foundation and drainage of the new wing, and to authorise the commencement of the new wing when the building fund amounted to £15,000.

HOW TO SPREAD SMALL-POX.

MR. HERRING, of Leeds, continues his efforts at Sheffield “for the special treatment of small-pox and the stamping out of the epidemic.” The “stamping out” process is illustrated in the contents of the advertisements calling his meetings. At one it is advertised that “several cured patients will give their experience,” and that at another “a number of persons benefited by their treatment will be present and testify.” An advertisement in the daily papers of February 25th appeals to the public for funds to “meet the necessary expenses of a treatment which has done and is doing so much to rid the town of the disease.” It states also that it is three weeks since the man Herring came to the town, so that the dangerous condition of at least some of the people advertised to attend and testify at his meetings on February 16th and the later one may be realised. Is it any wonder that infection spreads; especially when the character of the gatherings he calls together is considered?

ST. JOHN'S HOSPITAL.

THE Editor of *Truth*, in a characteristically bold and fearless maintenance of public rights, has taken up the case of the alleged mismanagement of St. John's Hospital, as to which statements of considerable public interest have recently been made. The Duke of Northumberland and other leading persons connected with the hospital having resigned in consequence of the refusal of the Board to permit a full inquiry into the management on behalf of the subscribers, the Editor of *Truth* has repeated and re-enforced a challenge, and applied for permission for an independent investigation in the public interest. This having also been refused, he

now summarises serious charges of mismanagement; and, after reaffirming them in a categorical and aggressive form, he challenges an issue at law, and invites those who have refused the inquiry to a legal investigation by the ordinary course of legal action. It remains to be seen whether the managers, after refusing investigation by a committee on behalf of their subscribers, will submit to the imputations of mismanagement thus publicly made, or whether they will take action for their self-vindication.

GALLANTRY REWARDED.

MR. HEADLEY HILL, student at the Bristol General Hospital, has been presented by the Mayor of that city with the Stanhope gold medal of the Royal Humane Society for having performed the most meritorious and gallant rescue during the year. The circumstances are worthy of record. Leaping into the Avon at Clifton Bridge Station on October 18th last, he, under most difficult circumstances, rescued a young girl from drowning, and, though greatly exhausted by his efforts, brought her ashore, and adopted prompt measures to restore animation. On being restored to consciousness he removed her to the Bristol General Hospital, where, under the care of Dr. Newnham, she was ultimately restored to her friends and family.

NEW MEDICAL CLUB.

A NEW club, entitled the "Galen Club," has been founded at 30, Sackville Street, Piccadilly, in convenient quarters and a central position, for the purpose of affording to members of the medical profession the conveniences of a club-house, having the same advantages of social intercourse as are attainable in clubs devoted to the political, literary, dramatic, sporting, and other classes. The Galen Club will be controlled by a committee of medical men of undoubted character, as is evidenced by the list of the first committee. The club will be provided with bedrooms, as well as the other usual features of a London clubhouse. There is at present no entrance fee, and the annual subscription for town members is four guineas, country members two guineas. While the club-rooms are being prepared, communications should be addressed to the secretary, Mr. Walter Paterson, 47, Albemarle Street, Piccadilly.

SEA-WATER FOR TOWNS.

AT a time when ominous reports as to the abnormally low condition of the water supply in many populous places are being published, it may be interesting to call attention to a proposal emanating from Mr. Ellis Lever, of Bowdun, near Manchester, who, looking to the fact that many of the busiest and most populous towns are within fifty miles of the sea, suggests that not only London, but other important towns, might have a plentiful and unfailing supply of sea-water brought in pipes from the coast, where it is clear and free from pollution. Mr. Lever recounts the many sanitary purposes for which sea-water can be used, and refers to its invigorating properties; its use for watering streets; for closets, flushing sewers, and extinguishing fires, for which purposes it is more effectual than the ordinary water supply.

COLOURED LIGHT IN THE TREATMENT OF INSANITY.

DR. PONZA, medical superintendent of the lunatic asylum at Alessandria (Italy), reports some experiments which he has made on the effect of coloured light on lunatics. The idea was suggested to him by the observations of Robert Hunt on the favourable effect which light transmitted through violet-tinted glass had on the development of animals and plants. Dr. Ponza selected rooms with as many windows as possible, and he had the walls painted of the same colour as the window-panes. A patient suffering from melancholia, who would not eat, was placed in a room with

bright red walls and windows; in three hours he became quite cheerful and asked for food. Another lunatic, who always kept his hands over his mouth to keep out air and nourishment, was placed in the same room, and the next day he was much better, and ate with a hearty appetite. A violent maniac was placed in a blue room, and became quiet in an hour. Another patient, after spending a whole day in a violet-coloured room, was completely cured. Theoretically this appears to be a very interesting experiment, but we have good reason to believe that in practice it is of little real service. It had one very good effect, which was that it induced the medical men who were making the experiment to spend a good deal of time and attention on the patients who were under treatment. One German medical man who visited Alessandria said it was "most excellent for the doctors." It is probable that in some future day electric light may be used for the darker parts of asylums, and then we shall be able to see whether electric light will serve to develop vitality in men as it has been proved to do in plants. In many persons of unsound mind the whole vital energy is defective, and the medical officers often feel a sad want of something which will produce energy. Stimulants of one kind and another are tried, and do some good; but we should welcome some more general natural means of improving the general health. The asylum physician looks to food, warmth, and exercise as his great assistants; and if electricity, or blue or yellow rays, can be added, so much the better.

THE ILLNESS OF THE CROWN PRINCE.

WE learn by special telegram from a most authoritative source at San Remo that the Crown Prince of Germany is slowly improving, though he has not made such good progress towards recovery from the immediate effects of the operation as it is considered he ought to have done. There is still great irritation in the trachea, which is probably attributable to ulceration of its inner surface caused by the tube, or to extension downwards of the laryngeal disease. We are deeply grieved to say that it appears to be only too probable that the case has now entered on a phase which, unfortunately, gives grounds for the most serious apprehensions. Sir Morell Mackenzie is no doubt technically justified in declining to accept the diagnosis of cancer as proved until it has been confirmed by a microscopic expert of unimpeachable authority, but the hope that the judgment of men of such high scientific position as Professors Von Bergmann and Kussmaul may be reversed on appeal is, it must be confessed, very slender. It cannot be too much deplored that, in a case of such importance to the world at large, national jealousies should have been allowed to interfere with the harmonious working together of the medical men in attendance, and we cannot help feeling that the publication of their mutual recriminations in the lay press is undignified and injurious, not only to themselves, but to their profession. We say this with the fullest appreciation of the difficult and even painful position in which they have throughout been placed, partly owing to the obscurity of the case itself, but mostly to the diplomatic reticence which has been imposed on them. We do not feel it necessary to discuss the relative advantages of English and German tracheotomy tubes, and we can only hope that the difficulty of finding an instrument to fit comfortably has by this time been happily surmounted. It is a curious commentary, by the way, on the "officious" denial which was given in the *Times* to the statement on this subject which was made in the *JOURNAL* last week, that Sir Morell Mackenzie, after having had two different tubes sent out from England, is said to have been obliged personally to superintend the construction of a new one at San Remo. In connection with this matter, we may mention that Sir Spencer Wells, on reading the paragraph referred to in the *JOURNAL* last Saturday, at once sent off to Sir Morell Mackenzie by post some simple contrivances which he had successfully used

as substitutes for tracheotomy tubes more than twenty years ago. These are small dilators, of a shape which may be described as something between an ordinary eye speculum and a *serre fine*; this is introduced into the tracheal wound, and keeps its edges apart. Mr. Gelding Bird, we believe, brought a somewhat similar instrument, designed for the same purpose, before the profession a few years ago. We are informed, however, that it has not been considered necessary to use these instruments in the case of the Crown Prince.

METHYLAL IN DELIRIUM TREMENS.

AN interesting note on the value of methylal, the new hypnotic described in these pages on October 22nd, 1887, in the treatment of delirium tremens, has been contributed to the *Therapeutische Monatshefte* (February) by Professor v. Krafft-Ebing, of Graz. Acting on the advice of Merck, the well-known pharmacist, he employed an aqueous solution of the strength of 1 in 10 as a hypodermic injection; each injection contained 0.1 gramme of methylal, and in this strength produced only slight and transient smarting. Thus administered it was found that the drug only produced its effect after an interval of about two hours; if sleep was not produced after between two and three hours, the injection was repeated. Twenty-one persons were thus treated, about half the number being slight cases; in 6 instances sleep was induced by 1 injection, in 10 by from 2 to 4, in 3 by from 5 to 8, and in 2 by from 10 to 20; deep, physiological, refreshing sleep, which sometimes lasted twenty hours, was then obtained; in other cases, the patient slept for two or three hours to wake again delirious, but the treatment being persevered with, the prolonged so-called critical sleep always ensued. Professor v. Krafft-Ebing considers methylal to be the best sedative and hypnotic in delirium tremens which he has ever used; it has no depressing action on the heart, but rather the contrary, and it is followed by no unpleasant after-effects. He considers that it is likely to be useful in insomnia and restlessness due to inanition or cerebral anæmia, but that it is contra-indicated in cases where there is cerebral hyperæmia. The very small doses which were found to be adequate give special importance to this communication.

LORETA'S OPERATION ON THE STOMACH.

DIGITAL dilatation for fibrous stricture of the pylorus, which was first practised by Professor P. Loreta, of Bologna, in 1882, has already in his hands given most satisfactory results in a large number of cases. The *Riforma Medica* of February 19th contains an account of a case in which the operation was recently performed by Dr. Loreta, which is of special interest owing to the detailed way in which it is reported. In January last a man, 54 years of age, but looking much older, owing to his wasted and careworn appearance, came under the professor's care with the following history:—He had been excessively intemperate both in eating and drinking, and had suffered from severe dyspepsia since 1872. In 1880 he began to be troubled with vomiting, which occurred regularly four or five hours after taking food. The stomach was visibly dilated, and a splashing sound could be heard on succussion. Microscopic examination of the vomited matters gave negative results; neither blood, starch-granules, nor sarcinæ could be detected. No tumour could be felt in the hypochondriac or epigastric regions; the abdomen yielded readily to pressure with the hand which, however, caused a slight amount of pain. At the place where this tenderness was most pronounced, a hard fibrous cord was felt at a point corresponding to the situation of the pylorus. On January 30th, after washing out the stomach with an alkaline solution, Professor Loreta made an incision along the linea alba from the xiphoid cartilage to the umbilicus, and exposed the stomach, which was drawn partly out of the wound and opened about midway between the greater and

lesser curvatures. The index finger was then passed into the viscera in the direction of the pylorus, through which, however, it could not be pushed. A large-sized urethral bougie and afterwards an œsophageal sound were then passed through into the duodenum. By this means the stricture was so far dilated that the operator was able to get his finger through the pylorus and draw it over almost to the abdominal wound. The index of the left hand was then also passed through on the right as a guide. The pyloric orifice was then dilated by forcible divulsion with the two fingers, a proceeding which the tightness of the stricture rendered very difficult. Finally, the wound in the stomach was closed by continuous, and that in the abdominal wall by interrupted, suture, and an antiseptic dressing was applied. On February 9th the wound was healed, and the patient had completely got rid of his troublesome symptoms. Digestion was perfect, vomiting had entirely ceased, and the man had lost the look of suffering which had been so marked before the operation. Dr. Maurizio Bufalini, who reports the case, says that not a single instance of relapse after Loreta's operation has yet been heard of.

A MEDICAL ACTS AMENDMENT BILL IN FRANCE.

THE practice of medicine is regulated in France by a law passed on the nineteenth of the month Ventôse, in the year IX, otherwise March 10th, 1803; during the past five years a series of proposals have been made by various individuals and societies for a new law. Two rival Bills, both having some sort of official sanction, are now before the Chamber of Deputies; one of these, drawn up by the Standing Committee on Public Hygiene, has been adopted by the Government; the other has been drafted with much care, and after very full consideration of all the interests involved, by a Parliamentary Commission nominated *ad hoc*, on the motion of Dr. Chevandier. Both measures maintain the distinction between the two classes of medical practitioners, the doctors of medicine and the *officiers de santé*, and the Government Bill would restrict the latter to practice in country districts and towns of less than 10,000 inhabitants. Dr. Chevandier's Bill contains no restriction of this kind, and further, has a clause giving *officiers de santé* of two years' standing the privilege of obtaining the degree of M.D. after undergoing two examinations and presenting a thesis. Dr. Chevandier's Bill is framed in a much more liberal spirit, also, towards foreigners practising in France; it accepts the principle of reciprocity, and enacts that qualified foreign physicians, of whatever nationality, possessing diplomas which have been recognised to be equivalent to the French diploma, shall be authorised to practise in France and her colonies. Where reciprocity does not exist the candidate would be subjected to two examinations—would have to sustain a thesis, and to obtain a special dispensation. The Government Bill does not recognise the principle of reciprocity, and would require every foreign M.D. to submit to one or more examinations; Dr. Chevandier's Bill, moreover, would empower the Minister of Commerce to grant special licences permitting a person possessing a recognised foreign degree of M.D., who is in attendance on a patient to practise in a French watering-place or winter resort. The regulations with regard to the illegal practice of medicine, of pharmacy by a M.D., or of midwifery by an uncertificated midwife, would be very stringent under either Bill; the chief difference is that the Government Bill would attempt to regulate the practice of dentistry, while the Parliamentary Commission thinks such provisions premature. A medical practitioner, whether M.D. or *officier de santé*, is under the existing law forbidden to dispense his own drugs, and this regulation would be fully maintained by both Bills, the only exception permitted being where there is no pharmacy within four kilomètres. Dr. Chevandier's Bill is framed in a wise and liberal spirit, and under it the position of English practitioners desiring to practise in France would be greatly improved, since the Medical

Act (1886) recognises the principle of reciprocity, and contains elaborate provisions for its application.

SCOTLAND.

EXTENSION OF ABERDEEN UNIVERSITY BUILDINGS.
INTIMATION has been given to the Senatus Academicus of Aberdeen University of the intention of the Government to offer a grant of £5,400 (subject to certain conditions) towards the carrying out of the proposed extension of the University Buildings. At a meeting of the Plans Committee of Aberdeen Town Council last week a plan of the proposed extension was submitted, but decision in the matter was deferred until a more detailed scheme has been formulated.

THE GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

THE fifth meeting of the present Session was held in the Faculty Hall on the evening of February 22nd, Dr. Abraham Wallace, President, in the chair. Dr. Nigel Stark presented his report on the dysmenorrhœal cast shown by Dr. Park at the meeting of December 28th. He found it did not yield under the microscope any of the classical features of such membranes; it gave, for example, no evidence of utricular glands. Dr. Park then read a clinical history of the case, which exhibited the combined phenomena of dysmenorrhœa, metrorrhagia, and hydrorrhœa, extending over a prolonged period. The patient was a lady, aged 36. Dr. Park also showed a number of specimens from cases of mucous disease of the colon.

ROYAL EDINBURGH ASYLUM, MORNINGSIDE.

As usual, Dr. Clouston, Medical Superintendent, Morningside Asylum, Edinburgh, made some interesting observations in his annual report submitted to a meeting of the corporation of the institution held on Monday, and presided over by Lord Provost Sir Thomas Clark, Bart. One observation showed that, allowing for increase of population in Midlothian during the last ten years, there was only 1 per cent. addition to the insane admitted into the asylum from the county during that period. The death-rate was only 6 per cent. during last year in the asylum, and a large number of the deaths was of patients who had only been in the asylum for from three to six months. The general health of the inmates was shown by the fact that the mean age of death had risen during the last fifteen years; in the five years 1873-77 inclusive, the mean age at death was 49.4; in the next five years it rose to 51, and during the last five years it had risen to 52.4, and last year it was 53. Dr. Clouston mentioned these facts specially in connection with the recent structural alterations, improved dietary, larger nursing staff, and new hospital arrangements, to which the results were undoubtedly largely attributable. Of 282 patients discharged during the year, 192 were recovered, 24 relieved, and 26 not improved. There had been an unusual number of cases treated where the mental condition was coincident with advanced cardiac disease. The number of cases of general paralysis of the insane kept low, and Dr. Clouston said there was some connection between this and the enforced sobriety and better living of these unprosperous years, as compared with the years of plenty and of inflated wages, 1873-77. With regard to the total returns for the year, it was stated that in the beginning of the year there were 793 patients, and on December 31st, 1887, there were 806, including 14 absent on probation; there were 365 patients admitted during the year, of whom 185 were men and 180 women; altogether there were 1,158 patients under treatment. During the year 282 had been discharged, 194 men and 148 women. The deaths numbered 70, and were those of 47 men and 23 women. The average number of patients resident was 803.

The number of admissions was 31 over the average for the previous years, and had only once (in 1878) been equalled in the history of the institution. As to private patients, 104 had been admitted; this was 15 over the average, and the rate-paid class 231, or 16 over the average. More patients from the higher classes had to be refused admission than in any previous year owing to want of accommodation. Dr. Clouston's report was favourably received, the Chairman speaking of him as undoubtedly the right man in the right place.

IRELAND.

DEATH OF DR. CHARLES CROKER KING.

THE illness of Dr. Croker King, Medical Local Government Commissioner, terminated fatally on Tuesday, February 28th. He had been suffering for some weeks from gangrene of the foot, which followed the cutting of a corn. The appointment thus left vacant is worth £1,200 a year. There are already several candidates, amongst whom are mentioned Dr. O'Farrell and Dr. Hamilton Burke, Local Government Board Inspectors, Dr. Archibald Jacob, and Dr. Henry Fitzgibbon.

DEATH FROM HYDROPHOBIA.

A DEATH, reported to be due to hydrophobia, has occurred this week at the Mater Misericordiæ Hospital, Dublin. The patient, a woman named Mary Curtin, was bitten by a greyhound on the hip about a month ago. On February 22nd she had a shivering fit, and was removed to the hospital, where she died on February 26th. The greyhound, it is said, did not exhibit any signs of rabies, but had strayed from its owner, and received no food. At the inquest the jury found a verdict that death was caused by hydrophobia.

THE IRISH CONJOINT BOARD.

ON Wednesday, February 29th, in the Chancery Division, before the Vice-Chancellor, Mr. Serjeant Hemphill applied, on behalf of the Attorney General, acting at the instance of the President and Fellows of the King and Queen's College of Physicians, for an injunction directed against the Governor and Company of the Apothecaries' Hall, the College of Surgeons, and against Dr. Robert L. Heard, Registrar of the Irish Branch of the General Medical Council, declaring that the Governor and Company of the Apothecaries' Hall were not entitled to hold a qualifying examination under the Medical Act, 1886, or to grant a diploma in respect of medicine within the meaning of that Act, and also that the Apothecaries' Hall and the College of Surgeons were not entitled to enter into a combination for the purpose of holding a qualifying examination under the Act. The case is proceeding.

MERCER'S HOSPITAL, DUBLIN.

THE case of Mr. O'Grady v. Dr. Knight and other Governors of Mercer's Hospital was again before the Vice-Chancellor on Monday, on a motion to have the action dismissed for want of prosecution. It was brought by the plaintiff for an injunction to restrain the defendants from removing him from his office of surgeon. The Vice-Chancellor decided that there was a *forum domesticum*, and the inquiry was then held, the result of which has been already reported in our columns. Mr. O'Grady now submitted to the application of the general body of Governors that his action should be dismissed with costs, but resisted the application for costs on the part of Dr. Knight. The Vice-Chancellor dismissed the action in both cases, with costs. With regard to the case of Dr. Knight, it was admitted that the plaintiff had no intention of proceeding with the action, and therefore, of course, an order to dismiss it for want of prosecution must be made. He regretted that he was obliged by the practice of the court

to award costs against the party whose suit was dismissed for want of prosecution. He expressed that regret because he thought it only just to the plaintiff to state that he considered that great public good had resulted from the action he had taken, although it appeared to have been in point of form, and in point of form only, a mistaken proceeding. He trusted that what had occurred in the case would make a change in the way in which this Board of Governors had been acting in reference to the institution, a great part of them entirely neglecting duties which, by the fact of their being Governors, they must be deemed to have undertaken, and others allowing matters to go on in connection with that hospital which came out on the former motion. The result had been practically to acquit Mr. O'Grady of the charges brought against him. In dismissing the action against Dr. Knight, therefore, he dismissed it with £10 costs, to be paid by Mr. O'Grady in connection with the injunction motion, and six guineas costs of the present application.

WESTPORT UNION: PUERPERAL FEVER.

In the Achill district about a dozen deaths have recently taken place from puerperal fever—a large number considering the scanty population. The guardians consequently have requested the Local Government Board to send down Dr. Todd, their medical inspector, to investigate the matter.

NAVAN UNION: SLANE WATER SUPPLY.

DR. RICHARD CRONIN, medical officer of health, states, in a communication to the Local Government Board, that the water which is about to be supplied to the inhabitants of Slane for domestic purposes is quite unfit for use, and dangerous to health. The supply is from a disused quarry where cats and dogs are frequently drowned, and where liquid manure is drawn in from a large dung heap above the level of the quarry. Dr. Cronin, although the medical officer of health, very properly complains that he was not consulted directly or indirectly in a matter of such importance. The only excuse the guardians have given is that they intend to filter the water.

SCHOOL OF PHARMACY.

THE directors of the Apothecaries' Hall, Dublin, announce the opening of a School of Pharmacy in which teaching will be provided for students proceeding for licence under the conjoint scheme. The following is the course. I. *Preliminary*.—Pharmaceutical nomenclature and abbreviations; the weights and measures of the *British Pharmacopœia*, and how to use them; the processes and apparatus of the *British Pharmacopœia*, namely, filtration, maceration, percolation, trituration, pill-making, plaster-spreading, etc. II. *Official Pharmacy*.—Systematic exercises in the preparation of official compounds, and the application of the *Pharmacopœia* tests for purity. III. *Extemporaneous Pharmacy*.—The reading in full Latin, compounding and dispensing of prescriptions, and the study of incompatibles. The fee for a three months' course will be £3 3s.

BRAIN SURGERY IN DUBLIN.

At a meeting of the Surgical Section of the Royal Academy of Medicine on Friday last three successful cases of trephining were reported, and the discussion upon the papers was adjourned to a future night. These cases were all remarkable. Professor Thornley Stoker read particulars of a case in which a man fell from a cart while drunk. He came to the Richmond Hospital some days later, rather stupid, and with some lightly-marked paralytic symptoms. It was not easy to determine whether he had not had an attack of apoplexy. The paralysis becoming more marked, Mr. Stoker trephined in the region of the fissure of

Rolando—there was no fracture—and struck the margin of a blood clot. He again trephined and more fully exposed the clot, which was washed out. The area so compressed was about three inches, and the clot measured nearly an inch in depth. The patient recovered and was exhibited. Sir W. Stokes read a paper on a case of successful trephining for cerebral abscess, and exhibited his patient. The man had been struck with a poker on the left side of the mesial line of the head, and about an inch anterior to the coronal suture. He was treated as an out-patient at another hospital, but ultimately applied at the Richmond, when he was admitted, several weeks having elapsed from the date of the injury. He soon presented brain symptoms, became convulsed and comatose, and it was determined to trephine. A small fracture was found under the scar; the dura mater bulging into the wound, an exploring needle was introduced to the depth of an inch and a-half, and pus was at last found. The dura-mater was then incised, and one ounce and a-half of pus was evacuated. The patient completely recovered, and is now attending to his ordinary work. The paper noted eleven other cases of abscess which had been operated upon by various surgeons, and discussed the questions involved. The third case was brought forward by Dr. C. B. Ball, of Sir Patrick Dun's Hospital, and the patient was also produced. The lad had been struck with a small knife over the squamous portion of the left temporal bone ten days before admission. The wound was healed, but he had some aphasia. Pain in the head and ear supervened, and the aphasia increased. It was determined to explore. He was trephined some weeks after the original injury. A wound was found in the dura mater corresponding to the puncture of the bone. A sinus forceps was passed in, the wound opened up, and some blood clot escaped. The patient was decidedly better but next morning he was again aphasic. The wound was washed out, and more blood clot escaped. The aphasia almost disappeared, but two days later it returned, and the wound was again washed. After this the patient progressed favourably, and is now well. Dr. Ball pointed out the rôle of the brain lesion, as indicated by the various symptoms of aphasia. The group of cases was a very remarkable one, and the record of them cannot fail to influence the views of surgeons on the subject of brain surgery.

THE SIR GEORGE BURROWS MEMORIAL PORTRAIT.

President: Sir WILLIAM JENNER, Bart., K.C.B.

Committee:

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|----------------------------|----------------------------|
| Sir Henry A. Pitman, M.D. | Sir Alfred B. Garrod, M.D. |
| Henry Monro, M.D. | Robert Martin, M.D. |
| Richard Quain, M.D. | James Andrew, M.D. |
| William Munk, M.D. | William Selby Church, M.D. |
| John Wm. Ogle, M.D. | J. Matthews Duncan, M.D. |
| George David Pollock, Esq. | Robert L. Bowles, M.D. |

Treasurer: Sir Dyce Duckworth, M.D., 11, Grafton Street, Piccadilly, W.

Secretary: Edward Liveing, M.D., 52, Queen Anne Street, W.

The above Committee has been formed for the purpose of obtaining a replica or copy of the portrait of the late Sir George Burrows, Bart., painted by G. Richmond, R.A., for presentation to the College of Physicians, London.

Subscriptions, not exceeding one guinea each, may be sent to the Treasurer, Secretary, or any member of the Committee, who will also be happy to receive the names of gentlemen wishing to join the Committee.

THE "Queen's Register" is the title of the superbly bound manuscript volume containing the names of all donors and collectors of cards received by the Central Committee of the Countess of Dufferin's Fund in honour of Her Majesty's jubilee year, which, together with an address, has been transmitted to the Queen-Empress.

REFORM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Rejoinder of the Association of Fellows to the Reply of the Council of the College to the Statement presented to the Lord President on behalf of the same Association.

To the Right Honourable the Lord President of the Privy Council, —The Committee of the Association of Fellows of the Royal College of Surgeons have seen in the medical journals of February 4th the "reply" of the Council of the College to the "statement" presented by the Association to the Lord President. This "reply" is in so many respects misleading that they are reluctantly compelled to ask your lordship's attention to the ensuing rejoinder.

The first clause of the "reply" deals with the number of Members and Fellows. Without criticising the accuracy of these statistics, we would call your lordship's attention to the fact that the number of Fellows, who are the elective body, has been for some time steadily diminishing. In the year 1874, 1,295 Fellows appeared in the College Calendar, and this number has diminished slightly but almost uniformly every year, till in 1887 it was only 1,116. The number of Fellows by examination in the year 1887 was 645. It should be remembered that the chief means by which the Fellowship examination is maintained is the requirement now general at all large London and many provincial hospitals, that their surgeons must be Fellows of the College. There have, however, recently arisen many other surgical qualifications of rival importance, such as the Mastership in Surgery at some universities. If these were admitted by the hospitals as qualifying for their appointments (which is highly probable), the supply of Fellows by examination of the College of Surgeons would probably decline rapidly; and then the privileges which the Council are so anxious to confine to the Fellows would be in the hands of a body evidently too small to administer so important an institution. Nor would the defect be remedied by the proposal of the Council of the College to make large annual elections to the Fellowship, inasmuch as, even if the selections were always judicious, such elected Fellows could scarcely be recognised as representatives of the highest surgical culture.

We are unable to agree with the second and third clauses in the "reply" dealing with the objects of the Fellowship, and stating that all Members of two years' standing can obtain it by examination.

Though it is true that the Fellows constitute the electoral body, the following extract from the *Autobiography* of Sir B. Brodie, to whose initiative the Fellowship owed its origin, will show that this was not its sole object:—

"The object of this institution is to ensure the introduction into the profession of a certain number of young men who may be qualified to maintain its scientific character, and will be fully equal to its higher duties as hospital surgeons, teachers and improvers of physiological, pathological, and surgical science afterwards. With this view, if they have not university degrees, they are required to undergo a preliminary examination in classics and mathematics, while their professional education having been continued for a longer period of time, they are expected to show that they have a more perfect acquaintance with those sciences which are the foundation of medical and surgical knowledge than can be expected of the great majority of those who are candidates for practice. If this system be properly and honestly carried out, I apprehend that the result will be that the Fellowship of the College of Surgeons will be the most honourable distinction that is offered to the junior members of the medical profession." (Sir B. Brodie's *Works*, vol. i, p. 108).

This shows beyond question that the Fellowship was never intended for the same class of men as the ordinary Membership, which is, as Sir B. Brodie says, a minimum qualifying examination. It was intended as a professional distinction—a mark of honour, and it is a creditable feature in the management of the College that the character of the Fellowship examination has been upheld. But it is a mockery to say that any Member of two years' standing may present himself for the examination, when it is perfectly well known that only the very small proportion who have had the time, money, and talent necessary to prepare themselves have any chance of passing. The "reply" says the Fellowship can be obtained without additional expense. Few, indeed, of the candidates do not find it necessary to spend

money on tuition. All must spend their time, which is money to a young surgeon or his friends. As evidence of this, we may say that last year of 142 candidates who presented themselves for the first examination for the Fellowship, 67, or 47 per cent., were rejected; and of 58 who presented themselves for the final examination, 27, or 46.5 per cent., were rejected. All these candidates had gone through the special training required by the College regulations.

The "reply" then details the so-called privileges of Members. Most of these are merely the ordinary rights which no member of any society can be denied, of entrance into the common rooms; and some of them (for example, admittance to the Museum) rest not on the pleasure of the Council, but on Act of Parliament. But as to the eligibility of Members, who are not Fellows, for the Examinerships, the "reply" is most misleading, to use no stronger term. It is true that certain of the Junior Examinerships have lately (and since the beginning of the agitation carried on by this Association) been thrown open to Members; but it is distinctly the reverse of the fact to say that the Members are allowed admissions to all Examinerships except those for the Fellowship. They are not eligible on the Court of Examiners, the only body which admits to the Diploma of Member.

The authors of the "statement" to the Lord President made no complaint of the original creation of the order of Fellows by election. On the contrary, we would remind your lordship that we merely gave a critical explanation of the transaction, and expressed the opinion that no such order should be perpetuated now, but that the only entrance to the ordinary Fellowship should be by examination.

The next clause, which relates to the proposal that a Member should be qualified by a certain seniority before he can vote and before he can become a candidate for a seat in the Council, seems strange to us. Such seniority qualifications exist in the present constitution of the College, and will continue to exist even if the modifications proposed by the Council are introduced into the charter. But the weakness of the argument of the "reply" on this particular is so obvious that we need not labour the point.

Still stranger is the clause about by-laws. The "reply" states that "delay and difficulty" would be caused in the passing of a by-law by an appeal to the Fellows and Members. We say, on the contrary, that such an appeal need not involve one day's delay. In the very "elaborate" process of making a by-law there are intervals between one act of Council and another amply sufficient for calling a general meeting, so that no delay would occur if the Council chose to call this meeting in the interval (at least a month) between the first vote at which the by-law is accepted and the next meeting of the Council to confirm this vote. That the proposal would entail "difficulty" in passing by-laws condemned by the general opinion of the profession, such as that relating to the Fellowship examination, referred to in our "statement," we cordially admit, and for that reason we press it on your lordship's consideration. Even, however, if the progress of new by-laws were to be somewhat slower, where would be the harm? The Council has had a working experience of 87 years, and it is scarcely conceivable that any occasion should arise for the urgent and hasty alteration of a by-law. And we cannot forbear again to remind your lordship that the Fellows and Members are bound to observe the by-laws without at present the power of opposing any addition or alteration made in them.

With regard to the election of President, we may say, without fear of contradiction, that the routine method uniformly followed up to the time of the first re-election of the present President in July, 1886, is generally disapproved, and that the fact that the President has now been twice re-elected does not afford any guarantee that the former custom will not be resumed as soon as it is thought that public interest in the matter has subsided. With regard to the objections to our proposal stated in the "reply," we answer (a) that while the great body of the Fellows may never have been specifically consulted in the matter, the general principle was adopted at the meeting of Fellows and Members held in 1884, and by every member of this Association; (b) that the proposed arrangement is exactly that which prevails for Members of Council, and which has not proved an insurmountable obstacle to the present councillors coming forward as candidates, nor has the fact that the President of the College of Physicians is elected by a general meeting of the Fellows prevented the most eminent men in the profession from coming forward for the presidency of that body; (c) that if the Council are the best judges of the qualifications of their own Members for the presidency,

they have never exercised any such judgment, but have, up to eighteen months ago, passed the office round in rotation; (d), (e), and (f) that these supposed objections apply equally to the present mode of election to the Council, and from their not producing any of the supposed results, may be inferred to be imaginary.

We cannot but most earnestly protest against the assertion in the "reply" that the College is not a "political" institution. A body having functions and privileges derived from the State, and having such important duties and responsibilities both to the public and to individuals, cannot be called private, and its well-being and good government are matters of general concern.

As to the results of the inquiries made by the Council, they are perfectly worthless for the present purpose, since the opinion of the Fellows was not asked as to the actual proposals of either the Association of Fellows or that of Members. Still, as we have shown to your lordship, the result was clearly to prove that the majority of the Fellows have expressed no objection to the principal claims of the Members. The number of the Members who have signed the petition presented to your lordship (4,665) is, if not a majority, we believe, nearly half of those in the United Kingdom who can be reached through the agency of the Post Office.

With regard to what in the "reply" is brought forward as an instance of the inaccuracy of our "statement," we are justified in retorting that the inaccuracy is not ours. We never said that the principle of a union between the College of Surgeons and that of Physicians had not been sanctioned by a resolution passed at a general meeting. What we complained of was that the completed scheme had not been submitted to the whole body of the College, as it was to the Fellows of the College of Physicians; and that a portion of it so vitally important as the exclusion of the Society of Apothecaries had been insisted on, in spite of the protest, not only of the Fellows and Members (also assembled in general meeting), but of the General Medical Council. It is, however, surprising to find the Council of the College now sheltering themselves under the authority of the resolution passed at the meeting in 1884, which was proposed without notice, and was carried by twelve votes against six, at the end of a long meeting, when the room was nearly empty, while they treat with entire indifference the resolutions lately passed with only either one or two dissentients, at one of the fullest meetings that ever assembled in the Theatre of the College.

With regard to the proposal in the Council for admitting fifty Members a year to the Fellowship, it was no doubt never brought on for discussion—a result which we have reason to believe was largely due to the opposition of this Association. But the fact that such a proposal was made, and (as we have also reason to believe) that it was suggested to elect even 100 Members annually to the Fellowship, shows how strong the temptation may be for the Council to resort to measures of this kind, by which the order of Fellows can be recruited without any regard to the "professional merit" of the persons elected. The present proposal of the Council is only somewhat less objectionable; and the "reply" of the Council itself tacitly admits that it has been emphatically condemned, by the voice of their own Members, as inconsistent with the high objects for which, according to Sir B. Brodie, the Fellowship was instituted.

On all which grounds we submit to your lordship that the "reply" of the College leaves our "statement" entirely unrefuted, and confirms our contention that the petition of the Council for a modified charter should be referred back to them for reconsideration and discussion with the general body of their constituents.

(Signed) G. D. POLLOCK.

POSTSCRIPT.—In order to prove to your lordship that our sentiments are not unrepresented on the Council of the College, we beg to call your attention to the following amendment, which was moved and seconded at the meeting of the Council at which their "reply" was settled.

(This amendment was published in the JOURNAL of February 25th.)

DR. H. C. REID, of Coatbridge, was recently presented by the Coatbridge Foresters with an excellent life-size portrait of himself in oils.

Of the 10,679 students of the University of Paris, 3,696 are studying medicine, and 1,767 pharmacy. There are 167 female students—108 of medicine, 7 of science, and 1 of law. There are 593 foreign students of medicine, 58 of science, and 21 of pharmacy.

THE DUTIES AND PAY OF THE MEDICAL STAFF.

A CORRESPONDENT, writing on this subject, has sent us some detailed remarks, of which we can only give a summary. His observations are, however, of special value just at present, because they bear directly on the line of attack which in all probability will soon be made on the medical vote by certain economists. He, in truth, but makes a little plainer what everyone who cares to look below the surface already well knows, that the life of the army medical officer is anything but the one of ease and idle swagger which the enemies of the Department would fain have the unthinking public believe. Neither are his functions merely those of the "good doctor," which even some who must know a great deal better are too fond of reiterating; but rather, and far more, those of the good all-round officer, whose well-performed duties are not only essential to the discipline, but to the very fitness of the army as a military machine. His duties, in fact, are essentially those of the thoroughly trained life-worker, and cannot be suddenly, much less systematically, assumed by any medical volunteer or tyro, however willing; still less successfully farmed out haphazard in casual medical "contract."

When the fit of economy (which seems to recur regularly at intervals of years) recently set in, the medical vote, as on former occasions, was about the first attacked; not, indeed, in the "service" papers, which are posted up in the real facts, but in so-called "Society" journals, hitherto, at all events, not distinguished for accuracy in military matters. Now, the medical vote may be a very bloated one; or, as we believe, only sufficient for the wants of a great and important army department; but, whether or not, we would not seek to defend it on narrow professional, but on broad public, grounds. We do protest, however, that, in discussing it, fairplay should at least be shown to the officers and men of the Medical Staff, and all unworthy and scurrilous detraction avoided.

The cry "Ye are idle" is as old as the Pharaohs; and it is not the first time it has been most unjustly resuscitated against medical officers; but now it is combined with another clamour, that these officers are overpaid both on pay and pension for the little they do! Let us remind virtuous economists why the present scales of pay and pension were granted; simply in strict obedience to the inexorable law of supply and demand, which, whether they like it or not, governs the value even of medical as it does of all other work in a free country. It is quite useless for them to draw comparisons between, say, the British and German rates of army pay; it will be time enough to do that when the conditions of service in the two armies have any similarity; when, for instance, we adopt compulsory service, and the Germans, having acquired a great foreign empire, exact military service from their soldiers all over the world and in all climates.

It should be particularly noted that whenever an economical clamour has been got up against the Medical Department, it has always had reference to its peace duties, never to its functions in war; indeed, this is very necessary to make the outcry any way effective in the all too forgetful public ear. Every reminder of war has to be avoided; the ugly word might recall Crimean horrors, the result of attenuated and unorganised departments; it might even straightway raise the question, how, from an attenuated medical list, Lord Wolseley's "two army corps, always ready for mobilisation," are so suddenly provided with 400 trained medical officers fit to take the field. These are awkward questions, but we are not without indications of the sort of answer with which the shifty economists would try to meet them. They would, in effect, say: "Are there not plenty of medical rolling stones, chronic students, and women nurses to form a scratch medical service for the two army corps when wanted? Can we not, when in difficulty, play off (financially) the needy civilian against the greedy, haughty army doctor? Can we not leave things to chance, or boldly put up the lives and limbs of our soldiers, both in peace and war, to civil medical 'contract'?" Fortunately, there are arguments probably sufficient to nip such happy-go-lucky proposals in the bud. Would the humanity and common sense of the country consent that the health and wounds of our soldiers be left to such chance medical and surgical aid as can be best picked up by civil "contract"? Would our responsible military authorities accept for field service, without protest, a scratch medical service got together anyhow at the beginning of a great war? What if the soldier himself should resent a purely heart-

less economy which seeks to place his life on the battlefield in the hands of undisciplined and irresponsible strangers?

We think, therefore, that when the country is duly informed on this subject, it will not for a moment permit the Army Medical Department to be crippled or starved to meet the exigencies of party politics. It is much more likely to insist that a well-manned and thoroughly organised medical service be maintained, even although it does cost money.

Our correspondent's remarks are almost wholly confined to the medical duties during peace. Even these can be shown to be anything but unimportant, and just as exacting and never-ceasing as professional practice in civil life. It is well that those who are ill informed, or perhaps altogether ignorant of their nature, should know what they are. His observations are limited to the medical care of the army at home and in the colonies, altogether excluding the great interest of India, which absorbs one-third of the entire Medical Staff. He classifies the peace duties as follows:—

- A. With regular troops.
- B. With militia.
- C. As officers of the Medical Staff Corps.
- D. Miscellaneous.

Under A he mentions:—

1. *Attendance on Sick in Hospital.*—He states that in 1885 the sick (exclusive of India) admitted into military hospitals numbered 114,295, and the average duration of the cases was 18½ days. He points out that these sick are visited by the medical officers twice daily, or oftener, if necessary; that prescriptions, diets, and records of cases, with the entry of every little "extra" and "medical comfort," have to be in the officer's own handwriting; that he is responsible for check and countercheck of all expenditure. Is this necessary? Most assuredly, if the sick, on the one hand, are to have proper treatment, and the public, on the other, are to be safeguarded against inordinate hospital expenditure. The smallest reflection will show that unchecked and unauthorised hospital expenditure would speedily run up totals sterling which would make the economist stare, and beside which the mere salaries of the medical service, at which he grumbles, would look small indeed!

2. *Daily Sick.*—Besides sick admitted, there are naturally and inevitably a large number of men who receive slight treatment while remaining at their duty, but nevertheless involving considerable medical labour. For, let it be noted, the medical officer has not only to be careful that none really sick are refused admission, but he has to discriminate and checkmate schemers wishing, perhaps, to escape some unpleasant duty. Let those who grudge the medical officer his pay, and sneer at or minimise the value of his services, consider what would be the state of the daily sick lists, what the hospital expenditure, if there were no trained, expert, and responsible medical officers keeping watch, as it were, at the entrance to the wards:

Not only are the medical officers constantly on duty in relation to the patients under their immediate care, but in all the larger hospitals they have besides to take their turn, every third or fourth day, on "orderly duty" for twenty-four hours at a time, during which they must not leave the precincts of the hospital. It is well known that medical officers prematurely break down and die in a much greater proportion than any other class of army officers, and we cannot help thinking the perpetual grind of ordinary duty every day in the week has more to do with undermined health than even trying foreign service.

3. *Recruiting.*—Our correspondent states that 72,249 recruits were examined by army medical officers in 1885. There are few more fatiguing and responsible medical duties than the thorough examination of a recruit; it is truly the work of an expert, and should only be entrusted to officers of wide experience. It is the medical officer, and he almost alone, who guards the portals of entrance into the service, and stands between the State and numberless methods of chicanery and fraud; all who have a money interest in the recruit are against him; the admission of unsuitable men and fraudulent re-enlistment, if not checked by the fitness and skill of the medical officer, would cause enormous loss to the public. Besides recruits, all men re-engaging or passing into the Reserve have to undergo medical examination.

4. *Vaccination.*—In 1885, we are told, 39,433 men, women, and children were vaccinated or revaccinated in the army.

5. *Inspection of Prisoners.*—154,026 minor punishments were inflicted, and 7,790 men were tried by courts martial, during 1885.

Now no soldier can be awarded or undergo any punishment without being previously medically examined and certified fit; and no court martial can proceed without a medical certificate as to the prisoner's fitness or otherwise to undergo imprisonment, with or without hard labour. Every prisoner in confinement must also be daily visited by a medical officer. Are these unimportant duties? It simply comes to this, that the medical officer plays a most important part in maintaining the discipline of the army. Without his discrimination, skill, and firmness, the best commanding officer would be powerless; the prisoners would laugh at his awards, and find means of avoiding punishment.

6. *Attendance on Officers, their Wives and Families, Servants, and on Soldiers' Wives and Children.*—This forms no inconsiderable part of a medical officer's duty.

7. *Boards.*—These may be strictly professional, or mixed with other branches of the service, on sanitary deliberations, stores, etc., all requiring technical knowledge and training. How, we should like to know, are such duties to be carried out by civilians on "contract"?

8. *Sanitary Duties.*—No duties of the medical officer are of more vital importance to the army than these; thorough and incessant sanitary supervision of barracks, quarters, camps, and their surroundings has to be kept up. Through unceasing watchfulness of this kind at home and abroad, the Medical Department has been instrumental in enormously reducing the sick- and death-rate of the army during the past thirty years at a saving to the State many hundredfold more than any increase of medical pay and pensions. Such services may be conveniently forgotten when suitable, but they stand recorded and cannot be ignored.

9. *Correspondence and Returns.*—In a widespread army, and with a public demanding statistics and information of every kind, the returns are naturally of a complex and voluminous kind, requiring much special knowledge of the regulations. Would this work be successfully handled by "contract"?

10. *Responsibility for Public Property.*—This is an important medical duty, that might touch the heart of the virtuous economist, if nothing else would. The unthinking and uninformed may ask, "Why saddle the medical officer with this?" Well, somebody must be responsible for hospital property, and if not the medical officer, then there must be some other well-paid official, introducing an additional and fresh element of expense. But the proper man is the medical officer, who must be master in his own hospital, and in the interest alike of the patient and the public, unsheltered behind conflicting and divided responsibility. Will it be proposed to put up the care of much valuable hospital bedding, furniture, equipment, and stores of all kind to "contract"? Or do the War Office authorities expect civilian practitioners, or any others, will accept "financial responsibility" for nothing?

B. *Duties with Militia.*—As the old militia surgeons have disappeared, their duties for years past have been assumed by the army medical officer without additional emolument, with a consequent considerable saving to the State. The permanent staff of the militia are now attached to the various regimental districts, as well as recruiting and training.

C. *Duties as Officers of the Medical Staff Corps.*—These are of the first importance, and involve command, discipline, interior economy and payment, and the training of 2,000 men. They necessitate, also, a certain knowledge of drill and military law. Certain innocent civilians may ask, as certain jealous soldiers who would like to deprive medical officers of all army rank and status do, with a sneer, "Is this 'doctors' work?" The answer is, it is without doubt one of a military medical officer's proper duties, essential to his training for peace and war, as well as for the due performance of his daily work. Divided authority in a military hospital as in any institution, is wholly fatal to efficiency; and it is just as essential that the hospital servant and subordinate should look upon the medical officer as his real master, as the soldier in barracks on the colonel as his commander. The function of command of the Medical Staff Corps was at one time delegated to another set of officers, with the result that there was much confusion and bad work.

D. *Miscellaneous Duties.*—Under this head our correspondent mentions charge of such institutions as the Royal Military Academy, Woolwich; Military College, Sandhurst; military schools, Chelsea and Dublin; military prisons; Royal Arsenal, etc. He asks, what would civilians expect for medical work of such an onerous and responsible nature as charge of these institutions? Could they be safely handed over to the nearest general practitioner by "con-

Table showing the Daily Rates of Pay of different Branches of the Army taken from the Royal Warrant on Pay and Promotion of 1884.

No. of years' Service Required.	Medical Staff.		Commissariat Department.		Chaplain Department.		Ordnance Store Department.		Pay Department.		Royal Engineers.		Foot Guards.	
	Rank.	Daily Pay.	Rank.	Daily Pay.	Rank.	Daily Pay.	Rank.	Daily Pay.	Rank.	Daily Pay.	Rank.	Daily Pay with higher near a Pay.	Rank.	Daily Pay.
On appointment	Surgeon	£ s. d. 0 10 10	D. A. C. G.	£ s. d. 0 12 6	Chaplain 4th class	£ s. d. 0 10 0	D. A. C. G.	£ s. d. 0 12 6	Paymaster	£ s. d. 0 15 0	Lieut. under 3 years	£ s. d. 0 9 7	Lieut.	£ s. d. 0 9 1
After 5 years' service	"	0 13 9	Do. from 3 to 5 years	0 15 0	"	0 12 6	Do. 5 years	0 15 0	Do. 5 years	0 17 6	Do. after 3 years	0 10 10	Do. after 3 years.	0 10 4
After 10 years' service.	"	0 15 0	Do. 10 years	1 0 0	3rd class	0 15 0	Do. 10 years	1 0 0	Do. 10 years	1 0 0	Do. after 10 years	0 11 10	Do. after 10 years	0 11 4
After 15 years' service.	Surg.-Major.	1 2 6	A. C. Genl.	1 5 0	2nd class	0 17 6	A. C. Genl.	1 5 0	Staff Paymaster	1 2 6	Captain Do. higher (brevet rank)	0 17 7	Captain Do. higher (brevet rank)	0 19 2
After 20 years' service	"	1 5 0	Do. after 5 yrs in the rank	1 10 0	1st class	1 0 0	Do. 5 to 10 yrs	1 10 0	Do. after 5 years	1 5 0	Major	1 5 0	Major	1 2 10½
After 25 years' service	Surg.-Maj. Brig.-Surgeon	1 7 6	Do. after 10 years.	1 10 0	"	1 2 6	—	1 10 0	Chief Paymaster	1 10 0	Lt.-Colonel	1 13 0	Lt.-Colonel	1 3 11½
Uncertain		2 0 0												
"	General.	2 15 0	Com. Genl.	3 0 0	Chap.-Genl.	£800 yearly	—	—	—	—	Generals	4 5 0 to 9 17 9	Generals	4 5 0 to 9 17 9

From this Table it will be seen that medical officers (who are professional men) are paid very much at the same rates as the officers of other departments for which very little special training is required. It will also be seen that the Guards and Engineers are paid very nearly, if not quite, as well as the medical officers, and have other advantages, such as mess allowances, etc., besides. The only real advantage medical officers have is the higher rate of pension. Against this must be placed the foreign service and the mortality, which exceeds greatly that of any other branch of the army.

tract"? He should have included also among miscellaneous duties attendance on inspections, parades, field-days, etc. We would ask, who but a commissioned, uniformed medical officer should or could perform such duties?

Having thus sketched out the multifarious duties of the army medical officer, which go far beyond those merely of the "good doctor" kind, our correspondent proceeds to estimate the money value of these duties as measured by what civilian medical men would expect to get for their performance, supposing they could or would undertake them. We fear our correspondent here enters on a somewhat futile and unprofitable task. After what we have said, surely no reasonable man will affirm that the army medical officer's special training and skill can be bought ready-made in the civilian market, whatever the price offered? It is no doubt true that the sick soldier might, in certain places, be duly "physicked" in a civil hospital by "contract." But at what cost? The surroundings of such an establishment would speedily unsoldier him; unless the military discipline of the barrack and the parade follows the sick soldier to hospital, he would very soon become no soldier at all. That would be one fatal result of a "contract" system.

But our correspondent—taking no account of such trifles as command of the Medical Staff Corps, responsibility for equipment and stores, and the many miscellaneous duties daily performed by the medical officer—proceeds to work out the value of the merely professional treatment of the soldier at home and in the colonies. At the shabbiest rates of "contract," what would be the cost? He assumes as data 2s. for each day of each man sick; a lump sum for care of daily casual sick; a lump sum for militia, chiefly for recruiting; 5s. for each army recruit passed; 2s. 6d. for each vaccination; and arrives at the following totals:—

Attendance on sick in hospitals ...	£211,445
Treatment of daily casual sick ...	8,572
Militia ...	10,000
Recruiting of Regulars ...	10,000
Vaccination ...	5,000

Total ... 245,017

We will not attempt to criticise, much less verify or vouch for, these figures. They may be too little or too much, but as they stand are, at all events, no improvement, from an economical point of view, on the medical vote of £246,000, which includes provision for all the duties.

But even supposing they represented a large peace saving, do they furnish the smallest provision for war? An army is no army if unfit to take the field, and in these days no army dare take the

field, with any chance of success, unless thoroughly organised during peace. The truth is, the efforts to get rid of the medical officer by substituting civil "contract," show the most lamentable ignorance of, or indifference to, the perfecting of military organisation, and a most misguided statesmanship.

Our correspondent concludes by offering some remarks on the pay of medical officers, and by way of comparison with those of other officers, furnishes a table, which we here reproduce.

From this it appears the mere pay of the medical officer is not much superior to those of other officers who bring with them into the service no expensive special education acquired at private cost. Then, again, medical officers have few or no staff and other appointments giving additions to pay, such as the combatant officer can look to. We should like to know, what with frequent moves and the thousand and one expenses consequent on a nomadic sort of existence, how much a medical officer is expected to save from his pay for himself or family—if he has one? He, in truth, has nothing to look to but his pension, or more properly, deferred pay, an annuity which dies with him. Consider, also, the risks he has to run before he can get a pension. We hear rumours and threatenings, that in future a longer period of full-pay service will be exacted before he can claim pension; this, according to well understood actuarial calculations, would have the effect of increasing the risks, and lessening the value of the pension when obtained. A pension only held out to a man when years are on him and health has gone is but a lure and a snare; the odds against him rapidly increase, and become more and more in favour of those offering the pension. If too vigorous conditions of full-pay service are exacted, this ultimately may become so apparent, that double or treble pay will be demanded, and pensions allowed to go by the board.

In conclusion, we regret we cannot help thinking, that not zeal for public economy alone has prompted late unfair attacks on the medical vote, but there has been mixed with it not a little hostility to the medical profession at large.

HEALTH OF ITALIAN TROOPS AT MASSOWAH.—A correspondent of *La Semaine Médicale* states that typhoid fever and acute rheumatism are very prevalent among the Italian troops at Massowah; the number of sick is between twelve and thirteen hundred, and two or three deaths occur daily.

THE MOSCOW MEDICAL FACULTY IN 1887-88.—According to the *Vratch*, No. 4, 1888, p. 75, on January 1st, 1888, the Moscow University numbered 3,259 students, 1,218 of whom belonged to the medical faculty. During 1887, 231 obtained the diploma of medical practitioner (*lekar*).

GREAT NORTHERN CENTRAL HOSPITAL.

On Saturday, February 25th, the new buildings of this institution were shown to visitors by the architects, Mr. Keith Young and Mr. Henry Hall. So far as at present constructed the hospital consists of three rectangular wards (twenty beds in each), one above another in a building of three stories, with a block for administrative purposes, and separate buildings for the out-patient department and mortuary chambers. It is also in contemplation to erect a block containing three circular wards (twenty beds in each), so that when the hospital is finally completed, it will be capable of making up 120 beds, besides the accommodation of the special wards (one bed in each), and provision is also to be made for the reception of 24 paying patients. As at present arranged, each bed in the rectangular wards will have 127.5 square feet of floor space and 1,650 cubic feet of air space, each ward having a length of 88 feet, a breadth of 29 feet, and a height of 13 feet. The circular wards will have a diameter of 57.5 feet and a height of 13 feet, which will give practically an identical amount of floor space and air space to each one of the twenty beds which they are to contain. It will thus be seen that when finally completed an interesting experiment will be carried on within the walls of this institution, which should go far to settle the claims made as to the rival merits of the oblong and circular ward systems.

It is, perhaps, needless to say that, in the general design, the best approved and most modern principles of hospital construction, ventilation, warming, drainage, and general convenience have been everywhere applied by the architects. The lowest ward is raised some feet from the ground by vaults open on each side for their whole length for thorough ventilation; there is, thus, no possibility of ground air gaining admission into the wards. The arrangements made for the ventilation of the wards are most complete. In winter fresh air is admitted warmed by passing through one of two stoves (Boyd's Hygiastic Hospital Grates) placed in the centre of the ward; whilst in summer the outer air can enter in an upward slanting direction by revolving on its lower border the upper portion of each one of the windows, and special fresh air wall inlets are also provided near the floor at the heads of the beds. For the escape of vitiated air there are four extraction shafts for each ward, which are kept warm by the flues of the stoves in winter and by Bunsen gas burners in summer. The wards can be heated as well by hot water pipes leading from a boiler house. Each ward is paved with solid wood-block flooring, and the beds are fitted with spring wire mattresses and movable fracture boards. At the further end of each ward are the water closets, bath room, and slop sinks in a turret block separated from the ward by a cross ventilated lobby. The roof of the building is flat, and is to be used as an exercise ground for the patients; there is besides a covered balcony attached to each ward for the use of patients. The kitchens and sculleries are placed at the top of the building; all the cooking is to be done by gas and steam. A very commodious operating theatre lighted from the roof is in connection with the first floor, and a hydraulic lift large enough to carry a hospital bed runs the whole height of the building from roof to basement. Attached to the boiler house is a small destructor furnace for burning dirty dressings, poultices, bandages, etc., which are usually relegated to the dusthole. The water supply and drainage appliances are the best of their kind. Great care has been bestowed on the ventilation of drains, soil pipes, and waste pipes, and we were glad to see that siphonage of water closet traps—a possibility often overlooked by architects—is rendered well nigh impossible by the system of ventilation pursued. The main drain is a 9-inch pipe which is laid outside the building, and is disconnected from the sewer in the usual manner.

The out-patient department has been designed to secure at once the greatest amount of comfort to the patients during their long hours of waiting, as well as the requisite facilities for the out-patient surgeons and physicians in their examination and treatment.

It is only to be regretted that to such a hospital there is no medical school attached, but it is intended that the institution shall be open to medical practitioners in the neighbourhood, and it may possibly add to its usefulness by becoming an important post-graduate teaching centre for the north of London.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, and a further portion of the Report upon OLD AGE have been completed, and will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has just been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at Ashford, on Thursday, March 15th. Dr. Wilks in the chair. Anyone wishing to send communications should inform the Honorary Secretary at once.—W. J. TYSON, 10, Langhorne Gardens, Folkestone.

EAST SURREY DISTRICT: SOUTH-EASTERN BRANCH.—The spring meeting of this District will be held at the Queen's Hotel, Upper Norwood, on Thursday, March 8th, at 4 P.M.—W. F. R. BURGESS, M.D., of Streatham, in the chair. Dinner at 6 P.M.; charge, 7s., exclusive of wine. The following papers have been promised: Mr. Noble Smith: On Hip-joint Disease, with diagrams. Dr. P. T. DUNCAN: On Simple Catarrhal Fever. Members desirous of exhibiting or reading notes of cases are invited to communicate at once with the Honorary Secretary, P. T. DUNCAN, M.D., Croydon.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held in the Hackney Town Hall, on Thursday, March 15th, at 8.30 P.M. A paper will be read by A. J. PEPPER, Esq., on Medical Evidence in Courts of Law. Visitors will be welcomed.—J. W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above districts will be held at the Grand Hotel, Brighton, on Thursday, March 22nd. F. W. SALZMANN, M.R.C.S., will preside. Meeting at 8.30 P.M.; dinner at 5.30 P.M.; charge 6s., exclusive of wine. The following papers will be read: Dr. Starling: A case of Fibroid Induration of the Stomach (with specimens). Dr. Howard Marsh: Recovery after Laparotomy for Intestinal Obstruction; with Remarks. Gentlemen desirous of making any communication to the meeting should write to the undersigned or to Dr. Gostling, West Worthing.—T. JENNER VERRALL, Honorary Secretary, 97, Montpelier Road, Brighton.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The sixth general meeting of this Branch will be held in the Medical Institute, Edmund Street, on Thursday, March 8th, 1888. The chair will be taken by the President, Mr. Lawson Tait, at 3 P.M. Business: The following member of the Association will be proposed as a member of the Branch: E. R. WOODHOUSE, M.B., C.M. Edin., West Bromwich Hospital. The officers of the Branch to be elected at the annual meeting will be nominated. Papers: Dr. Suckling: Alcoholic Paralysis. Mr. J. W. Taylor and Dr. Stacey Wilson: Treatment after Perforation from Ulcer of Stomach. At the Council meeting to be held after the Branch, the following gentlemen will be proposed as members of the Association: James A. B. Thompson, M.D. Glasgow, Bradles, Warwickshire; Frank J. Allen, M.A., M.B. Cantab., Mason College, Birmingham; Joseph Henry Patrick, M.R.C.S., 212, Balsall Heath Road; John Angell James, M.R.C.S., L.R.C.P., Queen's Hospital. Mem.

bers are invited to exhibit patients, pathological specimens, new drugs, instruments, and appliances at the commencement of the meeting.—ROBERT SAUNDY, M.D., 83A, Edmund Street; JORDAN LLOYD, F.R.C.S., 22, Broad Street, Birmingham, Honorary Secretaries.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

An ordinary meeting of this District was held at Daish's Hotel, Shanklin, on January 26th, 1888. The chair was taken by Mr. CHARLES MEERES.

New Members.—The following new members were admitted: G. Bernard Hoffmeister, M.D., Cowes; Henry Harland, M.D., Ryde.

The Heart in Phthisis.—Dr. ROBERTSON gave notes as to the results of a careful physical and sphygmographic examination of the heart and pulse in fifty cases of phthisis.

Demonstration.—Mr. ELLIS exhibited sections of a Carious Tooth under the microscope, showing the manner in which, after erosion of the enamel, the leptothrix buccalis inserted itself, wedgeshape, and split up the tooth, allowing decay to progress rapidly.—Mr. GREEN exhibited Tinea Trichophyton, and also photographs of the diseased and natural hairs as seen under the microscope; also Microsporon Fur-fur, Gregarines, the Bacillus of Anthrax, and Diplococcus of Pneumonia.

Antifebrin in Phthisical Pyrexia.—Dr. SINCLAIR COGHILL read a paper on this subject. He began by reference to his previous paper on the Action of Kairin, Thallin, and Antipyrin. He had entirely given up the two former, but had continued to employ antipyrin, but in cases in which that drug had failed to reduce temperature he had latterly employed antifebrin with much success; indeed, he thought it preferable to antipyrin. It produced no unpleasant effects, and seemed to be tolerated for indefinite periods. In commencing its administration it was as well to test the tolerance of the patient by giving a dose of 5 grains, but usually 10 grains would be found the best initial dose. The temperature should be taken every three hours, and a dose of from 5 to 7½ grains given each time it registered above 99°. He had found the control of the pyrexial state, when treated by antifebrin or antipyrin, much aided by giving tincture of strophanthus in doses of from 3 to 5 drops three or four times a-day, to sustain the action of the heart, and reduce the vascular tension, which was certainly increased by the action of these drugs. From 5 to 10 grains of quinine should also be given as often as the temperature was found under 98°. He also showed a chart of a case of enteric fever in which antifebrin had kept the temperature steadily under control.

Dinner.—The members afterwards dined together, and a pleasant evening was spent.

NOVA SCOTIA BRANCH.

THE third ordinary meeting of this Branch was held at the Hon. Dr. Parker's office, Halifax, on February 16th, 1888. Present: Deputy Surgeon-General MACDOWELL, C.B., President of the Branch, in the chair; Hon. Dr. Parker, Dr. Farrell, Surgeon-Major Bolster, A.M.S.; Dr. de Witt, Dr. Wickwire, Surgeon Deeble, A.M.S.; Dr. Trenaman, City Medical Officer of Health; Drs. Black, Campbell, Curry, Surgeon Fowler, A.M.S.; Surgeon Grier, A.M.S.; Drs. Cameron, Godwin and Chisholm; and Dr. Tobin, Honorary Secretary.

Injuries to the Eye.—Dr. TOBIN read notes of three cases of injury to the eye, involving the cornea and iris and the lens; in two instances producing traumatic cataract. In all, the wound was in the ciliary region or dangerous zone. In one the sclerotic had been freely opened, and required a suture to retain the contents of the globe; yet this case had recovered with a fair amount of vision. In all an indelible cicatrix occupied the area of the pupil, extending across the cornea, but leaving the rest of that membrane transparent. The eye, in all three cases, had been saved, and no sympathetic trouble had, so far, arisen though several months (in two of the cases) had elapsed since the receipt of the injury. The patients were brought in and examined by the members present.

Proposed Public Health Act.—A letter was then handed in from Mr. Bulmer, barrister-at-law, asking the help of the Branch towards procuring from the local Legislature a Public Health Act, the same being much needed in this province. The letter was discussed, and a Committee appointed consisting of three civilian (Drs. Trenaman, city medical officer; Drs. Campbell and Curry) and two military members (Surgeons Deeble and

Grier), to report upon the matter to the Branch at an extraordinary meeting to be held a fortnight hence.

Appointment of Treasurer.—Dr. TOBIN then proposed that a treasurer be appointed to collect subscriptions from members for the BRITISH MEDICAL JOURNAL, and to forward the same to the General Secretary in England; also to collect the local subscription for the Branch. A motion to that effect was moved and seconded, and carried, and Dr. Tobin was himself desired to act as treasurer as well as secretary to the Branch. The meeting then adjourned.

JAMAICA BRANCH.

THE annual meeting of this Branch was held at the Public Library, Kingston, on January 27th.

Office-bearers.—The following are the office-bearers for the present year:—*President:* Hon. J. C. Phillippo. *President-Elect:* Dr. F. H. Saunders. *Honorary Secretary and Treasurer:* Dr. G. F. Da Costa. *Members of Council:* Dr. A. L. Saunders; Dr. J. L. Cox; Dr. C. Gayleard; Dr. Plaxton; Dr. G. C. Henderson; Hon. C. B. Morse; H. Strachan; Dr. J. Scott.

Dinner.—The annual dinner was held in the evening at Park Lodge, at which eleven members were present.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

THE February meeting of the Branch was held at 198, Union Street, Aberdeen, on Wednesday, February 15th, at 8 P.M., Dr. URQUHART, in the chair.

Minutes and Nomination of New Members.—The minutes of the last meeting were read and approved, and seven new members were nominated for ballot at next meeting.

New Member.—Dr. J. Marshall Lamb, Borneo, was admitted a member of the Branch.

Medical Officer of Health for Aberdeen.—Dr. WIGHT proposed a motion that the Branch memorialise the Town Council of Aberdeen that the appointment of medical officer of health, at present vacant, be filled up by a qualified medical practitioner, who shall be precluded from private practice, and whose whole time shall be devoted to the duties of the office, in terms of the duties of the medical officer of health of the city of Aberdeen, of date March 15th, 1886.—Dr. URQUHART seconded the motion.—Dr. ANGUS FRASER moved as an amendment that the Branch do not memorialise the Town Council, on account of being beyond its province.—Professor STEPHENSON seconded.—The amendment being lost, Professor OGSTON proposed that the words following "private practice" in Dr. Wight's motion be altered to read "and who shall devote himself to sanitary and medico-legal work."—Professor STEPHENSON seconded this amendment, which was lost on being pitted against Dr. Wight's motion. The latter accordingly became the ruling of the meeting, and the secretaries were instructed to have the memorial prepared and submitted to the Town Council of the city.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

A MEETING was held at the Town Hall, Walthamstow, on Thursday, February 15th, at 8.30 P.M. Present, 21 members and visitors. Dr. ADAMS, Vice-President of the District, was in the chair.

Pernicious Anæmia with Jaundice.—Dr. BRISTOWE read a most interesting paper on Pernicious Anæmia with Jaundice, and Cases illustrating it, and he compared those cases with others of jaundice which were not due to pernicious anæmia. A discussion followed.

Specimen.—Mr. G. WELLER showed a specimen of typhlitis due to perforation of the vermiform appendix, and read notes of the case.

Votes of Thanks.—Hearty votes of thanks brought the meeting to a close.

SALOL IN CYSTITIS.—Professor Demme, of Berne, has recorded (*Therap. Monatshefte*) a case of cantharidin poisoning following the application of an enormous blister over the sacrum. The patient was a boy, aged 5, and the blister was recommended by a "friend" as a cure for nocturnal incontinence of urine. The general symptoms were very severe for two days, and subsequently the boy suffered from cystitis, which, however, yielded to salol. The quantity given daily was gradually increased from twenty-three grains to thirty-eight grains; improvement commenced on the second day, and the cure was complete on the fourteenth day of the treatment. In another case of cystitis, which had been caused by measles, salol was also given with benefit.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Transmission of Human Tuberculosis to a Cat.—Eye Lesions in Leprosy.—Pathogeny of Bright's Disease.—Treatment of Diphtheria.—Local Anæsthesia.—Enlargement of Supra-clavicular Glands in Uterine Cancer.—Salicylic Acid in Phthisis.—Pyridin Inhalations in Dyspnoea.—Preparations of Catgut.—Intramuscular Injections of Quinine in Malaria.—Heart Disease and Marriage.—Case of Narcolepsy.—Naphthol as an Antiseptic.

DR. LÉON PETIT, at the Société de Médecine Pratique (*Journal de Médecine*, January 1st, 1888), lately described a curious case of pulmonary tuberculosis transmitted to a cat by human sputa. M. Petit has already observed two cases of tuberculosis transmitted to dogs by human beings. The cat was in the habit of devouring the sputa of consumptive patients. This taste had become a passion; the animal followed the patients about, waiting for them to expectorate; it used to devour the tuberculous sputa which had served for microscopical examination in M. Petit's laboratory. After a time the following symptoms were observed: the animal grew thin, its hair stood erect, the eyes were blind, a mucous secretion escaped from the nostrils; there were attacks of sneezing and coughing, followed by vomiting. Koch's bacillus was detected in the secretion from the nose, which apparently proceeded from the bronchial tubes. At the end of two months and a half a complete change took place; the morbid phenomena became modified, and the animal appeared as if she were about to recover. She had seven kittens, one of which she nursed for five months, during which time she presented no symptoms of cachexia. A slight dry cough however persisted. Six months after the kittens were born the cat was killed. At the necropsy, the lower parts of both lungs showed signs of congestion. On cutting into the lung a small quantity of light, muco-sanguinolent fluid escaped. There was a collection of small, hard, cretaceous lumps in the lower part of the lower lobe, which gave a rough surface to this region. These little islets, which were of a grayish hue, were surrounded by a dense pale tissue. There were no lesions in the apex nor in the pleura. The peritoneum, intestine, mesenteric glands, kidneys, and liver were normal. Microscopical examination revealed alveoli in the indurations above described. These alveoli were filled with filaments which contained swollen and deformed epithelial cells. Ehrlich's process revealed the presence of a number of large bacilli collected in the periphery near to the hepatised spot. A few tuberculous bacilli were found in the muco-sanguinolent fluid which exuded from the small bronchial tubes. The tuberculous nature of the affection was unmistakable. Pregnancy had caused the appetite to return, and a consequent improvement in the animal's condition. M. Petit believes that had the cat lived, the improvement would have continued, and recovery would have ensued. It is admitted that the organisms of dogs and cats resist the introduction of tuberculosis; it is therefore probable that they are equally refractory to the evolution of the disease.

Professor Poncet, of the Val-de-Grace, has lately studied the lesions produced in the eye by tubercular leprosy. He examined in Mexico, a number of cases of leprosy, which he divides into three forms: the leonine, or tuberculous; the antonine, nervous or mutilating; and the macular, lazarine or ulcerated form. He has received from Dr. Lambucco some water-colour drawings of leprosy ocular lesions, and also two entire eyes of lepers. Dr. Poncet says, that in the eyelids the bacilli of leprosy soon leave the epidermis to attack the deeper parts. It is the same on the mucous surface; the epithelium is respected. The cornea is invaded from periphery to centre, and the accumulation of microbes may cause abscesses. The microbes penetrate the back of the eye through the zone of the pericorneal circle; from this point the parasite reaches the iris and the ciliary processes, becoming more and more rare towards the optic nerve. It seems, therefore, that the microbe of tuberculous leprosy seats itself in the conjunctival tissue, in the cells and sacs, after passing through the cutaneous epithelium, and penetrates but slowly into the special tissues, sparing the glandular epithelial elements, without taking the vascular or nervous road. It forms at first a limited superficial

lesion, and the tubercle may not be the sign of an affection already generalised. This view may be of capital importance in therapeutics.

At a recent meeting of the Société Médicale des Hôpitaux, M. Gaucher read a paper on Bright's disease, in which he maintained that the ordinary pathogenic conditions which caused parenchymatous epithelial nephritis were due to an excessive proportion of extractive principles in the organism. The epithelial form of Bright's disease might be caused by these conditions alone. If chronic nephritis resulting from some other anterior cause existed, the renal mischief would be aggravated by defective elimination of the extractive matter. From these facts M. Gaucher deduced valuable therapeutical indications; for instance, the danger of administering meat broth to patients suffering from Bright's disease. He considers that extracts of meat in different forms, besides containing toxic mineral salts, such as salts of potassium, contain organic poisons highly injurious to sick and even to healthy persons.

M. Gaucher also read a paper on the treatment of diphtheria by removing the false membranes, and cauterising the places from which they were taken with a concentrated solution of carbolic acid. He dissolves 5 to 10 grammes of carbolic acid in 10 grammes of alcohol, and adds to this mixture 15 to 20 grammes of camphor with a small quantity of oil. M. Gaucher obtained excellent results with this treatment in two cases. M. Joffroy stated that he employed chloral as a local application in diphtheria. This substance had more powerful parasiticide properties than carbolic acid. M. Joffroy washed the throat with a 2 per cent. solution of chloral; he then applied a one-fifth solution to the false membranes, which disappeared; the throat remained ulcerated; the application of the solution was continued. By this means diphtheritic angina was transformed into erythematous angina. This treatment could not be applied to children. M. Gaucher stated that he had tried chloral, but had found carbolic acid more efficacious. M. Blachez believed that false membranes might be destroyed in a less painful manner with petroleum oil. M. Gaucher remarked that the special object of his treatment was to destroy the false membranes in order to prevent secondary infection. M. Richard stated that the addition of one half per cent. of tartaric acid rendered carbolic acid much more powerfully antiseptic.

The *Gazette des Hôpitaux* of February 2nd publishes a summary of a report made by M. Vidal at the meeting of the Académie de Médecine, on January 31st, on a note by Dr. Bailly concerning a new method of local refrigeration by chloride of methyl. M. Bailly concludes, from numerous experiments, that plugs of which the centre is formed of dry cotton-wool and the periphery of floss silk, the whole surrounded by gauze, constitutes the best agent for imbibing and preserving the refrigerant liquid; two-thirds of cotton-wool to one-third of floss silk are employed. By a prolonged application of these plugs, saturated with chloride of methyl, M. Bailly has soothed the pain in 26 cases of toothache, and in 9 cases of facial neuralgia. Out of 10 cases of sciatica, he obtained successful results in 8. In 62 cases of different forms of neuralgia, recovery was almost invariably the result of this treatment. Of 16 cases of lumbago, 14 were rapidly cured. MM. Dieulafoy, Buequoy, Féréol, Lailler, and Pozzi have employed this method to soothe the internal pains. M. Bouchard has found it efficacious in intercostal neuralgia, torticollis, muscular pains, lumbago, toothache, and in one case of lead colic and one of gastric attacks of tabetic origin. M. Bouchard found that, at certain times it relieved dyspnoea in an emphysematous, asthmatic patient. M. Bailly has employed this method to obtain local anæsthesia before opening abscesses, incising whitlows, removing growths, and in anal fistula. M. Vidal stated that he had performed over 120 operations of different kinds during anæsthesia induced by M. Bailly's method, which was applied about 300 times in these cases in which the operation could only be completed in several sittings. M. Bouchard remarked that M. Bailly had preferred M. Debove's method. M. Bouchard has substituted the reflected action produced by refrigeration for the actual cautery with advantage, especially in the treatment of uterine affections. M. Besnier believed that M. Bailly's method might prove of great service when applied to the mucous membranes, but added that it would be advisable to interpose a piece of plaster. A vote of thanks to M. Bailly for having perfected a valuable method of local refrigeration was proposed by Dr. Vidal, and was unanimously adopted.

The *Gazette des Hôpitaux* of January 21st publishes a report presented by M. Troisier to the Société Médicale des Hôpitaux, at the

meeting of January 13th, on M. André Petit's observations on the existence of enlarged supra-clavicular glands in cases of cancer of the uterus. M. Troisier stated that he had met with several cases of uterine and ovarian cancer, accompanied by enlarged glands, in the supra-clavicular region in which no intermediary glands could be detected elsewhere. This symptom may also be met with in cancer of the abdomen as well as in cancer of the stomach or of the thorax. It should be looked upon as contra-indicating surgical interference in such cases.

The *Revue de Thérapeutique* of February 1st contains a note on pulmonary tuberculosis by Professor Jaccoud. He regards it as an acute infectious disease. The only effectual method of treatment is to substitute the form which develops slowly, and may, therefore, be arrested, for the form which develops rapidly and quickly proves fatal. It is generally admitted that salicylic acid is the best agent for reducing the fever, which is the chief factor in producing the pulmonary lesions. This substance should be given in doses of 2 grammes daily for three days, and in doses of $\frac{1}{2}$ gramme the three following days. The doses are then suspended for two days, after which they are resumed as before. If the fever diminishes, 1 gramme of salicylic acid is then administered daily.

Dr. W. Relemen has observed the following results in the course of his experiments with inhalations of pyridin. In nineteen cases of dyspnoea caused by different lesions of the heart and lungs this remedy invariably produced beneficial results. Pyridin is an energetic anti-asthmatic agent, and is principally efficacious in asthma of nervous and cardiac origin. In emphysema it acts merely as a palliative, its beneficial effects lasting from eight to twelve hours.

At a recent meeting of the Surgical Society, M. Lucas-Championnière showed different samples of catgut, prepared in various ways, some by the ordinary method, and others by a special process which renders it very resisting, even when dry. This catgut is made from three different kinds of sheep's intestine twisted together, and is far superior for ligatures to the *mî* fiddle string which is usually employed. M. Pozzi highly extolled the method of preparing catgut with oil of juniper wood, which renders it supple without making it less resisting.

The *Journal de Médecine* states that hypodermic and intra-muscular injections of hydrochlorate of quinine are most effectual in obstinate cases of malaria, when internal treatment has proved inefficacious. One-third of hydrochlorate of quinine is mixed with two-thirds of water. The alkaloid is dissolved by the action of heat. A Pravaz's syringe is introduced perpendicularly in the gluteal region, and fifteen centigrammes of the salt are injected. This method is not painful, and neither irritates nor hardens the tissues.

With regard to the question whether young girls affected with an organic lesion of the heart should be allowed to marry, Professor Jaccoud, in opposition to the views expressed by Professor Peter, believes that no absolute rule can be laid down. If the valvular lesion has never produced disturbance, then marriage is permissible. If symptoms of asystolia (especially in lesions of the mitral valve) have been observed, then there is considerable risk in marrying. Pregnancy would be very dangerous, on account of the pulmonary congestion which it would cause.

A case of narcolepsy was recently treated at the Hôpital St. Antoine, by Dr. Dieulafoy. The patient, aged 16, a waiter in a wineshop, complained of attacks of irresistible drowsiness, recurring at short intervals. His grandfather was asthmatic, and his father died of diabetes, but there was nothing otherwise worthy of note in the family history. The patient was not a drinker, and had never had syphilis or malaria. He had a sister, aged 17, who was decidedly hysterical. From the age of 7 up to the present year he had always suffered from a slight tic of the head and neck, causing him every now and then to raise the head suddenly and turn it to the right, the mouth being at the same time drawn the same side. A short time ago he contracted itch, for which he was treated at the Hôpital St. Louis, where he underwent the usual "scrubbing." Three days afterwards the sudden attacks of sleep commenced. At any moment, while he was standing walking, even at meals, his eyes would suddenly close, his head droop, and he would fall sound asleep for twenty, forty, or sixty seconds, sometimes longer; he would then as suddenly awake and instantly recover consciousness. These attacks were more frequent in the afternoon and after meals; they amounted to seven or eight in the course of an hour, and to upwards of 200 during the day, there being sometimes as many as three or four in fifteen

minutes. The attacks could always be brought on voluntarily by inclining the head forward, and the patient could not pick up anything from the floor without instantly falling asleep and falling violently forward on his face. His sleep at night was natural and quiet, but on awaking he felt fatigued, and his limbs were heavy. His health was otherwise good. The sight was good, the hearing normal. Careful examination revealed a slight degree of anaesthesia on the arm and chest on the left side; on auscultation a slight systolic *souffle* of the heart, more distinct towards the base, could be heard. The urine showed no trace of sugar or albumen. Dr. Dieulafoy prescribed 2 grammes of bromide of potassium daily, and cold shower-baths every morning. There was rapid improvement; the attacks diminished in number, and the patient was soon able to resume his occupation, which was very fatiguing, as he never got to bed till 2 o'clock in the morning, and had to get up again between 6 and 7. The treatment was continued for three months, when the bromide causing nausea, he ceased taking it, but went on with the douches three times a week. The attacks ceased almost entirely, except in the evening between 6 and 7 o'clock, before supper, when he still fell asleep suddenly, in whatever position he happened to be, remaining unconscious for about half an hour. On the days he had the douche this attack often did not occur. In March, eight months after the first attack, he was almost cured; he seldom fell asleep, and could even stoop and pick up things from the floor without inconvenience. A year after the onset of the symptoms the cure seemed to be complete. There was still slight anaesthesia of the left arm and on the left side, between the third intercostal space and a transverse line crossing the umbilicus. The cardiac *souffle* was no longer perceptible. Dr. Dieulafoy believes that the case was one of hysteria, probably brought on by the "scrubbing" to which the patient was subjected for itch, and that it was a degeneration in the neuropathological sense.

M. J. Maximovitch has determined the antiseptic properties of naphthol by comparing fourteen different microbes in nutritive solutions, containing different proportions of naphthol-x, thus ascertaining the proportion of naphthol which retards or prevents the development of each microbe. In ordinary cultivation broth, 0.10 gramme of naphthol per 1,000 entirely prevents the development of the microbes of glanders, mammitis of sheep, chicken cholera, bacteridian ulcer, micrococcus of pneumonia, the two organisms of suppuration—staphylococcus albus and staphylococcus aureus—the microbe of Biskra pustule, tetragenes, the bacilli of typhoid fever, and pigeons' diphtheria. Naphthol-x, in the proportion of from 0.06 to 0.08 gramme per 1,000, retards (from three to eight days) the development of the same microbes, and prevented it entirely in the cases of bacteridian ulcer, typhoid fever, and the two staphylococci of suppuration. Though the same doses of naphthol-x in gelatine, as in broth, suffice to prevent the development of microbes, in gelose 0.12 gramme to 0.15 per 1,000 are necessary to prevent the development of those of mammitis of sheep and Biskra pustule. For the destruction of the other microbes the doses are the same as those indicated for cultivation broth. In the proportions of 0.20 to 0.25 gramme per 1,000 naphthol-x entirely prevents the germination of the tubercle bacillus; in the proportion of 0.10 gramme it retards it. In doses of 0.20 gramme and of 0.35 to 0.40 gramme in solids, naphthol-x completely destroys the multiplying power of the bacillus pyocyanus and bacillus chromogenes of MM. Charrin and Roger. Urine does not ferment when shaken up with naphthol-x, either in solution or in powder. Human faeces cause only a slight cloud in cultivation broth containing naphthol-x in the proportion of 0.10 to 0.12 gramme per 1,000. Naphthol-x is nearly three times less poisonous than naphthol-b, and nearly seven hundred times less poisonous than bi-odurate of mercury. It would take a dose of 585 grammes of naphthol-x to kill a man. Albuminuria is produced by subcutaneous injection of 2 grammes in a saturated alcoholic solution; the injection of 3.5 to 4 grammes per lb. causes death. When injected into the portal system, naphthol-x is not poisonous in different degrees, as is the case with naphthol-b. These results, when compared with those obtained by M. Bouchard with naphthol-b, prove the inferiority of the latter, which is more poisonous and less valuable as an antiseptic.

THERMAL SPRINGS OF NEW ZEALAND.—The sum expended by the Government of New Zealand for improvement of the thermal springs was £7,814 in 1886, and £3,200 in 1887; £300 will this year be expended, principally on the completion of the water-supply at Rotorua, and in the planting and improvements of the baths and grounds.

SAN REMO.

[FROM OUR OWN CORRESPONDENT.]

SINCE writing to you last the Crown Prince has made a slight improvement. The mucus is still tinged with blood, however, more so, I believe, than the physicians care to admit. At the time when the slough separated the expectoration was, as might have been expected, discoloured to a certain extent, but this tinging had ceased altogether for a week or two before the operation. Two days after tracheotomy had been performed great quantities of mucus began to be discharged, tinged freely with blood. A number of tubes of different angles, curves, and lengths, have been tried, but slight hæmorrhage still continues. It is stated that Professor Bergmann believed that a secondary deposit had taken place in the lungs; and, although Sir Morell Mackenzie would not agree to this view, he raised no objection to Professor Kussmaul being called to determine the matter. The eminent professor of Strasburg University arrived here on Saturday evening, and a consultation was held on Sunday morning. No disease of the lungs could be detected. I hear that Professor Kussmaul takes an unfavourable view of the case entirely, from the microscopic examinations made at San Remo. Sir Morell Mackenzie, however, without wishing to discredit these investigations made by the German surgeons, naturally attaches more importance to the examinations made by Virchow, and is not prepared to assume a different attitude in the case, unless a microscopist of equal standing to Professor Virchow (who is now gone to Egypt) states that he has found nest-cells in the deep tissues or an alveolar structure.

The last few nights have been decidedly better—less coughing and more sleep—and the patient has been able to take some walking exercise on the balcony in front of the house. This he does with apparent strength and vigour, and as I saw him to-day (February 27th) one would little think what he has undergone.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Gaseous Treatment of Lung Disease.—Hygiene in Austria.—Legacy to the Imperial Royal Society of Physicians.

IN a recent number of the *Wiener Medizinische Presse* Dr. Anton Karika gives some important details as to the treatment of pulmonary affections by inhalations of sulphuretted hydrogen and carbonic acid. He had used these inhalations in the case of pulmonary tuberculosis during several years. He had already, in 1887, reported the case of a girl affected with tuberculosis, whom he had treated with inhalations of carbonic acid without having obtained the results desired. As to the results which he had obtained with inhalations of sulphuretted hydrogen, he could give the following particulars, basing himself on observations made on more than fifty patients: 1. In several cases the very first inhalations with sulphuretted hydrogen gave a certain amount of relief. The cough and dyspnoea diminished, the expectoration became easier, and the patients felt refreshed and invigorated. In some this improvement took place very rapidly, so that after three or four inhalations they declared themselves to be cured. In other cases this result was obtained much later, and in others not at all. 2. A special advantage of the inhalations with sulphuretted hydrogen consisted in the fact that the vital powers of the patients were not impaired, as was the case after the use of antiepileptic narcotics. 3. No radical cure with these inhalations was observed in any case. Among the tuberculous patients treated with sulphuretted hydrogen inhalations six years ago, three were still living, who were said to be healthy; among these was the girl referred to above. They were, however, also treated with other medicaments, and especially with antiphlogistic remedies. 4. Only the first inhalations produced any appreciable good effect; after the eighth or tenth inhalation the condition of the patients underwent no change, so that it seemed to be useless to continue the inhalations. 5. In cases of relapse—namely, when the cough, etc., came on again, the inhalations generally did no good. 6. The best effect with the inhalations was obtained in (a) rapid breaking down and suppuration of large tubercular foci in the lungs, (b) inflammatory irritation of the walls of the pulmonary cavities, (c) acute or chronic irritation of the bronchial mucous membranes, (d) paroxysmal cough. 7. The sulphuretted hydrogen inhalations did good in about 60 per cent. of the patients thus treated. It must, however, be added that the author had used this course of treatment

most frequently in severe and advanced cases of pulmonary tuberculosis. 8. The inhalations caused patients no discomfort, and were well tolerated by feeble and sensitive women and children. These observations, in Dr. Karika's opinion, proved that sulphuretted hydrogen was not a specific remedy against tuberculosis; it was, however, an agent which sometimes produced excellent results in tuberculous persons, which we were quite incapable of obtaining by any other means. The observations showed, moreover, that (1) by means of sulphuretted hydrogen alone, without being mixed with carbonic acid, the same results could be obtained as those produced by the intestinal injections recommended by Dr. Bergeon; (2) this effect could also be obtained by inhalations. The use of this treatment would thus be more general and could be used without expensive apparatus, and without causing disgust to patients.

The establishment of an Austrian Sanitary Board ("Gesundheitsamt") on the model of the German one, was, as is well known, proposed long ago. The committee to whom the preparation of the scheme was entrusted recently recommended to the Austrian Parliament the adoption of the following resolutions: The Imperial and Royal Government is requested to: 1. (a) Create in each medical faculty special chairs for the teaching of hygiene and bacteriology, and to supply them with the necessary means; (b) to issue a decree making the study of hygiene compulsory in future for ordinary students in the Austrian medical faculties. 2. To improve the organisation of the public sanitary service by increasing the number of State medical officers, and nominating sanitary inspectors. 3. To increase the influence of the *landes-sanitätsräthe* (country sanitary councillors) and the *oberster-sanitätsrath* (superior sanitary council) by the appointment of well-known specialists in hygiene, architecture, statistics, etc. 4. To give the public sanitary officers greater independence in their relations with the political authorities. 5. To make adequate provision for the creation and endowment of laboratories for chemical and microscopical examinations. 6. To take care that the druggists should have a more thorough practical education at the beginning of their career.

At the last meeting of the Imperial Royal Society of Physicians, the President, Hofrath Bamberger, informed the members that, under the will of a Portuguese physician, the late Dr. Da Costa, the Society had received a legacy of 12,000 florins.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Petition of the Engadine Hotel-keepers; Decision of the Federal Council.

THE question relative to English practitioners in the Grisons (*vide* JOURNAL, February 18th, p. 374) has entered upon a new and more important stage. The Engadine hotel-keepers addressed a petition to the Grisons Kleiner Rath, requesting that English medical practitioners settled in the Engadine who wished to obtain a Swiss diploma should be permitted to be examined in their native tongue. This petition was immediately referred by the Kleiner Rath to the Bundesrath. We learn from an official report in the *Bund* (February 25th, 1888) that the Federal Council, having duly considered the petition at their meeting on February 24th, flatly refused to comply with the request, for the following reasons: First, because such a permission would be a privilege granted to English practitioners which is denied to the Swiss medical man in Great Britain; and secondly, because, if such a favour were granted to English practitioners, the Bundesrath would be logically bound to extend the same facilities to medical men of any other nationality or language, which would lead to obvious practical inconveniences. In coming to this decision, the "Federal fathers (*Bundesvaeter*)" have not, perhaps, displayed their usual sagacity. The decision cannot possibly satisfy either their petitioners and the important section of the Swiss population connected with the "hotel industry," or, indeed, anyone of ordinary common sense outside official circles. Of course, it is a great pity that there does not yet exist anything like an international right of medical practice, and that, amongst other things, the Swiss medical man, on his coming to England, is not even allowed to pass his examinations in his native (German, French, or Italian) tongue. The Swiss Federal Council might find many less important matters to occupy itself with than, for instance, the initiation of a reform in this direction, as it has already more than once tried to do, with regard to the

international regulation of factory labour, and the establishment of an international standard of working hours, etc. Its present line of policy in relation to English practitioners appears to be purely vindictive. The attention of the Bundesrath ought to be drawn to the following simple facts: Their singularly beautiful and attractive little county, with its industrious and kindly population, is a convenient and excellent health resort. (see the *Journal*, June 18th, 1887, p. 1359), which does an immense amount of good to mankind, by giving year opportunities to legions on legions of people to restore their shattered physical and mental health, or to recruit their strength, exhausted by overwork. A very large proportion of the foreign visitors are English or English-speaking. The Bundesrath will probably admit that a well-organised medical service at every health resort is as essential and reasonable a condition as good sanitary surroundings. Patients, rightly or wrongly, prefer to be treated by their own fellow-countrymen, who know more of what may be termed their national constitution, and are, therefore, more likely to select remedies suited to each individual case than a foreigner, however learned and skilful in his profession.

In conclusion, we cannot help thinking that the fears of the Federal Council as to other nationalities claiming to be examined in their native tongues are quite groundless. A couple of years ago English medical students in Switzerland could claim to be examined in English, and even published their inaugural dissertations in that language. In spite of this "privilege" nobody—no Russian, Servian, Spaniard, or Chinese—ever came forward to claim similar rights. We may assure the Bundesrath that if they had granted the prayer of the Engadine petitioners nothing of a revolutionary nature would have taken place in respect of medical examinations. The matter really concerns one of the three principal languages of this curious world, because everyone might naturally expect that such a highly educated person as a professor would know English as well as German and French. On the other hand, there does not yet exist any other human speech (except, perhaps, Volapük) which can claim to be regarded in the same light as the three named above.

CORRESPONDENCE.

THE ELECTRICAL TREATMENT OF UTERINE TUMOURS.

SIR.—Dr. Apostoli's wrath carries him far beyond the point up to which it is necessary for me to follow him after I have said that you have granted him most unusual grace in taking up a dispute from the columns of another journal; I, therefore, shall be brief.

I spent last Easter week in Paris as the guest of one of its most distinguished gynaecologists, and during that time I met nearly all the gynaecologists of that city whose names were known to me. My astonishment was not small, therefore, when a few weeks afterwards I read in your columns such glowing accounts of Dr. Apostoli and his electrolysis, that I had never heard his name nor anything of his treatment from friends in Paris, who, one and all, evinced the utmost anxiety to show me everything worthy of notice.

On my return to England I wrote asking several of them if it were worth my while to return to Paris to see about this new method of treatment. They all replied that it was not, and within a month I had letters indicating deaths traceable to Dr. Apostoli's treatment in six instances. I am not in a position to publish these letters, but that they exist is easily proved. You, Sir, have had at least two of them in your hands and have read them.

I said (December 17th) that the treatment must be tried. It has been, and I have heard nothing yet that will induce me to give it any countenance. It is a significant commentary on Dr. Apostoli's letter that by this morning's post I have been summoned to Paris to a patient "atteinte d'une tumeur fibreuse que la fait garder le lit depuis dix mois et la met dans l'impossibilité de la rendre chez vous. Elle est abandonnée de tous les médecins." Are Dr. Apostoli and his electrolysis still unknown in Paris, or what other explanation is there of this curious fact?—I am, etc.,

LAWSON TAIT.

SIR.—As one of the English surgeons who have profited by M. Apostoli's teaching, and as I have put the teaching into practice, I may be considered to be in a position to say something on the question. In the first place, I have seen no appearances threaten-

ing danger to life from the use of electricity, and I have now used it sixty-two times. Secondly, I have used it in seven cases of uterine myoma, and of this number three are already practically cured, the tumours being so much reduced in size as to have become insignificant. As I only began the electrical treatment in December, I claim that three recoveries out of seven cases in the short space of about two months quite equals the success obtained by castration operations. Indeed, I look upon the latter as regards the treatment of the tumours under discussion as dead as amputation of the finger for whitlow. Wiseman was a good surgeon, no doubt, in Charles II.'s time, and when he advocated amputation for whitlow, the treatment he recommended was right and proper, and remained so until a better became known. So castration for myoma was right and proper in its day, before the safer, quicker, and surer method introduced by Dr. Apostoli became known; but the former treatment by castration is now, as I said before, as much a thing of the past as amputation for whitlow.—I am, etc.,

J. E. BURTON,

Liverpool, February 27th.

L.M. COOMBE HOSPITAL, DUBLIN.

SIR.—It is interesting to read together your leading article in the *JOURNAL* of February 11th on the "Dublin Schools and their Teaching," and the paragraph in the *JOURNAL* of February 18th, on the prosecution for illegal practice of the man Middlebrook, who sheltered himself under the Coombe Hospital, Dublin. But it is still more interesting to inquire about this hospital, which, according to the "master," gives a "qualification" of "L.M." to anyone "who attends thirty cases of labour in the hospital in a period of six months," and of course pays a fee and passes an examination in "midwifery and diseases of women and children."

The candidate need have no other qualification; more than that, he need have had no other hospital training, need not know anything of anatomy, physiology, or pathology, and need never have dissected! What a farce this is!

It is all very well for the authorities of the Coombe Hospital to say, "the L.M. does not license a man to practise, as it cannot be registered," but they know that men do practise on it alone, and represent themselves to be qualified in virtue of the "L.M.," and why do they not interfere to stop it? Is it because they are willing for a fee to act as cloak to unqualified practice?

In my own neighbourhood is a man, imperfectly educated and without any hospital training, who, having acted for years as dispenser and assistant, and having been summarily dismissed by his employer, goes over to Dublin for six weeks (or less), takes his "L.M.C.H.," returns brandishing his "diploma," calls himself qualified, sets up for himself, is appointed "surgeon" to various friendly societies, vaccinates, signs death certificates, and even gives evidence at an inquest! Is not this a case for the Medical Council?

If the Coombe Hospital would confine itself to relieving humanity and imparting special instruction to those qualified to learn, well and good; that is what the special women's hospitals and chest hospitals of London do, and do well, but they do not pretend to give "qualifications" (L.M.'s or L.Chests) to men without any training. That the Coombe Hospital should do this appears to me to be a great scandal, and one that calls for exposure and discussion in the *JOURNAL*.—I am, etc.,

MAURICE PARRY JONES, M.D.Lond.

Pinxton, Alfreton, Derbyshire.

February 23rd.

PROTECTION IN THE STATES.

SIR.—A paragraph appeared in the *JOURNAL* of January 21st, headed "Protection in the States," in which it was stated that there was a probability of Dr. Heneage Gibbs being prevented from taking up the engagement at the University of Michigan which he had accepted. I am happy to say that I have received a letter from Dr. Gibbs, informing me of his safe arrival at the university, and of the kind reception he received. From this I conclude that no difficulty was raised against his entering on the duties of Professor of Pathology—the chair to which he has been appointed.—I am, etc.,

F. DE HAVILLAND HALL.

47, Wimpole Street, W., February 20th.

ACCIDENT TO A MEDICAL PRACTITIONER.—Dr. Nelson, of Belfast, by a fall from his horse while out hunting on Saturday, February 25th, sustained a fracture of the right arm.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CHARGES TO PATIENTS.

T. P. S.—A rector in the position to maintain an establishment consisting of a cook, housemaid, nurse, groom, and pony carriage, cannot be regarded (his own statement to the contrary notwithstanding) as a "poor" clergyman, and as such, under the "true Samaritan" rule of the profession, entitled to a greater or less reduction of the usual medical fees, much less to gratuitous medical attendance, as would seem to have been the case in one or more instances. Be that as it may, an independent examination of the respective items specified in our correspondent's statement of account, and a subsequent comparison with the fees suggested in the Medico-Chirurgical Tariffs, leave no doubt upon our mind that the charges made in the cases in question are very moderate.

T. P. S. may, we think, consult with advantage the new edition of the Medico-Chirurgical Tariffs, in which the question of charges to the clergy is reviewed.

ASSISTANTS AND PARTNERS.

R. L. D. writes: I came here as temporary assistant, and in doing so signed the usual bond not to practise within a certain distance for five years unless under written authority. I am now to be adapted as partner (paying for my share). If we separate by the present principal's desire, say, after five or six years, does the bond still hold good for a further period, or does the partnership deed absolutely set it aside?

"* Without seeing the exact words used in the bond, it is impossible to say what it does or does not prohibit. The safe course is to have words inserted in the partnership deed putting an end to the previous agreement, and providing for what is to happen at the termination of the partnership.

LEASES FOR LIVES.

AN OLD SUBSCRIBER writes: Is there any law to prevent one's life being put on property against his consent? In addition to taking such a liberty some time ago, as mine is now the last life on very considerable and valuable property, I was asked to submit to an examination by an insurance agent and medical man in order that my life might be insured to compensate for the loss of property at my death. This I very promptly declined, but my death would mean the falling to the lord of the manor (not too rich a man) of the valuable property above named.

"* We presume the question refers to a lease for lives. We know of no law to prevent the life of a stranger being inserted in such a lease; and the names of people of public position have often been selected. The person whose name is inserted is, of course, under no obligation to submit to a medical examination for the purpose of insurance. It has been proposed to forbid leases for lives altogether.

GRATUITOUS ATTENDANCE ON MILITARY MEDICAL OFFICERS' WIVES.

AN EX-BRANCH-PRESIDENT writes: I am in consulting and general practice. Plenty to do. Have a good reputation as a skilful and successful accoucheur. In consequence, I am called upon to attend the wives of naval and military hospital medical officers here. I have spent a whole night in a house, and concluded labour by a very difficult forceps operation above the brim, successfully all round. Paid cab-hire, bridge-tolls, etc., throughout five weeks, more than once. Get verbal thanks. One case is coming off again I am told, and I am asked to attend. Ought I not clearly to have a fee? The husbands, though medical men, are not civil practitioners, and therefore not obstetricians. It is a very serious matter to be detained from one's patients, and have to render skilled aid at such a cost to one's self. If in civil life or circles recommendation might result, but as it is, such runs on the same lines.

"* In response to our correspondent's request, we would remark that, although it has always been (so far as our personal knowledge extends) the rule and custom, as laid down in the Code of Medical Ethics, that "all legitimate practitioners (naval, military, and civil alike) of medicine, their wives, and children while under the paternal care, are entitled (not as a matter of right, but) by professional courtesy to the reasonable and gratuitous services of the faculty resident in their immediate or near neighbourhood whose assistance may be desired," it is as distinctly emphasised therein that "railway and like expenses are excepted;" our correspondent, therefore, is clearly and justly entitled to all expenses out of pocket, such as the cab-hire, bridge-tolls, and the like.

It may be well to add that it is not of infrequent occurrence, especially in cases which give rise to unusual fatigue, anxious responsibility, and prolonged attendance, that an honorarium, in some form or other, is presented (and rightly so, we think) to the attendant practitioner by a grateful patient or family.

ANNÓYED.—If the facts of the case be as related by "Annoyed," the conduct of Dr. A. in officiously obtruding himself on the patient, and subsequently repeating the visit, and proceeding to examine him, regardless of the fact previously made known to him (Dr. A.) that Mr. B. was in professional attendance, clearly constituted a gross breach of medical etiquette, which, if renewed, can scarcely fail to evoke severe professional censure.

LUNATIC IN SINGLE CHARGE.

R. W. D. asks: Is it legal for a qualified medical man or a layman to have supervision over a patient who has been under charge of a private lunatic asylum without being certified?

"* No, not legal, without compliance with statutory requirements as to order and certificates of insanity, transmission of copies, and visitation by lunacy authorities, etc.

NAVAL AND MILITARY MEDICAL SERVICES.

THE ARMY ESTIMATES.

In anticipation of the discussion on the Army Estimates, which is put down for Monday next, the Secretary of State for War has, in accordance with the precedent of last year, issued a memorandum which replaces the verbal statement formerly made by the Minister in the House of Commons.

The memorandum states that there has been a decrease of 200 in the Medical Staff Corps, and that it had been decided during the year to enlist men for the Royal Engineers, the Commissariat and Transport Corps, and the Medical Staff Corps, for three years' service only with the colours. "This is an important step, which will, as time goes on, materially increase the reserve of these valuable corps."

The Secretary of State makes the following reference to the question of finance:

"The cost of the Army Medical Department (Vote 4) has undergone careful examination; the rapid growth of the charge for non-effective services having called special attention to the present system. The scale of remuneration now in force was adopted on the report of a committee, which sat in 1878, to consider the grievances of the department, and the disinclination of the profession to enter its ranks. But it is obvious that a system which offers inducements to officers to retire upon a pension after only twenty years' service is expensive to the State; and not even acceptable to that large section of the profession who, while feeling themselves unfitted for further service abroad, are ready and anxious to continue their duties at home stations. It is proposed to utilise in this manner the services of a large number of retired officers, and, further, not to allow any medical officer to retire on the pension attached to his rank until he has served in it for a reasonable period. By these means a large reduction will be effected in the pension list; while, by extending the term of foreign service by one year, and by other steps now under consideration, we hope to make a considerable reduction in the establishment. For the present, therefore, all admissions to the Service are suspended, and it is probable that by the end of the financial year twenty-eight officers will have been absorbed. The net result this year is a saving of £19,100; but the effect of these changes, especially upon the non-effective votes, will be more marked in future years."

It is added that it has been found possible to dispense with a deputy surgeon-general at headquarters.

THE INDIAN MEDICAL SERVICE.

The following is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination recently held at Burlington House. Seventy-three candidates competed for fourteen appointments. All were reported qualified:—

	Marks.		Marks.
Marshall, D. G.	3,410	Gray, W. H.	3,110
Moir, D. H.	3,355	Gee, F. W.	3,100
Roberts, J. B.	3,350	O'Gorman, B. W.	3,100
Whitechurch, H. F.	3,275	Pereira, F. C.	3,080
Arnin, H. C. L.	3,250	Prasad, K.	3,080
Grant, A. E.	3,160	Mould, G. T.	3,070
Hejel, J. G.	3,145	Thomson, G. S.	3,070

THE NAVY.

STAFF-SURGEON G. H. MADELEY has been promoted to the rank of Fleet-Surgeon. He was appointed Surgeon, July 5th, 1867, and Staff-Surgeon December 29th, 1878.

THE MEDICAL STAFF.

SURGEON G. S. ROBINSON, of the Scots Guards, is promoted to be Surgeon-Major, in succession to Brigade-Surgeon W. H. Lane, retired. He entered the service March 6th, 1880, when he was sent to Bombay. In the early part of 1881, however, he was appointed to the 2nd Scots Guards, and has remained with that corps ever since. He served with his battalion in the Soudan campaign in 1885, and was present in the engagement at Hasheen and at the destruction of Tamal (medal with clasp and Egyptian bronze star).

THE VOLUNTEERS.

SURGEON W. O. BLACKETT, 4th Volunteer Battalion, Durham Light Infantry (late the 4th Durham), is granted the honorary rank of Surgeon-Major.

Honorary Assistant Surgeon W. F. M. JACKSON, 1st Volunteer Battalion South Staffordshire Regiment (late the 2nd Staffordshire), is appointed Acting Surgeon.

Acting Surgeon W. E. GASCOIGNE, 1st Volunteer Battalion West Riding Regiment (late the 4th West Riding), has resigned his appointment, which was dated December 7th, 1881.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN 1887.

In the accompanying table will be found summarised the vital and mortal statistics issued by the Registrar-General in his weekly returns relating to the twenty-eight large English towns. Weekly summaries of these statistics have already been published in these columns.

During the year 1887 the births of 296,951 children were registered in the twenty-eight large English towns, equal to an annual rate of 32.2 per 1,000 of their aggregate population in the middle of that year, estimated at 9,250,000 persons. This birth-rate showed a further decline from that recorded in recent years; indeed, since 1876, when the birth-rate was as high as 38.1 per 1,000, it has year by year steadily declined. In London the birth-rate last year was equal to 31.7 per 1,000, while in the twenty-seven provincial towns it averaged 32.7, and ranged from 25.8 in Brighton and 27.7 in Bradford and in Huddersfield to 38.5 in Preston, 39.1 in Newcastle-upon-Tyne, and 41.1 in Cardiff.

The 191,887 deaths registered last year in the twenty-eight towns were equal to an annual rate of 20.8 per 1,000 of their estimated population, which, with the exception of the rate in 1885, which was only 20.6, was lower than in any year on record. During the ten years 1871-80 the rate of mortality in the large towns dealt with by the Registrar-General averaged 24.0 per 1,000. During the first seven years of the current decade, 1881-87, the death-rate in these towns has not exceeded 21.4 per 1,000. This reduction in the death-rate implies that nearly 162,000 persons in these twenty-eight towns were alive at the end of last year whose deaths would have been recorded therein had the mean rate of mortality equalled that which prevailed during the ten years 1871-80. It may be noted here that the estimated saving of life in England and Wales during the same period of seven years, 1881-87, as the result of the marked decline of the general death-rate of the country, is no less than 400,000. The rate of mortality in London during last year was only 19.6 per 1,000, while it averaged 21.9 in the twenty-seven provincial towns, among which

it ranged from 16.9 in Brighton, 17.1 in Derby, and 18.7 in Nottingham to 25.3 in Newcastle-upon-Tyne, 25.5 in Blackburn, 27.0 in Preston, and 28.7 in Manchester.

During the year under notice, 29,615 deaths were referred to the principal zymotic diseases in the twenty-eight large towns, equal to a rate of 3.21 per 1,000, which, though slightly exceeding the low zymotic death-rates recorded in either of the two preceding years, was below the average rate in the ten previous years, 1877-86. The lowest zymotic rates last year were 1.3 in Halifax, 2.2 in Brighton, and 2.3 in Plymouth; while the highest were 4.4 in Blackburn and in Salford, 4.5 in Preston, and 4.9 in Manchester. The 29,615 deaths referred to these zymotic diseases included 9,151 which resulted from diarrhoea, 7,248 from measles, 5,675 from whooping-cough, 3,609 from scarlet fever, 1,983 from fever (including typhus, enteric, and simple or ill-defined fever), 1,617 from diphtheria, and 332 from small-pox. The rate of mortality from diarrhoea was equal to 0.97 per 1,000, which almost corresponded with the average rate in the preceding ten years, 1877-86. This disease showed the largest proportional fatality in Wolverhampton, Bolton, Salford, Leicester, and Preston. The death-rate from measles was equal to 0.79 per 1,000, and exceeded the rate in any year on record. In London the rate of mortality from measles was 0.69 per 1,000, while in the twenty-seven provincial towns it averaged 0.87, and was proportionally highest in Huddersfield, Salford, Norwich, and Manchester. The death-rate from whooping-cough was equal to 0.62 per 1,000, and although exceeding the rate in either of the two preceding years was below the average; this disease was much more prevalent in London than in the aggregate of the provincial towns, among which, however, it caused high rates in Liverpool, Oldham, Blackburn, and Birmingham. The rate of mortality from scarlet fever was equal to 0.39 per 1,000, and although considerably below the average rate in the ten preceding years, 1877-86, showed a marked increase upon the low rates in the two previous years; the highest death-rates from this disease were recorded in Salford, Oldham, Birkenhead, Bristol, and Blackburn. The rate of mortality from "fever" (principally enteric), which had been 0.20 to 0.23 per 1,000 in the two preceding years, was again 0.22 during the year under notice; against an average rate of 0.32 in the ten preceding years, 1877-86. The death-rate from fever in London last year was only 0.16 per 1,000, and was lower than in any

Public Health Statistics relating to Twenty-eight Large English Towns, for the Year 1887.

Towns.	Estimated Population middle of 1887.	Births.	Deaths.	Annual Rate per 1,000 Living.		Principal Zymotic Diseases.	Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Rate per cent. of Uncertified Deaths.	Deaths of Children under one year of age to 1,000 Births.
				Births.	Deaths.											
28 Towns	9,245,099	296,951	191,887	32.2	20.8	3.2	29,615	332	7,248	3,609	1,617	5,675	1,983	9,151	2.3	168
27 Provincial Towns	5,028,907	163,876	109,679	32.7	21.9	3.4	16,931	323	4,354	2,162	656	2,747	1,311	5,378	3.2	176
London	4,216,192	133,075	82,208	31.7	19.6	3.0	12,634	9	2,894	1,447	961	2,928	672	3,773	1.1	153
Brighton	113,186	3,035	1,988	25.8	16.9	2.2	260	71	10	29	31	13	106	3.1	149	
Portsmouth	137,917	5,059	2,682	36.8	19.5	2.4	335	3	8	26	47	42	54	155	1.0	143
Norwich	92,848	3,138	1,891	33.9	20.4	3.7	343	—	143	36	21	52	18	73	1.3	158
Plymouth	77,127	2,425	1,743	31.5	22.7	2.3	174	—	6	14	5	51	17	81	1.3	166
Bristol	223,695	6,823	4,546	29.7	20.4	3.0	672	13	149	214	25	128	26	117	2.2	149
Wolverhampton	80,847	2,875	1,746	33.2	21.7	2.5	202	—	27	16	7	29	17	106	1.5	176
Birmingham	441,095	13,963	8,663	31.8	19.7	3.1	1,347	2	233	35	55	384	76	562	2.1	176
Leicester	143,153	4,679	2,785	32.8	19.5	3.1	439	—	87	5	12	56	36	243	2.5	209
Nottingham	224,230	7,433	4,181	33.3	18.7	2.6	570	—	54	22	7	148	72	207	1.8	170
Derby	94,006	2,810	1,605	30.0	17.1	2.4	226	—	102	—	—	33	21	63	1.8	142
Birkenhead	97,703	3,161	2,044	32.5	21.0	3.2	311	—	82	88	10	32	21	75	2.2	156
Liverpool	592,991	18,414	14,006	31.2	23.7	3.9	2,381	1	661	321	95	429	194	630	5.0	586
Bolton	112,354	3,639	2,386	32.5	21.3	3.2	359	—	96	37	6	29	36	155	2.4	171
Manchester	377,529	13,501	10,786	35.9	28.7	4.9	1,829	6	708	245	74	203	119	474	2.5	191
Salford	218,658	6,956	4,827	31.9	22.2	4.4	969	—	320	156	21	65	86	327	4.0	195
Oldham	134,158	4,183	3,188	31.3	23.8	4.0	539	—	169	103	55	109	27	83	5.4	187
Blackburn	116,844	4,164	2,957	35.8	25.5	4.4	509	4	91	153	1	92	40	123	3.1	201
Preston	102,283	3,920	2,846	38.5	27.9	4.5	459	1	31	64	27	41	64	231	3.7	214
Huddersfield	90,034	2,485	2,063	27.7	23.0	3.3	300	—	126	31	38	60	9	36	3.8	181
Halifax	79,207	2,245	1,654	28.4	21.0	1.3	99	—	14	32	6	13	22	7.0	153	
Bradford	224,507	6,203	4,460	27.7	19.9	2.9	640	—	132	98	11	158	37	204	2.8	178
Leeds	345,080	11,446	7,241	33.3	21.1	2.7	925	1	173	115	11	129	103	393	1.7	172
Sheffield	316,288	10,386	6,808	32.9	21.6	4.2	1,338	278	286	205	18	174	79	298	5.9	177
Hull	196,855	6,443	3,776	32.8	19.2	2.8	558	—	141	67	12	85	80	221	4.4	165
Sunderland	129,684	4,471	2,549	34.6	19.7	3.1	405	—	167	17	7	57	36	121	4.4	151
Newcastle-on-Tyne	157,048	6,121	3,963	39.1	25.3	3.4	529	1	216	37	29	79	53	114	3.0	174
Cardiff	104,580	4,288	2,285	41.1	21.9	3.5	263	11	61	10	20	45	18	95	2.2	172

year on record; in the twenty-seven provincial towns it averaged 0.26 per 1,000, and was highest in Blackburn, Newcastle-upon-Tyne, Salford, Portsmouth, and Preston. The rate of mortality from diphtheria was 0.18 per 1,000, and exceeded that recorded in any preceding year; in London the diphtheria death-rate was 0.23 per 1,000, while it did not average more than 0.13 in the provincial towns, among which, however, this disease was fatally prevalent in Portsmouth, Oldham, and Huddersfield. During the year under notice 332 fatal cases of small-pox were recorded in the twenty-eight towns; only 9 occurred in London, and 323 in the twenty-seven provincial towns, including 278 in Sheffield, 13 in Bristol, 11 in Cardiff, 6 in Manchester, 4 in Blackburn, 3 in Portsmouth, 2 in Hull, 2 in Birmingham, and 1 each in Liverpool, Preston, Leeds, and Newcastle-upon-Tyne. The highest number of small-pox patients under treatment in the Metropolitan Asylums Hospitals at any time during last year was 15, and only 7 remained at the end of December; 63 cases were admitted during the year, of which 30 were admitted during the last quarter.

Infant mortality, measured by the proportion of deaths under one year of age to registered births, averaged 168 per 1,000 in the twenty-eight towns during the year under notice. In London the rate did not exceed 158 per 1,000, whereas in the twenty-seven provincial towns it averaged 176, and ranged from 142 in Derby, 143 in Portsmouth, and 149 in Bristol to 195 in Salford, 201 in Blackburn, 209 in Leicester, and 214 in Preston.

SANITATION OF DWELLINGS.

A BILL having an important sanitary object has been introduced by Lord Henry Bruce. On a representation to the Local Government Board, signed by at least six ratepayers of a district, to the effect that the local authority of a district has failed to put in force, as occasion required, its powers for securing the proper sanitary condition of the premises within its district, the Board will, according to his scheme, proceed to hold a local inquiry as to the truth of the representation. If on the report of the inspector the Board are of opinion that the representation is well founded, they will dissolve the defaulting local authority, and direct a fresh election of members. The obligation is also imposed by the Bill on local authorities of making by-laws respecting lodging-houses. The penalty is increased to which the owner of a dwelling is liable for disobeying an order as to the abatement of a nuisance. Provision is also made for the inspection of cellars or underground rooms occupied as dwellings in London.

THE POST OF PUBLIC VACCINATOR AT WALSALL.

THE action taken by the Walsall Board of Guardians in calling upon Mr. Willmore to resign his appointment of public vaccinator at the end of the year, and in announcing their intention of appointing someone else in his place, has caused some feeling of dissatisfaction. A circular has been issued signed by two medical men, expressing the opinion that Mr. Willmore has been the victim of a series of attacks from the guardians, and protesting against the arbitrary conduct of the guardians. It is stated that the guardians are unable to bring any sufficiently grave charge against Mr. Willmore to make the Local Government Board dismiss him from the post of medical officer for the No. 1 District; that he has been public vaccinator for years, and has received the Government grant as often as it is possible to receive it. The circular calls upon the medical men of Walsall "to stand together as a body and pledge themselves that they will not offer themselves as candidates for the vacant post," as a protest against the arbitrary conduct of the guardians.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated population of 9,338,273 persons, 8,478 births and 3,888 deaths were registered during the week ending Saturday, February 25th. The annual rate of mortality per 1,000 persons living in these towns, which had been 22.2 and 20.9 in the two preceding weeks, rose again during the week under notice to 21.6. The rates in the several towns ranged from 13.0 in Cardiff, 15.7 in Derby, 16.7 in Norwich, and 16.8 in Hull to 25.4 in Manchester, 26.5 in Salford, 28.5 in Blackburn, and 32.2 in Plymouth. In the twenty-seven provincial towns the mean death-rate was 21.6 per 1,000, and corresponded with the rate recorded in London. The 3,888 deaths registered during the week under notice in the twenty-eight towns included 173 which were referred to whooping-cough, 70 to scarlet fever,

46 to measles, 43 to "fever" (principally enteric), 40 to diphtheria, 29 to small-pox, and 28 to diarrhoea; in all, 429 deaths resulted from these principal zymotic diseases, against 491 and 403 in the two preceding weeks. These 429 deaths were equal to an annual rate of 2.4 per 1,000; in London the zymotic death-rate was 2.8, while in the twenty-seven provincial towns it averaged only 2.0 per 1,000, and ranged from 0.3 and 0.4 in Newcastle-upon-Tyne and Brighton to 3.4 in Plymouth and in Manchester, 4.4 in Blackburn, and 5.5 in Sheffield. Measles caused the highest proportional fatality in Blackburn and Plymouth; scarlet fever in Blackburn, Cardiff, and Birkenhead; whooping-cough in Derby, Manchester, Leicester, and London; and "fever" in Derby. Of the 40 deaths from diphtheria recorded during the week in the twenty-eight towns, 30 occurred in London, 3 in Liverpool, 2 in Salford, and 2 in Preston. The 29 fatal cases of small-pox included 20 in Sheffield, 5 in Manchester, 1 in Leeds, 1 in Oldham, and 1 in Blackburn. The number of small-pox patients in the Metropolitan Asylums Hospitals was 6 on Saturday, the 25th ult. of which 4 had been admitted during the week. These hospitals also contained 1,308 scarlet fever patients on the same date, against numbers steadily declining from 2,600 to 1,395 in the twelve preceding weeks; there were 93 admissions during the week, against 146 and 104 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 5.8 per 1,000, and was slightly below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, February 25th, 835 births and 571 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had been 22.5 per 1,000 in each of the two preceding weeks, was 22.6 during the week under notice, and exceeded by 1.0 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the lowest rates were recorded in Greenock and Aberdeen, and the highest in Glasgow and Paisley. The 571 deaths in these towns during last week included 61 which were referred to the principal zymotic diseases, equal to an annual rate of 2.4 per 1,000, which corresponded with the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Perth and Paisley. The highest proportional fatality of measles occurred in Edinburgh and Leith, and from whooping-cough in Glasgow and Paisley. Three deaths from diphtheria were recorded in Glasgow, and 2 in Edinburgh. The mortality from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 5.6 per 1,000, against 5.8 in London.

HEALTH OF IRISH TOWNS.—In the sixteen principal town districts of Ireland, the deaths registered during the week ending Saturday, February 25th, were equal to an annual rate of 31.2 per 1,000. The lowest rates were recorded in Armagh and Kilkenny, and the highest in Limerick and Dundalk. The death-rate from the principal zymotic diseases in these towns averaged 2.9 per 1,000, and was highest in Belfast and Lurgan. Measles showed fatal prevalence in Belfast. The 192 deaths registered last week in Dublin were equal to an annual rate of 28.4 per 1,000, against 29.9 and 25.9 in the two preceding weeks, the rate during the same period being only 21.6 in London, and 21.0 in Edinburgh. The 192 deaths included 17 from the principal zymotic diseases (equal to an annual rate of 2.5 per 1,000), of which 8 resulted from scarlet fever, 4 from whooping-cough, 3 from "fever," and 2 from measles.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

WALSALL (Population, 65,220).—It must always be a matter for congratulation when a low death-rate can be recorded, and as this was Dr. John Wood's experience of the year 1886, he has every reason to look upon his report as satisfactory. A severe epidemic of measles visited the borough and caused 90 deaths, for the most part the result of bad nursing. There were 37 cases of small-pox, of which 3 terminated fatally. Nearly all the cases were treated in the hospital, which, as Dr. Woods observes, is growing in popularity. Scarlet fever appeared to have died out entirely, and only one death was recorded. There was the usual prevalence of autumnal diarrhoea destructive to infant life. Typhoid fever caused 14 deaths in widely separated localities. No special insanitary conditions are recorded in connection with these cases, except that in some instances vaulted privies existed

and suspicious well water was being made use of. The general death-rate was 18.2 per 1,000, of which the zymotic proportion was 3.25.

LAMBETH (Population 274,196).—Diphtheria in St. Thomas's Hospital.—Dr. Verdon's report for the year 1886 is in reality a very able and comprehensive essay on the agencies which have had an effect in ameliorating the condition of the poor and the relationship which the mortality in a district bears to the degree of the poverty of its inhabitants. He views with special satisfaction the progress made of late years by the temperance movement in all classes of society, and points out that pauperism has been attacked and partially overcome by the advance of education. The death-rate for the year was 19.2 per 1,000, and the zymotic death-rate 2.5, the metropolitan rates being 19.9 and 2.6 respectively. He mentions the following peculiar circumstance. A child that had been under treatment for an injury for several weeks in St. Thomas's Hospital had recovered from the worst effects of its accident when it was suddenly attacked by diphtheria and died. No other person in the ward was suffering from diphtheria, and no one could throw any light upon the manner in which the child had been infected. A month later a little boy was taken to the hospital on account of a rupture, and an operation was successfully performed. The mother had already made arrangements to remove him from the hospital, when he was taken ill with diphtheria and died. Within a period of eight months seven cases of a like nature, received into the hospital for operation or from accident, died of diphtheria. The origin of that complaint remains a mystery, but Dr. Verdon is under the impression that the precipitated filth exposed at low water in the Thames at the base of the hospital may have had something to do with it.

STAMFORD (Population, 9,263).—Epidemic of Scarlet Fever associated with Cases of Renal Disease.—The statistics compiled by Dr. T. E. Carter for 1886 were remarkably favourable, the general death-rate of 15.5 per 1,000 being much below the average, and the lowest on record in Stamford. Scarlet fever was the chief infectious disease which had to be dealt with. The epidemic broke out in November, 1885, and lasted more or less through the following year, causing 6 deaths, and terminating at last because there was hardly any more material for it to feed upon. In connection with this epidemic, Dr. Carter states that he has since met with a larger number of cases of renal diseases. His belief is that the inflammation of the kidney is of scarlatinal origin. Of the other zymotic diseases, diarrhoea caused 5 deaths, typhoid fever 1, and diphtheria 1.

TAUNTON URBAN AND RURAL (Population, 17,437 and 19,367).—Increasing Appreciation of Infectious Hospital.—Of both these districts Dr. Alford had a very favourable report to make for 1886 in respect of vital statistics. Not only were the death-rates materially diminished, but there was an almost complete absence of any epidemic. The Sanitary Hospital did good service in preventing the spread of infectious sickness. Dr. Alford states that it is more freely used than formerly, and that the prejudice against it is fast passing away. The good nursing, well-ventilated wards, and general comforts are, moreover, of great benefit to the patients. A case of small-pox was brought into the borough, and a second occurred in the rural district; both were removed into hospital, and the disease did not spread. Cases of scarlet-fever of a mild type cropped up at intervals. Where possible isolation was ensured, disinfection of houses and bedding, etc., was carried out, and in no case did the disease spread. The early part of the year was remarkable for the inclemency of the weather, easterly winds and low temperature prevailing. Hence diseases of the pulmonary organs were common, and caused an unusually heavy mortality. Two cases of diphtheria were reported in the rural district, one of which appeared to be attributable to the cleansing of a pond, which for years had been a receptacle for manure.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, February 24th.

Pharmacy Acts Amendment Bill.—The Earl of MILLTOWN moved the second reading of this Bill, which had, he said, the full approbation of the Council of the Pharmaceutical Society. The Bill, which made certain changes in the procedure of qualification

under the Pharmacy Acts, would not come into operation until more than three years had elapsed from the present time, the object of the postponement being to safeguard the interests of those who were now going through an apprenticeship. The motion was agreed to.

Tuesday, February 28th.

Fires in Theatres.—The Earl of MILLTOWN moved that a humble address be presented to Her Majesty praying for the reply of the local magistrates to the report of Captain Shaw on the late fire at Exeter. The motion was agreed to.

The Sweating System.—Lord DUNRAVEN, in calling attention to the report to the Board of Trade on the sweating system in the East-end of London by the labour correspondent of the Board, read numerous extracts from the report to prove the severity of the work done by the poor people of both sexes. He showed that not only is their remuneration on a scale that scarcely affords them the means of bare existence, but that the number of hours worked by them is dangerously excessive, and that in very many cases they perform their task in miserable rooms, which they are obliged to overcrowd, and in which the most ordinary sanitary laws are entirely disregarded. He moved for inquiry into the question by a Commission or Committee empowered to examine witnesses on oath, and he concluded by moving for a Select Committee.—Lord ONSLOW accepted the motion, which was agreed to. He stated that nineteen-twentieths of the persons who did tailoring under sweaters in the East-end were German and Polish Jews and Jewesses, and the habits of these persons, even in their own countries, were very different from those of the English working-classes. They threw obstacles in the way of workshop inspectors.

HOUSE OF COMMONS.—Thursday, February 23rd.

Hydrophobia.—On the motion of Viscount CURZON, a return was ordered, showing the number of deaths from hydrophobia during the ten years ending in 1886 in the United Kingdom.

Monday, February 27th.

Rating of Lunatic Asylums.—Mr. W. H. SMITH, in reply to Mr. KIMBER, said: The Government do not propose to bring in a Bill dealing with the assessment of rates on lunatic asylums, but an opportunity will arise for raising the question when the Lunacy Acts Amendment Bill is before the House.

Compulsory Notification of Disease.—In answer to Mr. HOWARD VINCENT, Mr. RITCHIE said the system of compulsory notification of infectious diseases was in force in England and Wales in forty-three boroughs and four local board districts. He had no precise information at the present moment with regard to Scotland and Ireland, but, if wished, he would procure it. The question as to the introduction of a Bill to extend the system of compulsory notification was, he said, under consideration.

Tuesday, February 28th.

Flogging.—Mr. MATTHEWS, in reply to Mr. POWELL WILLIAMS, said the Lord Chancellor and the Lord Chief Justice concurred with him in the opinion that Act 7 and 8, George IV, cap. 28, should be repealed (thus reserving the punishment of flogging for offences attended by violence). Steps would be taken by the Government to effect its repeal.

London Water Supply.—The second reading of the Grand Junction Water Bill was under discussion for some time, and, on a division, the Bill was thrown out by 188 to 104.

OBITUARY.

CHARLES CROKER KING, M.D., D.Sc., F.R.C.S.I.,

Commissioner, Local Government Board, Ireland.

WE regret to announce the death of this most highly esteemed member of the profession. He descended from a very distinguished family, his grandfather, Samuel Croker King, having been the first president of the Royal College of Surgeons as nominated in the charter of 1784. A fine portrait of him now reverts to his College. He was almost exclusively the attendant of the numerous noblemen who had residences in Dublin towards the end of the last century, and his most famous case was that of an infant, who in time became the illustrious Duke of Wellington.

The subject of our notice became a Licentiate of the College of Surgeons in 1837 and a Fellow in 1844. While acting as Demon-

strator in Trinity College, he gave valuable aid to Professor Harrison in the preparation of that popular textbook *The Dublin Dissector* as acknowledged in the preface, and he delivered several courses of delightful lectures on artistic anatomy at the Royal Dublin Society. These services and the publication of several scientific papers ensured his election to the Chair of Anatomy and Physiology in Queen's College, Galway, on its foundation in 1849. This post he filled with striking ability until 1863, when he accepted an inspectorship under the Local Government Board. His skill in carrying out the sanitary Acts and controlling the epidemics of cholera in 1866 and of small-pox in 1871-2 induced the Government to select him for the Commissioner-ship which became vacant in 1876.

Dr. King while in practice was a very excellent operator, and he helped in no small degree to the success of the Medical School at Galway. He contributed several papers on surgical subjects to the journals. He was an excellent lecturer. In the position of Medical Commissioner he was regarded as a most fair-minded and kindly superior, and his death will be much regretted by the members of the department which he so long controlled.

This office is somewhat analogous to that held with such renown by Sir John Simon (who had before been medical officer of health for London City), and at present by Dr. Buchanan. In Ireland, however, the holder of this position is not merely an advisor, but a Commissioner for directing the medical charities, vaccination and sanitary Acts, and framing by-laws and statistics under them. Questions touching water supply, sewerage, dwellings for the working classes, closure of burial grounds, and adulteration of food are those which are mainly presented to him for consideration and decision. The honorary doctorates in Medicine and in Science of the Queen's University were amongst the distinctions conferred on the late Commissioner. Dr. Croker King was in good health until December last, when a slough was caused by rasping a corn on the little toe of the left foot. The severe pain felt when the limb was dependent, and the feeble pulsation of the arteries, at once gave a grave aspect to the case. Senile gangrene supervened and proceeded to the tarsus, where a good line of demarcation formed. All hope of recovery was, however, abandoned last week, when septicæmia was developed, and he sank on Tuesday morning. He was attended throughout by Dr. Mapother and Sir George Porter, and other senior surgeons as consultants. His genial and benevolent character had so much endeared him that the widest sympathy is felt for his widow and their only child, Colonel King, now of Cheltenham.

FRANCIS HIRD, F.R.C.S.

Consulting Surgeon to Charing Cross Hospital.

On Friday, February 24th, Mr. Francis Hird died at Brighton, at the age of 74. He was born at Darlington in 1813, and received his medical education at the Westminster Hospital and in Dublin. When Charing Cross Hospital was founded he joined its teaching staff, and for forty-three years after that date he remained an active officer in the school and wards. Amongst his pupils, when he was Lecturer on Anatomy, were Dr. Livingstone, Professor Huxley, Sir Joseph Fayrer, and Sir Guyer Hunter. In 1843 he became Honorary Fellow of the College, having taken the Membership in 1836. He was appointed assistant-surgeon in 1855, and remained surgeon to the out-patient department for fifteen years. In 1870 he was elected full surgeon, resigning in February, 1881, when he was made consulting surgeon. On the occasion of his retirement, a service of plate and a testimonial engrossed on vellum was presented to him by the Governors and staff.

Mr. Hird wrote but little. He was orator at the Medical Society in 1848 and in 1850. In 1855 he delivered the Lettsomian Lectures; the subject was "Some Special Points in the Anatomy of the Uterus and its Structural Lesions the Result of Inflammation." He was a gentleman of commanding presence, handsome features, and conciliatory manners, thoroughly suited for a medical school.

Mr. Hird was one of the warmest supporters of the late Mr. Probert in the foundation of the Royal Medical Benevolent College at Epsom, of which he was a Member of Council for more than thirty years. He succeeded his old friend Mr. Hancock as treasurer of the College, on the resignation of the latter in 1876, and it was only in May last year that he resigned the treasurership, having retired from practice and gone to live at Brighton. Mr. Hird leaves a son, who is a clergyman of the

Church of England, and three daughters. He was buried on February 28th, at Kensal Green, several members of the staff of his hospital being in attendance.

The following resolution was passed at a meeting of the School Committee on Wednesday:—"The School Committee of Charing Cross Hospital have learnt with the deepest regret that Mr. Hird, late Dean of the school, died suddenly on Friday last, and beg to express their warmest sympathy with his family in the loss that they have sustained, a loss which is especially felt by the officers of this School, with which he was for many years so closely connected."

FRANCIS BOASE, M.R.C.S.

MR. BOASE, whose death at the age of 69 occurred on February 7th, was an old and highly esteemed inhabitant of Penzance. He was born in 1819, in the room in which he died; he studied at University College, and became a member of the Royal College of Surgeons in 1841. For a period of thirty-five years, Mr. Boase filled many important local offices, and identified himself with every laudable and progressive movement. He became a member of the Town Council in 1833, he was elected alderman in 1861, and became a justice of the peace for the borough in 1869. No better instance of his well-deserved popularity could be given than the fact that he filled the office of mayor no less than eight times.

Mr. Boase was an ardent volunteer, having connected himself with the movement at its very commencement, and attained, after successive steps, the rank of captain, ultimately retiring with the rank of honorary major. At the time of his death he was vice-president of the Penzance Board of Guardians. He has been a warm supporter of the West Cornwall Infirmary and Dispensary.

ALEXANDER McBEAN, M.R.C.S.

We have to announce the death of this gentleman, at the age of 78. He was a native of Aberdeen, and for a period of forty years he practised at Hanley, where he made many friends, and was highly esteemed. He was of quiet and unassuming manners. He, retired from practice about seventeen years ago, being succeeded by his former partner, Mr. W. D. Spanton. For many years past the deceased gentleman had been in the habit of spending his winters in Italy, but this year was prevented by his growing infirmities. He was unmarried.

M. LÉON (BASSEREAU).

M. LÉON BASSEREAU, whose name was so familiar throughout Europe in connection with the theory of dualism, died lately in Paris at the age of 77.

From a memoir in the *Annales de Dermatologie et de Syphiligraphie* it appears that M. Bassereau, who was born in the year 1810, was a cousin of the beautiful and celebrated Madame Récamier, and at first studied for the law, which, however, he soon abandoned for medicine. He became an *interne* of the Paris hospitals in the year 1835, and took his doctor's degree in 1840. Under the guidance of Brett and Ricord he devoted special attention to venereal diseases, and in 1852 published his well-known *Traité des Affections de la Peau, Symptomatiques de la Syphilis*. This book was the chief means by which the confusion which then reigned between syphilitic and non-syphilitic primary sores was brought to an end. By a large number of careful observations, including the confrontation of syphilitic persons with those from whom their disease had been contracted, it was shown that when the former developed constitutional symptoms, the latter were also syphilitic. M. Bassereau was also the author of an essay on the influence of iodide of potassium in syphilis, which gained him the silver medal of the Paris Society of Medicine in 1845.

Though he continued throughout his life to take great interest in the subject of venereal diseases, Bassereau was not a specialist, but practised as a general physician. He was made a Chevalier of the Legion of Honour in 1861.

LALOO, THE CASE OF PARASITIC FŒTUS.—Mr. M. D. Francis, who is at present exhibiting Laloo, writes to state that the statement that Laloo was prevented from appearing at the Indian Exhibition owing to a legal question is incorrect. Mr. Francis brought him to England and exhibited him at that exhibition until its close. Mr. Francis also states that he has never been forbidden to exhibit Laloo on the score that such an exhibition would be indecent. Laloo has been exhibited without any interference in the principal towns of England, Scotland, and Ireland.

MEDICAL NEWS.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen having passed the Qualifying Examination in Medicine, Surgery, and Midwifery have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society.

Carter, Ernest, 4, Beaconsfield Villas, Brighton.
 Crofton, Edward Regan, Cleheen House, Carrick-on-Shannon.
 Duckett, Charles Alexander, Great Yarmouth.
 Fletcher, Frederick James, 13, St. John's Road, Dudley.
 Fox, Hugh Clayton, Caddenham, Needham Market, Suffolk.
 Haynes, Edmund Lyall, 1, Lahsdowne Villa, Scarborough.
 Howard, Arthur Bertram MacLagan, 42, Orchard Road, Kingston-on-Thames.
 Moss, Arthur James, 11, Royal Crescent, Whitby.
 Sugden, Henry Clapham, Broad Oak Park, Worsley.
 Thomas, Charles Ernest, 126, Leadenhall Street, E.C.

The following gentlemen passed the Surgical portion of the examination.

J. O. W. Barratt, of University College Hospital; G. A. Gunton, of St. George's Hospital; S. H. Hughes, of St. Bartholomew's Hospital; W. J. Middleton, of St. Bartholomew's Hospital; H. H. Phipps, of University College Hospital; F. H. Roberts, of King's College Hospital; T. H. A. Valentine, of St. Bartholomew's Hospital; L. L. Verano, of St. Bartholomew's Hospital; J. S. Walton, of the Newcastle School of Medicine; R. E. Weigall, of the University of Melbourne; G. H. Whitaker, of St. Bartholomew's Hospital.

The following gentleman passed the Medical portion of the examination.

A. E. Read, of Thomas's Hospital.

ERRATUM.—In the pass list for the final examination of the Royal College of Physicians of Edinburgh, published in the JOURNAL of February 4th, Mr. J. Hoy, Ashby-de-la-Zouch, should have been Mr. J. Hoyle.

MEDICAL VACANCIES.

The following Vacancies are announced:

- BRISTOL DISPENSARY.**—Surgeon. Applications by March 8th to E. Stock, Esq., 57, Queen Square, Bristol.
- BRITISH SEAMAN'S HOSPITAL,** Cronstadt, St. Petersburg.—Resident Medical Officer. Salary, £180 per annum, with furnished apartments, etc. Applications to H. Bell, Esq., H. M. Consul, St. Petersburg.
- CANCER HOSPITAL,** Brompton.—Registrar. Salary, £50 per annum, with board and residence. Applications by March 6th to the Secretary.
- CENTRAL LONDON OPHTHALMIC HOSPITAL,** Gray's Inn Road, W.C.—Two Assistant Surgeons. Applications by March 6th to the Secretary.
- CITY OF ABERDEEN.**—Medical Officer of Health. Salary, £300 per annum. Applications by March 14th to W. Gordon, Esq., Town Clerk, Aberdeen.
- CITY OF ST. ALBANS.**—Medical Officer of Health and Analyst. Salary, £65 per annum. Applications by March 7th to I. N. Edwards, Esq., Town Clerk, St. Albans.
- CLOGHER UNION.**—Medical Officer, Aughnacloy Dispensary. Salary, £115 per annum, and fees. Applications to Honorary Secretary of Committee. Election on March 14th.
- COTON HILL LUNATIC HOSPITAL.**—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications by March 10th to the Medical Superintendent.
- DEWSBURY AND DISTRICT GENERAL INFIRMARY.**—House-Surgeon. Salary, £80, with board, etc. Applications by March 6th to the Chairman of the House Committee.
- EAST LONDON HOSPITAL FOR CHILDREN,** Shadwell, E.—Resident Clinical Assistant. Board and lodging. Applications by March 22nd to the Secretary.
- LEICESTER INFIRMARY AND FEVER HOUSE.**—Assistant House-Surgeon. Salary, £50, with board, etc. Applications by March 10th to the Secretary, 24, Friar Lane, Leicester.
- LUDLOW UNION.**—Medical Officer, Munslow District. Salary, £70 per annum, and fees. Applications by March 10th to W. J. Holyoake, Esq., Clerk, Poor-Law Office, Ludlow.
- MOUNTMELLICK UNION,** Coolrain Dispensary.—Medical Officer, Salary, £115 per annum, and fees. Applications to Mr. P. Kelly, Honorary Secretary, Berrydunff, Mountrath. Election on March 5th.
- OUGHTERAD UNION.**—Medical Officer, Oughterard Dispensary. Salary, £112 per annum and fees. Applications to Mr. Robert Mous, Honorary Secretary, Drumnakill Lodge. Election on March 7th.
- OUGHTERAD UNION.**—Medical Officer to the Workhouse, Infirmary, and Fever Hospital. Salary, £70 per annum. Applications to Mr. J. Gillmore, Clerk of Union. Election on March 7th.
- OWENS COLLEGE,** Manchester.—Professor of Obstetrics. Applications by March 20th to the Registrar.
- ST. HELEN'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.**—Resident Medical Officer. Applications by March 20th to Mr. H. Whittle, Secretary, 85, Argyll Street, St. Helen's, Lancashire.
- UNIVERSITY OF GLASGOW.**—Four Examiners in Medicine. Annual fee, £30 or £40. Applications by March 5th to the Secretary of the University Court, G. D. McLellan, Esq., 145, West George Street, Glasgow.

MEDICAL APPOINTMENTS.

- AOKLAND,** W. R., M.R.C.S., L.D.S., appointed Dental Surgeon to the Royal Infirmary, Bristol.
- CALVERT,** James, M.D.Lond., B.A., B.Sc., appointed Assistant-Physician to the Royal Hospital for Diseases of the Chest, City Road, vice J. J. Pringle, M.B., C.M.Edin., resigned.
- CLARK,** A. F. C., M.B., C.M., appointed Assistant Medical Officer to the District Asylum, Roxburgh.
- HARDWICK,** F. S., M.D., C.M., appointed Medical Officer to the West Ashford Union, Second District.
- JONES,** F. W., Brandram, M.B., C.M., appointed Medical Officer to the Monmouth District of the Monmouth Union.
- MACKINNON,** Charles, M.B., C.M.Glas., appointed Medical Officer to the Cirencester Union, vice C. P. Hooker, L.R.C.P., L.R.C.S.Edin., resigned.
- MITCHELL,** Gerald, M.D., appointed Medical Officer to the Templemore Dispensary District, vice Wm. Fennelly, L.R.C.P., deceased.
- RUSSELL,** W., M.D., appointed Pathologist to the Royal Infirmary, Edinburgh.

PRIZE ESSAY.—Prizes of the value of 1,500 pesetas (£60) and 750 pesetas (£30) respectively, are offered by the Royal Academy of Medicine and Surgery of Barcelona under the will of the late Dr. Francisco Garé y Boix, for the two best essays on the following subject: Pathogeny of Gonorrhœa (with illustrative preparations); its Clinical Features, with Special Reference to the Chronic Forms of the Disease, and to Recurrence; the various Morbid Processes accompanying and following it; its Prophylaxis and Treatment. In addition to the money prize, the title of Corresponding Fellow of the Academy will be conferred on each of the successful candidates. Essays, which must be written very legibly either in Spanish, French, or Italian, must be sent to the Perpetual Secretary of the Academy, Dr. Luis Suñé y Molist, Baños Nuevos No. 9, Barcelona, before midday of June 30th, 1889. No essay must bear the name or address of the author, which must be sent separately in a sealed envelope, bearing a motto corresponding to one on the essay. The successful essays are to be the property of the authors, who will be at liberty to publish them, but without any correction, addition, or suppression.

INTERHOSPITAL FOOTBALL MATCHES.—In the penultimaet round (Association), the match St. Bartholomew's v. St. Mary's was decided on February 22nd. These clubs had previously played a draw, but St. Bartholomew's got together their best team and gained a decisive victory by five goals to one. In the penultimate round (Rugby), St. Thomas's v. St. Bartholomew's was postponed until Monday last on account of the frost. It was expected that the St. Thomas's forwards would effectually prevent their opponents backs being dangerous, and the result was a victory for St. Thomas's by one goal, five tries, and four minors to *nil*. Up to half-time only a try had been scored, but towards the end the game was one-sided. St. Mary's v. Middlesex (Holders): Unfortunately for the holders, they lost both their half backs about half-time—one with fractured clavicle, and the other with a crushed malar bone. The game was fairly even, but the St. Mary's men held the scrimmage. The result was one goal, four tries and four minors to *nil*.

In connection with the Royal visit which the Queen paid to the Royal National Hospital for Consumption, Ventnor, on February 11th, Her Majesty has been graciously pleased to forward eight engravings of herself and other members of the Royal Family, including one of the late Duke of Albany, who was President of the hospital at the time of his death. The Board of Management have received a communication from the Home Secretary stating that Her Majesty has been graciously pleased to command that the block of houses which was inspected by the Queen shall be known hereafter by the title of "The Victoria Block" of the Royal National Hospital for Consumption.

SEAMEN'S HOSPITAL, GREENWICH.—The report presented at the annual court of governors of the Seamen's Hospital, Greenwich, stated that the institution had extended its operations to Gravesend, for the benefit of the sick sailors arriving there, and that, during the last year, 2,382 patients had been treated in the wards at Greenwich, in addition to the treatment of out-patients. There was a lessened income, owing to the falling in of annuities.

PAISLEY INFIRMARY AND CONVALESCENT HOME.—During 1887, there were treated in Paisley Infirmary 1,207 patients, of whom 114 had died. It is satisfactory to observe that there has been an increase in all items of income, and a previously existing deficiency on revenue account had been reduced from £630 to £356.

GREENOCK INFIRMARY.—The report of this infirmary for 1887 shows the total number of cases treated during the year to be 924, an increase of 61 on 1886. Of these, 575 were admitted to the medical and surgical wards, 19 fewer than during the preceding year. A very large proportion of the cases consisted of accidents and other urgent cases. The mortality was 8.8 per cent. To the fever hospital 349 had been admitted, an increase of 80, and the mortality in this department was less by 2 per cent. than in 1886. Scarlet fever had prevailed during the whole year, and had been epidemic in September, October, and November. No less than 208 children of 10 years of age and under had been admitted, of whom 7 died. The calls at the dispensary numbered 10,750.

THE METROPOLITAN ASYLUMS BOARD.—The returns presented at the meeting of the Metropolitan Asylums Board, held on Saturday last, stated that during the fortnight up to midnight on February 23rd, 239 patients were received into the fever asylums, as against 260 in the previous fortnight; 33 died and 384 were discharged, leaving 1,507 cases under treatment, including 1,358 of scarlet fever. The number under treatment on Friday morning, February 24th, was 178 fewer than a fortnight before.

INSPECTION OF THEATRES.—The Bill for a reform of the present system of licensing and inspecting of metropolitan theatres and music halls, which bears the name of Mr. Dixon-Hartland, Mr. Woodhall, Mr. Lawson, and Sir Albert Rollit, proposes to place these places of entertainment under the Home Secretary, who will have the power of appointing inspectors, whose duty it will be to make an annual inspection of the arrangements, and to report thereon. No licence will be granted until the Home Secretary's certificate is obtained. This is a step in the right direction.

THE POLLUTION OF THE THAMES.—In the Queen's Bench the case of the Queen v. the Staines Local Board recently came before the Court in the form of an indictment against the Local Board under the Public Health Act to recover penalties for the pollution of the Thames by the influx of sewage. The Thames Conservancy were the prosecutors. The Staines Local Board agreed to a verdict against them on the facts, with the view of having the points of law involved discussed on a future day.

DEATH FROM A FOOTBALL ACCIDENT.—A man named Murphy has recently died in Bootle Hospital from injuries sustained at a football match. In the course of the game in which he was engaged Murphy received his opponent's elbow in his throat with such force as to burst the trachea. A tube was inserted, but the deceased never rallied.

A STOMATOLOGICAL SOCIETY.—"Stomatology" appears to be the latest development of specialism. It has not yet spread to this country, so far as we are aware, but a Society has, it is said, been founded in Paris which is to devote itself exclusively to the study of diseases of the mouth and its "annexes."

DR. T. LAUDER BRUNTON, F.R.S., has been elected a member of the Athenæum Club by the Committee under Rule 2, which empowers them to elect nine persons annually "of distinguished eminence in science, literature, or the arts, or for public services."

THE PARKES MUSEUM (Margaret Street, W.)—The following donations to the funds of the museum have just been received: The Right Hon. Earl of Derby, £25; the Leathersellers' Company, £21; Mr. Robert Pullar, £10 10s.; and also a donation from the officers of the Army Medical Staff, Netley.

WEST LONDON HOSPITAL.—The Duke of Cambridge has signified his intention to preside at the festival dinner in aid of the funds of the West London Hospital, Hammersmith Road, on Tuesday, May 1st, at the Hôtel Métropole.

FAILURE OF ANTIFEBRIN IN EPILEPSY.—Antifebrin has been tried in epilepsy by Dr. Borosnyoe, of the Hermannstadt Asylum. He found (*Therap. Monatshefte*) that it had no effect on the fits.

ARDEE UNION.—The Local Government Board have sanctioned the appointment of Dr. Bradley as medical officer to St. Mary's Dispensary.

LIMERICK WORKHOUSE.—It appears that the hospital part of the workhouse is greatly overcrowded; and a committee of the guardians has been appointed to consider the matter.

SUCCESSFUL VACCINATION.—Dr. Charles J. Jones, Justice of the Peace of Rhondda Valley, South Wales, has for the third time received the Government grant for efficient vaccination.

MR. ERNEST SHEAF, F.R.C.S. Ed., M.R.C.P., of Toowoomba, has been appointed Justice of the Peace in the Colony of Queensland.

The next meeting of the American Medical Association will be held in Cincinnati in May.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Barrett Lockwood, F.R.C.S.: Lecture I. On the Development of the Organs of Circulation and Respiration, including the Pericardium, Diaphragm, and Great Veins.

MEDICAL SOCIETY OF LONDON—General meeting at 8 P.M. Ballot. Ordinary meeting at 8.30: Dr. Ferrier and Mr. Victor Horsley: A Case of Successful Treatment of a Cerebral Abscess in connection with Otitis Media. Dr. Ord: A Paper on Some Curious Relations of Gastric Ulcer. Dr. Broadbent: A Paper on the Prognostic Significance of the Blood Pressure in Acute Renal Disease.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—Casual communications by Mr. David Hepburn and Mr. Boyd Wallis. Mr. Frederick Eve: Communication on Actino-Mycosis and some Micro-parasitic Affections of the Jaws and Mouth. Inaugural Address by the President, Daniel Corbett, M.R.C.S.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. W. J. Mickle: The Goulstonian Lectures: Lecture I. Insanity in Relation to Cardiac Disease and Phthisis.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Specimens.—Sir W. Mac Cormac: Epithelioma of Kidney associated with Calculus. Mr. B. Pile: Villous Carcinoma of Breast. Mr. H. Fenwick: Villous Papillomata and "Contact" Carcinoma of Bladder. Dr. N. Moore: Two Cases of Renal Disease. Mr. Silcock: Acute Necrosis. Mr. Clutton: Osteitis Deformans. Mr. Treves: Horny Tumour on Neck of Mouse. Card Specimens.—Mr. Shattock: 1. Osseous Ankylosis after Gouty Disease. 2. Gouty Deposit in Bone. Mr. Treves: Tumour of Spermatie Cord. Mr. Mansell-Moullin: Syphilitic Crania.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Barrett Lockwood, F.R.C.S.: Lecture II. On the Development of the Organs of Circulation and Respiration, including the Pericardium, Diaphragm, and Great Veins.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown. Dr. Boxall: Scarlatina during Pregnancy and the Puerperal State. Dr. Champneys: Description of a New Operation for Vesico-urinary Fistula.

HOSPITAL FOR CONSUMPTION, Brompton, 4 P.M.—Dr. Theodore Williams: Pathology and Modern Treatment of Bronchial Asthma.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. W. J. Mickle: The Goulstonian Lectures: Lecture II. Insanity in Relation to Cardiac Disease and Phthisis.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Barrett Lockwood, F.R.C.S.: Lecture III. On the Development of the Organs of Circulation and Respiration, including the Pericardium, Diaphragm, and Great Veins.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Croft: Case of Dislocation of Semilunar Cartilage of Knee-joint: Excision; Cure. Mr. C. Symonds: Two Cases of Dislocation of Index Finger; Reducing by Opening the Joint and Division of a Retaining Band after Failure of Other Methods. Mr. G. R. Turner: Case of Dislocation Backwards of the Metacarpophalangeal Joint of the Thumb in which Resection of the Head of the Metacarpal Bone was practised. Mr. Bland Sutton: Case of Adenoma of the Pinna. Dr. Hadden: Case of Dry Mouth or Suppression of Salivary and Buccal Secretions.

BIRTHS, MARRIAGES, AND DEATHS.

The *charoe* for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcement.

MARRIAGE.

BEALES—BARNDY.—On February 25th, at the Parish Church, Great Yarmouth, by the Vicar, Thomas Wm. Lewis Beales, M.R.C.S. Eng., L.R.C.P. Lond., to Clara Barnby, youngest daughter of the late J. E. Barnby, Esq., of Great Yarmouth.

DEATHS.

DOWNES.—On Wednesday, February 29th, 1888, at Mellerstein, Bolton Road, Eastbourne, Ellen Mary (May), the only daughter of Dr. and Mrs. Downes, aged two years and seven months.

MERRIMAN.—On February 25th, at 42, Kensington Square, John William Conyers Merriman, L.R.C.P. and M.R.C.S.E., in the 34th year of his age, eldest son of John J. Merriman, of Kensington.

SANKEY.—February 28th, at the Elms, Sutton Valence, Kent, William Sankey, M.D. St. And., M.R.C.S., and L.S.A., aged 72.

TERRY.—On February 23rd, at Mells, Frome, George Terry, M.R.C.S., aged 60.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopædic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department); Guy's; National Orthopædic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.; West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F. 1.30; Skin, M. Th. 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F. 1.30; Eye, M. Tu. Th. F. 1.30; Ear, Tu. F. 12.30; Skin, Tu. 12.30; Dental, Tu. Th. F. 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W., 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F. 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu. S., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F. 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical daily, 1.30; Obstetric, Tu. Th. S., 2; o.p. W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopædic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p. Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopædic, W., 2; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p. W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S. 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C., London.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

A CASE OF "QUINTAN" AGUE.
T. E. L. writes: In the JOURNAL of February 18th Dr. J. P. Henry describes a case of "quintan" ague. It would be interesting to know if the patient's blood was ever examined for *flavaria sanguinis hominis*, as the febrile attacks occasionally occurring in persons who have flavaria in their blood somewhat resemble ague with a long interval.

SEA-SICKNESS.
M.R.C.S. would be glad to have the practical experiences of any member as to the value of antipyrin as a cure for sea-sickness.

PODOPHYLLIN.
M.D. writes: Will any of your readers who are in the habit of using resina podophylli kindly answer the following question: Is podophyllin in solution as effectual as a purgative or cholagogue as the same dose given in the solid form to the same patient? I say the same patient because this drug varies in its effect in different cases.

OILY DIARRHŒA.
DEPUTY SURGEON-GENERAL writes: A healthy-looking lad, aged 10½ years, has suffered for the last five years from discharge of oil from the bowels; the discharge is most frequently at night, and involuntary—occurs during sleep; the discharge is not constant, nor is it of the same amount always; usual quantity about one drachm and a half when most severe. Ordinarily it is sufficient to stain his clothes or sheets: He is bright, intelligent, and very active, except when the discharge is greatest, when he is dull and looks depressed. His motions are very offensive, never natural in colour or consistence, whitish and clay- or chalk-like. He does not suffer apparently from disease of liver, spleen, or pancreas, except so far as the oily discharge points to disease of the latter. He has had iron and bismuth, Parrish's chemical food, and attention to diet; but, although with benefit, not with such marked improvement as to encourage a continuance of the treatment. Any indigestible food increases the disorder. Appetite is very good, often too much. The lad had cholera in India about eight years ago, but this complaint did not show itself until some three years afterwards. Suggestions regarding this case are requested.

ANSWERS.

B.—The publication of the addresses of medical officers on the Illustrated advertisement of the Chelsea Hospital for Women is not in accordance with professional rule.

DR. JOHN WIGHT.—Yes.

IDIOSYNCRASY TO QUININE.
D. L. R. writes: In reply to "H. G. H.," I may state that I know of two cases in which quinine produced exactly the symptoms mentioned. One was a lady I attended for malarial symptoms during a voyage from India, in whom it produced redness of all the skin and intense itching. The other is in myself. Ever since taking an overdose some years ago I cannot take even a small dose without its producing redness and great itching of all the body, accompanied by diarrhœa. Arsenic did not prevent the symptoms in either case.

NOTES, LETTERS, ETC.

METROPOLITAN PROVIDENT DISPENSARIES.
DR. RICHARD PARAMORE (2, Gordon Square, W.C.) writes: Your correspondent Dr. Rentoul says: "It is well known that a club doctor's life is a broken-hearted life, full of worries and insults." The provident dispensary is an extension of the club system. Yet Dr. Rentoul hopes that the provident system will be given a trial in London. It has been tried, and it has been found defective. Its warmest advocates admit that it is merely a tentative measure. There never has been before the profession a more absurd and mischievous attempt to improve medical matters than the establishment of provident dispensaries. In endeavouring to relieve the congested state of the out-patient department of hospitals, the interests of the great mass of the profession have been jeopardised, and all that makes life worth having, namely, happiness, in danger of being sacrificed.

I challenge anyone to show any difference between the club system, which Dr. Rentoul holds up to contempt, and the provident dispensary, for which he has an affection. Surely love is blind! When the controversy was raging on the Metropolitan Provident Medical Association in 1881, Mr. Timothy Holmes said he was proud of his connection with the movement, and extolled the Leicester Provident Dispensary, which, according to the *Leicester Journal* of January 15th, 1888, has exemplified its inferiority to ordinary club practice by giving quassia in a decomposed state, methylated spirits to make the tinctures, and the price of one hundred bottles of medicine being the same as one bottle!

I ventured to write a letter, which was published in the *Lancet*, in answer to Mr. Timothy Holmes, in which I said: "Contract work is notoriously bad, especially when the greatest amount has to be done for the least remuneration. Club practice is degrading and is a loophole for dishonesty, and it is rare for a club patient to receive the same amount of attention and quality of medicine that ordinary private patients obtain, and yet this dispensary scheme is merely an amplification of the club system—with this important difference, that in clubs and friendly societies none but candidates of a certain age and in good health can be admitted."

It is sad to see men of intelligence lending themselves to bolster up a system which has nothing to recommend it beyond pandering to those mean, paltry, niggardly, and contemptible persons who gladly avail themselves of cheap doctoring, especially when they read, in one of the handbills extensively circulated by the Metropolitan Provident Medical Association: "Families may join and insure against the risk of heavy doctors' bills, often difficult to pay."

The stamp of respectability has been endeavoured to be put on that touting which has hitherto been looked upon as disreputable. What may be forgiven under extenuating circumstances in a young, needy, and struggling practitioner is unpardonable in a company of medical men who are firmly seated on the saddle of successful pursuit.

The following are some of the objections to the scheme of the Metropolitan Provident Medical Association: 1. That it is destructive to the interests and welfare of the members of the medical profession, whose peace of mind is

essential to the proper discharge of their duties. 2. That it sails under false colours by offering independence, no charity, self-support, self-management, choice of a doctor to those who will join it, and by saying every medical man of respectability may be on the staff of the dispensary. 3. That it is injurious to the public by creating distrust and want of confidence in the medical profession, and encouraging medical men to scamp their work by underpaying them. 4. That it fosters meanness, trickery, lying, and deception on the part of the members who join it who are well able to pay ordinary medical charges. 5. That it condones and encourages fraud by obtaining for an unlimited time what ought to be valuable services under the pretence of payment which amounts to next to nothing, so that each member can get "on demand" and as "a matter of right" "the sort of treatment that the family doctor gives to the rich men." 6. That it is founded on the club system, which has continued to exist through greed on the one hand and impecuniosity on the other to degrade the medical profession and to demoralise the public.

I repeat what I wrote seven years ago: "Wherever the provident dispensary movement has been tried, it has done more harm than good. Evidence is not wanting to prove that its introduction has harassed and undermined the profession." The happiness of the many is sacrificed by the more than doubtful benefit of the few. We have already too many medical monopolies, and quite enough to contend against, without the manoeuvres of provident dispensaries or any great wholesale plan of treating disease. If there were a scarcity of medical men and a dearth of medical relief there would be some excuse for the cruel, wanton, and needless experiment on the lives of suffering humanity in the form of provident dispensaries. I know it has some upholders; so has every wrong that has disgraced the world!

VENTRAL NEPHRECTOMY FOR HYDRONEPHROSIS.

MR. R. H. A. HUNTER (Battersea) writes: In reply to the letter of Mr. Clement Lucas, I can only repeat what I stated in my last communication that as in my opinion each case of hydronephrosis requires to be treated on its own merits, it is a waste of time to continue this controversy. As Mr. Lucas did not see the case, I maintain he is not in a position to judge as to whether the treatment adopted by me was right or wrong. My own impression, as well as those who were with me, regarding the case is that I acted rightly, so much so that should a similar case fall into my hands I would treat it in the same manner, with the addition of the drainage-tube, when I would have but little fear as to the result. Such operations I am confident do not depend so much upon their magnitude as the manner in which they are performed.

INVERSION OF THE UTERUS.

DR. MARK SHARMAN (Leicester) writes: Shortly after 12 A.M. on February 16th I was called to the assistance of a midwife. On arriving, I found the patient, aged 40, pulseless, collapsed, and dying. I gave two hypodermic injections of ether, and raised the foot of the bed. There had been considerable hæmorrhage, but not sufficient to account for her condition. On examination, the uterus was found completely inverted, protruding beyond the external genitals as far as it was possible to do, the placenta being firmly adherent over the fundus. I replaced the organ and removed the placenta. The patient died within five minutes of my arrival. The midwife said: "The child was delivered alive without difficulty, and"—pointing to the uterus and placenta—"this came ten minutes afterwards." Of course I was unable to verify my suspicion that the cord had been pulled upon and undue pressure applied to the fundus uteri.

I may add that the woman had been in a very destitute state during this winter, probably causing a relaxed state of her system. There was no history of any appreciable difficulty in her former labours.

BRITISH QUALIFICATIONS.

MR. G. H. PINDER (Manchester) writes: I was asked the other day to sign a certificate for a patient who is a member of the Railway Guards' Universal Friendly Society. As I am only a College and Hall man, having been unfortunately enough to be an English student, I was unable to do so. Rule 34 of this society states: "In all cases this certificate must be signed by an M.D." And attention is specially called to the letters M.D., which in the certificate are underlined. Thus, a man with the qualification of F.R.C.S. Eng. and M.R.C.P. Lond. would be unable to sign this certificate, whereas one holding that of one of the numerous Scotch universities could settle the matter at once.

If Scotch degrees were thrown open to English students as English qualifications are to Scotch, we Englishmen should not have so much reason for complaint. For many years the passport to Manchester appointments has been "Scotch M.D.," and, as a rule, to have been a Manchester student was quite enough to damn any chance which a candidate might have, if a Scotch qualification was in the way. We have been inundated for years with Scotch qualifications, from the M.D. Edin. to the Licentiate of the refuge for the destitute. Many a man, after having been plucked in England, has wended his way North, and, to the surprise of his fellow-students, has reappeared as "Dr. Smith," or "John Jones, Physician and Surgeon."

Everything English now seems under a cloud, and until we get a good sound British qualification, which every man practising in Great Britain ought to be compelled to possess, the only consolation which most of us College of Surgeons men have is the satisfaction of knowing that "Mr. So-and-So, Surgeon," practically means "English student, London qualification; get your bread and cheese as best you can."

A POST-GRADUATE COURSE IN SKIN DISEASES.

MR. W. STUART LOW, 309, Waterloo Road, S.E., writes: For two or three weeks past an advertisement has been inserted in the JOURNAL stating the desire of a number of medical men to get up a course of post-graduate lectures on skin diseases. As we have not yet got a sufficiently large number of names to form a good class, and as we know that this is a course that is much wanted by practitioners, perhaps you would be kind enough to give all an opportunity of joining by giving a prominent notice in the JOURNAL of our desire and intention.

COMMUNICATIONS, LETTERS, etc., have been received from:

Sir C. B. W. Soame, Dawley; Mr. J. Bunting, Torquay; W. H. Newnham, M.B., Bristol; Mr. W. Parker, Bath; Dr. J. A. Murtle, Harrogate; Mr. J. T. Roberts, Rhondda Valley; W. G. Owen, M.B., Carnarvon; Mr. T. S. Lacey, Royton; J. Litch, M.B., Sillith; Messrs. F. Walters and Co., Lon-

don; Our Manchester Correspondent; Mr. J. V. Solomon, Birmingham; Miss Goff, London; Dr. W. Alexander, Streatham; Mr. J. E. Burton, Liverpool; Mr. G. Rendle, London; Mr. J. T. Clouston, Edinburgh; Dr. P. Tylor, Manchester; Dr. A. Kempe, Exeter; Dr. R. Wade Savage, London; Mr. C. Palmer, Burton-on-Trent; Mr. W. H. Maling, Sunderland; Dr. A. Ransome, Bowdon; Dr. E. Mapother, Dublin; Dr. Tatham, Salford; Mr. J. C. Culling, Colchester; Mr. W. R. Watson, Govan; Dr. W. G. Gimson, Exeter; Dr. J. E. Shaw, Clifton; The Honorary Secretary of the Hampden Club, London; Professor George Buchanan, Glasgow; Mr. J. J. Idenon, Colne; F. J. Wethered, M.B., London; Mr. H. F. C. Eagle, London; Mr. R. N. Day, Harlow; Messrs. Wm. Edwards and Son, Barnsley; Dr. C. Orton, Newcastle, Staffs.; Mr. R. W. Dillon, London; Mr. P. Forbes, Edinburgh; The Secretary of the National Sea Fisheries Protection Association, London; Mr. W. Smith, London; Dr. Mackay, Inverness; Dr. W. H. Walton, South Petherton; Messrs. C. Green and Co., London; Dr. Louis Parkes, London; Mr. R. R. Weir, London; Dr. Rayner, London; Dr. T. W. Hime, Bradford; Mr. Lawson Tsit, Birmingham; Mr. T. R. Humphreys, London; Mr. J. Gibson, Bromley; Dr. T. Churton, Leeds; D. L. Ritchie, M.B., Saltburn; Dr. Park, Glasgow; Mr. Bland Sutton, London; Dr. W. M. Campbell, Liverpool; Dr. G. W. Richards, Old Swinford; Dr. Bristowe, London; Surgeon-Major R. N. Macpherson, Rawal Pindi; Mr. R. Mosse, London; Dr. Grant Bey, Cairo; Mr. S. Patten, Paris; Mr. W. P. Morgan, Seaford; Mr. W. Donovan, Birmingham; Mr. R. H. A. Hunter, London; Mr. W. W. Pike, Carragh Camp; Mr. W. Brown, Salford; Mr. S. W. Foster, Chester; Mr. P. H. Harvey, St. Leonard's-on-Sea; Brigade-Surgeon F. R. Wilson, M.B., Perth; Mr. H. A. Lawton, Poole; Mr. Butler, Reading; Mr. H. E. Matthews, Levenshulme; Dr. Maurice Parry Jones, Alfreton; Deputy Surgeon-General Gardiner, Newton Abbot; Mr. G. H. Warren Thomas, Teignmouth; Dr. R. Paramore, London; Mr. J. S. Robertson, Shirley; Mr. W. O. Barré, Mossley, Manchester; Mr. G. Quarrie, Birmingham; The Secretary of the Parkes Museum, London; Dr. Illingworth, Clayton-le-Moors; Sir William Stokes, Dublin; Mr. E. B. Barnes, London; Herr G. Fischer, Jena; Dr. P. G. Unna, Hamburg; Dr. A. Emrys-Jones, Manchester; Dr. Maxwell, Woolwich; Messrs. Pratt and Co., London; Mr. A. Salter, Thursday Island, Queensland; Dr. J. B. Okell, Leicester; Dr. M. Coates, Streatham; Messrs. Savory and Moore, London; Miss Morris, Hereford; The Military Secretary, India Office, London; Mr. F. W. E. Kinneir, Horsham; Mr. A. H. Benson, Dublin; Medical Staff; Mr. Arthur Cooper, London; Mr. R. H. Coall, Loughborough; Dr. Crossman, Hambrook; Messrs. T. Christy, London; Mr. Adams Frost, London; Mr. C. Moxham, Stroud; Dr. Mickle, London; Mr. J. W. Hayward, Whitstable; Mr. J. Dickson, Dorking; Dr. Hewitt, Kersal; Dr. E. Drummond, Rome; Dr. E. Liveing, London; The Secretary of the National Hospital for Consumption, Ventnor; Surgeon-Major C. Churchill, Colchester; Messrs. Street and Co., London; The Board of Management, Chelsea Hospital for Women; Mr. J. B. Gate, Morriston; Messrs. Ledger, Smith, and Co., London; Mr. Shirley Murphy, London; Mr. Watson Cheyne, London; Mr. C. S. Kilner, Bury St. Edmunds; Mr. R. Browne, King's Lynn; Dr. Symes Thompson, London, etc.

BOOKS, ETC. RECEIVED.

A Practical Treatise on Diseases of the Skin. By J. V. Shoemaker, A.M., M.D. New York: D. Appleton and Co. 1888.
 Birkenhead Literary and Scientific Society. Session 31, 1887 and 1888. Engravers and Engraving. By Francis Vacher, President.

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THE GOULSTONIAN LECTURES

OR

INSANITY IN RELATION TO CARDIAC AND AORTIC DISEASE AND PHTHISIS.

Delivered before the Royal College of Physicians of London.

By WM. JULIUS MICKLE, M.D., F.R.C.P.LOND.,
Medical Superintendent, Grove Hall Asylum.

LECTURE I.

WHEN deeply but unexpectedly honoured by the invitation to deliver the Goulstonian Lectures at the Royal College of Physicians, and the choice of a subject became necessary, my mind turned, in the first place, to the therapeutics of insanity. Ascertaining, through the courtesy of Sir H. Pitman, that it was neither usual nor deemed to be desirable that therapeutics should occupy the Goulstonian lecturer, I next turned to the pathology of insanity. Having recently written on the pathology of general paralysis, the most interesting, and a very frequent form of mental disease, I could not well deal with the pathology of insanity, except in its general aspects. This course seemed to be undesirable, unless in conjunction with the exposition of a new and more scientific classification of insanity, an ambitious task to which I did not feel adequate, and for the successful accomplishment of which, indeed, the time is not yet ripe. Therefore the subject selected was one of more common medical interest. In general terms, these lectures constitute an attempt to assist, however slightly, in the work of bridging over the chasm which unhappily has separated, more than is necessary, the study of mental disease from that of the general body of medical science, and the treatment of insanity from that of other forms of disease; and, in particular terms, they constitute an attempt to clear up the existing obscurity on some important relations of mental disease, to more accurately and definitely subdivide and arrange the phenomena concerned, and in accordance with the teaching of my clinical and pathological studies.

In the relations of insanity to visceral affections one is dealing with a subject which should interest other medical men as much as mental specialists; a subject which lies in the "border-land," which blends mental with general medicine, which at least, in some of its phases, may be equally studied by the family or consulting practitioner, and by the one engaged in the care of the insane, which, in other of its phases, can scarcely be studied adequately by either alone.

Intending to deal in a general way with the subject of visceral affections in the insane, I analysed the clinical and necroscopic records relating to all the viscera in nearly 250 cases, constituting slightly more than half of my necropsies at disposal, but found that persistence in that intention and work would reduce these lectures to a dry statistical record; and, in the event, it was found impossible to do more than deal—and even that inadequately—with some of the forms of heart disease, aortic disease, and pulmonary phthisis, in certain of their relations to insanity. Yet, over those of most others, my cases possess the advantage that the clinical and pathological material come from the very same cases, the clinical phenomena being noted and the necropsies made by the same observer.

General considerations, as to visceral affections producing or modifying insanity.

Our emotions are closely bound up with our systemic conditions, and there was some degree of truth in Bichat's¹ notion that in the organic processes are located the emotions and passions; but upon this general aspect of the subject—upon the broad question of visceral states affecting mental—I need not dilate, and the less so as it has been eloquently set forth by Dr. Maudsley² in his Goulstonian lectures some years ago. His argument I need not reproduce; but let me, at a stroke, place the matter before you by

a citation or two. "The internal organs are plainly not the agents of their special functions only, but by reason of the intimate consent or sympathy of functions, they are essential constituents of our mental life." Again, "mind.....sums up and comprehends the bodily life." Now, if this be so, "the question arises whether each of the internal organs has not also a special effect, giving rise to particular feelings with their sympathetic ideas." Comparatively slender has been the clinical and pathological evidence hitherto brought forward in support of that thesis, and for decision of the questions involved. To add to that evidence will be one of the endeavours in what I subsequently place before you.

INSANITY IN RELATION TO DISEASE OF THE HEART AND AORTA; THE CEREBRAL CIRCULATION.

Before turning to the special groups of cases, let us glance at some general aspects of the subject.

That so little is known of the influence of heart affections on insanity or its production, so little of the influence of insanity upon the heart, so little, in a word, of the play of mutual action and reaction between the heart and the cerebral (psychic) processes and their results, is surprising when we consider how easily and obviously the heart is affected by every emotion, and how dissimilar upon the heart and circulation are the effects of each.

Moreover, in reference to some of the factors yet to be named—the factors of insanity in heart disease—it has been denied that any marked changes of repletion or depletion can take place in the state of the cerebral circulation; it has been denied that active hyperemia or anemia of the brain can occur; or that, if it occurs, congestion of the brain can produce any decided cerebral symptom, or even any noteworthy influence on the tone or activity of the mental operations. Thus we know how vigorously the theory of cerebral congestion as the alleged basis of several forms of brain symptoms was attacked by the late Dr. Moxon³ in his Croonian lectures before this College, and how he attempted to show that the symptoms, so-called, of cerebral congestion came neither from visibly forcible arterial action, nor from visibly great venous congestion of the vessels of the head.

Obviously, with questions at once springing up as to the relation of cardiac disease to the nutrition of the brain, through the cerebral circulation, it will save much repetition and reference, later on, if at the very outset the salient conditions of the intra-cranial circulation are brought under view.

In proceeding to examine the conditions of the intra-cranial circulation, one meets the gravest discrepancies as to the most elementary facts. For example, while Haller⁴ alleged that one-fifth of the whole mass of blood in healthy man constitutes the supply to the encephalon, and while Spehl⁵ found in the rabbit in the waking state one-eighth to be the amount of blood contained in the head at a given moment relatively to the total bulk of blood in the system, yet we find it stated in Foster's *Physiology*⁶ that in the rabbit only about one per cent. of the total blood is at any one time in the brain, and that the blood supply to the human brain must be small. Making some allowance for the difference between the amount of blood in the rabbit's head at a given moment, and that in its brain only, there is still an enormous discrepancy between the estimate of 1 per cent. in the rabbit's brain, and the estimate of 12½ per cent. in its head, which latter share indeed, for the rabbit, does not offer any incongruity with the Hallerian estimate of one-fifth of the total blood as the supply for the relatively more developed, more preponderant, and more active human encephalon.

Leaving this subject of the share of the total blood contained in the cranium, we pass to the question whether, so long as the brain remains the same in size, the amount of blood within the cranium is, or is not, a fixed and definite quantity, an invariable amount. That, under all circumstances, it is an unchanging amount appeared to be evident from the theoretical considerations that the skull is a closed cavity, a complete sphere, the total bulk of whose contents, removed from the more usual conditions as to atmospheric pressure, must at all times be the same, and loss of the fluid portion of these be prevented, and therefore that, so long as the brain is neither shrunken, nor compressed, nor enlarged, the amount of intra-cranial blood must remain the same. Experiments by Kellie appeared to give reinforcement to this view, experiments widely accepted, and of which the reported

³ *Lancet*, April 18th, 1887, p. 689.

⁴ Dr. W. B. Carpenter's *Physiology*, p. 529.

⁵ *J. Encephale*, January, 1887.

⁶ *A Text Book of Physiology*, 4th edition, 1883, p. 645.

¹ Cited by Dr. M. Fothergill, *Jour. Mental Sci.*, October, 1874, p. 395.

² *Body and Mind*. By Henry Maudsley, M.D.

results were that, on bleeding animals to death (their skull intact), the usual amount of blood was found, *post mortem*, in the cranium, and in strong contrast with the exsanguine state of the rest of the frame.

It is unnecessary here to refer in detail to the numerous experiments and observations which, since then, have clearly shown that physiological changes occur in the brain circulation, and that the amount of blood in the visible parts of its meninges, or making exit from its sinuses, varies constantly, and in a very considerable measure; of these observations I need only mention that on the vastly different states of the circulation of the brain, and the amount of its arterial supply, in the waking as compared with the sleeping state.

But still the skull has remained to some extent, a closed cavity, and there still existed a necessity for an unchanging amount of its total contents, and still has there been a disinclination to admit the existence of quantitative pathological changes in the circulation, that is to say, of amounts of blood not within the limits of physiological fluctuation, but springing wide therefrom on the line either of deficiency or of excess.

In this relation much has been made of the peculiarities of the intra-cranial circulation, and of the provisions for placing checks on excess, or grave deficiency, in the amount of blood supplied to the brain; and much has been made, also, of any great change in the blood-pressure on the walls of its vessels, and of the impossibility of any change whatever in these, except through the medium of the blood-vessels entering or leaving the skull, or through the medium of the cerebro-spinal fluid. These same checks, also, are concerned in the mechanism preventive of ill result from alteration in the pressure in the brain, whether from changes in atmospheric pressure, or in posture of the body, or in the force and activity of the blood circulation. So, also, are they intimately connected with the structural arrangements whereby the erect posture of man is made possible, and whereby the blood supply is kept up, and kept up so richly, too, at the lofty elevation of the brain.

The checks on over-active entrance of blood to the cranium, and on too great a blood-pressure in the vessels of the brain, are, chiefly, that the cardio-inhibitory centre in the medulla oblongata is stimulated, that the heart in this way is slowed, and thus the incoming overflow of blood is automatically stayed, and the balance of local circulation maintained. Moreover, that an increased supply of blood is stimulating to the brain is shown by experiments, for example, those of Lépine,⁷ in which stimulation of the anterior part of the cerebrum (of dogs) influences the heart-beats, and in so doing operates through the vagus, for on dividing one vagus no change followed stimulation of the opposite side of the brain, whereas stimulation of the same side of it lessened the frequency of heart and pulse. And, as Dr. Moxon pointed out, in man there is a supplemental contrivance whereby, when blood is streaming too freely, and under too severe pressure, into the brain, the finger-like vascular process, the cornu of the choroid plexus of the fourth ventricle, composed of thick tufts of blood-vessels, lodged in the lateral offset of the ventricle, and swollen by the incoming tide of blood, promptly presses on the adjoining and tense nerve-roots of the vagus, retarding the action of the heart, and thus shutting off the overplus of blood which would otherwise continue to arrive within the cranium. That these plexuses are so promptly swollen by the extra-inrush of blood is due to the fact that they receive their arteries directly from the great vessels immediately the latter enter the skull; hence they swell up, and promptly press on the pneumogastric nerve roots.

Another way in which a check is placed upon too great an influx of blood is connected with the fact that a change of pressure in or on the brain is necessitated by every change in the intra-cranial circulation. When, in active states of molecular movement and function on the part of the brain, there is more rapid blood-movement and increased intra-capillary pressure, the swelling of the brain in volume is checked, not merely by the unyielding walls of the cranial vault, but also by compression of the pial veins. Associated, as shown by Dr. Cappie⁸ with increased tension in the brain itself, with increased tension to which all the cranial contents are subjected, this compression of the veins places a brake on the over-activity of circulation, and tends to bring it to a stop. Placed between the onward driving forces of the heart, arteries, and capillaries, on the one hand; and, on the other, the locking or backward driving force of atmospheric pressure on the

blood in the sinuses, and thence on their tributary veins; and subjected with every expansion of the brain to pressure on the side of their walls, lessening and tending to obliterate their lumen, the veins of the brain-meninges occupy a position exposed to stress. If the forces on one side sink, those on the other rise; for example, (taking an illustration converse of the preceding) if influx of blood fails, the forces preventing efflux are enhanced, and of these the chief has now become the atmospheric pressure, the suction action of the sinking brain on the blood in veins and sinuses tending to fill them, and thus to bring about a venous fulness compressive of the brain surface.

By experiment, Grassley⁹ also showed that, under certain circumstances, an increase of the arterial blood-pressure retards the circulation in the skull; that, inasmuch as the blood-pressure in the brain-capillaries is greater than in the large cerebral veins, with increase of the brain pressure comes compression of the large cerebral veins rather than of the capillaries, as also a clogging and retardation of the blood stream. Another provision for relief of disorder of the cerebral blood movement is the so-called "derivative" circulation of the head, a side channel, so to speak, whereby some relief is afforded when the intra-cranial circulation is embarrassed and sore pressed.

On the other hand, the automatic mechanisms for checking the exit of blood from the brain are chiefly the arrangement of the cerebral and meningeal veins, which never accompany their arteries, ascend against the force of gravitation to the summit of the brain, pass forward; many of them, and enter the superior longitudinal sinus against the backward flowing stream, this opposition of currents in the sinuses and in the veins tending strongly to retard the venous flow, and make the venous side of the intra-cranial circulation leisurely, or even stagnant; and, in fact, the blood appears to issue from the sinuses only under pressure in the veins; while, if in active and strong states of the circulation the lock becomes too stringent here, relief is afforded by escape of blood through the inferior longitudinal and straight sinuses at the base of the brain, and out of the way of the lock just-mentioned (Moxon). Of atmospheric pressure we have already spoken.

Moreover, the choroid plexuses soak up, as it were, and account for, much of the incoming blood for the time, thus assisting in another way in giving easement. And in doing this they displace portions of the cerebro-spinal fluid, forcing it down from the ventricles of the brain to the subarachnoid space of the spinal cord; this upward and downward flow of the cerebro-spinal fluid, according to some, playing an important part in making changes possible in the blood supply to the brain. For a discussion of the automatic checks on great changes of the intra-cranial circulation involves a consideration of the mechanisms whereby variation of the blood-supply is permitted in health. Some hold that this is chiefly effected by the upward and downward play of the cerebro-spinal fluid, and by the changes of high and low tide in the lymph channels and lymph spaces of the brain, especially those that are subdural and those that are perivascular. When the brain is active, when the incoming tide of blood attracted to it swells it up and it expands, the hypothesis has been that room is made for the dilating vessels and for the larger amount of arterial blood they contain (and contain under increased pressure, perhaps), by the absorption of the lymph circulating in the finer passages, and pericellular, perivascular, and subdural lymph spaces, in proportion as the blood-vessels bathed in it dilate; and that the choroid plexuses press the cerebro-spinal fluid out of the ventricular spaces of the brain into the subarachnoid of the cord.

Nevertheless, it is not altogether clear to my mind why the spinal cord should be deemed to be prepared to receive without embarrassment or disorder two or three or more ounces of cerebro-spinal fluid over and above the usual quantity, and at a moment's notice, on the behest of the brain; those who tell us all about the backward and forward flow of the cerebro-spinal fluid have not provided for this exigency, or explained how the spinal cord adapts itself, without more ado, to the altered circumstances; they have not pointed to any mechanism in the cord whereby, in a moment, it may rid itself of the inundation. Perhaps the large and soft-walled veins of the meninges of the cord and of the bodies of the vertebrae easily permit outflow of blood under the pressure of cerebro-spinal fluid; or it may be that when the brain circulation is extremely active, that of the cord is less so; for when the amount of blood sent to the brain is increased during intellectual activity, the amount going to the arm is lessened, as tested by the plethysmograph; for, during intellectual activity,

⁷ Gazette des Hôpitaux, No. 90, 1875.

⁸ Brain; a Journal of Neurology, vol. II, p. 373.

⁹ Allgemeine Zeitschrift für Psychiatrie, Band XII, 1885, p. 707.

whilst the volume of the brain increased, Mosso¹⁰ found diminished calibre of the arteries to the forearm, together with a more frequent, smaller, pulse in them, and now catacrotic instead of anaerotic, as it had been; a change not due to respiratory influences. During mental attention and activity E. Gley¹¹ found the number of heart-beats increased, and the carotid artery and its pulse becoming dirotic, whilst a contrary state of the radial pulse existed; effects attributed to vasomotor influence. Thus it may be that if the cerebro-spinal fluid is forced from brain to cord, the concomitant conditions of lessened blood-supply to the cord enable the vertebral canal to accommodate the increased amount of cerebro-spinal fluid by an automatic arrangement. But be this as it may, there are two lines of discrepant view on the subject: the importance of the cerebro-spinal fluid, or its operation as above described in providing for easement and for considerable variations of the cerebral circulation, having been upheld by Majendie, Burrows, Carpenter, Hilton, Moxon and others; whilst, on the other hand, this importance and operation of the cerebro-spinal fluid have been called in question (amongst others) by Prof. Foster, Dr. Cappie, and M. Franck. Some of these affirm that changes of the brain circulation are provided for by the venous sinuses of the skull; that these form reservoirs of the blood—temporary reservoirs for extra blood in times of emergency—and that when the blood-pressure is increased in the brain the blood flows with greater freedom away from the sinuses and out of the skull; so that when the brain is anæmic, as in sleep, the sinuses become correspondingly and compensatorily fuller of blood; thus the amount within the bony cranium remaining the same, a much larger share of it than in the waking state is now external to the brain, a smaller share within the brain itself.

In the young and healthy, rapid and extreme changes in the position of the head may take place without any evil or inconvenient result; but in old age, when the vessels become altered and their elasticity is impaired, when their vasomotor apparatus is worn out or deranged, when the meninges become thick and tough, the choroid plexuses sodden, or stony, and the brain is less elastic, similarly sudden and marked changes in the posture and relation of the head occasion giddiness or syncope.

That marked changes are constantly occurring in the brain and in its circulation appears to be shown also by the fact that, if the brain is exposed, it and the quantity of blood in it rise and fall with the respiratory movements—the brain rising in expiration, falling in inspiration; and also rise and fall with each beat of the heart and the interval before the next; as well as rise and fall in a slower manner than with respiration, doing so in response to various influences, such as changes in mental activity, in relative position of head, movements of limbs, respiratory modifications.

Inspiration also assists to unload the sinuses, promoting a rush thence to the thoracic vessels and heart. Without entering upon the complex causation of the respiratory undulations just mentioned, we may notice M. François Franck's¹² observation, that when the heart is arrested the pressure on the sinus remains equal to the general encephalic pressure, the veins swell, especially in the deep parts, and particularly in the cranial cavity, so that the arterial anæmia is replaced or counterbalanced by venous congestion. Yet against this view is the result of Spehl's¹³ experiments on rabbits, in which the blood in the head during the chloral sleep was diminished, being now only 8.7 per cent., instead of 12.5 per cent., as in the waking state.

All the above facts, including those concerning the existence of checks on wide variations of blood-supply and blood-pressure in, and tension of, the brain surrounded by various structures, go to show that considerable variations may exist in the supply, in the distribution of that supply, and in the pressure under which it circulates. And pathologic states show this increase or diminution, as the case may be. Observe not merely the exudation but hyperæmia of inflammation within the cranium; observe the intensely gorged, congested—passively, if you like, but gorged—blood-vessels in cases dying in epileptiform seizures; observe the blanched brain of the lunatic dying of purpura hæmorrhagica, or of other maladies attended with rapid or severe loss of blood—and you will admit pathologic hyperæmias and anæmias of the cerebrum.

In reference to this subject of the relative amounts of arterial and venous blood in the cranium, and the alternate ebb and flow

of the amount of each, are experiments showing the relation of active cerebral hyperæmia or anæmia—of changes in the blood-pressure within the skull—to degrees of free outflow of venous blood from the cranial sinuses, and its return to the heart. Thus Gärtner and Wagner¹⁴ found that, whilst the calibre of vessels remains the same, the higher the pressure under which it circulates the more blood must stream through them; and thus, without any change in the calibre of the vessels, a larger amount, per unit of time, may circulate under a higher pressure, and a correspondingly larger amount keep outflowing from the sinuses of the skull. Compress the aorta above the diaphragm, thus raise the blood-pressure, and in a parallel way the quantity of blood issuing from the cerebral veins and the sinuses is augmented. On the other hand, compress the ascending vena cava, and with the lowered blood-pressure the outflow from the veins and sinuses immediately sinks; and, indeed, when the blood-pressure sinks to 30 to 40 millimetres of Hg., "the efflux of blood from the brain quite ceases." Now, under irritation of sensory nerves, strychnine poisoning, asphyxia, etc., contraction of blood-vessels of various organs occurs, together with rise of blood-pressure; but that the cerebral vessels do not thus contract, under similar circumstances, appears from the fact that the outflowing amount of blood from the brain sinuses, instead of lessening, actually increases then, and in direct proportion to the increase of blood-pressure induced by the experiment. Whereas, on the contrary, the outflow from the sinuses would be lessened if the brain vessels contracted, or at least their contraction would proportionately subtract from the effect of the increased blood-pressure. And direct electrical stimulation of the often so-called "motor area" of brain cortex ("kinæsthetic centres" of Dr. Bastian¹⁵) appears to cause, not brain anæmia by contraction of vessels, as usually supposed, and hence convulsions, but, active hyperæmia of the brain, and this sometimes independently of an increase of the blood-pressure, although the latter usually assists in the result. Intimately bound together in this relation are the local vasomotor changes affecting branches of the circle of Willis, and the local molecular activity of portions of brain tissue. Let definite parts or centres be roused by any unusually active incitations of psychic or of somatic origin, and instantly the circulation thereto becomes, at a leap, more active and the blood-supply richer.

INFLUENCE OF CARDIAC DISEASE ON MENTAL STATE AND PRODUCTION OF MENTAL SYMPTOMS.

The chief factors of the brain circulation being the heart's action, the vasomotor apparatus of brain, the molecular functional activity of brain, and the atmospheric pressure (opposing return from skull, whose contents are partially withdrawn from its influence), it is evident that cardiac disease may play an important part in modifying that blood-supply and the cerebral functions. And the shrewd forecast of the late Sir G. Burrows,¹⁶ as to its frequent connection with insanity, has been justified by actual observation.

Speaking of the mental disease with which so frequently an accentuation of the aortic sound is allied, Professor Rudolf Arndt¹⁷ said that it often takes origin when degeneration of the heart has followed its overstrain, and here the mental disorder, grounded in a disposition of the affected individual, is to be taken as an expression of general disease rather than as a brain disease, strictly speaking.

The influence of heart diseases in the production of brain affections is chiefly to bring about functional disorders of the brain, including insanity. Although Dr. R. Law and Dr. Wm. Stokes¹⁸ held that, independently of arterial disease, which Rostan connected with white softening of the brain, the latter might be brought about by heart disease, yet I have never seen a case of such "exsanguineous softening" fairly attributable to cerebral anæmia the effect of cardiac disease; for in all cases where disease of the vessels locally was insufficient to account for the circumscribed softening, I have found embolism, or hæmorrhage, exudation, or new growth. But whatever their connection with cardiac or other disease, these several forms of local gross cerebral lesion may originate mental derangement, chiefly with dementia. An examination of this department of the relations of cardiac to mental disease would occupy too much time, does not fall within the scope of these lectures, and will now be dismissed for good.

¹⁰ Cited by Gley.

¹¹ *Thèse de Paris*, 1881. *Revue des Sciences Médicales*, T. xix, 1882, p. 35.

¹² *Gazette des Hôpitaux*, March 28, 1882, p. 294.

¹³ *Loc. cit.*

¹⁴ Cited in *Brain*, July, 1887, p. 281.

¹⁵ *Brain: a Journal of Neurology*, April, 1887.

¹⁶ *On Disorders of the Cerebral Circulation*, etc., 1846.

¹⁷ *Deutsche Medicinische Wochenschrift*, June 25th, 1881, p. 359.

¹⁸ *The Diseases of the Heart and the Aorta*, by Dr. Wm. Stokes, 1854, p. 369.

How, then, may cardiac disease either modify the symptoms of pre-existent insanity, or of that which appears about simultaneously with itself; or give origin to the mental disease; play the part of a chief factor of the psychological malady? A question of difficulty and complexity. Combined as they usually are in operation, the several elements may be disentangled in some examples. They are as follows: 1. The heart disease may act by disturbing the balance of the general circulation in various ways and degrees. 2. Similarly, it may act by disordering the intracranial circulation (this includes its effect on the local vasomotor mechanisms). 3. It may operate by leading to a change in the composition of the blood within the cranium; or 4, of the blood generally. 5. It may act by the pulmonary disorder it induces, and the morbid impressions and sensations resulting therefrom, so that eventually some of the effects arising are of pulmonary origin, or partly so. 6. Through the nerves it may become a source of peripheral irritation, and influence cerebral functions reflexly, by sympathy, inhibiting some forms of activity, deranging others.

Lest the above statements should bear a dogmatic impress, I must add that as yet they are not actually demonstrated and generally accepted facts. Some, indeed, while admitting a change of balance of general or of local circulation in heart disease, changed blood-pressure within the vessels, and altered quality of the blood therein, yet deny any effect, worth mention, of these on the production of mental symptoms, and hold that the original endowment of the nervous system, and the previous mental qualities, govern the state of psychic functions during the existence of heart or renal disease, of changes of pressure and circulation. Nevertheless, as regards the first two of the above-mentioned results of cardiac disease, and factors of mental, the preceding discussion shows their importance in determining the state of the brain, and therefore in producing disorders of it. In relation to this come cases¹⁹ with feeble circulation and with cerebral vessels imperfectly filled, in which the mental state or the sensory brain functions varied with the oscillations of arterial anæmia of the brain, according as the subject was in the erect or in the horizontal position; as where one, feeble-minded, apathetic, and peevish whilst in the erect position, became intelligent, lively, and conversational in the recumbent; or the student, mentioned by Burrows, who, owing to defective bulk of blood in the cerebral vessels when sitting up, could study only in the recumbent position; and Witkowski²⁰ found two patients with aortic stenosis lie' abed with head low: whereas other persons with congested head held it stiff and high erect, as in a case of mitral insufficiency with swollen red head, most carefully balanced. Then from the asylum ward come cases in which maniacal excitement is often cleared up, and disquieting delusions abated or dispersed, by moderate doses of digitalis, as shown in my paper²¹ on the subject; and I need only mention vertigo and syncope as active cerebral symptoms often connected with defective or disordered encephalic arterial supply.

Then, as regards the third of the factors enumerated, what has gone before demonstrates that in disordered conditions of its circulation parts of the brain may be poisoned by venous blood, relatively too venous, and relatively too long stagnating in the veins and sinuses, and dammed backward upon the capillaries. As regards the fourth and fifth of the factors, also, we need only draw attention to the frequent disorder and imperfection of respiration, or even pulmonary disease, secondary to cardiac disease, and the interference with normal hæmatosis thereby engendered, and therefore defective nutrition of the brain, as well as the mental effects of morbid impressions coming from such pulmonary disorder or disease.

The sixth manner in which heart disease may occasion or modify mental symptoms is one which has been almost entirely ignored, but which I deem to be of great efficacy. When we consider the painful impressions, the distress, the physical anguish, the extraordinary variety of abnormal sensations, that may arise in cardiac disease, the closely, urgently pressing nature of many of these, the vague discomforts, the oozing away of strength and courage and nerve, the easy access to the brink or depth of syncope; we shall see in all these a fertile field for the growth of depressed or hypochondriacal feeling and ideas of a delusive character. That peripheral local morbid states often directly occasion definite mental symptoms, and even particular

delusions, I have had many necroscopic proofs; and, had I space, might relate many cases in illustration of that thesis, and might select abdominal and other cases, in order that what I shall say hereafter about the heart might exhibit conspicuously a parallelism with these other pathological facts; but space fails me. Moreover, this doctrine is not a new one. Thus, the wide employment of "sympathetic insanity" as a general etiological term, was largely built upon occurrences similar to those long ago spoken of by Brown-Séquard,²² and others, as insanity by reflex effect of irritation of centripetal nerves.

One may describe the above methods of action of the graver maladies of the heart; more difficult, may often be impossible, is it to apportion to each one its place and rôle in particular cases, or in the several forms, of cardiac disease.

With disabling heart disease, and especially if thereupon pulmonary disease supervenes as a secondary result, or even independently, come a general disturbance of the balance of the circulation, and impeded return of blood to the right side of the heart, including impeded return of blood from the cranial cavity, and all the more so as here comes into play the closed nature of the skull. And not only is the venous blood in the sinuses and large cerebral and meningeal veins brought to a state tending to stagnation, but it also acts backward towards, and upon, the arteries, in this course giving rise to irregular circulation, local retention and blood-stasis, poisoning of the parts with retained effete products of tissue-metabolism, and to changes in the pressure of the blood upon the vascular walls, and in the tension of the brain. Lung disease greatly enhances this condition of the intracranial circulation, a condition which also is accompanied with arterial cerebral anæmia, which we have seen the above-mentioned changes tend to produce. And this being the state of affairs, should there now be also histological changes in the walls of the cerebral blood-vessels, their partial occlusion starves the brain substance, their diminished elasticity further aggravates the stasis and promotes gravitation of blood. Of the evil effects of persistent passive congestion of the membranes and brain substance I need not tarry to speak. Yet the heart disease, in some forms particularly, and eventually in all, of itself directly, often mechanically, occasions a defective arterial supply to the brain, with or without venous congestion, and in the train of this arterial anæmia (and venous congestion) follow all the changes in the circulation and nutrition of the brain to which I have referred, but which I need not recapitulate. And utterly mistaken are those who in the diseased or healthy state of the brain vessels, respectively, would seek the complete solution of the seeming mystery that one case of heart disease is attended by mental symptoms, and one, apparently similar, is free therefrom.

Notwithstanding the effect of emotions on the heart, and the frequent effect of heart disease on the spirits of the sufferer, and that some have attributed mental symptoms, and even the production of insanity, to chronic heart disease, yet others have denied the existence of any such influence by cardiac affections, or, if not denying it, have minimised its importance and effect, holding, rather, that when they co-exist, the heart disease is secondary to the mental. And of those who do admit that influence, nearly all have described the clinical results in brief and general terms, as applying to chronic heart disease, in a wide sense, have failed therefore to distinguish the mental effects flowing from its different forms. Thus, Solfanelli²³ opined that while hypertrophy affecting the left side of the heart is connected with more active, and valvular disease with more passive, hyperæmia, and its results; and while cerebral anæmia will arise from aortic-valve stenosis, and cerebral venous congestion, and œdema will follow upon mitral regurgitation, yet a correspondence fails to be observed between the variety of heart disease and the form of insanity found accompanying it.

Those who have brought forward large statistics on heart disease in the insane have drawn the clinical facts from one set of cases, the necroscopical from another set, and the latter from records entirely or largely made by others. Not only are there discrepancies between the facts adduced by the several observers; and not only do the conclusions drawn from the living fail to harmonise with those drawn from the dead, in the statistics of each observer; and not only have some pathologic rela-

¹⁹ Burrows, Combe, Abseeromble.

²⁰ Allgemeine Zeitschrift für Psych., Band xxxii, p. 353.

²¹ Journal of Mental Science, July, 1873, p. 133.

²² Lancet, July 27th, 1861, p. 79, and Physiology and Pathol. of Centr. Nerv. Syst., pp. 166, 185.

²³ Archivio Italiano per Mal. Nervi, et Al. Ment., cited Journ. Ment. Sci., April, 1875, p. 140; and by Witkowski.

tions and factors been lost sight of, in their figures, but also when these observers turn to the clinical features of the insanity produced by heart disease, or the modifications wrought thereby, their statements are not drawn from the cases and statistics preceding, which, indeed, so far as they go, would lead us to very different conclusions.

Of insanity where heart disease is the chief factor it has been said that hypertrophy of heart goes with exalted conditions, dilatation with depression; or, again, that aortic-valve affections mostly occasion excitement, whereas, on the contrary, mitral affections lead to melancholia chiefly; while states of excitement are often attended by temporary murmurs originating at the aortic valve. Yet most or all of the existing statements on this particular relation of heart disease to insanity are vague, general, indiscriminate, insecurely based.

The clinical and pathological sketches to follow are entirely from cases under my care, and many of them so far years, and of which I made both notes and necropsies. A few other cases are utilised, of persons who are living, or did not die under my care, or on whom a necropsy was not made. Thus the clinical and the pathological facts are drawn from the same cases and by the same observer, and, it is believed, are sufficient in numbers to elucidate the different relations to insanity of the several forms of cardiac and aortic lesion; and, moreover, are reported without bias, prejudice, or preconception.

Acute affections of the heart may be the source of mental disorder, as the insanity observed in some cases of rheumatic endocarditis by Burrows and others, or as in cases of ulcerative endocarditis in the childbed state, causing derangement taking the form of puerperal mania.²⁴ But I am about to speak of something other than the delirium or other mental symptoms occasionally observed in the acute and febrile affections of the heart—of something other than its functional affections, or even than its milder organic changes; for not only is it more difficult to trace the effects (if any) of functional disorder or mild organic disease on the mental state, and not only are these producible by many causes, and easily engendered by the mental disturbance itself, and by states such as lithæmia and renal inadequacy—thus rendering them less suitable for our purpose—but also in omitting them there are two further advantages; the one an avoidance of being overloaded by a throng of cases of little use for our present purpose; the other, that by selecting only the severe cases of organic disease the necropsy is conclusive as to the cardiac condition, and therefore we can be spared that recital of the physical signs and somatic symptoms of the heart affections which would become almost necessary in dealing with functional cases and mild organic ones. And still another reason is that it is not part of my scheme to furnish a new and ostensibly complete set of statistics as to the proportions, per cent., of the several forms of insanity affected with this or that cardiac condition or lesion—a matter of secondary interest from our point of view.

Continually do we find mental symptoms cropping up in heart cases. For example, in Dr. Bristow's²⁵ article on "Recurrent Palpitation of Extreme Rapidity in Persons otherwise Apparently Healthy" we find that even in some of these cases of purely functional affection with only incidentally present cardiac disease, or slight dilatation and hypertrophy secondary to the palpitation, he noticed an irritable, fidgety condition, and sense of being always in a hurry, or a feeling of being ill, faint, and weary, coincidently with the paroxysm of palpitation.

To illustrate the effect of heart disease on the mental state I need not confine attention to the insane. Their attendants and others occasionally furnish me with effective examples. One such will be mentioned under aortic regurgitation. A second case was that of one disabled elsewhere for attendant's work by a heart crippled by rheumatic fever, and to whom I gave the situation of porter. In his chest was always to be heard a loud churning of rumbling murmurs, which sometimes became worse, the pulse, ordinarily above 100, running to a great frequency then; asthma-like attacks of dyspnoea being severe, the congestion and œdema of lungs adding to the distress; the face becoming blue and livid, and the lips more everted. Now at these times I noted a concomitant mental change imprinting itself on the man's visage, and chiefly manifesting itself by suspiciousness and a substitution of the usual cheerful, lively buoyancy by moroseness, withdrawal of self, and a mental attitude as of one standing on defence against unjust reflections upon, unjust feeling toward, himself—

an incipient morbid idea of the hostility of those around him, and the misinterpretation of their actions and motives, ending occasionally in his bringing to me some suspicious suggestion rather than definite accusation—suggestion which I was wont to ignore. Finally, the kidney becoming affected, he died albuminuric, but a few days before death confessed to me that, when in his "bad turns," he for years had had visual hallucinations or illusions, and that, as in dyspnoea lividity he spoke to me, he could see a man and dog at the foot of his bed (hallucination).

Still another attendant became changed in disposition and feeling, but was unaware of his heart disease until, on examination, I found left hypertrophy and double aortic bruit.

Nor can I forget the case of a medical friend with heart disease, chiefly of the aortic valve, so far as valvular, and a bruit in the aortic arch; whose life became overcast by restless anxiety. Oppressed by apprehensions and vague disquietude, and with his thoughts ever returning to revolve around his morbid sensations and vague mental and physical discomforts, his conversation kept recurring to his sensations, his disease, and his impending death, the constant themes with which by day and night he worried those around him. Mirth or pleasantry grated upon his feelings, circling around their sombre centre. Fidgety, restless, perturbed, anxious—a hundred times a day he would beg of me to feel his pulse, or seek the expression of my opinion on his state; and in the night, when sleep failed, he would rouse one up in order to seek suggestion of some new soporific plan, to be relieved of his dread, and to have his pulse again felt.

And here I may mention the case of a deteriorated imbecile monomaniac, not in the following statistics, who, after several rheumatic attacks leaving damage of the mitral valve and of the lunate cusps of the pulmonary artery, had vast increase of what had previously been only a slight tendency to occasional, sudden, quasi-impulsive, transitory outbursts of excitement, violence, and destructiveness.

INSANITY IN RELATION TO FORMS OF CARDIAC DISEASE.

Passing to *Heart Disease and Insanity*, and the groups I have formed: all the cases were males. Once for all, it must be stated that under each of the following heads I have two objects in view, the one being to trace the clinical aspects of the insanity produced, or the modification of pre-existent insanity wrought, by the particular variety of heart disease; the other, conversely, being to indicate the several forms of insanity in the course of which each cardiac affection is most liable to appear; for both the cardiac and the mental may be deeply rooted in one and the same diathesis or diathetic tendency.

Mitral Valve Disease.—Three sub-groups. In the first and second sub-groups, mitral valve disease was the chief or predominant somatic condition, both clinically and pathologically; in all the sub-groups it was the chief or only cardiac abnormality. The twenty-nine mitral cases I bring forward are grouped as (1) marked regurgitation; (2) marked obstruction; and (3) comparatively slight or moderate mitral valvular disease. Of those in which mitral disease was severe, the sole or predominant cardiac condition, and of considerable influence on the fortunes of the case, six were examples of mitral regurgitation, seven of mitral obstruction. One might well anticipate that disease of the bicuspidates, whether giving rise to obstruction or to regurgitation of the blood stream, would practically be of the same effect on the nervous system, and therefore on the mental state; or if the bicuspidate disease is later in time than the mental, that there would be no special difference in the liability of the subjects of the several forms of mental disease to one or the other lesion—to stenosis, or incompetency, as the case might be; and that the modifying effect (if any) of either upon the pre-existent mental state would be the same: but the facts I have observed, and will mention, point to a different conclusion.

First Sub-group: Mitral Regurgitation.—Let me give a summary of the cases of regurgitation due to incompetency of mitral cusps. The patients were aged from 37 to 59, and on the average 47. At death, the insanity had lasted from a few weeks or months to twenty years. In some the cardiac affection supervened on mental disease, in some it preceded the latter. For reasons already specified I need not give the physical signs of the cardiac disease, so well marked in these cases, or the other somatic symptoms, although noting incidentally the comparative frequency of Cheyne-Stokes's respiration in this sub-group. The heart was enlarged in these cases, weighing on the average 17½ ozs. Av., the left ventricle be-

²⁴ Arch. für Path. Anat. und Phys., Band xx, p. 542.

²⁵ Brain, July, 1887, p. 164.

ing hypertrophied and dilated, the left auricle somewhat so, as also the right ventricle; the heart muscle was in some cases pale and slightly granulo-fatty, and its coronary arteries atheromatous. Even when least affected in structure the incompetent mitral cusps were also more or less thickened and unduly opaque. The other valves may be so also, the tricuspid, however, often escaping. We may find in the lungs congestion, pneumonia, hemorrhage; the kidneys smallish (4 to 4½ ozs.), and slightly or moderately granular.

The heart disease in some of these cases preceded either melancholia or suspicious delusional insanity. In others the heart disease was subsequent to religious or to persecutory monomania, or to expansive, maniacal, hostile, irritable general paralysis, running an aberrant course in one with hereditary psychic degeneration. Of the two sets of cases, the more interesting is that of mitral disease preceding mental disorder and influencing its production and aspect.

When rheumatic fever has founded the chronic heart disease, and mental symptoms have been noticed for six months, one is emotionally depressed, melancholic, acknowledges morbid feeling in the head for a long while, as if the vertex was cut off and lifted up. To him it seems as if something "wrong inside him" says he is to be shot or hung; he believes it, and wishes to be opened at once for the benefit of medical science, by the discovery of the internal pathologic state. He fancies that imaginary voices address him; people turn round and speak to him; the Lord talks to him, and says he is to be shot; he feels wicked, and as if cast out by the Lord. At times his description is that he had felt as if the calvaria was off and the heart down. From the cardiac region he hears voices say, "It's a shame to keep him here;" but this he explains, in a sense unusual for asylum inmates, as meaning that he has become too wicked to be here, and therefore ought to be shot or killed. At one time the hallucinatory voices had suggested his sexual mutilation, and he confesses to past onanism; falling on his knees he tells of youthful sexual excitement, aroused by his presence in the bedroom to which his widowed mother often brought home a paramour. At times he had felt increased in height, lifted up, and as if he was not a natural being. Something seemed to be blowing on the top of his head; he felt as if a snake worked from right thigh to shoulder. Sometimes he perceived strange smells without external cause. These were auditory, tactile, olfactory, and visceral hallucinations and illusions.

In the next case the coming on of mitral regurgitation was probably subsequent to the insanity. A religious monomaniac, who had settled down as a quiet, respectful, pleasant, industrious inmate, fell at last into physical and graver mental difficulties. With his cardiac and renal disease came, first, pulmonary engorgement, muco-aqueous expectoration, œdema of lower limbs; and, later on, marked albuminuria, defective vision, mental dullness, drowsiness; from congestion of lungs, at times dyspnoea or orthopnoea and cyanotic livid hue of face and hands, but the dyspnoea was in part renal. And so the case progressed, with recurring dyspnoeal attacks, a lessened amount of the now highly albuminous urine, mental heaviness and drowsiness. And during these latter and evil days, when the cardiac and renal diseases were telling upon him, the state of mind was modified; for, in contrast with his former mental characteristics, he had become depressed, very quiet, somewhat sombre, and showed a marked inclination to taciturnity and silence, as if the mental sky had become dull, leaden, oppressive.

Another monomaniac had had delusions as to poisoned food and persecution; hallucinations of sight and hearing, and a variable emotional state—now amiable and industrious, now sullen, moody, and menacing. That he was persecuted by men who annoyed him by blasphemy and by tramping about so as to get him to commit himself, that he was kept to be tortured, were some of the various delusions under the influence of which at times he became noisy, excited, threatening, or violent. Later on, he destroyed his bedding, declared he was tormented at night, especially by women and the Queen; therefore he threatened and planned to assault the officers of the asylum, or to smash windows, if not shifted away. Subsequently, becoming more quiet and sullen, he said he had no flesh on his bones, or those about him were "against" him, or that he was persecuted. The marked heart disease had now become manifest, and now, neither excited nor noisy, he was sullen, reserved, taciturn, of forbidding look, and the delusions were somewhat in abeyance. Later on he said the patients were "all against him; his testicles were eaten away, he was tormented;" everything not agreeable to him he looked on

as an injustice, an act of hostility to him, a punishment. Subsequently deaf and phthisical. Here the mitral disease appears to have modified the mental state; changing it from a chronic, paroxysmally excited, violent, destructive, and "threatening" state, to a more depressed, morose, sullen, taciturn one, yet combined with a quiet, tractable docility, in strong contrast with the former aggressiveness.

Another, a protracted erratic case of general paralysis, at first was extremely maniacal, irritable, full of hallucinations and delusions of exalted type. "Is Jesus Christ, has millions of money, is an Adonis, is all-powerful to strike or heal." Subsequently, with big ideas, he still at times was irritable, angry, quarrelsome, disdainful. Latterly, with marked mitral, also with aortic-valve, lesion, and in contrast with his previous state, he gradually became quiet, reticent, depressed, incoherent, childish, somewhat demented; but impatient, irritably waving his hands, and offering a ready resistance to management or manipulation.

Finally, the order of incidence of the two affections was not absolutely clear, although the total stated duration of the insanity was under ten months, but the heart disease obviously of some years' standing, in one who died after being only four weeks under care. The clinical aspects were: very fidgety and restless movements, muttering, incoherence, repetition of the same words, rambling statements, loss of mental perception and of memory, extreme dementia—a condition as of premature and intense senile decay of mind. Less marked examples of mitral regurgitation occur in the third sub-group.

Thus, where mitral regurgitation most evidently influences the production of insanity, or the modification of the clinical aspect of pre-existent insanity, the state is usually a sombre emotional depression, or melancholic dread, with hallucinations or illusions and hypochondriacal symptoms; or else morose, sullen, taciturn states, with a marked attitude as of one subjected to annoyance or persecution.

Second Sub-group: Mitral Stenosis.—Varying from 30 to 79, the age at death, on the average, was about 47½, and the insanity had existed from two months to twenty-four years. The cardiac disease, in some preceding, in others supervening on, insanity, had in some an order of incidence not absolutely known with certainty. On the whole, pleuritic and pulmonary conditions had as much (or more) to do with determining the site of the apex beat as had the intrinsic cardiac lesions. Bronchitis, emphysema, pulmonary congestion, pneumonia, pleuritic effusion, hydrothorax, œdema of feet and legs, more generalised dropsy, albuminuria, subcutaneous œdema over base of a pleura; these conditions were apt to be found singly, or variously combined, or succeeding.

The average weight of the heart was 13.188 ozs. In all were degrees of constriction at the left ostium atrio-ventriculare, and of thickening, rigidity, deformity, or cohesion of mitral cusps. Part of the cases were of the "button-hole," and part of the "funnel-shaped," variety of mitral constriction.²⁰ Less change usually affected the other, and chiefly the pulmonary and tricuspid, valves. The left auricle was more or less hypertrophied and dilated; the left ventricle not markedly or not noticeably hypertrophied as a rule. In most the right chambers were hypertrophied, or hypertrophied and dilated. The heart muscle was usually flabby and friable. The coronary arteries atheromatous in several. Pericardial fluid often increased. Spleen, on the average, 7.375 ozs., usually of undue firmness, the capsule more or less irregularly thickened and opaque, occasionally scarred, pigmented, brownish. Liver, average 47.25 ozs.; "hepatic venous congestion" usual; often some "nutmeg-like" appearance; parenchyma firm, or even hard; capsule partially thickened or adherent to surrounding parts. The kidneys presented one or more of the following changes: granular surface, adherent capsules, cystic change; average weight, 4.85 ozs. apiece. In the lungs were one or several of these conditions, namely: bronchitis, emphysema, pleuritic effusion or old adhesions, apical cirrhosis, or even traces of former cured phthisis, bronchiectasis, carcinification, or brown induration of lung at base, occasionally cheesy nodules or cheesy bronchial glands, calvaria dense in some, brain usually somewhat wasted, and meninges slightly thickened; fissures and gyri occasionally abnormal.

With regard to the mental state and its modification by mitral stenosis; the cardiac disease distinctly preceded the mental and influenced its production in one who had thrice attempted suicide before admission. His memory was impaired, and he had no

recollection of his mental attack in India; but he was not merely stupid, simple, unable to take proper care of himself, and ignorant of the value of money; he was also irritable, suddenly, as if impulsively, violent and destructive when displeased; jealous of others getting better things or larger shares than he; made grievances of nothing; frequently transferred from ward to ward at his own wish, he was not contented in any; was excitable, quarrelsome, resentful, readily and impetuously made sudden attacks if he thought (delusion) that he was insulted or called names; excited about grievances, he imagined injustice; would not occupy or amuse himself, demanded his release; later, he made assaults under the influence of hallucinations of hearing. In anger he hurled his dinner away, smashed plates, threatened to and did commit sudden quasi-impulsive acts of violence. For a time he continued to attack others under the delusion that they annoy, push against, talk about, or even look at him. Finally, he became quiet, depressed, reserved, subdued, answering in monosyllables.

Another case, in which the cardiac affection long preceded the mental, comes here in order, but was aged and less characteristic. He had some active symptoms, being noisy, shouting "murder," and delusionally asserting that people came and assaulted him, that there was some criminal charge against him, that he had been out and robbed on his way to a bank, or had lost a cheque belonging to his employers. Moreover, he became suicidal, tried to get out of and smashed a window to go and throw himself over a bridge. Later he was petulant, irritable, struck at an attendant about to feed him, confused persons and places, was rambling and incoherent in conversation, imagined he had to pay for his maintenance, had just left his business situation which still depended on him, and was the subject of a criminal charge. Better for a time, but latterly worse, with vague depression, discontent, dissatisfied with his food and his position, occasionally rambling and odd in conversation; he talked of having been overdosed with chloroform. Subsequently, says he "is dying fast," his "brain is going," or he is "disturbed," has not slept for weeks or months, will soon be dead, and was troubled by the delusive notion that he must go to see a "dying sister and nephew." Latterly were delusions about his dying or being dead, dreams in which he saw corpses laid out, desire for death.

The order of incidence of the two affections was somewhat doubtful in a case of religious monomania with excitement, becoming querulous, and finally deteriorating, and the querulous maniacal elements continuing. At times, restless and excited, he asserted that he was St. Patrick and suffered on the cross, that voices from the other world spoke to him. Declaring his independence, and not brooking the slightest interference, he was quarrelsome and assaulted his companions. Later were notions that true angels tell him what to do; his fixation on a bed at Malta he took as comparable with the Crucifixion. Excessively querulous, he complained of his treatment and diet, and was inclined to fight. A marked stenotic mitral *bruit* was heard, and now came frequent pulmonary complications and dyspneal attacks. After the heart condition became worse he was querulous, morose, discontented, was growling, grumbling, making absurd complaints of being injured and treated in a hostile way by everyone, and absurd statements as to the imaginary bodily injuries inflicted upon him.

As in the last, so in another case, the funnel-shaped mitral constriction may have been congenital; otherwise, knowing them only in the later years, one would have said their heart disease probably appeared later than the querulous persecutory monomania. This one had delusions as to men being murdered and boiled to lard, and their skins tanned to leather; as to the army officers being against him; delusions of being annoyed, ill-treated, of everything being wrong, of the food being deleterious or stinking, or poisonous. But with these were occasional delusions as to his valuable clothing or wealth, as to his being proof against snares, sword, or gunpowder. Yet usually he was suspicious, querulous, discontented. Latterly, when more in trouble with heart and lungs, he said the food was dead men's lard, or made of dead men's yeast, that "bad stuff" was intentionally put in it, that voices told him he annoyed his comrades, that American interference compelled him to stop work, but that he had "raised £500." In low spirits, he yet became excited, noisy, and abusive if questioned, and had delusions of persecution. Latterly he declared he was poisoned, often refused food, and the delusions on this subject became predominant. Peevish and irritable, he insisted that the milk was poisoned, that his medicine burnt him

up, that the attendants smelt offensively. Even at the last, under delusions of persecution, he shouted about "blood-sucking" and about his being "tormented." Besides the heart disease there were caseous bronchial lymphatic glands, and some cheesy nodules in the lungs.

In a case in which insanity probably preceded the heart affection there were early despondency and desire to be killed, then usually querulous, but sometimes expansive, symptoms—sullenness, restlessness, irritability, mental confusion. Later he was noisy, quarrelsome, dissatisfied, querulous, and by his own wish transferred successively from ward to ward; at times were expansive ideas, such as that he was "next to God." Later, impaired in memory, he was confused, incoherent, now and then excited, threatening, and on those occasions refusing food and resisting interference. Subsequently hypochondriacal, baselessly asserting that he was ill, that his tongue hung loose, that his left eye was blind; and now, strange to say, came recollection and mention by him of his early long-past despondency and desire to be killed. Still later, absent in mind, confused, of defective memory, and repeating words and sentences with an odd smiling look, as of a chronic maniac. He died of an acute inflammation.

Of the above cases, the first, third, fourth, and in less degree the fifth, show this association of obstructive mitral disease with chronic insanity characterised by delusions of persecution, annoyance, injury, or hypochondriacal ones; and often hallucinations, at first with, and then superseding, expansive ideas, chiefly of the religious order; also with another group of symptoms—querulousness, irritability, ill-temper, discontent, grumbling moroseness, and peevish cross-grained cantankerousness. It is partly the symptoms of this latter group which grow worse in proportion as disabling mitral stenotic disease tells on the vital forces and the functions of the brain. And in some of these the cardiac, in others the mental, is the earlier malady; if preceding, the mitral stenosis appears to foster the production of symptoms of the kind described; if, on the contrary, apparently supervening, it seems to intensify the similar symptoms, and to assist in the supersession and gradual extinction, by them, of formerly existent symptoms of the expansive order.

In two less marked cases the order of incidence was unknown, and the mitral affection probably not of very much influence. One was mixed monomania, persecutory, expansive, hypochondriacal. Patient says he "is tried, accused of crimes, is annoyed, apparatus is applied to him, is the object of conspiracy; is persecuted by Orangemen's secret, or by a 'piercing wind with a voice,' which once he saw; it pains him all over; this is done to prevent proof of his grievances. To him the power of Orangeism, Freemasonry, and Devil are applied; he can be pained by others at their will; is worked on at night; Freemasonry is dragged from him, so is his nature, and the flesh is dragged through his body." Later, refused food, declared he would starve himself if not discharged, and should he starve the world would be destroyed; "Is Saviour of the World, has spoken to God;" becomes excited about his imagined persecutions. Here, there were also some cheesy and calcareous nodules in the lungs.

The other had been grotesquely irrational in demeanour and language, alternating between melancholic depression and agitation, with monotonous repetition of ejaculations on religious subjects. There were also delusions of conspiracy, and that his soul was lost, and that his food was poisoned, with obstinate refusal of it. Subsequently, *melancholia agitata*; still noisily repeating some words or phrases, and refusing food. Later, silent, reticent, depressed, unsocial, and refusing to be examined.

Comparing the most characteristic, respectively, of mitral regurgitant with mitral stenotic cases, broadly speaking the former show more tendency to melancholy, the latter to intense querulousness, and delusions of persecution, annoyance, injury.

The third sub-group of morbid mitral orifice or valve consists of those in which there was slighter mitral change and effect. For, in sixteen mitral cases the valve disease was comparatively slight, or somewhat overshadowed by important changes of other organs, or the valve change, although the chief cardiac abnormality found was not of grave import, and probably did not exercise any markedly noxious influence on the course or symptoms of the case in reality. However important these may be as showing the tendency and line along which disease works in some groups of persons, they are of comparatively little usefulness for our particular present purpose, inasmuch as their influence upon, or their relation to, the mental state of the patient, or to the con-

stitutional state or circulatory condition which favours the production of that mental state, was not very clear and distinct. Therefore, although they were analysed, I shall exclude the sixteen from further consideration, except to add that most of these cases of lighter mitral disease, although many of them were general paralytics, exhibited an inclination to depression, irritability, delusions of annoyance, danger, ill-treatment, persecution, or showed inclination to dementia. Emotional facility was marked in some. Only a few had occasional expansive delusions or exaltation.

ABSTRACTS OF THE MILROY LECTURES ON SOME GENERAL CONDITIONS WITH REGARD TO EPIDEMICS.

Delivered at the Royal College of Physicians of London,
February and March, 1888.

By ROBERT LAWSON, L.R.C.S.Ed.,
Inspector-General (Retired) Army.

LECTURE II.—EPIDEMIC INFLUENCES (*continued*).

Small-pox.—The early part of this lecture was devoted to proving that small-pox, like fever, was under the influence of a pandemic factor which determined its development as an epidemic at some point in the first instance, and its subsequent extension to the northward in successive years. The illustrations given were mostly taken from the Indian returns, and such notices of its occurrence in Europe and America as gave specific information as to dates of commencement and decline of the disease, or statements of the deaths in particular years. Small-pox generally appeared in the southern part of Hindustan between the isoclines 0° and 30° north in the first instance, and extended to the portion beyond the isocline 30° subsequently, varying in force in different parts of the country invaded in different epidemics, but still presenting a wave-like mode of progression in the same direction. Thus the epidemics reached a maximum in the Madras Presidency in 1868, 1872, 1877, and 1882; in the North-West Provinces and Bengal in 1869, 1873, 1878, and 1883; and in Punjab in 1870, 1874, 1879, and 1884. The want of information regarding Central Asia prevented the wave being traced further north; but in 1869 small-pox commenced at Marseilles, became epidemic in the north of France in 1870, in Holland and London in 1871, and in the north of England, Scotland, and Ireland in 1872; on the other side of the hemisphere, it could be traced in Teneriffe in 1870, and in the United States in 1871. The Madras epidemic of 1872, it was suggested, was part of the same wave which reached Western Europe and the United States in 1875.

Pandemic Waves.—Nothing, it was said, is known of the intimate nature of these pandemic waves, nor had any explanation been given as to why they should proceed from south to north. Further, the kind of fever developed, as it was assumed, under their influence varied very much at different periods, and this was enough to show that the pandemic wave of itself was insufficient to account for such varied results, and that recourse must be had to other factors connected with each locality for the time. With regard to intermittent and remittent fevers, the endemic sources of malaria must be all that was requisite in most cases; but with yellow fever and plague and some other fevers something else was necessary.

Yellow Fever.—An examination of the epidemics of yellow fever observed at Sierra Leone, where the ordinary fever is the remittent, led to the inference that the immediate exciting cause of the disease is generated by a special factor acting on a suitable locality in a place where the disease appears, and which is either absent or in abeyance during the intervening periods. And a more extended series of statistics showed that from time to time there is, over a varying extent of the earth's surface, an increased activity of the factors which lead to yellow fever, under the influence of which that disease becomes developed when local circumstances are suitable. Of these the most important were the state of the weather and the presence of a certain amount of moisture in the soil. Too much water or too little stopped the disease; thus at Sierra Leone, where the rainfall was heavy, the epidemics came in dry seasons; while at Goree and Senegal, where the climate was dry, the epidemics fell on years more than usually wet.

Plague.—A study of the reappearance of plague at various points where it had formerly been epidemic afforded some evidence as to the factors concerned in the production of the disease. Special reference was made to the cases of benign plague, described by Tholozan as preceding severe outbreaks of the disease. Though this sequence had not been proved to be invariable, it indicated the operation of a separate factor, concurring with the pandemic wave in those localities where that form of disease presented itself. It did not appear that plague was communicated from the sick to the healthy by contact, but that the danger really arose from remaining in an apartment occupied by the sick. Several authors who had personal experience of plague had described it as "a poor man's disease that never went upstairs," and the sufferers, in addition to delicate food, had inhabited apartments badly ventilated, and often in the most insanitary condition. Whether there were a specific factor required to excite the fully-developed disease; or whether that causing the benign form merely became intensified in certain localities, from circumstances existing temporarily, were points which must be left for future investigation, which the progress of bacteriology might hereafter facilitate.

ON A NEW METHOD OF STAINING SECTIONS OF THE CENTRAL NERVOUS SYSTEM.

By FRANK J. WETHERED, M.B. (LOND.), M.R.C.P.

I AM indebted to Dr. J. Pal, of the Pathological Institute in Vienna, for permission to publish a new method, recently introduced by him, for staining sections of the brain and spinal cord.

It is in reality a modification of the method first introduced by Professor Weigert, but differs from it in many particulars. Dr. Pal claims the following advantages for this modification: The picture produced is sharper in outline; the nuclei and nerve-cells can be separately stained, and the process is a more speedy one. Not the least advantage is that the treatment of the sections by a solution of the acetate of copper is entirely done away with. Having worked with both processes myself, I can fully confirm all that Dr. Pal states. Dr. Pal's method is as follows:—

The spinal cord or brain is hardened in Müller's fluid in the ordinary manner, and when ready is embedded in paraffin, and the sections cut into absolute alcohol. An aqueous solution of hæmatoxylin of the strength $\frac{1}{2}$ per cent. is then made by dissolving the hæmatoxylin by means of heat, and, after cooling, some alcohol is added. This solution must not be kept very long, or allowed to stand in the sunlight. Immediately before using, a few drops of a solution of carbonate of lithium are added; on the addition of this salt the solution assumes a violet red colour. Dr. Pal uses three or four drops of the lithium carbonate solution to 10 cubic centimètres of the hæmatoxylin. The sections are allowed to remain in this stain for about five or six hours, at the end of which time they should be of a bluish black colour; they are then thoroughly washed in water until no more colour comes out; if they do not appear to be deeply enough stained, a few drops of the solution of lithium carbonate may be added to the water in which they are washed.

The sections are next to be "differentiated;" for this purpose they are first placed in a $\frac{1}{2}$ per cent. solution of permanganate of potash for 15-20 seconds, and then for a short time into "Pal's solution," until the white and grey matters are plainly defined; this is generally completed in one or two minutes. If black specks are seen on the sections, or if the white and grey matters are not quite distinctly defined, the process is to be repeated. "Pal's solution" has the following composition: Oxalic acid, 1 part, sulphide of potassium (K_2SO_3) 1 part, distilled water, 200 parts.

After having been taken out of this solution, the sections are thoroughly washed in water, and the nuclei may then be stained in eosin or carmine, the stain which acts best being alum-carmine. After another washing the sections are dehydrated by absolute alcohol, cleared in oil of cloves or crocote, and mounted in balsam.

Stained in this manner, the medullated nerve-fibres are coloured blue, and stand out sharply on a white background, presenting a strong contrast to the red nuclei.

In order to bring out the nerve-cells prominently, after the specimens have been "differentiated" they are placed for a short time in picro-carmine, which should be only slightly alkaline, and, after being washed in water, the nuclei may be stained as before in alum-carmine.

REPORTS
OF THE
COLLECTIVE INVESTIGATION
COMMITTEE
OF THE
BRITISH MEDICAL ASSOCIATION.

REPORT ON INQUIRY No. IV.

AGED PERSONS.

PREPARED BY PROFESSOR HUMPHRY, F.R.S.

REPORT ON THE PRESENT CONDITION, HABITS, CIRCUMSTANCES,
ETC., OF AGED PERSONS.

THE following report, which relates to the present condition of the aged (that is, their condition at the time when the several reports were made), is, like the report on the *Maladies of Old People*, which appeared in the *JOURNAL* of July 30th, 1887, founded upon the analyses printed at page 515 *et seq.* These analyses, as there stated, were derived from the returns respecting 824 persons, made for the most part by medical men, in reply to the inquiries of, and upon the forms issued by, the Collective Investigation Committee of this Association.¹

Of these 824 persons, 340 were males (and 282 were females between the ages of 80 and 90, and 92 were males and 110 were females between the ages of 90 and 100. Of the whole number, 89 per cent. were, or had been, married; 48 per cent. were poor, 42 per cent. were in comfortable circumstances, and 10 per cent. only were described as being in affluent circumstances. This must not be regarded as representing the relations of poverty and affluence to longevity, because, in the first place, the poor at all ages and in all districts bear a large proportion to the affluent; and, secondly, our returns are largely made from the lower and middle classes, and, in many instances, from the inmates of union-workhouses, where a good number of aged people are found, and where information respecting them is most easily obtained.

The important questions of the relative longevity in different classes and among those following different occupations scarcely comes within the range of our inquiry. Indeed, they require carefully collected statistics of varying kinds, and much labour for their solution.²

It does not appear that the Shakespearian sequence of the "lean and slippered pantaloon" to that "fair round judge" is by any means the ordinary one, for the 'spare' condition and the 'average' condition between 'spare' and 'fat' greatly predominates in our old people at all ages between 80 and 100. The 'average' condition is noted in 47 per cent. of the whole number, the 'spare' in 41 per cent., and the 'fat' only in 11 per cent.,³ and the accounts of their condition at earlier periods of life indicate the same, by the far larger proportion having throughout life come under the denomination of 'spare' or 'average.'

The average height of the men (67 inches), and the women (62 inches), if we take into account the lowering of stature attendant upon age, which may be estimated at not less than 2 inches, gives a high standard, the average height of Englishmen at 25 being 67½ inches, and of Englishwomen 62 inches. This, as in the case of the centenarians (*JOURNAL*, December 11th, 1887), corroborates the observations of Mr. Roberts (*JOURNAL*, January 1st, 1887), who found, "on grouping the measurements of a large number of individuals together, that the curve of stature continued to increase up to the age of 70, which was the limit of the statistics;" and he expresses the opinion that "this increasing stature of the population throughout life was due to the greater viability of persons whose stature was up to or above the average; or, in other words, to the weeding out by disease of the [smaller and worst developed members of the community."

The lowering of stature attendant upon age is due partly to the loss of elasticity of the intervertebral substances and other

parts of the frame, but chiefly to the inability to attain and maintain the fully erect attitude, which requires a certain effort on the part of the extensors, especially of the knees and hips, fatiguing at all periods of life, and often impossible in the aged. A lowering of the heads of the thighbones, owing to an alteration in the angles of their neck, is, according to my observations, of less and less common occurrence than is generally supposed. The fair maintenance of elasticity and erectness shown in the tables to be one of the attributes of great age may lead us to infer that the lessening of stature in our old people was less than is usual; and I have accordingly estimated it at not more than two inches.

The importance of this relation between physical development and longevity acquires increasing force in proportion to the value of the evidence which is being adduced as to the diminishing physique of our people, ascribed to their transfer from rural districts to large towns. In reference to this point I may allude to the words of Sir Thomas Crawford in his recent address at Dublin (*JOURNAL*, August 13th, 1887): "A careful examination," he says of these tables (tables of the causes of rejection of recruits for the army), "leads to the inference that the lower classes, from whom recruits for the army are chiefly taken, are of inferior physique now to what they were twenty-five years ago." If the physique is becoming less good, must we not expect to find a proportionate diminution of the instances of great longevity? Sir Thomas Crawford's statistics have not passed without criticism; but, at any rate, it is a matter deserving serious attention.⁴

The average weight of 227 men in whom it is given under 11 stone, and of 114 women about 9 stone, is, especially in the women, small in proportion to the height and well-developed forms of these old people, and corresponds with the 'spare' condition noticed in so many, and shows that people usually become of less bodily weight as they grow older. These well-developed, and for the most part slender, figures maintain gallantly that erect attitude, which is the special feature of the human form, forasmuch as we find 62 per cent. are stated to be 'erect,' and 28 per cent. only to be 'bent.'

The 'anæmic' and 'pale' condition of a large proportion (respectively 58 per cent. and 30 per cent.) accords with the fact noted in my account of the *post-mortem* examinations of centenarians (*JOURNAL*, March 12th, 1887) that the spleen, lymphatic glands, and other blood-making organs are in a comparatively atrophic state in the aged. Nevertheless, it is to be remarked that a good proportion (28 per cent. and 35 per cent., making together 63 per cent.) are noted to be 'strong' or of average strength, as against 36 per cent., who are described as 'feeble.'

Among these old people, as in the case of the centenarians, a large number (80 per cent.) retained good sight; and the evidence is confirmatory of the view, derived from the records of the centenarians, that the occurrence, even the early occurrence, of presbyopia (83 per cent. used glasses) does not militate against the continuance of good sight to a very late period of life.

Hearing failed in a larger proportion than sight, being reported as 'indifferent' or 'bad' in nearly half the number of returns under that head. The failure of this sense in a greater number than that of vision is probably due in great measure, as I have before said (*JOURNAL*, July 30th, 1887), to the liability of the delicate mechanism of the middle part of the ear—the tympanum, with its bones, joints, membranes, muscles, and lining membrane—to impairment from colds, shocks, and a variety of other causes.

The good general condition, the good performance, that is, of the various functions, in a large number of these old people, is, as in the case of the centenarians, a noteworthy fact, and contributes, it need scarcely be said, in very large measure to the comfort and happiness of old age. In 71 per cent. the digestion, and in 62 per cent. the appetite, is stated to be 'good.' In only 4 per cent. is the former, and in only 5.4 per cent. is the latter, said to be 'bad.' In

¹ Mr. Charles Roberts, for instance (The Physical Condition of the Masses, in the *Fortnightly Review*, October, 1887), has been led by a careful examination of the same statistics to conclusions quite opposite to these at which Sir Thomas Crawford has arrived. He finds that improvement in sanitation has not only made the population more healthy, but has materially lengthened the term of life. "Stature and weight of body," he says, "are very much matters of race, and vary in different parts of the country according to the racial origin of the inhabitants. In Scotland and the North of England the men are tall and heavy (from 5 feet 8 to 10 inches, and from 11 to 13 stone), while in the East of England they are tall but less bulky. In the southern parts of England men are much shorter and lighter of weight than in the north and east (5 feet 6 to 7 inches, and 9½ to 10½ stone), while in Wales they are also short, but very heavy in proportion to their stature. The adult inhabitants of towns do not fall much below that of the adjoining districts in either stature or weight. The average stature of the much-abused cockney is 5 feet 7 inches, only half an inch short of that of the whole kingdom, and higher than that of all the home counties."

² The Report on Centenarians, with table, appeared in the *JOURNAL* of December 11th, 1887.

³ See Class-Mortality Statistics, by Dr. Grimshaw, *JOURNAL*, August 13th, 1887; and Influence of Easy Circumstances on Longevity, by Dr. Drysdale, *Ibid.*, August 20th.

⁴ The round numbers only in the percentages and not the decimals are given, in most instances, which will account for the slight discrepancies occasionally observable, such as above, where 47+41+11= only 99, instead of 100.

60 per cent. the bowels acted daily, and in few do they appear to have given trouble. Very few resort to aperients; and it could be wished that a greater number of the young and middle-aged persons in the upper ranks of life would follow the example of the old people in this respect.

The process of micturition is found to be natural in 83 per cent. of the women and in 53 per cent. of the men. In 20 per cent. of the men and in less than 3 per cent. of the women it is noted as being slow; whereas incontinence is said to exist in about 5 per cent. of the women and in only 3 per cent. of the men. Frequency of micturition appears to be a source of annoyance in not more than 3 per cent. or 4 per cent. in either sex.

The evidence of sound brain-condition is furnished by the report of an 'average' amount of intelligence in 74 per cent.; in 15 per cent. it is stated to be 'high,' and in 11 per cent. only to be 'low.' The memory also is in most instances reported to be 'good,' especially (in 78 per cent.) for past events. The recent impressions, as is the case with most of us after youth, are less durable; still as many as 59 per cent. of these old people are noted to have good memory for recent events. A further evidence of good brain-condition is furnished by the observation that only 9 per cent. are bad sleepers, whereas 64 per cent. are said to be good sleepers, and 27 per cent. to be moderately good sleepers. This does not quite accord with what seems to be a generally received impression that the sleeping faculty of the aged is indifferent. It may be, and it probably is the case, that the work which should go on in sleeping, that is the repair of the ordinary wear and tear associated with the exercise of the various functions, and more particularly of the brain functions, proceeds slowly, and that a proportionately long period is required for it; so that, although the 'sleeping faculty' may be good, the 'sleeping power' may be less than in earlier life. This sluggishness of the nutritive processes in carrying on renewal after the wear attendant upon functional exercise, and which is an appropriate associate with the sluggishness or diminution of functional activity in the aged, seems at first thought to be scarcely compatible with that good performance, in these same persons, of repair after the greater lesions by wounds and ulcers to which I have called attention in former reports. The apparent paradox, however, is probably explained, as mentioned in the report on the maladies of old people, by the lower sensitiveness, excitability, and activity of the tissues in the aged, and by the better opportunity thus afforded for the quiet operation of the healing processes.

It does not appear that much is to be inferred from the presence or absence of the arcus senilis, forasmuch as it is noted to exist in 'considerable' degree in 25 per cent. in 'slight' degree in 37 per cent., and to be 'absent' in 37 per cent.

The disappearance of the teeth also, as remarked in former reports, does not portend so much as is commonly supposed. In 41 per cent they were all gone, and in some this had been the case for many years. We find, moreover, in these analyses (JOURNAL, July 9th, 1885) confirmation of the observations before made as a result of this investigation, that the teeth disappear at an earlier period and more commonly in women than in men, though the former are the more long-lived, the proportion in which they were absent being 52 per cent. in the women and 30 per cent. in the men, also that they disappear in the upper jaw earlier than in the lower jaw. Our reports are drawn chiefly from the class of persons who are not able to make amends for natural deficiencies by artificial aids. Thus thirty-seven only out of the whole number had artificial teeth; some of these had used them for many years. We can scarcely, therefore, from our tables draw inferences respecting the advantage to health and the prolongation of life which may be afforded by the dentist's skill; although it can scarcely be doubted that benefit in these respects, as well as in comfort and other ways, will be found to result from the science and art of dentistry, which is making such great advances.

The hair seems to have held its ground well in these old people, for we find that baldness took place late in life, or not at all, in 73 per cent., and that 26 per cent. only are said to have been bald early; also that greyness occurred early in 24 per cent. and late in 76 per cent.

It is interesting to note that the pulse-rate between the ages of 80 and 100, which in the whole number of the cases observed averages 77, is about the same as that of middle-life. The slight excess above the average of middle-life may be accounted for by the presence of a certain amount of chest-affection in some of these old people. In the women the average (79) somewhat ex-

ceeds that of the men, which is 75. In 80 per cent. it is said to be regular, and in 20 per cent. to be irregular. In the greater number (60 per cent.) the pulse is described as small, and in by far the greater number (81 per cent.) as compressible. Hence the ordinary pulse of the old person may be said to be 77, regular, small, and compressible; and this may be called the 'pulse of endurance.' It indicates that the heart beats quietly and steadily, and that the arterial system is sound. In confirmation of the latter point, we find an absence of evidence of arterial disease noted in 72 per cent.; in 21 per cent. they are described as being 'tortuous,' and in 12 per cent. only as being 'knotty.' I am rather surprised that the men and women are about equal in this respect, for I had supposed calcareous and other like degenerative changes in the tissues to be more common in men than in women.

The respiration, averaging about 21, is rather less frequent than might have been expected, considering the liability to bronchitis, and the diminishing elasticity of the pulmonary tissues and of the chest walls, which must, to a greater or less extent, form one of the senile changes; but it accords with the observations that a comparatively good maintenance of elasticity is one of the features associated with longevity; our tables indicate that the elasticity of the chest wall was fairly distinguishable in about one-half of those in whom a return on this point was made. Moreover, the chest measurement, averaging about 36 inches in inspiration, and 35 in expiration, in the men, and 31 in inspiration and 30 in expiration in the women, is a fair medium, and shows that, considering the time of life, the range of respiratory movement is well maintained. It is also to be noted that, in a large proportion, the voice is stated to be clear, loud, and full, evidencing a sound condition, as well probably as a good development, of the vocal apparatus, a point upon which Sir Duncan Gibb is known to have laid much stress.

It is very satisfactory to find that nearly a half are reported to be of 'placid' disposition, and 45 per cent. to be still 'energetic' and brisk, whereas 17 per cent. only are said to be rather 'irritable.' With regard to several it is noted that these qualities are combined. Thus, some are stated to be 'placid' and 'energetic,' and some to be 'irritable' and 'energetic;' but, on the whole, the placid and energetic dispositions much predominate.

With regard to habits, 54 per cent. are stated to be 'active,' and taking more or less out-of-door exercise; 31 per cent. to be 'sedentary,' and 14 per cent. to be 'confined to bed.' Though the last is rather a large number, it must be remembered that many solaces attend upon this condition, not the least being the enjoyment of rest, which to the weary body is a real luxury. The need for it is usually, in the first instance, caused by weakness, perhaps rheumatic, in the lower limbs. These parts of the frame, which are the latest to be developed in size and strength, are the most prone to defect, disease, and debility. There is no doubt that in many cases confinement to bed leads to prolongation of life by the immunity it affords from exposures, and by its reservation to the organs essential to life of so much nerve force and nutritive energy as is economised by the diminution of bodily activity.

The greater number (60 per cent.) are 'moderate' eaters, 30 per cent. are 'small' eaters, and 9 per cent. only are 'large' eaters. A fair proportion (40 per cent.) are in the habit of taking a little alcohol, which, in the form of beer, whisky, or brandy, they feel to be a comfort and support, alleviating the sense of sinking which many feel; and perhaps this small quantity, especially if taken in the latter part of the day, does some real good. A smaller proportion take rather more, and are classed as 'moderate' drinkers. A considerable number, however, 36 per cent., take none at all, and very few, (2.5 per cent.) are described as taking much. It is also observed that a large number (62 per cent.) take but little animal food; 32 per cent. partake of it moderately; 3 per cent. take none at all; and 1.1 per cent. only take it in considerable quantity. It may commonly be observed that as persons advance in years and lessen in activity, the inclination for animal food diminishes. Most of our old people are content with about three meals a day. We now and then meet with old persons who eat rather ravenously and frequently, thinking perhaps that it is necessary to do so in order to maintain their strength, and that the need for so doing is indicated by the sense of sinking at the stomach which they experience. These instances however are very exceptional; and it is probable that a small quantity of cod-liver oil, taken once or twice daily in a little wine or spirit, would relieve the sense of sinking, and would promote digestion and nutrition, and so maintain strength in a safer and better manner than an extra and quickly swallowed amount of food.

REPORT ON THE PAST LIFE HISTORY OF AGED PERSONS.

THE following account of the past life history of aged persons is a sequel to the account of their present condition (see p. 511), and, like it, is taken from the analyses of the returns respecting 824 persons (432 men and 392 women) between the ages of 80 and 100 made upon the inquiry papers issued by the Collective Investigation Committee of the Association.⁵

It is worthy of remark that, of the 824 persons, nearly a fourth (24 per cent.) were 'first children,' and at least 17 of the number were 'only children,' though the greater number were about the third or fourth in the family. In 196 instances, in which the ages of the fathers and mothers at the time of the birth of the children were included in the returns, the average age of the fathers was 34, and that of the mothers 32. This would indicate the age of about 30 to be, as we might expect, so far as the offspring are concerned, the most favourable for child-producing. Five are stated to have been 'twins.' A gentleman of my acquaintance, himself a twin, married a twin, and has a large family of very healthy children and several grandchildren, thus proving that the reproductive as well as the enduring qualities may be fully possessed by twins.

Of the 335 who are stated to have been married, the average age at which they married was 29, the average duration of their married life was forty-five years, and the average number of their children was six.

Of the 292 women who are stated to have been married, the average age at which they married was 26, the average duration of their married life was forty years, and the average number of their children was six. The shorter term of married life of the women as compared with that of the men is explained by the fact that men are, on the whole, somewhat shorter-lived than women, and also that they marry at a rather later age, the term of the married life of the woman being, therefore, curtailed by the earlier deaths of the men. Not much information has been given respecting the labours of the women; and it may, therefore, be probably inferred that they did not in most instances present any very remarkable features. One woman is stated to have had severe flooding after a confinement at the age of 42, and to have rallied with difficulty. Two had many miscarriages. In the case of one, each of her fourteen labours was by the aid of instruments, and most of the children were born dead. One had twin daughters, both of whom were alive at the age of 56, and had large families. Fifty-seven of the married women were childless. It appears, therefore, that longevity was about equally shared by the single and the married, by those who had borne children and those who had not. At the same time, among those who had children, fertility, which means soundness and activity of the generative organs, is indicated to have been an associate of longevity.

The greater proportion (55 per cent.) of these old people had lived in comfortable circumstances, 35 per cent. had been 'poor,' and 10 per cent. had been 'affluent.' The greater number had been of average stoutness or of spare habit. Eight per cent. are said to have been 'delicate,' whereas 54 per cent. are reported to have been 'robust' throughout life, and 37 per cent. to have been about 'average' in this respect. Ninety per cent. had always enjoyed good health. In the category of 'good health' are comprised good digestion, which is reported with regard to 92 per cent., good appetite, which is noted in 88 per cent., and good, regular action of the bowels, which had taken place, and in most instances daily, in 85 per cent., costiveness being noted as habitual or frequent in only 10 per cent.

With regard to diet we find that the smallest proportion (15 per cent.) had been habitually 'large' eaters, 20 per cent. had been 'small' eaters, and the largest proportion (61 per cent.) had been 'average' in this respect. Five per cent. only had been in the habit of taking 'much' animal food—that is, more than a pound of meat daily; 38 per cent. took 'little'—that is, less than half a pound; and 53 per cent. had been accustomed to partake of it 'moderately'—that is, from half a pound to a pound in the day. Fifteen per cent. had taken no alcoholic drink at all throughout the whole or great part of their lives, 40 per cent. had been in the habit of taking a 'little'—that is, less than a pint of beer or two glasses of wine; 33 per cent. had been accustomed to take it in

'moderation'—that is, one or two pints of beer daily; and less than 9 per cent. had taken more than this. The last number is composed chiefly of men who lived to between 80 and 90; with respect to the men between these ages, of whom there were 298 returns under this head, it is to be observed that 15 per cent. appear to have drunk rather freely—2 or more pints of beer daily—and 10 or 12 had drunk rather heavily for a portion or throughout the greater part of their lives. These exceptional cases scarcely detract from the value of the important confirmation which our tables afford of that which good sense suggests and which ordinary observation tells—namely, that abstinence from, or a spare or moderate partaking of alcoholic drinks, as well as spare or moderate eating, and spare or moderate meat-eating are most compatible with health and most conducive to the prolongation of life. In this respect the poor are at some advantage as compared with the rich, for it is quite possible—indeed, very easy, to have too much of good things in the way of food, especially when they are made agreeable to the palate; and out of the abundance of what is good much that is evil is likely to ensue. Persons are apt to forget that limitation in quantity in any article of food is one of the requisites for its wholesomeness and good nutritious effect, that what is wholesome in moderation becomes unwholesome when the bounds of moderation are exceeded, those bounds being set by the real requirements of the system, and the brisk, complete appropriative powers of the stomach and nutritive organs; and they need the caution, as I have elsewhere expressed, that "the body quickly finds for idle food some mischief sure to do."

A greater number and a wider range of statistics would be needed to give trustworthy information respecting the influence of different occupations, modes of life, and places of dwelling upon the duration of life; but we find that by far the greater number (94 per cent.) of those included in our tables had been 'active' persons, and had led active lives, only 6 per cent. being described as 'sedentary.' The greater proportion (77 per cent.) of the men had been occupied much out of doors; this being the case, as might be expected, to less extent (33 per cent.) with the women. Of several it is remarked that they were good walkers, athletes, sportsmen, etc. Nothing, perhaps, more surely than good enduring power in walking, running, or similar exercise, indicates that soundness of frame and nutritive energy and good balance of organs which lead to longevity. Moreover, the opportunity for nutrition to do its restorative work was in nearly all provided by the faculty of 'good sleeping,' to which was commonly added its appropriate attendant, the habit of 'early rising.' I say 'appropriate attendant' for 'good' sleeping is, for the most part 'quick' sleeping, that is, the reparative work which has to be done in sleep is done briskly and well. Good sleepers, in the prime of life, do not usually sleep very long, especially when they are well and actively and happily employed during the day; and we are sometimes surprised at the small amount of sleep which those who are actively employed seem to require, the fact being that activity and energy of the will and the volitional system induce activity and energy in the sleeping or restorative operations, and, conversely, a dawdling day is commonly followed by dawdling sleep or drowsiness at night. When we speak of early rising, it must be observed that the word 'early' has a relative significance with reference to the time of going to bed. A person who retires to rest four hours after midnight and gets up at 10 A.M., may be strictly regarded as an 'early riser.'

As we found in the case of centenarians with regard to the hair, so in the old people we are considering it held its ground and its colour well, the proportion of those who were bald 'early' being about 26 per cent., whereas those in whom it was noted that this had not taken place amounted to 72 per cent. Those who were grey 'early' are 24 per cent., whereas in 75 per cent. this change is said to have been 'late.'

Sixty-nine per cent. had been of 'energetic' temperament, giving us the satisfaction of finding energy thus associated with the qualities that promote longevity, and that good working and good wearing qualities are commonly linked together. Thirty-six per cent. are reported to have been of 'placid' temperament, and 13 per cent. to have come under the designation of 'irritable.' In a few (5 per cent.) only is the intellect described as having been 'low'; in 21 per cent. it is said to have been 'high'; and 75 per cent. are said to have possessed an 'average' amount of intelligence.

It may seem somewhat remarkable that nearly one-half had suffered illnesses, more or less severe, at some period or periods of

⁵ These analyses are to be found at p. 515 *et seq.* of the JOURNAL, and the Report on Centenarians (those who had attained and passed their hundredth year) is in the JOURNAL for December 11th, 1886.

⁶ See remarks on this point in "Centenarians," *loc. cit.*

life. Of these illnesses many were caused by some external influences or poisons, such as those of fever, small-pox, or scarlatina, and they therefore had no special relation to weakness, disorder, or defect in the body. Though often directly destructive of life and seriously damaging to organs, they do not infrequently, even when severe, pass away like a cloud and leave the body quite unscathed, the only remaining vestige of incomplete recovery, that is, of incomplete restoration to the previous condition, being perhaps the change, whatever it be, which renders the system insensible to the influence of the poison, and so confers an immunity from the recurrence of the particular disease. Moreover, certain local inflammatory affections, those of the lungs, for instance, and some other parts, erysipelas, and a variety of affections, are in like manner engendered by, or attributable to, poisonous or malarial agencies introduced from without, while some, of which gout may be taken as a type, are the result of noxious materials engendered within the body. Whatever view may be taken of the causes and nature of the illnesses which had been undergone by these old people—and they were of various kinds—it is interesting to learn that in so many instances illness, though severe, did not prevent the sufferer from reaching old age. Doubtless the qualities which lead to old age are those which best promote complete recovery from illness as well as complete nutritive reparation under other circumstances; and, in relation to this subject, I may refer, especially with regard to affections of the nervous system, to the remarks on the *Maladies of Old People*, in the *JOURNAL* of July 30th, 1887.

The minor ailments with which a small proportion had been troubled at various periods in their lives may not have been altogether without their compensating advantages, forasmuch as these disorders not infrequently clear away slight accumulations of evil which would otherwise have increased and festered into graver maladies. These ailments, moreover, often serve as kindly warnings against indiscretions and exposures which, if continued, might prove disastrous. Though it is better not to err at all, it is a saving thing to be stopped or recalled in time. Thirty-nine of the whole number (824) had suffered occasional attacks of bronchitis; 41 had been troubled with dyspepsia; and 30 with rheumatism. A few gave accounts of skin-eruptions—eczema or psoriasis—more or less troublesome; others of gout, varix, or sore leg; but 72 per cent. appear to have passed their lives in freedom from these and other maladies. Our statistics, therefore, are confirmatory of the view that the qualities which lead to old age are those which for the most part give immunity from ailment and disease, and also promote recovery from them when they occur.

With regard to family history, this subject has been so much dwelt upon and so worked out in connection with life-insurance that little remains to be said. In many of our cases no sufficient information respecting it could be obtained. Still, 406 are reported to have belonged to long-lived families, those only being included in this number in the case of whom four of the immediate relatives (grandparents, parents, brothers, or sisters) had attained to the age of 70, or three to the age of 80. In six instances the families are stated to have been "short-lived."

In 367 instances, in which returns on blood-relationship are given, it is stated that none such existed between the grandparents or between the parents in 357. In four instances the grandparents were said to have been cousins; and in six instances the parents are said to have been cousins; and it is probable that in all these the relationship was that of first cousin. I do not know the proportion which the marriages of cousins bear to those in which no such relationship exists, or what is the numerical proportion of the children of cousins to the population generally; but the fact that 10 out of 367, with respect to whom a return on this point was made, or rather more than 2.7 per cent., were the children of cousins, seems to place the offspring of cousins in a very fair position with regard to the prospects of longevity.

The results of this collective investigation respecting aged people have not been to evolve anything very novel or startling, or to give rise to any fresh theories with regard to longevity and the means of attaining it, but rather to dissipate certain ideas which are more or less current though founded upon too limited observation, and to show that the maxims and laws which common sense and sound reason would dictate hold good, and that, as a general rule, those persons live the longest who might be expected to do so. Thus:—

1. The prime requisite is the faculty of age in the blood by inheritance; in other words, that the body has been wound up, as it were, and sent into the world with the initial force necessary

to carry on the living processes through a long period, that this is the case with every organ, and that the several organs are so adjusted to one another as to form a well-balanced whole. The various functions will then be equally and harmoniously performed, and there will, consequently, throughout life, be little cognisance of imperfection or ailment of any kind.

2. The body is usually well developed, and though there are many exceptions to this, rather exceeds the average standard of height. It is capable of much endurance and of quick and complete restoration after fatigue, this latter faculty giving the habit of, and probably the desire for, early rising; and with it also is associated a good power of recovery from the disturbances caused by accident or disease. The cerebral or intellectual powers accord with the general good quality, and the whole nervous system is active and energetic without being irritable.

3. Owing to the inherent good quality of the nutritive processes, those degenerative changes which, in advancing years, always more or less diminish the elasticity of the arterial coats and of other parts, are slow to occur, so that the pulse retains, in great measure, its softness and the thorax its vital capacity; while stiffness of limb and general feebleness are late in their manifestation. The decadence of the teeth, which in the animal world generally sounds a death-knell, inasmuch as it deprives the body of the means of obtaining its subsistence, does not seem to augur much in the case of civilised man, to whom the teeth are less directly needed for his maintenance, while another cuticular appendage, the hair, seems to share, to some extent, the enduring quality of the rest of the system.

4. To this natural long-livedness must be added the fair opportunities for the career of the body through the ascending and descending stages of the course assigned to it; that course will not be exceeded, but it may be, and usually is, curtailed. Indeed, as we know, even in those endowed with the greatest perfection of physique, the natural life-period is, owing to a variety of circumstances more or less unfavourable and often unavoidable, rarely completed, and the normal processes of decay and dissolution are seldom allowed to have their regular course. In the domain of Nature, as I have said on a former occasion, these processes are not suffered to advance very far, for the simple reason that the weakness associated with them causes the animal to fall a victim to some one of the various methods of killing which may hence be said to constitute the natural manner of death. Under the saving influence of civilisation, by which the rough and ready law of killing is modified, that which most contributes to the prolongation of life and the consummation of the inherited period, is "temperance in all things," especially in eating and drinking, and above all in alcoholic drinking, and to a large extent also in meat-eating. If the world did but realise, and would have the good sense and self-restraint to act upon the knowledge, how large a proportion of the ills to which man is regarded as the heir to, and which are therefore looked upon as inevitable, are simply the result of excess in eating and drinking, a large addition would be made to the average term of human life and health, as well as a large economy in the consumption of the materials—the food-stuffs—by which life is sustained. This saving would probably more than compensate for the additional requirement made by the addition to life. Under the term "excesses" must especially be included those small day-by-day superfluities which attract little attention and are thought little of, but the insinuating evil of which accumulates surely, inducing often, in the first instance, a sense of weakness which is thought to imply a need for more of that food or stimulus which is the cause of the weakness, and which gradually sows the seeds of disease that is attributed probably to some other cause. "Temperance" is the great lesson under this head which our tables teach; and its importance overshadowing all others is a reason for not diverting attention from it by mentioning them.

5. To the recovering power—the good and often the quick recovering power—of the aged after operations, fractures and other accidents, ulcers, inflammatory and other affections, manifested in many of the returns, I have already, and perhaps sufficiently, directed attention (see the *JOURNAL*, July 12th, 1884, December 11th, 1886, and July 30th, 1887). In confirmation of these observations, many cases have been published in the *JOURNAL* and elsewhere, and others have been privately communicated to me by medical men living in various parts of the kingdom.

6. Our returns give general evidence of the comfort and happiness of old age. Indeed, when the body remains sound, and when the aspirations are, as commonly is the case, toned into re-

ation with its diminishing capabilities, when the surroundings are favourable, and the mind, freed from the struggle of the world, can enjoy calm reflection on the past and the future, and by a genial sympathy with others can fulfil the mission which remains to it here of promoting peace on earth and good will among men, the declining days are often the happiest ones of the long life. Finally, when the developmental processes have carried the body through the stages of its allotted span, the gradually thinning thread of life yields without a snap, and the aged one passes contentedly and gently away.

I cannot close this report without hearing testimony to the comfort and kindness which the old people receive in the various union houses that I have visited. They are well fed, kept warm and free from exposures, walk out when they can, and lie in bed when it suits them to do so, and great attention is paid to their cleanliness. It was obvious that mutual attachment had grown up, in most instances, between them and the master and mistress of the house and the medical and other attendants. It would, I think, tend to soothe the feelings of the unwilling ratepayer if he occasionally visited the poor-house and witnessed the comfort which the aged and infirm are deriving from that largest charity ever known—the English poor-law system—to which he contributes.

ANALYSES OF RETURNS RESPECTING THE PRESENT CONDITION AND PAST HISTORY OF PERSONS BETWEEN EIGHTY AND A HUNDRED YEARS OLD.

For the following analyses of the returns respecting the present condition, including the habits and circumstances, and the past history, including the family history, of 824 persons between the ages of 80 and 100, we are indebted to A. Francis, M.R.C.S., who also assisted me in collecting the tables from which the analyses were made. I do not publish the tables, because they are long, the printing would be costly, and the analyses are sufficient.

Of these persons, 340 were males and 282 were females, between the ages of 80 and 90; and 92 were males and 110 were females between the ages of 90 and 100.

No. 1.

ANALYSIS OF RETURNS RELATING TO PRESENT CONDITION, HABITS, CIRCUMSTANCES, ETC. (MALES, 80 to 90. 340 RETURNS.)

SINGLE: MARRIED: WIDOWED.—335 returns; S. 36, M. 80, W. 219.

AFFLUENT: COMFORTABLE: POOR.—337 returns; A. 40, C. 138, P. 159.

FAT: SPARE: AVERAGE.—333 returns; F. 37, S. 114, A. 182.

FULL-BLOODED: PALE: AVERAGE.—321 returns; F. 54, P. 57, A. 210.

STRONG: FEEBLE: AVERAGE.—329 returns; S. 106, F. 100, A. 123.

HEIGHT.—313 returns; average, a little over 5 feet 7 inches.

WEIGHT.—188 returns; average, a little over 11 stone.

FIGURE.—299 returns; erect 198, bent 101.

VOICE.—325 returns. Weak, 31; loud, 57; clear, 81; full, 16; loud and clear, 77; clear and full, 44; clear and weak, 11; loud and full, 7; loud, clear, and full, 1.

SIGHT.—267 returns; good, 224; cataracts (both sides), 19; cataract (one side), 3; failure of sight, apparently independent of presbyopia, 21; one of them had been "blind for ten years," and one had had "opaque cornea for twenty years."

GLASSES.—259 returns; none, 42; one of these used them formerly; 217 used glasses. In some of them the number of years during which glasses had been used was given: "All life," 3; "many years," 17; "occasionally," 1; "for small print," 1; "not long," 1; "none till 80," 1; 1 year or less, 3; 2 to 3 years, 11; 4 to 5 years, 3; 6 to 7 years, 10; 8 to 10 years, 20; 12 to 15 years, 20; 16 to 20 years, 39; 21 to 25 years, 6; 26 to 30 years, 23; 31 to 35 years, 36; 36 to 40 years, 19; 41 to 45 years, 4; 46 to 50 years, 7; 62 years, 1; 65 years, 1.

HEARING.—329 returns; good, 188; indifferent, 98; bad, 43.

JOINTS.—330 returns; natural, 287; stiff, 17; deformed, 15; stiff and deformed, 9; Dupuytren's contraction, 2.

DIGESTION.—337 returns; good, 253; moderate, 72; bad, 12.

APPETITE.—335 returns; good, 224; moderate, 95; bad, 16.

EATER.—320 returns; large, 24; moderate, 211; small, 85.

NUMBER OF MEALS.—275 returns; average rather over three daily.

ALCOHOL.—320 returns; none, 120; little, 120; moderate, 67;

much, 13; one of these took three glasses of wine and half an ounce of spirits.

ANIMAL FOOD.—304 returns; none, 9; little, 182; moderate, 109; much, 4.

BOWELS.—313 returns; daily, 219; alternately, 23; irregular, 68; relaxed, 1; costive, 1; 3 to 4 times daily, 1.

APERIENTS.—294 returns; never, 85; occasionally, 1; rarely, 149; frequently, 59.

DISPOSITION.—328 returns; placid, 140; irritable, 33; lethargic, 7; energetic, 100; placid and lethargic, 6; placid and energetic, 25; irritable and energetic, 17.

INTELLECT.—322 returns; high, 55; average, 242; low, 25.

MEMORY.—*Past Events*.—307 returns; good, 253; moderate, 34; bad, 20. *Recent Events*.—260 returns; good, 166; moderate, 56; bad, 38.

HABITS.—327 returns; active, 202; sedentary, 93; one of these "could work, but for deafness;" bedridden, 32; of these, one for 5 weeks, two for 6 months, one for 5 years.

OUT-OF-DOOR EXERCISE.—306 returns; none, 45 (including 32 who were bedridden); little, 81; moderate, 65; of these one works still; short walks, 44; much, 71; of these one "in river daily," "two still work," one "worked until stopped by an accident 4 months ago," one "gardens," one "walks much," three "walk 3 miles," one "walks for 2 hours," one "walks and rides," two "walk 8 to 10 miles," one "walks 12 miles a day," two "hunt," one of them twice a week.

SLEEP.—326 returns; good, 230; moderate, 78; bad, 18. *Number of Hours*.—213 returns; average, 7½ hours. *Hour of Going to Bed*.—275 returns; average, about 9 o'clock. *Hour of Rising*.—271 returns; average, about 7.10 A.M.

CHEST-GIRTH IN INSPIRATION.—167 returns; average, little over 36 inches.

CHEST-GIRTH IN EXPIRATION.—167 returns; average, little over 35 inches. Only those cases are here included in which the chest-girth both in expiration and in inspiration were returned.

ELASTICITY OF RIB CARTILAGES.—209 returns; distinct, 106; indistinct, 103.

PULSE.—280 returns; average, about 74 per minute. This average is rather high, owing to the frequent occurrence of chest-affections; a large number had pulse-rate below 70 per minute. *Regular, Irregular*.—262 returns; R. 201, I. 61. *Large, Small*.—237 returns; L. 111, S. 126. *Compressible, Incompressible*.—261 returns; C. 208, I. 53.

ARTERIES.—252 returns; even, 144; visible, 7; tortuous, 19; tortuous and even, 9; tortuous and visible, 20; visible and even, 22; tortuous, visible, and even, 2; knotty, 12; visible and knotty, 6; tortuous and knotty, 7; tortuous, visible, and knotty, 4. So that they were even in 177 cases, *knotty* in 29 cases, *visible* in 61 cases, *tortuous* in 61 cases.

RESPIRATION.—Number, 237 returns. Average, 20 to 21 per minute. The average is high, owing to the frequent occurrence of chest affections. *Regular, Irregular*.—252 returns. R. 242, I. 10.

ARCUS SENILIS.—266 returns. Absent, 94; little, 98; much, 74; one of these had had arcus senilis since 44 years of age.

TEETH.—300 returns; average about 6 each; but 87 had no teeth, and one of these not for 20 years. In 282 cases the teeth were specified. Upper incisors, 235; canines, 147; molars, 249; lower incisors, 438; canines, 221; molars, 330.

ARTIFICIAL TEETH.—195 returns. 158 did not use them, and of these 46 had not any teeth, and one had not had any teeth for 20 years, another not for 30 years; besides these 46 cases, many others had very few teeth. 37 used artificial teeth; for many years, 3; 35 years, 1; 32 years, 1; 30 years, 2; 28 years, 1; 20 years, 10; 17 years, 14; 15 years, 4; 12 years, 1; 10 years, 5; 9 years, 1; 6 years, 2; 4 years, 2; "yes," 8.

EVIDENCES OF FAILURE.—235 returns. None, 102; heart, 16; heart and lungs, 5; heart, lungs and brain, 1; heart, lungs, and urinary organs, 4; heart, brain, and urinary organs, 1; heart and urinary organs, 12; heart, lungs, brain, and urinary organs, 3; lungs, 29; lungs and brain, 2; lungs and urinary organs, 18; brain, 11; brain and urinary organs, 7; urinary organs, 74. In 22 cases the heart-sounds are returned as "normal."

So that the *heart* was affected in 42 cases, the *lungs* in 62 cases, the *brain* in 25 cases, the *urinary organs* in 119 cases. In the case of the urinary organs the failure was in many cases very slight, not affecting the general health (*vide* Micturition).

MICTURITION.—267 returns. Natural, 157; frequent, 14; one occasionally; slow, 56; incontinence, 7; one of these "for years," one for 3 months, and one "nocturnal;" quick, 1; difficult, 2.

slow and difficult, 11, one of them "for 30 years," another used a catheter twice daily; difficult and painful, 1; frequent and painful, 2; slow and frequent, 6; frequent and incontinence, 1; slow and painful, 2; slow, difficult, and painful, 2; catheterised, 6, of these, one twice daily, one 4 times daily, one 6 times daily, one for 3 years, one daily for 40 years (*vide Present Maladies*).

PRESENT MALADIES.—The returns are very incomplete; in many cases only symptoms have been returned, in others failure of some organ was returned, but the nature of the failure was not stated; in hardly any cases have details of the malady been given; the maladies have therefore been grouped in relation to the organ which appeared most affected.

278 returns; none, 89.

Bronchitis.—43 cases; 1 frequently, 1 occasionally; 9 chronic, and one of these for 2 years. **Asthma.**—3 cases; 1 chronic. **Cough.**—5 cases. **Dyspnoea.**—4 cases. **Emphysema.**—8 cases; one for 2 years. **Congestion of Lungs.**—3 cases; 1 died. **Pneumonia.**—1 case; died. **Chronic Naso-pharyngeal Catarrh.**—1 case.

Debility.—24 cases; one for 6 months. **Weak Heart.**—12 cases, 1 with giddiness and fainting. **Syncope.**—1 case, occasionally. **Vertigo.**—1 case. **Palpitations.**—2 cases; one occasional and severe for 20 years. **Dilated R. Heart.**—1 case. **Murmurs.**—7 cases; one for 2 years; systolic at base in 2, mitral in 2 (in one of these for 10 years), mitral systolic in 1, aortic in 1. **Intermittent Heart.**—2 cases; in 1 every fourth beat, in the other occasionally. **Anæmia.**—1 case, for a year.

Dyspepsia.—5 cases. **Diarrhoea.**—6 cases; two occasionally, one for 3 months, one for 16 years, one for 4 days, with death. **Piles.**—2 cases. **Fistula.**—one case for 30 years. **Prolapsus Ani.**—2 cases; one for 15 years. **Enlarged Liver.**—1 case. **Hernia.**—8 cases; 1 double, one for 10 years, one for 55 years. **Inguinal Hernia.**—15 cases; 1 double, 1 large, one large for 12 years, one large for 30 years, one for 50 years, one for 60 years. **Umbilical Hernia.**—1 case. **Headaches.**—1 case.

Enlarged Prostate.—11 cases; 1 for several years, three for 2, 3, and 4 years respectively, and one gives less trouble now than formerly. **Cystitis.**—2 cases; 1 died. **Pus in Urine.**—1 case. **Irritable Bladder.**—4 cases; one for 18 months, 1 for a few years. **Atony of Bladder.**—2 cases. **Gravel.**—1 case. **Hæmaturia.**—3 cases; 1 occasionally prostatic, 1 three attacks in last 6 months. **Retention.**—2 cases; 1 occasionally, 1 with death.

Rheumatism.—19 cases; one for 12 months, one of hip for 4 years. **Sciatica.**—4 cases. **Lumbago.**—1 case. **Gout.**—7 cases; 1 of them in foot. **Pains in Bones.**—1 case. **Lame.**—1 case.

Paralysis Agitans.—3 cases. **Delusions.**—1 case. **Mental Depression.**—1 case. **Insane.**—1 case for 60 years. **Epileptic Fits.**—1 case recently, 1 fit every 2 months. **Occasional Fits.**—1 case from "brain congestion." **Cerebral Hemorrhage.**—4 cases, all died; one was the "third attack at 86." **Partial Hemiplegia.**—2 cases, one for 13 months, one for 4 years. **Paralysis of Face and Voice.**—1 case for 6 months.

Epithelioma.—5 cases; three of lip; in one of these removed at 84, wound healed by first intention; one of finger, removed; one of penis and prepuce, operated on two months ago. **Rodent Cancer.**—1 case, of ear. **Nasal Polypi.**—1 case. **Fibrous Tumour.**—1 case, size of hen's egg, over orbit, removed at 81 after 3 years' duration. **Sarcoma.**—1 case of shoulder, 15 months' duration, increasing rapidly, with little effect on general health.

Œdema of Legs.—5 cases, one for 14 weeks. **Enlarged Legs.**—1 case, hard and brawny. **Inflamed Legs.**—1 case. **Sore Leg.**—1 case. **Varicose Ulcers.**—4 cases; one for 6 months, one for 2 years, one for 20 years, now healing; one for 6 years. **Eczema.**—4 cases; one of ankle, one for 5 years. **Psoriasis.**—1 case. **Lupus.**—1 case, from stroke of whip. **Bedsores.**—1 case. **Senile Gangrene.**—4 cases, one of these of toe. **Ophthalmia.**—2 cases.

Erysipelas.—1 case with death. One died after "4 days feverish illness."

Fracture of Femur.—2 cases, one "impacted, one month ago."

NO. 11.

ANALYSIS OF RETURNS RELATING TO PAST HISTORY INCLUDING FAMILY HISTORY.

(MALES, 80 to 90.)

Age when Married.—273 returns. Average a little over 28 years of age.

Duration of Married Life.—260 returns. Average about 43½ years.

Number of Children.—269 returns; average about 6 each, but 34 had no children.

Affluent, Comfortable, Poor.—326 returns; A. 33, C. 190, P. 103. **First or — Child of Parents.**—303 returns; average 3rd to 4th child. In 50, cases the number in the family was also given; in these the average position was 2nd to 3rd child, and the average number in the family was 6 to 7 children; 72 were "1st child," and of these 10 at least were "only child;" one of them was a twin, his twin sister dying at age of 6 months; another had twins, who were both alive at 56 years of age.

Fat, Spare, Average.—317 returns; F. 69, S. 100; average, 148. **Delicate, Robust, Average.**—311 returns; D. 12, R. 189, A. 110.

Health, Good, Moderate.—315 returns; G. 304, M. 11. **Often, Rarely, Ailing.**—14 returns; O. 7, R. 7.

Digestion.—325 returns; good, 307; indifferent, 17; bad, 1.

Bowels.—307 returns; good (daily) 266; irregular, 12; costive, 25; relaxed, 4.

Baldness.—191 returns; early, 55; late, 135; not bald, 1.

Greyness.—248 returns; early, 58; late, 189; not grey, 1.

Disposition.—308 returns; placid, 98; irritable, 19; lethargic, 2; energetic, 133; placid and energetic, 35; placid and lethargic, 2; irritable and energetic, 19.

Intellect.—308 returns; high, 68; low, 16; average, 224.

Habits.—308 returns; active, 293; sedentary, 15.

Out-of-Door Exercise.—298 returns; little, 31; of these one "could walk 50 miles," and one "always worked indoors;" moderate, 39; one of these travelled much in Germany and America; much, 228; of these 13 were great walkers, 1 walked 20 to 30 miles a day, one "30 miles on 4 days a week," one 5 to 20 miles daily, one "50 miles, many a day;" two 10 miles daily. Besides these, six had much walking, riding, or driving, or worked hard; one was an "athlete, walked 20 miles;" one "great athlete, runner, and jumper;" two were pugilists; one "active in boyish and manly exercises;" one "much hunting;" one "hunting since 8 years old;" one "hunting and shooting all his life;" one "hunting, drinking, shooting, fishing;" one "in saddle as doctor for 50 years;" one "led an irregular gipsy life;" one was at sea; one "much exposed in India for over 25 years;" one was "engaged in whaling, and in India, leading an adventurous life."

HOURS IN BED.—243 returns. **Average.**—Nearly 8 hours.

HOUR OF RISING.—253 returns. **Average.**—A little before 6 A.M.

SLEEPER.—311 returns. Good, 278; average, 26; bad, 7.

APPETITE.—295 returns. Good, 289; indifferent, 6.

EATER.—305 returns. Large, 52; average, 194; small, 59.

ALCOHOL.—298 returns. **None.**—28; besides these, one "never till 30," and another "none after 60." **Little.**—(under 1 pint) 95; of these, one took a quarter and one half a pint of beer daily. **Moderate** (1 to 2 pints).—112; of these, six took 1 to 2 pints of beer or porter daily, one 4 glasses of wine, one half a pint of claret, one was an abstainer till 40, one "little in early life," one "much in early life," one took a little rum, one had "tendency to drink," one "much at times," one "did not take alcohol daily, but occasionally to excess; 4 pints of beer made him tipsy." **Much** (more than 2 pints).—45; of these, two were "free livers," two "much beer, free livers," one "very much beer," one "much beer regularly," two 2 to 3 pints of beer, one "2 to 4 pints of beer all his life," one 4 pints of beer daily, one 6 pints of beer often, three 3 to 5 pints of beer, one "in early life, never intemperate," one "drank heavily in early life," one "heavy drinker, able to stand large quantities," one "much of all kinds," one "much port," one "three-fourths of a bottle of Marsala for years," one "often drunk," one "freely never too much," one took 5 ounces of rum daily, one "a pint and a half of wine and spirits daily for years," one "three glasses of whisky and wine," one "6 ounces of whisky," one "drank all he could get," three "much when they could get it," one was a publican, one "drank freely of rum (1 pint daily) till 46, none since," one "took 6 pints of beer and much spirits, was a great drinker till 6 years ago, never went to bed sober if he could get beer," one "often drank a bottle of rum before breakfast when in Australia."

ANIMAL FOOD.—272 returns. **None.**—1. **Little** (under half a pound).—107; one of these was "almost a vegetarian." **Moderate** (half a pound to a pound).—143. **Much** (more than 1 pound).—21.

ILLNESSES UNDERGONE.—**Fever.**—16 cases; one "young," one "40 years ago, severe," one "a year ago," and nine at 16, 20, 25, 34, 35, 40, 40, 50, and 74 respectively. **Typhus Fever.**—16 cases; one severe, one in childhood, and eight at 14, 20, 24, 25, 37, 40, 45, and 46 respectively, one in 1827, one at 40, severe, two 40 and 50 years ago respectively. **Typhoid Fever.**—8 cases; two severe at 27 and 67 respectively, five at 15, 40, 50, 55, and 60 respectively. **Yellow Fever.**—1 case, twice. **Scarlet Fever.**—3 cases; one "young,"

four at 18, 40, and 40, severe, and 65, severe. *Influenza*.—1 case, at 50. *Whooping-cough*.—1 case, at 56. *Small-pox*.—9 cases; one in childhood, one slightly, one at 16, severe, one at 74, one "confluent at 19," one 77 years ago, one twice, one "in 1825 after vaccination." *African Fever*.—1 case.

Ague.—5 cases; one "prolonged at 20," in three at 40, 44, and 68. *Intermittent Fever*.—1 case. *Erysipelas*.—5 cases; one "of leg often," one at 81 recovered, one severe 50 years ago. *Cellulitis*.—2 cases; one at 82 with incisions, one three times at 65, 75, and 80.

Cholera.—3 cases, one at 30. *Dysentery*.—2 cases, one at 82, one in 1883. *Syphilis*.—1 case. *Carbuncle*.—5 cases, one had two, one 20 years ago, three at 60, 74, and 75, the last with incisions and quick recovery.

Brain Fever.—2 cases at 30 and 46. *Sunstroke*.—1 case at 50. *Adder Bite*.—1 case.

"*Cerebral Affection*."—1 case, 30 years ago. *Rheumatic Fever*.—14 cases, two "young," two 30 and 40 years ago, nine at 20, 34, 40, severe; 42, severe, with complete recovery; 45, 53, 60, 63, and 65. *Chorea*.—1 case. *Rheumatism*.—6 cases, one twice, one 12 years ago, one for 12 years. *Rheumatic Gout*.—1 case at 37. *Gout*.—10 cases, one occasionally, one frequently, one frequently for 10 years, one for 17 years, one since 21 years old, chalk stones in fingers. *Sciatica*.—3 cases, one at 69. *Lumbago*.—1 case. *Neuralgia*.—3 cases; one at 55, one in legs with insomnia at 55, with issues for 8 years. *Rheumatic Iritis*.—1 case, 25 years ago. *Lithotomy*.—1 case, 15 years ago, removal of large uric acid calculus. *Lithotripsy*, 1 case, 24 years ago. *Lithuria*.—1 case. *Renal Colic*.—1 case, 50 years ago.

Hæmatemesis.—1 case. *Jaundice*.—3 cases; one at 84 severe, one at 81 recovered. *Gall-stones*.—4 cases; one for 34 years. *Hepatic Abscess*.—1 case bursting into colon at 43. *Hepatitis*.—2 cases, in one two attacks at 30 and 35. *Bilious Attacks*.—1 case occasionally. *Hepatic Congestion*.—1 case occasionally. *Colic*.—2 cases; one severe a year ago. *Dropsy*.—1 case, 5 years ago, tapped 6 quarts, recovered. *Diarrhoea*.—1 case at 85. *Typhlitis*.—1 case at 40. *Inflammation of Bowels*.—2 cases, one at 21.

Hæmaturia.—1 case, 3 attacks in 6 months. *Albuminuria*.—2 cases; one 4 years ago, one 1 year ago for a few days. *Irritable Bladder*.—2 cases; one a few years ago, one from 50 to 60. *Retention*.—1 case, catheterised twice daily for one month, with recovery. *Difficult Micturition*.—1 case at 68, catheterised then and occasionally since. *Disease of Bladder and Prostate*.—1 case, severe, from 72 to 78, now quite well. *Stricture*.—1 case when young.

Diseased Hip.—1 case in infancy, lame. *Syncope*.—1 case at 74. *Bled*.—2 cases; one for illness at 40, one for transfusion. *Epistaxis*.—2 cases; severe at 30 and 73; one was thought to be dying 15 years ago. *Fistula*.—1 case 50 years ago. *Sarcoma of Eye*.—1 case. *Abscess*.—4 cases; one of thigh 50 years ago, one "strumous when young;" one of "shoulder at 76, recovery;" one in "side, at 30 in bed 8 weeks."

Bronchitis.—23 cases; one "severe," three severe at 47, 60, and 84; two at 65 and 68; four 6 months, 6 months, 10 years, and 17 years ago; one "several attacks since 80;" one "3 attacks severe, with recovery at 50, 83, and 84;" one "5 acute attacks in successive winters from 77 to 82 years;" one "two attacks at 50 and 75;" one "several severe attacks;" one "severe 2 years ago, recovery." *Broncho-pneumonia*.—1 case at 82, recovery. *Edema of Lungs*.—1 case. *Asthma*.—1 case for 10 years. *Pulmonary Congestion*.—2 cases, at 30 and in 1875 respectively. *Bronchitis and Pleuro-pneumonia*.—1 case, three times in last 7 years, last at 84, good recovery. *Pneumonia*.—4 cases, one "two attacks at 45 and 50," one severe 10 years ago, two at 66 and 79. *Pneumonia and Pleurisy*.—1 case at 78. *Pleurisy*.—6 cases; five at 16, severe, 28, 60, 72, 82 respectively. *Phthisis*.—3 cases; two had "slight symptoms when young;" a third had "hemoptysis at 40, in bed 8 weeks;" one was "delicate in early life;" one had "breakdown from anxiety, with diplopia and intermittent pulse at 64, with recovery;" one had "irregular heart 10 years ago, from study; recovering with change."

Epilepsy.—2 cases; one 20 to 30, fits in last two years, failure of memory. *Insane*.—1 case. *Apoplexy and Paralysis*.—16 cases; one "20 years ago, partial paralysis of right arm for 5 years, recovery;" one "in 1850, with right hemiplegia;" one "convulsions on right side with unconsciousness, a year ago with recovery;" one "fit at 79, with hemiplegia, complete recovery except of voice;" one "hemiplegia a year ago," one "left hemiplegia at 76," one "3 attacks at 82, 85, and 86;" one "paralysis at 65;" one "slight stroke at 85, slight paralysis after;" one "slight stroke

lately, weak after;" one "paralysis of both legs and left arm, not unconscious, quite recovered;" one "paralysis at 84, partial recovery, died of apoplexy;" one "hemiplegia at 45, recovery;" one "hemiplegia at 84, nearly recovered;" one "right hemiplegia and aphonia at 84, recovered." *Congestion of Brain*.—1 case at 62.

Slight Ailments.—256 returns; none, 156. *Bronchitis*.—16 cases; one "several times," four chronic. *Cough*.—2 cases; one frequently. *Catarrh*.—1 case. *Asthma*.—1 case, 28 years.

Dyspepsia.—16 cases; one lately, one at 70, recovery. *Bilious Attacks*.—3 cases. *Giddiness*.—2 cases; one occasionally, one "after meals." *Flatulence*.—1 case. *Gall-stones*.—1 case. *Palpitations*.—3 cases; one occasionally, one "for 20 years."

Headaches.—3 cases; of these one "sick headaches every 3 months," one "sick headaches frequently." *Constipation*.—4 cases.

Diarrhoea.—8 cases; one "in summer," two occasionally, one has "tendency to diarrhoea," one "for 15 years, since injury to abdomen." *Piles*.—3 cases. *Epistaxis*.—1 case.

Rheumatism.—16 cases; one at 68, one "lately, in bed 3 months." *Gout*.—7 cases; one slight, one annually for 30 years, two occasionally. *Sciatica*.—2 cases. *Neuralgia*.—1 case. *Angina*.—1 case rarely.

Ague.—1 case. *Orchitis*.—1 case occasionally. *Hernia*.—6 cases; one double, one "from infancy," one for 30 years, one "inguinal," one "right inguinal," and one "inguinal for 30 years."

Difficult Micturition.—1 case, few years ago, from stricture. *Eczema*.—7 cases; one "of legs," one at 46, one "30 years of leg," two for 2 and 4 years, one "grocer's eczema all his life till lately." *Psoriasis*.—1 case, alternating with asthma. *Variol*.—1 case, many years. *Ulcer of Leg*.—4 cases; one "20 years, now healed," one "for 30 years," one "from 60 to 80, now healed," one was "ailing till 50," one had "feeble childhood and youth, health and appetite better after 80."

ACCIDENTS.—175 returns. None, 128.

Concussion of Brain.—3 cases; two at 62 and 70; the third "four times, was bled each time." *Spinal Concussion*.—1 case at 34. *Severe Railway Accident*.—one case at 56. *Knocked Down*.—1 case at 76. *Severe Fall*.—1 case, three weeks ago, scalp wound healed rapidly. *Run Over*.—1 case, by a cab at 80. *Severe Bruising*.—1 case at 64. *Kick on Head*.—1 case when young, large depression of right frontal bone. *Fracture of Skull*.—1 case at 49. *Injury to Chest*.—1 case at 16, with repeated hæmoptysis and venesection. *Injured Abdomen*.—15 years ago, diarrhoea since.

Dislocation: Shoulder.—6 cases; two at 65 and 79; three 1, 8, and 40 years ago. *Ankle*.—2 cases; one at 50, one 30 years ago. *Hip*.—1 case, 20 years ago. *Injured Hip*.—1 case at 71, lame since.

Fracture: Patella.—2 cases; one 8 months ago, one "muscular at 78, with bony union." *Arm and Leg*.—1 case at 45. *Arm*.—1 case at 83. *Leg and Thigh*.—1 case at 86. *Right Humerus*.—1 case at 85. *Ribs*.—5 cases; three at 64, 70 and 70, one a year ago with recovery in 3 weeks, one "3 ribs at 58." *Sternum*.—1 case at 30. *Shoulder*.—1 case, "compound, after 70." *Leg*.—2 cases; one at 45. *Thigh*.—6 cases; one 5 years ago, one "in 1880, close to knee," one "left, at 66," one "at 83, in bed nine weeks with perfect union," two of neck of thighbone, one of them in January, 1883, the other "at 79, recovered after being in bed nine weeks."

Amputation: Arm.—1 case at 47. *Leg*.—2 cases; one for "diseased ankle at 25," one from "accident at 46."

LONGEVITY.—Taking as a standard of a long-lived family one in which of the near relations (grandparents, parents, brothers, sisters, and subject of inquiry) 4 attained the age of 70, or 3 the age of 80, we have at least 182 cases; two of them were on mother's side only; one was returned as short-lived family.

BLOOD-RELATIONSHIP BETWEEN PARENTS OR GRANDPARENTS.—163 returns. None, 157. In two cases "grandparents were cousins," in one "maternal grandparents were first cousins," in one "paternal grandparents were cousins," in one "parents were cousins," in one "parents were first cousins."

AGE OF FATHER AT BIRTH OF SUBJECT OF INQUIRY.—96 returns. Average, about 36 years of age.

AGE OF MOTHER AT BIRTH OF SUBJECT OF INQUIRY.—96 returns. Average, about 31 years of age.

Only those cases are included in which both age of father and mother are given.

DISEASES IN FAMILY (in relations and subject of inquiry):

Cancer (malignant growths).—44 families.
Consumption.—65 families.
Scrofula.—1 family.
Gout.—30 families.
Apoplexy and Paralysis after 40.—42 families.
Rheumatism.—59 families.
Epilepsy.—5 families.
Insanity.—13 families.
None.—40 families.

No. III.

ANALYSIS OF RETURNS RELATING TO PRESENT CONDITION,
HABITS, CIRCUMSTANCES, ETC.
(MALES, 90 to 100. 92 Returns.)

Single, Married, Widowed.—76 returns; S. 4, M. 18, W. 54.
Affluent, Comfortable, Poor.—77 returns; A. 6, C. 42, P. 29.
Fat, Spare, Average.—78 returns; F. 8, S. 35, A. 35.
Full-Blooded, Pale, Average.—73 returns; F. 12, P. 16, A. 45.
Strong, Feeble, Average.—76 returns; S. 31, F. 31, A. 14.
Height.—70 returns; average, 5 feet 6½ inches; one, now 5 feet 6 inches, was 5 feet 9 inches; another, now, 5 feet 6 inches, was 5 feet 7½ inches.
Weight.—39 returns; average, 10 stone 9 pounds.
Figure.—70 returns; erect, 40; bent, 30.
Voice.—76 returns; loud, 10; clear, 10; loud and clear, 33; clear and full, 7; full, 3; loud and full, 2; weak, 5; clear and weak, 6.
Sight.—61 returns; good, 50; *Cataract* (both eyes), 4, in one case at 88 years. *Cataract* (one eye), 1. Failure, apparently independent of presbyopia, 6; in one case "blind for 20 years."
Glasses.—49 returns; none, 10; 39 wore them; of those in which period was given, many years, 3; 2 to 3 years, 1; 8 to 10 years, 5; 12 to 15 years, 4; 16 to 20 years, 6; 26 to 30 years, 5; 40 years, 3; 50 years, 2. In two cases "can read for five minutes without spectacles, and then 'goes all of a piece.'"
Hearing.—77 returns; good, 38; indifferent, 20; bad, 19.
Joints.—77 returns; natural, 64; deformed, 7; stiff, 4; stiff and flexed, 1; stiff and deformed, 1.
Digestion.—74 returns; good, 57; moderate, 14; bad, 3.
Appetite.—74 returns; good, 52; moderate, 17; bad, 5.
Eater.—71 returns; large, 12; moderate, 46; small, 13.
Number of Meals.—55 returns; average rather over 3 each daily.
Alcohol.—73 returns; none, 21; little, 26; moderate, 26; 1 "takes occasionally a little too much."
Animal Food.—69 returns; none, 1; little, 41; moderate, 26; much, 1.
Bowels.—74 returns; daily, 49; three times daily, 1; alternately, 8; every third day, 1; irregular, 13; costive, 2.
Aperients.—72 returns; never, 24; occasionally, 1; frequently, 10; rarely, 37.
Disposition.—76 returns; lethargic, 1; energetic, 28; placid, 28; irritable, 12; placid and energetic, 3; irritable and energetic, 4.
Intellect.—72 returns; high, 12; average, 51; low, 9.
Memory, Past Events.—70 returns; good, 58; moderate, 5; bad, 7.
Memory, Recent Events.—60 returns; good, 34; moderate, 14; bad, 12.
Habits.—75 returns; active, 46; sedentary, 21; bedridden, 8, one for 1 year, one for 2 years.
Out-of-Door Exercise.—68 returns; none, 17, of which 8 were bedridden, 1 not out for years, 1 not for 9 years; little, 7; moderate, 2, one travels by train alone; much, 3, one of these attended Norwich market as a cattle dealer a few days before death, another works in garden 3 hours daily; short walks, 23; walk and drive, 2; walks 1 hour, 1; walks 2 to 3 hours, 1; walk 1 mile, 3, one of these could do so "easily at 94;" walk 2 miles, 2; walk 3 miles, 3; rides on horseback, 1; "work as labourers," 2; "works on farm," 1; one "at work in hayfield 3 days before death."
Sleep.—70 returns; good, 47; moderate, 16; bad, 7.
Sleep, Number of Hours.—39 returns; average 8½ hours.
Hour of Going to Bed.—54 returns; average, 8.30 P.M.
Hour of Rising.—56 returns; average, 8 A.M.
Chest Girth in Inspiration.—30 returns; average, 35½ inches.
Chest Girth in Expiration.—30 returns; average, 35 inches. Only those cases are included in which chest girth in both inspiration and expiration are given.
Elasticity of Rib Cartilages.—41 returns; distinct, 16; indistinct, 25.

Pulse.—57 returns; average, little over 75 per minute. *Regular, Irregular*.—51 returns; R. 38, L. 13. *Large, Small*.—49 returns; L. 20, S. 29. *Compressible, Incompressible*.—51 returns; C. 42; I. 9.
Arteries.—55 returns; even, 38; visible, 1; visible and even, 2; tortuous, 1; tortuous and even, 2; tortuous and visible, 5; knotty, 3; visible and knotty, 2; tortuous and knotty, 1. So they were visible in 10 cases, even in 42 cases, tortuous in 9 cases, knotty in 6 cases.

Respiration Number.—48 returns; average, about 23 per minute. *Regular, Irregular*.—48 returns; R. 43, I. 5.

Arcus Senilis.—55 returns; much, 13; little, 22; absent, 20.
Teeth.—69 returns; average, 4 to 5; but 27 had none, and two had "several," one had a "third set of bicuspids at 89 years of age;" in 62 cases the teeth are specified. *Upper incisors*, 44; *canines*, 23; *molars*, 57. *Lower incisors*, 60; *canines*, 40; *molars*, 58.

Artificial Teeth.—71 returns; 66 did not use them, and of these 26 had no teeth, and several others very few; 5 used them; one for 3 years, one for 10 years, one for 20 years.

Evidences of Failure.—58 returns; none, 18; heart, 1; heart and brain, 1; heart and urinary organs, 2; lungs, 9; lungs and urinary organs, 2; lungs, brain, and urinary organs, 1; brain, 4; brain and urinary organs, 1; urinary organs, 19; so the heart was affected in 4 cases, the lungs in 12 cases, the brain in 7 cases, the urinary organs in 25 cases. Heart sounds returned as "normal" in 7 cases.

Micturition.—58 returns; natural, 32; slow, 8; frequent, 5; incontinence, 4, one partial for 18 years; difficult, 3, in one case catheter used occasionally, in one from contraction of urethra after amputation of penis. Slow and difficult, 4; slow and frequent, 1; slow, difficult, frequent, and painful, 1; in this case "micturition has been frequent for several years, sometimes a quarter of an hour before he can make water."

Present Maladies.—63 returns; none, 25.
Debility.—10 cases. *Weak Heart*.—1. *Mitral Bruit*.—1. *Senile Decay*.—1; died. *Cardiac Dropsy*.—1.

Bronchitis.—8 cases; three slight, one for 18 years, one with death. *Cough*.—2 cases, one chronic. *Emphysema*.—1. *Congestion of Lungs*.—1 case for 2 weeks.

Indigestion.—1. *Ulcer*.—1 from injury. "Gouty erysipelas and eczema."—1 case. *Hernia*.—1 case. *Dementia*.—2 cases; one for a few years, one since 1847 in St. Luke's.

Hemiplegia.—1 case. *Brain impaired*—recently in 1, from anxiety.

Senile Gangrene.—2 cases; 1 of foot, 1 of toe; both died. *Rheumatism*.—4 cases; 1 often, 1 of hip.

Enlarged Prostate.—1 case. *Albuminuria*.—One case for 6 months. *Atony of Bladder*.—One case for 14 years, with occasional retention. *Uræmia* and death, 1 case, difficult micturition from contraction of urethral orifice after amputation of penis for epithelioma 24 years previously.

Temperature.—3 returns; one of 95.0°, two of 96.0°; one of these "under the tongue." In one case, aged 99, some head measurements were given: circumference around temples, 21 inches; coronal from ear to ear, 14½ inches.

No. IV.

ANALYSIS RELATING TO PAST HISTORY, INCLUDING FAMILY HISTORY.

(MALES, 90 to 100.)

Age when Married.—62 returns; average, 30 to 31 years of age.
Duration of Married Life.—54 returns; average, little over 47 years.

Number of Children.—68 returns; average, little over 7 each.
Affluent, Comfortable, Poor.—72 returns; A. 6, C. 42, P. 24.
First or — Child of Parents.—64 returns; average, about third, but 18 were "first child," and of these one at least was "only child." In 19 cases the number in the family was also returned; of these, the average position was about third, and the average number in the family was 7 to 8 children. One was a twin, second born, the other being a girl.

Delicate, Robust, Average.—69 returns; D. 2, R. 47, A. 20.
Health: Good, Moderate.—70 returns; G. 70, M. 9. *Often Rarely Ailing*.—1 return; O. 1, R. 0.

Digestion.—74 returns; good, 72; indifferent, 2.
Bowels.—68 returns; good (daily), 58; irregular, 3; costive, 6 loose, 1.

Baldness.—38 returns; early, 12; late, 26.
Greyiness.—50 returns; early, 13; late, 37.

Disposition.—68 returns; placid, 18; irritable, 5; lethargic, 1; energetic, 32; irritable and energetic, 6; placid and energetic, 6.

Intellect.—59 returns; high, 13; average, 44; low, 2.

Habits.—72 returns; active, 70; sedentary, 2.

Out-of-Door Exercise.—68 returns; little, 5; moderate, 6. One "worked hard, often late at night;" one was a "good walker." Much, 57; of these, six were great walkers, one "walking four to five miles daily till 87;" one "ten to twenty miles daily, at 80 could run two miles without stopping;" one "on horseback till 85;" one a "sportsman," one had "laborious occupation as a stevedore;" one "worked hard, often late at night;" one "had a good deal of night-work;" one "often had night-work as a coastguard;" one, "a cattle-dealer, often twelve hours without food."

Hours in Bed.—44 returns; average, 8½ hours.

Hour of Rising.—53 returns; average, 6 A.M.

Sleeper.—67 returns; good, 61; average, 4; bad, 2.

Appetite.—67 returns; good, 65; indifferent, 2.

Eater.—66 returns; large, 13; average, 48; small, 5.

Alcohol.—67 returns; none, 1; little, 27; moderate, 32; one of these "took much when he had the chance;" much, 7; of these, two were "free eaters and drinkers," one "took two glasses of beer and four glasses of wine daily," one "took three glasses of whisky a day," one was "often drunk and in gaol," one was "drunk about once a week," one "boasted that he smoked and drank more than any man in the town, and was most irregular in every way."

Animal Food.—58 returns; none, 1; little, 14; one of them "once a week;" moderate, 41; much, 2.

Illnesses Undergone.—69 returns; none, 32.

"Fever."—6 cases; at 18, 21, 33 severe, 40, 65, and 76. *Yellow Fever.*—1 in West Indies. *Typhus Fever.*—4 cases; one at 15, one at 45, one when young in the Peninsular war, one at 65. *Typhoid Fever.*—4 cases; one young, three at 45, 50, and 67. *Ague.*—1. *Erysipelas.*—4 cases; one at 60, one severe at 80, one severe, with recovery at 89. *Brain Fever.*—1 with much venesection.

Bronchitis.—8 cases; three at 80, 88, and 96, one had two attacks in last four years, one severe at 94 with ultimate recovery, one at 98 severe with recovery. *Pneumonia.*—2 cases; one at 75, one within last 4 years.

Phthisis.—1 had symptoms, when 15 was at Brompton Hospital. *Abscess.*—1 in back at 45.

Jaundice.—2 cases; one at 60, one when young. *Fistula.*—1 at 48.

Epithelioma of Penis.—1 with amputation at 70.

Rheumatism.—2 cases, one as a boy. *Glaucoma.*—1 case, in left eye.

Strangulated Hernia.—1, with operation at 84. *Gangrene.*—1 of left foot at 77. *Venesection.*—1, several times when young.

Exema.—2 cases; one acute at 90, with complete recovery.

Dementia.—1 case since 1847, in St. Luke's.

One had slight paralysis at 72, one slight apoplexy and hemiplegia at 89, one 3 "strokes" with temporary paralysis, one during last 15 years had occasional loss of consciousness and use of left side, with quick recovery.

Retention.—One 4 years ago. *Atony of Bladder.*—One for 14 years from over-distension, occasionally catheterised; one for several years has had frequent micturition, sometimes a quarter of an hour before he can make water.

Slight Ailments.—63 returns; none, 38.

Bronchitis.—3 cases; one slight, one chronic for 8 years. *Asthma.*—1 case.

Rheumatism.—5 cases; one slight, one at 80, unable to walk since. *Gout.*—4; one for 20 years.

Diarrhoea.—1 lately. *Piles.*—1 for 70 years. *Bilious.*—1.

Ague.—1. *Gravel.*—1. *Renal Hemorrhage.*—one case, copious 4 times in last 20 years.

Dizziness.—2 cases; one occasionally for 10 years.

Hernia.—3 cases; one "all life," two for 20 and 50 years.

Ulcer of Leg.—1 case, healed at 98. *Eruption on Legs.*—1. *Exema.*—1. *Ailing in Youth.*—1.

Accidents.—49 returns; none, 35.

Concussion.—1 at 84 from fall of 10 feet. *Dislocated Thumb.*—1 from fall from scaffold at 81, recovered. *Sprained Ankle.*—1 at 93, quick recovery. *Scalp Wound.*—2 cases; one severe lately with quick recovery, one from fall at 89, healed quickly.

Fracture: Ribs.—3 cases; one at 84 with speedy recovery, one at 93 healed well. *Clavicle.*—Spontaneous at 90 in raising himself from chair, united. *Thigh.*—1 at 82. *Humerus.*—1 at 92, perfect union. *Neck of Thighbone.*—2 cases; one 87 not united, one at 20 at

Quatre Bras. *Leg.*—4 cases; one at 85, one compound, one both bones at 80 with recovery, one at 80 in middle, "leg slipped off fender as he sat, he did not fall, not united, quite flexible, in bed 7 weeks."

Longevity.—Taking as a standard of a long-lived family, one in which of the near relations (grandparents, parents, brothers, sisters, and subject of inquiry), 4 attained the age of 70, or 3 the age of 80, we have at least 40 cases; one was returned as "short-lived."

Blood Relationship between Parents or Grandparents.—29 returns; none, 29.

Age of Father at Birth of Subject of Inquiry.—11 returns; average, 35 years of age.

Age of Mother at Birth of Subject of Inquiry.—11 returns; average, nearly 32 years of age. Only those cases are included in which the ages of both father and mother are returned.

Diseases in Family.—(in relations and subject of inquiry).—*Cancer* (malignant growths).—8 families. *Consumption.*—13 families. *Scrofula.*—0 families. *Gout.*—8 families. *Apoplexy and Paralysis after 40.*—9 families. *Rheumatism.*—10 families. *Epilepsy.*—0 families. *Insanity.*—5 families. *None.*—5 families.

In one case almost every member of family except the subject terribly addicted to drink; in another case his son, daughter, and 4 nephews and nieces were deaf mutes.

NO. V.

ANALYSIS OF RETURNS RELATING TO PRESENT CONDITION, HABITS, CIRCUMSTANCES, ETC.

(FEMALES, 80 to 90. 282 Returns.)

Single, Married, Widowed.—280 returns; S. 32, M. 26, W. 222.

Affluent, Comfortable, Poor.—280 returns; A. 23, C. 112, P. 145.

Fat, Spare, Average.—277 returns; F. 36, S. 119, A. 122.

Full-blooded, Pale, Average.—275 returns; F. 18, P. 104, A. 153.

Strong, Feeble, Average.—274 returns; S. 58, F. 110, A. 106.

Height.—218 returns; average, a little over 5 feet 2 inches.

Weight.—86 returns, average, about 8 stone 10½ pounds.

Figure.—242 returns; erect, 146; bent, 96.

Voice.—268 returns; clear, 103; loud, 40; weak, 32; full, 11; clear and weak, 9; clear and full, 23; loud and clear, 49; loud and full, 1.

Sight.—220 returns; good, 184; cataracts, 15; failure apparently independent of presbyopia, 21.

Glasses.—227 returns; none, 32; 195 wore them. In some the number of years during which they were worn was given; many years, 19; 2 to 3 years, 2; 4 to 5 years, 6; 6 to 7 years, 4; 8 to 10 years, 14; 12 to 15 years, 10; 16 to 20 years, 31; 21 to 25 years, 10; 26 to 30 years, 34; 31 to 35 years, 6; 36 to 40 years, 28; 41 to 45 years, 3; 46 to 50 years, 10; 54 years, 1; 58 years, 1; 60 years, 1; 65 years, 1.

Hearing.—279 returns; good, 175; indifferent, 77; bad, 27.

Joints.—278 returns; natural, 243; stiff, 12; deformed, 13; stiff and deformed, 10.

Digestion.—280 returns; good, 169; moderate, 94; bad, 17.

Appetite.—278 returns; good, 144; moderate, 115; bad, 19.

Eater.—275 returns; large, 22; small, 105; moderate, 148.

Number of Meals.—225 returns; average, 3 to 4 daily.

Alcohol.—270 returns; none, 105; little, 117; moderate, 44; much, 4.

Animal Food.—249 returns; none, 10; little, 164; moderate, 72; much, 3.

Bovels.—266 returns; daily, 183; irregular, 51; alternately, 30; costive, 1; once a week, 1.

Aperients.—265 returns; never, 58; rarely, 150; frequently, 52; daily, 3; occasionally, 2.

Disposition.—267 returns; placid, 119; irritable, 28; lethargic, 4; energetic, 93; placid and energetic, 14; irritable and energetic, 9.

Intellect.—266 returns; high, 33; low, 36; average, 197.

Memory, Past Events.—258 returns; good, 186; moderate, 41; bad, 31. *Recent Events.*—221 returns; good, 120; moderate, 58; bad, 43.

Habits.—275 returns; active, 128; sedentary, 100; bedridden, 47; of these five for 2, 3, 4, 4, 15 years respectively, and two for 3 weeks and 3 months respectively.

Out-of-Door Exercise.—259 returns; none, 88 (of these 47 were bedridden); little, 102; moderate, 34; much, 14; short walks, 18 (of these one walks 2 miles). Besides these, three walk 3, 4 and 6 miles respectively.

Sleep.—267 returns; good, 146; moderate, 89; bad, 32. *Number of Hours.*—147 returns; average, a little over 7 hours.

Hours of Going to Bed.—204 returns; average, a little past 9 o'clock P.M.

Hour of Rising.—202 returns; average, 7.45 A.M.

Chest Girth in Inspiration.—73 returns; average about 31½ inches. *Expiration.*—73 returns; average, about 30½ inches. Only those are included where both inspiration and expiration are given.

Elasticity of Rib Cartilages.—139 returns; distinct, 65; indistinct, 74.

Pulse.—228 returns; average, nearly 70 per minute; high, owing to chest affections in many cases. *Regular, Irregular.*—201 returns; R. 164, I. 37. *Large, Small.*—194 returns; L. 60, S. 134. *Compressible, Incompressible.*—221 returns; C. 181, I. 40.

Arteries.—211 returns; even, 138; visible, 13; tortuous and even, 8; visible and even, 11; tortuous, 13; tortuous and visible, 6; knotty, 6; visible and knotty, 2; tortuous and knotty, 12; tortuous, visible, and knotty, 1; tortuous, visible, and even, 1; so that they were even in 158 cases, tortuous in 41 cases, visible in 34 cases, knotty in 21 cases.

Respiration.—Number, 204 returns; average, nearly 22 per minute; rather high, owing to chest complaints in many cases. *Regular, Irregular.*—212 returns; R. 198, I. 14.

Arcus Senilis.—224 returns; much, 48; little, 80; absent, 96.

Teeth.—253 returns; average, little over 3 each; but 122 had no teeth; of these, two had not had any for 40 and 55 years respectively. In 241 cases the teeth were specified. *Upper incisors, 103; canines, 75; molars, 96. Lower incisors, 201; canines, 112; molars, 121.*

Artificial Teeth.—208 returns; none, 176; of these, 89 had not any teeth, and 4 had not had any for 4, 30, 40, and 40 years respectively, and 3 had not had any "for years," and many others had very few teeth; 32 used artificial teeth, in some cases the number of years during which they had been worn was given. Many years, 5; 5 years, 1; 7 years, 1; 10 years, 2; 12 years, 1; 15 years, 1; 20 years, 4; 21 years, 1; 25 years, 3; 30 years, 4; 36 years, 1; 40 years, 1; 55 years (full set), 1.

Evidences of Failure.—228 returns; none, 117; heart, 11; heart and lungs, 6; heart and brain, 5; heart and urinary organs, 5; heart, lungs, and urinary organs, 2; heart, brain, and urinary organs, 2; heart, lungs, brain, and urinary organs, 5; in 14 cases heart-sounds returned as normal; lungs, 21; lungs and brain, 3; lungs and urinary organs, 7; brain, 18; brain and urinary organs, 3; urinary organs, 23; so that the heart was affected in 36 cases, the lungs in 44 cases, the brain in 36 cases, the urinary organs in 47 cases; in the case of the urinary organs, the failure was often slight (*vide Micturition*).

Micturition.—207 returns; natural, 166; incontinence, 13; slow, 11; slow and difficult, 3; frequent, 8; painful, 1; difficult, 1; hæmaturia, 1; difficult and painful, 1; slow, difficult, and painful, 2.

Present Maladies.—248 returns; none 91. *Debility.*—34 cases. *Weak Heart.*—5. *Syncope.*—2. *Palpitations.*—3. *Vertigo.*—3. *Angina.*—1, occasionally. "Aortic Disease."—1. *Murmur at Base.*—2 cases, one of them systolic. *Senile Edema.*—1. *Swelled Feet and Legs.*—1.

Dyspepsia.—9. *Diarrhœa.*—5, one slight, one occasionally. *Piles.*—3. *Flatulence.*—2. *Constipation.*—1. *Hernia.*—5, one for 40 years, one strangulated, with death three days after herniotomy, one umbilical.

Bronchitis.—32 cases, 6 of them chronic. *Cough.*—2. *Emphysema.*—2. *Pneumonia.*—1. *Rheumatism, Rheumatic Gout.*—26 cases. *Gout.*—6. *Swelled Knee.*—1.

Uterine Hæmorrhage.—1. *Polypus Uteri.*—1. *Prolapsus Uteri.*—4, one for 30 years. *Irritable Bladder.*—2. *Retention of Urine.*—1. *Intermittent Hæmaturia.*—1, for 20 years.

Caries of Rib.—1. *Lame (Hip).*—1. *Dislocated Ankle.*—1, for many years. *Fracture of Neck of Femur.*—2.

Cancer of Breast.—5. *Epithelioma of Face.*—1. *Rodent Cancer.*—1. *Carbuncle.*—1, large. *Periostitis.*—1.

Eczema.—3. *Erythema of Leg.*—1. *Sore Eyes.*—3. *Sore Mouth.*—1. *Eczema of Nipple.*—1 (no cancer). *Ulcer of Leg.*—1. *Inflamed Legs.*—1.

Neuralgia (Face).—3. *Sciatica.*—2. *Lumbago.*—1. *Hysteria.*—1. *Paralysis Agitans.*—2. "Lunatic."—1. *Dementia.*—13 cases. Besides these, one with epileptic attacks, and occasional delusions and excitement, and one "light-headed for one year." *Epilepsy.*—1, occasionally. *Maia.*—1, chronic; well for 17 years, recurring at 57.

Hemiplegia.—6. *Paraplegia.*—1. *Paralysis of Left Arm.*—1. *Senile Fits.*—1.

Temperature.—6 returns; in two cases "normal," in three, 98.0°; in one, 98.2°.

NO. VI.

ANALYSIS OF RETURNS RELATING TO PAST HISTORY, INCLUDING FAMILY HISTORY. (FEMALES, 80 to 90.)

Age when Married.—220 returns; average, about 26 years of age.

Duration of Married Life.—199 returns; average, nearly 39½ years.

Number of Children.—228 returns; average, 5 to 6 each, but 43 had no children; one had "prostration at 41, from child-bearing," one "often ailing since a bad labour 46 years ago," one "had severe flooding at 42, with difficulty rallying," one "nursed 8 children for a year each," two "many miscarriages," one "7 miscarriages out of 10 conceptions," one had "only one child, still-born," one "early profuse catamenia, menopause at 48," one "catamenia commencing at 16, moderate," one "catamenia from 17 to 40, moderate."

Affluent, Comfortable, Poor.—263 returns; A. 23, C. 138, P. 102.

First or — Child of Parents.—249 returns; average about 4th child. In 70 cases the number in the family was returned; in these the average position was 3rd to 4th, and the average number in the family 7 to 8 children; 58 were "first child," and of these 4 at least were "only child;" three were twins, and two twin brothers of one of the subjects both died over 80 years old; the mother of one not included in above had 22 children, and the maternal grandmother of one included above had 22 children, of which 20 grew up.

Delicate, Robust, Average.—240 returns; D. 37, R. 100, A. 103.

Health.—232 returns; good, 207; moderate, 25.

Often Ailing, Rarely Ailing.—26 returns; O. 25, R. 1.

Digestion.—248 returns; good, 211; indifferent, 37.

Bowels.—226 returns; regular, 184; irregular, 9; costive, 29; relaxed, 3; twice daily, 1.

Baldness.—80 returns; early, 17; late, 61; none, 2.

Greyness.—210 returns; early, 53; late, 155; none, 2.

Disposition.—242 returns; placid, 74; irritable, 20; lethargic, 2; energetic, 128; irritable and energetic, 13; placid and energetic, 5.

Intellect.—238 returns; high, 43; average, 180; low, 15.

Habits.—234 returns; active 215; sedentary, 19.

Out-of-Door Exercise.—206 returns; little, 64; moderate, 72, one a moderate walker; much, 59, one hard working. Besides these, eleven others: one worked hard, one walked daily, one "good walker," one "walked 3 hours," five "took walks," one "could walk 30 to 40 miles when young," one was "never very active."

Hours in Bed.—171 returns; average a little over 8 hours.

Hour of Rising.—196 returns; average a little past 6 A.M.

Sleeper.—232 returns; good, 188; average, 33; bad, 11.

Appetite.—233 returns; good, 209; indifferent, 21.

Eater.—230 returns; large, 29; small, 63; average, 138.

Alcohol.—232 returns; none, 54; very little, 2; little, 109, one of these "none till 35;" moderate, 60, one of these "none till 40;" much 7, one of these was a "notorious drinker, locked up 200 times for being drunk, father died aged 90, and brother died aged 70, both heavy drinkers.

Illnesses Undergone.—231 returns; none, 111.

"Fever."—19 cases; three "young," two severe at 20 and 60, eight at 28, 30, 50, 60, 40, 60, 63, and 70 respectively. *Measles.*—1 case. *Tonsillitis.*—1 case. *Typhus Fever.*—10 cases; 1 "young," five at 15, 20, 28, 30, and 46 respectively. *Scarlet Fever.*—5 cases; two severe at 40 and 42; one at 72. *Typhoid Fever.*—6 cases; one at two severe, five at 12, 19, 30, 47, and 70 respectively. *Influenza.*—1 case at 68. *Croup.*—1 case at 16, was bled excessively. *Whooping-cough.*—1 case. *Erysipelas.*—5 cases; 1 "frequently," one severe at 57, three of face at 20, 57, and 62 respectively. *Diphtheria.*—1 case at 68. *Rheumatic Fever.*—14 cases; one twice, one prolonged at 74, one at 26, deaf since; five at 21, 24, 26, 30, and 72 respectively. *Rheumatism.*—3 cases. *Gout.*—3 cases; at 31, 73, and 81. *Stroke.*—1 case at 52. *Cholera.*—1 case at 30. *Dysentery.*—1 case, severe, at 50.

Jaundice.—4 cases; three at 12, 81, and 83; all recovering. *Enteritis.*—4 cases; two at 44 and 80, one severe at 34. *Hæmatemesis.*—1 case at 60. *Diarrhœa.*—2 cases; one at 88, severe, recovered.

Bilious Attacks.—2 cases; one at 60, with gall-stones; one "severe to point of sinking." **Gall-stones.**—2 cases; one "badly when young." **Gall-stones and Jaundice.**—1 case at 66. **Inflammation of Liver.**—1 case at 73. **Strangulated Hernia.**—2 cases, at 50 and 85, with death in latter. **Intestinal Obstruction.** 1 case at 76.

Pneumonia.—7 cases; one at 82, recovered; one at 72, with pleurisy; one severe at 69, and four at 57, 67, 79, and 80 respectively. **Congestion of Lungs.**—1 case at 83. **Pleurisy.**—6 cases; five at 20, 40, 50, 60, and 72 respectively. **Bronchitis.**—26 cases; five at 25, 81, 86, "86 for four months," and "after 80" respectively; four severe at 62, 74, 80, and 88 respectively; two died; one 6 months ago; three "winter bronchitis" one of them for 5 years; one 15 years ago, one at "80 with complete recovery," one 3 severe attacks at 76, 77, 78; one with pneumonia at 86 recovering; one had "two attacks in last 2 years."

Uterine Fibroid.—1 case. **Nephritis.**—1 case at 77. **Phlebitis.**—case at 75 recovering. **Gangrene.**—1 case at 75 recovering. **Herpes.**—1 case at 77 never completely recovering. **Glaucoma,** with removal of eye.—1 case. **Feeble Heart and Anasarca.**—1 case for several years. **Poisoned Hand.**—1 case, 12 years ago; laid up several months. **"Inflammation."**—1 case at 30. **Abscess.**—1 case of thigh at 57. **Eczema.**—1 case for 2 years at 78; "ill three years at 50;" 1 case with recovery.

Insanity.—1 case. **Paralysis Agitans.**—1 case at 66. **Paralysis.**—2 cases at 79 recovering, and 82. **Hemiplegia.**—8 cases; one 2 years ago, one 3 years ago for a week, two at 81 and 82, both recovering; two at 77 and 78, with "partial recovery;" and two at 72 and 81.

Cancer of Breast.—3 cases; two doubtful and removed, one of them at 50, the third, "from injury 16 years before death, did not trouble her until ulcer of leg healed one year before her death."

Slight Ailments.—218 returns. None, 119. **Dyspepsia.**—21 cases; one for 5 years, 1 "all her life." **Bilious Attacks.**—3 cases. **Piles.**—4 cases. **"Spasms."**—1 case. **Congestion of Liver.**—2 cases. **Costive.**—1 case, since typhoid fever at 47. **Diarrhœa.**—2 cases; one occasionally.

Headaches.—7 cases; one "all her life," one "terrible from 20 to 50 years of age." **Pruritus.**—1 case for 40 years. **Neuralgia.**—1 case.

Palpitations.—4 cases; 1 "all her life," 1 for many years. **Menorrhagia.**—1 case. **Amenorrhœa.**—1 case. **Hysteria.**—1 case. **Prolapsus Uteri.**—2 cases. **Hernia.**—5 cases; three for many, 20, and 40 years; one "femoral" for 15 years; one large umbilical.

Gout.—5 cases; one frequently, one "for 15 years." **Rheumatism.**—16 cases; one for 20 years, one since 76 years of age.

Bronchitis.—14 cases; one "slight, occasionally," one "not for 10 years," one "for 10 years." **Coughs.**—2 cases; one for many years. **Catarrhs.**—1 case.

Eczema.—1 case. **Sore Leg.**—1 case. **Edema of Legs.**—1 case, recently. **Ulcer of Leg.**—4 cases; one for 8 years.

Hæmaturia.—2 cases; one in "3 successive springs," one "intermittent for 20 years." **Lame.**—1 case, "from birth." **Melancholy.**—1 case. **Debility.**—1 case. **Delicate.**—2 cases; one "throughout life," one "in early life." **Lateral Curvature.**—1 case. One took $\frac{3}{4}$ grain of morphine daily for many years.

Accidents.—188 returns. None, 150. **Burn.**—1 case, "when a child." **Concussion of brain.**—1 case at 36. **Head injury.**—1 case at 79. **Jarred by railway accident.**—1 case, 30 years ago. **Injury to Back.**—2 cases; one at 35; one from fall, bedridden since. **Fall Downstairs.**—3 cases; one at 88, one 2 years ago; her pulse, previously 60, has been 120 per minute since.

Amputation: Leg.—1 case at 50, for accident. **Breast.**—2 cases; for doubtful cancer, one at 50; one recovered in 14 days (*Lancet*, June, 1885). **"Operation for Tumour of Womb."**—1 case at 53. **Hermiotomy.**—1 case; death, 3 days later. **Dislocation of Shoulder.**—3 cases, two at 70 and 79.

Fracture: Neck of Femur.—6 cases; one 4 years ago, one "3 years ago, bedridden since;" four at 70, 81, 81, and "77 with recovery." **Thigh.**—3 cases; two at 40 and 74, one 9 months ago (*Lancet*, April, 1884). **Arm.**—5 cases, at 6, 60, 78, 80 "70, with quick recovery." **Forearm.**—2 cases; at 84, and "82, with firm union in 25 days." **Wrist.**—1 case; both wrists at 60 and 78 respectively. **Ribs.**—5 cases: three at 25, 60 and 81. **Patella.**—1 case at 25. **Hip.**—1 case at 57, on crutches since. **Both Legs.**—1 case at 78. **Compound Fracture of Leg.**—1 case 10 years ago, no lameness.

Longevity.—Taking as a standard of a long-lived family one in which of the near relations (grandparents, parents, brothers, sisters, and subject of inquiry), 4 attained the age of 70, or 3 the age of 80, we have at least 135 cases. Five families were returned as "short-lived."

Relationship between Parents or Grandparents.—134 returns. None, 132. Parents, first cousins, 1. Parents, second cousins, 1.

Age of Father at Birth of Subject of Inquiry.—70 returns; average, rather over 33 $\frac{1}{2}$ years of age.

Age of Mother at Birth of Subject of Inquiry.—70 returns; average, about 29 $\frac{1}{2}$ years. Only those cases are included in which the ages of both the father and mother are returned.

Diseases in Family (in relations and subject of inquiry.)—**Cancer** (malignant growths).—30 families. **Consumption.**—75 families. **Serofula,** 1 family. **Gout.**—24 families. **Apoplexy and Paralysis after 40.**—45 families. **Rheumatism,** 53 families. **Epilepsy.**—3 families. **Insanity.**—28 families. **None.**—21 families.

NO. VII.

ANALYSIS OF RETURNS RELATING TO PRESENT CONDITION, HABITS, CIRCUMSTANCES, ETC. (FEMALES, 90 to 100. 110 Returns.)

Single, Married, Widowed.—108 returns; S. 15, M. 10, W. 83. **Affluent, Comfortable, Poor.**—110 returns; A. 12, C. 46, P. 52. **Fat, Spare, Average.**—109 returns; F. 10, S. 62, A. 37. **Full-blooded, Pale, Average.**—104 returns; F. 7, P. 56, A. 41. **Strong, Feeble, Average.**—106 returns; S. 28, F. 45, A. 33. **Height.**—92 returns; average, 5 feet 2 $\frac{1}{4}$ inches. **Weight.**—28 returns; average, 8 stone 7 $\frac{1}{2}$ pounds nearly. **Figure.**—93 returns; erect, 54; bent, 39. **Voice.**—105 returns; clear, 25; full, 5; loud and clear, 33; weak, 11; clear and full, 14; loud, 11; clear and weak, 6. **Sight.**—93 returns; good, 58. Cataracts, 12; one at 85, and two for 1 and 4 years respectively. Failure apparently independent of presbyopia, 23; one blind for 2 years.

Glasses.—77 returns; none, 16; 61 wore them. In many cases the number of years during which they were worn was given. Few years, 1; many years, 9; 4 to 5 years, 2; 8 to 10 years, 2; 12 to 15 years, 1; 16 to 20 years, 6; 21 to 25 years, 2; 26 to 30 years, 6; 31 to 35 years, 3; 36 to 40 years, 10; 41 to 45 years, 3; 46 to 50 years, 6; 60 years, 2; 57 years, 1; 63 years, 1; 75 years, 1; 83 years, 1. Of those who use no glasses, two can thread a needle without, one used them from 40 to 80, but reads well without them now, one used them from 40 to 60, but reads well without them now.

Hearing.—110 returns; good, 48; indifferent, 34; bad, 28. **Joints.**—107 returns; natural, 90; deformed 7; stiff, 5; stiff and deformed, 4; slight Dupuytren's contraction, 1.

Digestion.—107 returns; good, 84; moderate, 21; bad, 2; one can "live on anything, and eat anything."

Appetite.—108 returns; good, 71; moderate, 34; bad, 3. **Eater.**—101 returns; large, 10; moderate, 62; small, 29.

Number of Meals.—77 returns; average, 3 to 4 daily. **Alcohol.**—105 returns; none, 32; moderate, 24; little, 48; much, 1.

Animal Food.—98 returns; none, 4; moderate, 38; little, 56. **Bowels.**—103 returns; once a week, 1; twice daily, 1; alternately, 8; irregular, 22; daily, 71.

Aperients.—97 returns; daily, 2; frequently, 20, in one case the "bowels never acted without;" rarely, 48; never, 27.

Disposition.—105 returns; placid, 37; irritable, 13; lethargic, 2; energetic, 32; irritable and energetic, 14; placid and energetic, 7.

Intellect.—102 returns; high, 18; average, 71; low, 13. **Memory, Past Events.**—105 returns; good, 80; moderate, 11; bad, 14.

Memory, Recent Events.—93 returns; good, 55; moderate, 17; bad, 21.

Habits.—108 returns; active, 48; sedentary, 33; bedridden, 27; 2 for a year, 1 for 6 months.

Out-of-Door Exercise.—104 returns; none, 50, of which 27 were bedridden; little, 25; moderate, 2; short walks, 21; one of these "walked 4 miles last week;" walks much, 1; much, 4; of these, one "able to walk some miles," one "walked 3 miles within a month of her death, and walked a third of a mile to morning service and back on the day before death, died from a cold." Drives out, 1.

Sleep.—103 returns; good, 69; moderate, 24; bad, 10, one of these kept awake by rheumatic pain.

Sleep, Number of Hours.—59 returns; average, about 7½ hours.

Hour of Going to Bed.—71 returns; average, little past 8.30 p.m.

Hour of Rising.—70 returns; average, about 8.45 a.m.

Chest-girth, in Inspiration.—27 returns; average 31½ (about).
Expiration.—27 returns; average, 30½ (about). Only those cases are included in which chest-girth in both inspiration and expiration are returned.

Elasticity of Rib-cartilages.—53 returns; distinct, 28; indistinct, 25.

Pulse Number.—78 returns; average, nearly 80 per minute; high from chest affections in many cases. *Regular, Irregular.*—70 returns; R. 60, I. 10. *Large, Small.*—72 returns; L. 20, S. 52. *Compressible, Incompressible.*—75 returns; C. 63, I. 12.

Arteries.—71 returns; even, 54; tortuous, 1; visible, 1; visible and even, 6; tortuous and visible, 4; tortuous and even, 2; knotty, 1; tortuous and knotty, 1; visible and knotty, 1. So they were even in 62 cases, *tortuous* in 8 cases, *visible* in 12 cases, *knotty* in 3 cases.

Respiration Number.—62 returns; average, 21 to 22 per minute; higher from chest affections in many cases. *Regular, Irregular.*—67 returns; R. 65, I. 2.

Arcus Senilis.—77 returns; much, 23; little, 25; absent, 29.

Teeth.—95 returns; average, a little over 2 each, but 58 had no teeth, one "none for 20 years," one "lost teeth when young, but can eat a beefsteak as well as anyone." In 92 cases the teeth are specified. *Upper incisors,* 26; *canines,* 23; *molars,* 25. *Lower incisors,* 49; *canines,* 26; *molars,* 41.

Artificial Teeth.—96 returns; none, 85, but one of these "used them formerly;" of these, 47 had no teeth, and one had not had any for 20 years, and another lost her teeth when young, and many others had very few teeth; 11 used artificial teeth, and another did so formerly. Many years, 4; "from early life," 1; 10 years, 1; 30 years, 1; 45 years, 1; 50 years, 2.

Evidences of Failure.—83 returns; none, 43; heart, 4; heart and lungs, 1; heart and brain, 1; heart and urinary organs, 2; heart, lungs, and urinary organs, 1; lungs, 3; lungs and urinary organs, 2; brain, 15; urinary organs, 11; so that the heart was affected in 9 cases, the lungs in 7 cases, the brain in 16 cases, the urinary organs in 16 cases.

Micturition.—79 returns; natural, 63; slow, 6; frequent, 3; difficult, 2; incontinence, 1; slow and difficult, 1; slow, difficult, and painful, 1; difficult and painful, 1; difficult and frequent, 1. In one case the urine was pale, clear, 1010; no albumen, 1.

Heart Sounds returned as "normal" in 13 cases.

Present Maladies.—86 returns; none, 39.

Bronchitis.—6 cases; 3 slight. *Chronic Cough.*—1. *Weak Heart.*—1. *Syncope.*—1, slight. *Anasarca.*—1, few months. *Edema.*—3 cases, of legs, ankles, and feet respectively. *Valvular Disease.*—1, long-standing disease; carried up and down stairs for years; breath short. *Murmurs.*—4 cases, 2 "systolic," 1 "basic," 1 "basic systolic."

Debility.—13. *General Decay and Death.*—2 cases.

Rheumatism.—5. *Backache.*—1.

Abdominal Tumour.—1 case, dying semicomatose soon after.

Tumour of Right Hypochondrium.—1 case, for many years.

Diabetes.—1. *Bilious.*—1. *Constipation.*—1.

Neuralgia.—2 cases after herpes, 1 of arm after herpes a year ago, 1 for 9 months.

Gastralgia.—1. *Blepharitis.*—1. *Varix of Leg.*—1. *Ulcer of Leg,* 1, for 2 years.

Premors.—1. "Wanders."—1. "Eremitism and Illusions."—1. "Childish."—2. *Senile Dementia.*—1. *Imbecile.*—1. *Slight Paralysis.*—1. *Senile Paralysis.*—1, for 5 years. *Epileptic Convulsions.*—1. *Partial Left Hemiplegia.*—1. *Apoplexy and Left Hemiplegia,* 1.

No. VIII.

ANALYSIS OF RETURNS RELATING TO PAST HISTORY, INCLUDING FAMILY HISTORY.

(FEMALES, 90 to 100.)

Age when Married.—72 returns; average, 26 to 27 years of age, and 1 married again at 81 years of age.

Duration of Married Life.—61 returns; average, 42 to 43 years.

Number of Children.—83 returns; average, nearly 6 each, but 14 had no children, 1 of these having been married 3 times; in 1 case all labours (14) instrumental, killing most of children; 1 had 7 children, and of these 2 were twin daughters, both alive at 57 both had large families, and 1 had twin boys.

Affluent, Comfortable, Poor.—102 returns; A. 14, C. 50, P. 38.

First or—Child of Parents.—80 returns; average, fourth child; 20 were "first child," and of these at least 1 was an "only child." In 24 cases the number in the family was also given; of these the average position was third to fourth, and the average number in the family 7 to 8.

Delicate, Robust; Average.—95 returns; D. 10, R. 48, A. 37.

Health: Good, Moderate.—95 returns; G. 90, M. 5.

Often, Rarely Ailing.—12 returns; O. 10, R. 2.

Digestion.—99 returns; good, 94, indifferent, 5.

Bowels.—88 returns; good, 77; costive, 9; irregular, 2. One "took much aperient medicine till 70; another "all her life."
Baldness.—27 returns; early, 5, 1 "from eczema"; late, 22. One had much hair on chin.

Greyness.—71 returns; early, 18; late, 53.

Dyspepsia.—97 returns; placid, 26, irritable, 9; energetic, 41; irritable and energetic, 12; placid and energetic, 8; placid and lethargic, 1.

Intellect.—92 returns; high, 23; low, 3; average, 66.

Habits.—140 returns; active, 132; sedentary, 8.

Out-of-Door Exercise.—87 returns; little, 19, one a laundress till 92; moderate, 28, one a bad walker; great walkers, 2; much, 38, of these 2 were good walkers and 1 a great walker; 1 "walked barefoot all her life, and does so all the year round"; 1 a "noted tobacco smuggler, many hardships, slept in chair 50 years without undressing."

Hours in Bed.—60 returns; average about 8½ hours.

Hour of Rising.—74 returns; average, about 6.15 a.m.

Sleeper.—83 returns; good, 75; average, 11; bad, 3.

Appetite.—89 returns; good, 85; indifferent, 4.

Eater.—87 returns; large, 10; average, 56; small 21.

Alcohol.—92 returns; none, 22; very little, 1; little, 43; moderate, 24; rather free, 1; much, 1.

Animal Food.—82 returns; little, 38; moderate, 43; much, 1.

Illnesses Undergone.—93 returns; none, 42.

"Fever."—2 cases: one severe at 30, one "many years ago."

Scarlet Fever.—1 case, severe at 19. *Typhus Fever.*—2 cases at 27 and 42. *Typhoid Fever.*—1 case at 27. *Croup.*—1 case at 50.

English Cholera.—1 case at 80. *Small-pox.*—1 case. *Erysipelas.*—3 cases; one severe, one of head.

Chorea.—1 case twice, at 7 and 10. *Rheumatic Fever.*—6 cases; three at 18, 40, 40, two at 50, severe. *Rheumatism.*—3 cases; one at 82 for six months. *Gout.*—2 cases; one occasionally for 16 years.

Diarrhoea.—1 case. *Enteritis.*—2 cases; one at 76, one at 71, with complete recovery. *Hæmatemesis.*—1 at 78; no return.

Jaundice.—3 cases; one at 60, one severe at 40. *Congested Liver.*—1 at 88.

Poisoned Hand.—1 at 95. *Sloughing Ulcer of Foot.*—6 months ago, quite healed. *Inflammation in Side.*—1 case, twice. *Pelvic Abscess.*—1 case at 45. *Herpes.*—2 cases; one at 92, one of right side of head and neck at 95.

Bronchitis.—13 cases; three at 75, 78, and 96 respectively, one "several times," one "lately, severe, with recovery," one "3 times in 20 years," one "severe at 67," one "3 times, at 75, 76, and 89, with recovery from each in 3 months," one "severe at 95, with complete recovery."

Pneumonia.—5 cases; two at 60 and 78, one "double, severe, at 94, with recovery in 6 weeks." *Congestion of Lungs.*—1 at 93. *Spasmodic Asthma.*—1 case, severe from 50 to 70, circumstances then suddenly reduced her from affluence to penury, and the asthma then ceased.

Valvular Disease of Heart.—1 case, long standing, short breath, carried up and down stairs for years.

Paralysis.—2 cases; 1 at 60, complete recovery, one twice, at 85 and 90, with partial recovery. *Apoplexy.*—2 cases; in one 3 attacks, two at 83, the third at 90 with death.

Paraplegia.—1, two years ago. *Hemiplegia.*—3 cases; one right, at 89, recovered use of leg, not of arm; one had several attacks and recoveries, namely, left hemiplegia and convulsions at 78, with good recovery; paralysis of left hand at 82, severe apoplexy at 89; got about again, but mind weakened and with occasional epileptic attacks. One was "out of her mind" for a few days a short time ago, slept 14 hours, and awoke well.

Slight Ailments.—79 returns; none, 52.

Bronchitis.—3 cases. *Coughs.*—2 cases; one slight, one for 20 years. *Winter Cough.*—1 case.

Indigestion.—1 case, "all her life." *Gastralgia.*—1 case.

Bilious Attacks.—2 cases. *Bilious Headaches.*—2 cases; one

when young. Headaches.—6 cases; one of "sick headaches," one "severe every month," one "till 60 years old," one "severe till 50 years old."

Diarrhoea.—1 case occasionally. Gravel.—1 case, slight, lately. Eczema.—1 case, slight. Delicate.—2 cases; one when young. Neuralgia.—1 case. Rheumatism.—2 cases. Syncope.—2 cases; one occasionally. Conjunctivitis.—2 cases. Varix of Leg.—1 case. Prolapsus Uteri.—2 cases. Polypus Uteri.—1 case.

Irritability of several Mucous Membranes.—1 case, from 40 till death. Issue for 60 Years.—1 case, closed 3 years ago, with gain in weight after.

Frequently in Bed, and Bled because Full-blooded.—1 case. Accidents.—71 returns; none, 57.

Falls.—3; one "downstairs at 94, sedentary since," and two at 87 and 90 respectively.

Burn.—1 at 92, perfect healing. Contusion.—1 severe at 34. Fracture: Ribs.—1 at 84. Arm.—1, 6 years ago, rapid recovery. Thigh.—1 at 90. Coller's.—1 at 89, rapid union. Neck of Femur.—4 cases; one at 93, one died in 3 months, one "10 years ago," one "at 80, not united." Injury to Hip.—2 cases, one at 88 with lameness since, one 6 months before death.

Blood-Relationship between Parents or Grandparents.—41 returns; none, 38. Parents, distant relations, 1; cousins, 1; first cousins, 1.

Age of Father at Birth of Subject of Inquiry.—19 returns; average, 32½ years old.

Age of Mother at Birth of Subject of Inquiry.—19 returns; average, nearly 29 years old. Only those cases are included in which the ages of both father and mother are returned.

Diseases in Family (in relations and subject of inquiry).—Cancer (malignant growths).—15 families. Consumption.—16 families. Serofula.—1 family. Gout.—9 families. Apoplexy and Paralysis after 40.—16 families. Rheumatism.—18 families. Epilepsy.—2 families. Insanity.—8 families. None.—11 families.

Longevity.—Taking as a standard of a long-lived family one in which of the near relations (grandparents, parents, brothers, sisters, and subject of inquiry) ¼ attained the age of 70, or 3 the age of 80, we have at least 49 cases.

The Medical Men who were good enough to make the Returns, and the Number of Returns made by each, are as follows:

Table listing medical men and their return counts, categorized by letter (A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, V, W, X, Y, Z).

Table listing medical men and their return counts, categorized by letter (G, H, I, J, K, L, M, N, O, P, Q, R, S, T, V, W, X, Y, Z).

Table listing medical men and their return counts, categorized by letter (O, P, Q, R, S, T, V, W, X, Y, Z).

LECTURES ON SUPPURATION AND SEPTIC DISEASES.

Delivered at the Royal College of Surgeons, February, 1888.

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LECTURE III.

I MENTIONED in the last lecture that, as the result of differences in the seat of inoculation, and the anatomical arrangement of the part, there may be differences in the character of the disease produced. Virchow has long ago pointed out that the cause of a disease does not by any means determine the product of the disease, for that depends chiefly on the internal predisposition; thus the same agent acting on the cellular tissue may cause thickening of it, and, acting on the periosteum, may lead to ossification. This is probably in part the explanation of the different types of disease produced by these pyogenic organisms according as they act in the skin or in the connective tissue. I have previously mentioned the result of Boeckhardt's investigations on impetigo and boil, from which it is evident that the character of the inflammation depends greatly on the point of entrance, and the seat of development of the organisms, and Garré has also come to the same conclusion.—It seems that in the case of multiple abscesses of the skin in infants, the cocci spread into the hair follicles, and sebaceous and sweat glands, and, growing there, set up inflammation and abscess, the process being similar to that which occurs in the formation of boils in adults, but being clinically distinguished from that by the tendency to form true abscesses, and by the absence of necrosis. Escherich believes that these differences depend on differences in the degree of tension of the skin in adults and infants, and more especially in atrophic infants, in which these abscesses are especially apt to occur. It is possible however that, as Baumgarten points out, the greater softness and irritability of the tissues of the child, as compared with those of the adult, play an important part.

The different course which is run by acute osteomyelitis, when it occurs spontaneously, and when it follows operations on bones, is also probably due, in the main, to the seat of inoculation. In the latter case we never see the scattered patches of necrosis which so frequently occur in the former, and this may be explained by the fact that, in the latter, the infective agents spread continuously in the tissue from the point of inoculation, whereas, in the former, they are carried by the blood, and may be deposited at various parts, thus giving rise to various foci of disease.

Another example of the influence of the seat of inoculation is the difference in the behaviour of the peritoneum as compared with the cellular tissue in regard to the pyogenic organisms. In former times the peritoneal cavity was looked on as one especially liable to inflame, and it was thought to be one of the chief triumphs of antiseptic surgery that operations could be performed on the peritoneum without bad result. The experience of a number of surgeons has, however, now shown that it is not absolutely necessary for success in operations on the peritoneum that all bacteria should be excluded from the cavity; in fact, this seems to be much less necessary than where operations are performed on other serous cavities, such as joints, or on the subcutaneous or muscular tissues.

The explanation of this surprising result is found in the nature of the lining wall of the cavity, and in the conditions under which pyogenic organisms find themselves there. The peritoneum has marvellous powers of absorbing fluids, and thus effusions into it are very rapidly removed, and in this way micro-organisms are deprived of the necessary nutrient material, while they are also, in all probability, absorbed along with the fluid and destroyed in the blood, or excreted. Wegner, who performed a number of experiments on this subject some years ago, has shown, in a very striking manner, the great absorptive power of the peritoneum.

I may mention one of his experiments. Two hundred cubic centimetres of warm serum were injected into the peritoneal cavity of a rabbit. An hour later the animal was bled to death, and the amount of fluid then present in the peritoneal cavity was only 66 cubic centimetres, no less than 134 cubic centimetres having been absorbed in one hour. Apparently the rapidity of absorption of fluid depends, in the first place, to a great extent, on the tension under which the fluid is, fluid under low tension, as when the walls of the abdomen are lax or when the fluid itself is small in amount, being absorbed comparatively slowly; and, in the second place, on the nature of the fluid, fluid of lower specific gravity than blood serum, leading, in the first instance, to transudation from the blood. If we contrast the condition of a wound in the cellular or muscular tissues in respect of its absorptive power, we find that we have not here an actively absorbing surface; in fact, the whole surface is for a few hours in the early stage of inflammation as the result of the injury done by the knife, and is not only not an absorbing surface, but is not even a healthy surface.

Wegner has also shown that a great variety of fluids free from bacteria, such as water, bile, urine, blood, etc., may be injected into the peritoneal cavity of rabbits without causing any bad results, and even large quantities of unfiltered air may be similarly introduced without setting up peritonitis, the air being soon absorbed, though by no means so rapidly as fluids. If putrescible fluids are injected into the peritoneal cavity at the same time that air is introduced, they rapidly undergo decomposition; but this is only the case if the quantity of fluid is too great to be quickly absorbed. Thus 15 cubic centimetres of putrescible fluid injected into the peritoneal cavity of a rabbit will usually be absorbed before decomposition has had time to occur; but if as much as 50 cubic centimetres are employed, then only a part is taken up during the first hour, and the rest furnishes a substratum for the growth of the organisms present in the injected air, and these organisms develop with extraordinary rapidity, and may cause the death of the animal from septic intoxication.

In none of Wegner's experiments with the injection of putrefying or putrescible fluids and air did peritonitis occur, and Grawitz, who has since investigated the matter, has directed special attention to the conditions under which peritonitis is produced. Apparently the explanation why Wegner did not obtain peritonitis, but only septic intoxication, is that pyogenic organisms are not frequently present in the air, and were, therefore, not injected along with it, and also that they only act under certain special conditions.

As the result of Grawitz's experiments, the following seem to be the facts of the case; in the first place, saprophytic bacteria are absorbed or destroyed by the peritoneum in relatively enormous numbers; where, however, the peritoneum is abnormal, or where the quantity of fluid is too great to be rapidly absorbed, and where the bacteria are able to set up putrefaction, the symptoms of septic intoxication, as described by Wegner, result, but these symptoms are unaccompanied by suppurative peritonitis. In the second place, pyogenic organisms, when injected in small numbers into the normal peritoneal cavity, and when suspended in such an amount of indifferent fluid as can be readily absorbed, cause no peritonitis. On the other hand, peritonitis occurs as the result of the injection of these organisms if the peritoneum is abnormal; or if, with a normal peritoneum, large numbers of pyogenic cocci are introduced, or if the cocci are suspended in too large an amount of fluid to be quickly absorbed. The necessary abnormal conditions of the peritoneum may be set up if, at the same time that the pyogenic organisms are introduced, substances act which weaken or kill the tissue of the peritoneum, and thus provide a suitable soil for the penetration of the cocci; and above all, if there is a wound of the peritoneal wall in which the infective organisms can develop.

The factors, then, which are required to produce suppurative peritonitis are the presence of the pyogenic cocci—usually the streptococcus pyogenes—along with too large an amount of fluid to be rapidly absorbed, or along with disease of the peritoneum, or themselves in too large numbers, or acting in too great concentration. In other words, in order to develop peritonitis, the cocci must either be introduced in such numbers, along with their products, that a part of the peritoneum is at once injured, and thus ceases to exercise its normal functions; or they must be introduced into an unhealthy peritoneum, or they must be able to grow in the peritoneal cavity, either because fluid is present in too large a

quantity to be quickly absorbed, or because the absorptive power of the peritoneum has been diminished, or because some material, such as a piece of blood-clot or a piece of injured or dead tissue, is present, in which they can develop.

It is evident, therefore, that when authors draw conclusions to the effect that aseptic treatment is unnecessary in surgical practice, because they obtain good results in operations on the peritoneum when they take care to introduce as few of these organisms as possible (in many cases probably none at all are allowed to enter), to introduce them in as dilute a state as possible, to remove all the fluid and other materials, such as blood-clot, in which they can grow, and to avoid injury to the peritoneum as far as they can, they make an assumption which is not at all in accord with other clinical and experimental observations. The points which I have mentioned amply explain the results, and bring them into unison with those of experiments and of clinical experience with regard to other tissues of the body.

Indefinite Conditions on the part of the Body.—Further, we have conditions of a more indefinite character on the part of the body. Thus age, as we have seen, is an important factor in the production of acute osteo-myelitis. This is a disease of youth, and occurs most frequently between the ages of 7 and 20, and I have mentioned the different situations which are attacked in infants and in youths. Other diseases also vary in frequency at different ages; thus spontaneous erysipelas is apparently most frequent in persons between 35 and 45 years of age, and next most frequent between 45 and 55. Diphtheria most commonly occurs below 5 years of age, and steadily decreases in frequency as the age increases.

As regards sex also we find in some of these diseases a marked difference in the frequency of occurrence in the two sexes; thus spontaneous erysipelas is apparently much more frequent in women than in men. Eschbaum found, in 181 cases, that 122 of those attacked were females and only 59 were males. Osteo-myelitis, as we have seen, is most common in males.

It is possible that the state of the digestive organs may have an important influence on the occurrence of these suppurative diseases, as shown by Kocher's experiments and views on the production of acute osteo-myelitis. Kocher came to the conclusion, in the case of dogs, that after injury to bone this disease could be induced by feeding the animals with large quantities of putrid materials, and he thinks that in many cases of acute osteo-myelitis the starting-point is a disturbance of the digestive organs, permitting excessive multiplication of bacteria in the intestinal canal and their entrance into the blood. In fact, Kocher holds that an individual in whose intestinal canal fermentative changes of an intense character are going on is practically in the incubation stage of acute inflammation, which will develop if an injury or some other local depressing cause comes into play. In this way Kocher explains the occurrence of acute osteo-myelitis after typhoid fever, and he relates a case as bearing on this view, in which a girl, shortly after recovery from an attack of epidemic cholera, knelt for a long time in church, and was immediately attacked by acute osteo-myelitis of the tibia. Kraske, however, who has paid great attention to this matter in *post-mortem* examinations of cases of acute osteo-myelitis, and has carefully examined the wall of the intestine and the mesenteric glands, both microscopically and by cultivation, states that he has never been able to obtain any evidence that the infective material had entered the body by these channels. Whether Kocher's view is correct or not, the possibility that, during the progress of some wound or inflammatory disease, if the digestive organs are very much out of order, organisms may multiply to a great extent in the intestinal canal, and may enter the blood and thus reach the seat of the local disease or injury, is worth bearing in mind.

It is possible, also, that the nature of the diet may affect the occurrence of these diseases. It has been observed, for instance, in the case of symptomatic anthrax, that calves are more or less immune against this disease so long as they are fed on milk, but that, after this period has passed, and when their diet becomes exclusively vegetable, they lose their immunity. Arloing, Cornevin, and Thomas explain this by supposing that the milk diet induces a particular constitution of the body which is unfavourable to the development of this disease, but, on the other hand, this may be a mere coincidence, and the cause may be some peculiarity in the youthful connective tissue.

The state of the blood is also of importance; for example, the frequency of carbuncle and furuncle and of ulcerative and suppurative affections and their stubborn course in cases of diabetes

is well known. It is very probable that part of the explanation of this fact is the presence of the sugar or its chemical progenitors in the juices of the part, leading to the formation of a better pabulum for the development of the micro-organisms, though no doubt much depends on what we must more vaguely term the general depression of vitality of the tissues caused by the disease.—Dilution of the blood also apparently interferes to some extent, though only slightly, with the rapidity with which bacteria are killed in it. Thus Von Fodor found that if, at the same time that non-pathogenic bacteria were injected, a quantity of water was introduced into the blood, the bacteria did not disappear so quickly as in undiluted blood. Pettenkofer, in fact, has come to the conclusion that everything which increases the amount of water in the body increases the predisposition of the individual to infective diseases. There is no doubt, also, that other chronic affections, such as albuminuria, predispose to septic diseases.

Acute diseases, such as acute fevers, also predispose to these affections, as in the case of the occurrence of acute osteo-myelitis after acute fevers, of pneumonia after typhoid fever, etc., probably in part because, as in the case of scarlet fever, the pyogenic cocci are able to enter and live in the blood.

Tension apparently has a considerable influence in causing inflammation and in predisposing to suppuration. The spread of an abscess after it has once completely formed is, no doubt, largely due to the tension of its contents; for the microscopical examination of the wall shows that the increase is not due to the spread of the micro-organisms, and, further, if an abscess is opened aseptically and well drained, the secretion of pus ceases. The same is seen in the case of wounds, where, if micro-organisms are present, the occurrence of tension from accumulation of discharge is apt to be followed by suppuration, and where, on relief of the tension, the suppuration ceases.

In some cases, however, the predisposition is apparently lessened as the result of the action of various indeterminate causes, and apparently, also, this lessening of the predisposition may be due to a previous attack of the same disease, though, as regards the organisms under consideration, erysipelas seems to be the only case where a temporary and partial protection is attained in this way.

We now come to the consideration of the conditions which more especially affect the bacteria, and which are not, perhaps, of less importance than those to which we have been alluding; these are chiefly the species, the dose and concentration of the organisms, the virulence, and the concurrent growth with other bacteria.

Influence of Species.—As regards the species, while, as we have said before, the nature of a disease does not by any means altogether depend on the cause, it does so to a large extent; and all writers are now agreed as to differences in the pathogenic action of the pyogenic streptococci and staphylococci. These differences have been previously referred to, and it has been seen that the streptococci are generally associated with erysipelatoid processes, while the staphylococci tend to cause more circumscribed suppurations. The streptococcus is by far the most dangerous organism, and apparently has the property of creeping in the living tissue, spreading in it for a time without being noticed, and then setting up violent reaction. Fränkel has found streptococcus pyogenes in a great variety of puerperal diseases, especially in the so-called lymphangioitic forms. It gains entrance to the cellular tissue of the pelvis from ulcers in the vagina, spreads in the pelvic cellular tissue, reaches the ligamenta lata and the peritoneum, and, spreading along the lymphatic channels, ultimately attacks the diaphragm and pleura; finally it reaches the blood, and causes septicæmia, pyæmia, suppuration in joints, etc.

As regards the other pyogenic cocci, I have already referred to the differences in their effects on animals, some of them not being pathogenic in rabbits, and some, such as micrococcus pyogenes tenuis, being especially associated in man with mild inflammations.

Dose and Concentration of the Organisms.—Perhaps the most important factor with regard to micro-organisms is the dose or numbers, and the concentration in which they enter the body. Ogston has already laid stress on the dose as explaining the different diseases which result from the introduction of these organisms, and he looks on the difference between acute abscess and pyæmia as in the main a quantitative one. This, however, is only partially correct, as must now be evident.

Various authors have, from time to time, mentioned with regard to bacteria, that some act best, or only, when present in

large numbers, but the matter has not till recently been thoroughly worked out. I was led to investigate this matter in connection with some interesting experiments made by Sir Joseph Lister, which appeared to show that one or a few putrefactive bacteria could not set up putrefaction in blood taken with various antiseptic precautions, while that result was obtained if a mass of putrefying material was added to it. At first sight I did not think that it could matter much, except as regards the rapidity of the result, whether to begin with, one or a million bacteria were employed, but nevertheless I determined to put the matter to the proof, and to my surprise I found that difference in dose was a most important factor in the production and the type of many diseases. The experiments were made in such a manner that I was able to ascertain exactly the number of bacteria introduced, the material being in the first place diluted to such an extent that, on rough estimation with the microscope I obtained a general idea as to the number of bacteria present in a given quantity of the fluid; a certain amount of this fluid was then injected into the animals, and at the same time a measured quantity was thoroughly mixed with liquefied nutrient jelly which was then poured out on glass plates and allowed to solidify. By counting the number of colonies of bacteria which developed on these plates, each colony probably originating from a single bacterium, I ascertained exactly how many organisms were present in the amount of fluid injected.

Without going into further details, the following are the most important results that I obtained. In the case of Hauser's proteus vulgaris, I found that a definite and large dose of the cultivation in nutrient jelly was necessary to kill rabbits, and in comparing these doses, I took care that they were always injected into the same tissue, for example, the muscles, in accordance with the facts previously mentioned with regard to the importance of the seat of inoculation. I found that about $\frac{1}{10}$ cubic centimetre of an undiluted cultivation was a rapidly fatal dose when injected into the muscles, and I ascertained that this quantity contained about 225,000,000 of bacteria; $\frac{1}{20}$ cubic centimetre containing therefore about 56,000,000 bacteria, always caused an extensive abscess, of which the animals usually died in six to eight weeks. Doses of less than $\frac{1}{30}$ cubic centimetre produced no effect; in fact, doses of less than $\frac{1}{40}$ cubic centimetre, or, in other words, fewer than about 18,000,000 bacteria, seldom caused any result. From $\frac{1}{50}$ to $\frac{1}{60}$ cubic centimetre caused abscesses; above $\frac{1}{60}$ cubic centimetre caused death in twenty-four to thirty-six hours.—Further, the size of the abscess apparently depended on the initial dose. If $\frac{1}{50}$ cubic centimetre caused any effect at all, it was only a very slight trace of opacity which soon disappeared, while $\frac{1}{60}$ cubic centimetre caused a large and spreading abscess, ultimately resulting in the death of the animal, and intermediate doses produced abscesses intermediate in size.—Further, the concentration of the bacteric material is also of great importance, as shown by the fact that the dose must act at the same place, at the same time. It apparently will not do to split up the dose and inject various portions of it into different parts of the same animal at successive periods of time, or even at the same time. In both cases the effect of the smaller dose is produced.

I have tested this matter in the case of a number of other infective diseases, and have found that the result depended mainly on what we may, for want of better knowledge, term the predisposition of the animal to the disease. Thus in the case of mouse septicæmia, mice, which are extremely susceptible to this disease, die as the result of the injection of a single bacillus, while the only result of the injection of 4 cubic centimetres of a jelly cultivation, containing myriads of bacilli, into the base of the ear of rabbits, is to cause illness for a few days, along with slight swelling and redness of the part. In like manner, in the case of chicken cholera, rabbits die apparently as the result of the introduction of a single microbe, but a considerable number—some where between 150,000 and 300,000—are required to cause the death of a guinea-pig; and here again we meet with the fact that where the animal is less predisposed to the disease, we have different effects, according to differences in the dose. As I have said, 300,000 bacilli are apparently able to kill guinea-pigs; as the result of a smaller dose, down to 10,000 bacilli, suppuration follows their injection; below 10,000 bacilli apparently no effect is produced. In the case of staphylococcus pyogenes aureus, I have found that it was necessary to inject something like 1,000,000 cocci into the muscles of rabbits, in order to cause a rapidly fatal result, while 250,000,000 produced a small circumscribed abscess. The same result was obtained with staphylo-

coccus pyogenes albus, only apparently fewer cocci were required. In the case of the tetanus bacillus, death did not occur in rabbits when fewer than 1,000 bacilli were introduced.

I think that in these experiments a good deal depends on the simultaneous action of the products of the bacteria, and I would suggest the following explanation of the facts. When the animals are not very susceptible to the action of a bacterium, the cells and tissues soon gain the victory in the struggle for existence; but where a large number of bacteria are introduced at one place they grow for a time before they are attacked by the cells, and, growing there, each produces a small quantity of poisonous material. The products thus formed must interfere with the action of the cells, and thus enable the bacteria to gain a foothold. The more bacteria are introduced at one time the more of these products will be formed, the more extensive will be the foothold, and the more marked will be the result. Where only one or a few bacteria are introduced into a slightly susceptible animal, they are overpowered by the cells and quickly destroyed. When the number of bacteria is greater, these poisonous products destroy the tissues in their vicinity, and enable the bacteria to spread over a large area before the cells collecting around them are able to form an efficient barrier against their progress; and where the dose is very large no efficient barrier can be set up in time, and the death of the animal is the result. Thus the extent to which the organisms spread, and the violence of their action in animals not very susceptible to the disease, depend, first, on the number of bacteria and the quantity of products introduced in the first instance; and secondly, on the vitality of the animal and the rapidity with which a granulation wall is formed.

The facts made out in this research enabled me to lay down the following laws. In the first place, the pathogenic dose of a virus varies inversely with the predisposition of the animal to the disease in question; the greater the predisposition to the disease, the less is the quantity required, and conversely the less the predisposition the greater is the number of bacteria that must be introduced to produce the same effect. Of course the term "predisposition" is an absolutely indefinite one, but I have already discussed a number of conditions which go together to make up predisposition, and it is a convenient term, as expressing a complex set of conditions which undoubtedly exist, but about which we do not know very much.—A second law is that, in animals which are not very susceptible to a disease, the severity of the affection varies directly, within certain limits, with the amount of virus introduced. In all the affections of this class which I investigated, I found three stages, according to the dose injected: first, a stage where, with a small dose, no apparent effect was produced; secondly, an intermediate stage where a local affection resulted, the extent of the local affection depending to a great degree on the dose of the virus; and thirdly, a stage where, after a very large dose, death occurred. Of course, as predisposition varies in the same species of animal—for example, in man—we cannot measure out the dose nor calculate the effects of a given dose in each instance.

The importance of these facts as regards dose is very great in connection with our subject, for man is not very susceptible to the action of pyogenic organisms, and the results produced by them vary to a great degree in accordance with the second law. In the case of wounds, it is important to know that apparently in man a single pyogenic coccus might possibly do no harm, unless indeed it met with conditions, such as retention of fluid, under which it could grow. At the same time, I doubt if a single coccus ever enters a wound; as a rule they occur in masses containing many individuals, and then, of course, we have the effects of a large instead of a small dose. And there is no doubt that man is very much more susceptible to the action of these organisms than rabbits, and, therefore, a very much smaller dose will probably produce the same effect. These facts as regards dose probably explain to some extent the fairly good results obtained where, by imperfect attempts at antiseptic work, the introduction of gross particles of dirt, that is to say, of large numbers of bacteria, is avoided, and where, consequently, the effect of the injection of a small instead of a large dose of the virus is obtained.

The importance of dose has, as I have said before, been mentioned by various observers. Thus Ribbert, in his research on experimental myo- and endocarditis, already referred to, found that in order to obtain the desired result it was necessary to inject a considerable quantity of the cultivations. Thus a Pravaz syringe-ful of the emulsion killed the animals in from twenty to twenty-four hours; if the dose was somewhat less, the animals might live

even for five days; if only one-sixth of a syringe-ful was injected, the animals lived still longer, and endocarditis was not produced. —In the case of symptomatic anthrax, the relation of dose to the production of disease is extremely marked, a small dose either producing no effect at all, or only local reaction, which, however, may suffice to render the animal immune, while a larger dose causes the death of the animal.

Virulence.—It is also important to remember that organisms may vary in virulence at different times, and that the greater the virulence of the organisms the less are other conditions necessary to enable them to gain a foothold. A virus, or, at any rate, most viruses, is, as regards virulence, not a fixed quantity; it is, in fact, in a constant state of variation under the influence of the external conditions under which it finds itself. I need not refer to the well-known facts with regard to variations in virulence in the case of anthrax, chicken cholera, swine erysipelas, etc., as the result of the mode of cultivation employed outside the body; but I may mention some of the points which seem to bear especially on the pyogenic organisms. In many cases it is found that as the cultivations carried on outside the body become older, so the virulence of the organisms is apt to decrease. This is very well seen in the case of Fränkel's pneumonia coccus, which loses its virulence within two or three days, when grown in the same medium outside the body, and which, if its virulence is to be maintained, must be reinoculated frequently, and passed from time to time through the animal body. It can be readily seen, also, that staphylococcus pyogenes aureus grows most luxuriantly in the early cultivations from the body; but after it has been artificially cultivated for some time, its growth is by no means so rapid. Emmerich states with regard to cultivations of erysipelas cocci that they vary much in virulence, and that the longer the time between each fresh inoculation, the less is the virulence of the culture; in fact, the erysipelas cocci can be readily attenuated to such a degree that they can no longer kill mice.

It is important also to remember that where the virulence of an organism is diminished, its effects on animals vary in accordance with the second law; thus if a considerable number of attenuated anthrax bacilli are injected into rabbits the result will be, not a general fatal disease, but a local inflammatory affection, with possibly the production of abscess, varying in degree to a certain extent with the amount injected. In fact, the effect of the attenuated organisms on animals highly susceptible to the virulent virus is the same as if virulent organisms were injected into less susceptible animals, and consequently, in order to produce the same effect as the virulent organism, correspondingly large doses of the attenuated organisms are required. Thus Kitt and Hueppe have found that they could obtain the same result by injection of the organisms of an infective disease of deer into animals if, as the organisms lost their virulence, the number of microbes injected was increased. These facts are also important as showing how, even in a mild epidemic of a disease, where the virulence of the virus is not very great, bad cases may occur where extra large doses of the virus have been taken in, and this is probably in part the explanation of the occurrence of isolated severe cases in the course of a mild epidemic.

It is further important to remember that loss of virulence may not only be due to the ordinary conditions of growth, but may result from the action of various chemical substances. Thus carbolic acid and other antiseptics apparently diminish the virulence of anthrax bacilli, and it is possible that something of the same kind occurs with regard to the pyogenic cocci in wounds; and this may to some extent explain why, at the present day, although pyogenic cocci occasionally enter wounds treated aseptically, they sometimes do but little harm, less harm, in fact, than when they enter wounds in the treatment of which these antiseptics are not employed. It is quite possible that in growing in fluids containing a minute amount of an antiseptic, they are deprived, at any rate to some extent, of their virulence.

As regards increase of virulence, a very curious observation has been made in reference to the bacilli of symptomatic anthrax. It has been found that the addition of a minute quantity of lactic acid to a fluid containing these bacilli increases the virulence of a very attenuated virus within a very short time. Thus Arloing, Cornevin, and Thomas found that if to a fluid containing these bacilli $\frac{1}{100}$ part of lactic acid is added, and the mixture allowed to stand for twenty-four hours, the pathogenic power is increased twofold; if then a little water, containing a very easily fermentable sugar, is added to the mixture, and another twenty-four hours allowed to elapse, the virulence has attained its maximum,

and frogs inoculated with this virus die in from twelve to fifteen hours, whereas when inoculated with ordinary virus they live forty to fifty hours. Kitt has repeated and confirmed these experiments, and he mentions the following. A small quantity of the vaccine material—that is to say, the attenuated virus of symptomatic anthrax—was divided into two parts, of which one was mixed with water, and injected into two guinea-pigs, while the other was mixed with the same quantity of water, to which three drops of lactic acid had been added; this mixture, after standing for six hours, was injected into the other two guinea-pigs. The result was that the first two guinea-pigs remained well, the virus being very attenuated, while the last two guinea-pigs died of typical symptomatic anthrax within twenty-four hours. With regard to this point, it is worthy of note that the pyogenic cocci, when grown in milk, for example, produced lactic acid, but, so far as I am aware, there is no evidence that, under these circumstances, their virulence is altered. Something of this kind may, however, be the explanation of Ogston's results; he found that if pyogenic cocci were grown in eggs, their virulence was increased, and he attributed this result to the absence of oxygen. I tested this matter with regard to the possible alteration in virulence when grown in various gases without being able to make out any noticeable difference; but it may be that, in Ogston's experiments, some chemical substance was present in the egg, or was produced by the organisms when growing in that material, which led to the increase in virulence. The fact with regard to lactic acid does not apply to the coccus of pneumonia, which, according to A. Fränkel, loses its virulence most quickly when grown in milk, and, in his opinion, this is due to the presence of lactic acid produced by them. Whether or not this fact has any bearing on our subject, it is worth remembering as showing what slight and unexpected causes may alter the virulence, and thus cause a difference in the result of the action of these organisms.

Concurrent Growth with other Bacteria.—We have also to consider the effect of the concurrent growth with other bacteria, and we shall find that the result may be either to increase or diminish the pathogenic action; in man, in all probability, the pathogenic action of the pyogenic organisms is generally increased. When two organisms grow together in the same medium outside the body, they either do not interfere with each other, or, what perhaps most frequently happens, one of them gains the upper hand in the struggle for existence, and, if a number of bacteria gain access to a wound, a struggle for the mastery at once commences between the different kinds. In wounds, this struggle in most cases probably ends in favour of the pyogenic cocci, and as the result of the concurrent growth other factors come into play which still further aid their action. Thus, although the pyogenic cocci gain the upper hand, the putrefactive bacteria may aid their action very much, for the products of putrefaction, when absorbed, act in an extremely poisonous manner, depress the vitality of the patient, and may thus enable the cocci to live in the body; and locally these products injure the young granulation tissue of the wound, and may thus open up an entrance for the pyogenic organisms. I have already referred to the experiments made by Grawitz and Scheuerlen on cadaverine and putrescine, products of putrefaction, and it will be remembered that the experiments showed that these substances, when present along with the pyogenic cocci, enabled the latter to obtain a foothold in the body.—The bad effects resulting from the concurrent growth of different kinds of bacteria is also very evident in tubercular cases. If a sinus leading to carious bone, the wall of which is lined with tubercles containing tubercle bacilli, becomes the seat of development of these pyogenic cocci, the result may be—in fact, generally is—a more rapid growth of the tubercle bacilli; and it seems that it is just in these septic cases, especially where irritating injections are also employed, that the danger of further and general tubercular infection is greatest, the local depression of vitality produced by the septic organisms enabling the tubercle bacilli to grow more luxuriantly.

Then also in some instances it appears that a mixed infection is more dangerous than a pure infection. Thus, in some cases the presence of more than one kind of pyogenic organism apparently increases the severity of the suppurative process. Kraske, for example, has observed in acute osteo-myelitis that the cases were most severe when the infection was a mixed one, that is to say, when the disease was caused not only by the staphylococcus pyogenes aureus, but where in addition "albus," and in some cases the streptococcus pyogenes, were also present; and, as a result, of his observations, he thinks that the discovery of mixed infection

in acute osteo-mycelitis ought to lead to a bad prognosis. Probably, also, one reason why we so seldom at the present day see the extremely bad septic cases formerly described is that, even where the treatment is not thoroughly aseptic, such precautions are taken as to exclude not only gross masses of dirt—in other words, large numbers of the organisms—but also a great mixture of them. And this is possibly also in part the reason why, in my first work on this subject, I was led to think that bacilli were of more importance in wounds than micrococci, for I observed that the wounds in which both organisms were present did not pursue so favourable a course as where the cocci alone were found.

Apparently, however, in some cases the presence of two species of pathogenic organisms is better for the animal than if only one species were present; and, although the facts as yet made out have no direct bearing on the production of suppuration, yet, as they are of great interest, and as something similar may occur in the case of the pyogenic cocci, I shall mention some of the experiments. A number of observers have attempted to utilise the antagonism which exists between certain species of bacteria in cultivations outside the body as a means of cure when the body is attacked by organisms, but till quite recently these attempts have not been followed by success. Emmerich, however, has lately performed some very remarkable experiments on rabbits, showing the value of the erysipelas cocci as a protective and curative agent against anthrax in these animals. For example, in one set of experiments rabbits were first inoculated with large numbers of the cocci of erysipelas, and then two to fourteen days later anthrax bacilli were introduced. Of fifteen animals treated in this way, seven recovered, while all the control animals inoculated with anthrax alone died; of the seven animals which died after inoculation of both organisms, some succumbed to the anthrax bacillus and some to the erysipelas organisms. The results were not so successful when, after anthrax had been set up and after symptoms of disease had appeared, erysipelas cocci were injected subcutaneously; but they were somewhat better where the erysipelas cocci were injected into the blood stream.—In a later paper Emmerich and Mattei communicated results obtained by injecting erysipelas cocci into the circulation and subcutaneously in rabbits about twenty-four hours before infection with anthrax. They found that in rabbits in whose bodies large numbers of erysipelas cocci were present, anthrax bacilli, though injected in enormous numbers, were destroyed in from twelve to seventeen hours, and could not be found either at the seat of injection or in the blood and internal organs, whether by microscopical examination or by cultivation. The bacilli were evidently unable to penetrate into the blood or internal organs, nor could they cause any local reaction or œdema; in fact they very quickly died out.—Perhaps still more remarkable are the experiments performed by Pawlowski. He found that, after injection of a mixture of erysipelas cocci and anthrax bacilli under the skin of seven rabbits, only two died. Pawlowski has also made the important discovery that the erysipelas coccus is not the only organism which interferes with the growth of anthrax in the body. Thus, ten rabbits were first inoculated with anthrax bacilli and then cultivations of micrococcus prodigiosus were injected subcutaneously into each animal on two occasions two and twenty-four hours after infection; of these ten animals, eight recovered. He also found that subcutaneous injection of anthrax bacilli and cultivations of the pneumonia cocci were not fatal to rabbits, and that subcutaneous injection of cultivations of anthrax bacilli and staphylococcus pyogenes aureus was not followed by the death of the animal; four rabbits treated with "aureus" recovered.

As to the explanation of these facts, Emmerich and Pawlowski come to very much the same conclusion. Apparently, with the exception of the pneumonia coccus, anthrax bacilli grow readily outside the body in cultivations containing also the other organisms mentioned, such as the erysipelas coccus. Hence the explanation cannot be that the erysipelas cocci *per se* prevented the growth of the anthrax bacilli in the body. It seems to be rather that these cocci irritate the cells of the body, the phagocytes, and increase their destructive power; it may be, as Emmerich suggests, that this irritation leads to a slight alteration in their physiological functions, so that they excrete some chemical substance which is very injurious to the anthrax bacilli.

How far these facts may be applied to the treatment of anthrax pustules in man, where either from the situation or the size of the pustule excision or cauterisation is impracticable, is a question very difficult to answer, but it seems to me that we must await

the results of further investigations before any attempt to apply them practically in man would be justifiable. In any case, the facts are well worthy of note as affording another example of what unexpected factors may come into play if we once admit organisms to wounds.

Local and Seasonal Conditions.—Lastly, we have certain local and seasonal conditions which appear, in some way or other, to influence the occurrence of some of these diseases. For example, Eschbaum, who has gone into this matter very carefully, finds that spontaneous erysipelas occurs most often apparently in February, then next most frequently in November, and least frequently in July. Apparently the cold months, and those where there is most moisture and greatest variations in temperature, show the largest number of cases, and Eschbaum summarises the facts by saying that the cases are most numerous when we have marked variations of temperature, with a medium height of the barometer and a high degree of moisture. In the case of diphtheria also, cold and moisture seem to be a great predisposing cause, most cases occurring about the months of November and December. Kocher and Lücke have found that acute osteo-mycelitis also is most frequent in winter. Probably besides the seasonal conditions, the confinement in badly-ventilated rooms, foul air, and want of exercise which come into play more frequently in cold and wet weather than in summer, have an important influence on the result. In the case of diseases of animals, more especially in the case of anthrax, there is a very marked relation between the season and the outbreaks of the epidemic, the disease apparently occurring where there is great moisture and high temperature. As regards anthrax, Chauveau has shown that increased atmospheric pressure tends to cause a loss of virulence.

As an example of the influence of locality on these suppurative diseases, we have the greater frequency of acute osteo-mycelitis in certain parts; for example, this disease seems to be more frequent in Berne than anywhere else, and, according to Volkmann, it occurs next most frequently in Halle, and then in Marburg; these, however, are rather impressions than actual statistical facts.

SUMMARY.

We thus come to the end of our considerations with regard to the factors involved in the production of suppuration and septic diseases. It must be admitted that our knowledge still shows many blanks, but nevertheless, enough has been gained to enable us to judge what are the most essential factors which come into play. That the pyogenic organisms are essential for the production of these diseases as they occur naturally there can no longer be any doubt; but in many cases much depends on other conditions, of which the chief probably are the dose or number of the organisms and their concentration, general and local depression of vitality, and the seat of inoculation. If the organisms enter in large numbers, sufficient to overcome the resistance of the body, they alone may cause the disease; frequently, however, they enter in smaller numbers, and then other conditions become necessary to enable them to act. Of these conditions the chief are, as I have said, depressed vitality—either local or general—combined with the possibility of their remaining in the weakened tissue. This depression of vitality may be brought about by conditions acting on the body generally, such as acute fevers; or by local conditions, more especially those which induce the early stage of inflammation, such as cold, injury, chemical substances, the products of the bacteria themselves, or the products of other kinds of bacteria which may happen to be growing along with them. Or again, the favourable condition may be some peculiarity in the soil, as shown by variations in the character of the disease in accordance with the seat of inoculation and the anatomical arrangement of the part. The only factor, however, as I have said before, with which we can reckon with certainty, is the cocci themselves.—I need not enter into details as to the pathology of all the various suppurative and septic diseases, it will be easy for anyone to apply the facts which have been stated to each case; but in conclusion, I should like to make one or two remarks with regard to the mode of entrance of these organisms into wounds.

OCCURRENCE OUTSIDE THE BODY.

These organisms are fairly widely distributed outside the body. In the air they have only been found on a very few occasions, and in very small numbers. Staphylococcus pyogenes aureus has been found on one or two occasions in the air of surgical wards, as has also the streptococcus of erysipelas. Experiments have been made as to the presence of the latter organism in the air of

wards in which erysipelas patients were present, and they have in one or two instances been found in small numbers; as a rule, however, they are apparently present only when the patients are in a state of convalescence and when desquamation of the skin is occurring, and it seems highly probable, from the observations that have been made, that they are carried in the cutaneous scales thrown off during desquamation. Erysipelas cocci have also been found in a *post-mortem* room where cases of erysipelatos infection had occurred, and in this case the infection was supposed to have come from the floor. The pyogenic organisms are very rarely present in putrefying fluids, but they have been found on decomposing beef, and in the water employed in kitchens for rinsing dishes; they are also sometimes present in the superficial layers of the soil. One of their most common seats outside the body is the surface of the skin, and they especially occur in parts where the skin is moist, for example, in the axilla, between the nates, between the toes, etc.; they are also frequently present in connection with the hair, and in the dirt beneath the nails. Fränkel has found them in the secretions of the healthy pharynx, and Bockhardt found "aureus" and "albus" in large numbers in the nasal mucus of a patient suffering from chronic catarrh of the nose, and, at the same time, affected with syccosis of the upper lip.

MODE OF ENTRANCE INTO WOUNDS.

As regards the entrance of these organisms into wounds, they may get in during an operation from the air, from the instruments and hands of the operator or his assistants, from surrounding objects, or from the skin in the neighbourhood of the wound. We are now, however, sufficiently acquainted with the various precautions necessary to prevent the entrance of these organisms, and it is a comparatively easy matter to leave a wound made through a previously unbroken skin without any pyogenic organisms in it.

In the after-treatment of wounds there are two situations where the battle with these parasites may take place; it may either occur outside the wound, the organisms never being allowed to enter it, or it may take place inside the wound after their entrance has been permitted. It is hardly necessary to remark that in case of war we try, if possible, to carry the war into the enemy's country, at all events, we do all we can, by guarding the passes and borders, to prevent the enemy from entering our own country; and in like manner, in the case of wounds, it seems to me that it is much better to keep these pyogenic organisms out of the wound and to do battle with them outside the body, than to let them enter and trust to the efficacy of the tissues to repel their attacks. For once they have entered the wound, it is but little that we can do to aid the action of the body, and what little we do do has to be done with extreme caution, for not uncommonly our efforts, instead of being of service, do a great deal of harm. As I have said, it is comparatively easy now to keep these pyogenic organisms out of a wound while it is being made, and to leave the wound without any of these microbes in it; the problem is to prevent their entrance afterwards. In this case, however, we have at any rate succeeded in transferring the field of battle from the interior of the wound to the surface of the body, and we have no longer to trust to the imperfect and but little understood action of the tissues; we can step in with vigorous action without any fear of doing harm. For it cannot be too much insisted on that antiseptic dressings are not, in their essence, applications to wounds; they are applications to the discharge which has come from the wound and to the skin around it.

As to the mode of entrance of these pyogenic organisms after the operation, they may get in while the dressing is being changed, either by falling in from the air, though this must be of rare occurrence seeing that they are so rarely present in the air, or by contamination by the surgeon's hands, instruments, etc.; but this is also very easily avoided, and ought not to occur. Usually they spread in either through the dressing or beneath it during the interval between the change of dressings. In my opinion they most commonly spread in by growing in the discharge which is lying between the dressing and the skin, and in the superficial layers of the epidermis, more especially in the latter; for as the result of the irritation of the antiseptic employed there is hypertrophy of the epithelium, and thus a large number of dead epithelial cells are present, which, being soaked with the discharge, form a good nidus for the development of the bacteria, unless, indeed, enough of the antiseptic has been communicated to the discharge and the epithelium from the dressing to render it an unsuitable soil for the growth of organisms. If this is not the case, the organisms

will go on growing in the substance of this dead epithelium, protected by the superficial layers from the action of the dressing; and thus they may, if a dressing is left on for too long a time, ultimately reach the wound. This is not a mere theoretical speculation, for I have been able to trace the development of the organisms beneath the dressings, from their margin towards the wound, the extent to which they spread varying with the length of time that the dressing has been applied.

If these views as to the mode of entrance of bacteria into wounds are correct, it follows that it is very important when a dressing is changed to wash and thoroughly disinfect the skin around the wound as far as the dressing extended, and beyond it, with an antiseptic lotion, care being of course taken by covering up the wound not to infect it while so doing. If this is done, then at each change of dressing the field of battle is transferred from the neighbourhood of the wound to the margin of the dressing, and in accordance with the size of the dressing, this battlefield will be at a greater or less distance from the wound.

I shall not enter any further into the subject of the treatment of wounds. We have now at our command a large number of antiseptics which more or less answer the purposes required, and it is only by careful attention to the exclusion of these organisms that we can obtain the best results. That we can completely exclude these bacteria from wounds—both at the operation and afterwards—I have been able to ascertain by numerous experiments; and that, just in proportion as we are successful in so doing, we are to a like degree freed from the occurrence of suppuration and septic diseases, and can to a like degree reckon with confidence on rapid and painless healing of wounds with the least disturbance to the patient, is a matter now of everyday observation.

LIST OF THE CHIEF PAPERS REFERRED TO IN THE PRECEDING LECTURES.

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CASE OF CEREBRAL ABSCESS IN CONNECTION WITH OTITIS MEDIA, SUCCESSFULLY DIAGNOSED AND EVACUATED.

By DAVID FERRIER, M.D., F.R.S.,

Physician to the National Hospital for the Paralysed and Epileptic.

THE case which I have the honour to bring before you this evening is one of the few cases of cerebral abscess in connection with disease of the middle ear which have been accurately diagnosed during life, and successfully treated by operation. For though abscess of the brain is a very common occurrence, in connection with inflammation of the ear, and perhaps more frequently in chronic affections of this kind, it is generally the subject of post-mortem record, rarely accurately localised during life, and still more rarely treated successfully.

I have only been able to find two cases of a similar nature. One of these has been recorded by Gowers and Barker (*JOURNAL*, December 11th, 1886). This was a case of abscess in the right temporo-sphenoidal lobe, diagnosed without external indication, beyond the fact of inflammation of the ear, and successfully evacuated. The second has been recorded by Greenfield (*JOURNAL*, February 12th, 1887). This was a case of abscess situated in the anterior part of the left temporo-sphenoidal lobe, in which, in addition to the general indications of abscess, there were symptoms of pressure on the third nerve, a fact which prohibited the localisation of the seat of the abscess.

Two others have been referred to by Greenfield, namely, a case reported by Schondorff (*Monatsschrift für Ohrenheilkunde*, 1885, No. 2); and a second by Truckenbrod (translated in *Archives of Otolology*, June to September, 1886). In both these cases, however, there were, in addition to the general symptoms, external indications of the seat of the abscess in the form of localised pain and œdema of the skull; and a fistula leading from the primary seat of disease.

The fistula in Truckenbrod's case led only under the pericranium to a rough place on the outside of the bone, while in Schondorff's case it led directly into the brain, and indicated the way by which the pus had penetrated. These two cases therefore are to be placed in a different category from those of Gowers and Barker and Greenfield; but a successful result was obtained in all.

Of the successful result in the case I bring before you this evening you will all be able to convince yourselves, as the quondam patient is here, and apparently as well as he has ever been.

On the evening of December 8th, 1887, I was asked by Mr. T. W. Coffin to see with him a case under his care, the history of which he related to me, and subsequently gave me the following detailed notes.

T. H., aged 47, a skilled artisan, was first seen by Mr. Coffin on November 25th. He had been ill since November 10th. On the 15th a discharge, somewhat offensive, had come from the left ear, which continued for about eight or ten days. When first seen he

was in a drowsy condition, but was capable of being roused, and replying to questions put to him. He complained of pain over the left side of the head, forehead, and back of the eyes, with a considerable degree of photophobia. The pain on the left side of the head was interrupted by pressure and percussion. There was slight discharge from the left ear, but the ear could not be thoroughly examined on account of the tenderness. The pupils acted normally, and vision appeared unaffected. There was no motor or sensory paralysis. The pulse was 52, weak and intermittent; respirations 14, laboured and sighing. The temperature was normal.

Mr. Coffin ordered the ear to be syringed with weak Condy's fluid, and prescribed a stimulant.

Next day the patient was brighter. He had less pain in the head. He was able to sit up in bed and smoke a cigarette, but he continued very drowsy and slept much.

On the 27th, 28th, and 29th he was still improving. The temperature was normal, the pulse regular, and the tongue cleaner under the influence of a saline mixture and small doses of mercury. The discharge from the ear was more copious than it had been. There was very little tenderness on percussion of the left side of the head. The patient was generally asleep, but would rouse up for an hour or so, and occasionally smoke a cigarette.

On the 30th he was more drowsy, and apparently unwilling to be disturbed. At times it was very difficult to rouse him at all. He complained of more pain at the back of the eyes and general headache. His pulse was 60, respirations 16, and temperature absolutely normal.

On December 1st and 2nd the condition was essentially the same. There was no increase in the headache, but the drowsiness was greater.

Early on the 3rd he had become temporarily delirious, and had fallen back exhausted, but during the rest of this day and next there was no noteworthy change in the symptoms.

On the 5th, Mr. Coffin thought there was slight weakness in the right angle of the mouth, but so slight that it was considered somewhat doubtful by those who were acquainted with the usual expression of face.

On the 6th, for the first time there were indications of affection of speech. He used wrong words, and seemed angry at not being understood when he asked for what he wanted.

It was on the evening of the 8th that I saw the patient. He was at that time less drowsy and much clearer in his intellect than he had been for some time previously. He was able to sit up in bed, and talk, but his words were incoherent and for the most part unintelligible. He appeared to understand simple questions; but at other times appeared confused and unable to understand. He called things by wrong names. When asked to read a few sentences from a journal placed before him, the words he uttered had little or no resemblance to those before him.

There was no appreciable defect in the mobility or sensibility of his limbs, but the right angle of the mouth acted less energetically than the left. Examination of the eyes, carried out with some difficulty, revealed signs of optic neuritis, but a more thorough investigation of this and other conditions was reserved till the following day. From the facts, however, related to me by Mr. Coffin, and the patient's condition as seen by myself, I confirmed the opinion passed by Mr. Coffin that it was a case of abscess of the brain, in connection with disease of the middle ear, and I considered that the position of the abscess was fairly indicated by the symptoms.

The case seemed to me to be one which ought to be dealt with speedily, and I advised immediate removal to the hospital, with a view to further careful investigation and operative measures. The patient was removed the next morning to the National Hospital for the Paralysed and Epileptic, under my care. At this time he was conscious, and complained of no pain anywhere. He replied to questions, but frequently used wrong words without seeming to be aware of the fact. He occasionally hesitated to do what he was told, appearing as if he had some difficulty in understanding what was said to him. There was perceptible weakness of the right angle of the mouth, and though he could make every movement with his right hand, it was found that the grasp of the right hand was only 80 lbs., whereas that of the left was 100 lbs., the patient being a right-handed man. The tendon reactions were active on both sides, and there was no appreciable difference between those of the left and right. There was no affection of sensation. Ocular movements were normal, and the pupils equal and contractile. Ophthalmological examination

(verified by Mr. Brudenell Carter) showed the existence of well-marked optic neuritis, with a small hemorrhage over the right disc, and a whitish band below that of the left. The senses of taste and smell were normal. The patient could hear a watch 15 inches from the right ear, but only on contact on the left side. The left auditory meatus was filled with a purulent secretion, which prevented a view being obtained of the condition of the membrana tympani, and it was considered not advisable to attempt to remove this at the time.

Though the patient complained of no pain in his head, I found on careful examination that there was a spot tender to pressure and percussion situated two inches above and just anterior to a line drawn upwards from the external auditory meatus.

From the results of my examination on this and the previous day, I had no doubt that the patient was suffering from a cerebral abscess. The comparatively rapid onset of symptoms indicative of cerebral mischief in a man previously in good health, coincidently with signs of inflammation and purulent discharge from the left ear, were in favour of abscess rather than tumour. There had been no vomiting, convulsions, or febrile disturbance or other indications of meningeal inflammation.

The fact that there had been no rise of temperature did not exclude the idea of encephalitis resulting in abscess, for many cases of cerebral abscess appear to run their course without causing febrile disturbance, the temperature being in some rather subnormal than the reverse. The position of the abscess, verified by the operation, was determined both from the symptomatology and the position of the pain experienced on percussion. The relative weakness of the right angle of the mouth, the ataxic speech, and slight degree of word-deafness, indicated that the disease was situated in close proximity to the speech and auditory centres of the left hemisphere, but not actually destroying them; and the conditions of such a lesion would be supplied by an abscess situated in the anterior third of the temporo-sphenoidal lobe and abutting or pressing on the fissure of Sylvius.

This localisation from symptomatology I considered confirmed by the discovery of a spot, tender on pressure and percussion, coinciding in position with that part of the superior, or superior and middle, temporal convolution which lies immediately posterior to the ascending limb to the fissure of Sylvius, and below the inferior extremity of the ascending frontal convolution. I would not consider the position of the tender spot as by itself a safe guide to the localisation of abscess or other cerebral disease, for the pain may be referred to a region at a considerable distance from the disease. Thus Mr. Hulke (BRIT. MED. JOURNAL, July 3rd, 1886) records a case in which there was a tender spot above the ear, whereas the abscess was in the cerebellum; and in a second pain was felt acutely in the occiput, whilst the abscess was in the temporo-sphenoidal lobe.

But when, as I pointed out many years ago, there is pain on percussion not spontaneously complained of over a region indicated by the symptoms as probably the seat of disease, the localisation is rendered all the more certain. I was therefore confident that an abscess would be found in the position indicated, and was of opinion that no time should be lost in resorting to trephining with a view to its evacuation.

My colleague, Professor Victor Horsley, after consultation on the case, concurred in my views, and operated accordingly on the following day. I need only remark that when the dura mater was removed over the region indicated, the brain, which had a normal appearance on the surface, was seen to bulge forward into the opening in the skull, a sure indication of pressure underneath; and on puncturing with a trocar, a considerable quantity of inodorous pus—about five drachms—welled out through the cannula. The subsequent history is one of uninterrupted recovery. The optic neuritis gradually subsided. Already, on the fourth day after the operation, the optic discs were clearing, the margins were becoming defined, and the extravasation of the edge of the right disc had disappeared.

On December 23rd the left disc was apparently quite normal; the right was still a little veiled, but the effused blood was no longer visible.

On January 3rd no difference could be perceived in the action of the twosides of the face. At this time the wound had become quite cicatrised. The removal of the surgical dressings allowed of a more careful examination of the condition of the left ear than had been previously considered advisable. After examination of the ears on January 18th Mr. Cumberbatch reported that the discharge from the left ear had entirely ceased, and there was no abnormal

condition of the external auditory meatus. Hearing, right $\frac{1}{10}$, left $\frac{1}{20}$.

Process conduction was normal, indicating mischief confined to the middle ear. No perforation could be detected in the membrana tympani, but it was thickened, cuticular in appearance, and purely granular. There was a slight opacity—probably cicatricial—behind the handle of the malleus, and rather above the centre of the membrane.

Before leaving the hospital the patient gave me the following personal details of his case. He first complained of pain in the left ear on Tuesday, November 8th. For this he inserted some cotton wadding in the ear. Next day this appeared tinged with blood. For about five days a clear discharge occurred, soaking through the wadding, and staining the pillow on which he lay. At this time, also, he had some pain in his throat and chest, which, together with the condition of his ear, he attributed to chill. The discharge from the ear changed to a thick, gummy, slightly yellow flow. He then took to his bed, as he did not feel able to stand up.

From November 20th his memory became an entire blank. "The next thing I recollect," said he, "was you standing by my bedside."

CLINICAL MEMORANDA.

HEMOPHILIA.

M. A. P., a countrywoman, primipara, aged 30, was on January 26th last delivered by me of a male child. The labour was normal, but somewhat prolonged from feeble uterine action. The child was of average size and apparently healthy. On the fifth day the funis separated, leaving the umbilicus perfectly sound and healthy-looking. On the fourteenth day the nurse called my attention to a dark livid swelling which extended over the region of the left scapula, evidently extravasated blood. The child was jaundiced, but otherwise seemed happy and comfortable. Next day there came on a rather copious exudation of darkish blood from a crevice in the umbilicus, while the swelling on the back had increased and extended to the opposite side. I found a considerable difficulty in arresting the hemorrhage; but it ceased after about two hours' pressure and the use of styptics. I put a pad over the part, strapped it tightly, and bound it up, and had no reason to apprehend any further difficulty. However, in about an hour the bleeding returned. We kept up pressure for about seven hours with more or less success. We found tannin the best styptic, and this at length stopped it. Then a fresh symptom arose: there then appeared an oozing of blood from the month, but this almost stopped when the flow from the umbilicus returned, which it did subsequently in spite of all treatment. Finally the child was taken to the London Hospital, where, as I am told, similar treatment was pursued with similar unsatisfactory results, the child ultimately dying from loss of blood about six hours afterwards. There is no history of such a diathesis in the family of either parent, and the child received no injury at any time.

H. F. C. EAGLE, M.R.C.S., L.S.A.

Bethnal Green Road, E.

OBSTETRIC MEMORANDA.

TRANSVERSE RUPTURE OF UTERUS.

THE following are a few particulars of the first case of rupture of the womb which has occurred in my practice of forty years, with more than 4,000 labours.

E. H., aged 29 years, married, of short stature and phlegmatic temperament, was taken in labour on the night of October 19th, 1887, with her fifth child; her previous labours had all been protracted and her last child stillborn. I was called to her at 8 A.M. of the 20th, when the os was well dilated, the pains frequent and severe, but without the usual explosive character of the third stage. I had been with her five hours when the pains ceased, the patient crying suddenly with a new agony; there were the usual symptoms of "shock." I then sent to my friend, Mr. G. Fraser, who assisted in the delivery by forceps, which was effected at 4 P.M. Death ensued on the morning of the 25th. At the necropsy, performed by my son, John S. Prowse, twenty-four hours after a

very extensive transverse rupture was revealed at the anterior part, almost severing the neck from the body of the uterus; the parietes were abnormally thin.
Bleaden. WILLIAM PROWSE, M.R.C.S. etc.

REPORTS

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES

CHILDREN'S HOSPITAL, NOTTINGHAM.

LITHOLAPAXY & SUPRAPUBIC LITHOTOMY.

By LEWIS W. MARSHALL, M.D., Surgeon, Children's Hospital, Nottingham.

I HAVE adopted the heading which my friend Mr. Walsham used to his paper, which was published in the JOURNAL of October 15th, because the case which I am about to refer to was by his kindness done by him for my benefit on October 23rd. I therefore wish to add another success to those previously recorded by himself. Having a case under my care at the time of reading Mr. Walsham's paper which was eminently suitable for testing the value of the method of crushing and rapid removal of the stone, and wishing to contrast it with my own lithotomies, I appealed to him to give me that opportunity. The report of the case will speak for itself.

J. R., aged 6 years, was admitted with symptoms of stone, October 12th. Straining and pain in passing water were severe. The presence of a small stone was verified by me the following day by sound and palpation under chloroform.

October 23rd. The boy being well under chloroform, Mr. Walsham proceeded to crush. A sound was first passed, and the presence and size of the stone were made out. No. 9 evacuating catheter was inserted after slitting up the urethra, and about two ounces of weak boracic solution were injected. On removal of the catheter, No. 6 lithotrite (Weiss) was easily passed and the stone seized, showing a measurement of five-eighths of an inch. The second time the stone was caught three-quarters of an inch was read. Crushing was easy; the first time ten minutes were thus occupied. No. 5 lithotrite was introduced the second time. The evacuating catheter was used three times in all. The boy slept on being put to bed, and passed his water unconsciously shortly afterwards.

Two pieces were passed in the first twelve hours after the operation. There was no rise in temperature; no pain; and on the second day he sat up in bed to play with his toys.

On the third day he was riding a rocking horse in the ward.

October 28th. He left the hospital.

Since my appointment to the Children's Hospital I find that I have done about twenty lithotomies—nineteen lateral, one suprapubic. All the "lateral" cases recovered, but the "suprapubic" died on the fourth day from cellulitis. This case was done by Annandale's method, which reads so well, but is neither so easy to perform nor so free from complication as would at first appear. The stone being grasped by the lithotrite and pressed against the bladder wall, it was thrown out from the instrument when cutting into the bladder, with the result that the points of the lithotrite minus the stone protruded. The bladder dropping back into the pelvis, some difficulty was found in removing the calculus by dressing forceps. After this experience I am not disposed to adopt this method again. Mr. Annandale recommends his plan for use where the stone is small; in fact, in those cases which are so suitable for litholapaxy.

My success in the lateral operation is not of course exceptional—no death in nineteen cases—but it is too good to allow me to set the operation aside for a more novel procedure without due consideration. The case reported by me for Mr. Walsham does, however, afford a good reason for declaiming in favour of litholapaxy in the majority of cases, because I find on examining my calculi that there are at least thirteen that might very fairly have been dealt with in this way.

Speaking from memory, an average of three weeks for convalescence from lateral lithotomy may be given in my cases. When risk from hæmorrhage—pain suffered—risk from possible incontinence of urine for some years, and the asserted danger of emascu-

lation are placed in the scale with the relatively long confinement to bed, it seems to be a clear duty to practise the more simple plan of litholapaxy.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

ANNUAL MEETING

THE annual meeting was held on the evening of March 1st, the retiring President, Mr. GEORGE DAVID POLLOCK, F.R.C.S., President, in the Chair.

Annual Report.—The annual report announced the continued prosperity of the Society, and a further increase in the number of Fellows. This now stands at the highest point yet reached since the foundation of the Society. Thirty-three new Fellows have been elected. Of these, nineteen are resident, eight non-resident, three English honorary Fellows, and three foreign honorary Fellows. The Society has lost fifteen Fellows by death. Of these, nine were resident, including Sir George Burrows, a former President of the Society, Dr. Wilson Fox, the late honorary librarian, and Mr. Quain; five non-resident, and one foreign honorary Fellow, Professor Von Langenbeck. The number of papers read, and the attendance of Fellows and visitors during the past seven years, are given in the following table:

Year.	No. of Meetings.	Papers.		Present.		Joined in Discussion
		Medical.	Surgical.	Fellows.	Visitors.	
1881	15	5	21	540	70	94
1882	15	12	14	517	117	102
1883	15	14	17	607	119	113
1884	15	18	13	632	118	145
1885	17	10	18	759	201	171
1886	16	15	18	558	111	169
1887	16	10	18	559	88	173

The report of the honorary librarians states that the additions to the library during the year 1887 consist of 460 works, including pamphlets, but not including transactions, journals, and other periodical publications; 165 of these additions have been obtained by purchase, and 295 by donation. The latter include 53 volumes presented by Dr. Wickham Legg. The total number of works in the library, December, 1887, was 30,742. During the past year 3,694 books have been borrowed from the library. The number of visits of Fellows has been 4,574. The collection of portraits of members of the medical profession has been enriched by the addition of sixteen new ones, and two oil paintings have been presented to the Society by Dr. R. J. Lee.

The PRESIDENT then delivered the annual address, dwelling specially, in his obituary notices, on the life and works of Dr. Wilson Fox, Mr. Richard Quain, Dr. Arthur Farre, and Sir George Burrows. Mr. Edmund Owen, seconded by Dr. Day, proposed a vote of thanks for the address; Mr. Butlin, seconded by Mr. Parker, for the services of the President, which was carried by acclamation; Dr. Sansom proposed a vote of thanks to Mr. Holmes, who is retiring from the office of Treasurer; Dr. Buzzard, seconded by Dr. S. Coupland and supported by the President, proposed a vote of thanks to the retiring Vice-Presidents and other officers; Mr. T. Holmes, seconded by Dr. Myers, to Mr. Howard Marsh, the retiring Secretary, who, in reply, spoke warmly of the services of the Resident Librarian.

The list of officers for the current year is as follows:—*President*: *Sir Edward Henry Sieveking, M.D. *Vice-Presidents*: *Sir Andrew Clark, Bart., M.D., F.R.S.; *James Andrew, M.D.; *Sir Henry Thompson; Thomas Smith. *Treasurers*: Charles John Hare, M.D.; *John Ashton Bostock, C.B. *Secretaries*: Walter Butler Cheadle, M.D.; *J. Warrington Haward. *Librarians*: *Samuel Jones Gee, M.D.; John Whittaker Hulke, F.R.S. *Other Members of Council*: *William Cayley, M.D.; *Sir Joseph Fayrer, K.C.S.I., M.D., F.R.S.; *Thomas Lauder Brunton, M.D., F.R.S.; Richard Douglas Powell, M.D.; Arthur Ernest Sansom, M.D.; *Robert William Parker; *William Johnson Walsham; Henry Trontham Butlin; *Edward Morris; *Edward Tegart. Those gentlemen to whose names an asterisk is prefixed were not on the Council or did not fill the same office last year.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 6TH, 1888.

Sir JAMES PAGET, Bart., F.R.S., F.R.C.S., President, in the Chair.

Epithelioma of Kidney associated with Calculus.—Mr. SHATTOCK showed for Sir WILLIAM MAC CORMAC a specimen of epithelioma of the kidney associated with pelvic calculus. There was a history of long-standing calculous pyelitis. It seemed probable that the cancer was produced by the chronic irritation of the calculus. The specimen had a bearing on the contention of Mr. HURRY FENWICK, who at the last meeting had advanced the theory that cancer of the bladder might be produced by chronic irritation produced by a calculus. Dr. SÄNGER had recently communicated to the Berlin Medical Society the negative results of bacteriological investigations of cancerous growths. Mr. Shattock pointed out that this confirmed the results reached by himself and Mr. Ballance, and led him to believe that Scheuerlen's bacillus was not the pathogenic organism of cancer. It was, however, not possible to prove a negative, as Dr. SÄNGER had supposed; for in actinomycosis, though the parasite was so large, nobody had succeeded in cultivating it.—Mr. WALSHAM mentioned a specimen in which the whole cortex of the kidney, where a pelvic calculus had long existed, was converted into epitheliomatous tissue. The clinical history rendered it probable that in this case the calculus was the primary disease. In another specimen of calculous pyelitis, also in the Museum of St. Bartholomew's Hospital, the kidney was carcinomatous.—Dr. NORMAN MOORE had shown a case of pelvic calculus and renal cancer. He referred to the association between gall stones and cancer of the gall bladder.—Dr. WILKS had always regarded the calculus as the primary disease, from the clinical history of cases of pelvic calculus followed by cancer, and of gall stones followed by cancer. Professor Frerichs had expressed a similar opinion to him on one occasion when going over the museum of Guy's Hospital, and had stated that the association of pelvic calculus and renal cancer was familiar to him.

Villous Carcinoma of the Right Breast.—A specimen of this disease, removed from an unmarried lady, aged 53, was exhibited by Mr. BERNARD PITTS. The patient had been conscious of its existence for three months. The axillary glands were not enlarged, and the skin was not adherent. It was removed, and was found to be an oval mass, surrounded by an imperfect capsule, from which branching processes, thickly invested with actively growing epithelium, extended. He referred to three similar tumours in the Society's *Transactions*. They all had a more or less perfect capsule, and a foliaceous included growth.—Dr. WILKS asked how the tumours had been described by early writers; it appeared to be what would have been called a cystic sarcoma. The clinical history did not seem to be that of carcinoma.—Mr. A. A. BOWLBY thought that it was the kind of growth described by Cornil and Ranvier under the term villous carcinoma. The clinical history was not well known. It had perhaps been included under the name melanotic sarcoma, as in the three cases he had seen the villous growth was dark-coloured, and the fluid blood-stained. In none were the glands enlarged, and it seemed possible that the tumours ran a more benign course than scirrhous carcinoma.

Contact Carcinoma of the Bladder.—Mr. HURRY FENWICK brought forward statistics of 60 cases from various museums as regards the varying conditions which might be encountered by the surgeon in dealing with such growths. The male was affected thrice as often as the female, a proportion which was found to hold good in a series of 634 cases, embracing all varieties of vesical growth; 60 per cent. of the specimens were single and 40 per cent. multiple; of the single, 43 per cent. were at the right ureteral orifice and 26 per cent. at the left; 86 per cent. of the single growths were at the inferior zone, originating at the margin of the trigone, pedunculated, or tending to become so, in the proportion of 2 to 1. In 80 per cent. of the multiple growths there were 3 to 22 in the same bladder. They were rare in diverticula. Specimens were brought forward proving that carcinoma might coexist with benign growth (10 per cent.), and that vesical carcinoma might propagate itself by contact.—The PRESIDENT said that the cases of communication of cancer by contact were so few that they might be accidental coincidences; moreover, if we assumed that there was a tendency to the symmetrical occurrence of disease, it was easy to understand their occurrence on corresponding parts of the same viscus. Cancer of the side of the tongue and cancer of the contiguous part of the lining membrane of the cheek had never been recorded, although these two surfaces were continually in contact, and the former

malady was common; nor had anyone seen cancer of the lower lip with cancer of the upper lip, nor of cancer of the lower lid with cancer of the upper lid, except where there had been extension round the corner of the mouth or round the canthus.—Dr. GOODHART had seen many instances where the circumstances suggested transmission by contact. He had seen it in the stomach. He also referred to cases where cancer appeared to be conveyed by particles dropping down from the upper part of the abdomen into the pelvis.—The PRESIDENT thought that a distinction ought to be drawn between cancer transmitted by contact and cancer produced by transmission of elements.—Dr. GOODHART, continuing, said that the distinction drawn by Sir James Paget would materially limit the number of instances which he could cite. He thought, however, that the apparent spread of warts by contact might be quoted in this connection, and referred to certain specimens illustrating the dissemination of warts in the lower animals preserved in the Museum of the Royal College of Surgeons. While admitting the comparative rarity of cases in which cancer appeared to be transmitted by contact, he thought the instances which were occasionally observed were strikingly confirmatory of the theory.—Mr. BRUCE CLARKE thought that in a certain number of cases of vesical cancer the theory of transmission by contact afforded a better explanation of the appearances than any other. The exceptional frequency with which such an occurrence appeared to take place in the bladder might be accounted for by the force with which the walls of the bladder were squeezed together.—Mr. BOWLBY mentioned the case of a woman with epithelioma of the left labium. While under observation, the right labium became affected.—Mr. WALSHAM, who had operated on this case, had seen another precisely similar.—Dr. COUPLAND thought that it was not uncommon to observe carcinoma communicated between the peritoneal coats of adjacent coils of intestine.—Mr. BERNARD PITTS mentioned a case of pedunculated tumour of the bladder in which a growth recurred eighteen months after the pedunculated tumour had been removed. The recurrent tumour was malignant, whereas the pedunculated growth appeared to be innocent.—Mr. SHATTOCK said that it had to be shown that dissemination was not in a radial manner from the primary tumour; on the other hand, he mentioned a case in which Sir William Mac Cormac had excised half the larynx, which was affected by extensive cancerous disease; on the vocal cord on the opposite side was a small discrete growth which had exactly the same microscopic structure as the ulcerating carcinoma of the other side of the larynx; this case seemed almost to prove that transmission by contact could occur.—Mr. FENWICK, in reply, said that seven cases of simultaneous affection of the tongue and the side of the cheek had been recorded, and mentioned several cases in which the opposing walls of the vagina had been affected by the same growth.

Renal Disease.—Dr. NORMAN MOORE exhibited the following specimens of renal disease: (1) Congenital narrowing of both ureters, with dilatation of the kidneys and perinephritic inflammation, due to injury. The patient was a man aged 20, under his care in St. Bartholomew's Hospital. He had received a severe kick in his left inguinal region, and six weeks after noticed a large tumour in the left hypochondrium. This tumour projected close to the left lobe of the liver, and on aspiration three pints of blood-stained urine were drawn off. A fortnight later, the patient one night passed a greatly increased quantity of urine, and the tumour became much smaller, but soon regained its former size, and was tapped three times, about three pints being let out on each occasion. Mr. Walsham then tied a drainage-tube into an opening made by him in the left loin. A few days later suppression of urine took place, and the patient sank. *Post mortem* the cyst, which had been tapped, occupied the whole left side of the abdomen, was adherent to the diaphragm, and most parts of its wall showed very great thickening of the perinephritic tissue. It contained no pus, but about four pints of urine slightly blood-stained. The right kidney was also cystic: the urethra and bladder were natural. Both ureters became narrow just before entering the pelvis of the kidney, and the opening was valvular. There was no hypertrophy of the heart. Microscopic sections of both kidneys showed parenchymatous inflammation, without connective tissue increase, or increase of thickness of arterioles. The dilatation was probably gradual, and due to congenital smallness of the orifice of the ureter. The enormous thickening of the capsule of the right kidney was no doubt due to inflammation caused by the kick on the abdomen. (2) Kidneys, with microscopic sections showing advanced chronic interstitial nephritis, from a man aged 39, who was under Dr.

Moore's case in St. Bartholomew's Hospital. The left ventricle was hypertrophied, the heart weighing 20 ounces. In the right kidney were three rounded calculi. Twenty-three years before his death the patient had retention of urine for three days, relieved by the removal of a calculus from his urethra in St. Bartholomew's Hospital. His health was afterwards weak, and twelve years later he was treated at the Royal Free Hospital for dropsy, due to chronic interstitial nephritis. Eight years later he was treated for the same disease at St. Bartholomew's, and was there under observation for the remaining three years of his life. It was thus certain that he had had interstitial nephritis for eleven years, and probably for twenty-three years, as it seemed in all probability due to the prolonged retention by the calculus in the urethra. Oppolzer records one case of the same duration. —Mr. LENN mentioned the case of a man aged 27, who, when 10 years old, attended University College Hospital for hæmaturia; after death one ureter was found to be blocked, and there was hypertrophy of the heart. —Dr. NORMAN MOORE said that hypertrophy of the heart had never in his experience occurred when one kidney only was damaged.

Acute Necrosis.—Mr. A. Q. SILCOCK showed bones removed from a case of osteo-myelitis; the patient was also present. The disease had apparently started in isolated inflammatory foci situated at the line of junction of the epiphysal cartilages with the diaphyses of the tibia, and terminating in acute necrosis. The patient was a girl, aged 11. Tenderness at the head of the left tibia and tumefaction of the soft part were first noticed; no pus was found on incision, but some appeared on the following day. A few days afterwards pain and tenderness were observed over the right tibia; in both cases a small quantity of pus was evacuated by free incision of the periosteum in the neighbourhood of the epiphysal line. Next the inner malleolus on the right side was affected; here it was subsequently ascertained a small focal abscess, just above the epiphysal line, existed; then the inner malleolus on the left side became affected. Both knee-joints became full of fluid; the right knee-joint had to be laid open, and eventually the right thigh was amputated. Subsequently the whole of the diaphysis of the left tibia was removed piece by piece, but the amount of new bone thrown out, as was anticipated, looking to the severe damage which must have been done to the osteogenetic layer of the periosteum by inflammation so acute, intense, and widespread, was very small. The patient ultimately made a fairly good recovery so far as her general health was concerned. A longitudinal section of the right tibia showed that the inflammatory process was focussed at the upper and lower ends of the diaphysis in the regions which French authors had called juxta-epiphysal, or as Mr. Silcock proposed to term it, para-epiphysal. The symmetry of the bony lesions implied a morbid condition of the blood; a deterioration of quality associated perhaps with a micrococci accompanied by a lowered vitality of the patient. The para-epiphysal regions in long bones, and the sutural edges of the flat bones of the face and skull were peculiarly liable to become affected, probably because the physiological balance was here easily upset by injury or exposure, circulation being slow, and the vitality of the cells of the part easily exhausted. —Mr. SHATTOCK suggested that the disease was due to some accidental circumstance lighting into activity latent pathogenic organisms in the medulla of the bones.

Osteitis Deformans.—Mr. CLITTON described a case which he considered to be an example of osteitis deformans in a woman. At the age of 50, a slight prominence was noticed at the lower end of the right ulna; the right radius, the left humerus, and finally the lower limbs became bent and her head became larger. She had been reduced in height from 5 feet 1 inch to 4 feet 6 inches; the spine was also curved, as well as the femora and tibia.

Card Specimens.—Mr. SHATTOCK: 1. Osseous Ankylosis after Gouty Disease. 2. Gouty Deposit in Bone. —Mr. TRÉVES: 1. Fibro-cellular Tumour of Spermatic Cord. 2. Horny Tumour of Mouse developed from a Dermoid Cyst. —Mr. MANSFELD MOUTLINS: Syphilitic Crania. —Mr. W. S. COLMAN: Diphtheria of Pharynx and Larynx with Acute Inflammation of Peyer's Patches. —Mr. HURPSON: Tubercular Ulceration of Intestine associated with the presence of foreign bodies.

Living Specimens.—Mr. CLITTON: Long-standing New Growth of Skin probably Sarcoma.

A CORRECTION.—In a review of the *Year Book of Treatment for 1888*, published on page 473 in the *JOURNAL* for March 3rd, the name of the author was incorrectly given as Mr. Arthur Cooper. It ought to have been given as Mr. Alfred Cooper.

MEDICAL SOCIETY OF LONDON.

ANNUAL MEETING.

MONDAY, MARCH 5TH, 1888.

J. HUGHLINGS JACKSON, M.D., F.R.S., President, in the Chair.

Election of Officers.—The list of officers and council prepared by the Council for election was unanimously adopted. *President:* Sir William MacCormac, F.R.C.S. *Vice-Presidents:* Thomas Henry Green, M.D.; John Knowsley Thornton, M.D., F.R.C.S.; William Richard Gowers, M.D., F.R.S.; Edmund Owen, M.B., F.R.C.S. *Treasurer:* Arthur Edward Durham. *Librarian:* William Henry Alchin, M.B. *Honorary Secretaries:* Bernard Pitts, F.R.C.S.; Charles Edward Beevor, M.D. *Secretary for Foreign Correspondence:* Felix Semon, M.D. *Council:* Thomas Lauder Brunton, M.D., F.R.S.; J. N. C. Davies-Colley; Clinton Thomas Dent; John Henry Drew; Sir Joseph Fayrer, M.D., F.R.S.; David W. Finlay, M.D.; Francis Fox; William Adams Frost; Walter Baugh Hadden, M.D.; Reginald Harrison; J. Hughlings Jackson, M.D., F.R.S.; Thomas John MacLagan, M.D.; Robert Percy Middlemist; Angel Money, M.D.; Charles D. F. Phillips, M.D.; A. J. MacConnell Routh, M.D.; Seymour Taylor, M.D.; Samuel West, M.D.; John Williams, M.D.; T. Outterson Wood.

Fothergillian Prize.—It was announced that the Fothergillian prize had been awarded to Dr. Haro, of Philadelphia.

Cerebral Abscess in Connection with Otitis Media.—Dr. FERRIER, and Mr. VICTOR HORSLEY read the notes of a case, which is published at page 530. —Dr. HUGHLINGS JACKSON said the result obtained was simply magnificent. —Sir WM. DALBY expressed the satisfaction he felt at the progress which had been effected in the treatment of what were formerly considered to be hopeless cases. He quoted from a previous paper of his own to the effect that an experience of ten years had given a mortality in cases of antral disease of 8 per cent, not all, however, from cerebral abscess. He classified these cases according as the patients developed cerebral symptoms and died, or only showed symptoms after many years. He further subdivided the cases with respect to the presence or absence of diseased bone. The proportion of cases of cerebral abscess was much greater where dead bone was diagnosed. He thought patients ought to be warned to look out for the occurrence of certain threatening symptoms, so that intervention might be in time. —Dr. BRISTOWE called attention to the absence of pyrexia, and observed that this was often the case in cerebral abscess, but that fever was generally present in inflammation of the lateral sinus. He mentioned three cases of patients with old ear disease who had attacks of high temperature and rigors. Nothing was done, but in each case there was no abscess, but inflammation of the lateral sinus. —Mr. JAMES BLACK mentioned several cases of a similar kind. —Dr. KINGSTON FLOWER observed that in several cases at Middlesex Hospital the site of pain had not proved a reliable guide to the seat of the abscess. It was remarkable that no inflammation was found along the line of injury in cases where unsuccessful punctures had been made, and he inferred that exploratory operations were by no means necessarily dangerous. —Dr. FERRIER, in reply, said that the risks of trephining were so small when properly carried out that he would not hesitate to resort to it, even if the diagnosis were not absolutely sure. —Mr. VICTOR HORSLEY, in reply, said he would like to ask whether optic neuritis was to be considered a reliable symptom of threatened abscess? He mentioned a case in which symptoms were present, pointing to cerebellar disease, but in which the disease proved to be in the lateral sinus. He suggested, therefore, that should puncture of the cerebellum prove futile, the lateral sinus should be examined.

On Some Curious Relations of Gastric Ulcer.—Dr. ORD read the notes of the case of an unmarried woman, who was admitted into St. Thomas's Hospital in December, 1887, with symptoms of gastric ulcer and extreme anæmia. After her admission, certain heart symptoms which were noticed on her admission underwent further development. Dr. Ord gave the grounds of his diagnosis of peri- and endocarditis. There was no pyrexia, nor any history of rheumatic fever. The coexistence of symptoms of gastric ulcer with those of peri- and endocarditis had already been noted by Dr. Ord in three cases, and a remark by Dr. Buzzard elsewhere, to the effect that acute rheumatism might be the result of irritation

of the medulla, had deeply impressed him. When, therefore, the coincidence of the signs of gastric ulcer with those of cardiac inflammation had been observed in at least four cases, the occurrence appeared to be worthy of serious thought. Several explanations were forthcoming: 1. Was it possible that in an anæmic person with oversensitive pneumogastric centres, that gastric irritation, well known to be capable of producing cardiac disturbance, could be capable of producing cardiac lesion? 2. Could pneumogastric irritation be the common cause of gastric ulcer and cardiac inflammation, the pneumogastric irritation being determined by excitation proceeding from the uterine organs, in a person already anæmic and prone to active reflex disturbance? 3. Was it possible that both sets of symptoms might be disorders of nutrition arising out of anæmia? Anæmia was known to have as an association optic neuritis; might both the ulcer and the cardiac inflammation be disturbances of nutrition similar to optic neuritis? Dr. Ord quoted a case at present under his care, in which the signs of gastric ulcer, of cardiac inflammation; and of optic neuritis were present in conjunction with extreme anæmia. He also quoted a case recently under his care, in which myocarditis had been observed *post mortem* as one of the associations of pernicious anæmia. On the whole, Dr. Ord was inclined to regard the curious combinations of lesions noticed as disturbances of nutrition consequent on anæmia, and appealed to the Fellows for information on this point.—Dr. MACLAGAN quoted the case of a woman who had a violent attack of hæmatemesis after a dispute, and this was followed by symptoms of endocarditis. In reference to one of the cases alluded to by Dr. Ord, he pointed out that there had been no attack of hæmatemesis prior to the first sign of heart mischief. He suggested that they had yet much to learn on the effect of nervous influence on the venous circulation. He preferred the hypothesis of their being of central origin.—Dr. SIDNEY COUPLAND expressed a doubt of the possibility of making a certain diagnosis of heart mischief in anæmia, and quoted a case in which the error was demonstrated at the necropsy.—Dr. KINGSTON FOWLER alluded to the great difficulty of diagnosing gastric ulcer, and quoted several cases where the *post-mortem* examination had shown the diagnosis to be wrong, even where the symptoms had pointed clearly to ulcer. He doubted also the reliability of the diagnosis of heart disease in anæmia.—Dr. ORD, in reply, acknowledged the difficulties of diagnosis, and discussed the objections thereto. He requested Fellows merely to keep the possible relationship before their eyes.

On a Case Illustrative of the Prognostic Significance of Blood-Pressure on Renal Disease.—Dr. BROADBENT read a paper on this subject.

BRITISH GYNÆCOLOGICAL SOCIETY.

FEBRUARY 8TH AND 22ND, 1888.

ARTHUR W. EDIS, M.D., F.R.C.P., President, in the Chair.

The Diagnosis and Electrical Treatment of Early Extra-uterine Gestation.—Dr. JAMES AVELING read this paper. He said that to the Americans was due the credit of having established the efficacy of the electrical treatment of extra-uterine gestation. Although electricity had been employed as a feticide more than thirty years ago, it received little attention until Dr. J. G. Allen brought a case before the Philadelphia Obstetrical Society in 1872. Numerous cases had since then been published by American gynæcologists. More recently it had been employed in this country; but the method of using it had been erroneous. In one case, three needles of improper metal were inserted, and used with the positive pole of a thirty-celled constant-current battery. The result was that the mother died. Experience proved that a moderate faradic current was sufficient to kill the foetus in early gestation, and the employment of such strong means was quite unnecessary. The brilliant results of the operation for dealing with these cases when death from laceration and hæmorrhage was imminent had blinded some gynæcologists to the necessity of adopting a plan of treatment which would prevent these fatal ruptures. Objections had been raised on the ground that a diagnosis in tubal pregnancy was never called for before the rupture of the tube; that there were no symptoms before rupture was established; that to apply the electric current to every kind of pelvic lump, under the suspicion that it was an extra-uterine pregnancy, would be a most haphazard and dangerous proceeding; that the destruction and death of the child was of no consequence

at all; the organ which could not be destroyed by the electric current, but which would go on growing and would go on bleeding when it was torn, was the placenta: finally, that supposing the foetus had passed through the stage of tubal rupture and remained alive, one had no right to murder the child. All these objections could be easily answered. Any practitioner who met with a case presenting the history and subjective symptoms of ectopic gestation should endeavour to clear up his doubts by making a physical exploration of the pelvic organs. The history of a case of misplaced gestation was of great importance, and should never be overlooked. As a rule, erratic pregnancy was found to occur most frequently during a prolonged sterile period following a first confinement. The patient generally believed herself to be pregnant, and that there was something unusual about her condition. Pain of a peculiar paroxysmal and agonising character was a most reliable guide. The ordinary supervening signs of conception would be noticed. Metrorrhagia also was an important symptom. If in addition to the foregoing symptoms a rounded, elastic, tender tumour was discovered behind or to one side of the uterus, rapidly increasing in size and vascularity, there was no other pelvic tumour with which it could be confounded. The condition and situation of the uterus also gave valuable diagnostic information. As regards treatment, laparotomy after rupture was a necessary and life-saving operation, but the object of all treatment should be to prevent rupture, and thus render the more dangerous operation unnecessary. No one would wait until an aneurysmal sac had burst before using means to arrest its progress. Electricity might be employed with every chance of success during the first four months. No doubt the earlier it was had recourse to the better, a satisfactory diagnosis having been arrived at. There were two theories as to the way in which electricity caused the death of the foetus: one that it was brought about by electrolysis, the other that death was due to nervous shock. He believed that death was due to the tetanic contractions of the foetal mass, resulting from the repeatedly broken current of an induction machine. To be effective the current should be as strong as the patient could bear, not turned on all at once, but gradually increased to that point. It should be continued for at least ten minutes, and repeated every day until the effects upon the tumour became evident. These effects, which confirmed the accuracy of the diagnosis, were cessation of pulsation, diminution of resistance, and reduction in the size of the tumour; and besides these, retrograde changes in the breasts, and retiring of the cervix uteri from the pubes. In a case he had treated a short time since, he had used Gaiffi's induction machine, and employed only half its power. The negative electrode was applied to the most prominent part of the oyst through the vagina (it might be found convenient to pass this through the rectum in some cases). The positive electrode was placed on the abdominal wall opposite the tumour. No pain or inconvenience was felt after the applications. They were only four in number, for, on the fifth day, when about to repeat the faradisation, such marked change in the cyst was apparent that he was convinced gestation had been arrested. This proved to be true, and the patient was now in health, and no trace of the tumour could be felt.—Mr. LAWSON TAIT said that in the single case of tubal pregnancy he had met with before the date of rupture the symptoms had been obscure pelvic pain of several months' standing, in fact the usual symptoms of salpingitis. He saw her again three days subsequently, and her symptoms had become most acute; she was bent double and could hardly walk. Finding the whole floor of the pelvis was fixed in one mass, she was admitted into the hospital, and the next morning he opened the abdomen and found a ruptured tubal pregnancy. He denied it was possible to have diagnosed such a case beforehand, for the woman had not even missed a period. No diagnosis could be depended upon before the date of rupture; one might guess, but it was impossible to affirm. Speaking of the growth of the placenta, he had found instances of a macerated foetus not more than ten or twelve weeks old, while the placenta was the size of a four months' pregnancy. Dr. BERRY HART and Mr. KNOWSLEY THORNTON had confirmed his observations. He could not accept the twenty cases alluded to by Dr. Aveling which "disappeared" after treatment as cases of tubal pregnancy, and disbelieved his own observations, which were supported also by others. Speaking of cases allowed to go on towards term, he believed that all the children and most of the mothers might be saved by proper surgical intervention at the opportune moment.—Dr. INGLIS PARSONS said there was no evidence to show that the placenta would continue to grow when the child

had been killed by electricity. The force that could produce the death of the foetus was not likely to leave the placenta untouched. No subsequent trouble had resulted in the twelve cases mentioned by Dr. Garrigues.—Dr. RUTHERFORD said that before the third month they could not be sure they had to deal with a case of extra-uterine gestation. He thought the faradic current distinctly dangerous, as the muscular coat of the tube was greatly hypertrophied, and therefore the risk of rupture would be increased by the strong contraction. If the current were employed at the fourth or fifth month, when the sounds of the foetal heart could be heard, and if after treatment they ceased, then they would be entitled to claim that the treatment had been so far successful, but Dr. Aveling had spoken of a case at two months, when of course no such proof was available.—Dr. ISLACH said that opinions had advanced much since the year 1872, when he had seen a case at full time allowed to perish for want of surgical interference. He maintained that the same thing happened in a tubal pregnancy as did inside the uterus when the foetus died. As soon as the child died or was killed, the tube endeavoured to discharge its contents, and, as it could not possibly pass into the uterus, the tube was ruptured. If they killed the foetus they were doing the best they could to bring about the very thing they wished to avoid. Let it go on to full term, or until rupture, and then operate at once. Laparotomy could always be performed almost without danger, so that there was really no excuse for killing the foetus. He considered it to be an absurd piece of meddling gynæcology.—Dr. JAPP SINCLAIR said that in three cases, with the details of which he was familiar, there were absolutely no symptoms before rupture; and in two of the cases even after rupture the symptoms were most misleading. He had met with many cases which simulated tubal pregnancy.—Dr. BARNES maintained that the diagnosis of tubal gestation might be made with reasonable certainty even at the seventh or eighth week. The ordinary signs of pregnancy being present, there were two signs that called for special examination. These were, first, pain more or less acute in the pelvic region, of a spasmodic character; secondly, more or less hæmorrhagic discharge from the uterus and vagina. There were signs of abortion—it might be of uterine gestation; but they called for local exploration. The uterus would be found not in the normal median position, but pushed across the pelvic brim to one side; on the opposite would be found an extra-uterine swelling of an ovoid shape. The size of the uterus itself might or might not, most probably did not, equal that of the estimated stage of gestation. If all these conditions had developed in a short period in a subject hitherto free from symptoms of pelvic distress, the case for tubal gestation rose to more than suspicion. If the symptoms were not urgent enough to call for active intervention, an opportunity occurred for making comparative observations. If in a week or two the extra-uterine tumour had increased considerably, and shreds of decidua membrane had been cast with the uterine hæmorrhage, the case for tubal gestation was all but complete. The process of abortion had fairly set in. In the case of uterine abortion we might safely wait, aiding Nature according to her indications. But Nature's course in the case of tubal gestation was to burst the sac, and that might be fatal. At this point rupture might be averted by puncturing the sac, thus relieving tension by drawing off the liquor amnii and any blood that might have been effused into it. This almost certainly involved the death of the foetus, and this treatment with rest was often enough. But it was also the opportunity for galvanism. He had no personal experience of this proceeding, but with the present state of knowledge should prefer simply to tap the sac, and proceed to ulterior measures according to circumstances. Dr. Barnes summed up the question of treatment in the following propositions: 1. The treatment to be adopted must be governed by the nature of the case, by the urgency of the symptoms, and especially by the stage of development of the gestation. 2. In the early stage, before bursting of the sac, electricity to kill the foetus might be applicable; but simple puncture of the sac was better. 3. When signs of rupture of the sac, with manifest signs of hæmorrhagic effusion, shock, and collapse, had set in, no time should be lost before opening the abdomen and tying the pedicle, and, if possible, removing the pregnant tube. If the primary effects of rupture had been tided over, and a fair degree of tolerance had been gained, it might be enough to treat the case as one of simple retro-uterine hæmatocele, by puncturing more or less freely the sac behind the uterus, and leaving in a drainage-tube. This plan had been adopted with success. 4. When the stage of

danger of cataclysmic rupture had passed, laparotomy should be performed as soon as the condition was recognised, not waiting for the maturity of the foetus. 5. Lastly, when in the presence of urgent or threatening symptoms a doubt arose as to the course to pursue, the decision should be, as a rule, in favour of opening the abdomen and going straight to the seat of mischief. It mattered little to the patient, if her life were imperilled by the bursting of an ectopic gestation sac, or by some other condition causing rapid hæmorrhage into the abdomen or pelvis. The same remedy was indicated in different diseases. Precise diagnosis was not necessary to justify laparotomy.—Dr. ROUTH said the uterine *souffle* could be heard as early as the sixth week by means of the vaginoscope. A similar sound was heard in certain cases of fibroid tumour; but it was easy to distinguish the two. A fibroid giving rise to a *souffle* must be much larger than an extra-uterine pregnancy of three months. He approved of puncture of the sac, provided the aspirator was used. In any case, he thought electrolysis unnecessary and most dangerous. It was quite sufficient if the electrodes were placed one within the uterus and the other on the abdomen at the point nearest to the foetal sac. He did not believe in the growth of the placenta after the death of the child. Speaking of ventral pregnancy, if seen at a late period, and viable, no doubt he should operate. But if not viable he would not think it right to wait until it became so, and allow the mother to be sacrificed for the sake of the child. He should think it his duty to destroy the foetus, whether by electricity or puncture, up to three months; after that, remove it by abdominal section.—The PRESIDENT thought the facts before them were not sufficient to warrant a clear expression of opinion. He would not recommend anyone for whom he had a regard, and who was suffering from an ectopic gestation, to be electrified, but would prefer opening the abdomen and removing the mass at once. The cases in which dead foetuses had been left for long periods of time inside the body without giving rise to symptoms were very exceptional, and the electrical treatment might be the means of causing the very mischief they were endeavouring to avoid.—Dr. HENWOOD SMITH remarked that it would be helpful to divide the consideration of treatment into three stages: (1) the pre-rupture stage; (2) the stage of immediate post-rupture; and (3) that which might be called paulo-post-rupture. Inasmuch as hitherto the second stage (that of primary rupture) had usually proved fatal, and would in severe cases continue to do so unless the abdomen were opened and the seat of lesion removed, it stood to reason that whenever the first stage was diagnosed the pregnant tube should be removed, so that the woman should not be exposed to the risk of rupture.—Mr. LAWSON TAIT exhibited a large collection of specimens, illustrating every variety of ectopic gestation, from the museums of St. Thomas's, Guy's, Queen's College, and the Royal College of Surgeons. In the event of meeting a case of ectopic pregnancy, before rupture had taken place he would prefer to remove it, for several reasons. First of all he would not have been called in if the patient were not ill, and the urgency of the symptoms would justify the treatment. For one case they could diagnose, fifty would escape recognition. Further, if electrolysis were successful a useless organ was left with the risk of subsequent pyosalpinx. The growth of the placenta after the death of the foetus was evidenced by his specimens. In the later stages of the ventral pregnancy he would leave the foetus as long as he could, so as to give it the best chance of living, the more so as the mother's life was not thereby imperilled. His opinions regarding the removal of the placenta had been gradually changing, because experience had taught him that its removal was easier than he had once thought.—Dr. FANCOURT BARNES, Dr. BEDFORD FENWICK, and others, took part in the discussion.—Dr. AVELING replied.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 28th.

R. THORNE THORNE, M.B., F.R.C.P., President, in the Chair.

Yellow Fever.—Dr. DONOVAN, of Malta, read a paper, giving a summary of Professor Freire's work on the microbial doctrine of yellow fever and its preventive inoculations. In this work the isolation and growth of a particulate germ, called by the discoverer the "cryptococcus xanthogenicus," was described at some length. The mode of its attenuation was also fully given, as well as an account of its inoculation into human beings at Rio Janeiro, with a view to prevention of yellow fever. Some statistics were given on the latter point. A detailed account was also given of

the examination of the earth of cemeteries containing yellow fever corpses, and the discovery of the same microbe as was found in the fluids and tissues of yellow fever patients. Cremation of the dead was strongly advocated.

Some Specific Febrile Diseases of Malarious Origin, and on the Necessity of the Existence of Germs for their Production.—Inspector-General DONNET treated of the specific nature of the various malarious diseases, and gave a full description of the etiology, behaviour, and geographical distribution of yellow fever. Malarious diseases were spoken of as choosing the deltas of large rivers as their especial *habitat*. Thus, the plague was generated in the delta of the Nile, cholera in the sunderbunds of the Ganges, and yellow fever in the deltas of the Mississippi and the Orinoco. Yellow fever was not known in Europe before the discovery of America by Christopher Columbus, no well-authenticated instance of its invasion having occurred prior to the Lisbon epidemic in 1723, which was imported there from the marshy shores of the American continent. The zone of yellow fever commenced at Georgetown in South Carolina, swept round the southern shores of North America and the eastern shores of Mexico and Central America, and terminated at Georgetown in Demerara, being contained between latitudes 33° and 6° north. The factors necessary for the development of yellow fever were: (1) importation; (2) a temperature above 70° F.; (3) a suitable soil; and (4) an appropriate pabulum. Cold had a remarkable power of arresting it; thus ships from the West Indies were ordered to Halifax. Reference was made to the preference of yellow fever for white races and for newcomers, and also its greater proneness to attack the young and vigorous. The latter peculiarity was so marked that physicians in former days used to recommend people visiting the tropics to adopt such a regimen as would ensure a lowered vitality of their system. A useful table, embodying the characteristic distinctions between yellow and remittent fever, was appended to the paper.—In the discussion which ensued, the PRESIDENT, Inspector-General LAWSON, Deputy Inspector-General LLOYD, Dr. WILLOUGHBY, Surgeon-Major PRINGLE, and Surgeon-General MANIFOLD took part.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

FRIDAY, FEBRUARY 17TH, 1888.

Mr. WILLIAM FRAZER, and subsequently Dr. C. B. BALL, the President, in the Chair.

Hydatid Cyst of the Deltoid Muscle.—The PRESIDENT (Dr. C. B. Ball) communicated a case. The patient, a housemaid, sought advice for a tumour on the outer side of the right arm. It had commenced three years previously as a small nodule, which afterwards gradually enlarged. There was fluctuation, but it was not distinct. The nature of the tumour was not diagnosed previous to the operation, and it was determined to explore it by an incision. On opening it six ounces of thin pus escaped, and a cyst was found about the size of a large grape. It was enucleated and the capsule removed, and the wound healed under a single anti-septic dressing. At the commencement of the process of removing the capsule the impression was that it was a parent cyst, and that the other was a daughter cyst; but after dissection it became manifest that this was not the case, and that the capsule enclosed a worm. The extirpation of the capsule was completed, and the cavity closed by deep sutures. No further suppuration took place. No traces of hooklets or smaller cysts were found. Projecting into the interior of the sac was what might have been either a brood capsule or the retracted head of a cystoid worm. The whole tumour, when recent, was about the size of a small orange.—The case was discussed by Mr. SCOTT, the CHAIRMAN, and Dr. FINNY.—The PRESIDENT, in reply, said two forms of bladder worm were tolerably frequent in the human subject. One was the cystic form of the *tænia echinococcus*, and the other was the *cysticercus cellulosus*, which was the first stage in the development of the *tænia solium*. In Germany, where the *tænia solium* was of frequent occurrence in the human subject, the *cysticercus cellulosus* was also considerably frequent. In this country the *tænia solium* was almost unknown. Dr. FOOT and Dr. LITTLE had been unable to find a single specimen of it in the museum. What was the nature of the cystic worm now before the Section? Now from the existence of one retracted head, the absence of daughter cysts, and the fact that the retracted head had four suckers and a number of hooklets, they could not but conclude that it was *cysticercus cellulosus*.

Rupture of the Trachea, with Fracture of the Sternum and Rib.—Dr. E. H. BENNETT exhibited an example of complete transverse rupture of the trachea, and of fracture of the sternum, taken from the body of a man who had been killed by being crushed between a hoist, used in raising coal, and a wall. There was no external wound, but blood had poured from the mouth. The trachea was found ruptured transversely, and the fragments were separated by an interval of one inch. The œsophagus was bruised, but not torn; much blood was shed in the tissues around the trachea and œsophagus, but none of the great arteries or veins were torn. The fracture of the sternum was very oblique from above, and in front downwards and backwards; its upper border passed between the cartilages of the second ribs, while its mediastinal margin was placed below the level of the third pair of ribs. The second and third ribs on both borders were also broken, and on the right the fourth and fifth also.—The PRESIDENT said the principal feature in this fracture was its extreme obliquity. The only fracture of the sternum he ever saw was a directly transverse one.

Ulcerative Endocarditis.—Dr. JAMES LITTLE submitted the following case of ulcerative endocarditis. The specimen was from a silk weaver, aged 32, who had recently returned to this country after having spent a year in New York. Upon his admission it was evident that he was suffering from aortic valve disease. His mental state was rather peculiar. When he came in he was in such a state that he was barely able to leave his bed, yet he spoke of getting up and going back to America; and during the whole period of his illness it was impossible to get him to explain much about his symptoms, or what it was that distressed him. When asked whether he suffered pain or felt ill, he drifted off into growling complaints of the food that he got, or of his treatment in other respects. His pulse at his admission was about 100, but during the two months that he survived it increased, and a few days before his death had reached 130. His temperature fluctuated a good deal, but was always above the normal, varying from 101° to 103°. His urine was very highly coloured, turbid from urates, and of a high specific gravity—1030. At first it did not contain any albumen, but during the last three or four weeks of his life was highly albuminous. On *post-mortem* examination the spleen was found to be very much enlarged, and in its centre was a considerable-sized abscess, from which, when opened, two or three ounces of chocolate-coloured fluid flowed. There was also a small abscess in the upper end of it. The right cavities of the heart were empty. The whole heart was rather bigger than it should be—the enlargement being due to thickening of the walls, and some increase in the size of the cavity of the left ventricle. The aortic valve, on being tested, was found to be quite incompetent; a stream of water flowed through it. On opening it all the valvules were found to be more or less puckered and thickened. The first portion of the aorta did not present, on the surface, any distinct indication of change; on cutting it across, the coats were found to be much thickened. The most characteristic appearance was on the anterior curtain of the mitral valve—a patch nearly as large as a florin, distinctly ulcerated, and covered with luxuriant vegetation. Some of this vegetation, and also vegetation from the kidneys and spleen, had been microscopically examined by Dr. BEWLEY. It left no doubt that the disease was, as he had guessed during the patient's life, ulcerative endocarditis. Though this was a rare affection, it was not so rare as was generally supposed. He could recollect several cases which went to a fatal termination, uninfluenced by care or drugs, and which were not understood at the time, and which he now believed were cases of this septic malignant ulcerative endocarditis.—Dr. BEWLEY said the vegetation was composed partly of fibrin. The portions which appeared blue under the microscope disclosed an enormous number of micrococci. On the anterior wall of the left ventricle, below the aortic valve, there was a small amount of vegetation, in which also there were micro-organisms. There was a considerable number of micro-organisms in the small infarcts of the spleen, and there were also thrombi in some of the splenic arteries.—The PRESIDENT and Dr. WRIGHT made some remarks, and Dr. LITTLE replied.

Intra-uterine Amputations.—Dr. E. H. BENNETT read an account of a dissection of the stumps obtained in a case of intra-uterine amputations of the fingers and toes. The point of chief interest seen in contrasting the specimen with an ordinary surgical stump of finger amputation was the absence of neuromata on the ends of the nerves in the intra-uterine as compared with large and well-defined tumours in the surgical stump. All the intra-uterine amputations had been disarticulations, and each preserved

almost a complete joint between the extremities of the bones and the soft structures of the ends of the stumps. The anatomical changes in the circular grooves of the digits where amputations had not been completed, and the condition of the several muscles, etc., of the limbs involved, was described.—The President asked were the nerves of the extremity of normal size up to the amputation, or did they exhibit signs of atrophy?—Mr. FRAZER remarked that in all cases of this sort there was generally a history from the mother of some fright or start.—Dr. BENNETT, in reply, said there was no sign of arrested development in the specimens now before the Section. It was simply a case of removal by something twisted round the part, the nerve-cords being perfect down to the line of amputation without any defect of structure. The muscles of the forearm, though small, were perfectly normal both at the back and front; and the nerve fibres maintained their character as such up to the scar tissue, where they ceased to be nerve fibres at all.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MARCH 2ND, 1888.

C. B. KEETLEY, F.R.C.S., President, in the Chair.

AFTER the minutes were read, the PRESIDENT announced that Sir William Stokes, Professor of Surgery, Royal College of Surgeons, Dublin, would deliver the "Cavendish" Lecture in June.

[[The formation of a library was announced, and members were invited to contribute.

Massage.—Dr. ECCLES gave a demonstration of the various manipulations in massage.

Sarcoma of Vertebra.—Mr. J. ROCHE LYNCH exhibited a specimen of alveolar sarcoma of the vertebra, taken from a lady, one of three sisters, who all died within twelve months of malignant disease. In two the growths commenced in the mamma. In this case the symptoms were persistent lumbago, followed by rigidity of the spine, and a week previous to death right unilateral convulsions. The duration of the disease was eight months. On post-mortem examination the vertebral bodies, from the sixth dorsal to the sacral, were impregnated with the growth—only a thin shell of compact bone remaining at the margin. There was a considerable amount of fluid, but no secondary deposit in the brain. The liver showed numerous patches. The microscopic examination of the growth indicated alveolar sarcoma.

Oophorectomy for Uterine Fibroid.—Mr. JOHN R. LUNN read a paper on a successful case of oophorectomy for a bleeding fibroid of the uterus. On opening the peritoneum the left ovary and uterus presented. Several small fibroids were seen springing from the fundus. The left ovary was cystic, and as large as an orange. It was pulled out of the abdomen and ligatured, with the fimbriated extremity of the tube, with carbolised China silk (previously boiled for twenty-four hours). The abdominal opening was then enlarged, and the right ovary searched for. It was behind the uterus, and very adherent to the surrounding tissues. It was carefully torn away, ligatured, and removed, the uterus being previously pulled out of the abdomen. The uterus was well washed with carbolic lotion, and returned; the pelvic cavity was well irrigated, and slightly sponged. The abdominal incision was then closed with carbolised silk, and dressed with iodoform and dry iod. lint. Recovery was complete, and five months and a half after operation the uterus only reached midway between the pubis and umbilicus, and the patient had gained 20 lbs. in weight.

Electricity in the Treatment of Uterine Fibroids.—Dr. INGLIS PARSONS read a paper on the Application of Electricity to Uterine Fibromata. He did not find it necessary to use clay for the external electrode; a large concave metal plate, lead or copper, placed on a damp linen pad so as to cover the abdomen was sufficient. Currents up to 300 milliampères could be passed in this way. It was necessary to see that the pad was smooth and in contact all over with the skin. A new electrode for intra-uterine use was also described. A case was related in which, after two applications of the current, all hæmorrhage ceased. Six applications were made in all; from 100 to 300 milliampères. She was quite free from symptoms for three months, until February 20th, 1888, when slight hæmorrhage again came on.—The President congratulated Mr. Lunn upon his skilful operation, and referred to the warmth of feeling often exhibited in discussions upon the therapeutic uses of electricity.—Mr. ALBAN DORAN considered that almost any treatment would decrease a fibroid. Formerly the action of ergotin, subcutaneously administered or otherwise,

had been much lauded, and similarly with other methods. He doubted whether the diminution of the growth by means of electrolysis would be permanent. Most of the cases thus treated had not yet been sufficiently long under observation.—Mr. KNOWSLEY THORNTON thought we should wait before accepting Mr. Keith's views on the matter. There were rumours of some cases having ended fatally—he himself knew of one. Certain uterine growths disappeared after oophorectomy; he considered, however, that it should not be practised when the uterine fibromata were larger than a coconut. The rapidity of disappearance of small or soft myomata after removal of the ovaries was extraordinary. He had operated on twenty-eight cases and lost two. Of the others all but one had been completely successful, the uteri being left in the senile condition.—Dr. GRAILY HEWITT agreed with Mr. Thornton in his remarks regarding electrolysis: we really knew as yet very little about it. He could conceive danger when the tumour was punctured in the process, otherwise he thought the method would be harmless, and that it might be tried in certain cases.—Dr. LEWERS considered that if electrolysis were a remedy of such power in interstitial fibroids, it should be efficacious in the removal of polypi. The value of the method could thus be tested by direct evidence, for there was often doubt as to the presence of an interstitial fibroid.—Dr. ALDERSON believed in spontaneous cure. He asked whether some of the cases did not die of exhaustive diseases such as pernicious anemia.—Dr. TRAVERS thought that electrolysis should be given a fair trial. If there really had been fatal cases it was likely that we should have heard more about them than mere rumours.—Mr. LUNN, in replying, said he considered that unsuccessful cases should be more frequently published.—Dr. PARSONS also replied.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, FEBRUARY 15TH, 1888.

JOHN URQUHART, M.D., in the Chair.

Cerebral Lesion in a Child.—Dr. MACGREGOR showed a girl, aged 8 years, with paralysis of the left side of the face and the left upper extremity. There was optic neuritis in both eyes, most marked in the right, where also there were several retinal hæmorrhages. The heart seemed normal; the liver and spleen were both enlarged, and, with the exception of a small quantity of pus, the urine was normal.

Congenital Heart-disease in Children.—Dr. EDMOND showed two cases of this condition, occurring in children of 12 and 4 years of age respectively. In both there was well-marked cyanosis. In one case a systolic bruit was heard over the pulmonary area, in the other a systolic bruit over the apex. In the elder child there had been frequent attacks of hæmoptysis. Dyspnoea was marked in both cases.

Case of Pyloric Stenosis, with Hypertrophy of the Walls of the Stomach.—Dr. BLAIKIE SMITH read notes of an interesting case of this nature. The patient was a man, aged 57, who for eleven months previous to his coming under observation had suffered from dyspeptic symptoms with vomiting, coming on at irregular intervals after taking food. When first examined the epigastrium was a little tender and slightly prominent, and the spleen was enlarged, but latterly there was distinct evidence of bulging, pulsation, and dullness on percussion over a small area just below the left costal margin, in the mammary line. Obstructive jaundice soon made its appearance, and about this time the vomiting became more periodical, resulting in the evacuation of a pint or two of grumous-looking material, presenting no obvious signs of fermentation. The ordinary signs of pyloric stenosis were absent, the stomach did not become dilated, and hæmatemesis never occurred. Death resulted from the persistent vomiting, and from the unrelieved jaundice. The diagnosis arrived at was malignant disease of the pylorus, with secondary invasion of the liver, and at the post-mortem examination the pyloric orifice was found constricted by cancer, and the gastric walls were much thickened by muscular hypertrophy. The liver was the seat of a small cancerous nodule, which completely obstructed the common bile-duct. Dr. Blaikie Smith considered that the thickening of the walls of the stomach had given rise to the epigastric fulness, and the physical signs in the left hypochondrium noted during life, but he was of opinion that the hypertrophy was not analogous to that seen in the urinary bladder in cases of urethral stricture, ascribing it rather to the existence of chronic gastritis, a condition so frequently present in cancerous degenerations of the stomach wherever they were situated.

SOUTH INDIAN BRANCH (MADRAS).

FRIDAY, OCTOBER 7TH, 1887.

Surgeon-General BIDIE, C.I.E., President, in the Chair.

Varicose Veins of Scalp and Eyelid.—Surgeon-Major E. F. DRAKE-BROCKMAN described a case of a Hindu, aged 25, who presented a puffy swelling occupying the whole of the right upper eyelid, except a small portion near the inner canthus; it was said to be of three years standing; it could be emptied by pressure, and was apparently continuous above with a sacculated and greatly enlarged vein, which coursed over the forehead and head in an upward direction between the parietal eminence and the sagittal suture on the right side. The margin of the lid at the most dependent part of the tumour presented a purplish coloured excrescence consisting of congeries of blood-vessels, and the same condition, in a most exaggerated degree, was to be noticed in the inner surface of the eyelid when everted, bearing a strong resemblance to the choroidal plexuses in the ventricles of the brain. The weight of the tumour, which was of the size of a gooseberry, caused the lid to droop, giving rise to a certain amount of ptosis. Vision was unimpaired, and an ophthalmic examination showed that there was no abnormal distribution of the blood-vessels in the fundus. When in the recumbent position, with the head turned to the right side, the diseased vessels became enormously distended; no *bruit* nor pulsation could be heard or felt. The bone beneath the dilated vessels appeared to have been extensively eroded. The veins of the neck did not exhibit any enlargement, and the arteries were free from any visible pulsation. No abnormal sounds attended or replaced those of the heart. Soon after assuming the erect position the swelling diminished materially, and the upper lid could be partially elevated by the patient. Pressure brought to bear upon the external and internal jugular veins, in the erect position, did not materially influence the size of the blood-vessels. The large superficial blood-vessels were in connection with the great venous sinuses within the cranium, into which the blood could be emptied without causing any unpleasant symptoms in the brain. Interrupted pressure by means of a series of pads along the course of the chief venous channel, fixed in position by means of strapping, was employed for some days, and had the effect of keeping the varicosities from filling, but produced no permanent improvement. Mr. Drake-Brockman thought the case was unique, and referred among the points to the disproportion between the actual œvoid growth of the upper lid and the size of the venous blood channels which were in connection with it; the important anastomosis which seemed to have been established between the venous distribution within and on the outer surface of the skull; the entire absence of all symptoms when the blood, which distended the superficial vessels, was forced by manipulation within the cranial cavities at the situation of the posterior fontanelle; the erosive action which had been exerted on the calvaria by the distended soft blood-vessels.—Brigade-Surgeon SIBTHORPE mentioned a case of a European who had a large nevus occupying the greater portion of one side of the face; several abscesses formed in this, and a cure (spontaneous) was to a certain extent effected as the nevus decreased in size with hardening of the surrounding tissues.

Cystic Orbital Tumour.—Surgeon-Major DRAKE-BROCKMAN also read the notes of a case of cystic tumour of the orbit observed in a Hindu woman, aged 30. The tumour was only noticed for six months before she came under treatment; it had then attained the size of a large orange; the skin of the eyelid and of the side of the face was thickened, and the glands at the angle of the jaw were enlarged, probably owing to irritative treatment by native practitioners. About two ounces of clear, alkaline fluid, of specific gravity 1006 was drawn off by a grooved needle, permitted of the elevation of the upper lid by means of a speculum, and the eyeball was discovered lying to the lower and deeper part of the orbital cavity. The patient was able to see with the organ, but had no power to move the eyeball in any desired direction; pressure was applied, and the tumour refilled in three days. A week later it was tapped again; pressure was applied, and produced an ulcer which gave way under manipulation; about two ounces of sero-purulent fluid were evacuated, and the cyst was exposed entire. The cavity thus left extended far back into the orbital cavity. The case eventually did well, and regained to a considerable extent the movements of the eyeball, but there was complete ptosis, which it was feared would be permanent, owing to atrophy of the levator palpebræ.

Radical Cure of Hydrocele.—A paper on the radical cure of

hydrocele by the injection of carbolic acid was contributed by Surgeon W. B. BROWNING. He had used castor oil for protecting the skin of the perineum and serotum. The fluid used for injection was pure carbolic acid, as in India a sufficient quantity could always be found fluid in the bottle; he had found that as much as two drachms was generally necessary; in the cases he had treated the hydroceles were old and large, and in one case he had used three drachms. No symptoms of carbolic acid poisoning had ever been noticed, and the local pain was less than when iodine was used. Reaccumulation was noticed in several cases shortly after the operation, but disappeared in all the cases but one. In this, on the twenty-eighth day, four ounces of dark coloured fluid were drawn off, and when seen three months later the fluid had not again accumulated.

Pseudo-hypertrophic Paralysis.—Brigade-Surgeon A. PORTER exhibited an East Indian lad suffering from well-marked pseudo-hypertrophic paralysis. The patient was a Eurasian, aged 14. He had had dengue fever when four months old, did not begin to crawl till after two years old, did not walk till over three years old, could never run, pick up anything off the ground, or go up steps. His calves had been noticed to grow large, and after the age of 12 he had been unable to attend school, owing to difficulty in walking. There was no history of any neuroses in the family: the three elder children of the family were all healthy; one younger child died in infancy. His condition when he came under treatment was fully described, and was quite typical of the disease.

False Joint of Humerus treated by Wiring.—Brigade-Surgeon C. SIBTHORPE related the case of a strong, muscular Tamil coolie, aged 28, who sustained a compound comminuted fracture of the upper third of the left humerus. The protruding portions of bone were sawn off, the fracture was then set, and the arm placed on a Stromeyer's cushion; the wound was treated by the Listerian method. No union took place, owing to the bones being too far apart; the two ends of the bone were exposed and wired together; the wires were removed two months later. The patient was shown to the meeting. The bone was strong, but there was some atrophy of the muscles from disuse, and the hand and fingers were stiff; these, however, were improving under the use of electricity and shampooing. The left arm was only one inch shorter than the right.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MARCH 2ND, 1888.

Dr. BELL in the Chair.

Simple Perforating Ulcer of Septum Nasi.—Mr. JESSOP described four cases. The first, a lady aged 44, applied on account of a whistling sound produced in her nose on breathing, and slight itching. There was some ulceration round the perforation, with dried blood on the surface. The sore healed under the use of strong nitric acid, followed by scraping, leaving an aperture which would admit a cedar pencil. The second case occurred in a married woman aged 30. The aperture was at the anterior edge of the septum, of a year's quiet growth, and the edge was ulcerated only posteriorly. The third was in a man aged 30. The aperture was of the size of a threepenny piece, and the edges were covered with crusts, which he used to remove with his finger. The sore improved under the use of nitric acid. The fourth case occurred in a lady aged 34, who applied to him in March, 1865. She had been married ten years without family, and her uterus was ante-flexed, with a copious discharge. In September, 1866, the sight of one eye (the other having been previously lost) began to fail, for which spectacles were given; and in April, 1887, she complained of redness of the ala nasi. In August an examination in consequence of nasal irritation revealed a perforation of the septum, which improved under local treatment. Her husband thought he had had syphilis three years before marriage, but had had no secondary symptoms. This was the only case in which there could be the faintest suspicion of a syphilitic history. Mr. Jessop referred to Mr. Jonathan Hutchinson's paper describing this condition, with its description of a number of cases; and he commented on the slow course of the ulcer, its uniform character, and the absence of fœtor or discharge. It seemed to be a condition affecting middle life, and answered well to local treatment, anti-syphilitic remedies being useless.—Mr. LODGE showed a patient suffering from a perforation of the septum nasi extending some distance back towards the posterior nares, which he thought was

probably congenital.—Dr. CHURTON referred to Mr. Hutchinson's cases of a peculiar ulceration of the tongue curable by opium, and suggested a trial of that drug for non-syphilitic nasal ulcers. He mentioned a case under his own care of lingual ulcer in a gentleman aged 72, cured by opium after Hutchinson's method.—Dr. JACOB referred to lupus and certain acute diseases, as typhoid, rheumatism, as recorded causes of perforation of the septum other than syphilitic.—Dr. BARRS described a case which had been under his care with anomalous nervous symptoms, in which there eventually supervened a condition of progressive ulceration of the nose, with atrophy and disappearance of the bones, but without discharge or fœtor. He thought it was neither lupus, rodent ulcer, nor syphilis.—Dr. A. BROSMER referred to the researches of Zuckerkandl, who found, out of 180 necropsies, the septum perforated in eight. Three of these had the aperture covered by a thin skin. He thought perforation might be the result of nasal catarrh, with scabbing so common in children.

The Treatment of Urethral Stricture by Rapid Dilatation.—Mr. MAYO ROBSON remarked that the rapid dilatation of stricture by means of Lister's graduated metal bougies—either used immediately, dilating at once up to No. 13 or 14, or, if the smallest metal instrument could not be passed, employing the same method after a fine filiform bougie had been left in for forty-eight hours—was in his experience a safe and efficient method of treatment. In some cases he had injected a solution of cocaine into the urethra before dilating, but in only one instance had he employed a general anæsthetic. In two cases of extreme distension of the bladder, where no instrument could be passed, the bladder had been aspirated several times, and then it had been possible to pass a fine bougie and to dilate. Mr. Robson related selections from fifty difficult cases thus treated, and remarked that if this method were adopted, cutting operations would be required but very occasionally—that is, internal urethrotomy in very resistant strictures, and external in cases of extensive fistulæ or abscess or extravasation. He always advised his patients to pass a No. 9 or 10 elastic bougie once a week. He had treated many other cases than those related, but had never seen any serious symptoms to follow.—Mr. R. ATKINSON, Dr. SWANN, Mr. LITTLEWOOD, Mr. JESSOP, Mr. MAYO, and Dr. ALLAN made some remarks.

Nitrate of Silver in Erysipelas.—Dr. ALLAN recommended a saturated solution of silver nitrate in spirit of nitrous ether as an application. He had found this use also in cases of threatened bedsores.—Mr. LITTLEWOOD thought cases of erysipelas required merely to be kept warm.—Mr. JESSOP referred to the use of iodine, and of iron as external applications. The latter use he thought originated in the Leeds Infirmary, where many years ago a thoracic aneurysm, under the care of Dr. Hardwick, was treated by the external application of perchloride of iron. At the necropsy the solution was found to have penetrated the tissues very deeply, and where it had penetrated through the wall of the aneurysm there was a clot formed, and there only.

Case of Variola coincident (?) with Typhoid.—Dr. PURYX was called to a case which, with a history of three weeks' ailing, had all the characters of enteric fever, with rose spots on the abdomen, increased splenic dulness, temperature 102°, and characteristic "pea-soup" stools. The temperature rose, and was 104° on the fourth day afterwards. On the fifth day a copious confluent small-pox rash appeared. The patient was removed to the hospital, where he died. There was absolutely no preliminary symptom of small-pox.—Mr. GODFREY CARTER related a case of small-pox where the patient had worked up to the eighth day. Though there were only two or three pustules and neither pulse nor temperature exceeded 100. On recovery the patient was extremely weak.—Dr. CHADWICK had seen the case of a child who had the typical appearance of typhoid fever, but three days later three pustules appeared, and the case turned out to be small-pox. In another case the symptoms and rash were those of scarlet fever, and the child was taken to the Fever Hospital, but the next day had to be removed to the small-pox ward.

A NEW journal, entitled the *Revue Illustré de Polytechnique Médicale et de Chirurgie Orthopédique* has just appeared. This journal, edited by M. Albert Leblond, physician to St. Lazare, and editor of the *Annales de Gynécologie*, and by M. R. Chenet, will give descriptions, with plates, of all the newest instruments and scientific inventions. A German edition will be published in Switzerland, simultaneously with the French edition in Paris.

REVIEWS AND NOTICES.

PRACTICAL MANUAL OF DISEASES OF WOMEN AND UTERINE THERAPEUTICS. By H. MACNAUGHTON JONES, M.D., M.Ch., etc., Examiner in Midwifery and Diseases of Women and Children in the Royal University, etc. Third Edition. London: Baillière, Tindall, and Cox. 1888.

THE vacillations which are continually manifesting themselves in the science and practice of gynecology—sometimes merely changes, at other times real advances—render it necessary for writers on this subject to keep well up to date. This work is intended more particularly for the use of students, and therefore purely controversial matter is intentionally excluded as far as possible; but, as examiners sometimes require their victims to be posted in the most recent methods of treatment, the author has had to embody a few of these in his work, even though their value has still to be demonstrated.

The manual is essentially practical; it is profusely illustrated with woodcuts of instruments and appliances, together with others showing the various positions for examination. There are some excellent coloured plates of the retina, to aid in the differential diagnosis of Bright's disease in women, and of microscopical sections to assist in the identification of cancerous growths of the uterus, etc. Except perhaps in his abuse of pessaries, the author has sought to avoid too didactic a tone, especially in the matter of treatment. The information given is in many cases evidently designed to satisfy examination requirements rather than those of practice. We refer, *inter alia*, to the treatment of uterine fibroids by iodide of potassium, mercury, etc. It may be remarked that Dr. JONES uses the word *spaying*, notwithstanding the strongly expressed objections of certain of his fellow gynecologists; but students would do wisely to have a care in their use of it in the examination room elsewhere than at the Royal University of Ireland. We are unable, even after a diligent search, to find any mention of the etiology, description, and treatment of extra-uterine pregnancy. Surely this should be comprised in a treatise on the diseases of women, which is made to include such a disease as nephritis. The author, as a matter of fact, gives a large amount of information about subjects not usually found in textbooks on the diseases of women. He speaks highly of the value of massage in gynecological practice, and gives the necessary indications as to when and how to *massé* (?). The book is certainly a valuable one, and fulfils the purpose for which it was written. The style is clear and unembarrassed.

VACCINATION VINDICATED. By JOHN C. McVAIL, M.D. Cassell and Co.

THE author tells us in the preface that this book was "begun merely as a reply to Mr. Alfred Russell Wallace's monograph on *Small-pox Statistics and Vaccination*, and has developed into a commentary, more or less complete, on much of the anti-vaccination literature of the day; and we have no hesitation in saying that it is the most masterly exposure of the method of argument used by the anti-vaccinationists which has appeared since the Royal Commission of 1871.

At the commencement of the volume Dr. McVAIL shows how the statistics of the four years 1843-46 are made use of by the anti-vaccinationists by first admitting an epidemic of small-pox in 1844, and then denying it, just as it happens to suit them; and he also shows how Mr. Wallace sometimes places unlimited faith in the statistics of the last century, and at other times denies their trustworthiness altogether. Further on Dr. McVAIL quotes Mr. Wallace, that the Registrar-General's statistics are "imperfect and unreliable," and then shows how he uses these very statistics to try and prove his first, second, and fourth propositions. He also explains how Mr. Wallace has manipulated a chart illustrating the amount of small-pox mortality at different periods, by compressing it from above downwards, and thereby concealing the decrease in the small-pox mortality since vaccination has been practised. Comparing the mortality from small-pox at different age-periods (which by the bye Mr. Wallace absolutely ignores), the author proves how, coincidentally with the extension of vaccination, there has been a gradual decline in the mortality at all ages; and that this decline, as shown by a table, is most marked among children under 5 years of age, in which class the small-pox death-rate has fallen no less than 80 per cent. (per million living) between the

years 1847 and 1880, while after the age of 10 years the mortality increases as age advances.

This alteration in the mortality at different age-periods does not hold good for other diseases, and can only be explained by vaccination, and not, as the anti-vaccinationists maintain, by improved sanitary conditions; for we are told that "while the small-pox death-rate fell 80 per cent. in children under 5 years, other diseases fell only 6 per cent.; and while the small-pox mortality in persons over 45 years increased 164 per cent., the mortality from other diseases fell 3 per cent. He then quotes from his well-known Kilmarnock statistics to show how, in the prevaccination periods, small-pox was accountable for 91 out of every 100 deaths under 5 years of age. When dealing with the diminution of typhus and enteric fevers as compared with small-pox, he very pertinently asks why, if sanitary agencies reduced other diseases, they did not reduce small-pox.

In dealing with Marson's celebrated tables relating to the ratio of protection afforded by the number and quality of the vaccine cicatrices, he shows that during the years 1871-7 the better vaccinated parts of the community supplied less than one-thirteenth part of the cases to the Homerton Hospital, while the worse vaccinated and unvaccinated minority supplied twelve times as many.

As regards the question of the increase in the fatality of unmodified small-pox, Dr. McVail compares the hospital mortality at different periods, beginning with 1746, and shows how it has increased in that year from 25 per cent. of those attacked to 43.2 per cent. in our own time. In exceptional cases such as Dublin, in 1876-81, it reached 64 per cent.; in Montreal, 54 per cent.; and in Boston, 50 per cent. At the same time, a slight rise in mortality has also taken place among the vaccinated, showing either that the disease has increased in virulence, or that the present generation is more susceptible.

The chapter on the mitigation of small-pox by vaccination will give the reader a partial insight into the laborious work of attempting to verify the statements of anti-vaccinationists, and in tracing their statistics through the hands of various manipulators to their original sources.

As a fair example of such manipulations, we quote a paragraph from the author: "We thus see that just as Mr. Wallace's 18 per cent. rate for last century was obtained by lumping together hospital and non-hospital mortalities, so his 18 per cent. rate for the present century is got by lumping together the vaccinated and unvaccinated mortalities."

Referring to the vaccination of the criminal and nomad class, Dr. McVail quotes from Dr. Buchanan's 14th annual report to the Local Government Board, showing that the poorer classes, from which criminals and nomads are mainly recruited, are, owing to the superiority of public over private vaccination, more perfectly protected from small-pox than their betters in social position.

The whole volume is replete with such trenchant arguments, and is so ably written, that it cannot fail to find a place in the library of everyone interested in the vaccination question. Moreover, it is not a book to be read once and then laid aside, but from its very character it must rank as a classical essay on the subject.

Dr. McVail clearly proves the necessity for his rule of procedure, which is to believe no single word that an anti-vaccinator, as such, says, without obtaining independent evidence of its truth.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY.

Vol. XII. For the year 1887. New York: D. Appleton and Company.

This volume commences with the annual address, delivered by the President, Dr. Skene, of Brooklyn. He concludes by observing: "Should fate determine that this board of medicine shall have its rise, decline, and fall, like many of the nations and their works in the past, I predict that when the men of the future come to explore the ruins of the once mighty Gotham, while they may find in the débris modifications of Sims's speculum, and quaint and curious uterine supporters, and many musty jars with human ovaries and tubes, they will find also the works of great masters and their monuments in perfect preservation, including the *Transactions of the American Gynecological Society*, and especially the volume of 1887."

Dr. Emmet in a contribution on the Treatment of Uterine Displacements, discusses his theory that pessaries give relief chiefly by counteracting the impediments to the blood-supply of the uterus which occur in prolapse and other abnormal alterations in

the position of that organ. We may note two interesting memoirs on the serious questions relating to chronic disease of the appendages by Drs. Polk and Battey. The latter insists that the aim of his operation is to produce an artificial "change of life." It is not his purpose to remove diseased ovaries; the fact that the ovaries are diseased in the cases where his operation is performed is merely accidental. Nevertheless, he strongly objects to the synonym "normal ovariectomy."

Dr. Mundé's Drainage after Laparotomy, and Dr. Bantock's Treatment of the Pedicle in Hysterectomy are valuable papers, with instructive discussions. Dr. Engelmann contributes a monograph, over one hundred and fifty pages in length, on the Hystero-neuroses; it includes a long series of clinical reports. Dr. Johnstone, of Danville, writes on the Infantile Uterus, and believes that the arrested growth of the body tends to interfere with the proper development of the endometrium, and that structure being imperfect it is unfitted to form the placenta in conjunction with the chorion, so that sterility is unavoidable. Dr. Chadwick's Ventral Hernia after Laparotomy and its Surgical Treatment is another memoir which deserves special notice.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BARRETT'S PERFECT INDICATOR BOLT.

This simple and useful appliance, of which the inventor and patentee is Mr. Barrett, M.R.C.S., 25, Clarendon Road, Holland Park, W., is designed to afford a ready means of enabling the occupant of an apartment to indicate by a sliding bolt that he is engaged, and therefore does not wish to be disturbed, or that the intending interviewer should "knock," "wait," or "enter:" the notice displayed on the outside of the apartment by means of a handle moved on the inside, admits, of course, of any modification to suit particular needs. The absence of some such announcement is often the cause of unpleasant interruptions, for even if the door be locked on the inside, the newcomer often tries the handle several times, and sometimes uses force, before he has fully satisfied himself that the door is really locked against intrusion. When the slide is shot the door is fastened, and at the same time the word "engaged," or any modification, is displayed in letters on a white ground on the outside. This invention is recommended for consulting rooms, bath rooms, and lavatories.

VIKING ESSENCE OF BEEF AND CONCENTRATED BEEF TEA.

(The Viking Food and Essence Company, Hearn Street, Curtain Road, E.C.)

We have examined samples of the above meat extracts, and have found them strictly what they profess to be, namely, the essence the pure juice of meat, without addition of water; the concentrated beef tea is an evaporated decoction of meat of very good colour and flavour. The samples are thoroughly well preserved, and put up in attractive-looking glass bottles with ingenious anti-bacterial lids. The preparations of this Company are pure and of very high quality.

TELEPHONES IN HOSPITAL WARDS.

TELEPHONIC communication between the ten separate blocks into which the National Hospital for Consumption, Ventnor, Isle of Wight, is divided has now been completed. The Equitable Telephone Association, Limited, 75, Queen Victoria Street, E.C., who have been entrusted with the installation, have fixed one of their Swinton patent telephones in each block, and one in the porter's lodge, making eleven in all. These instruments are all connected to a central exchange switch board in the head nurse's room, whereby any one block can be put into communication with any other in a few seconds. Arrangements have been made to admit of the system being extended to the private residences of some of the medical officers who live in Ventnor, should this be considered advisable at some future time.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

 The British Medical Journal.

SATURDAY, MARCH 10TH, 1888.

SIR JAMES PAGET ON SCIENTIFIC STUDY.

IN addition to his claims on our attention and respect as a great scientific surgeon, Sir James Paget has two qualities which make any of his speeches worthy of careful study and consideration. First, he is a master of English, clothing all his thoughts in the purest and most elegant language; secondly, he has the power of cheering and heartening the humble labourer on the borderland of science, not only by showing that his work may be of real value, but also by pointing out the direction where success may be most probably sought, and by indicating the means most likely to attain it. In his last Saturday's address to the students of the London Society for the Extension of University Teaching, these characteristics were well shown.

In a speech of much eloquence he first of all defended the Society, whose students he addressed, from the old proverb launched at all such bodies, "that a little knowledge is a dangerous thing," declaring, with Charles Lamb, that like nearly all such popular proverbs, the very reverse of this one was the truth. He insisted that it was the quality not the quantity of knowledge possessed which made it dangerous, and that nothing was really to be so much dreaded as absolute ignorance. But he said that the Society really imparted much more than a little knowledge, and that its teaching was of great value.

The main part of Sir James Paget's address, however, was occupied with a consideration of the things learnt in a scientific education. They were four: first, the power of observation; secondly, accuracy; thirdly, the difficulty of attaining a real knowledge of the truth; fourthly, the methods by which they could pass from that which was proved to the thinking of what was probable. He pointed out to the students he addressed that even though they lived in London there was much they could study—the wild birds of the parks, for instance, or the wild flowers and weeds that grow on every piece of waste ground.

In speaking of accuracy he drew a portrait, which we shall most of us recognise, of that considerable body of men "who would not for their lives tell a lie, but who nevertheless seemed as if for their lives they could not tell the exact truth."

Perhaps the most valuable part of the address was the one in

which the speaker dealt with the place and method of theoretical thought in science; inductive reasoning being probably not the strong point of the class of students he addressed. He gave the example of Darwin to show that theories should not be arrived at by vainly and vaguely guessing at possibilities, but by the slow and laborious collection and consideration of facts, and then by working out the probable truth from such material, or, as the great John Hunter said, "Don't think; try."

In his concluding sentence, Sir James dealt with a subject which Carlyle has also treated in his *Sartor Resartus*, the proneness of man to wonder and to take pleasure in wonderment—the quickness with which familiarity makes the subjects of wonder commonplace and ordinary. Perhaps it is not without interest to compare the different modes of thought exhibited by these two men. The scientific surgeon accustomed to deal with facts, to accept them and make the best of them, speaks calmly of these peculiarities of man; they are there, and must be taken into consideration in any dealings we have with our fellows. The philosopher, who believes he has a mission to regenerate the world, rages at the same peculiarities, and by excess of praise and blame seeks to alter those things which the surgeon treats as inherent and unalterable.

"There is another faculty in the human race," says Sir James, "another desire—the love of wonders. Everyone admires them, and nearly all have an insatiable appetite for the knowledge of wonders." And then he goes on to remark: "It is singular to notice how the love of wonders passes from scientific men in their every-day occupation. You look at a machine, so perfect in construction, so exact for the purpose for which it is built, made with such foresight and such precision that the mind of the inventor really seems to be in it; it seems to be working by mind; and there stands the workman by the side of that machine, but his sense of wonder has long since passed away. He knows what is going on; he knows how all is come to pass, and to him that which you think to be a wonder is a common experience of every-day life."

How different Carlyle! "The man who cannot wonder, who does not habitually wonder, were he President of innumerable Royal Societies and carried the whole of the *Mécanique Céleste* and Hegel's Philosophy and the epitome of all laboratories and observatories, with their results, in his single head, is but a pair of spectacles, behind which there is no eye." And, again: "Strange enough how creatures of the human kind shut their eyes to plainest facts, and by the mere inertia of oblivion and stupidity live at ease in the midst of wonders and terrors. But indeed man is and always was a blockhead and a dullard, much readier to feel and digest than to think and consider. Prejudice, which he pretends to hate, is his absolute lawgiver; mere use-and-wont everywhere leads him by the nose. Thus, let but a rising of the sun, let but a creation of the world, happen *twice*, and it ceases to be marvellous, to be noteworthy or noticeable."

Sir James Paget's address ought to be of real use both to the students he addressed and to others who read it.

PROGRESS IN MORALS.

It is a question of much interest and importance whether the great material progress of the present century has been accompanied by any corresponding moral advance. That we have made immense strides in wealth and luxury, in scientific and industrial development, in all the arts and inventions that contribute to ease and comfort, is a commonplace and unquestionable statement. It is more open to debate whether the tone of public morality has risen, and whether vice and crime have undergone any notable diminution. There are not wanting those who regard the growth of great cities—that striking and essential feature of modern civilisation—as conducive to moral degeneracy, and preach a reversion to simple modes of life as a necessary condition of the preservation of a high tone of national character. Much of the argument on this subject is conducted by those who prefer vague declamation to scientific induction, and hence the question has been obscured by rhetorical exaggeration, and often argued with a notable disregard of fact. Let us briefly consider the subject, and, shunning hypotheses however attractive, look strictly to evidence that is incontrovertible.

In proof that the material progress of the century has had a correlative moral advance, we can point to a diminished and steadily declining consumption of intoxicants, and to a notable improvement in the views generally held upon the liquor question. In the last century drunkenness was not regarded as a degrading vice, and hardly constituted a defraction from the character of the fine gentleman. Now the drunkard is held to be scarcely fit for decent society, and even the tippler is rightly viewed as one to be sedulously shunned. Not less encouraging is the altered tone of public opinion regarding such cruel and demoralising pastimes as pugilism and cock-fighting. These are still, no doubt, practised, but scarcely a voice is now raised in their defence.

A welcome addition to the statistics of public morals is afforded by Sir Edmund Du Cane in an article upon Crime and Criminals published some time ago in *Murray's Magazine*. Taking the year of the Queen's accession and that of her Jubilee as a basis for comparison, he is able to point to a highly satisfactory, and, indeed, surprising, diminution in crime. In spite of the fact that the population has almost doubled during this period, we find that the convicts of all classes in the year 1837 were only about one-fifth of their number in 1887. If we compare the sentences to transportation in 1837 with those to penal servitude in 1887, the contrast is only a little less encouraging, the figures being for the former year 3,785, and for the latter 910. The number of executions in 1837 (including those carried out in the colonies) Sir E. Du Cane puts at 46, while for the five years ending 1886 the average was only 14. In addition to these statistical facts, he points out that highway robbery, once very common, is now practically unknown, and that smuggling, from being one of the most frequent, has become one of the rarest of offences. Surely the most confirmed pessimist or the most persistent *laudator teporis acti* can hardly study such facts and continue to deny to this age the credit of growth in morals.

While facts such as the above are beyond dispute, their explanation is more open to casuistry. Sir Edmund assigns the chief credit to the efforts made by benevolent societies to aid discharged prisoners in obtaining honest work, to the beneficial influence of reformatories and industrial schools, and to the gradual spread of education. We have no doubt all these causes, and others, have been in operation. In spite of occasional discouraging signs, we believe that this age has been one of great moral and religious progress all along the line, and that a great advance is constantly being made towards those

Sweeter manners, purer laws,

of which the Laureate sings. How far the work of the churches and of benevolent societies has co-operated with wise legislation and private philanthropic efforts it is not our province to seek to determine, but the general conclusion remains certain.

As regards the most efficient means of dealing with crime *per se*, two points require to be kept in view, namely, that the natural tendency of blind social forces, unless wisely counteracted, is to keep criminal the man who has once fallen into crime, and to cause the offspring of criminals themselves to drift into a criminal life. Of the two problems, the preservation of the young from their threatened evil destiny is undoubtedly much the easier of solution. Hence, the great importance of reformatories and industrial schools, which tend to divert the current of crime at its very source. Heredity is, doubtless, strong, and the children of thieves and vagabonds come into the world heavily handicapped; but there is no reason to doubt that due restraint timely employed, proper education, and the opening up of honourable careers, have been, and are, most efficient means for cutting off the supplies from the criminal market.

The reform of the hardened criminal is a more difficult matter, but without going into other matters, it is certainly essential that we should not regard the man who has once fallen into crime as hopelessly depraved, and that we should afford him the chance of reformation. Such is the aim of the various charitable organisations, which recognise that society has not done its duty to the criminal when it has merely punished him, however deservedly, and that after punishment comes the not less imperative duty of opening up the way to a return to honesty and purity of life.

THE Albert Medal of the Society of Arts for 1887 was presented to the Queen by a deputation from the Council of the Society on Thursday afternoon.

THE Council of Charing Cross Hospital, on Wednesday last, March 7th, unanimously elected Mr. John H. Morgan to the post of Surgeon to the hospital, vacant by the retirement of Mr. Barwell.

WE much regret to have to report that Sir Henry Acland has undergone the operation of removal of the eyeball, due to an attack of hemorrhagic glaucoma of the left eye. He is going on well. The operation was performed by Mr. Henry Power.

THE HOSPITALS ASSOCIATION.

THE next meeting will be held in the Board Room of St. Mary's Hospital, Paddington, on Wednesday, March 14th, at 8 P.M., to hear and discuss a paper by Mr. Thomas Ryan, Secretary of St. Mary's Hospital (late of Queen Charlotte's) on "The Origin, History, Work, and Present State of Metropolitan Lying-in Hospitals." The chair will be taken by W. S. Playfair, Esq., M.D., LL.D. Cards of admission can be obtained on application from Mr. Howard J. Collins, Secretary, The Hospitals Association, Norfolk House, Norfolk Street, W.C.

PHYSICAL TRAINING IN THE ARMY.

A NEW system of drill, combining with it physical training, is being tried at Aldershot, where a number of men were put through the exercise on Monday last, in the presence of the Duke of Cambridge. Major-General P. Smith, from whom the idea emanated, maintains that the physical training of a soldier is entirely neglected in the routine of regimental drill, and, with others of high military standing, realises the want of a minor drill, which combines with it physical training.

LECTURES ON DOMESTIC HYGIENE.

A COURSE of five lectures, on "Domestic Hygiene" (jointly arranged by the Councils of the Parkes Museum and the National Health Society), will be delivered in the Parkes Museum, 74A, Margaret Street, at 3 P.M., on March 14th, 16th, 21st, 23rd, and 28th, by Dr. A. T. Schofield. The subject of the last lecture (March 28th) is "Home Nursing," when clinical demonstrations will be given by trained hospital nurses. After the completion of the course an examination will be held (after Easter), and the Duchess of Albany has consented to present the certificates to the successful candidates.

INFECTIOUS HOSPITAL PROVISION AT THE SEASIDE.

THE local sanitary authorities of those seaside places that at present have no proper means of isolating cases of infectious disease, or of disinfecting infected articles and clothing, would do well to adopt the reiterated advice of the Local Government Board, and make the requisite provision without delay. Such provision need not be on an extensive scale, but it should be in readiness for the reception of earliest cases. The prompt isolation of such cases, and the systematic disinfection of infected houses and articles are the most effectual method of preventing epidemics. Independently of the advantages thus actually derived by the resident population of health resorts, the additional sense of security afforded to the visiting public would, in the long run, fully compensate the local ratepayers for their trivial initial expenditure.

ST. JOHN'S HOSPITAL.

IN view of the grave charges made against the board of management of maladministration of the funds of the hospital, and of the fact that the court of inquiry which the Duke of Northumberland (President of the hospital), Lord Aberdare, and other influential governors have declared to be necessary, has been refused (a refusal which has led to the resignation of the President and many influential governors), we cannot, while the challenge of the editor of *Truth* remains unanswered in the only way in which it is possible to answer it—namely, by an action at law—advise the public to respond to the appeal for funds which the officials of this hospital are now issuing. It should be remembered that the medical management of this hospital has been shown to be unsatisfactory, while its financial management is thus openly challenged, so that in two most essential particulars it is not in a position to claim public confidence until further and ample inquiry has been conceded and has resulted satisfactorily.

THE LATE EMPEROR OF GERMANY.

WE understand that the malady from which the Emperor of Germany has been suffering, and which has now terminated fatally, was renal colic. His Majesty had for several years been subject to sharp attacks of this affection, bearing the pain with great fortitude, but being much weakened on each occasion by the sleeplessness to which it gave rise.

VACANT CHAIR OF OBSTETRICS IN OWENS COLLEGE.

As will be seen from our advertising columns, the Council of Owens College are prepared to receive applications for the vacant Chair of Obstetrics. So far, three local candidates are in the field, namely, Drs. Lloyd Roberts, Sinclair, and Walter. The election will probably take place at the end of this month, and the new professor will be expected to begin his duties in May. All three local candidates hold hospital appointments. What is wanted is a man who has shown himself to be energetic and thoroughly abreast of the latest advances in his own department, and who is thoroughly conversant with medical Continental literature. If to this be added aptitude as a teacher, these are the requirements to be sought for by the Council.

SACCHARITE OF COCAINE.

DR. ANDREW H. SMITH writes to the *New York Medical Record*, "Observing the strong acid property of saccharin, it occurred to me that it could be made to take the place of an acid in combination with the alkaloid cocaine, and thus avoid the extremely bitter and disagreeable taste of the muriate, the salt usually employed. With the aid of Mr. B. Frank Hays, the well-known pharmacist of New York, a salt was obtained which is freely soluble in water, and has an agreeable, sweet, fruity taste—a valuable property when the drug is to be employed in the throat, especially in the case of children. The molecular number of saccharin (a better name would be saccharinic acid) is 183, that of cocaine 303; combined in these proportions a neutral salt is formed having about 80 per cent. of the alkaloidal strength of the muriate, a 5 per cent. solution of the first being equal to a 4 per cent. solution of the second."

THE INFLUENCE OF NASAL DISEASE ON THE THYROID GLAND.

At the meeting of the Berlin Medical Society on January 20th, Professor Fränkel mentioned an interesting case showing the influence of nasal irritation upon thyroid enlargement. The patient, a young man, aged 17, had an enlarged thyroid, with murmur on auscultation, and a pulse of 120, but no exophthalmos. During treatment (with the constant current) the lad complained of nasal obstruction; accordingly, without reference to the other symptoms, the left inferior turbinated bone was removed by the galvano-cautery. Within a few days the thyroid gland rapidly diminished, and the pulse became slower. After waiting three weeks, during which time the symptoms were stationary in spite of the constant current, the right side of the nose was operated on as above four days before the case was reported to the meeting. During these four days the enlargement had again undergone a rapid diminution, and the pulse had become normal. The thyroid had diminished by certainly a fifth of its bulk. Haack, in 1886, had reported a complete cure of Basedow's disease by treatment directed to the nose. Although this case could not fairly be termed Basedow's disease, because both exophthalmos and v. Graefe's symptom (defective movement of the upper lid with the globe) were absent, it certainly showed, Professor Fränkel argued, the influence of nasal irritation upon thyroid enlargement.

THE LATE MR. CURLING.

WE are much grieved to have to announce the loss of one of the veteran masters of English surgery, Mr. T. B. Curling. We are informed by Dr. Brandt, that on Friday morning, March 2nd, Mr. Curling drove out at Cannes, where he was residing for the winter. The day was bright, but owing to the snow on the Alps, the weather was very cold. He was already suffering from a slight cold. During the night he became restless, and shortly afterwards symptoms of pulmonary congestion set in. He was carefully attended by Dr. Brandt and Dr. Frank, but in spite of their united efforts, the symptoms rapidly increased, cerebral effusion supervened, and he breathed his last peacefully at 8.30 on the morning of March 4th. Mr. Curling had a large circle of attached friends, to whom he was endeared by his sterling uprightness of character, tenderness of heart, and the affectionate constancy which underlay his reserved manner. He was an old and valued friend of the JOURNAL, in the progress of which he took a great interest. In making this announcement we have to mourn a personal as well as a public loss. In another column will be found a brief obituary notice of this able and distinguished man.

INFLAMMATION MASKING CANCER.

DR. ORECCHIA has recently called attention (*Gazzetta degli Ospitali*, March 4th, 1888), to the frequent combination of inflammation with cancer in the same part, the graver disease being sometimes so obscured in this way as to be overlooked for a considerable time. He reports six cases in which this occurred. In one of these cancer of the larynx was supposed to be nothing more than perichondritis; in two malignant disease of the jaw was mistaken for osteitis; in another periproctitis for some time masked a rectal cancer; parotitis concealed cancer or sarcoma of the parotid; and simple inflammation of the lip, an epithelioma. The possibility of malignant disease underlying what appears to be a simple inflammatory process should never be forgotten when the age and appearance of the patient, and the part affected, are such as to make the existence of carcinoma probable. Dr. Orecchia believes that in these cases the cancer is the primary disease, which, owing to the slightness of the symptoms, remains unnoticed till the supervention of inflammation calls attention to the part. In the stroma of all the tumours referred to, Dr. Orecchia found much extravasated blood, with abundance of leucocytes, of which there were also a great number in the neighbouring tissues.

ERYTHROPHLEIN.

THIS African product has been the subject of a lively debate in the Berliner Medicinische Gesellschaft (*Berliner Klin. Wochenschrift*, 1888, March 5th, also February 27th). Dr. Lewin asserted that it possessed a local anæsthetic action far stronger than that of cocaine. Professor Liebreich replied that the sample examined by Dr. Lewin was in reality a snake poison, and that the rosy red coloration produced by evaporation with sulphuric acid is shown also by snake poison, and even by dried egg or serum-albumen. Dr. Schöler read a paper at the last meeting of the above Society, in which he confirms Lewin's results. An erythrophlein solution of 1-5 per cent. strength, when dropped into the eye gave rise to a good deal of irritation at first, but perfect insensibility of the cornea ensued in about twenty minutes (or half an hour). The pupil was not affected and intra-ocular pressure was lowered, but a slight degree of hyperæmia of the conjunctiva persisted for a long time, and the subject of experiment complained of a feeling of weight in the upper lid, a sensation as of a veil before the eyes, and of interference phenomena—for example, coloured rings. On the other hand, Dr. Loewenhardt, of Breslau, writes in the *Berliner Klin. Wochenschrift* (March 5th) to the effect that he obtained no

anæsthesia, but a considerable degree of hyperæsthesia, after subcutaneous injection in animals, and found that he could easily produce sloughing. Dr. Epstein, of Nürnberg, in an original communication to the *Centralbl. f. Klin. Med.* (March 3rd), finds that erythrophlein has only a slight local anæsthetic action when subcutaneously injected, and that a good deal of pain is caused by it. So far then this last observer is opposed to Dr. Lewin, who said in his communications to the Berliner Med. Gesellschaft that erythrophlein had a marvellous power of producing anæsthesia. The difference of opinion evolved by this statement has had the effect of bringing a number of experimenters upon the field of action and no doubt precise results will soon be afforded from uniform samples of erythrophlein.

THERAPEUTICS WITHOUT ALCOHOL.

THE Temperance Hospital has been in existence now about twelve years, and the annual report for 1886-7 may be studied with advantage in order to compare the results with those of other hospitals. It must not be supposed that the hospital only receives abstainers, though these are in the majority, probably due to the large proportion of infants and children. In the surgical department the results have been very satisfactory, so far as one is enabled to judge from mere figures, but turning to the medical cases, we may restrict examinations to one or two groups of disease, with advantage. Out of thirteen cases of acute pneumonia, four (abstainers) died, one of them on the fifty-fourth day from exhaustion. Only four cases of typhoid fever were admitted in all, and although the cases were of young people—15, 7, 14, and 35 respectively—and comprised three abstainers, they all proved fatal. The treatment was the same as elsewhere, and the only difference consisted in the non-exhibition of alcohol. Then again, simple exhaustion, eighty-seven days after the onset of the disease, proved fatal in one instance. The average stay of patients in the hospital would seem to show that convalescence is unduly prolonged, and this, notwithstanding the fact that the list of cases comprises several of "nasal catarrh" and other trivial complaints. The only occasion on which alcohol was administered was in a case of operation for strangulated hernia, in which death resulted from an unreduced constriction. Every credit is due to the registrar, Mr. Leopold Hudson, for the clear and practical manner in which he has tabulated and arranged his figures. We shall look forward with interest to future reports drawn up on the same excellent plan, as it is only by comparing results that medical men will be enabled to judge the merits of treatment without alcohol. Thanks to the impartial summary with which the report opens, it is easy to grasp its general tenour. It constitutes an innovation which other hospitals would do well to copy.

PRIMARY MELANOSIS OF THE VULVA.

DR. TERRILLON has recently described a remarkable case of this kind which he observed at the Salpêtrière in 1885. The patient was an insane woman, aged 62, with anæsthesia on the right side. She complained of pain in the vulva, and on the inner side of the right labium minus was a small tubercle the size of a nut, hard, smooth-surfaced, and very black; outrunning rays of tumour-substance proceeded from its periphery. The labium around the tubercle was deep black, but patches of healthy integument still remained. This discoloration extended to the vaginal mucous membrane, the cervix, and the opposite labium. No other tumour could be found, nor was there any glandular infection. Two months later the pigmentation had made no further progress, but the tumour had grown larger; it was removed by the thermo-cautery. The epidermis and corium were both found to have undergone alteration; in the corium were collections of round cells bearing pigment: and altogether the tumour appears to have

been a melanotic sarcoma. Four months after the operation there was no recurrence, but a month later the right inguinal glands began to enlarge, and soon multiple tumours developed. At the eighth month after operation melanotic tumours were found on the left labium minus, the posterior vaginal wall, and the meatus. The vagina and cervix were jet black. In the right groin was a large hard mass; its black coloration showed through the tense integument as yet unpigmented; a black tumour was found on the back, and indurated glands were discovered in the left groin and the right subclavian fossa. There was general cedema. Pigment granules were found in the blood, which contained an undue proportion of white corpuscles. The urine on standing for some time exposed to the air became almost like ink. A month later the patient died after severe dyspnoea and abdominal pain. All the pelvic, abdominal, and thoracic glands were melanotic, some being reduced to a black semi-fluid mass; the liver and the spleen were riddled with little black masses. M. Cornil found that all the infected parts presented the microscopic appearances of diffuse melanotic sarcoma.

MALFORMED VAGINA COMPLICATING LABOUR.

DR. FLEISCHMANN has described, in the *Prager Medicinische Wochenschrift*, amongst a series of contributions based upon material gathered in Professor Breisky's wards, the case of a primipara who had, during labour, very strong and unusually painful uterine contractions. When these had continued for two hours, a transverse line could be seen under the integuments, about the level of the umbilicus, indicating the limits of the body of the uterus and its thin-walled lower segment. During each pain it was found that the foetal head, evidently retained at the outlet, pushed forwards a very tough septum, as thick as the finger, and lying in an almost median position; this septum was inserted into the edge of the hymen and of the vagina, just above that membrane. It was ligatured in two places, and cut through. Convalescence was rapid. The local appearances, when the patient was discharged, were as follows. Tracing upwards from the remains of the septum in front and behind, a comb-like crest was found to run along the vaginal wall of the cervix. These crests were continued to the cervix, where they ended in a septum which ran right up the cervical canal and the uterine cavity, as far as the fundus. That cavity was thus divided into a large and a small lateral compartment; the larger, which appeared to have contained the placenta, was on the left side. The malformation was of that kind known as vagina subsepta and uterus bilocularis. The case is of considerable practical interest; anything like a double vagina is very puzzling to the obstetrician if unrecognised till the beginning of labour, or, later still, in the stages of parturition.

MULTIPLE SALIVARY CALCULI.

DR. NIKOLAI J. MOISEFF, of Shtchizry, reports (*Proceedings of the Shtchizry Medical Society*, vol. i, 1887, p. 68) the case of a retired major-general, aged 70, who sought his advice on account of incessant profuse salivation, pain on deglutition, and sublingual swelling of several years' standing. An oblong, hard elevation was found along the course of Bartholin's duct, which, even on slight pressure, gave the finger a distinct grating sensation. The duct was considerably distended along its whole course, and contained three salivary calculi lying in close contact. The nearest and smallest concretion, of the size of a big pea, was easily removed with forceps, but the other two could be extracted only after slitting up the duct, since they were considerably larger, especially the deepest one, which measured two centimètres in length and one in breadth, and, in addition, was intimately adherent to the gland substance; it resembled a bird's bill in shape. When dry it weighed 2.2 grammes, and consisted of a compara-

tively hard and compact nucleus, with a spongy, friable outer capsule. The smallest calculus was of pyramidal form, of spongy consistence, and greyish-yellow colour; while the middle one was quadrangular, with rounded angles, and of a distinctly laminated structure. The total weight of the dried calculi was thirty-eight grains. The wound healed well in a week. Dr. Moiseff has been unable to find another recorded instance of multiple calculi simultaneously present in the same salivary duct.

LAPAROTOMY FOR DILATATION OF THE COLON.

A REMARKABLE case of fecal accumulation is reported by Dr. Worrall in the *Australasian Medical Gazette* in a girl, aged 14. She was brought to the hospital suffering from an enlargement of the abdomen, which had been gradually increasing for two months. The patient had not had any previous illness, and her mother "thought" her bowels were not regular. On examination a solid tumour, neither painful nor tender, was found to fill the whole abdomen except portions of the left hypochondriac and left lumbar regions, having its greatest prominence to the left of the umbilicus. The tumour was hard, nodulated, and irregular. It seemed to touch the liver above and dip into the pelvis below, being bounded laterally to all appearances by the colon. The tumour could be moved slightly in every direction. A day or two after admission, although the bowels were moved several times daily, a laxative powder and an enema were given prior to examination under chloroform. As the rectum was found to be still blocked with feces more aperients were ordered, and for the next ten days there was diarrhoea with numerous horribly offensive stools. The temperature averaged 101° F. It was decided to perform an exploratory laparotomy. On opening the abdomen what looked like an enormous cyst, fluid above and solid below, was seen, which on being opened was discovered to be the ascending colon enormously hypertrophied and dilated. The wound in the colon was sutured, and the abdominal incision closed. Not the least remarkable feature of the case is the fact that the youthful patient was discharged quite well on the fourteenth day after the operation.

CASTRATION AND THE DEVELOPMENT OF THE GENITAL TRACT.

DR. KEHRER, in 1879-80, made a series of experiments to ascertain the effect of castration on the development of the genitals in young animals; the results were published in his *Beiträge zur Klinischen und Experimentellen Geburtshunde und Gynäkologie*. He castrated rabbits between two and three months of age, and killed them one year later. He found that unilateral castration or spaying caused no arrest of development; on the other hand when the operation was performed on both sides, the genitals and mammary glands remained stationary, never developing beyond the stage which they had attained when the essential organs were removed. Dr. Kehrer attempted to prove which theory was true—Pflüger's, according to which there existed in the uncastrated female a stimulus to growth through periodical irritation of the ovarian nerves set up by the ripening of follicles which goes on long before puberty; or, on the other hand, the theory that spaying caused a disturbance of the blood supply of the remaining genital organs, through the occlusion of the ovarian arteries. For this purpose he ligatured the ovary and ovarian artery in two series of experiments. He found that neither in unilateral nor in bilateral ligature of the tubes or extremities of the uterine cornu, with separation of the ovarian arteries, was the normal development of the genitals in any way affected. He concluded that the ovarian nerves, or some other and unknown influence in connection with the ovaries, played the most prominent part in stimulating the development of the genital tract.

THE ILLNESS OF THE CROWN PRINCE.

It is with the greatest satisfaction that we learn by special telegram from San Remo that the general condition of the Crown Prince is now very good. The irritation of the windpipe that was so troublesome for some time has almost entirely disappeared, but there is some increase in the swelling within the larynx. We may add that we are able to confirm this comparatively favourable account by independent information which we have received from a perfectly trustworthy source. We are in a position to state that neither Sir Morell Mackenzie nor Mr. Hovell is inclined to share the pessimistic views recently made public, though they do not of course deny the possibility of the disease proving to be cancer. With regard to a rumour which has been largely current in society, and which lately found most unseemly expression in a French contemporary, we have the fullest authority to deny, in the most emphatic manner, that there is any ground for such a suspicion. We may repeat that the recent sufferings of the illustrious patient have been almost wholly due to the irritation caused by an ill-fitting tracheotomy tube. The operator, as was perhaps natural under the circumstances, appears to have been rather nervous, and the windpipe was opened some way to the right of the middle line; hence the difficulty of finding a suitable tube. Sir Morell Mackenzie, assisted by Mr. Hovell and Dr. Evans, the well-known dentist of Paris, spent the greater part of one day in constructing a tube of a shape specially adapted to the requirements of the case. Since this has been worn the Crown Prince has been more comfortable in every way; he has been able to sleep, the cough has diminished, and the expectoration has almost lost the blood-stained character which excited so much alarm. It is satisfactory to see from the official bulletin lately published in the *Reichsanzeiger* that the medical men are now in substantial agreement as to the nature of the disease. We do not think, however, that the inference which has been drawn from this in certain quarters, that Sir Morell Mackenzie has abandoned his recently published opinion on the subject, and adopted the less favourable view of some of his colleagues, is altogether warranted. Although the result of Professor Waldeyer's microscopical examination has not been published, we have reason to believe that it is such as to admit of a favourable interpretation.

THE TREATMENT OF UTERINE FIBROIDS.

THE theories and practice of Apostoli have led to much discussion on the treatment of fibro-myomatous tumours of the uterus, more conveniently termed uterine fibroid disease. This method, like everything else in the universe, is the effect of a cause. In this case, the cause is the danger of amputation of the uterus, balanced by the uncertainty of palliative measures. Electricity is a fascinating middle course between physic, often so impotent, and the knife, often so fatal. A fibroid uterine tumour may assume gigantic proportions, and cause serious trouble; but its increase in bulk is never rapid, in the same sense that the growth of a cyst or a sarcoma is rapid, and the menopause is often its limit. Yet it may be the source of pain, menorrhagia, and often troublesome and dangerous symptoms. Then operative measures are suggested. In the case of hysterectomy or oöphorectomy, the operation is always perilous, and depends, perhaps more than any other surgical operation, on the experience as well as the mere skill of the operator. Hence gynaecologists turn to palliatives or electrolysis. With respect to palliatives, it is certain that almost any rational treatment tends to reduce the size of a large fibroid tumour. Rest, moderate purgation, and the administration of ergot without any of those incompatibles with which it is often given, all appreciably affect tumours of this kind for a time. Authorities of the negative or expectant school believe in Woodhall Spa. The amount of benefit derived from palliative treatment is ever uncertain.

though permanent arrest of the tumour is occasionally effected. When an operation is contemplated, the choice lies between oöphorectomy and hysterectomy. Surgeons without special experience too often look on oöphorectomy as an easy and safe operation; but facts have shown that, in the case of fibroids, it is often difficult or impossible, and that when possible it is perilous, owing to the difficulties experienced in securing the pedicle. Enucleation during abdominal section is not justifiable. Hysterectomy may be performed as an intraperitoneal or an extraperitoneal operation. The intraperitoneal variety is logically the better, but it is extremely dangerous. No surgeon can calculate how to tie each suture firmly enough to check hæmorrhage, yet not so tightly as to cause sloughing or tearing of the thread through its track; still less can he guard against contraction or relaxation of the uterine tissues around the uterus after the return of the stump into the abdominal cavity. The extraperitoneal operation is less dangerous; but it requires nerve, dexterity, and experience at least of other surgeons' practice. Statistics are absolutely worse than useless as guides to surgeons devoid of special experience; and decision, sad to say, is too frequently qualified by personal predilection for some operation, or by dislike for another. Unconscious hypocrisy often influences inexperienced operators. Apostoli's electrolysis is fascinating, because, unlike palliative treatment, it means "doing something;" whilst many believe that it involves neither the difficulties nor the risks of operation. Experience is proving, however, that Apostoli's method requires great skill and demands many precautions, and that it is not altogether free from danger. As to permanent results, even so respected an authority as Dr. Keith depends upon the words of another, and that other is Apostoli himself (*JOURNAL*, December 10th, page 1258). The conclusions to which we are led by the above facts are that palliative treatment is the only course which a practitioner without special experience can justifiably pursue in the case of uterine fibroids; and that the relative merits of oöphorectomy, hysterectomy, and electrolysis can only be decided by experts.

AN ERGOT-MILL FOR OBSTETRIC BAGS.

DR. LOVIOT, in describing Professor Pajot's obstetric bag in the *Annales de Gynécologie*, notes that it contains an ergot-mill. This instrument resembles a small coffee-mill, bearing, like that familiar domestic instrument, a handle, but in size it is not larger than a pepper-mill, and might work by the same simple mechanism. It may readily be packed in the bag, as it takes up very little room. The practitioner can only rely on freshly pulverised ergot of rye. This mill enables him to powder the ergot on the spot, so that in the hour of need a strong preparation of the drug may be made in the patient's chamber, even in the most remote country districts. In this manner perilous delays caused either by inert liquid preparations of ergot, or by waiting till some fresh tincture or fluid extract is brought to the lying-in room from some distant druggist's shop, are avoided, to the great advantage of the patient and the practitioner.

COMPARATIVE STUDY OF THE ACTION OF VARIOUS DRUGS ON THE HEART.

AT the Italian Medical Congress, held at Pavia, Professor Rummo and Dr. Ferranini read a paper on this subject. They have made experiments in the laboratory attached to Professor Cantani's *clinique* on frogs, toads, crustacea, guinea-pigs, rabbits, and dogs, with the view of determining the precise mode of action of those drugs which have a definite effect on the heart. They used the graphic method throughout, and the drugs which they experimented upon were: digitalis and digitalin, strophanthus and strophanthin, upas antiar, helleborin, erythrophlecin, oleander, spartein, caffeine, adonidin, and convallamarin. They observed that these drugs

first diminished the frequency of the pulsations and augmented the blood-pressure in all animals (homothermic and heterothermic), whereas in a second stage, especially when the doses were toxic, they disordered the rhythm of the heart, and diminished the blood-pressure. In a third stage, a diastolic pause of the cardiac action, after the use of all the drugs, supervened in heterothermic animals, whereas in the homothermic ones, the heart stopped in the systolic phase only after certain drugs, such as digitalin, strophanthus and strophanthin, helleborin, erythrophloëin, upas antiar, oleander; adonidin and convallamarin, however, produced in these animals, even in small doses, a diastolic pause of the cardiac action. Spartein and caffein, on the other hand, had no great influence on the blood-pressure. As regards the mode of action of the drugs used, it must be remarked that strophanthus and strophanthin, helleborin, digitalis, erythrophloëin, upas antiar and oleander, chiefly influenced the heart-muscle, and in the second place, the cardiac nerves. Adonidin and convallamarin simultaneously influenced the cardiac muscle and the cardiac nerves, whereas spartein, and particularly caffein, chiefly affected the cardiac nerves, and the heart-muscle little, or not at all. All those drugs which augmented the blood-pressure, did this by means of a combined mechanism, as they simultaneously increased the systolic energy of the heart, and produced narrowing of the peripheral blood-vessels by irritation of the vasomotor centres. The experimenters, furthermore, tried to answer the question whether those drugs which had a particular influence on the cardiac muscle had also an effect on the striped muscles in general, and whether those which influenced the cardiac nerves could also produce a similar effect on the whole nervous system. They found that only those drugs which chiefly influenced the cardiac nerves produced also, to a certain extent, disturbances in the nervous system in general.

CREASOTE IN PULMONARY PHTHISIS.

In the *Meditzinskoë Obozrenië*, No. 23, 1887, p. 1024, Dr. P. Bogdanovitch, of Yalva, publishes very interesting personal observations on the therapeutic value of creasote in phthisis. The writer, who has been suffering from pulmonary and laryngeal tuberculosis for about two years, had tried the drug on himself in small doses (half a grain four or five times a day) some time ago, but without appreciable benefit. After perusal of the observations of Professors Sommerbrodt (*Berlin. Klin. Wochenschrift*, No. 15, 1887) and Guttman (*Deutsche Med. Zeit.*, No. 42, 1887), however, he again began to take creasote in gradually increasing large doses, beginning with four grains a day, and reaching, in about two months, a daily dose of forty-four grains. There took place, fairly rapidly, an unmistakable and permanent improvement in his symptoms. Fever disappeared in a week; expectoration, cough, and dyspnoea steadily decreased to a considerable degree; laryngeal spasm, which had formerly occurred once or twice every month, ceased altogether. As regards the objective signs, however, there was only some diminution of dulness over a certain area, with complete disappearance of fine crepitant râles. As to tubercle bacilli in the sputum, they remained just as numerous as before the creasote treatment. The latter has lasted in all four months, during which period not less than four ounces and two drachms of pure creasote have been ingested. The drug must be taken in doses of about five grains four times daily, in the form of capsules (filled up *ex tempore*), after meals. With regard to disagreeable after-effects Dr. Bogdanovitch observed in himself, when, by way of experiment, he took as much as twelve grains, at a time, or twenty grains in the course of an hour, only giddiness, cardiac palpitation, small and accelerated pulse, general weakness, pallor, and anxiety; but all these toxic phenomena disappeared spontaneously and com-

pletely in about half an hour or an hour. On an empty stomach, however, he experienced epigastric uneasiness and pain even from small doses. Dr. Bogdanovitch resumed of late the use of creasote in order to study the effect of a six months' course. Dr. Hermann Sahli's paper on Guaiacol as a Substitute for Creasote (*see the JOURNAL*, vol. ii, 1887, p. 1237) seems to be unknown to him.

ACUTE INFECTIOUS PHARYNGITIS.

THE above term, which should be supplemented by the word "primary," is used by Professor Senator (*Berliner Klin. Wochenschrift*, 1888, Nos. 5 and 6) to indicate a rare and "perhaps always fatal" form of pharyngitis, not hitherto described in textbooks of medicine. Two examples had occurred within the last few months, and a study of similar cases had revealed three more as having occurred within the last twelve years. In all these cases, reported at a meeting of the Berlin Medical Society on January 4th, and discussed on January 18th, the disease affected previously healthy persons, without any apparent cause, and ran an acute course, ending in death in a few days. It began with cervical pains and dysphagia, accompanied by fever, often moderate; then followed hoarseness, or loss of voice, and dyspnoea; finally, the sensorium was affected, and death quickly ensued. The chief anatomical sign found *post mortem* was diffuse purulent infiltration of the deeper tissues of the pharyngeal mucous membrane, the inflammation extending to the trachea and glands of the neck and secondarily to other parts, especially the gastric mucous membrane. Senator is of opinion that many cases hitherto regarded as examples of acute oedema of the larynx are in reality cases of the above disease. Notably in a case of Cruveilhier's the pharynx was affected for a day or two before the larynx. The very rare "typical oedematous laryngitis," mentioned by Sir Morell Mackenzie as of septic origin, is also claimed as in all probability affording an example of the above disease. The spleen was generally enlarged in Senator's cases, and the kidneys, as a rule, showed parenchymatous inflammation. A peculiar exanthem appeared in one case. The blood removed both before and after death had been carefully examined, but no specific microorganisms had revealed themselves in attempted cultivations, injections of which, as also of fresh blood, had been harmless in rabbits. The streptococcus of Friedländer (*erysipelas coccus*) was certainly absent. In the discussion which followed, Dr. Guttman argued that the cases were probably erysipelatous in spite of the above fact, and referred to Ziemssen's *Special Pathology*, an *Eichhorst's Pathology*. Virchow leaned to Guttman's opinion, but also described other pharyngeal diseases which might mislead especially metastatic abscesses in puerperal fever, suppurative pharyngitis accompanying acute gastritis and, in one case, mediastinitis. But Senator urged in his reply that there was no abscess in any of his cases, but a diffuse purulent infiltration always beginning in the pharynx. The cause was absolutely unknown to him at present, but the system was very rapidly affected in a characteristic manner, and tracheotomy was of no avail. He had no doubt that a study of the subject as revealed in hospital records would reveal numerous examples of this disease overlooked under the title of "acute oedema of the larynx."

ETIOLOGY OF CROUPOUS PNEUMONIA.

At the meeting of the Italian Medical Congress at Pavia, Professor Bozzolo communicated the results of investigation on the etiology of croupous pneumonia, which he had carried out together with his assistant, Dr. Tassinari. In their experiments they used flu which had been obtained from hepatised lungs during life puncture, on the fifth or seventh day of disease, before crisis had yet supervened. They prepared cultures on bouillon or agar-agar, and, in order that the virulency of the cultures should be

be weakened, the animals on which it was used were first inoculated with the impure culture of the sterilised nutrient fluid. In eight out of fifteen fresh cases, the development in the cultures of Fränkel's diplococcus was observed; it killed rabbits, but had no effect on guinea-pigs. The rabbits died in the course of twenty-four hours, and their blood was full of diplococci. Professor Bozzolo had observed similar facts in 1882, when he reported them to the Academy of Medicine of Turin. The same micro-organism had also been detected by him in a recent epidemic at Cuneo, in which, besides pneumonia, several cases of pronounced meningitis, had also occurred. In five cases the staphylococcus aureus and albus, the staphylococcus pyogenes albus, citreus and aureus, either alone or together with the diplococcus, could be proved to be present. In one case, which proved fatal owing to œdema of the glottis, numerous diplococci had been found in the subcutaneous cellular tissue of the larynx. In no single case had the coccus pneumoniæ of Friedländer been found. Professor Bozzolo deduces from these facts the conclusion that the coccus pneumoniæ played no important part in the development of this disease, and that the epidemic which had been observed by him was to be looked upon as having been produced by the diplococcus. He maintains that until the contrary has been proved, we are not justified in considering idiopathic croupous pneumonia as being caused by different micro-organisms.

THE DISCOVERY OF CONCEALED INSANITY.

IN a recent number of the *New York Medical Journal* a rather startling and novel suggestion is made for the use of nitrous oxide for the detection of concealed insanity. Dr. A. M. Hamilton is the author of this suggestion. He points out that anaesthetics are often of great service in detecting shamming, and that as an extension of this, the use of some of these may be of service in unmasking symptoms which may be concealed from one cause or another. We shall not spend much time in discussing the moral side of the question, though it strikes us that there would be many in England who would object strongly to the production of this temporary loss of control only to see what was to be found in the lower stratum of mind. We are all familiar with the effects of alcohol, and we know how many friendships are cemented and how many are broken by the glimpses given into the hidden world of character by the effects of wine. Truth is revealed by this we know, but as a medical means of investigation we are behind our cousins in its use. Our author has been trying its effects for ten years; we, therefore, must not pass over his remarks without some consideration. He finds that, in some cases, nitrous oxide gives sleep where it is much wanted from temporary causes. We fancy that this gas is hardly likely to become dangerous in the way that chloroform has to the medical man who cannot sleep, and so we welcome the suggestion as one more means to produce what becomes daily more needed and daily more difficult to obtain—sleep for the brain-disordered man who must work or starve, and who cannot work without sleep. We have tried all the known anaesthetics in cases of insanity, and cannot speak with any praise of the results. In melancholia the sleep produced does no real good, and in mania we have not had the least improvement following sleep so produced and kept up or hours together. Chloroform, amyl nitrite, and even duboisin have been given with the idea of changing the current of thought but in vain, save that with amyl we have seen some passive cases become hysterical, and with duboisin some cases of depression have become for a short time maniacal. Alcohol has saved many lives in acute insanity, but we have not found that it assisted to the real understanding of any case; that is, that drink loosened the tongue and dispelled the delusion. It is a very plausible thing to say that certain delusions which are hidden and are really the ground for the acts of certain patients can be discovered by means

of nitrous oxide, but we fancy no medical man would be prepared to sign a certificate on the evidence obtained while a person was under its influence. We have also to assume a good deal when we say that the true nature of a person is revealed by the removal of the control. We might come to many strange revelations not conducive to domestic happiness if this treatment were pursued far. Besides this, it seems that if there is any truth in the observation made by Dr. Savage on the effects of anaesthetics in producing insanity, that occasionally harm might result in an unexpected way. Our author admits there is a great possibility of "suggesting" ideas to the person as he passes into the stage of unconsciousness: this should make us hesitate before making use of a weapon so dangerous and easily perverted. He says hypnosis is unreliable and not always justifiable. We should be inclined to say the same of the use of nitrous oxide for the detection of concealed delusions.

THE TREATMENT OF SNAKE-BITE BY AMMONIA.

WELL authenticated cases of recovery from the bite of a cobra are sufficiently rare to lend special interest to a report published by Dr. Percy Rigby, in the *Indian Medical Gazette*. The patient, a Hindu, aged 30, was bitten, in the presence of a hospital assistant, by a young cobra two feet long, the wounds of both fangs being visible; four hours later he was brought to the dispensary, unable to stand or raise his head, gasping for breath, with copious salivation and bronchorrhœa, and full soft pulse; the bite had been inflicted on the back of the hand, and the hand and forearm were much swollen. A solution of permanganate of potash (5 per cent.) was injected in the situation of the bite, the salt in powder was rubbed into the wound, and a draught containing liq. ammoniæ π xx was given; the patient grew worse, and was seized with convulsions. The draught was repeated in half an hour, but when two hours had passed, the patient appeared to be sinking fast; an hypodermic injection of liq. ammoniæ π xv with an equal quantity of water was given, and repeated in half an hour; finally several convulsive seizures occurred, the respirations sank to 6, and the patient seemed *in articulo mortis*; he was however given another draught containing ammonia, and in ten minutes began to rally, and in about three hours more was out of danger. The next day the temperature was 101.2° F., and the arm was much swollen; no ulceration was produced by the hypodermic injections. A second case was mentioned in which the injection of strong ammonia and tight bandaging of the leg was effectual against the bite of *Dabria Elegans*.

AMYLENE HYDRATE AS A HYPNOTIC.

DR. GEORG AVILLES has made a number of new experiments in the clinic of Professor Riegel at Giessen with "amylene hydrate." The following is a summary of his results:—1. Amylene hydrate is a hypnotic, the effect of which is certain if it is given in sufficient doses. Control experiments have shown that amylene hydrate has a less powerful effect than chloral, and a more powerful one than paraldehyde. 2. Amylene hydrate had also an influence on people who were accustomed to the use of narcotics, these, however, required a larger dose (4 grammes). 3. Sleep came on very quickly without a stage of excitement. The intensity of the sleep varied according to the quantity of the dose, but the patients could always be easily aroused. When awakened, they at once became fully conscious, and, if undisturbed, they immediately fell asleep again. 4. The sleep lasted, after very small doses, from two to three hours; after large doses (from 2.0 to 3.2 grammes) from six to eight hours. 5. The awakening resembled that after natural sleep; the patients felt refreshed, and there was neither headache nor lassitude. 6. Respiration was not affected. 7. There was no change in the pulse or the blood-pressure, except

the retardation of the pulse, which was also observed in the normal sleep. This was shown by sphygmographic tracings of different patients made by Professor Riegel. 8. There was no bad taste in the mouth nor disagreeable smell of the breath on awakening, such as was noticed after paraldehyde. 9. As to whether patients were liable to become habituated to the drug no decision could yet be arrived at. In no case had they been obliged to increase the dose, even after repeated use. Disagreeable after-effects of a somewhat dangerous character were observed only in two cases; in three cases it had no effect at all. The drug was tried in various internal diseases; the effect was particularly good in jaundice and icteric itching of the skin. Chloral hydrate had been recommended by Eichhorst, but amylene hydrate would be better as it had no weakening influence on the heart. In all cases of disordered circulation, the amylene hydrate was preferable to chloral, as the latter considerably diminished the pressure in the vascular system. No counter indications could be found. In severe disorders of the stomach it was to be administered by clysters, according to the following formulae:—R Amylene hydrate, 3.0 grammes; aq. destill., gumm. arab., aa 25.0; m. ft. clyster.

SCOTLAND.

HONORARY DEGREES, ABERDEEN UNIVERSITY.

AMONG the honorary degrees conferred by Aberdeen University last week on those considered worthy of the honour was that of LL.D., which was conferred upon Charles Douglas Ferguson Phillips, M.D., London, who is a graduate of Aberdeen University and a Fellow of the Royal Colleges of Physicians and Surgeons.

LADY STUDENTS AT LEITH HOSPITAL.

THE lady students of medicine who are doing their clinical work in Leith Hospital, are so well pleased with the treatment by the staff of the hospital, that at the annual meeting of the supporters of the institution, held last week, Dr. Sophia Jex Blake, in moving the usual vote of thanks to the staff, also thanked them for their kindness and care bestowed upon the lady students in every part of the hospital.

GLASGOW ROYAL INFIRMARY.

DR. NEWMAN's class of laryngology for students and practitioners has just been brought to a close after a most successful session. No less than 105 students joined, and maintained throughout a very good attendance. After the distribution of class honours the students presented Dr. Newman with a pair of study lamps, and his assistant, Dr. Dewar, with a case of surgical instruments.

THE POLLUTION OF THE CLYDE LOCHS.

MR. A. E. FLETCHER, inspector under the Rivers Pollution Act, has recently made a report to the Government on his examination of the waters of Loch Goll and Loch Long in reference to their alleged pollution. The dredgings from the Glasgow and Greenock harbours, and from the Clyde, are deposited at the entrance to Loch Long to the extent of one and a quarter million tons per annum. Besides this, Loch Long receives a weekly deposit of 150 tons of alkali waste from a chemical work, discharged directly into the loch, and indirectly the waters are polluted by the sewage from Glasgow discharged into the Clyde. Mr. Fletcher submitted specimens of the water and of the bottom of the lochs to analysis, and also of the floating scum. Mr. Fletcher finds that the complaints of pollution are well founded, and that the material yielded by the alkali waste is poisonous to fish. While much of the pollution is of local origin, Mr. Fletcher thinks the

making of Loch Long a receptacle for the refuse of Glasgow and neighbourhood is a gross evil, which should now be stopped.

PROPOSED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.

A JOINT meeting of friendly societies was held in Glasgow last week for the purpose of hearing reports from various representatives as to the feasibility of establishing among them a medical association for Glasgow and district. There were 150 delegates at the meeting, and they represented 13,500 members of various friendly societies. The reports submitted showed that 29 lodges, courts, and tents, with membership of 5,356, were favourable to the establishment of such an association, while 42 were doubtful and desired more information. It was resolved to afford the desired information, and to hold another meeting for further consideration of the subject and arrangement to be held in April.

THE PHYSICAL CIRCUMSTANCES OF GLASGOW POOR.

IN a recent public lecture on "The City in which we Live," Dr J. B. Russell, the medical officer of health, exhibited with great clearness the conditions under which the poor of large towns such as Glasgow live. He succeeded in making statistics pathetic, and in forcibly bringing before the public mind the enormous hindrances to the preservation of health and purity of life which these conditions involve. Contrasting Glasgow with other large towns, he found only one—Liverpool—exceeding it in density of population, and only another approaching to it, namely, Manchester; the density being for Glasgow, Liverpool, and Manchester, 84, 106, and 80 respectively. While 84 was the average for the whole city, it rose to as high a figure as 348 in some of the sanitary districts into which the city is divided, falling to 25 in others. Of Glasgow houses, 30 per cent. consisted of only one apartment, 44 of only two, 14 of three, and only 5 per cent. were of five apartments and upwards. Of the population, 25 per cent. lived in one-apartment houses, 45 in two-apartment houses, 16 per cent. in three-apartment houses, 6 per cent. in houses of four apartments, and only 8 per cent. in houses of five apartments and upwards. In no other town in Scotland is so large a proportion of the population confined to one-apartment houses, and no other town in Scotland has so small a proportion living in the larger houses. One of the worst features of the small houses was that 14 per cent. of them contained lodgers. It was these small houses that gave to the death-rate the striking characteristics of an enormous proportion of deaths in childhood, and of deaths from diseases of the lungs at all ages. In such districts the annual death-rate was 48 per 1,000. "Of all the children," Dr. Russell went on to say, "who died in Glasgow before they completed their fifth year, 32½ per cent. died in houses of one apartment and not 2 per cent. in houses of five apartments and upwards. There they died, and their little bodies were laid on a table or on the dresser, so as to be somewhat out of the way of their brothers and sisters, who played, and slept, and ate in their ghastly company." Dr. Russell concluded a very striking lecture by showing how much improvement had been effected in Glasgow since 1861, and how much might yet be done by providing air spaces and play spaces, and means of recreation, culture, and instruction for the people.

AYRSHIRE MEDICAL CLUB.—Dr. Dobie, Ayr, has been elected President of the Ayrshire Medical Club, in succession to Dr. Beedie Robertson, Ardrossan, and Dr. Alexander Dundonald, vice-president. Dr. Moore, Ayr, was re-elected honorary secretary. The membership of the Club now amounts to 48. These appointments were made at a meeting held last week, at which about 30 members of the medical profession were present.

IRELAND.

THE MEDICAL COMMISSIONERSHIP OF THE LOCAL GOVERNMENT BOARD.

As we go to press we learn by telegram from Dublin that Dr. Henry Fitzgibbon, Vice-President of the Royal College of Surgeons in Ireland, and brother of Lord Justice Fitzgibbon, has been appointed to this office in succession to the late Dr. Croker King. The salary is £1,250 a year. There were many candidates for the post.

THE COLLEGE OF PHYSICIANS AND THE APOTHECARIES' HALL.

The proceedings at law between these bodies having, as will be seen from the report published at page 559, been so far unfavourable to the College of Physicians, the President and Fellows have had under consideration the present position of affairs. They are not satisfied with the Vice-Chancellor's judgment, and the case will therefore come before another court on appeal. It is stated by some, moreover, that should the ultimate decision be hostile to the College of Physicians, that body will retire from the alliance with the College of Surgeons, and apply to the Medical Council for additional examiners. It is not quite certain, however, that the Council would accede to this arrangement. There is not any strong feeling in Ireland in favour of the Apothecaries, either among physicians or surgeons. It is probable that if a poll were taken in Dublin, the vast majority would be in favour of their extinction as a body having any function outside the compounding of medicines. But, whether it was right or wrong to recognise them originally as able to give a diploma to practise, is now beside the question. They have been recognised; and they have a representative on the Medical Council. Many think that the only solution of the difficulty is to absorb the Hall in a Conjoint Board, in which it would be allowed to take part in the pharmaceutical portion of the examination. Such an arrangement has been proposed, but has fallen through; and it is not unlikely that it may again be brought forward. The solution of the difficulty apparently lies in this direction. Meantime, the lawyers are the gainers, the "little bill" thus far amounting to something like £800.

CORK MEDICAL PROTECTIVE ASSOCIATION.

At a general meeting held some time since, Professor Stephen Sullivan in the chair, and at which Drs. E. R. Townsend, Power, Magner, Cooper, Golding, Fitzmaurice, Cremin, Jennings, A.M.D., Burke, Cotter, Donovan, Corby, H. R. Townsend, O'Connor, jun., Daly, Riordan, Twomey, Ryan, Hayes, T. Riordan, Guisani, Riordan (Cloyne), Johnstone, Pearson, Crowley, Harvey, W. J. Cummins, Hobart, Sandford, Evans, Moriarty, Crowley, Ryan, Loinihan, Daly, and others were also present. The case of Dr. Magner's dismissal from his dispensary, under sealed order of the Local Government Board, was brought before the meeting. It was pointed out that, as a medical man, Dr. Magner's punishment was far in excess of that received by others guilty of similar offences, inasmuch as he not only suffered the full legal penalty of imprisonment, but was, in addition, dismissed from his post, and, moreover, disqualified from ever again, under any circumstances, obtaining any appointment under the Medical Charities Act. The following resolution was proposed and carried, and directed to be forwarded to the Local Government Board. Resolved: "That we, the members of the County and City of Cork Medical Protective Association, although differing, as many of us do, from Dr. Magner's political views, nevertheless are of opinion that he has been treated with exceptional severity in being deprived not only of his present position

and means of livelihood, but in addition rendered ineligible for an appointment under the Medical Charities Act. We arrived at this conclusion from the fact that previous instructions had been issued by the Local Government Board (as in the case of civil servants and others) prohibiting medical officers of dispensaries from taking part in politics; and moreover Dr. Magner has been punished by imprisonment for any offence committed by him. Under these circumstances, we would respectfully ask the Local Government Board, to re-consider their decision, and withdraw the sealed order dismissing Dr. Magner from the post as dispensary officer of the Courcies District, Kinsale Union." The following is the answer received from the Local Government Board, under date of February 27th:—

Sir,—I am directed by the Local Government Board for Ireland to acknowledge the receipt of your letter of the 10th instant, forwarding a copy of the resolution passed by the Cork Medical Protective Association at a general meeting held on the 7th instant, requesting the Board to withdraw the sealed order issued by them removing Dr. Magner from his position as medical officer of the Courcies Dispensary District, Kinsale Union; and, in reply, I am to state that the Board have given Dr. Magner's case very careful consideration, and are not prepared to withdraw the order removing him from the office in question.—I am, sir, your obedient servant,

THOMAS A. MOONEY, Secretary.

Honorary Secretary Cork Medical Protective Association.

A general meeting will be held on Saturday, March 10th, to consider the correspondence.

INTERHOSPITAL FOOTBALL MATCHES.—The final round of the (Rugby) Cup Tie, St. Thomas's v. St. Mary's, was played at the Richmond Athletic Association's Ground, on Wednesday, March 7th. St. Thomas's, the favourites, kicked off shortly after 3 o'clock, with the wind in their favour. Toller secured a try, but Lambert failed at the place. After half-time St. Mary's played up with great determination, and had two free kicks about their own quarterway flag. The last was a failure, and soon after Senior secured a try, but the place again failed. Subsequently a touch in goal was obtained, and, soon after, time was called, leaving St. Thomas's victors by two tries, one minor—twenty-one points—to nil. St. Thomas's: Back, A. Gedge; three-quarter, H. A. Julius, W. Senior, P. M. Toller; half, R. Hatherall, P. Northcott; forwards, H. J. Cooper, J. H. Dewhurst, T. A. M. Forde (captain), J. Harper, T. Lambert, C. Moxon, W. Milton, F. Pitts Tucker, G. Stillwell. St. Mary's: Back, W. T. Daniel; three-quarter, A. N. Harrison, F. P. Hill (captain), C. A. Balderson; half, S. B. Williams, A. B. Franey; forwards, F. Lewis, G. T. K. Maurice, F. C. Martley, J. A. Aikinson, C. F. Warren, J. O. Summerhays, H. Legge-Willis, H. F. Ealand, C. D. Leyden. The final round of the Interhospital (Association) Cup, St. Bartholomew's v. Guy's (Holders), was played at Upton on March 1st. The holders managed to secure the cup for the third successive year. The game was well contested; the winners only managed to score one goal.

COCAINE AS AN AID TO DIAGNOSIS IN LARYNGEAL DISEASE.—Dr. Baumgarten not long ago called attention in the *Wiener Medicinische Wochenschrift* to the value of cocaine in enabling true thickening of the vocal cords to be distinguished from the swelling of simple catarrhal inflammation. Even the most experienced laryngoscopists often find it very difficult to come to a definite conclusion on this point. If Dr. Baumgarten is right, however, nothing is more easy. As cocaine causes spasm of the capillaries, local depletion, with more or less transient blanching of the mucous surface, will follow its application to cords that are tumid and red from congestion. No such effect, on the other hand, will be produced when the substance of the cord is infiltrated with tubercular, syphilitic, or carcinomatous material. When, therefore, brushing with a 10 per cent. solution of cocaine fails to make the redness disappear, it may be taken as a proof that one has to deal with a serious disease.

UNIVERSITY OF LONDON.

A MEETING of Convocation was held at the University Buildings on March 6th. It was announced that Mr. Anstie had received 436 votes, Mr. Busk 367, and Mr. Nesbitt 35 votes. Mr. Anstie will, therefore, probably be nominated by the Crown to the vacancy in the Senate.

Dr. S. P. THOMSON proposed that Convocation should invite the Senate to grant *ad eundem* degrees to graduates of other universities who hold professorships in University and King's Colleges, thus enabling Convocation to admit them to its membership. The proposition was rejected by a large majority.

Dr. M. BAINES moved the following resolution:

"That Convocation disapproves the course pursued by the Senate with reference to a petition to the Crown of the Royal College of Physicians of London and the Royal College of Surgeons of England for a charter enabling them to confer degrees in medicine."

He narrated the history of the action of the Senate in connection with the two Colleges, and considered their action in the matter inconsistent. He read the minutes of the Senate, in which they resolved (by a majority of one) not to oppose the scheme on three conditions, namely: 1. That the degree proposed should not be confounded with the London University degree. 2. That the preliminary education of those who received the degree should not be inferior to that required of those who receive university degrees. 3. That the proposal to confer degrees on those already passed be not approved. The College of Surgeons had given up its Arts examination, and had delegated all such requirements to the Society of Apothecaries and the College of Preceptors; that showed how little that body cared for polite culture. The governing body would be elected from the two Councils, and would be self-elective, so that they would be masters of the entire situation. The teachers could never advise or direct the Senate, except such as might by chance be on that body, the bulk of the teachers being completely shut out. Hence, in want of any external influence, all regulations would be framed and all action taken in the interests of the Colleges themselves, and not for the good of the profession. This was the case with the College of Surgeons, whose present action in obtaining a new charter was sufficient evidence of what might be expected if any such power were given to the corporations named. A one-sided faculty was objectionable and unprecedented, and tended to the depreciation of a degree which should represent culture and learning. To separate medicine in this way from arts and kindred sciences would be prejudicial to all kinds of liberal education. The absence of representation of the proposed graduates was condemned. A great blot on the scheme was the fact that it was proposed to give the degree only to those who passed the examination of the two Colleges; and so those bodies, without any reason, usurped the position of a university, which was preposterous. Other London students, who did not enter the two Colleges, were excluded.

Mr. B. WHITEHEAD, B.A., seconded the resolution, and enlarged upon the impolitic action of the Senate.

Mr. T. B. NAPIER, LL.D., wished the proposal to be modified, so that it might read thus:—"That Convocation desires respectfully to express regret that the Senate has not seen fit to take action against the petition to the Crown of the Royal College of Physicians and the Royal College of Surgeons for a charter enabling them to confer degrees in medicine." He said this was not a medical question alone. The scheme, if adopted, would inaugurate quite a novel method of granting degrees, namely, by professional bodies alone.

Mr. M. F. O'REILLY, D.Sc., seconded the amendment, which Dr. Baines accepted, so that the amendment became the substantive motion.

Mr. OSLER defended the action of the majority in the Senate and said that the following arguments had weighed with him when he had given his vote in the Senate: 1. That there was a certain practical grievance, in the fact that there was no accessible degree in London for the bulk of London students. The picked men of the schools would still come to the University of London. 2. The two Colleges he was assured would give a good

degree. How far it would involve general culture was perhaps uncertain; but he doubted whether any universities required general culture for the degrees of other faculties than that of arts.

Dr. W. J. COLLINS said that so far as the Members of the Royal College of Surgeons had been consulted, they were adverse to the scheme.

Dr. SIDNEY COUPLAND said that the scheme did not originate with either of the Colleges, but was pressed upon them from without by other medical bodies. The degrees of the University of London were too severe for the usual run of students, who now went to Scotland and elsewhere in large numbers. At Edinburgh English students outnumbered those of all other nationalities.

Dr. P. H. PYE-SMITH said that the degree of M.D. did not represent academic culture or any other attainment than that of merely professional education. The Licentiates of the College of Physicians and Members of the College of Surgeons who were now passing were generally as highly cultured as the men who held the M.D. of many universities other than that of London. The resolution was carried by a large majority.

After disposing of some other business, the House adjourned.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary meeting of the Council was held on Thursday, March 8th, 1888.

The minutes of the Ordinary Council on the 9th ultimo were confirmed.

A unanimous resolution of condolence with the family of the late Mr. T. B. Curling, past President, past member of the Council, and Court of Examiners, was passed.

The seventh report, dated March 2nd, 1888, on the extension of the College premises was approved, adopted, and entered on the minutes. This report read as follows:—"The Committee recommend to the Council that, in addition to the works in connection with the extension of the College premises already sanctioned by the Council, a further sum of £692 11s. be expended in building, in accordance with the plan submitted by Mr. Salter, a corridor and lavatories behind the theatre, and a staircase communicating with the new portion of the Library and the proposed corridor, in lieu of the iron staircase already sanctioned by the Council, and in providing a hot-water supply for the lavatories."

The Council approved of the proposed conditions relating to the uses to which the new workrooms at the College may be devoted, as proposed by the Museum Committee.

The Finance Committee was then elected. It consisted of the President, Vice-President, Chairman of the Museum, Library and General Purposes Committees, and Messrs. B. Hill, Sibley, and Willett.

The Council voted a sum of £50 towards the expense of building a mission church in the Seven Dials.

A letter of February 16th from the legal adviser of the College was read, stating that the authorities at Somerset House have decided that the College diplomas are not liable to stamp duty.

A letter of February 13th from the Clerk to the Privy Council was read, forwarding, by direction of the Lord President, for the information of the College, a copy of a letter from the French Ambassador at this Court, announcing that a Congress of Surgeons will take place at Paris from the 12th to the 17th of March next.

A letter of February 29th from Mr. Peel was read, transmitting, by direction of the Lord President of the Council, to be laid before the Council of the College, a copy of a "rejoinder" which the Committee of the Association of Fellows have forwarded to his Lordship.

The Council resolved that a reply to the letter be sent, to the effect that the Council request his lordship to grant them an interview for the purpose of giving him any further information he may require in respect to the said rejoinder.

Mr. WILLETT's motion that a committee be appointed to consider and report to the Council on the form of the Report of the Council to the annual meeting of the Fellows and Members, was seconded by Mr. CADGE, and carried. Messrs. Marshall, Cadge, and Willett were appointed to form that committee.

Mr. SIBLEY's motion, that in view of the appointment by the Council of a professional auditor to annually audit the accounts of the College, a committee of auditors is no longer necessary, and that Section 21 of the standing Rules be accordingly abrogated and annulled, was seconded by Mr. T. SMITH, and carried *nem. con.*

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, and a further portion of the Report upon OLD AGE have been completed, and will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above districts will be held at the Grand Hotel, Brighton, on Thursday, March 22nd. F. W. SALZMANN, M.R.C.S., will preside. Meeting at 3.30 P.M.; dinner at 5.30 P.M.; charge 6s., exclusive of wine. The following communications are promised: Dr. Starling: A case of Fibroid Induration of the Stomach (with specimens). Mr. Howard Marsh: Recovery after Laparotomy for Intestinal Obstruction; with Remarks. Dr. Mackey will show: Cases of Lupus Erythematosus, etc. Gentlemen desirous of contributing short papers or cases, should write at once to the undersigned or to Dr. Gostling, West Worthing.—T. JENNER VERRALL, Honorary Secretary, 97, Montpellier Road, Brighton.

SHROPSHIRE AND MID-WALES BRANCH.—The next meeting of the Branch will be held at the Salop Infirmary, on Tuesday, March 27th, at 3 P.M. Mr. W. Eddowes in the chair. Gentlemen wishing to exhibit or read notes of cases, or to bring forward subjects for discussion, are requested to communicate with the honorary secretary, EDWARD CURETON, Shrewsbury.

NORTH WALES BRANCH.—The intermediate meeting of this Branch will be held at Colwyn Bay on Tuesday, March 20th, at 2 P.M. Members who wish to read papers, etc., or nominate candidates for membership, are requested to communicate at once with W. JONES-MORRIS, Honorary Secretary, Portmadoc.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—The next meeting will be held at the Saracen's Head Hotel, Dunmow, on Friday, March 23rd, 1888, at 2.30 P.M. R. B. MARRIOTT, Esq., Swaffham, President of the Branch, in the chair. Notices of papers, etc., should be sent as soon as possible to C. E. ABBOTT, Braintree, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held in the Hackney Town Hall, on Thursday, March 15th, at 8.30 P.M. A paper will be read by A. J. PEPPER, Esq., on Medical Evidence in Courts of Law. Visitors will be welcomed.—J. W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

SOUTHERN BRANCH: SOUTH WILTS DISTRICT.—The next meeting of this Branch will be held at the Bath Arms, Warminster, on Wednesday, March 21st, at 4 o'clock. Dinner at 6 o'clock. Tickets 5s., not to include wine. Members intending to be present, to communicate with the honorary secretary, H. J. MANNING, Laverstock, near Salisbury.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at the Cottage Hospital, Ashford, on Thursday, March 15th, at 3 P.M. Dr. Wilks in the chair. The President kindly invites members to luncheon, between 1 and 2.30, at his house, 22, North Street. The dinner will take place at 5 P.M., at the Saracen's Head, price 6s. (exclusive of wine). All members of the South Eastern Branch are entitled to attend these meetings, and to introduce professional friends. N.B. All gentlemen purposing to dine are particularly requested to inform the chairman by Tuesday the 13th, that proper arrangements may be made.—W. J. TYSON, Honorary District Secretary, 10, Langherne Gardens, Folkestone.

CEYLON BRANCH.

THE inauguration of the Ceylon Branch took place on December 17th, 1887, when a large and representative gathering of the members of the profession met in the Hall of the Colonial Medical Library. The following gentlemen were present: W. R. KYNSEY, F.R.C.S.P., Colombo; S. ARCHER, M.D., Brigade-Surgeon, Medical Staff, Colombo; J. L. VANDERSTRAATEN, M.D., M.R.C.P.L., Colombo; W. G. VAN DORT, M.D., C.M., Colombo; J. LOOS, M.D., M.R.C.P.E., Kandy; The Hon. P. D. ANTHONISZ, M.D., F.R.C.S.E., Colombo; W. DIAS, M.D., M.R.C.S.E., Galle; C. W. VAN GEYZEL, M.B., C.M., Colombo; H. THORNHILL, M.B., Kandy; W. G. ROCKWOOD, M.D., M.R.C.S.E., Colombo; J. ATTYGALLE, M.D., M.R.C.S.E., Colombo; T. F. GARVIN, M.B., C.M., Colombo; J. D. MACDONALD, M.D., Colombo; S. FERNANDO, M.B., C.M., Colombo; H. A. KEEGEL, L.R.C.P.E., Colombo; M. ELEYATAMBY, M.R.C.S.E., Colombo; H. HUYBERTSZ, L.R.C.P. and S.E., Kalatura; E. N. SCHOKMAN, L.C.M.C., Colombo; S. de M. ASSERAPPA, M.D., Colombo.

Specimens.—The Hall of the Library was tastefully arranged, a number of side tables having been set apart for specimens of considerable interest. Table I contained a large and varied collection of Plaster-of-Paris Casts executed by a local artist under the direction of the late Dr. Koch. The specimens included the following: Casts of Talipes, of Pott's Fracture, of Stumps after Pirogoff's, Syme's, and Chopart's Operations; Subglenoid Dislocation of the Humerus, Fractures at the Wrist, Fractures of the Clavicle, of Cases of Elephantiasis Græcorum, Bronchocele, and various other conditions.—Table II contained Eight Ovarian Tumours from cases operated upon by the Hon. Dr. Anthonisz, Dr. Rockwood, of Colombo, Dr. Schokman, of Galle, and the late Dr. Koch.—Table III contained a large collection of Urinary and Biliary Calculi, Concretions round Foreign Bodies, and Salivary Calculi presented to the De Soyza Museum by Drs. Koch, Rockwood, Anthonisz, Vandersmagt, Garvin, and others.—On Table IV Dr. MACDONALD exhibited microscopic slides showing the Bacilli of Splenic Fever, Cholera, Lepa, Erysipelas, Tubercle, Typhoid Fever, Pyæmia, Gonorrhœa, and Actinomyces, the Streptococcus of Pus, the Ova of the Round Worm, and the Cocci of Pneumonia. Several very good specimens of the Ova of the Anchylostoma Duodenale in different stages of development were shown taken from the fæces of patients at present under treatment from anchylostomiasis in the General Hospital at Colombo. The Embryo of the Worm was also shown.—On Table V Mr. BRITO exhibited a collection of microscopic slides, showing Epithelioma, Fibroid Tumour, Lupus, Anchylostoma Duodenale (female and male), Parasites in Beef, Tricocephalus Dispar, besides preparations of various normal tissues.—Table VI contained a collection of Entozoa in spirits very neatly mounted for examination by Mr. BRITO: 1, Oxyurus Vermicularis; 2, Amphistoma Explanatum (Buffalo?); 3, Tenia Solium (Human); 4, Tricocephalus Dispar (Human); 5, Lumbricoides (Human); 6, Tricocephalus (Horse); 7, Anchylostoma Duodenale.—Mr. BRITO also exhibited well-executed Dissections of the Human Brain hardened in spirits.—On Table VII Dr. MACDONALD exhibited a set of Esbach's Albuminometers, and a Portable Spirometer which attracted much attention.—Table VIII had the following preparations, exhibited by Mr. BRITO: 1, Human Fœtus and Membranes, about three or four weeks old; 2, Uterus and its Appendages, Fœtal Membranes and Cotyledonary Placenta; 3, Encephaloid Cancer of the Liver; 4, Heart of Frog showing Aortic Arches; 5, Blood-clot expelled Ten Days after Parturition (case of Puerperal Septicæmia); 6, Kidneys, Bladder, and Ureters of a Man—right kidney hypertrophied, left containing a calculus of the size of a small lemon; right pelvis and ureter distended; bladder carcinomatous.—The Museum of the Ceylon Medical College was also thrown open to the members.

Preliminary Proceedings.—At 12.30 P.M., in pursuance of notice, Dr. LOOS moved that Mr. KYNSEY, P.C.M.O., do take the chair. Brigade-Surgeon Dr. ARCHER seconded the motion.—Mr. KYNSEY, having taken the chair, addressed the meeting and expressed his satisfaction at seeing such a representative gathering assembled to inaugurate the Ceylon Branch of the British Medical Association.

tion. The first thing to do would be to complete the constitution of the Council by electing three members not resident in Colombo to the vacant seats in the Council.—Dr. ATTYGALLE proposed, and Dr. ASSERAPPA seconded: That Mr. Renny, M.B., C.M., Hatton; Surgeon Wallis, M.R.C.S., Army Medical Staff, of Galle; and Dr. James Loos, of Kandy, be elected members of Council under Section 7, By-law 4. Carried unanimously. From the Council thus constituted the election of the office-bearers for the year 1888 took place.

Election of President.—Brigade-Surgeon Dr. ARCHER then proposed, that from the Council thus constituted, the meeting do elect Mr. W. R. Kynsey to be the first President of the Ceylon Branch.—Dr. VANDORT having seconded the motion, Mr. KYNSEY thanked the meeting for this expression of its confidence. He felt that his approaching departure from the island on leave would interfere with the proper discharge of those duties which would devolve upon him as President in the organisation and working of the Branch at its first start. He felt sure that the meeting would cordially join him in the nomination of the gentleman whose name he would submit to them in his stead, a gentleman whose reputation in the medical profession had been established both here and in Great Britain, and who was his oldest friend in the island. He begged to propose the Hon. Dr. P. D. Anthonisz as the first President of the Ceylon Branch.—Mr. VANGYZEL seconded. The Hon. Dr. P. D. Anthonisz was declared duly elected President of the Ceylon Branch. Mr. KYNSEY then vacated the chair to the PRESIDENT, who returned thanks for his election. He felt that by reason of his years his term of usefulness in the profession would necessarily be limited, but under the circumstances of the case he gladly accepted the responsibility of occupying the chair he had just assumed, and which he trusted Mr. Kynsey would, on a future occasion, occupy.

Officers.—On the proposal of Mr. KYNSEY, seconded by Dr. VANDERSTRAATEN, Brigade-Surgeon Dr. Archer, M.S., and Dr. W. G. Vandort were unanimously elected Vice-Presidents of the Branch.—Mr. THORNHILL proposed, and Dr. MACDONALD seconded, the election of Mr. Henry Keegel as Honorary Secretary of the Branch. Carried unanimously.—Mr. VANGYZEL proposed the election of Dr. Vanderstraaten as Honorary Treasurer. Mr. HUYBERTSZ seconded the motion, which was carried unanimously.

Representative on the Council of Association.—On the proposal of the PRESIDENT, seconded by Mr. THORNHILL, Mr. Kynsey was nominated Representative from the Ceylon Branch to the Council of the parent Association.—Mr. KYNSEY, in returning thanks, hoped that during his stay in Europe, he would be able personally, if necessary, to further the interests of the Branch there.

New Members.—The HONORARY SECRETARY then proposed the election of the following gentlemen, Dr. VANDORT seconding each proposal. *To the Parent Branch.*—W. Dias, M.F., St. And., M.R.C.S. Eng., L.S.A.; S. de M. Asserappa, M.D. Edin.; A. Nell, L.C.M.C.; M. Candyah, L.C.M.C. *To the Local Branch.*—W. Dias, M.D. St. And., M.R.C.S. Eng., L.S.A.; S. de M. Asserappa, M.D. Edin.; A. Nell, L.C.M.C.; M. Candyah, L.C.M.C.; S. B. Perera, L.C.M.C.

Vote of Thanks.—Dr. MACDONALD proposed, and Dr. ASSERAPPA seconded, that a vote of thanks be accorded to the Chair. The resolution was carried unanimously, and the meeting ended.

Luncheon.—All the members of the Association who were present at the meeting, and Surgeon-Major Stokes, M.S., Surgeon Birch, Mr. Spence, Mr. Cochran, Lecturer on Chemistry, and Mr. Meier, the medical superintendent of the Leper Asylum, assembled at 1.30 P.M., by the invitation of the Principal Civil Medical Officer, at Guyscliff, where they were entertained at luncheon. The only toasts were the "Health of Mr. Kynsey," which was proposed by Dr. Loos, and drunk with acclamation and hearty wishes of a pleasant voyage and safe return; and the "Health of the first President of the Ceylon Branch of the British Medical Association," proposed by Mr. KYNSEY, to which the Hon. Dr. ANTHONISZ replied.

GLOUCESTERSHIRE BRANCH.

An ordinary meeting was held on Tuesday, February 21st, 1888, at 7.30 P.M., at the Gloucester Infirmary, under the presidency of Dr. CURRIE.

Suppuration of Vitreous.—Mr. BOWER showed a patient suffering from suppuration of the vitreous humour of the eye due to the presence of a steel chip. He had failed to see the fragment by the ophthalmoscope, and also to remove it by the electro-magnet. He pointed out the total absence of injury to the lens and cornea, or of inflammation.

Homœopathy.—Dr. CURRIE opened a discussion on the present position of Homœopathy in relation to regular Medicine, in which he propounded the question whether the hand of brotherhood should not be held out to the homœopaths, and concluded that it should.—Dr. BOND answered in the negative.—Mr. WADDY urged that all distinctions should be dropped.—Dr. NEEDHAM argued that no conciliation could be effected until the distinctive name be dropped.—Dr. BATTEN spoke strongly in favour of Dr. Currie's proposition.—Mr. ELLIS said there was much to learn from the homœopaths.—Dr. SOUTER said that, considering the great changes of opinion with regard to therapeutics, there was no reason for ostracising homœopaths.—Dr. CLARKE and Messrs. BOWER, CUTHBERT, and CARDEW also took part, and Dr. CURRIE replied. The meeting closed at 10 P.M.

The result of this meeting was most important, showing the great feeling in favour of admitting homœopaths to equal fellowship, and, as far as the county of Gloucester is concerned, having settled the question as to the right of holding consultations with them.

BORDER COUNTIES BRANCH.

A MEETING was held at the County Hotel, Carlisle, on Friday, February 24th, 1888. The chair was taken by Dr. McLEOD, Hawick, President, at 6 P.M. Twenty-four members and five visitors were present.

New Members.—The following were elected members of the Branch: William Blair, M.D. Glasg., Jedburgh; William Henry St. Leger Carter, L.R.C.P. and S. Ed., Conishead Priory; Donald Macgregor, M.D. Ed., Denholm, Hawick; Charles John Tifen, M.D. Ed., Wigton.

Process of Compensation.—Dr. BYROM BRAMWELL, of Edinburgh, read a paper on the process of compensation and its bearing on prognosis and treatment, which was illustrated with specimens and drawings.—In the discussion which followed, the PRESIDENT and Drs. J. ANSON, HADDON, BARNES, MACLAREN, GREEN, MACDOUGALL, LOCKIE, ALTHAM, and CAMPBELL took part.—Dr. BRAMWELL replied.

Vote of Thanks.—A vote of thanks was accorded to Dr. Bramwell, on the motion of Dr. HADDON.

Hypertrophy of Breasts.—Dr. MUIR, Selkirk, read notes of a case of hypertrophy of the mammae, and showed photographs.

Operation for Rectal Hemorrhage.—Dr. ALTHAM (Penrith) read notes of a case. A woman, aged 34, had had bleeding from the bowel for fourteen years, with much suffering. As none of the ordinary causes of hæmorrhage were found, the redundant skin round the anus was cut away, with the object of leaving a considerable surface to granulate and contract. The operation was completely successful.

Case of Herniotomy with Omental Cysts.—Dr. ALTHAM read notes of a case in which a woman, aged 70, was operated on for strangulated hernia. On cutting down it was found that what seemed like a knuckle of strangulated bowel was really a cyst in the omentum, which had been bruised during taxis. After making sure that no portion of bowel was contained in this sac, the omentum was ligatured and cut off. The patient did well, but it would no doubt be better in such cases to open the cysts and explore the cavity with the finger, so as to make sure that none of the bowel was included.

Intracranial Hemorrhage in a Boy.—Mr. T. P. DEVLIN (Carlisle) read notes of a case of cerebral hæmorrhage in a boy aged 11, who till three hours before his death had enjoyed good health. *Post-mortem* examination did not reveal disease in either thoracic or abdominal organs; but there was a large cavity filled with recent clot situated in the right hemisphere of the brain.

Supper.—Twenty-one gentlemen sat down to supper.

Next Meeting.—The next meeting of the Branch will be held in spring, at Cockermouth.

THE Duke of Bedford, as Lord-Lieutenant of the County, and the Lord Bishop of the diocese have become patrons of the Huntingdon County Hospital, and the Earl of Sandwich has been elected President, vice Baron de Ramsey, deceased.

JOHNSTONE COMBINATION HOSPITAL.—The Combination Hospital, which has been built at Johnstone to meet the requirements of five parishes, at the cost of £2,200, has been inspected by a Government officer, and pronounced thoroughly satisfactory, and is to be opened at the end of the month.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Cold Bathing in Typhoid.—Lead Poisoning.—Photoxyline as a Surgical Dressing.—Toxic Effects of Antipyrin.—Carbolic Acid in Pulmonary Phthisis.—Effects of Boric Acid.

M. JUHEL-RÉNOY recently read a paper before the Société Médicale des Hôpitaux on cold bathing in typhoid. He had treated forty-three cases in this way, with only three deaths. Sixty-five baths were given in each case. The nature of the disease was established beyond a doubt in every instance. M. Juhel-Rénoy considers that cold baths prevent hæmorrhage, pulmonary complications and syncope, modify the diarrhoea, and clear the urine, which is secreted in great abundance. Among his patients there were pregnant women, hysterical, alcoholic, and tuberculous patients. In cases of perforation of the intestine and peritonitis, cold bathing should never be employed. M. Dujardin-Beaumetz remarked that M. Quinquand had proved that cold baths increase organic combustion, and consequently the production of heat. He admitted that cold baths may act as a tonic, but the same result was obtained with tepid baths, which were not so dangerous. The increased arterial tension produced by cold baths might cause sudden death in cases of cardiac weakness.

At the meeting of the Surgical Society on February 9th, M. Duguet described a case of lead poisoning. The patient, a woman aged 38, was employed in a factory where coloured cardboard boxes are made by machinery. Her business was to gum small bands of paper 0.15 centimètre long on these boxes, which were intended to hold reels of cotton. These paper bands are coloured red and orange on one side, being grey on the other side, which is covered with gum. In taking up these bands, which are packed in layers, the patient was obliged to wet her finger with her tongue each time, and slip off each band, of which the red and orange side is placed uppermost, with her finger. The grey side of the band had then to be licked, and the band gummed on the box. The patient had frequently gummed as many as 5,000 of these bands in one day. She stated that her companions (eight or ten) who did the same work, all became pale and thin, and suffered from colic. Those who were employed in pasting on blue-coloured bands of paper were not affected with any morbid symptoms. The red and orange bands of paper were analysed by M. Gur. The residue of the paper, when burnt, gave all the reactions of salts of lead. Each band contained about 12 milligrammes of metallic lead. This form of lead poisoning has not been described before. M. Monod suggested that the case should be reported to the Préfet de Police.

M. von Wahl has lately tried substituting photoxyline, which is used in photography, for collodion in surgical operations. He employs a 5 per cent. solution mixed with equal portions of alcohol and ether. His experiments showed that photoxyline has the following advantages: It adheres more closely to the skin than collodion; it is absolutely impermeable, and is not deteriorated by washing or by prolonged contact with other fluids; it exercises a uniform compression on the tissues. It can, therefore, be strongly recommended in the case of slight surgical operations, when the patient is not obliged to lie up and a voluminous antiseptic dressing is most inconvenient; as in plastic operations on the face, and in those performed in the region of the genital organs in male patients (radical operations for hernia, hydrocele, castration, etc.). In these cases a thin layer of cotton-wool, free from all greasy principles and saturated with photoxyline, is applied to the wound and fixed by means of sutures and court plaster after bleeding has stopped. This layer will resist the dissolving action of any foreign fluids for eight or ten days. The uniform pressure it exercises renders drainage superfluous. In the case of children, where it is almost impossible to prevent the contact of the dressings with the urine, photoxyline will be found especially valuable. In laparotomy this form of dressing will suffice by itself, and will protect the abdominal wound in the most efficient manner.

At a recent meeting of the Académie de Médecine Dr. Ball read a paper by Dr. Oscar Jennings on a case of poisoning by antipyrin. The patient suffered from nodular rheumatism, for which 2.50 grammes of antipyrin were given daily for a week. On the eighth day erythematous spots were observed on the arms, and

the patient had an uncomfortable sensation in the eyes. On the following day the face was red, the eyelids swollen. The day after a rash came out all over the body; there was catarrhal conjunctivitis, loss of appetite, and a sensation of internal cold. The pulse was 78. There was singing in the ears. The patient was very weak. A few drops of tincture of belladonna caused these symptoms rapidly to disappear. Dr. Jennings considers that antipyrin should be given with great caution to old people and persons of an impressionable temperament. The symptoms of poisoning can, however, be easily subdued by administering a few drops of tincture of belladonna, or by subcutaneous injections of atropine. M. Germain Sée observed that he had met with many similar cases. The symptoms of poisoning which he had observed were usually due to doses of three or four grammes of antipyrin, given for several consecutive days. Such symptoms were most commonly met with in female patients. Antipyrin should never be given a second time to patients in whom they had been observed. In such cases antifebrin (acetanilide) should be substituted for antipyrin. M. Sée strongly condemned the practice of giving belladonna or injections of atropine to combat the symptoms of poisoning, which will spontaneously disappear in from twenty-four to forty-eight hours if the drug is discontinued, and which cannot be regarded as of a serious nature. M. Dujardin-Beaumetz, who shares this opinion, remarked that, after a prolonged use, antipyrin caused pain in the stomach and dyspeptic symptoms. The adulteration of antipyrin with benzine or other substances was possibly the cause of these symptoms, which had been more frequently observed of late. M. Dujardin-Beaumetz further remarked that subcutaneous injections of antipyrin were painful. Acetanilide caused cyanosis in certain cases. A dose of two grammes a day should never be exceeded. M. Germain Sée had observed the gastric symptoms described by M. Dujardin-Beaumetz, and believed them to be due to the manner in which the antipyrin was prepared. In order to prevent these symptoms, M. Sée employed carbonate of soda or seltzer water. For subcutaneous injections he gave one gramme in four injections. In this way the injections were not painful. M. Ollivier stated that he did not share the belief held by many authors concerning the good effects of antipyrin. He had employed it in the treatment of chorea, and found that, although it modified the affection in certain cases, in others it did no good.

M. Dujardin-Beaumetz, in a lecture which he recently delivered on carbolic acid in the treatment of phthisis, expressed himself to the following effect: "The absorption of the acid by the air-passages being out of the question, the only means of administering it is by hypodermic injections and by the alimentary canal (stomach or rectum). As the digestive organs of phthisical patients are usually out of order, any irritation of the stomach should be avoided in their case. The skin and the rectum are therefore the only means by which the acid can be safely introduced. It has been used by many medical men in cases of pulmonary tuberculosis. The injection may be hypodermic or into the deeper parts; by this means the antiseptic liquid may be conveyed to the very spot in which the lesion exists. Professor Lépine and his pupil Truc tried intra-pulmonary injections of a 2 per cent. alcoholic solution of creasote in tuberculosis. A weak solution of morphine had been previously injected to prevent pain. These authors recommended iodoform, with which excellent results were obtained in the treatment of tuberculous abscess. For the carbolic acid injections a syringe large enough to hold 5 grammes of the liquid should be employed. A 2 per cent. solution of carbolic acid, perfectly pure, and previously dissolved in glycerine (alcohol is irritating) should be used. The spots at which the injections are made should be chosen in the anterior portion of the chest, below the clavicle. The number of punctures to be made must be determined by the special character of the affection, but an excessive number may cause symptoms of carbolic acid poisoning. Under this treatment it will be found that in a large proportion of cases the appetite returns; the patients can leave their beds and walk out; the coughing and expectoration are diminished, and the night sweats frequently cease.

At a recent meeting of the Société Médicale des Hôpitaux, M. Gaucher described the results of his experiments with boric acid, administered internally. He has discovered that, in doses which produce the required effects, this substance is not toxic. When applied to the bare skin only it is not caustic, and only a slight amount of absorption takes place; for this reason it is of great service in skin diseases. In infectious and contagious impetigo it

has the same effect as oil of cade, without its drawbacks. M. Gaucher used it successfully in a case of cutaneous tuberculosis. He raised the question whether there may not be some analogy between this affection and impetigo. M. Grancher, on the other hand, stated that he had made numerous inoculations with the virus of impetigo, but in only one case had he produced tuberculosis. He believed that the micro-organism of impetigo and that of tuberculosis were quite distinct. M. Gaucher administered internally from 50 centigrammes to 1 gramme of boric acid to a series of consumptive patients with the following results:—The general condition improved, the local condition remained stationary. The acid was eliminated by the urine in the form of boric ether. He considers that internal doses of boric acid might be substituted with advantage for injections of this substance in the treatment of cystitis. He gave one gramme of the acid daily to several aged patients with hypertrophy of the prostate, accompanied by cystitis; the urine, which was thick and contained muco-pus, quickly became clear. Boric acid is not astringent like borate of sodium, which is used by some surgeons.

SAN REMO.

[FROM OUR OWN CORRESPONDENT.]

By the time this letter reaches you I trust some of the tension on the public mind in connection with affairs at the Villa Zirio may be relieved. I can at any rate report (March 5th) some progress within the last few days, the Crown Prince having now had three comparatively good nights, with less cough and expectoration, and having been out on the piazza upon which the windows of his room open for several hours each day. This he has been able to do thanks to the ingenuity of Sir Morell Mackenzie, who extemporised a screen which shelters the patient from any wind, and gives some amount of privacy from the gaze of the crowds which congregate in the road below the villa.

The embargo laid by the Emperor on the physicians as to giving any information beyond that conveyed by the official bulletins, which are probably submitted to the august patient before being published, has struck terror into the heart of the host of special correspondents now here, and renders it extremely difficult to obtain reliable information. It has also had the worst possible effect in causing information of a pessimist nature to be invented.

The suggestion made by Sir Morell Mackenzie alluded to in my last has been carried out, and on Saturday evening Professor Waldeyer, now holding the Chair of Anatomy at the University of Berlin, and formerly Professor of Pathology, arrived here. This eminent microscopist, who has written important works on the origin of cancer, I have reason to know spent the whole of Sunday in making examinations of the expectorated matter, and the greater part of the morning Sir Morell Mackenzie was with him. The doctors, however, have been requested not to make known his views, whether favourable or not, so that whatever conclusions he may arrive at will be forwarded to Berlin, and are not likely to be known here. A new cannula was made here last week under the superintendence of Sir Morell Mackenzie, who spent nearly a day and a half in the workshop of the local silversmith, exciting much interest in the Italian artisan mind. In this work he was assisted by Dr. T. Evans, of Paris, the American dentist of European fame, who is staying here. Since this tube was taken to the Villa Zirio, I hear that the cough and expectoration have materially diminished, and that the latter is much less blood-tinged than it was; whether this is due to the new tube or not I cannot say.

The Crown Princess continues to display the admirable fortitude and bravery that have distinguished her all along, at a time when one knows her heart is wrung with the bitterest anxiety. Her kindness and consideration for others are perpetually shown, an example of which has just been brought to my notice. An English nurse, trained at the Liverpool Hospital, who has nursed here with great success for several years, was recommended by Dr. Freeman to assist in the nursing, preparing food, etc., after the operation. A hospital orderly has now arrived from Berlin, and on the nurse's departure the Crown Princess personally presented her with a pretty and valuable brooch, thanking her warmly.

There is still a good deal of international feeling and jealousy, and though natural to a certain extent, it is, I fear, carried much too far. Sir M. Mackenzie has now resumed charge of the illustrious patient, being supreme in the case. Prince William arrived

last week, and Professor von Bergmann has remained by command of the Emperor. I understand that either Sir M. Mackenzie or Mr. Mark Howell is always on duty at the Villa. It is hoped that this anxious state of matters will not last much longer. The Bishop of Gibraltar is here, and preached at All Saints' Church on Sunday. He was received by the Crown Princess on Monday afternoon at the Villa Zirio. The weather has quite changed, and is very fine.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Hospital Funds.—*Small-pox.*—*Owens College.*—*British Association Local Committees Accounts.*

THE collections on Sunday amounted to £4,285, and on Hospital Saturday to £1,494, but to the latter sum an addition may still be made.

Additional cases of small-pox continue to crop up in various towns near Manchester. In Stockport alone twenty-one cases with four deaths have been notified since the disease broke out again.

The principal and treasurer of Owens College have issued a circular setting forth the needs of the College, and soliciting subscriptions to clear off the debts on the new laboratories and museums which have recently been erected and equipped. We feel certain that the public of Manchester—so justly proud of its College, entirely endowed and supported by the contributions of its citizens apart from State aid—will respond liberally to the appeal. The sum required to pay off the debt on the buildings is about £45,000.

The Local Executive Committee of the British Association has reported on the expenditure incurred at the recent meeting of this Association, held in Manchester in September last. Altogether the amount received was £4,336, while the number of members attending was 3,838. The attendance was greatly in excess of that at any previous meeting, and the amount received and available for the promotion of science was beyond all former records. The total expenditure was £4,258, this sum being met chiefly by the guarantors, 35 per cent. of the sum guaranteed being called up by donations and the proceeds of excursions.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Serious Decrease of the Water Supply.—*Small-pox in Liverpool.*—*Hospital Appointment.*—*Police Appointments.*

FOR several weeks past we have had a "restricted" water supply, and within the past month the water has been cut off for several hours during the day as well as during the night. The great works in North Wales cannot be completed for some time yet, so most of the Liverpool water still comes from Rivington. There has, however, been an alarming decrease in the amount of water there, and a water famine has been feared. The Water Committee held a meeting on March 5th. It was then stated that during the past fortnight the decrease of water in store at Rivington amounted to 107 million gallons, or 2,586 million gallons less than on the corresponding week last year. It was announced that means were being taken to obtain water from other sources to meet present requirements. As a matter of fact the Liverpool Corporation have arranged already to obtain from one to two million gallons a day from the Kirkby Well, belonging to the Corporation of St. Helens; and some of this is coming into the city now. The rainfall at Rivington for the fortnight ending February 23rd amounted to 0.163 inches. It has been definitely decided that the new water supply from Vyrnwy, North Wales, is to be conveyed under the Mersey in a specially-constructed tunnel, and not through pipes lying on the river bottom. This, which is the outcome of action taken by the Manchester Ship Canal Company, will of course add greatly to the already enormous expense of the new water system for Liverpool.

Considering the great amount of traffic between this city and Sheffield, it is somewhat remarkable that, until a week or two ago no decided cases of small-pox have occurred here. The medical officer of health has recorded seven cases, most of which were directly traceable to an official in the employ of the Manchester, Sheffield, and Lincolnshire Railway Company, which communicates with Liverpool by the Cheshire Lines Committee.

In fact, the health of the city has been, on the whole, rather exceptionally good for many weeks past.

Dr. William Alexander, so well known by his operation of tightening the round ligaments and other original operations, has been without opposition elected honorary surgeon to the Royal Southern Hospital. The vacancy occurred by the retirement of Mr. Hamilton, whose term of office had expired.

Last week the Watch Committee appointed Dr. Macpherson and Mr. Rhinallt Pughe surgeons to the City Police Force for the north and south districts respectively.

CORRESPONDENCE.

DR. APOSTOLI AND ELECTROLYSIS.

SIR,—In a letter on this subject in the *JOURNAL* of March 3rd, it is stated that this treatment, even in the hands of its originator (in its present form), is full of danger to life. I am able to corroborate Dr. Apostoli's statement that this is not so, for Dr. Keith and I have made 2,567 applications for fibroids and other diseased conditions of the uterus, and, following Dr. Apostoli's directions, have had but one case where there has been any trouble. This patient did not do what she was told to do, and the result was an attack of cellulitis, which rest in bed has cured. After every application the patients have been able to go home, walking, driving, or by train.

We propose at a future time to bring before the profession the results of these applications; but at present I may say that we are treating a lady, who was told nearly three years ago by a well-known provincial abdominal surgeon, that if she did not submit to the operation of hysterectomy she would not live for six months! The tumour was then, and is still, simply an inconvenience from its size—it is not very large, and has already decreased about one quarter after six applications.—I am, etc.,
Edinburgh. SKENE KEITH.

NURSING FOR THE VERY POOR.

SIR,—In many parts of the country attempts have been made to establish permanently a parish nurse, or a nursing association of several nurses for a union of parishes. I do not here refer to towns, but to exclusively rural agricultural districts, where both farmers and tradespeople are poor. These attempts have been more often unsuccessful than the contrary, from various causes; but, without entering into the consideration of all of these, I may state that, in my own neighbourhood, the efforts in this direction have been crowned with eminent success, and I would, therefore, desire briefly to describe our system, and to point out where there is room for improvement, and in what way this improvement could be effected.

Our Nurses' Association was started in the beginning of 1883. Highly trained nurses have proved in other places unsuitable for the general run of illnesses in poor cottages, where there is but little room and means, and often but scanty or poor food to be obtained, and it seemed necessary to form the staff of nurses from women in the same station and circumstances of life as the patients themselves, as the nurse must, in the conditions under consideration, do the cooking and mind the children as well as nurse the mother, where the latter is the patient. Highly trained nurses, as a rule, will not be content with the poor food and accommodation that are to be found in a labourer's cottage, and a second hand is required to attend to the needs of the household, the man's dinner, the children's washing and dressing, etc.

We commenced, therefore, by engaging a respectable widow accustomed to nursing, and willing to act for a moderate fixed salary; others were soon found anxious to join, and as most parishes were either too poor or too small to keep and employ a nurse constantly, an association of parishes was formed. At present there are fourteen parishes and ten nurses. The parishes are limited to those within twelve miles of the secretary's home. In each parish that joins some lady must be found to represent it on the committee, to whom application is to be made by those requiring a nurse, who will watch any case in her parish, and is willing to collect and guarantee a certain annual sum. This sum is fixed at £8 from each parish, with £1 more for every 100 people over 800. There is no central home, but the nurses lodge in different parts of the district. There is a sliding scale of subscriptions and fees at a rate that enables people of each class to keep a nurse for a month for the same cost that they would pay for ten

days' nursing in the ordinary way; subscribers getting the right to have a nurse at half fee. For instance, the labourers' subscription is 2s. annually; they have a nurse for 2s. a week. Gentry's subscription not less than 10s. annually, and fee for nurse 10s. weekly. Board and lodging, also, for the nurse to be provided in all cases, but in specially poor cottages they have an extra allowance from the Association of 2s. 6d. per week. The nurses are paid a fixed annual salary of £26, and board and lodge themselves when not out. The Association puts by £1 a year besides for each nurse, which she receives with accumulated interest on leaving. Young women of 21 or 22 are taken as probationers, and if they show care and interest in their work, and some competence in nursing ordinary cases, we give them a month's training in the City of London Lying-in Institution upon certain conditions.

Our standard of nurses is gradually rising, thanks partly to the popularity of the occupation bringing better women as applicants for vacancies, and partly to the readiness and eagerness with which the medical man's directions and suggestions are adopted, but we feel the want of some training in a general hospital for them, not to the perfection to which a thoroughly-trained nurse is brought, as we have our first-rate nurse in our local village hospital to which the more serious cases are taken, but training for a more limited period, enough to enable our nurses to comprehend something more of the nature of illness, and of her duties in watching and noting what occurs under her eyes. It may consist, for instance, of such elementary instruction as is given in ambulance classes, with some other matters which make up a nurse's daily and hourly duties. Our means, however, are quite inadequate to enable us to pay for this desirable instruction ourselves, but we think that by combined representations from many similar nursing associations to the Committee of the Queen's Jubilee Fund, a grant might be obtained for the purpose, which, together with some fee from the Nursing Association, might be paid to some general hospital, which should undertake in return to give the required training.

If the committees of nursing associations generally throughout the country would make the necessary representation of their needs to the Secretary of the Duke of Westminster, Grosvenor House, their applications would without doubt be considered with ready courtesy and good will, and will probably meet with success; and thus much might be done to increase the efficiency of the nursing of the sick poor, with all its attendant good and advantage. I would gladly give as much information as possible, but fuller particulars with pamphlet (price sixpence) can be had from Sewell, Stockbridge Terrace, London, S.W.—I am, etc.,
Capel, Surrey. J. L. JARDINE, M.R.C.S.

THE BIRTHPLACE OF CONSUMPTION.

SIR,—In last week's *JOURNAL* you have done me the honour of alluding, in one of your leading articles, to a paper of mine dealing with the above-named subject.

The writer of the article does not accept the conclusions that I had ventured to consider probable. His scepticism is, however, based upon an entire misconception of the statistics which he adduces. He has unfortunately attributed much weight to an apparent contradiction between the figures given in the above-mentioned paper and some statistics quoted by me in a health lecture on "Foul Air and Lung Disease." He affirms, as if with my authority, that the "Consumption death-rate from 1865-76" was for England 3.54 per 1,000, for Salford 5.12, for the registration district of Manchester 6.10, and for Manchester township in 1874, 7.7. It is thus made to appear that the alleged breeding grounds of phthisis have really a lower phthisis-rate "than the more healthy regions of the whole area of which they form a part."

With such premisses as these, it is not wonderful that the writer of the article should consider that all the subsequent conclusions of my paper are "vitiated." But he has, by inadvertence, been led here into a serious error, and one that I must beg you to rectify as soon as possible.

The figures that he gives as referring to consumption do not relate to that disease at all, but appear in the Registrar-General's tables, and also in the lecture, as diseases of the respiratory organs, not phthisis. In the Registrar's returns there are two distinct columns, in which deaths from (a) Phthisis, and (b) Disease of the Respiratory Organs, are grouped. The table quoted by me from Mr. Baxendell includes only the latter group, and as these diseases kill about twice as many as phthisis, the death-rate

mentioned by the writer of the article is about twice as large as the true consumption death-rate.

The consumption death-rate in England has never been much more than 2.5 per 1,000. It is now only 1.7, whilst the death-rate from diseases of the respiratory organs is about 3.6.

The consumption death-rate for Salford in 1871 was 2.3, not 5.12, and that for Manchester was 3.6, not 7.7.

Hence my contention is conclusively proved, that the death-rate from consumption in the districts selected is more than twice that of the general phthisis-rate.

It is hardly necessary to notice the writer's other objections to my figures. Still I may mention that, if he had been better acquainted with the districts, he would not have spoken of "shops" as a source of error. There are scarcely any shops, even in the comparatively larger streets. All the streets I have named in the paper are almost wholly composed of small two-roomed "back to back" houses, and they are strictly comparable as to the character of their populations.

Lastly, the writer mentions children's deaths as a source of fallacy; but, in fact, there were scarcely any such deaths amongst those who had died of consumption.—I am, etc.,

Manchester, February 28th, 1888. ARTHUR RANSOME.

MEDICAL OFFICERS AND THE INDIAN COUNCIL.

SIR,—There died a few days ago at Cannes a distinguished lawyer, a man of letters and a member of the Indian Council, Sir Henry J. Sumner Maine, who, the *Times* kindly informs us, was the son of a "medical man."

His place in the Indian Council has been filled, I see, by Sir Charles Turner, K.C.I.E., another distinguished lawyer, at whose appointment we all, who had the honour and pleasure of his acquaintance in Madras, will rejoice.

If we look at the list of members of the Indian Council, however, we find it to consist of fifteen members, of which eight are soldiers, five civilians, one lawyer, and one merchant. Not a single medical officer! And the question which naturally arises to one's mind is, Why is this?

Now India owes a great deal to the medical profession. Old Orme tells us, in his unrivalled *History of Hindustan* (vol ii, book 6, page 8), that to Dr. Broughton, *temp.* 1636, the Honourable East India Company owed its first settlement in Bengal, and that most gallant and accomplished soldier, Sir Neville Chamberlain, G.C.B., G.C.S.I., only the other day, proclaimed it as his opinion, "That the peaceful and civilising influence of the work done in the hospitals and by regimental surgeons on the frontier of India has been in political importance equivalent to the presence of thousands of bayonets."

"The great question to be solved in the future is that of how we can best bridge over the chasm which separates the rulers from the ruled. The means of accomplishing this end may be mainly hoped for in the sympathy to be created between the races; and I think the medical profession will always have it in its power to give most important aid towards the attainment of this object."

And yet not a member of this important profession is deemed worthy of a seat in the Council which directs the affairs of this great dependency of England. Surely there is something wrong here, for it can scarcely be denied that sanitary and medical matters occupy as important a place in our administration of India as even the law.

Much more might be written on this subject, but in deference to your urgent request for brevity from your correspondents I desist.—I am, etc.,

M. C. FURNELL, M.D., C.I.E.
The Riviera, February 20th, 1888.

IMMUNITY OF CERTAIN TOWNS FROM DIPHTHERIA.

SIR,—In reply to the inquiries upon the origin and mode of propagation of epidemics of diphtheria, which the Collective Investigation Committee issued at the beginning of the year, I have been informed, amongst other things, of the complete immunity from epidemics of membranous disease of some towns of considerable size and importance. Will you allow me to say, through the medium of the *JOURNAL*, that the Committee will be glad to receive information of such immunity wherever it has been observed to exist? It will add, of course, to the value of the fact if some details of the situation and character of the town or district be at the same time given.—I am, etc.,

ISAMBARD OWEN,

Secretary to the Coll. Inv. Comm.

5, Hertford Street, Mayfair, March 6th, 1888.

THE IMPROVEMENT OF BRITISH HEALTH RESORTS.

SIR,—The observations contained in your interesting letter on Carlsbad, as to the importance of increasing the attractiveness and usefulness of our own health resorts, are worthy of the earnest attention of all parties concerned, and it has been for years a matter of astonishment to me that something has not been done long ago in the direction indicated, especially during the last few years of agricultural and commercial depression.

The absolute necessity for changes in the working of our commercial system, in order to meet successfully foreign competition, is forcing itself home to the minds of our legislators, and stimulating inquiry into our methods of technical and commercial education, and it may well be asked if something should not be done to raise British sanatoria to a higher level of popularity.

Physicians who practise abroad know at what sacrifices and by means of what rigid economy many invalids contrive to winter abroad, and how many things which to an invalid are necessary comforts have to be dispensed with. It is unfortunately our common experience that such persons are only too often unable to pay even very moderate professional fees, and all this notwithstanding great sacrifices on the part of their relatives at home.

I have often asked myself if many such invalids would not be better in England, where any special advantage of wintering abroad would be counterbalanced by the increased comfort of an English house, English cookery, and the associations of home and proximity to friends, while the expenses of a long, costly, and often uncomfortable journey and sea-passage would be avoided, and the distress of mind incidental to parting whilst in feeble health from the family circle would be spared to the invalid.

To the rich the special advantage of foreign residence will always be attractive; but even to these the long journey will sometimes be a serious consideration.

There are many South Coast sanatoria which, if properly developed, would often enable the invalid to remain in England. My own experience while practising in Devonshire long ago convinced me of this; but, for the completeness of such, an entire re-organisation by the establishment of winter gardens, pleasure grounds, baths of various kinds, libraries, and really good cheap music would in almost every case be required. It is incomprehensible to me that some such organisation as that at Carlsbad—which, with certain local modifications, exists in every spa in Germany—should not have been long since applied in England.

Buxton has been renowned for centuries, and thousands can testify to the value of its healing springs and hardly less valuable, invigorating, bracing air and high altitude. Thanks to what has been done by the Dukes of Devonshire, it has of late years undergone great improvement; but why should the sufferer from gout or rheumatism be unable there to have his treatment varied or modified by baths of Droitwich brine or similar addition, as is in Germany accomplished by the employment of various "mutter-lenge," pine-needle extract, etc.? The *Kurtaxe* of a German bath is never felt as a burden, but in the aggregate produces a sum which enables all the expenses of the *Kurhaus*, gardens, etc., to be defrayed.

So far from its being cheaper, to take a "cure" in an English watering place, it is much cheaper to go abroad to such places as Homburg, where the expenses of living are so much less than at an equally fashionable English health resort as to more than make up for the extra expense of the journey. I feel sure that the experiment only needs to be tried in a really intelligent manner in order that it may be found to be a great pecuniary success.—I am, etc.,

EDWARD DRUMMOND, M.D.

3, Piazza di Spagna, Rome, February 24th, 1888.

RULING OF THE JUDGES IN CASES OF INSANITY.

SIR,—In the *JOURNAL* of February 25th, Dr. Forbes Winslow directs attention to the contradictory ruling of two judges in cases of insanity. On the day previous to the trials referred to, a man was tried for murder at Worcester before Lord Chief Justice Coleridge. By order of the Treasury two medical experts had examined the prisoner. I was subpoenaed as a witness for the Crown. We were all asked by the Judge for our opinion as to the state of the prisoner's mind.—I am, etc.,

G. W. RICHARDS, M.D.
Stourbridge.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE IRISH CONJOINT SCHEME: THE KING AND QUEEN'S COLLEGE OF PHYSICIANS v. THE APOTHECARIES' HALL, DUBLIN, AND OTHERS.

This case began on Wednesday, March 1st, and terminated on Saturday before the Vice-Chancellor. The plaintiffs sought a declaration that the Apothecaries' Hall are not entitled to hold a qualifying medical examination under the Medical Act, 1886, or to grant a diploma in respect of medicine within the meaning of that Act, and that the Apothecaries' Hall and the College of Surgeons are not entitled to enter into a combination for the purpose of holding such examination.

Mr. Serjeant HEMPHILL, in stating the case for the plaintiffs, said that in 1692 the College of Physicians was founded, and by the powers granted it had since, after due examination, granted licences to persons to practise medicine. In the thirty-first year of the reign of George III the Apothecaries' Hall was founded, and from that time the governor and company of the Apothecaries' Hall had a shop for the sale of medicines in Dublin, and held examinations under the Act, and granted certificates to persons who passed the examinations that they were properly qualified to practise the profession of apothecary. Shortly after the passing of the Medical Act, 1886, a scheme was formed for a combination between the College of Physicians and the College of Surgeons. The governor and company of the Apothecaries' Hall applied to the General Medical Board on November 9th, 1886, for an examiner in midwifery and surgery, and that application having been communicated to the College of Physicians, they wrote pointing out that the Apothecaries' Hall had no power to grant a diploma in medicine, and it was only empowered to grant a certificate in pharmacy. The College of Surgeons, however, entered into a combination with the Apothecaries' Hall, and the Medical Council appointed, on May 19th, 1887, two examiners in surgery to the Apothecaries' Hall. No examinations, however, had since been held at the Apothecaries' Hall, but advertisements were issued for a conjoint qualifying examination to be held by the two bodies, and it was to prevent this intention being carried out that the present injunction was sought. The College of Physicians submitted that the Apothecaries' Hall was not a medical corporation capable of granting medical diplomas, or capable of entering into a combination with the College of Surgeons to grant diplomas, and that the effect of allowing such a body to grant diplomas would be to lower the status of the profession. They, therefore, asked the Court to declare that the Apothecaries' Hall was not entitled to hold a qualifying examination in medicine under the Medical Act, or to enter into a combination with the College of Surgeons to do so. The position of Members of the College of Physicians was wholly different from that of apothecaries, and this was intended, both by charter and statute. Physicians alone were entitled to practise medicine in Dublin and throughout the country, while the business of apothecaries, who were really given a monopoly, was simply to sell and compound medicines, and follow the prescriptions of the physicians. He referred to the Acts regulating the position of apothecaries, and contended there was nothing in them giving them the status of a medical corporation capable of granting a diploma in respect to medicine, nor was such power given to the Apothecaries' Hall by the Medical Act of 1886: nor was the Hall entitled to obtain the aid of the examiners in surgery appointed by the General Medical Council, or to enter into a combination with the College of Surgeons to hold a conjoint qualifying examination under that Act. He submitted that the effect of the statute law was simply to enable the apothecaries to register themselves as they did previous to 1858, and at the passing of the Act in 1886 the Hall was not in a position to grant a medical diploma. The claim of the Apothecaries' Hall to confer medical diplomas was wholly inconsistent with its Act of Parliament, by which it should stand or fall, and was in contravention of the rights of the King and Queen's College of Physicians and of the provisions of the Medical Acts. The Apothecaries' Hall had no right, and had never acquired any right, to grant diplomas in medicine, and not having it they could not combine with the College of Surgeons with the object in question.

Mr. BEWLEY, Q.C., on the part of Dr. Heard, the Registrar, said it was not the business of his client, to support the contention of either party in this suit.

Mr. PURCELL, Q.C., on behalf of the Apothecaries' Hall, sub-

mitted that the case made on the other side was unfounded in fact, untenable in law, and was wholly unjustifiable. On the true construction of the Acts of 1858 and 1886 the Apothecaries' Hall was clearly entitled as a medical corporation to combine with any other medical or surgical body named in the Act of 1886 for the purpose of carrying out qualifying examinations and granting medical diplomas. So far back as any records existed about apothecaries, they had been under the common law and by usage practitioners in medicine. They had that status even before any charters had been granted, and before their own Act of 1791, which did not restrain their status in that respect. From the Act of 1791 to the present hour the apothecary had been, by virtue of his position, a practitioner of medicine. His clients had been most anxious to combine with the Colleges of Physicians and Surgeons for the objects contemplated by the Act. The General Medical Council, by their resolution of June, 1863, had decided by a large majority that the licence of the Apothecaries' Hall was a licence to practise medicine. The present was not the first attempt on the part of the College of Physicians to destroy the status of the apothecary. It was only one of a series of attempts made during the past thirty years, all of which had failed. Every effort had been made by the General Medical Council to induce the College of Physicians to enter into this combination, in order that all the examining bodies might be in union for the purpose of having one strong licensing body in Dublin.

Serjeant CAMPION, for the College of Surgeons, said his clients had acted on the opinion of the General Medical Council that the Apothecaries' Hall were a medical corporation, competent under the Act of 1886 to combine with them for the purpose in question.

Serjeant JELLETT, on behalf of the College of Physicians, said that the Medical Act (1886) clearly distinguished between medical corporations pure and simple and medical corporations capable of granting diplomas in medicine or surgery. In order to hold a joint examination in medicine, surgery, and midwifery under them, there should be a combination of two or more medical corporations, of whom one at least was capable of granting a diploma in surgery. Universities could grant both those diplomas. If, therefore, the Apothecaries' Hall had combined with a university, they would have been entitled to do that which they claimed to do; or, if they could combine with both the Colleges of Physicians and Surgeons, they would be in a position to hold the qualifying examination and grant the diploma. Failing to obtain those combinations, the only course open to them was to apply to the Council for examiners in both medicine and surgery, who would hold for them an examination the passing of which would qualify the person to be registered under the Act of 1858.

The VICE-CHANCELLOR: Do you concede that the Apothecaries' Hall are a corporation competent to grant a diploma conferring on the holder, if he has passed the qualifying examination, the right to be registered under the Act of 1858?

Serjeant JELLETT said he did. The position of the Licentiate of the Apothecaries' Hall in Ireland was quite different from that of the Licentiate of the Apothecaries' Hall of England. By the charter of the College of Physicians of Ireland the whole domain of physic, both as to theory and practice, had been given into their hands.

The VICE-CHANCELLOR said if he thought it necessary to go into the many important and interesting questions which had been so elaborately opened by counsel at both sides in order to arrive at a conclusion, he should have thought it desirable to postpone his judgment; but as in his opinion the case turned on a narrow point of law, arising on the construction of the Act of 1859 and the Medical Act of 1886, and involving but very indirectly the subjects so discussed, he did not think any advantage would be gained by taking time for further consideration. The Acts he mentioned were to be read as one Act. The Apothecaries' Hall claimed the right to combine with the College of Surgeons for the purpose of holding a qualifying examination, under the Act of 1886, in medicine, surgery, and midwifery. The College of Surgeons had the power of granting a diploma in surgery. The Apothecaries' Hall claimed to be entitled, under the Act of 1886, to grant a diploma in medicine. The College of Physicians insisted that a combination of these two bodies to grant a diploma in medicine was illegal, because no right of doing so existed in the Apothecaries' Hall. Under Section 15 and Schedule A of the Act of 1859 licentiates of the Apothecaries' Hall of Dublin were entitled to registration on production of a document evidencing or conferring their qualification, namely, the licence, under seal of the Apothecaries' Hall, and on the payment of a certain fee. A Licentiate of

that body, therefore, belonged to a body capable of granting a diploma, and, reading the two Acts together, to a body capable of granting a diploma in medicine. The Apothecaries' Hall was one of the constituency of learned bodies, including the Universities and the Colleges of Physicians and Surgeons, by whom the Medical Council was provided to be elected, and was made co-ordinate in authority and power with the rest of them. A great deal of argument had been addressed to the question of whether it was a wise thing on the part of the Legislature to have included the Apothecaries' Hall in Ireland in the list of bodies entitled to be styled qualifying bodies. It was said that the nature of their profession was of an inferior grade, and that the nature of their instruction was inferior and inadequate, and that therefore it was an error on the part of the Legislature to have put them on the Register with the power of practising as persons registered as medical practitioners could do. He dissented from all the parts of that proposition. He was satisfied that the apothecary was something very much beyond a mere druggist and chemist or compounder of medicines, and should be prepared to hold, if necessary on statutory recognitions and legal decisions both in England and Ireland, and on the evidence before him as to practice, that the apothecary was a person capable of lawfully practising as a medical practitioner in respect of medicine at least. In addition to that, the educational qualifications of apothecaries since the Act of 1859 had been on a very different footing from what they were at the time of the passing of the Act of 1791. He need only refer on that point to the affidavit made in the case of Dr. Montgomery, the Secretary of the Apothecaries' Hall, which showed that candidates for their licence were required to produce certificates of having attended lectures on chemistry, materia medica, botany, anatomy, pharmacy, physiology, and the theory and practice of medicine, and were also required to pass examinations in all these various subjects. He also stated what had been done to provide competent examiners, and, which was a matter of great importance, that the certificates of attendance were accepted by the Faculties of Physicians and Surgeons of Glasgow and Edinburgh. The College of Surgeons in Ireland, though at first they refused those certificates, yet afterwards formally rescinded that decision and accepted them. Therefore if it were necessary to go into the question it would be found that the Legislature had not been guilty of opening a door to unqualified uneducated persons. He believed that for a century and a half, or more, the apothecaries had been accustomed to practise to a certain extent as medical practitioners. But deciding the case on the question of law, he held that under the two Acts mentioned the Apothecaries' Hall were entitled to grant a diploma entitling the holder to registration as a medical practitioner, and to combine with the College of Surgeons to hold qualifying examinations in medicine, surgery, and midwifery. These matters were all under the control of the General Medical Council, who were bound to see that the education was sufficient, and, if not, to bring the matter under the consideration of the Lord Lieutenant. Therefore the case of the relation was not sustained, and the information should be dismissed with costs.

AN ARSENIC POISONER.

THE numerous refinements in the art of poisoning that have been introduced of late years have not, it would appear, caused those who wish to get rid of relatives or acquaintances wholly to dispense with the old-fashioned plans. We learn from a Boston contemporary that a woman, named Robinson, has lately been convicted at Cambridge, Massachusetts, of the murder of her brother-in-law by the administration of arsenic. The indictment charged her with the murder of seven persons, all within the space of five years, namely, her landlord, husband, sister, brother-in-law, daughter, nephew, and son, that being the chronological order in which the deaths occurred. All died with the usual symptoms of arsenical poisoning. She was first tried for the murder of her son, but the jury were unable to agree; the next count taken was for killing her brother-in-law, and on this charge she was found guilty in the first degree. Suspicion was not aroused against her until during the illness of her son, the last victim, arsenic having been detected in the matters vomited by him. She was arrested on the day before he died, and arsenic was subsequently found in his body. The bodies of the others mentioned above were then severally exhumed and examined, with the result that arsenic was found in the viscera in each instance. The alleged motive in at least four of the cases was the insurance money on the lives of her victims. The chief reason of

her success—for in many respects she was a clumsy performer—was no doubt that she moved about from place to place, so that her several victims were under the care of different medical men, otherwise she must have been found out long before. These murders only afford one more instance of the extreme necessity there is that medical men should always be on the alert, and in the case of an illness commencing suddenly or gradually in an adult with vomiting and purging for its most prominent features the possibility of arsenical poisoning should always be borne in mind.

A WOULD-BE SUPPLANTER.

A. G., writes: I have held a club appointment for nearly six years; the appointment is held subject to a three months' notice on either side, and I am re-elected at every annual meeting of the club. At the last annual meeting a letter was read from a medical man, applying for the post of medical officer to this club. I may say that this person had not been officially asked to apply for the post, neither had any complaints been laid against me by the officers or members of the club.

I was led to understand, when I took the appointment, that so long as I discharged my duty honourably, the re-election was a mere matter of form—to comply with the club rules.

* * * Although there is no rule laid down in the *Code of Medical Ethics* that directly bears on the case of our correspondent, he may nevertheless accept it as a fact, that such questionable conduct as that alleged against his would-be supplanter is not only in contravention of the true spirit of medical ethics, but of the great moral law of "doing unto others as we ourselves would wish to be done by."

CHRISTMAS CARDS.

THE exceptional question submitted by L. S. A., is too indefinitely expressed to enable us to grasp the special point involved therein. Why it should be "unprofessional (as our correspondent puts it) for a medical man to send out Christmas cards," in accordance with time-honoured custom, we fail to comprehend.

INCOME TAX.

K. asks: Can I deduct keep of horses—and if so, how much do they allow per horse—wages of groom and of surgery boy, rent of surgery? I believe I can deduct £120, if my return is under £100, and also any insurance premiums that I pay. There is another important item which I think would affect a good many men. Supposing a man going into practice has to borrow say £1,000 to buy with, and of course has to pay interest, say £50 per annum, can he also deduct this £50?

* * * K. has a right to deduct all professional expenses, consequently rent of surgery, costs of keeping horses, wages of groom, and wear and tear of carriage, harness, etc. As regards interest of borrowed money, he cannot deduct it as a professional expense, nor is it right he should, for in paying the interest, he can recoup himself by deducting the income tax from the interest. But, and this is most important, he may deduct the interest from his gross income to arrive at his net income. This will often enable a person to get abatement. There are so many of these rules connected with the assessment, that K. is recommended to apply to the Income Tax Repayment Agency, 25, Colville Terrace, W. It will help him in getting a fair assessment in the first instance, in appealing against an unjust one, and in getting back past income tax. Very possibly he might be entitled to three years' refund.

ADVERTISEMENTS IN LOCAL PAPERS.

In reply to "Nota Bene's" question, we would refer him to the *Code of Medical Ethics*, page 52, in which he will find the principle clearly laid down that "to advertise in a local paper change or addition of consulting hours," etc., is in contravention of medical etiquette, and derogatory to the profession.

EXPENSES OF AN ASSISTANT'S ILLNESS.

DR. D. (Durham).—Illness and consequent temporary loss of service does not terminate the contract. The parties have apparently agreed to treat it as now at an end; but the assistant is entitled to salary up to the date when the contract ceased. As regards expenses of apartments, etc., the strict rights of the parties are, under the circumstances stated, hard to ascertain. It seems that the removal took place as a matter of mutual convenience, and it would seem reasonable that each should bear some part of the extra expense consequent on it.

RECENT RULING AS TO EXPERT EVIDENCE.

DR. ROCHE.—What the leading article in the *JOURNAL* took exception to, was the exclusion of the expression of opinion (on the mental state) by the medical witnesses when giving evidence; it being for the jury to return a verdict when all the evidence is placed before them.

LUNACY CERTIFICATES: ACTIONS FOR DAMAGES.

INFELIX.—We have been unable to find the report, but the cases of *Weldon v. Rutherford*, and *Weldon v. Semple*, were tried we believe at the end of 1855 or beginning of 1856. They were reported in the *Times*, and are no doubt to be found in its index.

W. V. B.—If an action is brought to recover the money alleged to be due, the defendant can be ordered to produce his books, and to state on oath the amount he has received. It is desirable however to have some independent evidence that some money has been paid, before commencing proceedings.

T. M. W.—We should think two guineas a fair charge.

NAVAL AND MILITARY MEDICAL SERVICES.

RESERVE OF ARMY MEDICAL OFFICERS.

A ROYAL WARRANT is announced on the above subject, the text of which will doubtless appear in Army Orders in the forthcoming *Monthly Army List*. The substance of the warrant is as follows:—It is expedient to provide for the establishment of an army medical reserve of officers. The ranks of officers will be those of surgeon-major and surgeon. Medical officers of militia, yeomanry cavalry, and volunteers, who may be permitted to join the reserve, will be required to undertake to perform army duties at home, under rules to be fixed by the Secretary of State for War, and to act under the orders for administrative purposes of the Director-General of the Army Medical Department. Acting-surgeons and honorary assistant-surgeons will be permitted to join if they have passed the prescribed examination for proficiency. The rank of surgeon-major will be conferred on those surgeons of the auxiliary forces who join the reserve on completion of twelve years' service, from date of first appointment to the auxiliary forces, and the rank of surgeon will be granted to acting-surgeons and honorary assistant-surgeons of Volunteers. No officer will be appointed who is not medically fit for service, and whose character and qualifications are not in all respects satisfactory. They will be liable to be called to army service at home in times of great national emergency, to take the place of such of the medical staff of the army as may be withdrawn for active service, and when so called out will receive the pay and allowance of their rank.

We hope to be able to give the Warrant in full, with some comments, in our next; meanwhile, we would advise all concerned, before taking any action, to scrutinise well both its terms and objects.

HONORARY SURGEONS TO THE VICEROY IN INDIA.

IN the year 1881 Lord Ripon instituted the appointments above named; three were given to officers of the Army Medical Staff serving in India, and three to medical officers of Her Majesty's Indian army. Medical officers holding appointments as honorary physicians and surgeons to the Queen wore a gold-embroidered sash as a mark of distinction. In like manner the honorary surgeons to the Viceroy of India were distinguished when in military uniform by an aiguillette. We have just received a copy of an official memorandum, addressed by the military secretary to the Viceroy to the honorary surgeons, a copy of which we append, informing them that this aiguillette, in deference to military jealousy, can no longer be worn by them, and that an application on the part of the Viceroy to the authorities at home for permission to substitute the sash worn by honorary surgeons to the Queen for the aiguillette was refused. The Viceroy's aide-de-camps wear exactly the same marks of distinction as those holding the same appointment on the Queen's honorary staff; but it appears that this mark of distinction and recognition of an honourable position is one that cannot be worn by "doctors," and they are accordingly subjected to the indignity, in the face of the whole army of India, and of society there, of having this symbol of honourable rank torn from them to gratify the *orgueil* of a class, and the almost insane determination on the part of the military authorities to heap contempt on a body of officers on whom they are in their hour of utmost need dependent for their very lives.

To the gentlemen thus insulted it appears to us there is but one course open: immediate resignation of the "honour" conferred on them; and for those to whom a like "honour" may in future be tendered a polite refusal to accept it.

The fixed policy of the authorities seems to be to drive everyone in the shape of a gentleman out of the medical service of the army, and to prevent men of the same class from entering it. They are certain in the long run to effect their object.

MEMORANDUM.

EXCEPTION having been taken by the military authorities to the honorary surgeons of the Viceroy wearing an aiguillette, it was proposed that a sash similar to that worn by the honorary surgeons to the Queen should be worn instead of the aiguillette. This was referred home, and the request has been refused by the Home authorities.

It is hereby notified that that part of the circular dated December 18th, 1881, referring to the wearing of aiguillettes, is entirely cancelled, and the gold aiguillette is not to be worn in future by honorary surgeons to His Excellency.

By Command, WILLIAM BERSFORD, Lieut.-Col.,
Medical Secretary to the Viceroy.

Military Secretary's Office, Calcutta,
January 21st, 1888.

NAVAL MEDICAL REPORTS.

INSPECTOR GENERAL DONNET, R.N., in a paper recently read before the Epidemiological Society on malarious fevers, etc., strongly urged that naval medical officers should have some recognised official channel through which they could make known to the public their wide and varied observations on the etiology, particularly of climatic diseases. This very distinguished officer again writes to us, as he did a good many years ago on this subject, and we express now, as we did then, our entire sympathy with his views. But we much fear his wish is now even less near realisation than it was then. In recent years, instead of relaxing, the Treasury has tightened its purse-strings over the publication of both military and naval medical reports. It costs money, and in these times of retrenchment our government are not likely to be induced to emulate the liberality of France, Russia, and Holland in publishing such reports. The value to the profession of the extended and varied observations of the medical officers of the public services is indeed very great. But if these experiences are to be collected and published, we suspect it will have to be through private enterprise. As far as this JOURNAL is concerned we shall always be happy to do what we can in this direction.

THE NAVY.

FLEET-SURGEON W. G. RIDINGS has been placed on the retired list with the rank of Deputy Inspector-General. He entered the service as Surgeon July 11th, 1856; became Staff-Surgeon September 22nd, 1866; and Fleet-Surgeon May 3rd, 1877.

Staff-Surgeon ANTHONY GORHAM, M.D., has been promoted to the rank of Fleet-Surgeon. He ranked as Surgeon from November 12th, 1867, and as Staff-Surgeon from March 23rd, 1881. He served as Surgeon with the Naval Brigade during the operations in the Malay Peninsula in 1875, and was noted for promotion when qualified (medal with clasp).

Staff-Surgeon T. C. HICKEY, M.B., has been promoted to be Fleet-Surgeon. He was appointed Surgeon September 7th, 1867, and Staff-Surgeon March 15th, 1879.

The following appointments have been made at the Admiralty:—THOMAS FULLER, M.D., to be Surgeon and Agent at Shoreham and Fishergate; C. L. VASEY, Staff-Surgeon to the *Curagoa*; JOHN DUDLEY, Staff-Surgeon, to the *Brisik*; JEROME BARRY, Surgeon, to the *Curagoa*; D. J. P. McNABB, Surgeon, to the *Banterer*; JAMES TRIMBLE, Fleet-Surgeon to the Royal Marine Artillery Division at Eastney; G. R. D. CHARLTON, Surgeon, to Sheerness Dockyard; J. W. O. UNDERHILL, Surgeon, to the *Pembroke*; additional.

THE MEDICAL STAFF.

DEPUTY SURGEON-GENERAL J. B. C. READE, C.B., is promoted to be Surgeon-General, ranking as Major-General, vice T. W. Fox, M.B., who has been granted retired pay. He entered the Army Medical Service as Assistant-Surgeon March 24th, 1854; became Surgeon April 19th, 1861; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; and Deputy Surgeon-General, October 23rd, 1881. He served with the 2nd Battalion Rifle Brigade throughout the Eastern campaign of 1854-55, including the battles of Alma and Inkerman, and siege of Sebastopol; was wounded on November 14th, 1855, at the explosion of the French siege train (medal with three clasps, and Turkish medal). He was with the same battalion during the whole of its service in suppression of the Indian mutiny, including the actions at Cawnpore, capture of Lucknow, and numerous affairs during the Oude campaign (medal with clasp). He was also engaged in the Afghan war in 1878-80, was mentioned in despatches, and received the medal granted for the campaign. He was nominated Companion of the Bath in 1886. He is an Honorary Surgeon to the Governor-General of India.

Surgeon-Major F. B. SCOTT, M.D., C.M.G., is promoted to be Brigade-Surgeon, ranking as Lieutenant-Colonel, vice W. B. Ramsbotham, M.D., retired. Brigade-Surgeon Scott's previous commissions are dated: Assistant-Surgeon, October 1st, 1862; Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. From *His Army List* we learn that he received the special approbation of the Madras Government, followed by that of His Royal Highness the Commander-in-Chief, for his services rendered while in medical charge of the 18th Hussars during a most virulent outbreak of cholera in the regiment at Secunderabad in May, 1871. He served in the Zulu war of 1879; organised the Bearer Company, made the hospital arrangements at the Fort Pearson base for the Ekowe Relieving Column, served afterwards with the 2nd division on the personal staff of Lord Chelmsford and in medical charge of the Headquarters Staff, was present in the engagement at Ulundi, where his services were described by Lord Chelmsford as having been "of the greatest value"; he accompanied the 17th Lancers in their charge and pursuit of the enemy, and by rendering timely aid to a lancer who was dangerously wounded prevented his falling into the enemy's hands, and served subsequently to the end of the war as Senior Medical Officer of Port Durford and that line of communication between Ulundi and the Tugela (mentioned in despatches, medal with clasp). Served in the Egyptian war of 1882 on the personal staff of Major-General the Duke of Connaught, commanding the 1st Brigade, and was present at the battle of Tel-el-Kebir (C.M.G., medal with clasp, and Khedive's star).

Surgeon-Major T. P. O'DWYER, M.D., is also promoted to be Brigade-Surgeon, vice F. P. Staples, retired. His commission as Assistant-Surgeon bears date September 30th, 1864; Surgeon, March 1st, 1873; and Surgeon-Major, September 30th, 1876. He served in the Egyptian war of 1882 in command of No. 2 Bearer Company, and was present at the action of Kassasin on September 9th, and at the battle of Tel-el-Kebir (mentioned in despatches, promoted Surgeon-Major with relative rank of Lieutenant-Colonel, medal with clasp, and Khedive's star). He was also engaged with the Nile expedition in 1884-85 as Secretary to the Principal Medical Officer (mentioned in despatches, clasp).

Surgeon-Major A. MORPHEW, at present serving in Bengal, is directed to proceed to England during the present trooping season, and is detailed for duty with troops.

Surgeon W. HALLAHAN, M.B., on arrival from England, is directed to do general duty in the Burmah Division, Madras command.

THE INDIAN MEDICAL SERVICE.

SURGEON H. ST. C. CARRIERS, Madras Establishment, Civil Surgeon at Tellicherry, and acting Principal Medical Storekeeper, is appointed Civil Surgeon of Rajahmundry, in succession to Surgeon-Major H. M. G. Archdall, who has returned to the Military Department, but to continue to act as Principal Medical Storekeeper, until relieved by Brigade-Surgeon R. B. Pearce.

Surgeon J. N. VAN GYZEL, M.B., Acting Chemical Examiner, is appointed Civil Surgeon of Negapatam, vice Surgeon T. H. Pope, but to continue to act as Chemical Examiner until relieved by Surgeon-Major C. J. M'Nally, M.D.

Surgeon H. HERBERT, Bombay Establishment, is placed on general duty in the Northern Division.

Surgeon-Major C. F. OGILVIE, M.D., Bombay Establishment, has been granted leave out of India for one year on medical certificate.

Surgeon-General W. J. MOORE, C.I.E., Bombay Establishment, has retired from the service from February 25th, on a pension of £950 per annum payable in England. He entered the service November 20th, 1850, and rose to be Surgeon-General April 1st, 1885. He served with the Persian Expeditionary Force in 1856-57, and was present at the landing at Hallah Bay, and at the capture of Bushire (medal with clasp).

Deputy Surgeon-General JOHN PINKERTON, M.D., Bombay Establishment, is appointed Surgeon-General with the Government of Bombay, vice Surgeon-General W. J. Moore.

Surgeon-Major J. G. PITCHER, Bengal Establishment, Civil Surgeon of Howrah, is appointed to be Civil Surgeon of Darjeeling.

Surgeon T. C. MOORE has been admitted to the Madras Establishment from November 2nd.

Surgeon-Major T. C. H. SPENCER, Madras Establishment, has returned to duty from sick furlough.

The Queen has approved of the following admissions to the Indian Medical Service—

To be Surgeons, dated March 31st, 1887.—*Bengal*.—W. H. W. ELLIOT, JAMES MURRAY, W. R. CLARK, G. F. W. BRAIDE, R. J. MARKS, C. E. SUNDER, M.A.

KER, A. R. JOLLIFFE, ANDREW BUCHANAN, P. O. W. HAILEY, L. G. FISCHER, WILLIAM VOST, JOHN GARVIE, C. E. L. GILBERT, H. W. G. MACLEOD, C. C. MANIFOLD, and G. B. IRVINE. *Madras*.—W. G. McEVoy, F. J. CRAWFORD, M.D., DAVID SIMPSON, ROBERT ROBERTSON, T. C. MOORE, A. H. JACOB, and W. H. KARNEY. *Bombay*.—C. H. L. MEYER, L. F. CHILDE, HERBERT HERBERT, and T. D. O. BARRY.

To be Surgeons, dated October 1st, 1887.—*Bengal*.—A. E. ROBERTS, D. M. DAVIDSON, F. P. MAYNARD, J. C. LAMONT, A. H. NOTT, ALBERT COLEMAN, W. W. WHITE, M.D., D. T. LANE, M.D., R. C. MACWATT, W. H. E. WOODWRIGHT, W. J. BUCHANAN, J. K. CLOSE, M.D., J. M. MACNAMARA, M.D., H. M. BRATHOON. *Madras*.—W. H. M. INGHAM, P. J. DEWES, J. O. PINTO, P. O. H. STRICLAND, and T. W. STEWART. *Bombay*.—JOSHUA HOLT, T. H. GRIFFITH, J. L. T. JONES, and W. E. JENNINGS.

Surgeons G. B. FRENCH, W. R. CLARK, G. F. W. BRAIDE, M. A. KER, A. R. JOLLIFFE, P. O. W. HAILEY, L. G. FISCHER, W. VOST, J. GARVIE, C. E. L. GILBERT, H. W. G. MACLEOD, and C. C. MANIFOLD, all of the Bengal Establishment, have passed the examination in Hindustani by the lower standard.

Surgeon J. A. CLARK, late of the Bengal Establishment, died at Ayr, N.B., on March 3rd.

The undermentioned officers have leave of absence for the periods specified: Surgeon-Major T. ROBINSON, M.B., Bengal Establishment, for one year and 125 days on private affairs; Surgeon-Major G. M. J. GILES, M.B., Bengal Establishment, Surgeon Naturalist to the I.M.S. Investigator, for one year on private affairs; Surgeon-Major E. PALMER, Bengal Establishment, Medical Officer 9th Native Cavalry, for one year on private affairs; Surgeon-Major M. J. T. J. BLANGHARD, Madras Establishment, for six months; Surgeon-Major J. HUNTER, Madras Establishment, in medical charge of the 5th Native Infantry, for one year; Surgeon H. D. MASANI, Bombay Establishment, Medical Officer, 30th Native Infantry, for six months on private affairs.

THE VOLUNTEERS.

MR. JAMES HUNTER, M.B., who has been Acting Surgeon to the 5th Volunteer Battalion Argyll and Sutherland Highlanders (late the 1st Argyll Volunteers), since January 9th, 1884, is now appointed Lieutenant in the same corps.

MR. CHARLES DOWNING has been appointed Acting Surgeon to the 3rd Volunteer Battalion Welsh Regiment (late the 2nd Glamorgan), and Mr. P. P. LANGFORD is appointed Acting Surgeon to the 21st Middlesex (Finsbury).

Surgeon-Commandant JAMES CANTLE, M.B., has resigned his commission in the London Division of the Medical Staff Corps; his appointment bore date April 1st, 1885.

ARMY MEDICAL OFFICERS AND THE SERVICE CLUB.

X. writes from the Junior United Service Club, London, S.W.: Twenty candidates of various ranks in the army and navy, from sub-lieutenant upwards, were up for election to this club on February 25th. Amongst the candidates were two officers of the Medical Staff, and with the exception of these two officers all the others were duly elected. I know nothing personally or by repute of these two blackballed officers, but as they were proposed and seconded by officers of standing in the service, presumably there is nothing against them except that they belong to the Medical Service. I bring the matter to your notice as another instance of the class feeling which exists even in club military life.

INDIA AND THE COLONIES.

INDIA.

SURGEON C. J. ADDISON, Medical Staff, who successfully established an ambulance association in Quetta last year, has now organised with much success a similar association under the patronage of Major-General D. MacFarlan (commanding the Sirhind Division) at Umballa. Dr. Addison's lectures on "First Aid" are, we understand, being attended by a large class.

A COMMITTEE meeting of Lady Roberts's Homes in the Hills for Soldiers' Nurses in India was held on Friday, March 2nd, at 37,

Wimpole Street, under the presidency of Her Royal Highness Princess Christian. Arrangements were made for developing the organisation with a view of receiving further subscriptions. The amount collected since January 1st, 1888, is £1,108, in which sum is included a donation of £100 from Her Majesty the Queen.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE VICTORIA DISPENSARY, NORTHAMPTON.

The annual report presented at the annual meeting of the Northampton Royal Victoria Dispensary, after stating that the Society now contained over 17,000 members, 6,454 of whom were paid up, and that there had been 3,000 fresh admissions during the year, proceeded to show that £1,820, 19s. 11d. had been paid to the five members of the medical staff as follows: Mr. Moxon, £435 18s. 6d.; Mr. Evans, £286 1s. 4d.; Mr. Cogan, £140 13s. 11s.; Mr. Spurgin, £362 6s. 3d.; Mr. Rae, £595. At first sight this amount looked large, but this was really not so, as 69,492 attendances had been made during the year—42,542 at the patients' own houses. Thus only 6d. per visit or attendance was paid, but still no complaints whatever had been made. In addition to this, over 63,500 prescriptions were made up; and at the dispensary 500 permanent and 592 temporary teeth were drawn. Altogether there was upwards of £2,485 paid for ordinary members, and £148 10s. 6d. by honorary members during the year, which, with a balance brought forward, made the receipts £3,815 1s. 7d. The expenses of the institution were over £2,576 0s. 5d., which left in hand £1,239 1s. 2d., a rather larger favourable balance than last year.

THE LEEDS GENERAL INFIRMARY.

The annual report of this important institution contains some especially interesting features. The number of inmates for the year was 4,601 against 4,167 in the preceding year. The number of out-patients was 23,000. The average cost of each in-patient was £2 12s. 10d. The annual subscriptions had slightly fallen off with one most important exception, those from the working classes. The income from the subscriptions of the working men showed a noble increase. It amounted to £3,646 for the year as against £3,738 annual subscriptions from other sources, and showed an increase of £1,515 over that of the preceding year. In addition to this there had been a gift of two ambulances from the work-people of Leeds, for which £328 was raised. A new semi-convalescent hospital will be opened in May, with accommodation for forty-two beds. This is provided by the benefaction of Mr. North, who will defray the entire cost, which is something over £5,000. A further requirement is for isolation wards for violent patients and those having infectious diseases. It is proposed to erect a new building for isolation, pathological, and out-patient purposes, of which the cost would not be less than £20,000. The receipts from Hospital Sunday amounted this year to £1,799 as against £2,101 last year.

CHILDREN'S HOSPITAL, SHEFFIELD.

The Children's Hospital has been undergoing alteration and enlargement, and at the annual meeting, held on March 2nd, the report stated that the new buildings would be ready for use by April. The buildings comprise boys' and girls' wards, which would hold fifteen beds each, isolating room, operating room, and suitable offices. They have been erected on vacant land at the back of the old building, and are connected to the old block by a covered way. The buildings have been so constructed that a second story can, if necessary in the future, be erected. The old building has been altered inside, and in future will be used only for out-patients, and the accommodation of the matron and her staff.

ROYAL BERKSHIRE HOSPITAL.

The annual meeting of the governors of this institution was enlivened by resolutions, of which notice had been given by Mr. Leveson Gower, to the effect (1) that no two members of a firm or family be on the active staff at the same time, excepting under special circumstances; (2) that no medical or surgical officer be more than twenty years on the active staff, or after sixty years of age. These resolutions had been precluded by some very silly anonymous letters which have appeared in the local papers, and there was a good attendance of governors in consequence. I

quickly appeared, however, that Mr. Gower had really nothing to say of any weight in support of his resolution, and the whole feeling of the governors, medical and non-medical, was evidently altogether opposed to laying down such restrictive rules, which, however applicable in great cities, where there is a considerable supply of first-class medical men and medical schools supplying young medical men aiming at consulting practice, for whom it is desirable to make room, have a much more doubtful application to small towns, where the precisely opposite conditions exist. The upshot of the whole matters discussed was that Mr. Gower's resolution found no one to support it, and was only seconded as a matter of form by a gentleman who disagreed with it. The Royal Berkshire Hospital has long been known for excellent work and for efficient arrangements, and the governors wisely thought that, when no case whatever was made out, it was better to leave well alone.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, March 2nd.

Lunacy Acts Amendment Bill.—The LORD CHANCELLOR, in moving the second reading of this Bill, said that there really was nothing to explain with which the House was not already fully acquainted, the Bill having been passed three times through their lordships' House without any substantial changes. It would be enough to recall shortly the leading points in the Bill, which were:—1. The introduction of a judicial authority for ordering the detention of a person as a lunatic; 2. orders of detention to come to an end unless renewed; 3. protection to medical men and others against vexatious actions where they have acted in good faith; 4. restrictions on opening new private asylums; 5. various amendments with a view to consolidating the Lunacy Laws. It would be remembered that the Bill was accepted by him from Lord Herschell, to whom it was handed down by Lord Selborne. While dealing with some subjects of a very delicate and controversial kind, it had been accepted as a valuable measure in all quarters, though, no doubt, regarded as in the nature of a compromise, and not indeed going so far as he himself might desire. It had already received very full and careful consideration in their lordships' House, and having been adopted at some stage of its history by each party represented in another place, it might be expected to be received in a like spirit there. If this House should pass the Bill in good time no blame would attach to the House or the Government if the Bill did not become law this session.—The Earl of MILLTOWN echoed the wish of the Lord Chancellor that the Bill might become law, and that no obstructive tactics elsewhere would prevent so important a measure from being added to the Statute Book. He regretted, however, that the Government had not taken steps to put an end to the scandals which were alleged to exist in connection with licensed houses. As long as what Lord Shaftesbury called "the evil system of profit" continued to exist, as long as the incarceration of a fellow creature should result in profit to anyone, so long might they expect a continuance of the scandals to which he alluded. He noticed, therefore, with regret that existing licensed houses were not to be interfered with. The only way to prevent scandals would be by a thorough system of visitation, but the present system could not be thus described, the Lunacy Commissioners being too few in number to inquire closely into the cases of 80,000 lunatics. He favoured a scheme under which county authorities should establish houses for paying patients. The authorities, he felt sure, would be the gainers. There was a large number of persons in asylums who were supported at the public expense, and who were able to support themselves; and if provision were made for receiving paying patients at moderate rates, the expenditure of the counties might be considerably reduced.—The Bill was then read a second time.

Tuesday, March 6th.

The Pharmacy Acts Amendment Bill.—The House went into committee on this Bill.—The Earl of MILLTOWN moved to insert the following clause:—"It shall be unlawful for a duly-qualified keeper of an open shop for retailing, dispensing, or compounding poisons to keep open shop in more places than one unless he shall engage and employ at each branch shop a person who would himself be a duly qualified keeper of an open shop for retailing, dispensing, or compounding poisons, and such person is *bona fide*

occupied in such branch shop; provided always that each partner in a duly qualified partnership may keep a separate open shop for retailing, dispensing, or compounding poisons. Every keeper of an open shop for retailing, dispensing, or compounding poisons acting in contravention of the preceding section shall for all such contravention be liable to pay a penalty of £5, and the said penalty may be sued for and recovered in the manner provided by the Pharmacy Act, 1852, for the recovery of penalties under that Act." He pointed out that it was the practice of druggists to open branches and put unqualified persons in charge of them. This practice was distinctly in contravention of the Act of 1863, but it had been held that under the Act, prosecutions could not be sustained.—Lord HERSHELL pointed out that the amendment only dealt with branch shops, and there was nothing in it to prevent the proprietor absenting himself entirely from his chief establishment and leaving it in charge of some unqualified person.—After some further discussion, the amendment was agreed to, and the Bill passed through committee.

HOUSE OF COMMONS.—Friday, March 2nd.

Non-resident Parochial Medical Officers.—Sir W. FOSTER asked the President of the Local Government Board whether it was a general rule to appoint in country districts parochial medical officers who were resident in the districts; and, if so, why this rule had not been followed in the Waters Upton District of the Wellington Union, in the county of Salop.—Mr. W. LONG, in reply, stated that as a general rule guardians, when the circumstances admitted of it, appointed as district medical officers medical practitioners who resided in the districts for which they were to act. In cases such as that referred to the appointment was annual, and the guardians in December last, by 15 votes to 3, determined to reappoint the non-resident practitioner, who had held the office for ten years with, it was stated, perfect satisfaction to the guardians and to the patients. The officer was daily in the district, and it was a condition of his reappointment that he should have a surgery in the district, where he was to attend at least two days a week. The only objection to the appointment had been made by the unsuccessful candidate, who had been resident in the district about fifteen months. Under the circumstances the Board assented to the appointment.

Monday, March 5th.

M. Pasteur's Exportation of Microbes.—In reply to Mr. HOWARD, Baron H. DE WORMS said that Her Majesty's Government could not interfere with the transmission of microbes by M. Pasteur to Australia. The Australian Government was fully aware of the objection which had been raised as to the possibility of the proposed method proving injurious to other animals besides those it was desired to exterminate. Whether or not that objection was well founded he offered no opinion.

OBITUARY.

THOMAS ELIZARD CURLING, F.R.C.S., F.R.S.

Consulting Surgeon to the London Hospital.

We regret to announce the death of Mr. T. B. Curling, for many years surgeon to the London Hospital, which took place at Cannes on March 4th, after a short illness.

Mr. Curling was elected through the influence of his uncle, Sir William Blizard, assistant surgeon to the London Hospital at a very early age. He was little more than 21 when he obtained the appointment, and for some years rumour states that he found it by no means a pleasant office, owing to a certain feeling of opposition which existed in the minds of his senior colleagues. He had a long period of service as assistant, and afterwards the twenty years permitted by the rules of the hospital as full surgeon.

Although never what is called "brilliant," either as an operator or a teacher, he was always painstaking and accurate. He was a just and upright man in all the departments of life, and always willing to assist those whom he thought deserving of help, and to give credit where it was due. His clinical experience had been very large, and in later years his opinion in consultation was always much valued by his colleagues.

In person Mr. Curling was tall and thin, and never bore the appearance of strong health. During the later years of his life, and

especially after the death of a son to whom he was much attached, he became extremely pale, and so feeble that fears were entertained that he was the subject of pernicious anæmia. Mr. Curling became a Member of the College of Surgeons in December, 1832, and was elected an honorary Fellow eleven years later in December, 1843.

The most important perhaps of his original observations was the discovery of the association of ulcers of the duodenum with burns on the skin. His paper on this subject was published in 1842. His larger works, however, on Tetanus (a prize essay), on Diseases of the Testis, and on Diseases of the Rectum, abound in careful clinical research.

During the early part of his life Mr. Curling resided in Broad Street, City, but about 1858 he removed to Grosvenor Square, alleging to his professional friends that he knew where his best patients came from. At this date his practice was chiefly in reference to diseases of the testis, and this was possibly never a very successful speciality. It afterwards developed more in the direction of the rectum. Mr. Curling was a Fellow of the Royal Society, and this honour, like others, had fallen to him early in life. He had been an Examiner at the College of Surgeons, his term of office commencing in 1871. He was elected to the Council of that body in 1864, in the same year with Mr. Le Gros Clark, and he was President in 1873. In 1834 he carried off the Jacksonian prize for his essay on "Tetanus." Mr. Curling had studied his profession widely, and took a deep interest in it. He never did slovenly work, but took great pleasure in collecting information on any new topic that had claimed his attention. Although his practice became eventually somewhat special, yet that his tastes were by no means limited may be shown by reference to the papers which he wrote for the *Medico-Chirurgical Society*. His first, in the twentieth volume, 1837, was on Atrophy of Bone. Two years later he wrote on Congenital Absence of the Pericardium, and on a case in which worms were voided by the urethra. In the twenty-third volume there was a paper on what could then be described as a rare species of hydatid found in the human liver, the *echinococcus hominis*. In volume twenty-five was his original observation on acute ulceration of the duodenum in cases of burn. A few years later he was investigating the literature of cases of hypertrophic development of the digits in connection with a remarkable example of it then under his observation at the London Hospital. Of these cases easts are to be found both in the London Hospital Museum and in that of the College of Surgeons. In the year 1844 we find him again contributing to the Society's *Transactions* on the subject of hydatid, and also on the treatment of varicocele. After these papers follows one on a fatal case of large hæmatocele, and in 1850 a very important report on "Two Cases of Absence of the Thyroid Body and Symmetrical Swellings of Fat Tissues at the Sides of the Neck, connected with Defective Cerebral Development." In this paper we have in some sort the germs of modern doctrines as to the association between absence of the thyroid and general changes in nutrition (myxœdema of Gull and Ord). This respectable list by no means comprises all Mr. Curling's papers in the *Medico-Chirurgical Transactions*, nor does it exhaust their variety as to subject. In the thirty-sixth volume he wrote on Cystic Disease of the Testicle, and next year on a case of Traumatic Aneurysm of the Ophthalmic Artery, consequent on Injury to the Head, cured by Ligature of the Common Carotid. His last, and perhaps his most important, paper was in the year 1860, and was entitled *An Inquiry into the Treatment of Congenital Imperfections of the Rectum by Operation*, founded on the Analysis of One Hundred Cases, nine of which occurred in the practice of the author.

It is about fifteen years since Mr. Curling resigned his surgery at the London Hospital, under the rule of the institution, and very much to the regret of his colleagues. He was then elected consulting surgeon, and he remained for several years longer actively engaged in private practice. Declining health induced him at length to leave London, and for some years past he had lived at Brighton, and had retired wholly from professional pursuits.

A not uninteresting reminiscence of Mr. Curling and of a past generation is the circumstance that it was through him that a paper on the possibility of seeing the fundus of the eye and the usefulness of such investigation as an aid to diagnosis was presented to the Royal Medical and Chirurgical Society. This was in 1846, Mr. Curling being then assistant-surgeon to the London Hospital, and Mr. Cumming, the author of the paper which thus foreshadowed the ophthalmoscope, one of its house-surgeons.

Mr. Curling was by nature somewhat cold, and did not lay him-

self out either to make friends or to obtain praise. His character was, however, one of singular honesty and straightforwardness, and he had a kind heart. He secured and kept the deep respect of all who knew him.

RICKARD PATRICK BURKE TAAFFE,

M.D., M.S.LOND., F.R.C.S.ENG., S.S.C.LOND AND CAMB.

DR. TAAFFE, medical officer of health for Brighton, died at his residence in that town on Saturday, March 3rd, in his 60th year. His last illness, which lasted for nearly four months, was of an obscure nature, and it needed a *post-mortem* examination completely to clear up the cause of death. This apparently resulted from exhaustion accompanying the formation of a fetid urinous abscess which had its origin from perforation of the upper dilated portion of the left ureter, which was plugged about two inches and a half from the kidney by a small calculus. The patient was under the able care of Mr. Jowers, and was seen in consultation by Sir James Paget.

Dr. Taaffe was born in the west of Ireland, but came to England early in life. He received his professional education at St. Bartholomew's, and, as will be seen by the heading of this notice, distinguished himself by taking the highest qualifications in medicine, surgery, and sanitary science. He came to Brighton in 1856, and entered into partnership with the late Sir John Cordy Burrows, upon the dissolution of which he engaged in independent practice. In 1858 he was appointed Assistant-Surgeon to the Brighton and Sussex Eye Infirmary, with which institution he was connected as Consulting Physician at the time of his death. Dr. Taaffe in 1874 became the first medical officer of health for Brighton, and the important duties of this office he carried out with assiduous attention until his last illness laid him aside. He was President of the Brighton and Sussex Medico-Chirurgical Society in 1877-8, President of the Section of Public Medicine at the annual meeting of the Association lately held in Brighton, and in 1881 took a prominent part in the proceedings of the Brighton Health Congress. The Royal Alexandra Hospital for Sick Children owes its existence almost entirely to the subject of this notice, and he at all times took the liveliest interest in its well-being. It was in connection with the opening of this hospital that the Prince and Princess of Wales, with their daughters, visited Brighton on July 21st, 1881; and on this occasion Dr. Taaffe, upon formally asking the Prince to declare the building open, presented His Royal Highness with a gold key made to fit the principal lock of the building. Shortly after the opening of the new hospital Dr. Taaffe was presented with a gold watch and chain, and cheque for £253, in part recognition of his great services to the institution. Dr. Taaffe leaves a widow and two sons to mourn his loss.

JOHN WHITE, M.D.GLAS., L.F.P.S.

DR. JOHN WHITE, a well known practitioner on the south side of Glasgow, died on March 2nd, of inflammation of the lungs. A native of Kirkwall, he studied in Glasgow University, where he was for a time Demonstrator of Anatomy under the late Professor Allen Thomson. In 1874 he was President of the Southern Medical Society. He died at the age of 57, and leaves a widow and grown up family, the eldest son being a recent graduate of Glasgow, now in practice in Balfour.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

It is worthy of note, as proving that Cambridge medical students take their full share in the activities of the University, that the stroke of the University boat, Mr. J. C. Gardner, of Emmanuel, is studying medicine at the Cambridge School.

The Council of the Senate has reported against the proposal to grant the degrees and membership of the University to women.

PROFESSOR MACALISTER is nominated an elector to the Professorship of Chemistry.

BRUSSELS.

To the list of names of gentlemen who passed the Doctorate Examinations of the University and were admitted to the degree of M.D. published in the JOURNAL on February 25th, p. 443, should be added G. B. Flux, L.S.A.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, March 3rd, 6,121 births and 3,875 deaths were registered in the twenty-eight largest English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 20.9 and 21.6 in the two preceding weeks, was 21.5 during the week under notice. The rates in the several towns ranged from 13.4 in Sunderland, 14.3 in Bradford, 16.0 in Huddersfield, and 17.5 in Bolton, to 25.5 in Derby and in Cardiff, 25.7 in Manchester, and 34.2 in Blackburn. The mean death-rate in the twenty-seven provincial towns was 21.2 per 1,000, and was 0.7 below the rate recorded in London, which was 21.7 per 1,000. The 3,875 deaths registered during the week under notice in the twenty-eight towns included 366 which were referred to the principal zymotic diseases, against 405 and 429 in the two preceding weeks; of these, 136 resulted from whooping-cough, 59 from scarlet fever, 42 from measles, 39 from "fever" (principally enteric), 37 from diphtheria, 28 from diarrhoea, and 25 from small-pox. These 366 deaths were equal to an annual rate of 2.0 per 1,000; in London the zymotic death-rate was 2.3, while in the twenty-seven provincial towns it averaged only 1.8 per 1,000, and ranged from 0.0 and 0.4 in Halifax and Sunderland, to 4.4 in Sheffield, 4.5 in Wolverhampton, and 4.8 in Blackburn. Measles caused the highest proportional fatality in Wolverhampton and Plymouth; scarlet fever in Cardiff and Blackburn; whooping-cough in London, Norwich, Leicester, Bolton, and Wolverhampton; and "fever" in Cardiff, Derby, and Nottingham. The 37 deaths from diphtheria in the twenty-eight towns included 24 in London, 5 in Manchester, and 2 in Sheffield. Of the 25 fatal cases of small-pox recorded during the week under notice 21 occurred in Sheffield, 1 in Leeds, 1 in Manchester, 1 in Nottingham, and 1 in Bristol. The Metropolitan Asylums Hospitals contained 13 small-pox patients on Saturday, March 3rd, of which 7 had been admitted during the week. These hospitals also contained 1,295 scarlet fever patients on the same date, against numbers steadily declining from 2,600 to 1,309 in the thirteen preceding weeks; there were 84 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 5.9 per 1,000, and was slightly below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 825 births and 592 deaths were registered during the week ending Saturday, March 3rd. The annual rate of mortality in these towns, which had been 22.5 and 22.6 per 1,000 in the two preceding weeks, further rose to 23.4 during the week under notice, and exceeded by 1.9 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the lowest rates were recorded in Greenock and Perth, and the highest in Paisley and Glasgow. The 592 deaths in these towns during the week under notice included 66 which were referred to the principal zymotic diseases, equal to an annual rate of 2.6 per 1,000, which exceeded by 0.6 the mean zymotic death-rate during the week under notice in the large English towns. The highest zymotic rates were recorded in Edinburgh, Glasgow, and Leith. The highest proportional fatality of measles occurred in Edinburgh and Leith, and of whooping-cough in Glasgow and Leith. The 9 deaths from diphtheria recorded in these Scotch towns during the week included 2 in Paisley and 4 in Glasgow. The mortality from diseases of the respiratory organs in these towns was equal to 6.3 per 1,000, against 5.8 in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, March 3rd, the deaths registered in the sixteen principal town districts of Ireland were equal to an annual rate of 35.3 per 1,000. The lowest rates were recorded in Londonderry and Lisburn, and the highest in Galway and Limerick. The death-rate from the principal zymotic diseases in these towns averaged 4.0 per 1,000, and was highest in Newry and Lisburn. The 230 deaths registered in Dublin during the week under notice were equal to a rate of 34.0 per 1,000, which considerably exceeded the rate recorded in any recent week. The 230 deaths included 25 from the principal zymotic

diseases (equal to an annual rate of 3.7 per 1,000), of which 6 were referred to whooping-cough, 5 to scarlet fever, 5 to "fever," 3 to measles, 3 to diphtheria, 2 to diarrhoea, and 1 to small-pox.

POOR LAW MEDICAL OFFICERS' ASSOCIATION.

At a meeting of the Poor Law Medical Officers' Association, held at their rooms, 3, Bolt Court, Fleet Street, on Tuesday, March 6th, the case of Mr. Marshall, of Mitcham, who has been called upon to resign his appointment to the Mitcham Schools for alleged insufficient attendance, was fully discussed, and it was considered by the Council, from the evidence before them, that the charge (even if proved) was not of such a nature as to warrant compulsory resignation of a public servant after thirty-two years' continuous service. The Council, therefore, passed a resolution that their secretary should write to Mr. Marshall, asking him to lay his case before the Local Government Board.

PAYMENT FOR MEDICAL ATTENDANCE IN SANITARY HOSPITALS. NEMO writes: Is it legal for a local Board (urban sanitary authority) to empower to attend and pay their medical officer of health for medical attendance on a person suffering from an infectious disease, who has been removed to the hospital provided by the local Board medical officer, not a Poor Law medical officer?

. It is no part of the duties of a medical officer of health as such, to act as medical officer of an infectious hospital provided by his Sanitary Authority, and to attend patients therein, unless he has specially undertaken to do so. Under Section 131 of the Public Health Act, 1875, the Sanitary Authority have power to provide medical attendance, etc., for patients in their hospital, and they can if they see fit, appoint their medical officer of health to act as medical officer of the hospital, and pay him a reasonable sum for his services. Such arrangements are very general. Sometimes an annual honorarium is assigned, whilst in other districts the payment is by a fee for each case.

SMALL-POX IN SHEFFIELD.

MEDICAL OFFICER OF HEALTH.—We do not see the least reason for doubting the accuracy of the report to which you refer. It has no doubt been prepared with due exactness, and the statements it contains are in accordance with previous experience. See Report of medical officer of Local Government Board for 1881.

BIRTHS AND DEATHS.

DR. W. JLIFFE (Derby) writes: In your statistics relating to the public health for the year 1887, and published in the JOURNAL of March 3rd, with regard to Derby, I think you have omitted the registered number of births and deaths for the week ending December 31st, 1887, as both births and deaths in your list are below what we make them here. If this be so, does the same mistake apply to the whole of the large towns given by you?

. As stated in the first paragraph of the article [referred to,] the statistics for all the towns, including Derby, are a summary of the weekly returns of the Registrar-General, and relate to the fifty-two weeks of 1887, ending Saturday, December 31st. The figures relating to the last week of that year have, therefore, been duly included throughout.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ST. LUKE, MIDDLESEX (Population, 51,364).—Dr. Yarrow always takes pains to secure accuracy in his returns of vital statistics, and in his report for 1886 he shows that the death-rate for the year was 22.8 per 1,000. This rate, though slightly in excess of that for the previous year, has been corrected, as far as possible, by deductions for non-parishioners, and by the addition of parishioners who died in outlying institutions. The annual returns have for some years shown a steady increase in the mean duration of life in this parish, evidenced by the larger number of deaths occurring amongst persons at an advanced age; and, in 1886, 258, or 22.0 per cent. of the total deaths were among persons over 60 years of age. There was also considerable improvement in the returns of infantile mortality, the deaths of infants being at the rate of 46.4 per cent. of the whole, as compared with 55.0 and 57.3 per cent. in 1885 and 1884 respectively. The deaths registered from zymotic diseases were as follows: measles 39, scarlet fever 5, diphtheria 4, whooping-cough 32, fevers 6, and diarrhoea 68. The deaths from diarrhoea, with five exceptions, were of children under 5 years of age. There were in this year no cases of small-pox or typhus fever. The returns in all the principal zymotic diseases may be regarded as exceptionally favourable; there were fewer cases of sickness under each heading, and the total number of cases was less. The vaccination returns show that only 4.7 per cent. of the children whose births were registered in the parish during 1886 remained unaccounted for as regards vaccination at the time the returns were made, and doubtless many of these unprotected children have since been vaccinated. The record of the sanitary work of the year shows that the health-officer and his staff have been fully occupied.

MEDICAL NEWS

MEDICAL VACANCIES.

The following Vacancies are announced:

- BRITISH SEAMAN'S HOSPITAL,** Constantinople, St. Petersburg.—Resident Medical Officer. Salary, £180 per annum, with furnished apartments, etc. Applications to H. M. Consul, St. Petersburg.
- CITY OF ABERDEEN.**—Medical Officer of Health. Salary, £300 per annum. Applications by March 14th to W. Gordon, Esq., Town Clerk, Aberdeen.
- CLOUGHIER UNION.**—Medical Officer, Agricultural Dispensary. Salary, £115 per annum, and fees. Applications to Honorary Secretary of Committee of Selection on March 14th.
- COTTON HILL LUNATIC HOSPITAL.**—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications by March 10th to the Medical Superintendent.
- EAST LONDON HOSPITAL FOR CHILDREN,** Shadwell, E. Resident Clinical Assistant. Board and lodging. Applications by March 22nd to the Secretary.
- GLENUMUCK PAROCHIAL BOARD,** Parishes of Glenmuick, Tullock and Glengairn.—Medical Officer. Salary, £15 per annum. Applications by March 20th to the Inspector of the Poor, Ballater.
- HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST,** Brompton. Resident Clinical Assistants. Applications by April 7th, to the Secretary.
- LEICESTER INFIRMARY AND FEVER HOUSE.**—Assistant House-Surgeon. Salary, £50, with board, etc. Applications by March 10th to the Secretary, 24, Friar Lane, Leicester.
- LIVERPOOL DISPENSARIES.**—Two Assistant-Surgeons. Salary, £80 per annum, with board, lodging, etc. Applications by March 24th, to R. R. Greene, Esq., Secretary, Leith Office, Moorfields, Liverpool.
- LUDLOW UNION.**—Medical Officer, Manslow District. Salary, £70 per annum, and fees. Applications by March 10th to W. J. Holyoake, Esq., Clerk, Poor-Law Office, Ludlow.
- MALE LOCK HOSPITAL,** Dean Street, Soho.—House-Surgeon. Salary, £50 per annum, with board and lodging. Applications by March 19th, to the Secretary, Lock Hospital, Harrow Road, W.
- OWENS COLLEGE,** Manchester.—Professor of Obstetrics. Applications by March 20th to the Registrar.
- ROSS-SHIRE,** Parish of Rosell and District.—Resident Medical Officer. Salary, £82 per annum. Applications by March 17, to R. J. Billanders, Esq., Fortrose.
- ST. HELEN'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.**—Resident Medical Officer. Applications by March 20th to Mr. H. Whittle, Secretary, 55, Argyle Street, St. Helen's, Lancashire.
- UNIVERSITY OF EDINBURGH.**—Additional Examiner in Botany. Salary, £75 per annum, and £10 a year travelling expenses to a non-resident of Edinburgh. Applications by March 15th, to the Secretary.
- WEST LONDON HOSPITAL,** Hammersmith Road.—Clinical Assistants. Applications to Secretary.
- YORK COUNTY HOSPITAL.**—Assistant House-Surgeon. Salary, £50, with board and lodging. Applications by March 15th to the Secretary, R. Holtby, Esq., 5, New Street, York.

MEDICAL APPOINTMENTS.

- BALLANCE, J. D.,** L.R.C.P., M.R.C.S., appointed Resident Accoucheur to St. Thomas's Hospital.
- BIDWELL, L. A.,** M.R.C.S., L.S.A., appointed House-Surgeon to St. Thomas's Hospital.
- BLAOKER, A. B.,** M.B., B.S., M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to the Belgrave Hospital for Children, S.W.
- BROWN, C.,** L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.
- BULSTON, H. T.,** M.B., B.C. Cantab., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.
- BURWELL, Pierard Richard,** L.R.C.P., M.R.C.S., appointed House-Physician to the Middlesex Hospital.
- CALVERT, J. T.,** M.B. Lond., L.R.C.P., M.R.C.S., appointed Non-Resident House-Physician to St. Thomas's Hospital.
- COOK, S. B.,** L.R.C.P., M.R.C.S., appointed Assistant House-Physician to St. Thomas's Hospital.
- CRISP, E. H.,** L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.
- CROWTHER, J. W.,** M.R.C.S. Eng., L.S.A., appointed House-Surgeon to the District Hospital, West Bromwich, vice B. K. Woodhouse, M.B., C.M. Edin.
- DEWAR, John, M.B.,** C.M. Glasgow, appointed Medical Officer of the Parish of Dunipish, Skye, vice Dr. Campbell, deceased.
- DIXON, J. R.,** M.R.C.S. Ed., L.R.C.P. Ed., L.M., appointed Resident Medical Officer to the Bournemouth Friendly Societies Medical Association.
- DURKENT, T. A.,** L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.
- FRASER, W. David, M.B.,** C.M. Edin., appointed Medical Officer to the Collieries of Cardenden, Denend and Dundonald, in Fifeshire.
- HARDY, W. E.,** M.R.C.S., L.R.C.P. Lond., appointed Assistant House-Surgeon to the East Suffolk Hospital, Ipswich.
- HARRIS, W. J.,** M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Birmingham General Hospital, vice W. Chamberlain, resigned.
- HARRISON, H. E. M. B.,** M.R.C.S., appointed Junior House-Surgeon to the Metropolitan Hospital, Kingsland Road, vice F. A. Sprent, M.R.C.S. Eng., L.S.A., resigned.

- HAWKINS, F. S., B.A., M.B., B.S. Oxon., F.R.C.S.,** appointed House-Surgeon to Guy's Hospital.
- HEATHERLEY, F. M.B., B.S., F.R.C.S.,** appointed House-Physician to Guy's Hospital.
- HOGAN, E. F.,** appointed Medical Officer to the Coolran Dispensary, Monmellick Union, vice T. G. B. Hatton, L.R.C.P. Edin., L.M.D. Glasg.
- HOOLE, Henry, M.D. Lond., M.R.C.S. Eng.,** appointed Surgical Registrar and Anesthetist to the National Orthopedic Hospital, vice A. W. Wheatley, M.B., M.R.O.S. Eng., L.S.A., resigned.
- JOLY, E. N.,** M.R.C.S. Eng., L.R.C.P. Lond., appointed Resident Medical Officer to the French Hospital, Leicester Square, vice J. G. Westlake, L.R.C.S.I., resigned.
- LANCASTER, Frank, L.R.C.P. Lond., M.R.C.S., L.D.S. Eng.,** appointed House-Surgeon to the National Dental Hospital, Great Portland Street, W., vice Charles A. Pattinson, L.D.S. Eng., resigned.
- LOTZ, H.,** L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.
- MARTIN, D. C., M.A., M.D.,** appointed Resident Medical Officer to the Stourport Friendly Societies Medical Association.
- MARRIOTT, Hyde, M.B., B.Sc. Lond.,** appointed House-Physician to University College Hospital.
- MOORHEAD, H.,** L.R.C.S.I., L.M., appointed Medical Officer to the Monte Dispensary, Athlone Union, vice R. V. Kelly, L.R.C.P. Edin., F.R.C.S., resigned.
- NAIRN, H.,** L.R.C.P., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital.
- ORD, W. W., M.A., M.B., B.S. Oxon., M.R.C.S. (Ext.),** appointed Resident House-Physician to St. Thomas's Hospital.
- ROBERTS, E. T., M.B., C.M. Edin.,** appointed Assistant House-Surgeon to the Children's Hospital, Birmingham, vice L. A. Hawkes, M.B., C.M. Edin., resigned.
- ROUCE, C. F., M.B., B.S.,** appointed House-Physician to Guy's Hospital.
- SANSON, H. A.,** L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.
- SOLES, R. V.,** L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.
- STARR, E. T. C.,** L.R.C.P., M.R.C.S., L.S.A., appointed House-Surgeon to St. Thomas's Hospital.
- STEWART, Donald, M.D.,** appointed Honorary Surgeon to the Throat and Ear Hospital, Nottingham.
- TONGKING, J. H.,** L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.
- WILLIAMS, A. H., M.A., M.B., B.C. Cantab.,** appointed House-Surgeon to Guy's Hospital.
- WILLIAMS, Lionel, M.R.C.S.,** appointed Senior House-Surgeon to the York County Hospital, vice E. G. F. Morris, M.R.C.S. Eng., resigned.

UNIVERSITY COLLEGE.—The annual general meeting was held at the college on Wednesday, February 29th, Mr. Eric Erichsen, F.R.S., President, in the chair. In moving the adoption of the report, the Chairman alluded to the proposed Albert University of London, and said it should be fully understood that University College was not in any way animated by hostility to the existing University of London. The following were admitted life-governors of the college: Sir F. Leighton, P.R.A.; Professor E. S. Beesly; Professor H. S. Foxwell; Professor D. Oliver; F.R.S.; Sir J. N. Douglass, F.R.S.; Mr. W. H. Perkin, Ph.D., F.R.S.; Mr. H. H. S. Canynghame; Mr. L. H. Courtney, M.P.; and Mr. E. Maunde Thompson, LL.D. The following were elected fellows of the college: Mr. Walter Asburner, B.A.; Miss Louisa Macdonald, M.A.; Miss Alice L. S. Riding, M.A.; Mr. J. J. Powell, M.D.; Mr. S. Rideal, D.Sc.; Mr. R. D. Roberts, D.Sc.; and Mr. P. D. Turner, M.D.

THE PORTSMOUTH HOSPITAL.—The report presented at the annual meeting of the Portsmouth Hospital showed that the work of the hospital had been well maintained. The number of in-patients for the year had been 773, exceeding the total of 1886 by 108. In the out-patient department the cases treated numbered 3,226, and casualties 1,424. The Committee had, after due consideration, arranged to receive probationers for training as nurses, and also to maintain a staff of competent nurses to attend private families. Dr. J. Ward Cousins and other gentlemen present expressed great regret at the retirement of the Chairman, the Rev. E. J. Grant. Dr. Cousins pointed out that in the improved hospital there would be bed space for at least ninety-eight patients, and in the children's department for thirty-six.

NEW MEDICAL LIBRARY IN PARIS.—A library in connection with the pathological museum of the Hôpital St. Louis has just been opened. It contains the most important works in every branch of medical science, and numerous French and foreign medical journals. It is open free to all practitioners and students of medicine. French and foreign physicians are invited to contribute their own works to this library, the foundation of which is due to the efforts of the medical and surgical staff of the Hôpital St. Louis, and which is under the patronage of the Administration of the Assistance Publique.

MEETINGS OF SOCIETIES DURING THE
NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Stewart: On Locomotion and Allied Phenomena (Lecture I).

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Herbert Allingham: On the Causes of Failure to Find the Colon in Lombar Colotomy, and how they may be obviated. Mr. Malcolm Morris: Is Common Psoriasis a Constitutional or Local Disease?

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. W. J. Mickle: The Goulstonian Lectures: Lectura III. On Insanity in Relation to Cardiac Disease and Phthisis.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. Marmaduke Sheild: A Case of Neglected Dislocation of the Humerus, followed by Paralysis of the Nerve of the Hand and Forearm, treated by Excision of the Head of the Humerus. Dr. W. Hale White: On the Naked-eye and Microscopical Variations of the Human Thyroid-body.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Stewart: On Locomotion and Allied Phenomena (Lecture II).

BRITISH GYNECOLOGICAL SOCIETY, 8.30 P.M.—Specimens will be exhibited by Dr. Savage, Dr. Heywood Smith, and others. Dr. Inglis Parsons: On the Changes produced by the Constant Current in Uterine Myomata. Dr. John Shaw: Electricity in Gynaecology: a Contribution to its Study. Medical batteries and other Electrical apparatus will be exhibited.

HOSPITAL FOR CONSUMPTION, Brompton, 4 P.M.—Dr. Theodore Williams: The Uses of the Pneumatic Cabinet in Lung Disease.

ROYAL MICROSCOPICAL SOCIETY, 8 P.M.—Mr. G. Masee: On the Type of a New Order of Fungi.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 P.M.—Mr. B. G. Corney: Epidemic Cerebro-spinal Fever in the Fiji Islands in 1885.

HUNTERIAN SOCIETY, 8 P.M.—Adjourned Special General Meeting.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. W. H. Dickinson: The Lumleian Lectures: Lecture I. The Tongue as an Indication of Disease.

PARKES MUSEUM OF HYGIENE, 5 P.M.—Miss M. A. Chrelman: On Physical Culture.

HARVEIAN SOCIETY OF LONDON, 8.30 P.M.—Clinical Evening. Mr. A. Q. Silcock: 1. Osseous Union in a Case of Fracture of the Patella treated by Malgaigne's Hooks; 2. A Case of Conjugate Lateral Deviation of the Eyes. Dr. Sidney Phillips: Case of Hemiplegia in a Child, accompanied by Spasmodic Movement. Mr. Herbert Page: A Case of Traumatic Empyema and Pneumothorax. Cases by Mr. Treves and others.

NEUROLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Cases and Specimens, 8 P.M. Dr. Sharkey: 1. Fatal Case of Tumour of Auditory Nerve; 2. Case of Atrophy of Frontal and Parietal Lobes consequent on Prolonged Spinal Paralysis. Dr. Buzzard: 1. Sequel to a Case of Multiple Paralysis of Cranial Nerves; 2. Case of Peripheral Neuritis; 3. Case of Cerebral Tumour. Drs. Hadden and Sherrington: Sections showing ascending Degenerations in Spinal Cord. Dr. Hadden: Ruptured Brachial Plexus; Question of Operation. Dr. Hale White: Pyrexia in Rabbits from Lesions of the Corpus Striatum. Dr. Beevor: Case of Bulbar Paralysis, with Clonus of Lower Jaw.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Stewart: On Locomotion and Allied Phenomena (Lecture III).

CANCER HOSPITAL, Brompton, 4.30 P.M.—Mr. F. Bowreman Jessett: On the Treatment of Cancer and Malignant Disease.

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 7.30 P.M.—Dr. Louis Parkes: Death-rates as Tests of Healthiness. Mr. C. A. Watts Parkinson: Notes of an Epidemic of Pneumonia.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

LOUDON.—On the 3rd instant, at Richmond Villa, Lea Bridge Road, Leyton, Essex, the wife of John A. Loudon, M.B., C.M.Edin., of a daughter—stillborn.

DEATHS.

MASON.—On March 5th, 1888, at 20, Belmont, Bath, Mary Anne, the wife of Frederick Mason, M.R.C.S.E., etc.

MORIARTY.—On February 13th, at Shahajampur, North-West Provinces, India, Janet, wife of Surgeon-Major M. D. Moriarty, M.B., Civil Surgeon, and second daughter of James Irving, M.D., late Surgeon-General of Bengal, aged 29.

STEWART.—On the 6th instant, at his residence, The Briars, Sandown, I. W., John Burdett Stewart, M.D., F.R.C.P., formerly of Southall Park, and The Shrubbery, Southall, in the 95th year of his age. Friends will please accept this, the only, intimation. No flowers.

WELTORTH.—Whitworth, William, L.R.C.P.Lond., M.R.C.S., at Portslade, on the 25th ultimo, aged 26.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....	10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.
TUESDAY.....	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; West London; Cancer Hospital, London Ophthalmic.—2.30 P.M.: West London (Ophthalmic Department); Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department).
WEDNESDAY....	10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's, St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.
THURSDAY.....	10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.
FRIDAY.....	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.; West London.
SATURDAY.....	9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON
HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu, F., 1.30; Skin, M, Th., 1.30; Dental, M, W, F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M, Tu, F., 1.30; Eye, M, Tu, Th, F., 1.30; Ear, Tu, F., 12.30; Sklo, Tu., 12.30; Dental, Tu, Th, F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu, Th, S., 2; o.p., M, W, F., 12.30; Eye, M, Th., 1; Ophthalmic Department, W., 1; Bar, Th., 2; Skin, Th., 3; Dental, Tu, F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M, Th., 1.30; o.p. W, S., 1.30; Eye, W, S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu, 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu, F., 1.30; o.p., W, S., 1.30; Eye, W, S., 8.30; Facial and Surgical, daily, 1.30; Obstetric, Tu, Th, S., 2.

ST. BARTHOLOMEW'S.—Medical and Surgical, Tu., 9; Skin, Tu., 4; Dental, daily, 9.30; o.p., W, S., 9; Eye, Tu, Th, S., 2.30; Ear, Tu, F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu, F., 9.

ST. GEORGE'S.—Medical and Surgical, M, T, F, S., 1; Obstetric, Tu, S., 1; o.p., Tu., 2; Eye, W, S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu, S., 9, Th., 9.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu, F., 1.45; o.p., M, Th., 1.30; Eye, Tu, F., 9; Ear, M, Th., 3; Throat, Tu, F., 1.30; Skin, M, Th., 9.30; Electrician, Tu, F., 2; Dental, W, S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M, Th., 2; o.p., W, S., 1.30; Eye, M, Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu, F., 1.30; Children, S., 12.30; Dental, Tu, F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M, Tu, Th., F., 1.30; Eye, M, Tu, Th, F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Th., 2.30; Dental, W, F., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu, F., 3; Eye, M, Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W, S., 9.15.

LETTERS, NOTES, AND ANSWERS TO
CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

CHRONIC SWEATING IN THE AXILLÆ.

M. B. asks for advice in the treatment of a case of a young man, age 27 years, who has been troubled with chronic and profuse sweating in both axillæ for the last seven or eight years. He perspires as freely during the cold winter weather as during the hot months of summer. He has tried lotions of alum, dusting powder (equal parts of oxide of zinc and starch powder). He is very clean in his habits, washing the axillæ several times in the day.

TREATMENT OF EPILEPSY.

B. asks for suggestions for the treatment of a case of epilepsy in a girl of 16, where the bromides of potassium or ammonium are almost prohibited by their aggravating action upon an ulcer of the leg, which exists as a complication in the case.

DURATION OF INFECTION OF WHOOPING-COUGH.

P. asks how long the infective properties cling to the individual who has whooping-cough, in other words, the subsidence of which of the symptoms or group of symptoms would justify one in pronouncing the individual incapable of spreading the disease. Also, whether a child who has for a time lost the whoop and characteristic expectoration, but who has a relapse with a return of those symptoms, is again actively infective.

REMOVAL OF Hairy MOLE.

M. would feel obliged for opinions and suggestions with regard to the treatment of a congenital and hairy pigmentary patch (mole) about one inch square in extent, and situated on the malar prominence, about an inch from the lower eyelid. He asks, would ethylate of sodium remove the hair follicles, and pigment without causing contraction of skin afterwards, or would it be better practice to remove hairs first by electrolysis (as described by Mr. Gilbert Smith in the JOURNAL, January 23rd, 1886), and subsequently to cauterise with the object of removing pigment, in which case as the hair follicles have been removed, the cauterisation might not require to be done so deeply?

LETHAL CHAMBERS.

R. C. H. asks: Can any of your readers kindly inform me whether the lethal chamber, first described, I believe, by Dr. B. W. Richardson for destroying dogs, is suitable for the same purpose for horses? If so, the address of the place where it is in use would be esteemed a favour.

** The lethal chamber is at the Dogs' Home at Battersea; it is not of sufficient size for the destruction of horses. A scientific slaughter-house is in course of construction, under the superintendence of Dr. Richardson, at Croydon; it is designed for killing sheep, oxen, and other animals used for food.

ANSWERS.

IDIOSYNCRASY TO QUININE.

J. H. (Kersal) writes: Referring to "H. G. H.'s" communication in the JOURNAL of February 25th, on the above subject, allow me to mention a case in which I gave one-quarter-grain doses of quinine, with the result of producing flushing of the face, irritable rash, dryness of throat, headache, and buzzing in the ears. To satisfy my incredulity that so small a dose of quinine could be the cause of these symptoms, I got my patient to take—much against her will—a half dose in my presence, and the same result followed within half an hour, though in a somewhat modified form. Recently I had occasion to again prescribe for the same lady, and gave her a mixture containing ten-minim doses of liquid extract of cinchona, forgetting at the moment her extreme susceptibility to the influence of quinine. The consequences were the same as those she had experienced five years before. The lady was subject to occasional attacks of acute eczema.

Let me also name another case in which a small dose of morphine gives all the signs of physiological action. One-twelfth of a grain causes violent headache and sickness, and a suppository, containing only one-eighth of a grain, produces retching and constipation.

DR. THOMAS M. WATT (Hovingham) writes: I had a patient who twice, when she took quinine in fullish doses for neuralgia, was attacked with erythema, which I can describe only as *ferox*, and which was followed by shedding of the whole cuticle in small patches. I kept as curiosities for a long time the epidermis of both palms, complete from wrists to roots of digits. On the first occasion I was told by the patient that "it was the medicine." The second time I was convinced, and I never gave the quinine again.

QUININE IN PREGNANCY.

B. GUY N. STEPHEN (Cyprus Medical Service, Nicosia) writes: In the JOURNAL of February 4th, 1888 (page 279), Dr. P. O'Connell asks whether quinine has any action on the uterus, and inferentially raises the question as to whether it is a safe drug to use during pregnancy. The belief that a large number of drugs have a specific action on the uterus, and are dangerous to use during pregnancy, is a very common one among all classes of patients at home and abroad, and was so amongst medical men; but accumulating gynecological and medico-legal experience is daily diminishing the list of drugs that are capable of originating uterine action, in the absence of strong predisposition and when given in doses not dangerous to the maternal life itself, and the experiments of Professor Chiara, of Milan, afford very strong evidence that quinine is not among the number. Besides this, the clinical experience of any medical man practising in a country where malaria is rife will enable him to further affirm that the drug may be safely trusted not to originate parturient uterine contractions, even in cases where the predisposition to such action already exists. In this country, for instance, quinine is fearlessly given to pregnant women of all sorts, and frequently in, according to English notions, enormous doses, and without causing any evident uterine action. Given on the other hand, during actual labour, and especially in cases of uterine inertia from exhaustion, it is undoubtedly in moderate doses of seven to fifteen grains, a very powerful stimulant of the uterine contractions, which it assists by arousing the general nervous forces of the system, and not by grace of any specific action; in support of which utter affirmation, I would cite the fact that whereas malarial fever, left to

itself, is a constant cause of premature parturient action in otherwise healthy uteri, I have on a large number of occasions been enabled to arrest an abortion by large doses of quinine.

REPORTS OF VISITATIONS OF EXAMINATIONS.

REPORTS of visitors of examinations, and reports on those reports, have been published from time to time by Messrs. Spottiswoode and Co., for the General Medical Council. There are, in all, twenty-three volumes or pamphlets. The *Visitation Report, 1881-2, with Remarks Thereon by Bodies Visited, etc.* (price, 7s. 6d.), and the *Final Report by the Visitation of Examinations Committee* (price, 2s.), are the most recent.

STAMMERING: ORAL INSTRUCTION OF THE DEAF AND DUMB.

IN reply to numerous correspondents who have recently sent inquiries about the treatment of stammering and the instruction of deaf and dumb children, we may state that the Association for the Oral Instruction of the Deaf and Dumb (School and Training College for Teachers), has its office at 11, Fitzroy Square, W., and that the director, Mr. William Van Praagh, is also prepared to give advice and instruction as to the treatment of stammering, stuttering, and other defects of speech.

GLYCERINE AS AN INJECTION.

MR. J. BUNTING (Torquay) writes: In reply to "W. H. B.," I have not found glycerine diluted with water act nearly so well as when pure; in very cold weather it is better to warm it, and I find Mr. Balmanno Squire's urethral syringe the best and easiest for a patient to use; it holds the exact dose.

DR. C. PALMER (Burton on Trent) writes, in answer to "W. H. B.'s" question as to the injection of glycerine, that Messrs. Arnold and Son, of 34, West Smithfield, have made for him a very nice little instrument, a small india-rubber ball with a vulcanite nozzle.

IMPROVED GAS LAMPS.

F.R.C.S. ENG. asks to be informed as to the most efficient and least deleterious gas light which can be recommended.

** There appears to be little, if any, reason to doubt that the gas lights which provide for flame being supplied with heated, instead of cold air, are those which as a class comply with our correspondent's description of being the most efficient and least deleterious. The reason of their superiority lies in the fact that the combustion of the gas is more completely effected than in other forms of burners. The former kind are generally known in the trade by the name of "regenerative" burners, and can be readily recognised by their arrangement for the flame burning within a closed glass; they are now in comparatively common use. The principle was introduced some years ago by Mr. F. Siemens. The application of it has since been considerably modified by himself as well as by various other inventors and manufacturers. These lights differ in efficiency among themselves. It is an important consideration that this form of gas light admits of the entire products of combustion being readily carried away from the room by a suitable arrangement of the lamp, and if this is effected, all deleterious influences are entirely avoided.

NOTES, LETTERS, ETC.

THE PALMER CASE.

MR. J. VOSE SOLOMON (Birmingham) writes: Don't paint the Devil blacker than he is. In the discussion reported in the JOURNAL of February 25th, on the Coachford poisoning case, which took place at the Royal Academy of Medicine in Ireland, the Rev. Dr. Haughton is recorded as stating that had Palmer, the Rogeley poisoner, been acquitted for poisoning Cook, he would have been put on his trial for poisoning his mother, whose liver was found to contain six or seven grains of antimony. In this statement there is some mistake, inasmuch as old Mrs. Palmer (the mother) lived during the trial under an assumed name, in lodgings in the Bristol Road, Birmingham, and was attended during that time by a surgeon named Onion, since deceased. Mrs. Palmer's identity was not discovered until after her son had met her the gallows. During the trial the old lady's ailments were confined to great mental perturbation, which was not relieved by her doctor talking about the trial at Stafford, and his assurances that he believed Palmer would be hung.

ARREST OF DEVELOPMENT BY UNFAVOURABLE ENVIRONMENT.

D. H. G. writes: I have rather an interesting example of arrest of development under unfavourable conditions.

Last spring I hatched, in a small aquarium, where there is not much sun, some toads' spawn. The tadpoles gradually died off about the time their legs ought to grow—the usual length of their lives in confinement, as far as my experience goes—but three were alive at Christmas, without having gone through further development, and one is still in full vigour as a large tadpole now nearly twelve months old.

SYRUP OF TAR IN WINTER COUGH.

MR. WILLIAM FRASER, B.A., M.B., Univ. Dub. (Devon), writes: My attention was yesterday drawn to an article in the JOURNAL on Syrup of Tar in Winter Coughs, by Dr. William Murrell. I beg to say that we (Dr. W. S. Gervis and myself) have been using a similar product for the past eight or nine years; and if Dr. Murrell will turn to the *Lancet*, vol. i. 1882, page 1062, he will find a very short note from me under the heading of Nightmare Produced by the Internal Use of Tar, where I say that tar seems to work wonders in chronic bronchitis; and I must say that time has only confirmed our trust and confidence in the said mixture. My way of making differs from that of Dr. Murrell; his is not fit for use for some days, mine, on the contrary, can be used almost at once. My way is as follows: Get a jam pot, put in pulp, aënic 3ij; sacch. sec. ʒiv; piels liquide ʒij; mix well, add liq. potass ʒij; boiling water ʒij or ʒij; mix. Transfer to a bottle and fill up to make a pint; shake well, and filter through fine muslin into your shelf bottles. The product is of a light brown colour, of which I put from ʒiv to ʒi in a six ounce bottle of water; a tablespoonful every four or six hours; the efficacy of this is often increased by ʒj tinct. scille. The liq. potass. is an addition to

NOTES

ON

TWO CASES OF LAPAROTOMY

FOR

PENETRATING GUNSHOT WOUND OF
THE ABDOMEN; RECOVERY
IN ONE.

WITH REMARKS ON RECENT STATISTICS.

By ARTHUR E. J. BARKER, F.R.C.S.,

Surgeon to University College Hospital; Teacher of Practical Surgery
at University College.

THE following cases are a contribution to the study of a class of injuries which, though they have received far greater attention abroad, and especially in America, than in this country, must doubtless have a keen interest for all surgeons.

CASE I.—A. T., aged 23, a French jeweller, was admitted into University College Hospital under my care on November 20th, 1887, at 3.20 A.M., having shot himself in the abdomen about half an hour previously. He was suffering from moderate shock, and though quite conscious when spoken to, seemed dazed and frequently groaned. His pulse was 56, and markedly dicrotous (from subsequent observation this was probably its normal condition); it was of good volume. The skin was normal, and the temperature in the rectum 98.2° F. He had not vomited. He lay on his right side, with his knees drawn up; his breathing was slow and shallow, with an occasional catch. There was a small bullet wound, with blackened edges, over the border of the costal cartilages on the right side, one inch from the middle line, at the level of the tip of the ensiform cartilage. The pistol was a small "pin-fire" weapon carrying a conical ball 11 millimètres long, 7 millimètres in diameter, and weighing 60 grains. There was little or no external bleeding from the wound, and no evidence of fluid in the abdomen except a suspicion of dulness in the right flank, but there was much tenderness on pressure over the abdomen.

I first saw the patient at about 5 A.M., two hours or so after the injury, when he was beginning to recover from shock. Feeling confident from the situation of the bullet wound that the ball must have entered the abdomen and have struck the liver, and fearing that the slight dulness in the right flank was commencing effusion of blood, I had little hesitation in deciding on laparotomy in order to check hæmorrhage, suture any lesions if present, and cleanse the abdominal cavity. Having, therefore, made every arrangement for complete antisepsis, the operation was done at about 6.30 A.M.

I first made an incision two inches and a half long over the tip of the ensiform cartilage, and on drawing its edges apart could see the opening in the peritoneum through which the ball had entered the cavity. Nearly under this, and at the attachment of the falciform ligament to the liver, was a patch of ecchymosis under the serous covering of the organ, which suggested the point at which the latter had been struck by the bullet. There was no corresponding breach of surface of the liver, either here or elsewhere, though I carefully examined most of the anterior surfaces of the left lobe by pressing it down and throwing the light well between it and the ribs, and also by passing my hand over it. The surface of the organ was, however, stained with blood, and a dark clot was seen extending directly downwards in the middle line. This was about the size of the little finger when drawn out, and led me to think that it came from the track the ball had taken. I therefore prolonged the incision to the umbilicus, and found some more and larger solid clots lying underneath the abdominal walls and upon the colon and omentum.

The first point was now to see that the stomach was not injured, and a careful examination of its surfaces as it bulged up into the wound, as well as the fact that it was tense with gas, clearly indicated that it was not perforated. It was therefore pressed back into the abdomen, and the transverse colon lying just below it was hooked up and drawn out of the wound to the extent of about eighteen inches for careful inspection. This also was found

intact, but the omentum along its lower border was noticed to be much blood-stained and covered with clots ranging from one the size of my thumb downwards, apparently derived from lesions of some of its own vessels. These clots were therefore carefully disentangled from the omentum, and the latter was wiped clean, and while this was being done the bullet was found in its folds, and a moment later a small round wad. From the position of the bullet it appeared quite clear that it had struck the liver at the insertion of the falciform ligament, and had glanced off it and passed between the abdominal wall and the stomach and transverse colon as nearly as possible in the middle line, to become entangled in the folds of the omentum, some of whose vessels were torn. It seemed highly improbable, therefore, that any other viscera were injured. Nevertheless, all the coils of small intestine exposed by the incision were carefully examined; then sponges wrung out of sublimate solution were thrust into both flanks and the recto-vesical pouch, but came out unstained. The viscera exposed were then thoroughly cleansed by sponging, and were adjusted with the omentum over them, after which the abdominal wound was closed in the usual manner. The bullet track in the abdominal wall was also scoured well, rubbed with iodoform, and a very fine short drainage-tube was passed into it as far as the peritoneum, but not through the latter. Firm bandaging over a salicylic wool dressing completed the operation. The latter was well borne, and when the anæsthetic was recovered from there was no vomiting and only moderate pain, easily relieved by a little morphine. The patient was fed for some days with nutrient suppositories. The temperature rose the same night to 103.6°, the pulse to 100, and the patient became rather restless, but twenty-four hours after operation both were normal, and remained so practically to the end of the case. The dressings were changed on the sixth, tenth, and sixteenth days, union having taken place by first intention, except in the bullet track, which, however, closed rapidly, the patient leaving hospital on the twenty-first day quite well. The bowels had acted normally several times.

CASE II.—M. F. G., aged 37, an American, was admitted on the following night, November 21st, at 8.30 P.M., having been shot in the abdomen about half an hour previously with a Colt's revolver carrying a conical bullet 15 millimètres long, 9 millimètres in diameter, and weighing 143 grains. I saw him a few minutes after 9 o'clock, and found him quite comfortable, with no trace of shock and not suffering in any way. The shot had been fired at close quarters, and the ball had struck the abdominal wall $3\frac{1}{2}$ inches internal to the right anterior superior iliac spine and half an inch below it, and had emerged 3 inches behind the same iliac spine and also half an inch below it. From neither opening was there any bleeding at this time, but the clothes were considerably stained with blood. From the position of the wounds it appeared probable that the ball had passed through the soft parts external to the peritoneum and without entering the abdomen. This was explained to the patient, and also the necessity of giving an anæsthetic so as to make a thorough exploration. His assent was at once obtained, on the understanding that he was to be allowed to come to as quickly as possible in order to see his friends, who had been sent for. On enlarging the anterior wound a slit was seen in the tendon of the external oblique muscle, and through this a probe slipped into the abdominal cavity, while a considerable quantity of blood welled up from the latter.

It was plain then that a full exploration of the abdomen should be made, but it was necessary to let the patient know his condition and see his friends before going further. He was therefore allowed to recover from the anæsthetic, when he at once gave his consent to any operative treatment which might be necessary, his friends too acquiescing readily. It was not, however, until 1.5 A.M. that the operation was begun, owing to some delay on the part of the police authorities in taking the patient's depositions. All arrangements for complete antisepsis having in the meantime been made, I commenced the exploration at that hour by a four-inch incision in the direction of the fibres of the external oblique, and having the bullet wound in its centre. When the abdomen was thus opened blood mixed with clots, but without a trace of fæces or odour, escaped to the extent of three or four ounces. Knowing from a rather large experience of gunshot wounds the extraordinarily erratic course of conical bullets in some cases, my first care was to make out the track of the ball in this instance. The incision having passed through the aperture of entrance in the peritoneum, the aperture of exit had to be found if possible, and on sponging out the blood it was seen not

Cases of Abdominal Section Performed on Account of Gunshot Wound. (Continued from Sir William Mac Cormac's List, BRITISH MEDICAL JOURNAL, May 11th, 1887, page 1033.)

No.	Operator and Reference.	Age and Sex.	Time after Injury.	Special Symptoms.	Nature of Intra-peritoneal Injuries.	Treatment.	Result.	Remarks.
33	Charles T. Parkes, (Chicago.) <i>Annals of Surgery</i> , Nov., 1887.	Adult male	4 hours	Revolver shot. Moderate collapse; pulse very fast, face pale; considerable bleeding from internal wounds. Two bullet wounds 4 inches to left of median line in a line one above the other, and 1½ inch apart; one had passed out of the body below last rib at outer side of erector spine.	Five perforations of small intestine; perforation of left kidney; no special bleeding from it. Vomited much food during operation.	Four-inch median incision; much blood removed from peritoneal cavity. Kidney not removed; antiseptic dressing. Rallied well from operation but died of bleeding from kidney.	Died in about 24 hour after operation.	The wounds had been easily cured and both they and the abdominal cavity were in a satisfactory condition for moriem.
34	Charles T. Parkes, (Chicago.) <i>Ibid</i>	Male, 41	16 hours	Blush over right half of abdomen. Breathing entirely thoracic; the abdominal walls hard and motionless.	Bullet wound 2 inches inside right iliac spine. Much fecal matter in wound. Bullet had just entered and left the abdominal cavity and buried itself in the thigh.	Incision in median line, six large quantities of fibrin, color, fecal matter and fat evacuated. Washing with weak boracic lotion. Intestine much inflamed. One large wound of small intestine found and sutured with out difficulty. The whole intestinal tract examined, no further lesions found.	Died 16 hours after operation.	Apparently death was due to shock.
35	McGraw, quoted by C. T. Parkes. <i>Loc. cit.</i>	—	—	—	—	—	Recovered	—
36	Murphy, quoted by C. T. Parkes. <i>Loc. cit.</i>	—	—	—	—	—	—	—
37	Murphy, quoted by C. T. Parkes. <i>Loc. cit.</i>	—	—	—	—	—	—	—
38	F. J. Skelly, M.D. (Petersburg.) <i>Journal of Surgery</i> , July 1887, p. 49	Male, 21	A few minutes	Six wounds, that is of both hands, right hip, and abdomen. Very pale; great pain in right iliac region.	No wound of intestine. Bullet imbedded near the spine. Venous blood in peritoneum. Bullet had entered midway and a little below a line from umbilicus to right iliac spine, and had passed upwards and inwards for about 3 inches.	Chloroform. Median laparotomy, no complete antiseptic could be provided. Intestines drawn out, held in warm towels (not aseptic). Abrasion of peritoneum dusted with iodoform. Abdomen wiped out with new sponges hastily cleansed in carbolic acid and rain-water.	Recovered	Patient distinctly tuberculous with tubercles in the peritoneum and a cavity in right apex. No bad symptoms during convalescence, which was rapid.
39	A. E. Barker	Male, 23	3½ hours	Shock, slow diastolic pulse; great tenderness of abdomen.	Bruise of liver and slight tearing of the omentum. Clots of blood, bullet and was removed from the latter.	Median laparotomy under spray, etc. Thorough exploration of abdomen. Bullet and wound found entangled with clots in omentum below colon; toilet of peritoneum.	Recovered, no bad symptoms	The slow diastolic pulse probably a normal condition; it lasted all the time patient was in hospital.
40	A. E. Barker	Male, 37	5 hours	No shock; no pain; very little bleeding; nature of wound only discovered on enlarging bullet track.	Double perforation of ileum 3 feet above cecum. Abdomen on right side contained much blood and clots; no faces or gas.	Wound much enlarged; perforation of parietal peritoneum sutured. Perforated portion of gut excised completely, and ends of bowel brought together by continuous suture of fine silk, reinforced by row of interrupted suture. Abdomen sponged out.	Died	Peritonitis & pneumonia found post-mortem but no evidence trace existed. Suture of the bowel was perfectly complete, and sound union had taken place.
41	Dr. Sévastopolov, (Constantinople.) <i>Revue de la Soc. de Chir.</i> , T. XIII, 1887, p. 273. Operation 1880	Male, 30	1 hour	Revolver wound (5 or 5.5 mm.) in middle of line joining right iliac (inferior) spine and umbilicus. Fecal fluid in wound with blood pressure caused escape of intestinal gas. Patient anxious.	Oval wound of small intestine with a long loose flap of its wall. Wound too long to be sutured.	No special preparation. Surgeon not supplied with usual instruments. Wound enlarged vertically, 15 centimetres with scissors, cutting the whole depth of abdominal wall, including peritoneum. One litre of blood escaped with clots from abdomen, the intestines followed soiled with faeces. Resection of a wounded portion of bowel; ends invaginated, Lembert's suture, one thread, retaining the coil near the wound.	Recovered, no bad symptoms	Abdominal cavity washed out with carbolic solution, warm. Iodoform-dressing of wound.

42	A. S. Friddy, M.D., (Keyville, Va.) <i>Journ. Amer. Med. Assoc.</i> , Nov. 19, 1887, p. 619	Male, 60	4½ days	Severe shock, restless, anxious, hicough, no vomiting. Shot from 32 calibre revolver had passed from a distance of 6 to 8 feet into the abdomen, at a point half an inch below and internal to anterior superior spine (? side.) Nothing abnormal on palpation except pain	Six-inch rent in the descending colon large enough to admit the hand, which was passed into the rectum. Much fecal feces in the abdomen. Intense tympanites	Expectant treatment to morning of Sept. 9th, when all the symptoms of severe peritonitis were present and patient was very weak. Then laparotomy median, careful antiseptic, complete examination of intestines, 6-inch rent in descending colon sutured with continuous catgut. Iodoform freely used over intestines. Abdomen washed freely with 1 to 1,500 hyd. bichlor. Abdomen drained with small tube. Operation lasted 55 minutes	Recovered	Suffered much shock and nearly died from injudicious feeding, but ultimately recovered.
43	J. W. Dean, Records of St. Louis City Hospital, unpublished	Male, 16	Not given	Condition very bad at time of operation	Injury of small intestine	Laparotomy: suture of intestine, cleansing of abdominal cavity	"	Stomach wound had entirely closed: extravasation of blood in breath: slight peritonitis.
44	H. H. Mudd, (not fully reported.) <i>Journ. Amer. Med. Assoc.</i> , Nov. 1887, (Table p. 579.)	Male, 17	3 days	Condition at time of operation good	Injury of liver and stomach	Laparotomy: suture of stomach	"	Operation unsatisfactory on account of inability to cleanse peritoneal cavity.
45	N. B. Carson, <i>St. Louis Courier of Medicine</i> , March 1887	Male, 25	6 hours	"	Wound of small intestine and mesentery	Laparotomy: suture of wounded viscera and resection of 2½ inches of intestine	"	Attempt was made to enter abdomen in median line, but prevented by old adhesions. Origin gunshot wound opened up. Patient recently seen in full work.
46	J. Prince, (not reported.) <i>Journ. of Amer. Med. Assoc.</i> , November 1887, (Table p. 579.) Operation performed June 25, 1886	Male, 30	1 hour	"	Injury of ascending colon	Laparotomy: suture of wound in bowel	Recovered	Patient a negro lad. Operation done under difficulties.
47	S. C. Medical News, April 30, 1887, p. 480. Operation December 19, 1886	Male, 15	7 hours	Condition of patient at time of operation fair. Restless, anxious, much thirst, pulse weak, emphysema of external wound. Rectal temperature subnormal. Blood passed with a motion before operation. Feces escaped from wound	Perforation of ascending colon and of small intestine. Bullet entered left groin, emerged 1½ inch to right of umbilicus. Appendix epiploica was found bleeding and tied	Laparotomy: median 3 inches; suture of wounded intestines (after paring of edges) by Lembert's stitches. Feces removed from abd. cavity, which was then irrigated with hot carbolic water	Recovered, no bad symptoms	
48	M. Freyer, <i>Deutsche Med. Wochenschr.</i> , July 15, 1886	Male, 19	6 hours	Patient collapsed at time of operation	Injury of small intestine	Abdominal wound enlarged and intestine resected outside of cavity	Recovered	
49	W. Parham, <i>New Orleans Medical and Surgical Journal</i> , 1887, New Series, xiv, 508	Male, 34	2 hours	Patient suffering from shock	Injury of small intestine, ascending colon, and bladder	Laparotomy: suture of wounded viscera	Died	
50	Ditto, ditto	Male, 22	3 hours	"	Injury of small intestine and external iliac artery	Exploratory laparotomy	Recovered	
51	F. Pickett, <i>Med. Press and Circ.</i> , N. Y., <i>Buffalo</i> , 1886, 5, 6, 1, p. 241	Male, 13	Not given	Patient's condition good	Wound of abdominal wall	Laparotomy	"	Ball extracted from liver.
52	V. F. Smart, <i>Burrill's Medical Journal</i> , Vol. I., 1885, p. 375	Male, (?)	"	Patient suffered from shock	Wound of liver	Laparotomy	"	No bad symptoms.
53	J. W. Heddens, (St. Joseph, Mo.) <i>Annals of Surgery</i> , Dec. 1886, p. 628. From <i>Franz. Med. Assoc. State of Missouri</i> , Operation early in year 1886	Male, 30	"	Wound in epigastric region from pistol. Complained immediately of great pain in right side, shoulder, and back, with dyspnoea	Eleven wounds, of small intestine, one at ileo-caecal junction; all were jagged and varied in size. Omentum torn and bleeding at one point. A large vein wounded at upper and right side of pelvis, (died), found to be the external iliac, near Poupart's ligament	Laparotomy from wound downwards for 5½ ins. Pieces of cloth removed from abdomen, together with four ounces of blood. Antiseptic dressing	"	Pulse fell alarmingly at one time during operation, but rose at once on irrigating the abdominal cavity with hot water. Sank steadily after operation. Slight evidence of peritonitis <i>post mortem</i> . No other wounds found.
54	H. H. Packard, <i>Medical News</i> , March 26, 1887, p. 339	Male, 33	Shortly after, about 1 hour probably	Marked collapse. Temperature 97.5, pulse 120, respiration normal. Food and some blood vomited. Bullet (calibre .38) entered 2 inches to left of umbilicus and ½ inch below it. No escape of fecal matter discovered, but blood was found in peritoneum	Wound of liver	Antiseptic laparotomy in median line after wound had been enlarged. Peritoneal cavity irrigated with 1 to 15,000 hyd. bichlor. Intestines systematically examined. Joles sutured by Lembert's method; catgut being used. At one spot about 1 inch of bowel resected with V-shaped portions of mesentery. Lembert's sutures. Operation very prolonged, (probably over 2 hours.) Drain-tube in peritoneum	Dead 14 hours after operation	

Cases of Abdominal Section, etc. (continued).

No	Operator and Reference.	Age and Sex.	Time after Injury.	Special Symptoms.	Nature of Intra-peritoneal Injuries.	Treatment.	Result.	Remarks.
55	Dr. Lange, <i>Med. News</i> , Male, 11 Nov. 26, 1887, p. 630. Operation Oct. 13	Male, 11	24 hours	No shock. Pulse 112 to 120. No pain but marked tenderness on pressure to the left. Some tympanites and abdominal wall was tense	No No. 22 pistol ball entered 1 1/2 inch below navel, and 1 inch to left. Seven perforations of small intestine. Three pairs of brown fluid found in the peritoneum, no feces	Laparotomy at once in a line with the belly wound. Wounds closed with gut in 6 instances, one was already closed firmly	Recovered without a bad symptom	Bullet not found. Good union did not take place in abdominal incision.
56	R. T. Munly, (<i>N. York Med. News</i> , Sept. 24, 1887	Male, (?)	2 hours	Abdomen greatly distended, evidently by fluid	Double perforation of descending colon. Wound of interior mesenteric artery	Laparotomy in middle line; exit 3/4 gall. of blood. Bleeding was from branch of inferior mesenteric artery which was ligatured. Perforations closed by Lembert's sutures	Recovered	Bullet not found. Good union did not take place in abdominal incision.
57	C. E. Case, (<i>Toronto Med. News</i> , Sept. 24, 1887, p. 379	Male, young	—	General condition fair. Temperature 98.5, pulse 110, slight tenderness of abdomen, pain dull in umbilical region	Pistol ball 32 calibre entered 2 1/2 inches and to right of umbilicus, emerged 3 inches to the right of the spine	Laparotomy antiseptic. Considerable quantity of blood in peritoneum. Wound of bile duct above to 1 in. below the umbilicus. Considerable quantity of blood in abdomen. Lembert's suture. Warm hypospholite used for cleaning. Abdomen washed out with warm water. Rubber drainage-tube. Operation lasted 1 hour 10 minutes	Recovered	Convalescing at time of report, which is very short.
58	J. M. Fox, (<i>Philadelphia Med. News</i> , Nov. 12, 1887, p. 568	Male, 17	3 1/2 hours	General condition fair. Temperature 98.5, pulse 110, slight tenderness of abdomen, pain dull in umbilical region	Bullet wound 3/4 inch below and 1 1/2 inch to left of umbilicus. Wound of mesentery of transverse colon of jejunum, mesentery of latter. Bullet lodged in back. No fecal escape. Intussusception of ileum noticed and reduced at operation	Median laparotomy from 2 1/2 in. above to 1 in. below the umbilicus. Considerable quantity of blood in abdomen. Lembert's suture. Warm hypospholite used for cleaning. Abdomen washed out with warm water. Rubber drainage-tube. Operation lasted 1 hour 10 minutes	Recovered	Drain-tube removed on July 30th.

more than half an inch from the first, and just below the cecum. At first it was thought that the latter viscera had been wounded, but this was not so. The bullet then had only just entered and left the abdominal cavity in the fold between the anterior wall and iliac fossa, a strip of peritoneum only half an inch broad separating the two wounds. It was a question then whether the intestine was wounded, but this was soon set at rest when the adjacent coils were drawn out, two wounds being found in one coil which exactly corresponded to those in the peritoneum, against which it had rested when the bullet was fired. These wounds were round, with slightly bruised edges, from which the mucous membrane did not protrude. They bled freely, but no feces escaped from them, the bowel appearing to be quite collapsed on either side. Fearing that to simply suture these two wounds would seriously narrow the lumen of the bowel, I at once excised a wedge-shaped portion of the gut, including the injured part. The bowel was first thoroughly emptied by pressure, seized on either side in the fingers of an assistant, and two cuts were made with a scissors, reaching to the mesenteric attachment of the intestine. In this way a complete ring of the latter, about half an inch broad at the injured aspect, was removed, the mesentery being only slightly notched. The parts having been now thoroughly cleansed, the serous surfaces of the mesenteric notch were brought together by a continuous suture on both sides, and the cut edges of the bowel having by this means been apposed on their proximate aspect, they were united by a continuous suture of fine silk, taking up only the serous and muscular coats just at the edge, the needle coming out on the cut margin at each stitch. This suture was begun at the mesenteric aspect of the bowel, and went completely round the latter, care being taken that while it brought the edges into contact, it should not narrow the lumen of the bowel.

A second row of interrupted silk sutures was now introduced to reinforce the first. These took up the serous and muscular coats just beyond the first row, and, when secured, the latter was completely hidden. There was no difficulty in controlling the contents of the bowel with the fingers, or in suturing the bowel without contamination of the stitches. All the coils of small intestine within reach were now drawn out of the abdominal wound, and very searched for further injury with a negative result. They were then washed with sublimate solution, 1 to 1,000, and

before they were returned the abdominal cavity was thoroughly sponged out, special attention being given to the flanks and the recto-vesical pouch. When every thing appeared quite clean the intestines were returned, and the wound was closed in the usual way with silk, a drainage-tube being left in the track of the ball, and reaching well into the abdomen. A salicylic wool dressing completed the operation, which had lasted one hour twenty-nine minutes. The patient bore it very well, and did not suffer from shock. The next day he was fairly comfortable, only complaining of pain in the wound; but he was very thirsty, and ate a great deal of ice. Pulse 115, temperature 99° to 101°. He vomited occasionally, but only a little odourless, white fluid. He was kept well under the influence of morphine. There was no distension of the abdomen. His urine required to be drawn off every six hours; it was high coloured, and very acid. On the second day after operation he seemed very well, but could not retain anything taken by the mouth; he had been having prepuised suppositories every six hours. Pulse 120, temperature 101° to 102°. On the third day he seemed much better, but still vomited occasionally, though only the ice water and a little mucus. Pulse 120, temperature 101.2° to 101.8°. He was able to pass water himself, and also passed flatus. The wound was dressed for the first time under the spray, and the drainage-tube was shortened. On the fourth day he was still better, though the pulse remained at 120, which he still occasionally brought up in small quantity, but to have a favourable odour, and to become yellow. The abdomen, too, was more tense than before, and the patient did not look so well. I therefore began to fear that there might be some obstruction of the bowel near the seat of operation, or possibly some collection of matter, though there was no dullness of the abdomen anywhere. In consultation with my colleagues it was determined to release the stitches in the wound, and explore it with the finger. This was done at midnight, but no collection was found, and the sutured part of the bowel was felt to be in a satisfactory condition. The next morning (fifth day) he seemed weaker, though not so sick; but his strength was improved by injection of stimulants in the afternoon. His temperature had risen somewhat to 101.6° to 102.6°, and the pulse was 130. During the night he became weaker, though less sick, and at 4.45 he died quietly (sixth day).

The *post-mortem* examination was made by Mr. Bilton Pollard, whose notes contain the following facts. The small intestines were very much distended, especially in the umbilical region; there was no gas, lymph, or pus anywhere in the abdominal cavity, but the coils of the bowel in the distended area were slightly greasy. The large intestine was not at all distended, and seemed out of the area of inflammation, which had affected the small intestine solely. The latter in the neighbourhood of the wound was more adherent than elsewhere. The portion of bowel sutured, which was in the ileum about three feet from the cæcum, was in a perfectly satisfactory condition. Union had taken place thoroughly between the cut ends, and the bowel was not obstructed in any way. Tested with considerable pressure, it was perfectly air and water tight. There were about two drachms of blood-stained fluid in the recto-vesical pouch, about half a drachm in the right flank, and three drachms in the left. There were a few spots of extravasated blood in the omentum, which occupied its normal position, but was adherent to the edge of the wound by recent lymph. There was much hypostatic pneumonia in both lungs, especially on the right side; the other organs were healthy. It will be seen from these notes that the cause of death was a very moderate amount of peritonitis limited to the small intestine, and in addition no doubt the hypostatic pneumonia told unfavourably. Indeed, there was so little to be found in the abdomen indicating peritonitis, except the distended coils of bowel, that there was some hesitation in accepting this as the cause of death: But the absence of any other lesion except the pneumonia, left no alternative. A septic condition, in the ordinary use of the term, did not exist; the spleen was quite normal and other evidences also failed: in short, one turned away from this necropsy with an intensified feeling of disappointment, because the patient had so very nearly recovered.

These two cases appear to me to possess each its own special interest. In the first there can be but little doubt that a fatal peritonitis would have occurred had not the bullet, its wad and the clots which surrounded it, been removed from the folds of the omentum by abdominal section. Again, laparotomy enabled us to exclude from consideration all other injuries of viscera, without subjecting the patient to any special risk in exploration. The case is also of interest in being the first successful laparotomy for gunshot wound of the abdomen recorded in this country. I trust it may encourage other surgeons to very prompt action in similar cases, so that the conclusions arrived at in America as to the propriety of immediate laparotomy in all cases where penetration of the abdomen is proved, may be justified by our experience too.

The second case, although a source of the keenest disappointment to me, has in no wise shaken my belief in the rule that every case of the kind should be treated immediately by abdominal section: indeed, it strengthens that belief in every way. What little peritonitis there was no doubt started from some spot in the peritoneum not thoroughly cleansed from matters escaped from the wounded bowel. Whether a more perfect antiseptics could have been carried out by a median incision and irrigation may be a question of opinion, but I am strongly inclined to think that it could, though at the time I decided that the extra time and strain upon the patient's powers involved in a double incision and its concomitants would be too dear a price to pay. That the median incision should be the rule in the vast majority of such wounds of the abdomen I am convinced, and this view will be shared by everyone who carefully studies the literature of the subject. This literature is now becoming a large one. Sir William MacCormac's classical monograph sufficiently attests this by the numerous cases there quoted. But even in the short interval of only a few months which has elapsed since he published his collection of thirty-two operations for gunshot wound of the abdomen, almost an equal number of cases have been put on record, chiefly in America, and numerous discussions have taken place on this subject. These cases I have been at the pains to collect and tabulate. A study of the results of these operations is most encouraging. They show a greatly lessened mortality, year by year, and also that much more desperate cases may be saved by surgical interference than has hitherto been supposed: I give them as fully as is possible in such a table, and allow them to speak for themselves with only one comment. It will be seen that, whereas out of the 32 laparotomies for gunshot injury of the abdomen included in Sir W. MacCormac's list, only 7 recovered, there are here collected 26 fresh cases of the same kind, with 16 recoveries and 10

deaths. Combining the two tables, we have 58 cases with 23 recoveries and 35 deaths. The numbers start in this table where Sir W. MacCormac's end, that is at 32.

THE GOULSTONIAN LECTURES

ON INSANITY IN RELATION TO CARDIAC AND AORTIC DISEASE AND PHTHISIS.

Delivered before the Royal College of Physicians of London.

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LECTURE II.—AORTIC VALVE LESIONS.

OF cases of aortic valve lesion, the chief and predominating condition, I make four sub-groups: (1) aortic stenosis; (2) aortic regurgitation; (3) aortic semilunar valve disease, with no very marked local signs, and aorta not very much affected, if at all; (4) disease of aortic valve and arch.

First Sub-group: Stenosis of the Aortic Ostium.—Of eight cases; varying in age at death from 24 to 47 years, the average was almost 40, only one being young. At death the insanity had lasted from nine months to sixteen years in different cases. The relation, in time of incidence, of heart disease to insanity was difficult to appraise in several cases; distinctly prior in some, it was distinctly subsequent in others. Naturally, these cases were not all pure examples of aortic stenosis; in two there was also aortic incompetency, as well as aneurysm of thoracic or of abdominal aorta, and in three others—at least at one period or at several periods—slight mitral incompetency was added.*

Of these patients, three were monomaniacs, in one of whom the heart disease distinctly preceded the mental; in the others the order of incidence was doubtful. In the first-mentioned of these (with aortic aneurysm a complication) at first the delusions were of persecution, for example, "was plotted against, conspired against by women, illegally detained and ill-treated;" and thereafter hallucinations of hearing. Finally, with advancing disease of heart and aorta came delusions of direct bodily injury and persecution, producing horrible pain compared to "electric batteries playing on him."

Of the others, one—a deteriorated wreck of former mingled hypochondriacal and expansive monomania, become demented—often screamed shrilly, was rambling, incoherent, paroxysmally excited and noisy, and on some of these occasions suddenly destructive; finally he uttered merely a jargon, a medley of words. The other, a subject of mingled expansive and persecutory monomania (with imbecility), and hallucinations of all the special senses except of touch; together with the advancing heart disease, pulmonary congestion, and recurring attacks of dysenteric diarrhoea, became deluded as to poison in the food, and as to influences of a hostile kind brought to bear upon his bodily state and health.

* *Heart.*—Average weight 13.51 ozs. av. Aortic valves variously diseased, thickened, atheromatous, rigid, deformed, stenotic. Mitral valve similarly diseased in some, but less in degree, and the aperture in some widened. The pulmonary and tricuspid valve much less often and much less severely affected than the preceding. Muscle of heart often friable, flabby, or pale. Left ventricle markedly hypertrophied in most, and in some distinctly dilated also; the other cardiac chambers only in a few distinctly dilated, or hypertrophied, or both. Coronary arteries atheromatous in some. The aorta in several aneurysmally pouched; more or less atheromatous, nodular, rugose, calcareous; irregular elevations, yellow patches, puckers, and wavy markings studding the inner surface.

† *Brain.*—In some of general paralysis; in others slightly wasted.

‡ *Spleen.*—Average weight 5.9 ozs. av. In many firm, coarse, fibrotic; capsule often irregularly thickened, opaque and adherent, or pigmented; occasionally cicatrised.

§ *Kidneys.*—Average weight of each 4.83 ozs. av.; often more or less granular; some partially destroyed by old local lesions. Of the larger kidneys, some were pale yellow, firm; a few were pale, homogeneous, fatty.

¶ *Liver.*—Average weight 54 ozs. In some slight cirrhosis; frequently "hepatic venous congestion;" patchy opacity or thickening, cicatrices, or adhesions of capsule.

‡ *Lungs.*—Usually old pleuritic adhesions; frequently hypostatic oedema, congestion, or even pneumonia; occasionally calcification, brown induration, or cirrhosis of lungs, cured phthisis, caseous bronchial glands.

1 In the reprint of the article published in the JOURNAL (May 11th, 1887), Sir W. MacCormac added two cases, making a total of 32.

Three others were general paralytics. In one, epileptiform attacks were frequent; hypochondriacal and melancholic symptoms throughout more than usually intercurrent. Demented and ataxic, he for a time took on absurd ideas with expansive tinge, for example, "has oak trees inside him," not infrequently lugubrious and depressed, he felt "very old." Another, at times conscious of being diseased in the head and, then, recognising his delusions as such, had apoplectiform attacks, confusion, drowsiness, amnesia, occasional, excitement, dementia; later, depressed, hypochondriacal, stubborn, bellowing; later on, *agitation silencieuse*; finally fatuity. In another, there was at first circular general paralysis, with successively maniacal, lucid, depressed, phases; later, delusions as to poison, and hence refusal of food; delusions of impending injury from those about him, fear; later, variable, restless, excited, violent at night; by day confused and incoherent, muttering about "thousands" and "millions."

In the seventh case the cardiac disease preceded insanity. The son of a drunkard, after an erratic course, rebellious to control and resistive of all regulating influences, and during which he was syphilitised and alcoholised, he fell more deeply into drink; under delusion, made a homicidal attack; became much excited, attempted suicide, and fell into the abyss of melancholia attonita, from which, dying of rapid, caseous, pneumonic phthisis, he roused sufficiently before the end to speak again, and to express delusions as to adverse influences brought to bear upon him, and fear of hostile entities.

The eighth had at first delusions as to military officers being brought to England under his charge, to be tried for an attempt to murder him. On this soon supervened profound amnesia as to dates, passing of time, order of occurrences, or recollection of them. Occasionally were seeming hallucinations of hearing.

Summary.—Thus the cases of stenosis at the aortic ostium, with change of its sigmoid valves, in which the cardiac most probably influenced the mental state, showed some or other of the following—mental depression; ideas of persecution, of adverse influences, of direct bodily injuries, inflicted pain, etc. Possibly, also, sudden intercurrent outbursts of mental excitement and violence of act. Others in whom the sequence of events was doubtful, or in whom the heart disease followed the mental, exhibited similar tendencies (some indistinctly), to which may be added delusions as to bad or poisoned food, and perhaps refusal of it for a time.

Second Sub-group: Aortic Regurgitation.—Of several marked cases of incompetency permitting regurgitation at the aortic gateway, as the chief morbid cardiac condition, the ages were from 30 to 50, and the average 38 years, at death, at which, also, the insanity had lasted from a few months to four years, except in a complicated case of seventeen years' duration; and in all but this last one the heart disease either distinctly or apparently preceded the insanity. In two there were both regurgitation and obstruction at the aortic orifice.* Two were general paralytics. One of these cases began with headache, vacant expression and manner, failing memory and speech, delusions as to his own identity, and declaration of himself as various other persons. Then general paralysis became more manifest, with big ideas, and some hypochondriacal ones concerning his eyes and head. From this he passed into a relatively lucid state, recognising his former delusions as such, but being childish and somewhat demented. Finally, he also became rambling and incoherent in his descriptions, and died in a state of supervenient stupor, or apoplectiform seizure, with pulmonary congestion and hypostatic pneumonia. General paralysis in the other was insidious in its onset; observed to be eccentric, the patient also made mistakes in performing military duties, so as to be unfit to carry them on; and was subject to sudden outbreaks of dangerous passion and destructiveness; of markedly impaired perceptive, reasoning, and mnemonic powers, he became quiet, obedient, childish, incoherent, demented, extremely amnesic; at times smiling and pleased, at times devoid of emotional feeling and expression.

Another, maniacal, in some respects resembling a general para-

lytic, at a comparatively early date was sleepless, loquacious, abounding in expansive delusions as to wealth, rank, titles; continued partly the same throughout, being also restless, prone to interfere, troublesome, talkative, and sleeping badly at night; agitated and noisy if thwarted in his impracticable wishes; obstinate, and requiring much attention and tact in management.

Were we to stop here, these cases might seem to indicate that at least aortic regurgitation is particularly liable to be followed by (if not a factor in) insanity of a more or less expansive kind, and exhibiting emotional exaltation. Cases similar to these may have led some, but not its originator, Milder, to the idea that aortic orifice and valve disease is apt to occasion, or to be associated with, insanity presenting the maniacal rather than the melancholic type. To make suggestion on this point will occupy us under the fourth sub-group of aortic-valve cases; and here I hasten to add an example of what I believe to be more accurately tenable as insanity produced by, or influenced in its production or aspect by, regurgitation of the blood stream at a dilated aortic gateway, and incompetency of its now decreased lunatic valves.

Here, with insanity supposed to be of several weeks' duration, on admission, but possibly of three or four months', and with obviously chronic cardiac disease, were well-marked aortic diastolic murmur, also purplish, leaden, marbled congestion, of irregular distribution, about the trunk and limbs. Suffering from cranial pain, the patient heard imaginary voices, took the delusions that he was followed everywhere by persons who prevented him from earning a living and tried to murder him; and restlessly he muttered. Admitted, he still asserted that these persons followed him, talked about him, accused him of various crimes and his sister of being "on the streets," and once they tried to murder him, on which occasion, although he took refuge in a shop, he did not see or hear his supposed would-be murderers, nor could he say who they were, or assign any reason why they should speak or act so; and he denied having done any wrongful criminal act. Hallucinations of hearing, only, were acknowledged as having existed, and these as occurring at night solely. Later on, he was restless at night, getting out of bed, anxious, in fear, declaring there was a conspiracy to injure him in some way he could not definitely explain, and that his bed had an evil smell (hallucination). Later on, he refused to rise from bed or dress, and struck the attendant who insisted on his rising. Still later, were delusions that particular females got under his bed at night, or came to share it with, and thus annoy, him.

That of such complexion, as in this last case, is the mental modification dependent on regurgitation at the aortic ostium,—rather than a likeness to or identity with that found in the three cases preceding it, which presented expansive symptoms, otherwise explainable by the co-existent organic brain affection, and, as it were, in spite of severe aortic valve and cardiac disease,—also, I think, some support from the next case I will mention here—that of the chronic lunatic in whom incompetency of the aortic semilunar valves, as well as abdominal aortic aneurysm, came in the course of the insanity. The aortic *bruit* was double at times, and a diastolic apex murmur was sometimes heard.

A soldier becomes eccentric, surly, attempts homicide, has delusions as to a conspiracy against him in the regiment, and that he is ordered "to act daft;" becomes sullen and threatening in connection with hallucinations of sight and hearing as to "persons who plot to get him out of the regiment," and has the delusion that his and others' voices pass out and injure the townspeople; later, that everything went against him in the army, and the regimental doctor's mesmerism still affected him. Later on, quiet, subdued, confused, of bad memory, incoherent and irrelevant in replies; he says he "would rather be dead than live with his body as it is," and speaks of a powerful mysterious influence still exerted on him by "a change of his number in Ceylon;" hallucinations of sight and hearing continuing. After cardiac disease and abdominal aneurysm are well-marked, at various times he is dull, emotionally depressed, "has people inside his skin hurting him," "flew at night." At times suddenly noisy and threatening about being kept in bed; delusions as to the occult constraint on him, his limbs, extraordinary personal bodily injuries inflicted on him, or that his breath is stopped by thick air, or that he is soaked through with medicine; hallucinations of hearing; is sleepless, he says, and troubled, and devoid of self-control because of a book he has read, and makes other delusional statements. Here we have a depressed modification of the emotional state, and delusions of personal injury and constraint more marked when the

* Heart, average weight, 29½ ozs., av. Incompetency of aortic valve, with various degrees of deformity, thickening, atheroma, fibrotic change, cohesion. The left ventricle hypertrophied and dilated, usually much so, big and rounded; while in one case the left auricle, and in one the conus arteriosus of the right ventricle were noticeably and unduly capacious. The aortic sinuses of Valsalva were usually much changed, and the aortic arch (in some the whole thoracic aorta) more or less nodulated, calcareous, atheromatous, or dilated. The spleen, weighing from 4½ to 9½ ozs., and on the average 6½ ozs., had in some cases capsular adhesions or irregular thickenings. The liver, on the average, 5½ ozs. In some unduly firm, or presenting passive "hepatic venous congestion." Average weight of each kidney, 6½ ozs.

cardiac and aneurysmal diseases were becoming more disabling and severe.

Although he did not definitely become insane, I may mention the case (not counted in my statistics) of an attendant, of robust frame, moderately athletic habits, active mind, cheerful, somewhat buoyant disposition, fond of conversation, sociable, and free from special sources of anxiety or care. Unaware of special disease, he became depressed, gloomy, brooding, silent, taciturn, forgetful; nor could his wife elicit from him any definite reason for this; in vain, by reading, conversation, and other arts, did she seek to rouse him permanently from this state; he would soon relapse, although the condition varied much from time to time. Interest in his work failed, his duties were performed without life, mechanically, and in a defective perfunctory way. Feeling general physical *malaise*, and pain in the hepatic region, and suffering from pulmonary symptoms, he consulted me as to his health. Examination revealed severe aortic regurgitation, the leak working backward on lungs and liver. He left, and a few weeks later died of his cardiac disease.

Here, also, I may mention (although, like the last, not included in my statistics) a case of aortic valve disease in a young melancholic, with hallucinations of hearing voices which swear at him through the wall and tell him to cut his throat.

Third Sub-group: Aortic Valve Disease; no very marked local Signs; Aorta not very much Affected, if at all.—Next there is a small group of cases which I shall not linger to discuss. Usually the valve's crescentic flaps were thickened, rigid, unduly opaque, and usually more or less coherent or fused together. These hearts also presented various degrees of flabbiness; but, with these comparative exceptions, they were not gravely diseased, had not undergone any very marked degree of compensatory hypertrophy, and no very great abnormality of cardiac function or physical state had been noted; nor in them was there any severe degree of disease of arcuate aorta; therefore, they do not serve our present purpose. One was a case of hypochondria, one of dementia secondary to mania, one of placid, gay syphilitic dementia with congenitally feeble mind, and one of melancholic general paralysis in a syphilitic subject.

Fourth Sub-group: Disease of Aortic Valve and Aortic Arch.—Aortic valvular thickening, rigidity, fibrotic change, or atheroma; and marked atheroma or nodulation, or even ectasis or dilatation of aorta.

In this sub-group there were, conjointly, marked disease of the lunulate aortic flaps and of the aortic arch, or in some instances of the whole thoracic aorta, but morbid physical cardiac signs were moderate or even slight, and the valvular alteration did not lead to marked obstruction or regurgitation of the kind I have just been discussing, or to the grosser sorts of cardiac hypertrophy, dilatation, and so on.

Although they number twenty, yet four of these cases are mentioned elsewhere in these lectures as illustrating some other point, and the following is a summary of the remaining sixteen only.

Varying from 27 to 66, the age at death, on the average, was 42½. The order of precedence was doubtful in some; of the rest, in about one-half the insanity seemed to have preceded the heart disease, and in about one-half the heart disease the insanity.*

Mental State.—Five were general paralytics, and one other a general paralytic, recovered as to the physical state. In all but one were more or less expansive symptoms; in several with marked maniacal states, as well as the usual dementia, and in one with hypochochondriacal symptoms. The remaining one was an example of the demented form of general paralysis. Some of these general paralytics were syphilitic.

Three others were syphilitic cases, as (a) a syphilitic, demented, amnesic, emotionally weak subject of right hemiplegia and general spasmodic tremor; (b) a syphilitic, melancholic, and suicidal, apathetic, confused patient, with rare fleeting excitement, later *melancholia sine delirio*, but later still with delusions as to hos-

* Of the aortic valves in these cases, there were, in order of relative frequency, and differently combined in different cases, some of the following changes: cusps thickened, rough, opaque, coarse, occasionally much deformed, or rigid, or fibrotic, calcareous, nodulated at their bases; or with corpora Arantii overgrown or fused together, or with dilated aortic sinuses of Valsalva. Aortic arch more or less atheromatous, deformed; in some ridged or calcified in parts. The kidneys were much granular and atrophied in only two cases; but in the majority were one or more of the following changes: slightly granular surface, or slight adhesion of capsules, or slight ordinary cystic change. Two cases had pale, or yellowish, or fatty-looking, and one case somewhat lardaceous, kidneys; one kidney contained a creamy collection; in one case was premature and obscuring decomposition of the kidneys.

tility, annoyance, and the general malevolence of those around him; and (c) a syphilitic, excitable, suspicious, moody, phthisical subject.

Three others were monomaniac; one chiefly of the persecutory type, one chiefly expansive, one partaking of both characters, but the persecutory element being the fundamental basis left after the early maniacal excitement had cleared up. In all three, more or less deterioration, mental incompetency, tendency to confusion, and to incoherent, rambling replies had occurred before death together with persistent hallucinations in two.

Of the remaining four, three were secondary dements, their dementia being consecutive to melancholia or mania; and one was demented, amnesic, yet with some absurd, expansive ideas, and with emotional facility (diabetes mellitus, destructive lesion of striate body and crura, secondary degeneration thence downwards).

These cases show a state of heart and aorta which seems as if it might often well be an early stage, or less marked degree, of the changes found in the severe examples of incompetency or of constriction at the aortic orifice, forming the first two sub-groups; and in which, with marked signs of cardiac affection and of disturbed circulation, and grave alteration of heart and aortic valves, were also severe change and deformity of the thoracic aorta. In some cases an originally more active inflammatory basis is a requisite foundation of the eventual changes we have studied under the marked examples already grouped as stenosis, or as incompetency, of the aortic lunate cusps; but the slighter cases, composing the present fourth sub-group of lesions of aortic valve, throw light, in my opinion, upon those graver cases, and elucidate those (of aortic valve incompetency especially) in which we found a clinical history telling, rather, of excitement, grandiose delusions, and emotional exaltation, than of suspicion, ideas of persecution, self-abasement, or melancholy; which former set of symptoms, as I stated at the time, I believed not truly to exemplify the modification of mental symptoms by the aortic valve disease and its results and associated conditions; while I proceeded to illustrate by other cases what I take to be the mental phenomena or modifications really dependent on a widened aortic gateway, or one defectively guarded by its crescentic folds. Whilst, as regards aortic stenosis, we found chiefly melancholy, delusions of persecution, of adverse influences, of direct bodily injuries, and, in some, occasional sudden outbursts of noisy excitement, violence, or destructiveness.

I believe that many of the cases in this fourth sub-group originated in the way following: under excitement, or co-existent with some expansive mental disorder, there is great physical activity, and much strain is thrown upon the circulatory organs. Before becoming insane, the future subject of such insanity often is active, engaged in strenuous effort, under a never ceasing urgent industry and activity, whether in toil or in the pursuit of pleasure. Energetic, pushing, free-eaters, free-drinkers of intoxicating liquors, ever ready to plunge with zest into work or play or debauchery—these persons, while sane, strain their hearts and aorta and other blood-vessels; and, should they become insane, are apt to get at first some excitable and expansive form of mental disorder, and, in some cases sub-inflammatory or active degenerative states of brain and cord. But whether as preceding or following the outbreak of insanity, the powerful heart, working irregularly, fitfully, at times violently, pumps the stream of blood forcibly into the systemic arteries; the kidneys, too, are overwrought, their function is embarrassed, the blood imperfectly depurated, and disease of the aorta and aortic valves follows (comes almost as part of the general condition), that of the aorta being often primary and assisting to bring on a valvulitis, or slower indurating or degenerative change, in the aortic semilunar valves, casting, as it does, upon them a still greater strain, and inducing a further irregularity in the circulatory movements of the blood and of its impact on the crescents of the aortic valve.

Here, at first, is increased arterial tension, but in the later stages, if with kidneys relatively affected in but slight degree, the tension remains normal, or is lowered, and there is no advance beyond a moderate degree of the disease of valve and arcuate aorta. Usually with this latter condition, and in a merely incidental way, is associated some deterioration of the former mental state; but not the production of the symptoms I have found to be those ordinarily seen with disabling aortic valve disease and its concomitant affections and conditions.

Now, let the same change proceed further; let the valvular orifice become constricted or become unduly patent; let the signs,

respectively, of obstruction of the bloodstream, or those of the regurgitation of incompetency, come into being; and let the kidney become more affected than before, and still there may be, on the mental side, merely a deterioration of the former excited or expansive state, inasmuch as other influences may intervene and prevent the development of true characteristic cerebral symptoms in disabling aortic valve disease, and these very imagined cases would represent and explain those with expansive symptoms which I discussed, under aortic regurgitation especially. Thus we reach at least one probable reason why aortic valve disease has been erroneously held by some to be characteristically associated with excitement, in contrast with melancholia, supposed by the same to characterise mitral disease.

Here we might well branch off into the subject of other cases of disease affecting the thoracic aorta, but, before passing to that, it is desirable to insert a few brief summaries as to forms and conditions of cardiac disease other than those already examined. And, first, as to disease gravely and about equally affecting both the mitral and the aortic valves.

Both Mitral and Aortic Valves (with other changes).—Here, come fourteen cases, but six of these are also mentioned elsewhere: Varying from 32 to 84, the average age at death was 53 years—the highest average we have met with thus far. With regard to the cardiac sounds, pulse, and other physical conditions, the abnormalities of these, marked in some cases, were in a few comparatively moderate only; yet I need not linger to analyse these signs and symptoms in cases so complicated, but note, by the way, the frequency of feeble, irregular, intermittent heart's action and pulse in the more aged patients; also that, while it was difficult to estimate with certainty the order of precedence of the two sets of symptoms, the morbid cardiac seemed to precede in more cases than did the morbid mental condition, but in many of the examples this point cannot be decided with certainty, so slow and insidious were they.*

Mental State.—Six were general paralytics. On the whole, these presented more irritability, surly moroseness, and intolerance of examination, interference, or management (and perhaps more depression) than the ordinary average run of cases of general paralysis. Some of them, too, were of long duration and aberrant course.

Three were senile demented. Two of these were extremely restless, excited, noisy, destructive; and one of these latter had delusions as to being "poisoned."

Two were subjects of "organic dementia," one being a case of dementia with organic local destructive brain lesion, and the following clinical succession: epileptiform fits; dementia; improvement; maniacal excitement; fits; left hemiplegia; fits; death. The other (glioma cerebri) was restless, confused, "lost."

Three were either deteriorated monomaniacs or chronic maniacs. (a) Deteriorated, demented, muttering, confused, depressed state, following on delusions of change of sex. (b) Chronic mania, with periods of depression; latterly quiet, depressed, deteriorated, phthisical. (c) Persecutory monomania; delusions of being tormented; later, depressed, solitary, taciturn; lastly, delusions that his bodily organs are "eaten into."

Somewhat resembling those already given under the aortic-valve sub-groups, these cases differ from the latter chiefly in (a) the relatively prominent position held in the present group by senile dementia, and by dementia associated with still grosser organic lesions than uncomplicated senile dementia is, the proportion of aged cases being high and unusual in this present group; and (b) in the relatively somewhat stronger number of general paralytics in this than in the above four combined aortic-valve sub-groups. Mentally, those of the present group also resemble aortic-valve much more than they do mitral cases, although several constituent members of the group showed something of the mental complexion observed in many mitral stenotic cases.

More or Less General Hypertrophy and Dilatation of Heart.
—Of the twenty-two cases coming here, twelve are also made use of in exemplification of other points. At death the average age

was 45.6 years, the range being from 27 to 72. The cases being linked together by the existence of hypertrophy and dilatation, very differently distributed in the several cases, and associated or not with intrinsic valvular changes varying in seat and extent, the physical signs necessarily differed much in the several cases, and so did the necroscopical records. The average weight of the heart was 14.36 ozs. av., and was brought down very much by hearts dilated but not, or not much, hypertrophied.

Left ventricle hypertrophied in 10, dilated in 17	
" auricle " " 4, " 14	
Right ventricle " " 7, " 17	
" auricle " " 4, " 14	

In three or four of these dilatation was slight only.**

Mental State.—Four were melancholic, depressed, deluded; most of them terminal, deteriorated states.

Six of monomania, about equally divided, collectively or individually, between the expansive and depressed forms.

Four of general paralysis; of which one was expansive, loquacious, restless, interfering, obstinate, difficult; another demented, restless, noisy, filthy, brutish; another slightly expansive, childish, querulous at times; and the last one successively expansive,—maniacal,—hypocondriacal, abusive, querulous,—demented, dolorous.

Three of dementia from organic brain disease, or coming on comparatively early in life.

Two of senile dementia.

Three scattered single cases of other forms, depressed rather than expansive.

But let us examine a little more closely. Of the six monomaniacs, one throughout was of the persecutory form (electric batteries playing on him, conspiracies against him); one, formerly expansive, was latterly depressed, quiet, sombre; in one the earlier mingled expansive and persecutory form had deteriorated into a relic of the latter element, associated with more querulousness; one, formerly exalted, latterly got delusions of extraordinary influences on his powers and constraint on his speech, hence his delusional silence; one, formerly expansive, eventually took delusions about dead bodies and sulphur burning near him, and about bodily illness, and was childish and somewhat demented; and in one early excitement and hallucinations, and subsequently mingled expansive and persecutory monomania, were to a large extent replaced, latterly, by delusions about "poison" in the food, and hostile influences brought to bear upon his body and his health.

Take these monomaniacal cases, take also the particular general paralytics of the group, take the melancholic cases and the depressed delusional states, take the demented and senile demented, and we find the tendency of more or less general hypertrophy and dilatation of the heart is to be associated with depression, melancholia, moroseness, sulkiness, and also with dementia, amnesia, and a general deterioration and defect of the mental powers, rather than with any symptoms of pure active mania, or symptoms of a more exalted or expansive form. Undoubtedly a number of the cases in this group presented expansive symptoms, but these were chiefly found in the earlier stages of some of the protracted cases. Exceptions to this exist where the compensatory hypertrophy has been full and complete, and the heart drives with ease a powerful stream of blood to the brain; obstruction outside the heart, if more than usual, being nevertheless overcome with comparative facility. Yet the usual tendency of heart disease which ends in hypertrophy and dilatation of any extreme degree and wide extent is to disable the heart and circulation; and disablement of heart and circulation tends to defective quality and quantity of arterial supply to the brain, to venous congestion thereof, and to mental depression, moroseness, sulkiness and irritability, or querulousness, rather than to any actively gay or exalted symptoms. Concomitantly, and in some cases partly due to the heart disease, is the dementia observed in so large a proportion of the cases of this group, and in some of them grave brain degeneration as well.

The mental symptoms in this group of somewhat general dilatation and hypertrophy of heart resemble those found with mitral

* Average weight of heart, 13.2 ozs. av. The mitral and aortic valves presented some of the following changes: thick, opaque, coarse, atheromatous, occasionally stenotic or incompetent; occasionally, in the aortic valves, also, enlarged corpora Arantii, or more irregularly or roughness than in the mitral. In a few cases, similar but less change of tricuspid or pulmonary valves. The ventricles and auricles, one or more, hypertrophied or dilated, or both in some instances; the left ventricle most frequently, next the right ventricle and left auricle. The heart muscle often more or less flabby, or even degenerate; in two cases, the heart laden with fat externally; in two cases, marked old pericarditic adhesions. The heart diseased in many examples, and variously so.

** In 16 one or more sets of valves were considerably diseased. In 15 the heart-muscle was in one or several of the following states: pale, flabby, friable, yellowish, of dull hue, granulo-fatty; and in one was syphilitic. In 20 there was considerable disease of aorta. The kidneys, whose average weight per kidney was 5.5-12ths ozs. av., had a degree of granular change in one-half, and in a few more were pale, fatty, or presented other alterations. Average weight of spleens 8.1 ozs. av. Half of them unduly firm or hard; of many the capsules thickened, pigmented, or calcified.

more than those with aortic-valve lesions; but there is a greater chronicity, and a greater variety in the mental depression, and relatively more dementia in this than in the mitral group. And that this resembles the mitral rather than the aortic-valve group is, of course, largely due to the fact that the latter is weighted in one direction by the fourth sub-group of aortic-valve cases, that in which valvular change is conjoined with grave alteration of the arch, and in which, as we have already found, is a considerable proportion of cases with expansive and active mental symptoms, and a well conserved vital energy.

PARTIAL DILATATION OR HYPERTROPHY OF HEART.

I have not included here the cases of slight or comparatively mild cardiac changes. Of such mild kind is the majority of the cases in which cardiac dilatation or hypertrophy is due solely to the long-protracted, irregular violence of the heart's action, or strain of it, under persistent or frequently recurring mental excitement in chronic cases of insanity, or the respiratory embarrassment of the depressed forms. Yet in some of the more extreme cases under this group, as well as other groups already mentioned, mental excitement or depression probably had some share in the production of dilatation or hypertrophy, notwithstanding the operation of such factors as valvular lesion, or organic disease of brain, kidney, or lung.

Here would come twenty cases in which the condition was very marked; but, inasmuch as many of these quite partial hypertrophies or dilatations—that is, those affecting one chamber very chiefly or even exclusively—are due to, or connected with, either a preceding valvular change, or else incompetency of a valve, healthy in itself, but unduly patent owing to dilatation of a cardiac chamber; and, inasmuch as eleven of the present group are of that nature, and therefore coming under some of the preceding heads; I take here the remaining nine only.

In them, the average weight of the heart was about 12.4 ozs. In five the hypertrophy, with or without dilatation, very chiefly or solely affected the left ventricle; and in four the right ventricle, or it and the right auricle. The former were mostly general paralytics with—at least, in the advanced stages—well-marked symptoms of emotional depression. The latter were chiefly cases with well-marked pulmonary disease (tubercular phthisis), and mostly with irritability, moroseness, depression, taciturnity, mental deterioration; and one, with both right chambers immensely dilated and hypertrophied, was an asthmatic monomaniac (formerly of considerably exalted type), with typical changes of lung ("large-lunged vesicular emphysema,"—Sir William Jenner²⁷), and of all the large, hard, congested viscera.

Any valve disease that existed in a few of these was comparatively slight and unimportant. In the former sub-group of five cases, there was obstruction to the systemic circulation from the brain disease of general paralysis, and in two also from the coexistent decided renal disease (in one there being subacute nephritis, in the other granular atrophy), while a third showed very slight granular change. This obstruction induced left ventricular hypertrophy; whereas, in the latter group, phthisis pulmonalis or asthma threw heavy work on outrophic right cardiac muscles, leading to their hypertrophy, the left not becoming similarly affected.

An interesting deviation from the above arrangement was the case of one who, besides phthisis, had hypertrophy of left ventricle only, in a marked degree, old adhesions of pleura to the pericardium dragging the latter leftwards, and finally two fluid ounces of pericardial fluid, and sub-pericardial œdema over the right side of the heart. Although their cortices were thin, the kidneys weighed 6 and 5½ ozs. Latterly, he was irritable, morose, intolerant of examination, and bit attendants who held him. The irascibility, sullenness, and bad temper were more like the symptoms frequent in phthisis pulmonalis in the insane, than either the querulousness or apprehensive fear so often observed in embarrassing or disabling heart disease.

This case conveniently leads us to glance at the heart in phthisical insane persons.

But before doing so I must mention a form of heart disease, hinted at above, often consecutive to mental disorder, but often apparently of constitutional origin, and connected with or forming part of the general vascular and circulatory condition natural to the individual, and becoming morbid in degree before or after the onset of insanity. I refer to moderate hypertrophy or dilatation of the right side of the heart, unaccompanied by marked

valvular disease. Cases of this kind are scarcely represented in my statistics, inasmuch as they are comparatively slight or moderate degrees of organic change, are cases, therefore, of a kind which I have excluded from consideration here, for the reasons already mentioned. By others the pure cases of this kind are usually mixed with cases presenting also hypertrophy of the left ventricle, and to this combined and impure (that is, mixed) group is attributed a causation by the strain on the heart due to prolonged mental and physical excitement and over-exertion, as well as by the obstruction and interference with cerebral circulation occasioned by the obscure changes of minute vessels in some forms of insanity. This has been found mostly in dementia and in chronic or recurrent mania. Thus, Dr. Burman,²⁸ drawing this conclusion, however, from a single examination of the living cases in an asylum, reported that he found hypertrophy of right heart, with apex beat in the epigastric region, in 10 per cent. of the cases of consecutive dementia, in 15 per cent. of chronic and recurrent mania, and in 3½ per cent. of melancholia; yet the addition of examples complicated by replacing or by modifying murmur yielded proportions very different from these.

But I think some further discrimination is necessary here, and that in a moderate number of cases, slight or comparatively moderate dilatation of the right side of the heart is consecutive to insanity, or springs from the same general vascular and constitutional condition as that which predisposes to the insanity, and that these cases take the depressed form; and the anguish of the melancholic and hypochondriacal patients, with the interference with respiration thereby engendered, further aggravates this tendency to dilatation of the right heart, or even dilatation and some hypertrophy.

As Mr. J. A. Hingston²⁹ said, with enlargement of veins, a general tendency to varicosity, the mind is usually unaffected, but occasionally mental symptoms arise "from dilatation of the right side of the heart superinducing premature old age. Patients thus affected never are strong-minded or courageous, they have no heart for great things, but are timid and vacillating. They end by being fatigued. Gout is often at the bottom of this malady."

The Heart in Phthisical Insane Persons.—Of the insane who die, or die chiefly, of phthisis pulmonalis, there are not a few whose hearts are more or less hypertrophied, and of full or over weight, like the patients mentioned in the preceding group, with hypertrophy of right ventricle or of both right chambers. For example, at the moment of writing, I observe the notes of a case not included in my statistics. This male patient, formerly of medium size, and weight, died phthisical at the age of 38, with a heart as much as 12½ ounces in weight, mottled, pale, flabby, friable, without any disease of coronary arteries, but with slight atheroma of aortic sinuses of Valsalva, and some pericarditis.

Nevertheless, the majority of the phthisical insane die with small, wasted hearts, which usually also are flabby, friable, and not seldom somewhat granular or granulo-fatty, that is to say, exhibiting that form of degeneration under the microscope. This occurs more frequently than I had supposed it to do before the space of time during which I regularly examined the heart, microscopically, in almost every case in which I made a necropsy.

In the phthisical, and in the tubercular, insane I have met with several examples of another form of cardiac affection, consisting of tuberculosis of the myocardium or pericardium, not infrequently with pericarditis. What I might say here on this subject I have already published³⁰ in the *Lancet* several years ago, together with two examples of the affection, since when I have met with two more examples. It is a secondary change, and unimportant in relation to our present subject.

Fatty or Granular Degenerate Hearts in the Insane.—Only a fraction of the examples of fatty or granulo-fatty degeneration of the heart I have observed in the insane can be taken up here.

Of the twenty-five cases which happen to come in the notes analysed, in twenty-four were necropsies, and one is a living case. But six of these cases of microscopically fatty heart had severe valvular or other cardiac or aortic disease; in these few cases, therefore, the effects of the fatty heart, and its relations, are too much complicated for our purpose, whatever may have been the importance of the fatty change as a factor in the state of brain-nutrition. Deducting these, the remaining nineteen cases are adapted to our present purpose, and these alone are utilised

²⁸ *West Riding Asylum Medical Reports*, vol. iii, p. 250.

²⁹ *Medical Times and Gazette*, November 29th, 1852, p. 530.

³⁰ *Lancet*, May 26th, 1883, p. 898.

²⁷ *A System of Medicine*, edited by J. Russell Reynolds, M.D., vol. iii, p. 486.

in the following. In many the fatty change was later than insanity.

Age.—The average age at death was about 44½ years.

Weight of Heart.—The weight of the heart varied from 6½ to 17½ ounces. The average was just over 11 ounces.

Degenerate Muscle of Heart.—The muscle of the heart, whether pale, or of dull appearance, or mottled by pale and by congested patches, was in all cases flabby, friable, and in a state of granulo-fatty or granular degeneration. By which I mean that either the striæ were indistinct, the substance blurred, and bead-strings of fatty molecules were seen; or else there was a homogeneous appearance of the fibres, free fat-molecules, indistinct striæ, and granular collections, or the fibres also readily splitting up; or the muscle was of a granular appearance, the transverse striæ quite blurred, almost effaced, but fatty corpuscles or beadlets absent.

Coronary Arteries.—Of the cases in which the point was noted, in two-thirds were more or less atheroma, or whitish, or whitish-yellow opaque thickenings, or nodules and calcified patches, in the coronary arteries, occasionally in the left one only.

Lungs.—In nine cases of the present group the lungs were more or less phthisical; one of these was fibroid phthisis or cirrhosis pulmonum.

Mental State.—In 6, delusions of persecution, ill-treatment, annoyance
 „ 4, dementia, secondary or primary.
 „ 3, later stages of general paralysis.
 „ 4, mental depression, melancholia (following violent excitement in 1).
 „ 2, senile mental affections.

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To particularise: *I Sub-group.*—In six were several of the following symptoms: delusions of persecution or annoyance; for example, patient says he “is followed by women who talk about him;” or, as in another case, “torment him.” Next most frequently came delusions of bodily injuries inflicted upon them, such as being “throttled,” or of injuries done to their health by real or imaginary persons. In some the alleged injuries were of an extraordinary kind, were perhaps called “tortures,” or attributed to the malpraxis or malevolence of the medical man; in others the alleged injuries were vague (as part of general ill-usage), or only threatening or impending. Occasionally were delusions as to the food being noxious; or ordinary hypochondriacal delusions, for example, as to the stomach being “full of fool.” Hallucinations may or may not exist.

In some were restlessness, and irritable, angry, excited, ill-tempered, querulous, hostile states of mind, or even hatred, associated with delusions such as the above; or obstinacy, contrariness, and threats or acts of violence and destructiveness; or, in one or two, sadness; or latterly in some, confusion and incoherence; in several cases, symptoms such as the above more or less superseded previous intermingling expansive ones.

II Sub-group.—In four was dementia; one of these, formerly maniacal, latterly was profane, obscene, gross; one, at first maniacal, then threatening, insulting, with slightly expansive ideas; became a restless, impulsive, silent, destructive window-breaker, but finally quiet and more demented. A third for many years was a nervous, apprehensive, easily-startled dement; in the fourth, dementia followed on early depressed delusional states.

III Sub-group.—In three was the demented third stage of general paralysis. Simultaneously, one of these was also impatient, denunciating, morose, selfish, jealous, foul-mouthed, profane; another, depressed, weeping, stupid; the other, obstinate, morose, demented, brutish.

IV Sub-group.—In four was melancholia, with delusions of evil impending or even actual injuries, conspiracy, poisoned food, false accusations against the patient, with self-abasement; or refusal of food under the delusion of being followed by those to whom it belongs; or vague fears of poisoned food, of being electrified by a touch, or killed, of being about to be burned, or injured by medical treatment; or assertions by the patient that he has “no swallow and no stomach, and the Dr. cut off his privates;” or he is taciturn, hallucinated, depressed, apathetic, amnesic, incoherent. Here I may add another case. After an early outburst of excitement under vague terror and with imperfect consciousness, the patient had ideas of ill-treatment and of hostility to him, vague apprehension, anxiety, nervousness, semi-terror; and early delirious confusion, rapid failure of heart, and death under the onset of moderate pneumonia and congestion of lungs.

V.—Besides the above, were a case of mania in old age, and one of senile dementia.

Although an accompaniment or even a factor in the causation of symptoms such as the above, fatty heart is not always an unmixed evil; indeed in some cases it may be a preservative lesion, for when the arteries are diseased it may be safer for the subject to have a feebly-acting heart than a normally strong and vigorous one, as taught by Sir William Jenner.³¹

Anemic and spanemic as are many of these insane, yet the fatty degeneration in the above cases was more associated with a general deterioration of tissues than due to the defect of the oxygen-bearing elements of the blood in grave and prolonged anemia. Fatty cardiac degeneration from this latter cause has been found in almost all cases of pernicious anemia, as originally observed by Drs. Addison and Wilks, and this degeneration of the heart in ordinary anemia was made prominent in Dr. Coupland's Goulstonian Lectures³² several years ago.

Syphilitic Hearts.—As might well be expected, the four cases I have to offer in which the heart was syphilitic exhibit the most various states of mental symptoms, and present nothing characteristic, or on which one can fasten.

One of these cases of syphilitic heart I³³ published in full in the *British and Foreign Med. Chir. Review* some years ago, and cited cases observed by Drs. Wilks, Ricord, Lebert, John Morgan, Virchow, Haldane, Aitkin, and Mr. Jonathan Hutchinson. Interesting pathologically, these cases of syphilitic heart are scarcely to our immediate purpose, and I leave them.

Aneurysmal Hearts (four cases).—All the patients were males, aged at death 34, 38, 44, and 50 years, respectively, and in all the left ventricle was the aneurysmal chamber.

One was the subject of dementia, amnesia, childishness, and some depression, with excessively feeble circulation of blood, and tendency to peripheral ulceration and gangrene.

Another latterly, and differently from his previous mental state, had delusions of the fumes of sulphur and of corpses affecting him, and of darts of fire coming on him.

Another, who had previously been in a mingled expansive and hallucinated state, with occasionally some ideas of being annoyed, latterly took marked delusions of annoyance by hallucinatory voices (chiefly women's), and including the voices of persons who “had been burned alive;” said he was “300 years old,” and made absurd, incoherent, childish statements, especially on religious topics.

Another, having at first had hallucinations and depression, undefined alarm or excitement, for years with delusions of being sent to the asylum to be killed, of persons sent for the purpose, attempting to take his life, and these delusions occasioning proxymal excitement and violence; became subsequently the subject of more circumstantial delusions—for example, people “rise in his mouth,” “reply to him,” “sit on his mind,” “breathe on him,” and while thus persecuting him, desire and intend to take his life.

Without further comment or recital of the cases in detail, we may now add a summary of the modifications of mental state coincidently with disabling cardiac aneurysm. Usually in these cases of aneurysmal heart, when in an advanced stage of more or less physically disabling cardio-aneurysm, the tendency was to a modification of the previous insane mental state in the direction of delusions of annoyance, physical injuries, and damaging acts and influences hostile to the patient's bodily state and health, and sometimes taking the strangest forms; or, persecution of another sort, and chiefly by hallucinatory voices; while other delusions and hallucinations of sombre tinge, relating to death and corpses, were observed in two. The comparatively recent case of mental disease following the cardiac was a complicated one, and its dementia and depression not necessarily related to our present topic.

AORTA: ITS DISEASED STATES IN RELATION TO INSANITY.

Here we take up (1) aneurysm, (2) nodulation, and (3) more ordinary atheromatous change of the aorta.

1. *Aneurysm of Aorta.*—One might have spoken of the frequency of heart disease in soldiers. Very frequent also is arterial aneurysm, both facts holding a relation to the comparatively large amount of cardiac disease or aneurysm, and the large military element, in the cases for some years under my care.

³¹ Address at Leeds (JOURNAL, July 31st, 1869, p. 115; *Med. Times and Gazette*, July 31st, 1869, p. 142).

³² *Lancet*, April 30th, 1881, p. 689; *BRIT. MED. JOURNAL*, April 23rd, 1881.

³³ *Brit. and For. Med. Chir. Rev.*, July 1876, p. 176.

Of the two lesions chiefly affecting the aorta in soldiers, (a) the passive limited opacity (sometimes fatty), and (b) the fibroid growth, Brigade-Surgeon F. H. Welch³⁴ concluded that it is the latter which, disintegrating, so often leads to aneurysm, or to implication of aortic valves, or to hypertrophy of cardiac chambers; this growth is connected with syphilis in a major degree, with rheumatism and alcoholism in a minor degree; while the chest constriction and forced temporary exertion of the soldier act as adjuvants to the disease of aorta in the production of aneurysm. On the other hand, it has been held³⁵ that syphilis is only the predisposing and not the direct cause of the aortectasy.

The frequency of heart disease in soldiers was attributed by Surgeon-Major A. B. R. Myers³⁶ to the prejudicial constraint of the uniform and accoutrements, so obstructing circulation as to lead to abnormal strain of the heart, a strain which may be brought about or aggravated by disease of the aorta, such as aneurysm, which latter, in the young soldier, often appears to be due to an acute inflammatory softening, brought about by some severe distension of the affected vessel.

Not accepting mechanical strain alone for heart disease in the soldier, nor syphilis alone for his aneurysm, Surgeon-Major W. E. Riordan³⁷ made the aneurysms of soldiers to be usually secondary to heart disease, and the heart disease to be due to drill and discipline; the early drill, with violent exercises and alteration of form of chest, changing the condition of circulation much, the discipline causing mental anxiety and worry. Now, to a large extent, this is only the older idea of mechanical strain, but ignoring the (real) aggravating influence of the soldier's uniform and accoutrements thereupon.

Entirely omitting small pouches or dilatations not giving rise to marked local or systemic symptoms, and not the cause of death, I bring forward eleven extreme cases, eight of the thoracic aorta, and three of the abdominal. Here I can only find space for the insertion of a few particulars as to the mental state.

During, and for some time prior to, the attainment of large size by the still growing aneurysmal tumour, in one were peculiar delusions of being tormented, grievously hurt, "destroyed," and his bones bored into, by snakes, scorpions, weasels, in body and limbs. Once he had "seen" and once he had "heard" them. He says his body is full of snakes, scorpions, rats, and weasels, which eat him up, gnaw on the bones, etc. "They are the most horrible varmint ever known." Later, often feels his head and hand falling off; has "pains all over," worse in trunk and head, equally on the two sides, and "boring pains through both jaws." "Is eaten up alive; some of the 'varmint' make sores, which others eat, every day. It began the same way six or seven years ago. Millions of snakes and scorpions got inside him, and began eating his body. They now push out his ribs, first at one side then at the other, and eat them, and finally level them down; they also push out and eat the jaws." Later, being short of breath, he says it is "forced out by the 'varmint' inside him." "His chest is all sores, and every inch of his body is the same." Interapical tubular respiration, profuse clammy sweat. Later, respiration made in a sudden, rapid, audible way, as if by one taking breath after a long exertion. Later, tracheal wheezing. Still later, he says the top of his head, especially its left side, and the ribs are "split out," furred, sweating face; brassy cough. Once, subsequently, he says the vermin "carry pocket knives, and during the last twenty-four hours have been scraping his ribs, first on the edge and then in the broad, and finally they bend them, and go through the perforation of breaking them." Dyspnoea, orthopnoea, giddiness, reeliness, and "a blindness" (as he called them), with cold and purple hands, ear-tips, nose, and lips preceded somewhat sudden death.

Of another, the certificates stated that he had the delusions that he was plotted against, conspired against by certain women and a captain —, and also by the men of the regiment; that, in an excited way, he demanded immediate trial, or redress, refused to answer questions about himself, and was restless and excited in appearance.

On admission, the delusions continued, but he was taciturn, and complained of pain in the chest and dyspnoea (much relieved by treatment), with congestion of lungs and expectoration, at first ear, then streaked with blood. So the case went on. He said

the men watched him and talked about him in India, and therefore he was sent into hospital. There were dyspnoea, congested lungs, blood-streaked sputa, constant hacking cough, occasional severe pain in serobiculus cordis, right infraclavicular and subscapular regions. He retrograded steadily, suffered much from orthopnoea, moaning, restlessness, *malaise*; declared that a galvanic battery was constantly applied to him by Captain — and others; this they "took off," he said, on the approach of the asylum medical officers. He asserted that he distinctly heard them talking about him, and what they would do to him, and saying "give it him," etc., and often he urgently pressed to have the police brought in, or to be allowed to make oath before a magistrate as to these hallucinations, and secure the protection afforded by law against his persecutors. Of anxious and painful expression of countenance, gloomy and anguished, he was a type and sample of the mental and physical suffering engendered by aortic aneurysm. Œdema, vomiting, anorexia, icteroid and livid countenance, and, finally, painful delirium and orthopnoea, preceded death.

Another was formerly the subject of monomania of persecuted and hypochondriacal type, blended with some expansive ideas; for example, "God and others speak to him in visions; internal voices cause him to speak and act without power of self control." He had hallucinations. "His wind-pipe," he said, "is worked up and down; has two personalities in his body; there are two meanings in what he says; has been sent here in mistake for someone else; a false nerve is worked on his body." He made treacherous homicidal attacks on attendants. Later on, quiet, depressed, sullen, irritable, complaining of his detention, and subject to delusions of ill-treatment.

Dr. Sibson's conclusion, that the symptoms during life are less formidable in aneurysms that end by rupture of the sac than in those which kill without such rupture, is just what we would expect as a general rule, and as such is easily explained on the ground that those which kill without rupture do so by their pressure-effects, which are formidable and painful.

It is well known that some cases of aortectasy, owing to their position and other circumstances, are almost unattended by any symptoms indicative of pressure; yield only local, innocuous physical signs; even when fatal give rise to no special functional disorder or organic change, or pain of any other part until death, or until rapid changes in the tumour, rupture, or leakage, set up some painful distressing symptoms shortly before the close of life. Aortic aneurysms, too, far more readily in the insane than in the sane, may not lead to complaint, as in one or two of the cases in my statistics, and as may still more readily be the case if the heart be fatty and friable, as in an example by Dr. T. B. Worthington,³⁸ in which sudden death from rupture of a previously undetected thoracic aortic aneurysm occurred in a quiet, silent, taciturn melancholic. And I³⁹ described a case in which thoracic aneurysm was unattended by symptoms until hæmorrhage from it occurred about twelve days before death.

In such cases we do not expect to find any marked or, indeed, any distinct, modification of the mental symptoms as a consequence of the aneurysm, its pressure or other effects, that is to say, as a consequence of the construction put upon, the interpretation arrived at of, the pressure effects and circulatory disorders engendered by the aortic aneurysm, that construction and this interpretation being those of a morbid mind. Consequently it is in cases such as those of some aspects of which I have just given a brief summary that we find symptoms which I believe to be those most likely to arise when aneurysm of the aorta modifies the previous mental state by its effects upon the important parts and structures adjoining it, and of these upon the brain. Into the other cases of large thoracic aortectasy I need not enter; they were not attended by characteristic mental modifications.

Abdominal Aortic Aneurysms.—In three insane patients under my care the cause of death was aneurysm of the abdominal aorta. It is perhaps unnecessary to give summaries of these cases, especially in view of the limitations imposed by waning space. Suffice it to say that in these cases of abdominal aortic aneurysm we find illustrations of the interpretation put by the insane mind upon the symptoms, especially the pains, discomfort, arising from the

³⁴ Tabulation of cases from the *Neurological Register of the Royal Victoria Hospital*, etc., and *Lancet*, November 27th, 1875, p. 769.

³⁵ *Lancet*, December 4th, 1875, p. 809.

³⁶ *The Etiology and Prevention of Diseases of the Heart among Soldiers*, 1870.

³⁷ *The Causes of Origin of Heart Disease and Aneurysm in the Army*, 1878.

³⁸ *Journal of Mental Science*, October, 1882.

³⁹ *BRITISH MEDICAL JOURNAL*, December 18th, 1875, p. 755. "Grave Lesions of both Corpora Striata: Recovery from Hemiplegia: Extensive Cerebral Regeneration; Dementia: Death twelve days after Rupture of Intrathoracic Aneurysm."

pressure and other effects of the aneurysm; and we find that interpretation taking the form of delusions of definite types, or showing a tendency thereto. We trace in these abdominal aneurysmal cases at least the same character of delusions as to local bodily injuries, damages, personal injuries, hostile influences and effects, and delusions of mingled persecutory and hypochondriacal types, as in some thoracic aneurysmal cases. Yet the abdominal aneurysms were complicated with more or less heart disease, and, therefore, were not pure cases.

Of these eleven cases of large aneurysms of thoracic (8) and abdominal (3) aorta, only five gave evidence of nodulation of the aorta; and of these the majority not so very markedly as many other cases. This brings us to

Nodulation of the Aorta: Cases.—Here I mention twenty-seven cases, of which five are described under aortic aneurysm, and several others presented small aneurysms or pouches.

Age.—At death the average age of all the cases was 38.8 years; of the five with large aneurysms, 42 years; of the rest, 38.05 years.

Condition of Aorta.—The aorta becomes irregularly nodulated by greyish, somewhat translucent tissue, the elevations formed by which, and sometimes projecting boldly into the lumen, eventually contain opaque or yellowish patches; or the semi-translucent elevations are more or less rigid; or at a subsequent, or even at an early, stage the internal surface of the aorta presents small, rounded, opaque, whitish, thickened patches; or in one part flattened, whitish prominences, at another dull-whitish or yellowish patches and infiltrations; these at points may be undergoing incipient erosion, or the elevated, fibroid, whitish and slightly bluish, semi-translucent formations may be associated with yellowish and calcareous patches, or the fibroid thickening with yellow deposits here and there. Still later, and commingled, are puckers, yellow patches, calcareous plates, and whitish, somewhat translucent, round elevations projecting between the depressions; or nodules are surrounded by stellate cicatrices, and, of the nodules, the large ones have sometimes firm, yellowish-white centres. The condition is chiefly a deforming inflammatory change of endoarterium, and is usually included under the name "atheroma."

Syphilis.—As to the question of syphilitic causation. In six, were distinct histories of antecedent syphilis; scars on penis, or on tongue, in several cases. In a case or two each, syphilitic rashes, enlarged inguinal glands, nodes on periosteum or bones, or syphilitic headache. In several cases, syphilitic lesions, gummatous or inflammatory, of brain, meninges, or or both. Calvaria dense, or of worm-eaten appearance internally; meninges of brain very tough, dural hamorrhage or rusty films, excessive "adhesion and decortication," or irregularly distributed sclerosis of brain cortex or other parts, including pons and medulla oblongata; syphilitic arteritis in vessels at brain-base, or elsewhere. In one there was a syphilitic gumma in the wall of the heart; in another a gummatous patch in a coronary artery. In seven were gummatous traces in the liver; in seven (mostly the same) old perihepatic adhesions; in three, irregular thickenings of the capsule. The spleen showed traces of gumma in four; in two, old perisplenic adhesion membranes; in two, irregular thickenings of the capsule.

Mental State.—Fifteen were general paralytics. A larger proportion of these cases than usual presented marked emotional depression and corresponding delusions and actions, being either melancholic or hypochondriacal. Some were of the demented form of general paralysis, and many were inclined to the early exhibition of restless, excited, destructive, troublesome, and degraded states. Yet, in some, grandiose ideas were well-marked, either intermingled with or modified by the depressed ones, or

* **Heart.**—Heart on the average 11 ozs., av.; its muscle flabby, friable, in half the cases. Marked hypertrophy of left ventricle in five cases, and dilatation in three of these; right ventricle hypertrophied and dilated in three cases. These include a case of dilatation, and a case of hypertrophy and dilatation, of all four cardiac chambers. Heart muscle softened in half, and in half the coronary arteries diseased. Chronic aortic-valve disease existed in ten cases, also. In one more was acute, ulcerative, aortic valvulitis; mitral valve disease in seven, and comparatively slight. Kidneys granular in ten, mottled in three, soft in two; other changes in single cases.

Average weight of spleen, 6½ ozs. Capsule in many thickened irregularly, or adherent, or pigmented. Usually of undue firmness, the spleen in four cases presented cicatrices, apparently of old gummata. Whitish thickened plates, of cartilaginoid hardness, affected the capsule in a few cases.

Old perihepatic adhesions, irregular thickened patches, of the capsule of the liver, were observed in many cases. In seven the liver was cicatrised, as in the manner due to former gummata; one liver was lardaceous. In a few was very slight cirrhosis.

standing revealed in the more ordinary form. Of the groups of general paralytics described in my work on the subject, the third and fifth would be those relatively represented in larger proportion by the cases just mentioned, and, with unusual frequency, the cerebral changes included irregularly but widely distributed cortical or other somewhat localised palpable sclerosis, or tough meninges, or an extensive distribution of that change which I⁴⁰ have termed "adhesion and decortication."—One case of lead sclerosis, resembling general paralysis. Three cases of syphilitic dementia and emotional depression. Three of monomania, chiefly of persecutory or of hypochondriacal type; some of them much deteriorated, but in two of them the earlier symptoms largely, the later slightly, expansive. Three of delusions of annoyance, of being tormented by women or others, with hallucinations, or resembling querulous or persecutory monomania, but not markedly systematised. In some of them, at times, was an expansive tinge. Two of dementia, of different forms, following melancholia or mania. Total, twenty-seven. (Accompanied, not caused by nodular aorta).

To begin with, several groups of facts stand out here in strong relief.

(a) The relative frequency with which aortic nodulation is found in general paralytics (certainly in military general paralytics), at least double their share relatively to other forms of mental disease and ratio of necropsies; so, also, the relative frequency with which comparatively localised sclerosis affected their brain cortex, or other parts, or with which the meninges were unusually tough or markedly adherent to the cerebrum over an extensive area; and the relative frequency with which melancholia, dementia, and restless degraded states predominated, as compared with the more usual clinical aspects of general paralysis.

(b) The relative frequency with which there is some history, some clinical indication, or some necroscopic evidence, of syphilis (irrespective of the aortic change itself).

(c) Other points are: that most of these patients were comparatively somewhat young, or of early middle age; excluding the very markedly aneurysmal, an average age at death of only 38 years; and, again,

(d) That the heart was not so often or so extremely diseased as to be the dominant factor in the morbid drama, either clinically or pathologically. The coexistent heart affection was, on the whole, oftener and more severe in affecting the aortic rather than the mitral valves, a fact which brings these cases much into line with a group already discussed under aortic-valve affections, and composed of examples of coexistent aortic valve and arch disease; in relation to which I showed how these cases arose chiefly in persons of sanguine temperament, active circulation, vigorous vitality, and bodily and mental activity, abounding energy, free livers, eaters and drinkers, and by no means frigid to the other sex; who, becoming insane, tend, on the whole, to have expansive symptoms, at least in the earlier stages, rather than depressed ones. Avoiding repetition of that discussion, here, I merely add that the aortic disease and the similar changes affecting distant blood vessels, even if in a minor degree, account for some of the hypertrophies found in a share of these cases, and chiefly of the left ventricle. And the last of the points here is:

(e) That among coincident changes, were frequently degrees of splenic induration, and of renal granularity, or else a mottled state; and then there was the relative frequency of traces of gummata of liver and spleen, of perihepatitis and perisplenicitis of a past date.

That the larger arteries of the body may be affected by syphilitic lesion has long been known. Lancereaux even cited observations of the kind from the older writers on the subject; and Bäumler,⁴¹ even a dozen or more years back, collected other examples. But it is especially from the medical officers of the British army that has come the view as to the very frequent dependence of aortic disease upon syphilis. Thus Brigade-Surgeon Francis H. Welch adduced a large amount of evidence to show that aortic endoarteritis, as distinguished from mere opacity or fatty degeneration of the inner coat of the vessel, in the majority of cases was connected with syphilis. In most cases of aortic aneurysm he found that syphilis was the only diathetic condition to which the vascular disease could be attributed. And in 60 per cent. of the cases of syphilis, terminating fatally through special lesions, aortic nodulation was found. He concluded that in

⁴⁰ *Journal of Mental Science*, Jan., 1876, pp. 571-6. *Ibid.*, Apr., 1874, p. 29; and *General Paralysis of the Insane*, second edition, pp. 282, 364, etc.

⁴¹ *Ziemssen's Cyclopaedia of Practical Medicine* (Trans.) vol. iii, p. 213.

soldiers there is often "a lesion of the aortic walls characterised by the presence of a fibroid growth in the deeper layers of the internal coat which as a rule ultimately disintegrates, and that this growth is connected with syphilis in a major degree, and with rheumatism and alcoholism in minor degrees as exciting agencies. There is also a lesion of the aortic wall, characterised by limited opacity and fatty change of the inner coat; this is common in all diseases associated with prolonged general deterioration." And it was the former of these two kinds of textural derangement of the vessel-wall which was so often the precursor of aneurysm.

Practically, very similar views were held as to the frequency and effects of syphilitic arteritis in military patients by Professors Aitkin⁴² and W. C. Maclean.⁴³

More Ordinary Changes of Aorta.—Here I bring thirty-five cases, a number which I might easily increase.*

Mental Condition.—In nine, general paralysis, of different forms.

In nine, dementia with local organic disease of brain, or widely-spread atrophy, and including cases from syphilitic affection of brain, and one of epileptic dementia.

In seven, deteriorated, incoherent, feeble-minded states supervening in monomania, or occurring in chronic alcoholic insanity; many with expansive elements formerly.

In three, monomania of mingled form, but the expansive element more marked in the earlier stages, the depressed or persecutory in the later.

In three, paroxysmal maniacal excitement; delusions of annoyance, hostility, evil intent, poison in food, and as to surrounding and ubiquity; or expansive delusions, and hallucinatory visions.

In four, either melancholic hallucinations and delusions, for example, "is robbed," "is told by a spirit to cut his throat," "is peculiarly affected by air;" and perhaps suicidal or apathetic states; or delusions of hostility and malevolence, or unsystematised delusions of persecution.

Total, thirty-five. (The state of aorta a concomitant, not a cause).

Of the thirty-five, eleven have already been mentioned under "aortic valve and aorta" disease, the fourth of the sub-groups I made of affections of the aortic valve. These I might have omitted, and in place of them taken others with less or no valvular change; but the thirty-five cases fairly illustrate the average associations and combinations of the ordinary disease of aorta, and the conditions coincident therewith, except that senile dementia is comparatively little represented, the examples of that form, included, having also organic changes of a grosser kind than that at the basis of simple senile dementia. In order to select the present group from cases of aortic change taken indiscriminately, we should exclude examples of extreme cardiac or valvular affection in which that affection completely dominates, and in which the coincident ordinary aortic atheroma is an affair of comparatively little moment, and we should exclude also the cases of marked aneurysm of arcuate aorta, as well as those of aortic nodulation.

Here apply many of the remarks and the general principles and conclusions mentioned in my commentary on the sub-group of aortic valve affections, presenting coincident disease of aortic valve and arch; for here also do we find that in many of the cases in which aortic atheroma is marked at the necropsy there is an expansive mental element and excitability, in the early years

at least, even if later on there comes a demented or a painful and worried state, or one of imagined persecution; and we find that the diathetic conditions which favour the production of aortic atheroma, as a relatively marked change, also co-exist with, and even favour, the production of activity, mental and physical, free-living, and so forth. And with these also is the influence of the sanguine temperament. Hence mental disorder is apt to be active, expansive, often subsequently degenerating into a state of disagreeable, painful hallucinations and delusions, and eventually into a worse failure of mind and incoherence. But the widespread vascular changes, so often coexistent, promote diffuse degeneration of nervous tissue elements; promote, too, local destructive lesions, visible to the naked eye, and destroying masses of nervous substance; and not only so, but also setting up a number of secondary degenerative changes in neighbouring or else in systematically-connected and comparatively distant parts of the nervous system; and not only so, but also tending eventually to atrophy of the nervous organs. Therefore it is that we find a large proportion of the cases with aortic atheroma end, on the mental side, in dementia, while some consist chiefly of dementia from the first; in them also are local and general motor and sensory symptoms prominent.

But in the later stages of many cases there are depressed or psychically painful symptoms, and if the aortic is only part of a general atheroma—or in some cases where this is not so—melancholia, or states such as of unsystematised delusions of persecution and annoyance; or, again, the persecutory or hypochondriacal forms of monomania, may be observed. I am speaking of very marked atheroma; yet atheroma in its slighter degrees is so common a condition with advancing years, that we may speak of slight aortic atheroma as the usual, nay almost the normal, senile condition. Nevertheless, when it is very marked, atheroma is usually co-existent with cardiac lesion or degeneration, which dominates the situation, or else with disease of the peripheral vessels, which is far more important than the aortic atheroma. Therefore, with atheroma affecting the arterial system widely, and associated with embarrassed circulation, it is no matter of surprise, but, rather, to be anticipated, that the imperfectly supplied and badly-nourished nervous system evinces emotional depression, mental suffering, mental failure, dementia.

Statistical Summary of the Preceding Heart, Cases of Disease of.

Total Cases.		Or excluding Cases also coming under other Heads.	
29	6 in 1st	Three mitral valve sub-groups.	1st 6
	7 ,, 2nd		2nd 7
	16 ,, 3rd		3rd 16
37	8 in 1st	Four aortic valve sub-groups.	1st 8
	5 ,, 2nd		2nd 5
	4 ,, 3rd		3rd 4
	20 ,, 4th		4th 16
14		Group of disease affecting about equally both mitral and aortic valves.	8
22		Group of somewhat general hypertrophy or dilatation.	16
30		Group of partial hypertrophy and dilatation.	9
25		Fatty hearts.	19
8		Aneurysmal hearts (4).	1
		Syphilitic hearts (4).	
Aorta, Cases of Disease of.			
11		Large aneurysms of aorta.	2
27		Nodulation of aorta (including some cases with smaller aneurysms).	23
35		Ordinary atheroma of aorta.	24
228			157
About 8		cases of heart disease introduced to illustrate some points, and not included above.	8
236			165

Of the 236 instances of diseased conditions, 163 were of heart and 73 of aorta.

Of the 165 separate diseased individuals, 107 were entered under "heart" only, and 48 under "aorta" only.

Besides the above were many hearts in phthisical subjects already mentioned but not enumerated. I shall not take up the consideration of cases of embolism and thrombosis (often cerebral). Before me is an incomplete table containing fifteen of the cases I have seen, to which others are to be added.

The distribution of prizes to the Volunteer Medical Staff Corps by Her Royal Highness the Duchess of Albany, on Saturday, March 17th, has, on account of the death of the Emperor of Germany, been indefinitely postponed.

⁴² *Practice of Medicine*, vol. ii, p. 644.

⁴³ *BRITISH MEDICAL JOURNAL*, 1876, vol. i, p. 283.

* The average age at death was 42.5-71 years. The changes were of the ordinary atheromatous kind, irregular thickening of the internal coat, or internal and middle coats, of the arch of the aorta; opaque whitish slightly raised patches, sometimes a gelatinous appearance, but more often yellowish patches, some of them eventually becoming calcareous. The surface of the aorta may be rendered more or less irregular, slightly ridged; the change often affected the sinuses of Valsalva, or the arch near where it springs from the heart. In a majority, one or both of the coronary arteries were more or less affected in a manner similar to that described for the aorta.

In fourteen the heart was more or less hypertrophied, partially or generally; in some of these the left ventricle alone was hypertrophied, or was so more than the other chambers, where several were so affected. In the great majority the hearts at the necropsy were more or less flabby, friable, or softened. In eighteen, was very decided aortic-valve disease; of these, in one was marked constriction at the aortic valve, and in two marked incompetency of it. In thirteen, was some mitral disease, on the average less severe than that of the aortic valve and orifice in the cases just mentioned; in one of them there was marked mitral regurgitation.

Some of the large cerebral arteries at the base of the brain were atheromatous, or otherwise conspicuously diseased in ten cases.

The renal changes were as follows, and usually more than one of them existed in the same case. In nine the granular, in three the ordinary cystic change, eight with capsules adherent or greatly thickened, two atrophic, and one indurate, yet not distinctly granular; three entered either as "mottled" kidney, or as "subacute nephritis," and one lardaceous.

ABSTRACTS OF THE MILROY LECTURES ON SOME GENERAL CONDITIONS WITH REGARD TO EPIDEMICS.

Delivered at the Royal College of Physicians of London,
February and March, 1888.

By ROBERT LAWSON, L.R.C.S.Ed.,
Inspector-General (Retired) Army.

LECTURE III.—EPIDEMIOLOGICAL ASPECTS OF YELLOW FEVER.

Symptoms.—The Lecturer said that, from a clinical study of yellow fever in Jamaica during the years 1856-60, he had formed the opinion that the distinctive characters of the disease were:—
1. That it usually terminated in death or convalescence from the fourth to the seventh day, but that either event might occur as early as the second or as late as the tenth or twelfth, or even later. 2. That the general yellowness of the eyes and surface commenced at various periods in different individuals and epidemics. 3. That the urine presented certain symptoms, namely, on the evening of the third or morning of the fourth day traces of albumen; on the fourth day a considerable sediment, consisting almost wholly of vesical epithelium; on the fifth day an equally copious sediment consisting almost exclusively of granular renal tube casts. The urine by this time was scanty, contained much albumen, a diminished quantity of chlorides and urea, and, if there were much yellowness, some bile pigment; the excretion might be completely suppressed. From the third day the feces, when formed, were greyish, or yellowish white, with an intermixture of black matter, when fluid consisting of mucus of the above colour, or coloured by bile or blood. 5. As the urine and feces assumed these characters there was a tendency to black vomit, and hæmorrhages (so-called) from various mucous surfaces, or even from the skin. As to the character of the fever, it was necessary to recognise that the disease occurred both sporadically and in epidemics in a periodic (remittent or even intermittent) form, as well as in a continued form with a paroxysm of seventy-two hours, followed by the characteristic symptoms of the disease.

Mode of Origin of Epidemics.—Two views were held as to the mode of origin of the disease in a locality; one attributed it to causes in operation in the locality at the time, the other supposed that it must have been introduced by persons recently arrived from another locality where it was prevalent. In the great majority of examples adduced in support of the contagiousness of yellow fever, no attempt had been made to exclude a local cause. In numerous well-authenticated instances persons have contracted yellow fever in a locality where the disease was prevalent, have removed to a healthy locality, and passed through the fever there without affecting anyone about them, and that even when their numbers were considerable. The case of H.M.S. *Bristol* frigate was quoted as a particularly striking example; from this boat, soon after her arrival in Sierra Leone (December, 1865), where there was a severe epidemic, a party of 116 officers and men were sent to the receiving ship *Isis*, which had had several cases on board; the party slept on board the *Bristol* each night, and did not go ashore. Though the crew of the frigate included many young men fresh from England, and consequently quite unacclimatised, not a single case occurred in anyone who had not been on board the *Isis*, though a large number were engaged in immediate attendance on the thirty-eight cases which occurred among those who had. The case of H.M.S. *Brilliant* was quoted as a well-marked example of a ship's company contracting yellow fever on shore, while the ship herself was quite healthy; a severe outbreak occurred; the ship went to sea, and after the period of incubation had expired no fresh attacks occurred.

Alleged Instances of Contagion.—There was, it was said, no well authenticated instance of yellow fever having been communicated by persons who had contracted it on board an affected ship to other persons on shore who had not come within the range of the emanations from the ship. The instances, supposed to have been afforded by the *Anne Marie*, at St. Nazaire, and by other vessels, were examined and shown to be capable of bearing a different interpretation.

Influence of Local Conditions.—The behaviour of yellow fever in Barbadoes was next discussed at great length, and while it was shown that the disease on many of the occasions when it was in-

duced did not spread, certain local conditions were pointed to in connection with swampy ground, which appeared to stand in intimate connection with the outbreaks. The instances of the United States steamship *Susquehanna* and of H.M.S. *Orion* were quoted as instances of ships acquiring the condition necessary for producing yellow fever without communication from a previous case. Statistics and official reports were quoted in support of the proposition that certain epidemics of yellow fever in Bermuda sprang up at different points in the islands without the previous introduction from elsewhere of persons labouring under the disease. It was clear, therefore, that such an introduction did not constitute a necessary factor in the development of the conditions required to produce yellow fever, while the immunity which followed more extensive importations of persons labouring under the disease into healthy localities, or during the healthy part of the year at those which are occasionally subject to the disease at certain seasons, went far to prove that the introduction of cases of the disease had no influence in determining an epidemic. The potential factor must be widely diffused by aerial means, but in a form incapable of giving rise to the disease until it meet with a suitable soil for further development. The immediate exciting cause was clearly particulate, and was given off from a collection of mud in a ship's hold, or from a marshy or damp spot on shore.

A CASE OF ANGIOMA OF THE LARYNX.

By PERCY KIDD, M.D., F.R.C.P.,

Assistant-Physician and Pathologist to the Hospital for Consumption, Brompton.

AMELIA M., aged 50, came to the out-patient room on December 2nd, 1887, complaining of loss of voice. With the exception of two attacks of bronchitis twenty years and twelve months previously, she had not been troubled with cough or expectoration. For the last eight or nine years, "perhaps longer," her voice had been very weak, and frequently had been lost completely. Menstruation occurred every fortnight, and was excessive, otherwise her health was fairly good.

The patient was a spare woman, with a fresh complexion, but was profoundly nervous, and could only speak in a whisper. Her face flushed on the slightest excitement. The pulse in the right brachial and radial arteries was smaller than in the corresponding vessels of the left arm, but the pulse on each side was very small and weak. The chest presented no abnormal signs. On laryngoscopic examination a small tumour was seen springing from the anterior extremity of the left vocal cord. This tumour, oval in shape and imperfectly bilobed, had a dark-red colour like that of a ripe raspberry, its surface being faintly granular, but not uneven. The growth was attached to the upper surface of the vocal cord by a flat ribbon-shaped pedicle, which permitted free movement. During deep inspiration the tumour at times slipped down into the subglottic region, and was almost lost to view, re-appearing on phonation. The appearance of the tumour is roughly indicated in the accompanying diagram.



The mucous membrane of the larynx in other respects was perfectly healthy in every part. The vocal cords presented no trace of congestion, but, when phonation was attempted, they exhibited curious oscillating choreiform movements towards the median line. On inspiration abduction was normally performed. Examination was rendered somewhat difficult by the patient's nervousness, which gave rise to spasmodic contraction of the sphincter muscles at short intervals.

Bromide of potassium and simple lozenges were prescribed, and the patient was advised to have the growth removed. A fortnight later, that is, at her second visit, the throat was sprayed with a small quantity of a 2.5 solution of cocaine, and the tumour was easily seized with Mackenzie's laryngeal forceps, and removed entirely. Very little bleeding followed, but the patient was so

hysterical afterwards that she had to be kept in the hospital for a couple of days. Since then she has attended as an out-patient.

The left vocal cord was much congested for a few days after the tumour was removed, but the injection soon diminished, and a small, translucent, oedematous swelling was noticed at the part where the growth had been attached. This has now disappeared, and the only morbid appearance which remains is a slightly swollen and congested condition of the left vocal cord, mainly affecting its anterior third. The patient's voice began to improve almost immediately, and is now quite normal.

The vocal cords still exhibit the same choreiform movements of adduction during laryngoscopic examination. The patient comes every few weeks to show herself, and was last seen on March 6th, 1888, when her condition was that which has just been described.

Microscopical Examination of the Tumour.—The growth consists of a system of cavernous, vascular spaces of various sizes. Some of these spaces are partially obliterated by thrombosis, others are quite free from thrombus. Blood corpuscles are seen here and there in the lacunæ, but in most cases they have dropped out during preparation of the sections. In many places remains of thrombosed spaces are visible, and there is a considerable quantity of coarsely fibrillated tissue having a lamellar arrangement (organising thrombus), situated between the individual lacunæ, especially towards the base and near the free surface of the tumour. The growth is covered by a laminated pavement epithelium like that investing the healthy vocal cord, but not marked by the usual papillary indentations. Between the epithelium and the angiomatous tissue there is a thin layer of loose, delicately reticulated connective tissue containing scanty round and branching cells and capillaries.

The vascular spaces are bounded by thin walls, which consist of glassy-looking, homogeneous connective tissue, lined by an endothelial membrane, and contain no unstriated muscular fibres. The structure of the tumour is thus seen to be that of a cavernous angioma, closely resembling the form of angioma not infrequently found in the liver. Its origin is doubtful, though from the prevailing cavernous structure, and the complete absence of cellular growth, it seems clear that it was essentially an angioma. The history would seem to show that it developed in adult life.

Angioma is an extremely rare form of laryngeal tumour. Sir Morell Mackenzie, in his work on *Diseases of the Throat*, says that he has only met with two growths of this kind, "one grew in the right hyoid fossa, the other from the right ventricular band." "A similar growth," he says, "has been observed in the former situation by Fauvel."

I can find no mention of angioma of the larynx in the pathological textbooks of Cornil and Ranvier or Ziegler.

OBSTETRIC MEMORANDA.

PUERPERAL CONVULSIONS IN A PRIMIPARA.

J. G., aged 25, married nine months, eight months pregnant, was taken prematurely in labour on Sunday, February 26th, caused by having, on the evening of the 21st, when seeing her mother off by the train, slipped and fallen into a carriage just as the train was starting.

I was called to her at 12 P.M. and found the membranes ruptured and the labour well advanced, the head presenting. The patient was flushed and excited in manner, but quite sensible and not much distressed by the pains. The infant, an undersized female, was born at 12.45 P.M. The placenta followed readily, and there was very little loss. I stayed with her some three-quarters of an hour, and left her apparently doing well.

At 4 A.M. I was summoned, and reached the house about 4.20 A.M. Shortly before 4 A.M. she complained of a strange feeling of oppression in the head, and was seized with a violent attack of eclampsia. The convulsions were general, the tongue being bitten, and a quantity of bloody froth escaping from the mouth. On arrival the convulsion had ceased, but the patient was maniacal and wandering. Twenty grains of chloral hydrate were given by the mouth, and she shortly fell asleep.

At 8.30 A.M. I was again sent for, as the convulsions had recurred at intervals, the first attack coming on within half an hour of my leaving the house. I prescribed a mixture with ten-grain doses of potass. bromid. to be given every hour or two, and visited

her soon after. She had then recently had a convulsion, and was violently maniacal; the jaws were closed, and it was found impossible to get her to swallow. I at once injected thirty grains of chloral in warm water into the rectum. This produced a speedy result, as the patient became quiet, and in a few minutes fell asleep.

With some difficulty I introduced a catheter, and drew off about an ounce and a half of cloudy urine. This, on being tested, was found to be highly albuminous, quite a third albumen.

At 4 P.M. she was seen by my partner, Dr. Beeby, who gave by the mouth thirty grains of bromide of potassium. She was then quieter, but dull and semiconscious, having had a convulsive seizure, but of less severity, a short time before. Altogether, from 4 A.M. until 4 P.M. she had ten fits of convulsions, the first five by far the most severe, and the intervening periods occupied by maniacal excitement, except when sleeping for a short time after the doses of chloral.

I saw her again at 7 P.M. She was then more excited, and had not slept. I administered by rectal injection forty grains of bromide of potassium, with twenty grains of chloral hydrate, and dusted five grains of calomel on the tongue, which she protruded when desired. She slept well during the night, and in the morning early the bowels acted freely, the motion being dark coloured and very offensive. She now awoke conscious, recognised her mother, and passed urine voluntarily. This urine when tested contained only a trace of albumen. From this time she made uninterrupted progress, the mammary secretion became established, and she was able to nurse her infant.

The patient was a fair, slightly made, delicate woman. During pregnancy she had suffered from a severe attack of pleurisy on the left side, and after recovery had an attack of intercostal neuralgia. At 17 years of age she had an attack of scarlet fever. She herself had not suffered from convulsions previously, but a brother, at the age of 14, after scarlet fever, had a series of convulsive attacks lasting over some time.

It is a curious fact that the patient lost all recollection of the events connected with the labour, and of all that happened in the days preceding it up to the date of her mother's visit on February 21st.

Her recovery seems in great measure due to the effects of the chloral and bromide of potassium administered, and shows the value of the injection of drugs by the rectum when a patient is unable to take medicine by the mouth.

Bromley, Kent.

HERBERT J. LOTT, M.D., C.M.

SURGICAL MEMORANDA.

A CASE OF SUBSPINOUS DISLOCATION OF THE HUMERUS.

OWING to the rarity of this accident, I think the following case may be of interest:

E. H., aged 52, a strong, muscular labourer, came to the infirmary on February 8th, 1888, stating that while excavating for foundations a fall of earth occurred, and knocked him backwards against the side of the trench, his left elbow being driven forwards and inwards, and at the same time upwards. He complained of great pain in his left shoulder and arm, which he could only move very slightly. It was found that he had a subspinous dislocation of the humerus, the diagnosis being easy. There was distinct flattening of the shoulder and prominence of the acromion, while the head of the humerus could be plainly felt lying on the dorsum of the scapula below the spine, and nearly halfway between the head of the scapula and its internal border. The elbow was directed forwards, and could be made to touch the side with some difficulty. There was an inch and a half of shortening. The reduction was easily effected by means of extension at right-angles to the body and external rotation. The man made a good recovery, being able to move his arm well and touch the top of his head with his hand in three weeks' time.

W. E. ATBLAND, M.R.C.S.

House-Surgeon to the Northampton General Infirmary.

NURSING OF THE POOR.—The seventh annual report of the North London Nursing Association states that the number of cases nursed last year was 1,363. Over 200 medical practitioners in the neighbourhood, it was stated, had availed themselves of the services of the nurses during the past year, or nearly double the number who applied during the former year.

REPORTS

OF
HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF
GREAT BRITAIN, IRELAND, AND THE COLONIES

LIVERPOOL ROYAL INFIRMARY.

A CASE WHERE A SUPPURATING SPLEEN WAS OPENED AND DRAINED.

(Under the care of Dr. CATON and Mr. REGINALD HARRISON.)

[From notes by Mr. L. VAUGHAN PARRY.]

THE following case (which in the first instance was under the temporary care of Dr. Davidson, and then of Dr. Caton in the Liverpool Royal Infirmary, and was subsequently transferred to Mr. Reginald Harrison for surgical treatment) will be read with interest in connection with a somewhat similar instance recorded in the JOURNAL of November 12th, 1887, from the practice of the Burdwan Municipal Hospital.

T. D., aged 30, was admitted on December 9th, 1886, complaining of shooting pains in both legs, particularly the left, with some swelling. He had not resided abroad, nor was there any history of his having suffered from any form of malarial fever. He appeared to have been a temperate man, confining himself to drinking a moderate amount of beer daily. He had an attack of acute rheumatic fever five years ago, and had suffered a good deal in this way since. He was by occupation a painter, and was a good deal exposed to damp and cold. He had a rather severe fall some time previously, and was unconscious for three days. He also appeared to have suffered from a severe attack of bilious vomiting three years since. His present illness seemed to have commenced a month ago with shooting pains and swelling in the lower limbs, from the groin downwards.

On admission he presented the appearance of a fairly nourished, healthy-looking man. There was no jaundice colour, the skin being white and free from oedema, except over the abdomen. There was no oedema of face; there was fluid in both knee-joints, and the right metatarso-phalangeal joints were swollen and tender. Pulse 84, temperature 100°. Cardiac dulness increased. A thrill felt below the nipple, and a systolic murmur audible over second left costal cartilage. Slight dulness over the bases of both lungs. On examining the abdomen the liver dulness was found increased to four inches and a half. On the left side a dull area extended downwards from the last rib for four inches, and this dulness could be traced forwards up to within half an inch of the umbilicus. There was pain and tenderness on pressure in both lumbar regions, especially in the left. The urine was normal in colour; specific gravity 1012; acid; a trace of albumen. He frequently had retention; he stated that a year ago he passed blood for twelve hours; he had never had any rigors.

During the next few days increasing pain and tenderness in the left lumbar region and in the left side, above the iliac crest, was complained of. On the 11th the temperature rose to 102.4°; on the 13th a distinct tumour was discovered coinciding anteriorly and superiorly with the area of dulness referred to above, on the left side, and posteriorly terminating at the anterior superior iliac spine. On the 15th he suffered much from pain in the lumbar regions and thighs. The urine was found to contain pus, which previously had been absent, also hyaline casts and granular epithelium. The blood presented an abnormal amount of white corpuscles. The splenic dulness was found to be continuous with that of the tumour; on these grounds splenic abscess or tumour was diagnosed. On the 17th the tumour, which was increasing in size, first manifested fluctuation. On the 24th, fluctuation being distinct, and there being much pain and tension, with a temperature of 102°, an aspirating needle was introduced two inches above the iliac crest, and nineteen ounces of dark chocolate coloured fluid were withdrawn. The microscope showed this fluid to contain multitudes of altered red corpuscles and leucocytes.

The patient was better on the whole for some days after the aspiration, but the tumour was not much diminished, and on January 3rd it was needful to repeat the operation. Thirteen ounces of fluid, similar in character to the first, were withdrawn; the fluid was quite sweet. On the 17th ten ounces more were withdrawn. On the 21st the patient was attacked with acute abdominal pain. He was becoming emaciated, and it became clear that the medical treatment pursued (the details of which are, for

the sake of brevity, omitted) needed to be supplemented by surgical interference.

On January 21st Mr. Reginald Harrison saw the case in consultation with Dr. Caton and Dr. Davidson, and advised that the tumour should be opened into freely from the lumbar region. An incision was made parallel with the last rib on the left side. On reaching the sub-peritoneal fat and connective tissue the finger was passed underneath the rib in an upward direction, when it entered a large collection of matter. About thirty ounces of pus, of a dirty yellow colour, escaped through an opening, which was freely enlarged with the finger. It was noticed that masses of broken down tissue, which were proved to be splenic on further examination by the microscope, were present in considerable quantities in the discharge. A large drainage-tube was introduced after the abscess cavity had been washed out with a weak solution of carbolic acid.

The patient rapidly improved after this operation. The discharge was very free for some days, and contained many pieces of broken down splenic tissue. In the course of time the discharge became entirely purulent. On March 4th another incision was made by Mr. Currey in the neighbourhood of the original wound to facilitate drainage; this was followed by an improvement in all the symptoms.

Steady progress continued until June, when there was some hardness and pain felt along the line of Poupart's ligament on the left side; this eventually proved to be a collection of matter. The patient being placed under ether, Mr. Harrison made an incision above the line of Poupart's ligament, and after making a deep dissection through the abdominal muscles, a collection of matter was discovered beneath them. This abscess appeared to be an independent one, as no connection between it and the lumbar collection could be made out.

After this the patient's recovery was uninterrupted, and he left the infirmary quite well on August 22nd, 1887. He has since reported himself, and was in good health.

Undoubted instances of acute inflammation of the spleen terminating in suppuration are, it is believed, exceedingly rare. As the whole process of this affection terminating in the recovery of the patient is illustrated in this instance, it has been thought worthy of record as bearing upon a subject about which there appears to be, in this country at least, but little clinical experience.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 13TH, 1888.

Sir E. H. SIEVEKING, M.D., President, in the Chair.

Case of Neglected Dislocation of the Humerus, followed by Paralysis of the Nerves of the Hand and Forearm, treated by Excision of the Head of the Humerus.—Mr. A. MARMADUKE SHEILD related the case of a man, aged 45, who was admitted into Charing Cross Hospital on September 2nd, 1887, suffering from a subcoracoid dislocation of the left humerus of twelve weeks' duration. There had been much swelling and severe pain after the accident. Signs of implication of the median and ulnar nerves were marked, the hand being almost useless; the radial pulse was also diminished in force. Moderate attempts at reduction under ether failed to move the head of the bone, which seemed fixed. Excision was therefore performed, and the head of the humerus removed at the level of the anatomical neck. Rapid recovery ensued, and twelve weeks after the operation the patient was able to follow his vocation as waiter at a London hotel. The hand was regaining strength gradually, but the muscles of the little finger were still weak. Movements of the shoulder were satisfactory. The method of performing the operation was briefly touched upon, and short accounts of similar operations were related. Reflecting upon the disastrous consequences that might follow the forcible manipulation of ancient dislocations of the shoulder, excision of the head of the humerus was brought forward as a preferable method of treatment for cases like the present, when pain was marked, the displaced bone fixed, and symptoms of nerve pressure evident.—Mr. J. W. HILKE congratulated Mr. Sheild on the success of his case by a method which he believed himself to give great relief in exceptional instances. The procedure, of course, was not in any way novel; it had been advocated long ago by Von Langenbeck in his *Archiv*, and was laid down as the standard practice by Hüter and others in

German textbooks.—Mr. W. ADAMS thought the operation had been well devised, and had given success as complete as could be in such conditions, where, indeed, no other operative course was open. Neglected dislocations of this kind were not very common. He had himself met with a similar case at the Queen Square Hospital in 1879, which had remained unpublished. The patient had had an accident as porter and lamplighter, but no dislocation had been suspected: his deltoid muscle wasted, and he lost power in the arm, and for that was sent to Queen Square Hospital about two years after the accident, when the head of the humerus was found to be lying on the dorsum of the scapula. The head of the bone was excised just below the surgical neck, and after about a year the patient became again fit for the lighter duties of a railway porter. Again, in 1885, he had met with an unsuspected dislocation of the femur in a child which he treated by excision of the head of the bone, with a satisfactory result. He expected that the operation would become more widely practised.

—Mr. HOWARD MARSH asked whether Mr. Sheild had made the division of the bone through the anatomical or surgical neck; some expressions in the paper seemed to leave the point doubtful. He could bear willing testimony to the complete success of the operation, for he had examined the patient when he had been present at a previous meeting. He told the story of a less fortunate case which had been in St. Bartholomew's Hospital, in which there was much wasting of the muscles and excruciating pain for a long time. There were very many close adhesions which Mr. Baker had in part broken down, without relief. Then the case came under his care, and he attempted to stretch the brachial plexus, an operation he had found very difficult, and which had made the man no better. After that Mr. Savory had excised the head of the bone, but the pain remained about as severe as ever.—Mr. HOLMES had listened with great interest to Mr. Sheild's paper because he had always maintained that in some cases of unreduced dislocation excision was the best method of treatment, but he had had no opportunity of performing the operation himself. It was usual for pain after unreduced dislocation of the shoulder gradually to subside, and to leave the patient with an arm that was of some use to him, and temporising measures of passive motion, etc., were often advised. He looked himself with great suspicion on subcutaneous section of the neck of the bone, or subcutaneous sections of the adhesions, and thought them more dangerous than open excision, considering the large number of important vessels and nerves close to the bone in the axilla. Dislocation might do much injury to vessels, as in a case he had brought before the Clinical Society in which the artery was bruised and leaked, and a very large blood swelling resulted. He had been unable to persuade the man to allow any excision of the head of the bone as he advised, and death had ultimately resulted. When excision was allowed in appropriate cases it furnished a better limb than ankylosis or any irregular attachment of the dislocated bone to the scapula. They owed many thanks to Mr. Sheild for showing them a good instance of this.—Mr. R. W. PARKER asked if Mr. Sheild attempted to reduce the bone after exposing it. He had been much interested by the case related that evening, and also by an essay by Paul Bruus, of Tübingen, advocating similar treatment.—Mr. H. W. PAGE thought it would be well to remember that the case in which Mr. Sheild had operated was one in which there was paralysis of the hand and forearm from pressure by the head of the bone on the nerves, and he imagined his primary object had been to relieve that pressure. He had found himself that a very small relief of pressure might produce considerable results; in two cases when he had seemed to do little more than free the musculo-spiral nerve from not very constrictive surroundings, it had led to great benefit.—Mr. SHEILD felt much obliged for the spirit of general approval with which his case had been received. Among previous cases he had heard of another from Sir W. MacCormac about eight years ago which was alluded to in the *St. Thomas's Hospital Reports*, in which the surgical neck of the humerus had been divided and the head excised, but the result of the operation was not stated. In his own case he had divided the anatomical and not the surgical neck of the bone, from a wish to relieve pressure as much as possible, and also to avoid disturbance of the parts. He had rounded very carefully the end of the bone which was left in the wound, so as to make it as like the real head of the bone as possible. He had made no attempt to reduce the head of the bone when it was exposed, and indeed he doubted if it would have been possible, so tightly was the bone held by adhesions, and also he expected that if the bone had been reduced the dislocation would

have recurred. To relieve the pressure on the nerves and vessels was, as Mr. Page had said; his main object; it was soon obtained, and the patient, as soon as he felt himself getting much better, paid little attention to the passive exercise and use of galvanism, which would probably have produced a still more complete recovery than had been actually effected.

On the Naked Eye and Microscopical Variations of the Human Thyroid Body. By W. HALE WHITE, M.D.—The author said the thyroid body was not sufficiently examined for it to be known how variable it might be in patients dying of diseases which, as far as we knew, were unconnected with the gland. This paper was based on the examination of forty thyroids taken at random from patients dying in Guy's Hospital. The size of the organ was very variable. It was as a rule smaller in adults over 50 than in those under 50. Its shape was very inconstant. Save in myxœdema the size and shape were unconnected with the fatal disease. The same was true of the size of the vesicles, the average of which was one twenty-fifth of an inch in diameter. The more distended the vesicle the flatter the epithelium, and the less the connective tissue between the vesicles. Parenchymatous cells, leucocytes, and red blood-corpuscles, could all immigrate into the vesicles, and there, together with possibly the help of the epithelial cells, form the granular *débris* so frequently seen. Often all the vesicles in the whole of one section might be thus transformed. The indentation on the edge of the colloid matter and holes in its substance were due certainly to its invasion by parenchymatous cells, and perhaps other cells had a share in its production. Sometimes the colloid matter had a double contour, and sometimes it contained oxalate of lime and cholesterine crystals. None of these changes could be associated with any particular disease. The amount of connective tissue was variable. One case of myxœdema in which the organ was completely atrophied, being nothing more than a little fibrous tissue, was described, as was another case presenting the same degree of atrophy in a patient dying of aortic aneurysm. It thus appeared that atrophy of the thyroid did not invariably produce myxœdema. The origin of vesicles from parenchymatous cells was considered. Lastly, the lymphatics were described.—Dr. CHEADLE thought it certainly worth note that there was no myxœdema in the case in which Dr. Hale White had shown such complete atrophy of the thyroid. He considered the myxœdema to depend partly on the early age at which the atrophy occurred, and to be of very slow onset. In two cases Dr. White had mentioned pressure on the recurrent laryngeal nerve, which perhaps had a trophic function, along with atrophy of the thyroid. He should be interested to know if the vessels also were in these cases pressed upon.—Mr. J. BERRY had, during the last two years, examined eighty-three specimens of the thyroid gland, but considered the numbers too small to warrant any general conclusions, but sufficient to suggest some points of interest. He had found very great variations in shape and size; some were large and of a yellow tint, and full of secretion, and these were more common in cases of emaciation. Others were small and red, and with little secretion, and one nearly constant accompaniment of this condition was a good deal of fat on the body. It had been very marked in a case of great obesity, weighing 22 stone. In old age the thyroids were somewhat atrophied, but of the structure remaining a fair amount was normal tissue, and in that respect very unlike the fibrous glands of myxœdema. He had seen a case at Geneva, in which the thyroid had been completely extirpated for five years, but which showed no sign whatever of myxœdema beyond anæmia. The myxœdema which was produced artificially was a much less marked state than the condition that bore that name in England, which perhaps might be better distinguished as cachexia strumipriva.—Dr. W. HALE WHITE said that in the cases of atrophy with pressure on the recurrent laryngeal nerve there had been no pressure on the vessels; and that in the case where he had found complete atrophy after death, Dr. Wilks had noticed no signs of myxœdema during life.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 9TH, 1888.

HOWARD MARSH, F.R.C.S., Vice-President, in the Chair.

On the Operative Treatment of Dislocated Semilunar Cartilage of Knee-Joint.—Mr. CROFT described the case of a labouring man, aged 39, who was admitted into St. Thomas's Hospital in April, 1887, for well-marked symptoms of dislocation of the internal semilunar cartilage of the right knee-joint. The joint had been attacked by rheumatic inflammation eight years previously,

but had not been permanently lamed by it. The accident which had caused the injury to the cartilage, and consequent lameness, had occurred three weeks before the patient's admission to the hospital. As the man was quite incapacitated from following his employment, and suffered frequently from the displacements of the cartilage, Mr. Croft advised him to submit to a radical operation. In the belief that the anterior extremity of the cartilage had become detached, Mr. Annandale's operation was decided on. The joint was opened on March 5th, 1887. The cartilage was found to have preserved its anterior and posterior attachments, but to have been torn loose from its intermediate connections. It was lying in the intercondyloid space. A tongue-shaped piece, about $\frac{3}{8}$ ths of an inch in length, projected from its upper surface. This had been partly torn up from the upper surface of the cartilage. This was a worse condition than had been expected. The anterior and posterior insertions were cut through, and the cartilage drawn out of the joint. The joint was carefully closed. Drainage was provided for. The operation was done antiseptically. On the fortieth day after the operation the man was discharged cured. He was seen four months later, and then had been in full work for some time. He attended for inspection by the members of the Society. Mr. Croft referred to the few positive data in English works concerning the subject, and drew the following deductions: (a) That the cartilages may be dislocated from their anterior attachments only, from their circumferential attachments only, and from both these insertions. That rupture of the posterior insertion must be very rare, if it ever occurs. (b) That when the circumferential relations are ruptured the cartilage tends to be displaced into the intercondyloid notch. (c) That in such cases as Mr. Annandale's a good result may be obtained by refastening the loosened anterior portion of the cartilage to the tibia, and that in such cases as Mr. Brodhurst's and his own (that above described) the whole cartilage may be safely excised. (d) A working man may preserve a strong, useful, movable knee-joint, though the whole internal cartilage has been excised. (e) Obstinate cases of this dislocation, attended by numerous attacks of pain and disability, may be safely subjected to "inspection," and, if need be, to operative treatment for radical cure.—Mr. ANNANDALE (Edinburgh) said he would confine his remarks to the displacements of the semilunar cartilages and the operation which he had suggested for the relief thereof. He had operated in five cases, the result in all of them being perfect. In four of the cases the internal cartilage was the one displaced, and this was usually the case. He had found it displaced in three different manners; in two of his cases the cartilage was separated at its inner attachment, and was displaced backwards and outwards; in one case the cartilage was separated and folded upon itself; in another case the internal edge was folded over, and the joint had thereby become sometimes locked; this locking occurred also at the operation, when, the joint being opened, it was found that the cartilage was partly in the intercondyloid notch, which was the cause of the locking. In his fifth case, the external cartilage was separated and displaced backwards. As to the operation, he made an incision around but a little below the upper articular surface of the tibia, a little lower than would appear to be necessary for the opening of the joint. The articulation being exposed, and bleeding all stopped, the capsular ligament was opened, and with a blunt hook the cartilage was drawn forwards, and then fixed in position by two or three stitches to the capsular ligament and head of the tibia. In his last two cases he had fixed it with a catgut ligature. He used no drainage-tube, finding it unnecessary. He did not venture to move the joint earlier than six weeks after the operation. At first he used passive movement only, and no active movement until quite a fortnight later.—Mr. DAVIES COLLEY mentioned a case on which he had operated five months previously. The patient was a gentleman, aged 21, who was riding, when his horse reared and fell on his knee, which soon became much swollen. All did well, however, until some six months afterwards, when, as he was playing lawn-tennis, his knee-joint became dislocated outwards, abducted, semiflexed, and fixed. The dislocation was reduced, but synovitis followed, and the dislocation thenceforward recurred frequently, causing severe pain. Often when on horseback he had to roll off his horse in order to rectify the dislocation, which was not prevented by knee-caps, etc. Mr. Davies-Colley then proceeded to operate in the manner which Mr. Annandale had described. He found that the internal cartilage had two rents in it, running parallel, and thus dividing the cartilage into three ribbons. It had doubtless been split at the time of the original accident, im-

proved by the two months' rest which followed it, and then again separated by the sudden strain during tennis. He had stitched the strips together so as to fix them to the internal tuberosity of the tibia. The case did fairly well. There was at first a discharge of gelatinous material from the joint; but after a fortnight this ceased, and the catgut sutures were discharged at intervals. After two months the patient could bend the knee through an angle of about 60°, and he could now walk about four or five miles, wearing a support which kept the knee fixed. Mr. Davies-Colley did not think it would be right to allow the patient to use his joint without support until six or eight months after the operation. He would ask what was the best treatment to adopt in such a case.—Mr. H. ALLINGHAM remarked that he had shown at a former meeting a porter who had dislocated his internal cartilage. In October last, the speaker had cut down upon the cartilage, found it movable, and had fixed it to the bone. The patient was now well, and could walk well.—The CHAIRMAN said that the semilunar cartilage was evidently not necessary to the functional use of the knee-joint. He alluded to a paper published by Professor Kocher, which also supported that conclusion. The cartilage in Kocher's three cases being affected with a fungous disease, he removed it entirely, and the joint was just as good after as it had been before the operation. He exhibited an apparatus recommended for many years past by Sir James Paget, which was very beneficial in many minor conditions of displacement, and which, if worn for twelve or eighteen months, often produced complete cure.—Mr. H. MORRIS thought that one form of dislocation had not been noticed by previous speakers, that which he designated "marginal." It might be produced in two ways: (a) where a sharp instrument ran into the cartilage, and then upon being pulled out dislocated the cartilage outwards; (b) where the knee was dislocated outwards and the semilunar cartilage was forced outwards from the head of the tibia.—Mr. CROFT said his case was verified by inspection of the interior of the joint, in this was its great value; it was not a mere surmise, as were so many other cases in which the joint was not inspected. He thought that possibly in Mr. Davies-Colley's case convalescence would have been quicker and more absolute if the strips of cartilage had all been removed at the time of the operation.

Notes of two cases of Dislocation of the Index Finger, reduced by opening the Joint and dividing retaining Band, after Failure of the usual Methods.—Mr. SYMONDS read notes of these cases. Both were boys, aged 9. In one the accident was caused by a blow from a cricket ball, in the other by a fall on to the finger. The first phalanx was displaced backwards, its base projecting above the level of the metacarpal bone, to a slight extent. The finger could be brought straight, so that the displacement of the phalanx was not severe. The most noticeable feature was a prominence in the palm caused by the head of the metacarpal bone. The skin was tightly stretched over it, and almost perforated. There was also a deep sulcus running round one side of this prominence. Every method was used to effect reduction, including division of the fibrous structures in front and round the back of the metacarpal bone. Finally, by a vertical incision, the joint was opened on its outer side, and while the base of the phalanx was fully exposed, the head of the metacarpal bone was concealed by a fibrous structure, through which it had passed button-hole like. The moment this was divided the head was released, and the dislocation reduced. A small fissure was then observed in each case in the cartilage. This extended into the bone, was evidently the result of injury, but did not contribute to the difficulty of reduction. Primary union with useful joints occurred in both cases. In the second case an attempt was made to divide the retaining structures subcutaneously by the light of the first case. That this failed Mr. Symonds thought was due to the fact that the incision was badly planned. He suggested that in future cases a tenotomy knife should be passed into the joint, and an incision made on the head of the metacarpal bone from before backwards. This, if carried well forward, would have divided the fibrous ring that retained the head of the bone. The fibrous band was considered to represent the anterior ligament.

Dislocation of the Metacarpo-phalangeal Joint of the Thumb Backwards, in which Excision of the Head of the Metacarpal Bone was practised.—Mr. G. R. TURNER read particulars of this case. The injury was eleven days old when first seen, and all attempts at reduction by manipulation and extension having proved unavailing, an incision was made, and the lateral aponeuroses of the flexor brevis divided. The main obstacle to reduction, however, was found to be the tendon of the long flexor, which had slipped

inwards. After forcible traction had been made, this reduction was effected, but the dislocation was so easily reproduced, and the parts were so tense and swollen, that it was thought best to remove the head of the metacarpal bone. The wound healed kindly, and the man recovered with a perfectly movable joint. He was shown to the Society some weeks ago, and, except for a very little shortening, the injured was as good as the sound thumb. The point of interest in the case was the obstacle to reduction offered by the long flexor tendon. Excision of the head of the metacarpal bone in irreducible cases of this dislocation was advocated.—Mr. CROFT had had a case similar to the one mentioned by Mr. Symonds. The index finger was dislocated on to the palmar aspect of the head of its metacarpal bone. Attempts at reduction under chloroform having been made and failed, Mr. Croft made such an incision as Mr. Symonds had advocated on the outer side of the joint, and then, finding the capsular ligament stretched and the bone escaped from it through a button-hole opening, this was enlarged and the lateral ligament nicked. The bone then slipped back directly, and the child did well. He thought the case showed the wisdom in the present day of not leaving such a dislocation unreduced.—Mr. DAVIES-COLLEY asked what was the particular anatomical structure which prevented the reduction in Mr. Symonds's case? In a case of his own, that of a child with dislocation of the first phalanx from the metacarpal bone, the glenoid ligament formed a band or apron which was pushed back before the bone every time an attempt was made at its reduction. This band, when the force was removed, again pushed the bone out of position, and it was found impossible to reduce the bone until the band was divided. The case did well, and after three months only some stiffness remained, but there was a capability of passive movement.—Mr. SYMONDS said that he considered the structure cut by him was the anterior ligament of the joint.

Adenoma of the Pinna.—Mr. BLAND SUTTON described this case. W. S., aged 64, detected three years ago a small tumour behind the left pinna. This tumour was situated over the mastoid process, and was about the size of a nut. It slowly increased in size. He was advised at this time by an eminent London surgeon never to allow anyone to interfere with it. The tumour continuing to increase in size, involved the pinna, extended down the auditory meatus, made its way into the cavity of the tympanum, produced deafness, and incapacitated the patient from playing upon the violin. He was a skilful violinist, and in his leisure hours taught this accomplishment. In December, 1886, the patient presented the following condition when Mr. Sutton saw him in consultation with Dr. Hollings. A tumour of the size of a big orange was found wedged in between the mastoid process and the lower jaw; the pinna projected from the midst of this mass. The auditory meatus was quite blocked by the tumour, and its surface had ulcerated in two or three spots. Mr. Sutton took counsel with his friend Mr. Henry Morris. After due consideration, a full explanation of the risks was submitted to the patient, and he was allowed to decide for himself. The patient was most anxious for the operation, and in January, 1887, the tumour was removed. It occupied the tympanum, and by its pressure had opened up the mastoid cells; indeed, the anatomy of the middle ear was clearly visible. The patient recovered rapidly, and in five weeks was again occupied in his office. Three days after the operation he could again distinguish musical notes, and in a few days more the hearing rapidly returned. In a month from the day of the operation he commenced anew his studies on the violin, and for the next twelve months enjoyed his favourite instrument. Things went on well until February of the present year, when he again felt unwell, and on examining the scar it was clear that there was some return of the tumour. At this time he showed signs of aphasia, which gradually increased until he could not remember any noun, common or proper, not even his own name. As the loss of the memory of words was the only prominent symptom, it was decided to trephine the skull in the situation of the pterion and ascertain the limits of the intra-cranial growth, and if possible again remove the tumour. This was done February 26th. The tumour was far too large and infiltrating to allow of its removal. Three days later the patient died. At the *post-mortem* examination a tumour of the size of a small orange was found in the left middle fossa of the skull; a portion of it had burrowed backwards and projected into the lateral sinus. The tumour had extensively invaded the temporo-sphenoidal lobe, but Broca's convolution had remained unaffected. The primary tumour was found to be an adenoma, but the nature of the intra-cranial portion could not be determined in time for the meeting.

Dry Mouth or Suppression of the Salivary and Buccal Secretions.—Dr. HADDEN read this paper. The patient was a woman, aged 65, who had suffered from no affection which could throw light on her present condition. There was no history of family-paralysis, or of the prolonged use of belladonna. Her month began to become dry some months previous to observation. The tongue was red, devoid of epithelium, cracked in all directions like crocodile skin, and absolutely dry. The mouth generally was dry, and the mucous membrane smooth, shiny, and pale, with a few patches of injection. There was also deficiency of moisture at the back of the pharynx. The tonsils were natural. The salivary glands, as far as could be made out, were natural in size. Common sensation of the inside of the mouth was unimpaired, but the sense of taste was retarded in consequence of the deficiency of moisture. When the mouth became moister later on, the saliva was found to be slightly acid, and to exert no action on a solution of starch. During the time the mouth had been dry, perspiration had notably diminished, and the lachrymal secretion was arrested. The patient received much benefit from the use of jaborandi. A case of similar nature under the care of Mr. Hutchinson was alluded to, and one under Dr. Rowlands, of Liverpool, was communicated by the author of the paper. In conclusion, it was suggested that this condition of dry mouth was due to some disorder of the nervous apparatus.—A MEMBER asked if the patient had any difficulty in digesting food.—Mr. GOLDING-BIRD asked whether, as the reaction of the saliva when it reappeared was acid, Dr. Hadden had first boiled the starch, and added an alkali, before testing the action of the buccal secretion on the starch.—Dr. HADDEN said that his patient's digestion was perfect. The starch was boiled, but no addition of an alkali was made to it, as it was only discovered, after the testing had been completed, that the saliva had an acid reaction.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MARCH 7TH, 1888.

JOHN WILLIAMS, M.D., President, in the Chair.

Specimens.—Dr. AUST LAWRENCE showed a specimen of Extra-uterine Foetation, with the Primary Gestation Sac.—Dr. HERMAN exhibited a Foetus and Placenta from a successful case of operation at the fourth month, two and a half hours after Rupture of a Tubal Sac.—Dr. PENROSE brought forward a specimen of Left Tubo-abdominal Pregnancy, in which the Corpus Luteum Verum was in the right Ovary.

Scarlatina during Pregnancy and in the Puerperal State.—The two remaining sections of Dr. BOXALL's paper, partly read at the January meeting, were now brought forward. VI. With regard to the clinical relation of scarlatina to puerperal septicæmia, a brief summary of the sixteen cases of undoubted scarlatina was given, and it was pointed out that in one case only were the scarlatinal manifestations associated with signs of septic poisoning. Forty lying-in patients were known to have been exposed to one or more of the above cases of scarlatina. This series was presented in a tabular form, giving the time and duration of exposure and the course of the puerperium. On this evidence it was apparent that such exposure resulted in no detriment to the puerperium. As it might be urged that the 300 patients or more admitted during the prevalence of scarlatina were to a greater or less extent exposed, a chart (together with the percentage tables from which it was constructed) was also appended. This indicated the morbidity (as judged by the temperature) prevailing not only during the whole scarlatinal period, but included, in addition, the three months which preceded the outbreak. From this it was evident that the prevalence of scarlatina in the hospital exerted no appreciable effect on other cases lying-in during the same period. The special value of local antiseptic measures in scarlatina during the lying-in period was discussed. The following conclusions were offered: 1. That infection by the poison of scarlatina generally produced in the puerpera a disease which presents for the most part the usual symptoms of scarlatina, and runs the ordinary course of the disease without the appearance of septic manifestations. 2. That the disease, in addition to the usual symptoms of scarlatina (to a certain extent modified), may occasionally present signs of septic poisoning; that, when present at the outset of the disease, pelvic inflammation and septicæmia may usually be regarded as accidental complications, but, at a later stage, such signs may be the expression of a septic process, analogous to the secondary throat of ordinary scarlatina. 3. That in rare instances the disease may assume a masked

form, in which the ordinary signs of scarlatina are absent, or so slight, and evanescent as to escape observation; and that, in some such cases, the only manifestation of the illness may be found in signs usually referred to septic poisoning.

VII. With regard to the treatment of scarlatina during pregnancy and in the puerperal state, Dr. Boxall, after referring briefly to remedial measures, discussed the means which should be adopted to prevent the spread of scarlatina to pregnant and parturient women. He pointed out the advisability on the one hand of isolating all scarlatinal cases and disinfecting all contaminated articles, and on the other of shielding pregnant and parturient women from the many risks of scarlatinal infection which surrounded them, and, when possible, of removing such patients from any district in which the disease was prevalent. The influence of a third person as a vehicle of infection was discussed with special reference to the conditions under which it was likely to be exercised, and, finally, the measures which might be adopted to counteract that influence were pointed out. It was concluded, finally, that, as the poison might be carried not only directly by the hands, but also indirectly by the clothes and general surface of the body, and possibly also by the breath, and subsequently given off into the atmosphere (from which it was inhaled by the patient), thorough washing and disinfection of the hands was not sufficient to insure protection, but that a disinfectant bath, a complete change of clothing, and active outdoor exercise should be also included in the necessary precautions, and that these measures should be adopted not only by the doctor, but also by all other persons who have been brought into contact with scarlatinal poison, and especially by the nurse, prior to attending on a lying-in woman, or even visiting a patient advanced in pregnancy.

—Dr. DOLAN (Halifax) said that in private practice it would be impossible to carry out all the precautions laid down in Dr. Boxall's valuable paper. From personal experience he found that, contrary to the generally received opinion, the puerperal woman did not appear to contract scarlatina, even though exposed to the danger. The puerperal death-rate did not rise in Halifax during scarlatinal epidemics. Two separate classes of practitioners, the first to attend labours only, and the second to attend cases of scarlatina, could not possibly be established, nor would such a system be necessary.—Dr. PLAYFAIR reviewed some older opinions on Dr. Boxall's subject. Scarlatina had been held peculiarly dangerous, under certain circumstances, to lying-in women. On the other hand, it might run a perfectly normal course. Lastly, the fever was supposed to run a very untypical course in some puerperal cases, appearing practically identical with puerperal fever or septicaemia. Dr. Boxall's valuable observations did not disprove these opinions. His patients, it should first be remembered, were placed in the most favourable conditions, where the graver effects of scarlatina could hardly be looked for. Nevertheless, he admitted that he had observed a very mild form of scarlatina, and also a masked form, resembling cases of septic poisoning. Dr. Boxall had noted the increased susceptibility of puerperal women to scarlatinal infection, the modification of certain symptoms, and the existence of some unknown modifying influence under the circumstances. If so, this influence would be yet more powerful and less impeded in cases unprotected by the precautions enforced at the General Lying-in Hospital. Dr. Playfair suggested a theory which would explain the significance of mild typical scarlatina occurring in some puerperal cases, and of a masked and septic form in other cases. In the one case the disease was contracted through the ordinary chances of infection; in the other it was conveyed directly to the genital tract by the hands of the obstetrician or midwife, or by infected sponges, etc. Twenty-five years ago a lying-in ward was established in King's College Hospital. The arrangement was disastrous, and was at length abandoned. During the existence of the ward there were outbreaks of erysipelas in the surgical quarter of the hospital, and coincident epidemics of puerperal fever in that ward, but the lying-in patients had no symptoms of erysipelas which, on the other hand, were seen in some of their infants. Here was an analogy with the conduct of the scarlatinal poison.—Dr. AUST LAWRENCE (Clifton) believed that some of these cases did not die of the fever itself, but from decomposition of the lochia induced by the poison. In one case the patient was saved by timely washing-out of the uterus.—Dr. HERMAN criticised paragraphs 2 and 3 in the sixth section of Dr. Boxall's paper, which included theories already accepted by others, but though still based more or less on conjectures, Dr. Boxall's conclusions were the result of a sound method of investigation,

for he began with the parent factors, the scarlet fever and the puerperal woman. He had not, like others, started with the case, hunting back for the cause. Still, Dr. Herman was of opinion, comparing the above conclusions with the valuable morbidity tables before, during, and after the prevalence of scarlatina in Dr. Boxall's hospital, that the poison of scarlatina, when communicated to the lying-in woman, produced that disease and nothing else.—Dr. LEITH NAPIER dwelt at length on recent observations with regard to rashes which were not really scarlatinal, and gave his own experience on rubola in the puerperium. These rashes must be remembered in relation to any case or series of cases of alleged mild and not fatal scarlatina in the puerperium.—Dr. BRAXTON HICKS believed that scarlatinal poisoning was frequently mixed with puerperal fever or septicaemia, the scarlatinal element being latent or occult.—Dr. MATTHEWS DUNCAN noted how anti-septic treatment kept away the microbes of suppuration and septicaemia, but did not ward off scarlatina. He believed in the theory that the so-called scarlatina of midwifery and surgery included more than one disease, but he regarded true scarlatina occurring within a few days of lying-in as a disease of enormous mortality. He had observed a red rash, with fever, which began around the wound made in opening a chronic inguinal parametric sinus. The rash spread, but there was no certainty that it represented scarlatina. Dr. Duncan did not believe in the commingling of scarlatina and puerperal fever. When the former disease raged in London, killing 250 a week, there was no increase of puerperal fever. This fact agreed with Dr. Dolan's practical conclusions.

Adjournment of Discussion.—It was resolved by Dr. GALABIN, seconded by Dr. HOBROCKS, that the debate on Dr. Boxall's paper be adjourned. The resolution was carried unanimously.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MARCH 1st, 1888.

WILLIAM SEDGWICK, M.R.C.S., President, in the Chair.

Treatment of Empyema.—Mr. MANSELL MOULLIN read a paper on the surgical treatment of empyema, based on an analysis of thirty four cases. In sixteen of these a discharging thoracic sinus was already present. He pointed out, that the primary cause of the collapse of the lung was the accumulation of fluid; but that the permanent cause of its non-expansion when the pressure was relieved was the alteration in the structure of the pleura and the lung itself, and that this alteration was the effect of the absorption from the irritating fluid in the cavity. When air had already gained admission without drainage being perfect, so that the pus had decomposed, the thickening of the pleura was much greater and more obstinate than when the empyema had never been operated on at all. Everything pointed, except in children and tubercular cases, which were expressly excluded, to operation as early as possible. Primary resection of a rib was hardly ever required, unless the empyema was loculated; india-rubber tubes very soon wore the ribs away, so that there was little chance of their being nipped as the thorax collapsed. Two tubes must always be inserted, even if they were only a few inches apart; they might be in the same intercostal space, but there must be two for effective drainage. The most convenient situation was the one usually adopted, in the fifth or seventh interspace in the mid-axillary line. Washing out the cavity was quite unnecessary; if air was allowed to pass freely in and out there was no decomposition; the amount of pus discharged diminished almost to nothing, and the cavity rapidly closed in. In old cases the first thing was to establish free drainage by making a second opening; on five occasions it was necessary to trephine the ribs, as the wall of the chest had practically become a solid bony cuirass. In two cases some of the ribs had been resected; in one, two inches of four had been removed, in order to allow the thorax to collapse, but the patient, who was already suffering from amyloid disease, sank from exhaustion ten days after. In the other, portions of only two ribs were excised, as the sinus ran rather round the thorax, following the direction of those ribs, than upwards as in the former case. This was attended with considerable benefit. No trouble was experienced from the intercostal arteries on any occasion. The direction in which the sinuses run must in each case determine where the ribs should be cut, how many should be removed, and how much of each.—Dr. PHILLIPS criticised the view that an operation should be performed early. He had seen good results follow from aspiration. He also thought that two openings were not essential, and was prepared to show cases which had made a steady recovery after one. A hard-and-fast

rule could not be laid down as to the best place for the opening.—Mr. LOCKWOOD said cases often fell into the hands of surgeons after a preliminary aspiration had been tried and failed. He had been accustomed to make two openings and drain from each; washing out was in many cases essential.—Mr. MANSELL MULLIN said, in reply, that though he would not deny for a moment that cases of empyema could get well with only a single drainage-tube, he was sure they stood a better chance with two, as it was impossible that a cavity like the thorax could drain satisfactorily from one; there must be an in-draught and an out-draught. He preferred an opening in the axillary line to one by the angle of the scapula, because there was less tissue to divide and less risk of displacement from movement of the arm, and especially when patients were lying in bed the pleural cavity could empty itself quite as thoroughly through one as through the other.

On the Functions of the Uvula and Epiglottis.—Dr. SCANES SPICER read a paper on the functions of the uvula and epiglottis. The various functions of the uvula in deglutition, phonation, articulation, respiration, and secretion, as set forth by different authorities, were first discussed, and then the author described an important function which had hitherto escaped detection, namely, that the uvula served during normal (nasal) breathing as a conductor, guide, or dripping stone to convey the nasal and lachrymal secretions out of the breath-way on to the lingual tonsil, there to undergo reabsorption into the circulation. These fluids were delivered on to the base of the tongue in a plane anterior to the epiglottis. From the lingual tonsil the unabsorbed portions trickled into the glosso-epiglottic fossae, and thence into the pyriform sinuses or hyoid fossae, along the lateral grooves of the epiglottis. It was mentioned that two previous authors had considered the uvula as a conductor or dripping stone to convey mucus, etc., into the larynx for lubricating purposes, or to the base of the glottis, where it accumulated until swallowed or hawked up. Common experience taught us that such intrusion of fluids into the larynx, as was assumed, caused cough and spasm; these views were hence, in part, the antithesis of the one expounded. The functions of the epiglottis were next considered, and it was pointed out that the balance of evidence was against any deglutition function of the epiglottis, but in favour of its movements and position having an important connection with the pitch, intensity, and the quality of the voice. The author described the epiglottis as a permanent vaulted dam, which kept the salivary fluids, etc., as well as those conducted by the uvula from the nose, out of the larynx, and which shot them off laterally (if not absorbed by tonsillar tissue) into the pyriform sinuses along the grooved spouts of the epiglottis, which projected over these sinuses normally. Clinical observations and experiments bearing on these views, and tending to show their correctness, were given in detail.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 12TH, 1883.

Sir WILLIAM MAC CORMAC, F.R.C.S., President, in the Chair.

Vote of Thanks.—On the motion of Dr. ALTHAUS and Mr. WALSHAM, a vote of thanks was passed to Dr. J. Hughlings Jackson, the retiring President, and the secretary and officers of the Society.

On the Causes of Failure to find the Colon in Lumbar Colotomy.

—Mr. HERBERT ALLINGHAM read a paper on the causes of the difficulty which was sometimes experienced in finding the colon in lumbar colotomy, and the best method of obviating them, which it is proposed to publish in full. Mr. LOCKWOOD said the points alluded to by Mr. Allingham had excited his own interest. He pointed out that Mr. Allingham's figures bearing on the average presence of the mesentery differed from those put forward some time since by Mr. Treves—a difference which, he thought, might be attributable to a difference in the methods of investigation.—Mr. TREVES expressed his surprise that surgeons should pay so much attention at the present time to the bands of longitudinal fibres. He had done a great many colotomies, and had never troubled to look out for the bands. There were ample means of distinguishing between the large and the small gut. He had examined 100 dead bodies, and found that in 52 of them the mesocolon was absent on both sides, in 14 it was present on both sides, in 12 it was present only on the right side, and in 12 only on the left side. He thought the practice of searching for these bands would be a waste of time, and would involve the risk of rupturing the gut.—Mr. HARRISON CRIPPS pointed out

that the operation depended greatly on whether it was undertaken on the distended or on the empty gut. When distended there was seldom any difficulty in finding the colon, but when empty the difficulty might sometimes be almost insurmountable. He advised inflating the colon in such cases. As to the bands, he certainly looked for them, though he did not attach the same importance to finding them as Mr. Allingham did.—Mr. ALLINGHAM, in reply, said that in stripping off the peritoneum the longitudinal fibres were often stripped off as well. He failed to see what objection there would be to opening the peritoneum when this, for any reason, appeared desirable.

Is Common Psoriasis a Constitutional or Local Disease?—Mr. MALCOLM MORRIS first criticised the name "psoriasis," which, he said, ought to be restricted to a particular disease, a typical example of which he showed in a boy. After discussing the manifestations of the disease, he declared its etiology to be "shrouded in obscurity." He asked whether any relation could be shown between psoriasis and any recognised constitutional disease such as the eruptive fevers or syphilis. He pointed out that psoriasis only occurred in healthy subjects, and only involved the skin, not even the mucous membranes. He claimed that the alleged connection of psoriasis with gout was not founded on fact—that gout was comparatively rare in hospital practice, while psoriasis was as common as in private practice. He scouted the idea that struma and gout—two altogether different affections—could give rise to similar cutaneous manifestations. Out of 100 cases in private practice, only 3 had a gouty history, and he quoted Garrod as to the lack of foundation for the belief that gout could give rise to psoriasis. He claimed that psoriasis was, so to speak, a disease of health, and if the standard of health was lowered, whether by disease or drugs, then the eruption faded away to recur on the return of normal health. He quoted several cases in support of this view. He attributed the influence of arsenic in this disease to its action on the cells of the rete Malpighii, whereby the seat of disease was starved. In conclusion, he maintained that drugs only acted beneficially by influencing health unfavourably, and that sooner or later, on their cessation, the disease was sure to recur.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, MARCH 8TH, 1883.

J. W. HULKE, F.R.S., President, in the Chair.

On Retinal Haemorrhage in the Yellow Spot Region.—Mr. LANG read the notes of a case of a large macular haemorrhage which was absorbed, leaving perfect vision. He remarked that in these cases where the vision was restored it was most probable that the haemorrhage took place between the hyaloid membrane of the vitreous and the retina, and not as hitherto believed between the layers of the retina or in the choroid. In support of this contention he drew attention to the red colour that the light presented to the damaged eye, and also to a folded appearance of a membrane seen in front of the extravasation, and which could only be the displaced hyaloid raised by the haemorrhage. He also explained the circular appearance of these haemorrhages by an anatomical condition noticed by Mr. Marcus Gunn—namely, that at the macula the hyaloid was probably not attached to the retina at all, or at any rate not so firmly as it was around the yellow spot region, therefore a haemorrhage would be likely to be limited in the circular manner so frequently seen.—The PRESIDENT observed that probably the haemorrhage did not own the same source in all the cases.—Mr. SILCOCK believed that De Wecker gave a drawing showing that the haemorrhage was in the choroid. In a case of his own the patient did not find objects red; there was a very small central, absolute scotoma. He inferred that the haemorrhages were choroidal because they were large, and at a point where there was no large retinal vessel, and, moreover, they generally cleared up entirely.—Mr. NETTLESHIP showed diagrams of two cases of large semicircular haemorrhage at the yellow spot; the inferior macular artery, which traversed the blood patch, was found to be obliterated in one case, and greatly altered in the other. These cases showed that the vessel which supplied the blood-effusion was a retinal one. In some of these cases the blood in the early stage was found extending on to the surface of the optic disc; in some the blood burst forwards into the vitreous some days after the extravasation at the fundus. These facts could be readily explained on Mr. Gunn's and Mr. Lang's hypothesis, but could hardly be explained if the blood came from

the choroidal vessels.—Dr. ANDERSON mentioned a case of retinal hæmorrhage where *post mortem* it appeared that the bleeding must have taken place between the retina and vitreous.—Mr. LANG explained that it was only in the cases where complete recovery took place that the hæmorrhage was in front of the retina.

Ciliary Tumours.—Dr. MILES read this paper. He drew a line at primary ciliary origin, traversing Knapp's view of their frequency. Detailing the varieties of these growths, after their division into the two great classes of benign and malignant, he referred to their diagnosis as between ciliary tumours and those confined to the iris, and laid stress on an early and accurate diagnosis, to be followed in the case of iritic tumours by the immediate removal of the affected portion of tissue. He pointed to the value of a beam of light in cases where the diagnosis was doubtful between early ciliary staphyloma and ciliary tumour, and deprecated the differential diagnosis between intra-ocular tumours and harmless retinal separation by acupuncture, adducing examples of its danger. He further referred to the locality of these growths, and corrected his previous statement that they always arose at the inner quadrant. The mode of development was touched on. The "iridodialysis" was explained as taking place in three different ways, each interesting, and suggestive of general infection. By the kindness of members, drawings and sections were shown illustrating the paper.—Professor HIRSCHBERG contributed some fine slides of ciliary and other ocular tumours, the author from his own collection bringing forward specimens and drawings of those rare affections.—In reply to the PRESIDENT, Mr. LAWFORD mentioned that he had lately examined a tumour of the ciliary body, which proved to be a mixed round and spindle-celled sarcoma. The tumour grew from the nasal side.—Mr. SIMEON SNELL had operated on two cases of sarcoma of the ciliary body in persons advanced in years.—Mr. McILHARDY mentioned a point of diagnostic value. He had found that where there was detachment of the retina, with intra-ocular tumour and diminished tension, the tumour had its origin in the ciliary body.—Dr. MILES announced his intention of presenting the series of drawings used in illustration of his paper to the library of the Society.

Sarcoma after Sclerotomy for Glaucoma.—Mr. SIMEON SNELL (Sheffield) related this case. The patient was a man, aged 42, and sclerotomy was performed on March 27th, 1884, for subacute glaucoma; great pain + T2, media turbid, cornea steamy looking, but vision was $\frac{3}{3}$; relief to pain was immediate, vision improved to $\frac{3}{3}$, and tension became normal. He remained well up to the latter end of 1885. The media were clear, and a good view of the interior was obtainable; beyond excurvation of the optic disc there was nothing to note. In January, 1886, he came with two small "lumps," one on the site of the puncture, and the other at counter-puncture for sclerotomy. The sclerotomy had been performed with DeWecker's knife, and thus the wound was limited to the puncture and counter-puncture, and to the width of the instrument. The pain was relieved and the staphylomas subsided with eserine. He returned to work, but he said that during the whole of this year pain was never really absent. In September, 1886, he came with severe pain, and again eserine did some good. At the end of December, 1886, he was again seen, and then in addition to the staphylomas, at the punctures for sclerotomy, was another above and between them; tension was decidedly increased. The lens was more opaque, and a view of the interior was not possible. He still saw large letters by turning the eye outwards. Pain was very severe. Puncture of sclerotic was performed December 30th, with temporary relief, and repeated on January 22nd, 1887. The growths were much enlarged, and were growing. February 16th, 1887, enucleation of globe; besides the outgrowths in front, which reached behind, there were large nodules on sclerotic behind. The optic nerve was divided as far back as possible, and suspicious pieces of tissue removed. Growth returned, and on July 10th the orbit was cleared out, and chloride of zinc paste applied. No recurrence. The tumour was a small spindle-celled sarcoma. It filled the eyeball, except a little space below and to the inner side; it had perforated the sclerotic above, midway between the optic nerve and the cornea, and also at the outer side of optic nerve entrance. Sections of the eyeball, mounted in glycerine jelly were shown.—Mr. LAWFORD asked if there had been any symptom of glaucoma in the second eye.—The PRESIDENT thought it was very difficult to assign cause and effect in these cases, and remarked that sometimes a sarcoma remained dormant for a very long time.—Mr. MILES thought that the case was one where his small beam of light would have been of diagnostic service.—Mr. POWER re-

ferred to the danger of chloride of zinc; he had applied it after clearing out the contents of the orbit in one case, where the patient had much pain afterwards, and died in two days from the artery being attacked by the caustic.—Mr. NETTLESHIP had seen bad results from the use of chloride of zinc to stop hæmorrhage in these cases, and once death, which he attributed to it.—Mr. SNELL briefly replied.

Punctured Wound of Upper Eyelid followed by complete Palsy of the Third Nerve and Optic Nerve Atrophy.—Mr. SIMEON SNELL (Sheffield) related for Mr. W. A. GARRARD the case of a boy, aged 7, who, on April 19th, 1887, fell while holding a piece of stick, which pierced the left upper eyelid just above the margin. A boy pulled it out, but there was no reason to think it had pierced deeply. He was admitted at the Rotherham Hospital. The next day the eye was closed, on the fourth day the eyelid was still drooping, and, on raising it, dilatation of pupil, loss of movements of eyeball, and the characteristics of complete palsy of motor oculi were discovered. The optic disc was normal. On May 9th, Mr. Snell saw the patient; the optic disc was a little paler than its fellow; complete paralysis of third nerve was present; accommodation was paralysed. A few days later recovery commenced by his being able to raise the eyelid a little, and by June 2nd ptosis had disappeared, and the movements of the eyeball were good. When seen in November all affections of motor oculi had disappeared; the optic papilla was atrophic; the vessels were not reduced in size; vision was very imperfect. At no time were the fourth, or sixth, or ophthalmic division of fifth involved. In discussing the nature of the lesion in this case, Mr. Snell said that direct injury to the parts at the back of the orbit was excluded, as the stick did not penetrate. Leber had accounted for cases of monocular amaurosis after blows about the supra-orbital region or head as due to fracture in the vicinity of the optic foramen, and not to interference with the fifth nerve. Holder had pointed out also that in fracture of the base in 60 per cent. at *post-mortem* examination fracture of the wall of the optic foramen was found. Berlin had stated that Nuhn, in 1845, sought an explanation in an injury or rent of the optic nerve within the optic foramen. It seemed doubtful if the blow on the eye in the case related was sufficient to cause fracture, as Leber suggested, but it might have been enough to have driven the eyeball into the orbit, and causing jarring, or compression, of the optic nerve. The question why the third was the only nerve affected was not easy of explanation. The slow onset of the optic nerve atrophy seemed to indicate that the lesion was high up, the degenerative process passing downwards. The almost immediate presence of the third nerve palsy suggested effusion, which would allow of the recovery; the completeness of the palsy pointed to the lesion being close up to, or at the trunk of, motor oculi.—Mr. NETTLESHIP thought that more proof was required that there had not been a penetrating wound of the orbit. The explanation of the case he offered was that there had been such a wound, and he instanced a somewhat similar case where a penetrating wound had passed unnoticed. Some reason was wanted to explain why one nerve would recover and not another; the optic nerve rarely recovered.—Mr. EDGAR BROWNE took the same view of the case as Mr. Nettleship did, and mentioned a case where ecchymosis was due to an unsuspected piece of pipe stem lodged in the orbit.—Mr. FROST had had a similar experience, and the PRESIDENT mentioned a case in which a fatal tetanus resulted from a foreign body in the orbit.—Dr. VAN MILLINGEN had seen ptosis without any other paralysis result from a blow on the orbit.—Mr. SNELL, in reply, said that the patient had been seen at once by a very good observer, and that he himself had been unable to detect any mark on the conjunctiva, and he adhered to his belief that there had not been a penetrating wound; even if there had been, he could not see that it would explain the paralysis of the whole of the third nerve which had been observed in this case.

Pulsating Tumour of the Orbit with Proptosis.—The PRESIDENT showed a case illustrating this condition.—Mr. ADAME FROST thought that the patient's history was at least as consistent with an intracranial as with an intraorbital lesion, and the evidence afforded by the pathology of other cases would dispose him to take this view of the case, unless there were strong evidence in the other direction. In answer to questions, the man had again and again stated that the piece of wood that struck him was as thick as his thigh and weighed many pounds; that it struck him with considerable violence; and that the end was blunt and as large as a fist. It was easy to understand that the penetration of a sharp fragment into the orbit might produce an arterio-venous

communication within the orbit, but surely a severe blow from a blunt body without a perforating wound (as far as was known) would be more likely to produce a fracture passing across the carotid artery in the cavernous sinus. The case presented difficulties viewed from either standpoint.

Card Specimens.—Dr. VAN MILLINGEN: Instruments.—Mr. E. T. COLLINS: Disease of Choroid (? Colloid).—Mr. BICKERTON: Piece of Glass removed from the Anterior Chamber.—Messrs. CRITCHETT and JULER: Case simulating Glaucoma.—Mr. DOYNE: New form of Optometer.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, MARCH 7TH, 1888.

JOHN SMITH, M.D., LL.D., in the Chair.

Specimens, Clinical and Pathological.—Dr. J. DUNCAN drew attention to a method of applying the principle of siphon exhaustion to empyema. With the help of a very simple piece of apparatus he had thus been able to effect almost complete emptying of the chest cavity, the viscera being brought into close apposition with the costal walls. He had been disappointed to find, however, that adhesions did not occur.—Dr. DUNCAN also described a case of hip-joint disease, when an abscess had burst into the ureter, with the distressing results that the urine constantly made its escape by the abscess opening. The patient suffered much discomfort, and incurred considerable additional risk from the tendency to bedsores. This had been obviated by a pretty application of the principle of capillary drainage. Threads of worsted were passed loosely through a piece of india-rubber tube, the mouth of which was inserted into the wound with the ends of worsted projecting. The tube served as a water-tight channel through which the urine circulated till the edge of the bed was reached, where it dripped from the worsted ends into a vessel.—Mr. CATHCART showed a patient suffering from a Colles's fracture, produced in an unusual way. A severe blow had been delivered on the palmar aspect of the hand towards its distal extremity, with the result that the radius was fractured just above its head. There was no lateral displacement.—Mr. CHIENE exhibited an example of uncontracted blood clot. The blood had been drawn in the ordinary way from the horse, for the purpose of demonstrating the contraction and formation of the buffy coat, but the clot had remained uncontracted.—Dr. BRUCE showed a bladder and urethra with extensive diphtheritic-looking membrane attached to the mucous surface. The patient had been frequently catheterised, and there was the suggestion of false passages.

The Clinical Value of Temperature Observations in certain Acute and Chronic Diseases.—Dr. J. O. AFFLECK read a paper on this subject. The remarks were based on personal observations. The value of temperature registration was increased by comparatively greater frequency. Thus a four hours' chart gave information which was omitted in a twelve hours' chart. Speaking of the individual fevers, Dr. Affleck drew attention to the special value of a study of the temperature in typhoid. The usually described clinical course of three weeks was by no means regular. In a large proportion of cases the duration was much longer. When the temperature rose above 103° F. it was to be interpreted as indicating an increase in the ulcerative process. Pulse records should go hand in hand with those of temperature. Sometimes the results appeared contradictory. The temperature fell during defervescence, but temperature registration should be made from time to time. In illustration a temperature chart was shown where the temperature, which fell to normal on the twenty-ninth day, rose again on the sixty-third. With any alteration of diet or similar condition, the temperature was to be watched. His hospital experience was rather opposed to the adoption of internal antipyretic remedies in typhoid. In typhus fever the best results were to be looked for when the temperature fell at the end of the seventh day. In the exanthemata the value of temperature observations was less than in the continued fevers, though here, too, much might be learned by careful study. Thus, for example, the continuance of a higher temperature beyond the usual period suggested the probability of complication, which must be carefully sought for. Similar deductions might be made in connection with croupous pneumonia and acute rheumatism. In the latter frequent temperature records might timeously reveal the onset of hyperpyrexia. A chart was shown where the temperature in one hour had risen from 103° or 104° to 109° F. The early observation of this, followed quickly by the cold bath, might be of the utmost consequence. In chronic disease tempera-

ture observation, though of less striking value, presented many points of interest. Thus in the cases of pernicious anæmia which he had brought before the Society, the temperature had been elevated more or less at first, gradually returning to the normal as improvement took place. In myxo-dema he had shown at a previous meeting how the temperature tended to remain subnormal, in consonance with the experience of Mr. Horsley in the case of monkeys after ablation of the thyroid. The state of the temperature suggested the propriety of the line of treatment by hot baths. Further, he had found that in diabetes, as a rule, the temperature was subnormal.—The PRESIDENT thought the thanks of the Society were due to Dr. Affleck for his most careful and suggestive elucidation of a subject so eminently practical.—Dr. ALLAN JAMIESON corroborated many of Dr. Affleck's facts, and referred to the climatic or atmospheric influence as affecting temperature. In going round the fever wards, Dr. Wood and he had frequently remarked how, on certain days, a large proportion of the temperatures would be raised. They had tried to frame theories on the subject, but so far were not possessed of a good working hypothesis.—Dr. HADDEN was inclined to lay less stress on thermometric records than he did in earlier days. In all cases it was of importance that the pulse and respiration curves should be recorded synchronously.—Dr. CROUSTON drew attention to the value of a study of temperature in mental diseases. Thus in acute mania and in certain stages of general paralysis there was elevation of temperature. Moreover, if medical practitioners would, in all doubtful cases of supposed insanity, take the temperature of their patient, there would be less sending to asylums for mental treatment of patients suffering from acute febrile processes. A number of such awkward mistakes had come under his observation.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

FRIDAY, FEBRUARY 24TH, 1888.

A. S. UNDERHILL, M.D., in the Chair.

Primary Cancer of Liver.—Dr. SIMON showed a specimen of primary cancer of the liver, taken from a man who had had no symptoms except progressive asthenia.

Perihepatitis in a Boy.—Dr. SIMON also showed a specimen of perihepatitis. The liver was from a boy aged 14, who had had ascites two years previously. Cyanosis was marked for some time before death.—Dr. SUCKLING and Dr. CROOKE made some remarks.

The Uterus in Menstruation.—Dr. HOGGEN exhibited microscopic sections of the virgin uterus, taken from a girl who died during the menstrual flux. No shedding of mucous membrane was discernible.

Enlargement of the Liver in Rickets.—Dr. HOGGEN also exhibited sections illustrating the enlargement of the liver in rickets. The specimens showed a cirrhosis of the more diffuse kind (multilobular), with thickening of the bile ducts and multiplication of the biliary canaliculi. The circumference of the lobules was invaded to some extent by a small-celled infiltration of the portal canals, and there was a slight degree of fatty infiltration of the hepatic cells.—The CHAIRMAN remarked that the enlargement of liver in rickets was more apparent than real, owing to the flattening of the chest causing downward displacement of the organ.

Rare Fracture of Olecranon.—Mr. JORDAN LLOYD showed the upper end of an ulna which he had removed during an excision of the elbow for unreduced dislocation of eighteen months' duration. The patient, a man aged 27, had been unable to work since the accident. The olecranon was fractured from its upper end at its posterior surface downwards and forwards into the centre of the sigmoid notch. The fragment had been driven downwards and forwards so as to narrow the notch to a depth of less than half an inch, and had united firmly in this situation. Reduction of the humerus into the contracted sigmoid cavity was mechanically impossible.

Simple Stricture of Oesophagus.—Mr. BARLING showed a specimen from a man aged 60, who had suffered from pain and difficulty of swallowing for four months. The patient died suddenly after sharp pain due to swallowing food. There was no history of syphilis, of injury, or of swallowing corrosive fluids. The stricture was close to the cardiac orifice and encircled the oesophagus, extending vertically for about three-quarters of an inch. There was some destruction of the mucous membrane at the seat of stricture, and marked thickening of the coats external

to that. Microscopic examination of sections from the whole thickness of the stricture showed only inflammatory new formation. There was nothing to suggest malignant growth, nor was there any enlargement of the mediastinal glands.

Salivary Calculus.—The CHAIRMAN showed a calculus of unusual size, removed from the submaxillary gland of a man aged 40.

Prostatic Calculus.—The CHAIRMAN also showed a calculus removed from the prostate of a child aged 6 years, who suffered from incontinence of urine and painful micturition. An ordinary sound failed to detect any calculus, but on passing a soft bougie a distinct grating could be felt. Rectal palpation confirmed the diagnosis of calculus in the prostate. By a median incision it was found encapsuled where the prostate should have been, evidently, some time previously, when smaller, having been washed down with the urine from the bladder. Its weight was 162 grains, length one inch and seven-twelfths, and breadth eleven-twelfths of an inch.—Dr. HOGGEN referred to a case where a salivary calculus was composed of uric acid, the patient from whom it was removed being gouty.

Diseased Suprarenal Body.—Professor ALLEN exhibited a diseased suprarenal body from a sheep, with microscopical sections.

PLYMOUTH AND DEVONPORT MEDICAL SOCIETY.

MONDAY, FEBRUARY 20TH, 1888.

G. JACKSON, F.R.C.S., in the Chair.

Whooping-Cough.—The CHAIRMAN opened a discussion on the treatment of whooping-cough, and stated that he had found lobelia and belladonna in the early stages cut short the disease, whilst vaccination was of temporary benefit.—Mr. WILSON advocated the use of bromides and belladonna, and change of air if chronic.—Dr. BAMPTON preferred to treat the disease on general principles, but considered that chloral and carbolic acid were particularly valuable.—Mr. J. E. SQUARE had had good results with creosotene.

Paralysis from Peripheral Neuritis.—Dr. BAMPTON read a paper on this subject. He related the case of a rheumatic subject who had pain and weakness in the legs, followed by loss of power and numbness, slight swelling of feet, darting and shooting pains in shins. The patient always felt cold. The right hand followed with loss of power and sensation, and later the left arm was attacked. There was absence of knee-jerk, but no eye symptoms. Eventually the patient died of bronchitis, to which she was subject. He also gave an account of a case in an intemperate woman, aged 30. She improved under coffee and strychnine, but died whilst sleeping during the night.—Mr. BRENTON recited a case of alcoholic paralysis, with bladder symptoms, that recovered under quinine and strychnine.—In the course of the discussion, Dr. BAMPTON threw out the suggestion that possibly cases of infantile paralysis were primarily of peripheral origin, caused by acute rheumatism.—Mr. W. WOOLCOMBE considered that the embolic theory explained the phenomena of infantile paralysis.—Dr. BAMPTON suggested that in the initial stage of infantile paralysis, salicylate of soda should be given, relating a case where convulsions were impending, that responded at once to the drug.

SOUTH INDIAN BRANCH (MADRAS).

FRIDAY, NOVEMBER 4TH, 1887.

Surgeon-Major DRAKE-BROCKMAN, Vice-President, in the Chair.

Surgical Statistics of the General Hospital.—Brigade-Surgeon SIBTHORPE read notes, illustrated by an elaborate series of tables, on the statistics of the General Hospital, Madras, for nine years ending 1886. He stated that his objects in so doing were to place the statistics on record for future reference, and to improve the method in which they are recorded. New forms for the annual returns and the new edition of the nomenclature of disease had come into use in 1887. The General Hospital contained 308 beds, distributed as follows: medical, 110; surgical, 152; cholera, small-pox, and special wards, 33; officers' quarters, 13. The average number of admissions of Europeans was 1,498.22, varying from 1,027 in 1882 to 1,562 in 1878; of natives, the average admissions were 2,206.66, varying from 2,093 in 1883 to 2,536 in 1878. Average daily sick: Europeans, average 66.8, varying from 56.21 in 1880 to 75.68 in 1878; natives, average 130.8, varying from 119.72 in 1881 to 139.92 in 1878. Mortality: the total admissions of both Europeans and natives come to 31,454, the total deaths 2,028, or a ratio per centage of deaths to admissions of 6.44. As to the form of the

returns, it was pointed out that the system of returning such a large number of diseases under the heading of "other diseases" (for example, (1) syphilitic affections, (2) scrofula, (3) leprosy, (4) other diseases of this class) was unsatisfactory. The total admissions of Europeans were 10,784, the total deaths 518, showing a ratio per cent. of 4.8 deaths to admissions for the nine years. The total admissions of natives were 20,670, and the total deaths 1,510, showing a ratio per cent. of 7.31 of deaths to admissions for the same period. In a later part of the report it was pointed out that native patients when in a moribund state were frequently removed by their friends. Statistics of a few operations were given, from which the following death-rates may be quoted: Removal of elephantiasis of scrotum, 68 cases; death-rate, 7.3 per cent. Operation for strangulated hernia, 71 cases; death-rate, 46.4 per cent. Internal urethrotomy, 27 cases; death-rate, 7.4 per cent. External urethrotomy or perineal section, 54 cases; death-rate, 24.07 per cent. Major amputations, 108 cases; death-rate, 19.44 per cent.; of the 21 deaths represented by this rate, 3 were due to pyæmia, 6 to septicæmia, 2 to gangrene, and 6 to tetanus. In conclusion, certain improvements were suggested in the way in which the hospital records were kept.—The VICE-PRESIDENT thought that it would never be possible to have reliable statistics of the General Hospital until medical and surgical registrars were appointed.—Surgeon-Major BRANFOOT concurred.—To the notes were appended extracts from the surgical reports of the General Hospital for 1882 and 1883 by Surgeon-Major R. W. COCKERILL, and for 1884 by Surgeon-Major J. J. L. RATTON, M.D.

Ovariectomy.—Surgeon F. CLARENCE SMITH read notes of the case of a Brahmin woman, aged 33, for whom he had performed ovariectomy for a very large cyst.—The VICE-PRESIDENT made some remarks on the case.

Laparotomy.—Surgeon J. SMYTH related the case of a Hindoo woman, aged 42, upon whom laparotomy was performed for enormous distension of the abdomen. Malignant disease was suspected; this was confirmed at the operation, and the whole of the new growth could not be removed. The patient succumbed on the thirteenth day after the operation.—The case was discussed by Brigade-Surgeon SIBTHORPE and Surgeon-Major BRANFOOT.

Cysticercus Cellulose.—Surgeon H. ARMSTRONG read notes of a case of cysticercus cellulose of the brain, which will be published in full.

THE CLINICAL SOCIETY OF MANCHESTER.

TUESDAY, FEBRUARY 21ST, 1888.

S. WOODCOCK, M.D., President, in the Chair.

Enlarged Spleen and Liver in Rickets.—Dr. RAILTON showed a child, 18 months old, who suffered from rickets, and who had an enormously enlarged spleen, and also a considerable enlargement of the liver. The child was perfectly blanched, and there was puffiness in the face and on the backs of the hands and feet. There was no history or appearance of syphilis. Lardaceous disease, cancer, tuberculosis, and leucocythæmia, were each in turn considered and dismissed. The depth of the liver dulness at the right nipple line was 3 inches, its surface was quite smooth, and its border was felt to be somewhat rounded but even. The spleen extended as low as the ilium, was 4½ inches long, and 3½ inches broad. There was no ascites, no enlargement of lymphatic glands either within or externally, the heart, lungs, and urine appeared normal. The blood showed no excess of white corpuscles.

Mitral Stenosis.—Dr. RAILTON showed a patient, aged 14, suffering from mitral stenosis, the result apparently of the chronic rheumatism known as "growing pains." There was no history of scarlet fever, chorea, or acute rheumatism. The superficial cardiac dulness extended upwards to the third rib, but there was apparently no right hypertrophy, and the apex beat was within the nipple line. During the tranquil action of the heart, the apex murmur occurred as a faint roll occupying the diastole, immediately following the second sound, and ceasing before the first sound. If the heart acted more quickly the roll disappeared, and a rough presystolic murmur became audible, leading directly to the first sound. The patient suffered no inconvenience from the disease, except some dyspnoea on exertion; there was no hæmoptysis, œdema, congestion of liver, or other symptoms of failure of the circulation.

Pseudo-Glioma.—Dr. HILL GRIFFITH showed a child, age 4 years and 10 months, blind of both eyes from the condition known as pseudo-glioma following "inflammation of the spine." It

demonstrated the clinical characters of the affection, and remarked on the difficult diagnosis of pseudo-glioma (aplastic cyclitis) and real glioma of the retina, illustrating his remarks by a typical pathological specimen of each.

Spinal Injury.—Dr. WILLIAM THORBURN showed a case of spinal injury sustained in April last. The patient had at that time lateral dislocation of the head and neck, with paralysis of the limbs, and trunk, etc. The dislocation being reduced a few hours after the injury, almost complete recovery has ensued.

Mercury in Ophthalmic Practice.—Dr. EMRYS-JONES read a paper on the value of mercury in ophthalmic practice. He gave the result of his clinical experience for the past twelve years, and enumerated a number of illustrative cases of paralysis of the third nerve, chancre of the eyelid, descemetitis, iritis, retinitis, neuroretinitis, choroiditis disseminata, and atrophy of the optic nerve, in which mercury had been of signal service. He expressed a preference for the treatment by mercurial inunction in most cases, and advocated its rapid administration.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, FEBRUARY 17TH, 1888.

Port Sanitary Administration on the Tyne.—Dr. HENRY E. ARMSTRONG read a paper in which he gave an outline of the history of the River Tyne Port Sanitary Authority, which consisted of a joint board of representatives from Newcastle, Gateshead, Tynemouth, South Shields, Jarrow, and the local boards on each bank of the Tyne below Newcastle. During recent years great changes in the port had been made by the Tyne Commissioners, who had spent half a million on the various works for widening and deepening the river, making piers, docks, warehouses, and otherwise improving the navigation and developing the trade of the Tyne. The effect of these works was greatly to increase the volume of salt water in the river to a distance of several miles above Newcastle, to the sanitary advantage of the riparian population. The effect of these improvements on the commerce of the Tyne was proved by returns of shipping, shipbuilding, imports and exports, coal, etc., showing the large and increasing trade now done in the port. The hospital accommodation of the Port Sanitary Authority included a pontoon hospital of thirty beds, in three-ward blocks; the original float of ten beds, which will be abandoned on the completion of the administrative block of the pontoon hospital; and a cholera hospital of ten beds, built on the Dutch galliot *Alliance*. The nature and extent of the diseases for which patients were admitted to hospital during the seven years under review, and the ports or countries from which such diseases were brought, were stated in tables. The cholera precautions adopted in the port were described in full. A series of tables set forth the numbers of vessels arriving in the Tyne from cholera-infected or suspected ports. An account of the general sanitary inspection carried on in the port was given. A short statement as to the smoke nuisance and the action taken in respect to it, followed by some observations on the relations existing between the Port Sanitary Authority and the Local Government Board, brought the paper to a close.

Sanitary Administration in New York.—Dr. CAMPBELL MUNRO read a paper on this subject.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, FEBRUARY 22ND, 1888.

Surgeon-Major TURTON in the Chair.

Fracture of First Rib.—Mr. MARSH read a paper on this injury. He thought that it might be produced: 1, by direct violence to the posterior portion of the rib; 2, by force applied to the manubrium sterni; 3, by force transmitted through the clavicle. Two cases had recently been under his treatment.

Sarcoma of Uterus.—Mr. JORDAN LLOYD showed for Dr. HAY MOIR, of Newhall, a uterus removed *post mortem* from a child aged 3 years. It was the seat of a mixed round and spindle-celled sarcoma, and was as large as a foetal head.

Suprapubic Lithotomy.—Mr. JORDAN LLOYD read a paper on suprapubic lithotomy, with notes of six consecutive successful cases.

Elephantoid Edema of the Face from Lupus.—Dr. SUCKLING showed a woman, aged 45, suffering from this condition. There was no family history of scrofula or lupus, and no family or personal history of syphilis. When 14 years of age, she had some spots like pimples on each cheek, which spread over the ears and nose, and, finally attacking the scalp, caused loss of the hair. About

five years ago the upper eyelids became puffed and the swelling had since extended over the face and neck. The face was much enlarged, and the upper eyelids much puffed, pitting slightly on pressure. The skin of the face was scarred and bleached on each cheek, these patches being connected across the nose. The forehead and upper eyelids were unaffected by the scarring process. The disease had extended along the scalp on both sides, leaving white, bald, cicatricial patches. The neck and face presented patches of eczema, and the skin of the trunk was harsh and eczematous. There was no glandular enlargement, and the patient's general health was excellent.

SUNDERLAND AND NORTH DURHAM MEDICAL SOCIETY

THURSDAY, FEBRUARY 16TH, 1888.

G. S. BRADY, M.D., F.R.S., Vice-President, in the Chair.

Penetrating Wound of Chest.—Dr. GRAY showed a man who had been stabbed at the lower border of the second right costal cartilage. Pleurisy supervened, and forty ounces of serum were removed by two aspirations at an interval of six days. After the second tapping the temperature rose at nights and the chest again filled; twenty ounces of pus were drawn off by the aspirator, and the man was now convalescent.

Urethral Calculus.—Mr. H. S. ROBINSON showed a boy, aged 7 years, from whose urethra he had removed a small calculus. Ten days afterwards, when the wound had almost healed, severe hæmorrhage occurred *per urethram*, and was only arrested by tying in a metal catheter for forty-eight hours.

Syphilitic Psoriasis.—Dr. PROWDE showed a case of this disease. —The CHAIRMAN and Mr. HOPGOOD made remarks as to treatment.

Charcot's Joint Disease.—Dr. PROWDE showed preparations of the knee-joint and head of femur from patients who had previously been exhibited before the Society as well-marked cases of this disease. The head of the femur was found to be completely detached from the neck of the bone, which had to a great extent disappeared.

Abinism.—Mr. P. BLUMER showed a case and gave the family history of it, as well as of another which had come under his observation. —Messrs. LEGAT and SEVILLE made some remarks.

Anæsthetics.—Mr. W. H. MALING read a paper in which he advocated the claims of ether. —A discussion ensued, in which Messrs. ROBINSON, BLUMER, LEGAT, SEVILLE, and HOPGOOD, and Drs. GRAY, SHELMERDINE, and PROWDE took part.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THURSDAY, MARCH 8TH, 1888.

G. H. HUME, M.D., President, in the Chair.

Cases.—Dr. LYON showed a Boy with Congenital Deformity of Hand. —Dr. ARNISON showed a Child with Multiple Enchondroma of Fingers.

Excision of Portion of Sciatic Nerve.—Dr. HUME showed a man from whom a portion of the great sciatic nerve had been excised for tumour. The tumour was a fibro-sarcoma, was of five months' growth, and occupied the greater part of the back of the thigh. At the operation Dr. Hume found the tumour incorporated with the nerve; the nerve was divided high up, and the growth shelled out; lower down the nerve was cut at the popliteal space. The wound healed by first intention. The patient could now walk well. —In reply to Dr. JAMES DRUMMOND, Dr. HUME thought that the patient would retain his power to walk, judging from his experience of another case similarly treated.

Elephantiasis of Scrotum.—Dr. PROWDE showed a man with elephantiasis of scrotum. The disease commenced ten years ago, when he had stricture of the urethra, followed by perineal abscess.

Sarcoma of Thigh.—Mr. PAGE showed a youth, aged 18, whose left thigh had been amputated for sarcoma. The operation was performed a year ago. The patient was now in excellent health.

Pyosalpinx.—Dr. COLLIE exhibited a pyosalpinx removed from a young woman to whom he was urgently called. She was then in a state of collapse, and in a few hours after she died. The tube had ruptured. Dr. Collie raised the question as to the results that might have been obtained had abdominal section been performed.

Genu Valgum.—Dr. COLLIE exhibited photographs of genu valgum.

Calculi.—Dr. JAMES DRUMMOND exhibited calculi removed by suprapubic lithotomy, from a man, aged 77. —Mr. PAGE showed

eleven urinary and three salivary calculi; one of these latter was removed from the sublingual duct of a patient who had cancer of the tongue.—Dr. CRISP exhibited three calculi, one of which had been removed from the bladder of a woman by dilatation.—The nucleus of one of the calculi exhibited by Mr. Page was a pebble which the patient some years before had placed in and afterwards pushed up his urethra. Remarks were made upon the urinary calculi by Dr. ANDERSON, and upon the relationship of salivary calculi and cancer of the tongue by Dr. OLIVER.

Rhinoplasty.—Mr. RUTHERFORD MORRISON exhibited photographs of cicatrix, and also showing effect of plastic operation; also photographs of new nose.

Charcot's Disease.—Dr. PROWSE showed a knee-joint and head of femur from a case of Charcot's joint disease. They were taken from a man aged 62, who had never had syphilis, and who had no family or personal history of rheumatism or joint affection. Eight years ago symptoms of locomotor ataxy showed themselves. The knee-joint rapidly swelled, and severe pain was complained of. The joint afterwards became dislocated, then the left hip-joint became affected, and this was followed by disintegration of the left elbow-joint. The joint exhibited was completely disorganised, but on its under surface some new growth of bone was discernible.—Dr. OLIVER believed in the association of this joint affection to the locomotor ataxy, and drew attention to the presence of new bony formation in the specimen exhibited—this not being the rule in these cases.—Dr. LIMONT also laid stress upon the recent bony growth in the knee-joint.

Aneurysm of Thoracic Aorta.—Dr. OLIVER exhibited an aneurysm of the descending thoracic aorta which had burst into the pleural cavity. During life the man, aged 41, had suffered only from backache. He was pale and emaciated. There was dulness and pulsation below the inferior angle of the left scapula, and here a systolic murmur could be heard. The patient died suddenly.

Aneurysm of Aortic Arch.—Dr. JAMES DRUMMOND showed an aneurysm of the arch of the aorta opening into the right auricle primarily, and afterwards rupturing into the left pleural cavity. The patient had never complained even of pain until three days before death.

Malignant Tumours.—Dr. HEATH exhibited several malignant tumours. One, a scirrhous of the breast, had the nipple so completely retracted as to be quite out of sight. The sides of the groove thus formed were eczematous when the patient was first seen by Dr. Heath, and the two things together led him to the diagnosis of cancer, for the diseased nodule in the breast was extremely small.

Hydatid Cysts.—Dr. HEATH also exhibited several hydatids which he had removed from the abdomen of a woman.—In the remarks which followed, Dr. MANTLE raised the question as to how far retraction of the nipple was to be regarded as diagnostic of cancer. One of his own cases had had retraction of the nipple for the last six years and no cancer.—Mr. PAGE said he was interested in the remarks made by Dr. Heath whilst exhibiting the worms of the echinococcus, as he had two cases of hydatid disease of the liver at present under his care. Tapping and the injection of a weak solution of bichloride of mercury gave the best results.

Chloro-anæmia.—Dr. COLEY read a paper on chloro-anæmia, in which he dwelt on the relationships of this blood condition to diseased states of the gastro-intestinal tract, to tubercle, curvature of the spine, etc. Whilst in many of his cases a mitral systolic murmur had disappeared under treatment, in not a few it so persisted that he could not but regard chloro-anæmia as a cause of permanent mitral regurgitation.—Dr. OLIVER instanced a few cases where dilatation of the left ventricle and mitral regurgitation never disappeared after chloro-anæmia; Dr. MANTLE spoke of the relationship to ulcer of the stomach; Dr. JAMES DRUMMOND spoke chiefly of its cause, from constipation; Dr. EASTWOOD traced it to indigestion; whilst Dr. ANDERSON dwelt more upon its treatment by iron and salines.

Tubercular Laryngitis.—A paper by Dr. LIGHTFOOT on this subject was taken as read.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, MARCH 1ST, 1888.

M. M. DE BARTOLOMÉ, M.D., President, in the Chair.

Apoplexy.—Dr. DYSÓN showed some specimens from a man, aged 31, who was admitted to the General Infirmary in the apoplectic condition, and died the day following. His previous history was singularly free from illness of any kind. He was coma-

tose, head turned to the left, pupils contracted, the left conjunctiva insensitive, the right much less so. He moved his right arm, but not the left; sensation was apparently abolished in the left arm. On *post-mortem* examination a large hæmorrhage was found in the right optic thalamus, which had burst into the ventricle, pierced the septum, and invaded the left ventricle. The left ventricle of the heart was greatly hypertrophied, the valves fairly healthy; there was well marked early stage of atheroma in the aorta. Both kidneys were small and granular.

Ulceration of Popliteal Artery: Amputation of Thigh.—Mr. COOMBE read notes of this case.

Rupture of the Popliteal Artery, followed by Gangrene and Mid-thigh Amputation.—Dr. KEELING related a case. The lower part of the femur and the popliteal vessels, mounted by Mr. Banham, were shown to the Society.—Remarks were made by Mr. JACKSON and Mr. GARRARD.

Clothing.—Mr. PYE-SMITH read a paper, in which he said that fabrics manufactured from the wool of animals were greatly to be preferred for garments to those made from cotton or other vegetable fibre, being much superior as regards conduction of heat, absorption of moisture, porosity, weight, cleanliness, natural colouring, inflammability, strength, softness, flexibility, elasticity, and durability. Their roughness of surface was advantageous except in the rare cases in which even the finest varieties caused unbearable irritation of the skin. Special stress was laid on the value of socks with a separate compartment for each toe as a preventive of corns and deformity of the toes.—The following joined in the discussion: the PRESIDENT, Drs. PORTER and WATSON, and Messrs. JACKSON, WILLIAMS, and ATKIN.

REVIEWS AND NOTICES.

OPHTHALMIC SURGERY. By R. BRUDENELL, CARTER and W. ADAMS FROST. Cassell and Co. 1888.

THIS manual contains some 550 pages of closely printed matter, for about half of which each of the joint authors is more particularly responsible.

It opens with a capital account in brief of the anatomy and physiology of the eye, following which the methods of examination of the eye are discussed, with succeeding chapters on the diseases of cornea and conjunctiva, all arranged upon the usual lines.

The fifth chapter treats of affections of the iris. Here in some respects the work appears decidedly insufficient. For, while inveighing with some rather smart writing against the practice, too much used in his opinion, of diagnosing an iritis as dependent on some constitutional condition, and directing the treatment accordingly, the author proceeds to the opposite extreme. Thus, while indicating that iritis is often a phenomenon of syphilitic disease, he omits to define, except in the most vague way, the period of its onset. Nor does he mention the occasional occurrence of nodules on the iris, a condition so characteristic of syphilis. Similarly, he says not one word as to the distinguishing points between the iritis dependent on the rheumatic taint and other forms. Iritis is not even alluded to in relation to gonorrhœa. As might be expected from this, few will agree with him as to the treatment of iritis. For all forms indiscriminately he appears to advise the internal use of mercury. The operation of iridectomy is another very favourite means of cure and prevention, while the application of warmth is not mentioned.

The chapter on cataract is clear and practical, but that on glaucoma is distinctly inferior. The position of the incision for iridectomy is described only as immediately behind the corneal margin, while nothing whatever is said as to its course or length. The description of sclerotomy is remarkable, since the author divides, in marked opposition to the practice of every authority, the bridge of scleral tissue, leaving only the conjunctiva, a form of operation long ago discredited as extremely liable to be followed by an unsightly bulging of conjunctiva and iris, and even by sympathetic disease. The section on the normal fundus will be found of great service to young ophthalmoscopists, but it is marred by an unfortunate slip which represents three millimètres increase of height of the swollen disc, as corresponding with one dioptré of hypermetropic refraction by the ophthalmoscope, whereas the increased height should be a third of a millimètre only.

His choice of the term "choked disc," instead of optic neuritis or papillitis, will not be generally accepted. Certainly it is not free from the reproach which he applies to the other terms, that of suggesting what is in many cases an unsound explanation.

When, under the head of embolism, it is stated that the connective tissue of the retina becomes white and turbid, surely it is meant that the retina becomes infiltrated with serum. The statement, though it is perhaps only a question of words, will surely convey a strange impression to the minds of most. The advice given as to the performance of Mules's operation in cases of choroidal sarcoma is open to grave question, notwithstanding the cases of non-recurrence to which the author refers. The same, also, with regard to retinal glioma, in which disease, also, evisceration is spoken of as sometimes practicable.

In treating of tobacco amblyopia it is stated that certain authors describe an increase of interstitial tissue and an atrophy of nerve fibres in the neighbourhood of the yellow spot, whereas the changes in question relate to certain fibres within the optic nerve itself.

The remaining chapters, including sympathetic disease, refraction and the ocular muscles, are clear and extremely well expressed. As a whole the book may be said to be rather defective with regard to treatment by drugs, and to incline rather more often than is usual to operative procedures, especially to iridectomy. But, notwithstanding the defects to which we have called attention, its clearness and conciseness will cause it to be welcomed by students and young practitioners as an agreeable and useful guide to the modern practice of eye diseases.

MANUAL OF MATERIA MEDICA AND THERAPEUTICS. By WM. CRAIG, M.D., C.M.Ed., etc., Lecturer on Materia Medica, Edinburgh School of Medicine. Fifth Edition. Edinburgh: E. and S. Livingstone. 1887.

THIS concise little manual, though intended primarily to assist students attending the author's own classes, possesses several characteristics which have rendered it more generally popular. Special emphasis is laid upon alterations in nomenclature which might otherwise escape attention. The author, in reproducing from the *British Pharmacopœia* such a statement as that the dose of tincture of aconite may be 15 minims, would have done well to have added a word or two of caution or comment.

The volume concludes with a posological table, a schedule of poisons and their antidotes, together with a somewhat meagre appendix of contracted terms in common use. It is beautifully printed, and is altogether a very handy and convenient volume for the use of students preparing themselves for examination.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS,

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

KINGZETT'S "BACTERICIDE."

UNDER the above title, the Sanitas Company, of Letchford's Buildings, Bethnal Green, has brought out a new germicide, oxidant, and antiseptic.

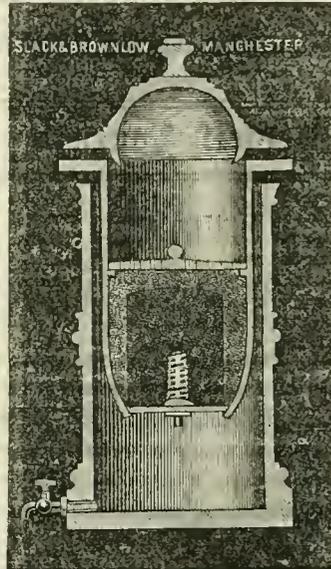
The great power of corrosive sublimate as a germicide and antiseptic, has been repeatedly proved by experiment, and in surgical practice of late years it has been largely and increasingly employed in the antiseptic treatment of wounds caused by operation or otherwise.

Peroxide of hydrogen is an oxidising agent of very considerable power, but we are not aware that until the present time it has been actually used in surgical work. Kingzett's "bactericide," contains in permanent solution 5 per cent. of mercuric chloride (corrosive sublimate) and five volumes peroxide of hydrogen, and it is capable of being largely diluted with water without precipitation.

Such a combination is calculated to be especially useful, since not only are micro-organisms destroyed, and their development prevented by the corrosive sublimate, but it is very possible that the oxidising power of the peroxide of hydrogen may split up and render innocuous those subtle chemical poisons which are produced by micro-organic life.

It is recommended that for general purposes the "bactericide" should be diluted with fifty times its own volume of water. This would of course give a solution containing 0.1 per cent. of corrosive sublimate, or in other words 1 in 1,000. The preparation is worthy of extended trial, and from our own observations we can heartily recommend its employment.

SLACK AND BROWNLOW'S PERFECT FILTER.

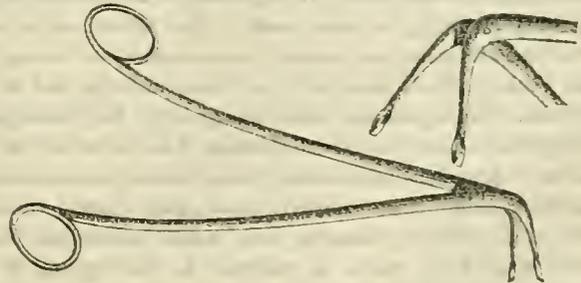


Messrs. SLACK & BROWNLOW, of Manchester, have issued a revised catalogue for 1888, which shows recent improvements made in the construction of their filters. Foremost among these is the "Perfect" filter, which is shown in the accompanying sketch; it is fitted with a movable lining, so that every part is accessible. Messrs. Slack and Brownlow have recently had their filter tested by Alfred H. Allen, Esq., the public analyst for Sheffield, who gives a most satisfactory report, especially as to the power these filters have when fresh of removing dissolved lead from water. This is,

however, not to be relied upon for any length of time.

FORCEPS FOR POST-NASAL GROWTHS.

BEING dissatisfied with the numerous kinds of Löwenberg's forceps now in use, and having occasion to remove some post-nasal growths from the sides of the naso-pharynx, I caused a pair of forceps to be made somewhat similar to the pair depicted by Mr. T. Mark Hovell in the *JOURNAL* of March 3rd, but with an anterior and a posterior cutting blade, so that the lateral growths in the naso-pharynx should be cut off. The whole of each blade has a cutting edge of steel, with a fenestrum behind it, which allows of a growth being seized and cut off in any position save where it



grows round and about the posterior nares, and for this one must use Löwenberg's forceps. It also allows of a growth being cut quite clean through, instead of being torn off as is the case where any description of Löwenberg's forceps is used.

I removed lateral growths in four cases with these forceps in 1887. They were made by Mappin and Co., of 121, New Street, Birmingham.

WRIGHT WILSON, F.R.C.S. Edin., etc.,
Surgeon to the Birmingham Ear and Throat Hospital,
21, The Crescent, Birmingham.

A LECTURE on the "Physical Training of the Greeks and Romans" will be delivered on Thursday, March 22nd, at 5 o'clock, at the Parkes Museum of Hygiene, Margaret Street, Regent Street, by Mr. A. S. Murray, Keeper of Greek and Roman Antiquities, British Museum.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 17TH, 1888.

MR. STANHOPE ON THE ARMY MEDICAL SERVICE.

MR. STANHOPE'S reply to Dr. Farquharson is, we fear, not likely to improve the relations of the military authorities with the Army Medical Service. It is conceived in the strictest spirit of officialism, and assumes an attitude towards the civil profession which has never heretofore been taken up by any Secretary of State of any of the great service departments, naval or military, British or Indian. The intervention of the civil profession, and especially of the British Medical Association, has, during a long series of years, been accepted by successive Secretaries of State, First Lords of the Admiralty, and Secretaries of State for India with courtesy, consideration, and, if we may venture to say so, with respect. Most of the more important warrants making concessions to the medical services of the army and navy have been issued as the result of representations thus made, whether by deputation, by memorial, or in some other form. The history of the present deadlock is noteworthy in many ways. It began with a thunderbolt out of the blue abolishing relative rank. This official act created great consternation, and caused much excitement throughout the whole medical department at home, in India, and in the colonies. The explanation which was given by Mr. Stanhope to a deputation from the British Medical Association and in the House of Commons to the effect that abolition of relative rank meant nothing since relative rank itself meant nothing did not improve matters, and some concessions which have since been made, in response to the appeal of the British Medical Association, in the form of gazetting medical officers on promotion, have not restored equanimity or contentment in the department, although no doubt they were intended to do so. In view of the immense mass of communications received by the Parliamentary Bills Committee at the office of this JOURNAL, and by Members of Parliament, expressing the profound dissatisfaction of the great bulk of the officers of the department at the absence of any titular or substantive military rank, Dr. Farquharson asked Mr. Stanhope in the House of Commons last session whether he would permit any form of direct or collective expression of the

sentiments from the army medical officers on the subject to be made to him officially, and he replied that he could not allow it, as it was altogether contrary to military discipline.

The report of the Parliamentary Bills Committee at the annual meeting of the Association set forth as impartially as possible the information of which the Committee was in possession as to the existing dissatisfaction in the ranks of the Army Medical Department on the subject of rank. The Director-General of the Army Medical Department, who was present at the meeting, delivered an able and elaborate speech, evidently carefully prepared for the occasion, in which he emphatically denied, not only the validity of the alleged grievances, but the existence of any general dissatisfaction. Thereupon a considerable number of medical officers who were present in Dublin proposed spontaneously to make a statement of their views, which, it was well understood, would confirm the statement in the report of the Parliamentary Bills Committee of the British Medical Association, and which would have invalidated the statement of the Director-General as to the absence of this dissatisfaction. Immediately, however, that it became known that they proposed to do so, intimation was issued to them officially that such an action would be regarded as a breach of discipline.

As a result of the statement publicly made by the Director-General of the Army Medical Department, a special committee was appointed by the Council of the British Medical Association to inquire into the facts; before it were laid, not the collective opinion, but the individual opinions, statements, and argument of nearly 1,000 medical officers, each writing separately, privately and in his individual capacity. Mr. Stanhope now states that this is a breach of discipline, and he declines to listen to the statements of any civilian body, however influential, on behalf of their military brethren. It is obvious that this is altogether a new departure at the War Office, and one which is quite contrary to long-established precedents. If it is desired to treat the army medical officers with this peculiar harshness, to shut the mouths collectively, and to refuse to afford them any opportunity of stating their views individually, except in such a guise shall make it individually perilous, it is obvious that a state of things will be brought about which can but increase the existing dissatisfaction, and which affords no obvious way of bringing about that good understanding which it has always been the object of successive Secretaries of State to maintain with the medical officers of the army department, and with the civil profession, which is professionally interested in the status and welfare of the Army Medical Department.

We are willing to assume that Mr. Stanhope is acting under the momentary impulse of the irritation felt by certain of his advisers whose predictions and declarations on the subject have proved to be ill-founded. It is obvious, however, that the matter cannot rest here, that the civil profession is not likely to be prevented from continuing to feel the interest which they have always manifested in the position of their professional brethren in the public services, and that further Parliamentary action will

follow. Already the profound discontent and irritation existing in the Army Medical Department have communicated themselves to the schools and to the universities. Many of the leading collegiate bodies in the kingdom have made representations in vain to Mr. Stanhope as well as the British Medical Association. The supply of candidates from the schools is seriously threatened by anything which engenders and develops distrust of the War Office, and which brings the conviction that the Secretary of State for War is not disposed to treat the army medical officers with the consideration and courtesy which are due to so important and distinguished a department of the public service.

Mr. Stanhope's reply can only be accepted as a purely official formula. It settles nothing, and it does not advance the interests either of his own department or of the professional elements in the service.

THE RECENT MEETING OF THE EXECUTIVE COMMITTEE OF THE GENERAL MEDICAL COUNCIL.

A GREAT deal of business was got through at the last meeting of the Executive Committee of the General Medical Council. Owing to a temporary indisposition, from which we are glad to learn he had completely recovered a couple of days later, the President was unable to be present, and the chair was taken by the senior Treasurer, Dr. Quain; the Committee worked so hard that all the agenda were got through in one day. The official notification of Dr. George Yeoman Heath's appointment as representative of the University of Durham was received, as was also the formal announcement that Ceylon was, within the meaning of the Medical Act, 1886, a British possession, which afforded to the registered medical practitioners of the United Kingdom just privileges of practising in Ceylon. The opinion of counsel (Mr. Muir Mackenzie), as to the interpretation of Section 21 of that Act, which deals with the registration of diplomas in sanitary science, was received. It was to the effect that it was not necessary that the candidate for the special diploma should be a registered medical practitioner at the time he presented himself for the special examination, but that it was sufficient if he were so registered when the diploma was granted.

The Committee also considered the report which it was required to make to the Council as to the circumstances which would render a medical practitioner liable to the censure of the Council in reference to the employment of unqualified assistants. As the matter is one of such great importance, we are glad to be enabled to reproduce the exact terms of the report of the Executive Committee, which are as follows:—

"A registered medical practitioner would render himself liable to the censure of the Medical Council in case of the employment of an unqualified assistant in the practice of medicine, surgery, or midwifery, on behalf and for the benefit of such registered practitioner, either in complete substitution for his

own services, or under circumstances in which due personal supervision and control are not, or cannot be, exercised by the said registered practitioner. The Executive Committee furthermore takes this opportunity of stating, in reference to the procedure known as 'covering,' that in its view a registered practitioner covers an unregistered person, when he does, or assists in doing, or is party to, any act which enables such unqualified person to practise as if he were duly qualified."

The Committee also called attention to a resolution adopted by the Council five years ago, which expressed the opinion that further legislation was then needed to subject any registered practitioner who deputed "a person not registered or qualified to be registered under the Medical Act to professionally treat on his behalf, in any matter requiring professional discretion or skill, any sick or injured person. . . . to the same legal liabilities as a person who falsely represents himself to be a legally qualified medical practitioner." A further clause excepted any duly regulated training of pupils in medical schools or otherwise by legally qualified practitioners, the use of trained pupils in partially treating the sick or injured under the direction, supervision, and responsibility of such practitioners, and any legitimate employment of nurses, midwives, or dispensers.

A very important memorandum by the President, with opinions thereon by the Council's legal advisers, was, owing to the absence of Mr. Marshall, postponed to the next meeting; the documents dealt with the disciplinary or penal powers of the qualifying medical authorities and of the Medical Council as regards the erasure of qualifications and names from the *Medical Register*. The legal opinion, we understand, was to the effect that fresh legislation is needed to extend and define the powers of the universities and corporations to withdraw qualifications, and of the Council to erase a name from the *Medical Register*, when all the individual's qualifications have been thus withdrawn. If, as is proposed, the qualifying bodies were empowered to withdraw a qualification temporarily, their disciplinary powers, and indirectly those of the General Medical Council also, would be very greatly increased. At present there is no alternative between a mere reprimand, which has, of course, no legal and binding force, and the permanent erasure of a name from the *Register*; some intermediate penalty would greatly strengthen the Council in dealing with questions of discipline.

THE NEW ARMY MEDICAL RESERVE WARRANT.

We publish in another column the text of the Royal Warrant, of which we gave a summary in our last issue.

We fully recognise the urgent need, and would gladly welcome any well considered scheme for the formation of a real reserve of medical officers for army duties; for large and expensive as the economists say the regular full-pay medical service is, it is but barely sufficient for the mere mobilisation of two army

corps, and quite inadequate to meet the wear and tear of a big war.

The Warrant has been talked of for some months, and has not therefore been issued without due deliberation; but though we approach it in the most friendly spirit, we think in the interests of the service and the profession it is open to criticism. It is bald and severe, as such documents usually are, but we find an interpretation to its clauses in the "instructions" appended by the Secretary of State for War. On these instructions we found our comments.

The first instruction is that "no medical officer of the auxiliary forces shall be appointed to the Army Medical Reserve who is not medically fit for service, and whose character and qualifications are not in all respects satisfactory."

If there be any medical officers of the auxiliary forces, now or in the future, "medically unfit," or "whose character and qualifications are not in all respects satisfactory," such, we think, should not merely be debarred from entering the reserve, but at once removed from the corps lists altogether.

The second instruction provides that the names of all officers of the Army Medical Reserve shall be included in a special Army Medical Reserve List. This is necessarily so. But why have we not in the *Army List* a defined list of the retired regular medical officers in reserve up to a certain age? It is strange they are not mentioned in the Warrant. Was not the object in granting them early retirement that they should form such a valuable reserve? The economists, in their outcry against early pensions, ignore this; but we are surprised the Secretary of State and his medical advisers seem to have lost sight of it also.

The third instruction provides that "officers shall be removed from the Medical Reserve List on attaining the age of 65." We fear a very considerable proportion of any reserve will be hopelessly "medically unfit" before the sixty-fifth year of life, so that constant weeding will be necessary to secure efficiency.

The fourth instruction is that "officers of the Army Medical Reserve shall be liable to be called to army service at home in times of great national emergency, to take the place of such of the Medical Staff of the Army as may be withdrawn for active service." When "times of great national emergency" unfortunately occur, we take it that Militia, Yeomanry, and Volunteers will certainly be embodied, so that medical officers of these branches will in any case come out with their corps. But if, in such an event, they are to be called upon to take the place of the regular medical officers, who will fill their shoes in the mobilised auxiliary forces? To stop one gap while creating another is like robbing Peter to pay Paul. We cannot help thinking that, if the threatened reductions on the home establishment of regular medical officers are carried out, a mere Egyptian war or such-like will, as far as our medical reserves are concerned, be held to constitute "a great national emergency."

The fifth instruction is outside "great national emergency," and not even necessarily connected with a reserve; yet, we doubt not, has had something to do with the issue of the Warrant. Here the authorities seek to secure, by a direct binding

"shall," the services of reserve medical officers at "contract rates" when required for duties with troops quartered near their houses. The "rates of remuneration" alluded to in Art. 354 of the Pay Warrant are as follows:—

For medical attendance, which includes cost of medicines, on all persons entitled—officers, men, women, children, servants, certain labourers, etc.

	Yearly.		
	£	s.	d.
If there be less than 10 persons	5	0	0
If there be 10 persons or more, for every complete 25, or portion of 25	10	0	0

We published last week some account of the duties with regular troops, so that medical reserve officers who undertake these duties will be able to judge of what is expected of them for the terms offered.

The sixth instruction is nothing new, being already embodied in the regulations.

The seventh instruction is too broadly stated, and we demur to it. The reserve medical officers, under orders of the Medical Department, would when necessary be undoubtedly severed from their corps. Indeed, this would be unavoidable if the auxiliary forces were embodied and massed together for service, unless some such body as the Volunteer Medical Staff Corps could form field hospitals and bearer companies, and thus allow regimental medical officers to be left with their corps.

The eighth instruction is a routine detail.

Such comments, necessarily hasty, have occurred to us on this important Warrant; we leave those concerned to judge of their fairness or pertinency. What we would like to see is a reserve of medical officers which shall in every way support, but in no way supplant, or be made a handle for supplanting, the regular Army Medical Service.

HER Royal Highness Princess Beatrice, Princess Henry of Battenberg, has been pleased to appoint John Williams, Esq., M.D., to be Physician-Accoucheur to Her Royal Highness.

THE Croonian Lectures to be delivered before the Royal College of Physicians next June by Dr. Donald MacAlister, Fellow of St. John's College, Cambridge, will be on "Antipyretics."

WE regret to notice the death of Dr. Robert Gordon Latham, M.D., F.R.S., the well-known philologist, who was at one time assistant physician to Middlesex Hospital. We hope to publish an account of his career in our next issue.

THE Croonian Lecture of the Royal Society for this year will be delivered by Professor Kühne, the eminent physiologist of Heidelberg, on Monday, May 28th, in the theatre of the Royal Institution, Albemarle Street.

THE annual dinner of the Medical Society of London took place at the Whitehall Chambers, Hôtel Métropole, on Thursday March 8th, the retiring President, Dr. J. Hughlings Jackson, F.R.S., in the chair. Sir Thomas Crawford was also present. Cordial thanks were tendered to Dr. Jackson for the manner in which he had conducted the work of the Society during his year of office.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE approaching annual election of the President of the Royal College of Physicians is, as is not unusual, the subject of much discussion in medical circles in London. In this connection the name of Sir Henry Pitman has been prominently put forward. We are informed, however, that this is entirely without his authority and contrary to his wish.

ROYAL MEDICAL BENEVOLENT COLLEGE.

WE learn with much satisfaction that the festival of Epsom College, which is fixed for April 17th, is likely to be a great success. The acceptances are already so numerous that the Dinner Committee will shortly be under the necessity of closing the list. A few seats, however, will still be reserved for old Epsomians.

TREATMENT OF DIPHTHERIA.

THE *France Médicale* of the 1st February gives the following formula, recommended by Dr. C. Roese for the treatment of diphtheria:—B Oil of turpentine, 15 grammes; spiritus ætheris, 1 gramme. This mixture is given three times a day. Every two hours one tablespoonful of a 2 per cent. solution of salicylate of soda is administered, and a gargle with a solution of chlorate of potash. M. Roese employed this treatment in sixty cases of diphtheria. The number of cases which proved fatal was only 5 per cent.

TREATMENT OF DIABETIC COMA.

To combat the acidity of the organic fluids in diabetic coma, Dr. Jaccoud recommends saline purgatives, and large doses of alkaline substances. Inhalations of oxygen and subcutaneous injection of ether are also beneficial. Excessive fatigue and digestive disturbance should be guarded against; they have a considerable effect in causing diabetic coma. An exclusively meat diet should be avoided. The acid impregnation of the organism (the usual characteristic of diabetic coma), is betrayed by the presence of oxybutyric acid in the urine. This substance is easily decomposed into acetone.

ELECTRIC ILLUMINATION OF THE BLADDER.

ELECTRIC cystoscopy is beginning to be of use in practical surgery. On Wednesday last, at St. Peter's Hospital, a female patient under the care of Mr. Heycock, who had suffered for some time from vesical hæmaturia, was examined with Leiter's incandescent-lamp cystoscope, recently described in these pages by Mr. Hurry Fenwick. A growth the size of a walnut, covered with phosphatic incrustations, was plainly seen on the left side of the trigone. The position, aspect, and character of the growth were immediately confirmed by digital exploration after dilatation of the urethra. Mr. Fenwick has also, we learn, used the apparatus successfully in other cases of vesical tumour and in one of latent calculus.

DILATATION OF THE PYLORUS.

THE operation of dilatation of the pylorus for non-malignant stricture is still upon its trial, and surgeons will be interested to learn that the patient operated upon by Mr. Robert Haggard, of Hull, in March, 1886, has continued to improve since the report of the case was published in these columns (vol. i, 1887, p. 386). She is now, we are informed, perfectly well, and there has been no return of vomiting. The dilatation of the stomach continued for some time after the operation, but gradually subsided, and the organ is now apparently normal in size. The patient herself thinks so well of her state of health, that she has recently married. It may be remembered that at the time of the operation a pair of fine dressing forceps with long alligator blades were with some difficulty pushed through the stricture into the duodenum.

CARBONIC ACID IN DYSPNOEA AND COUGH.

SOME time ago, Professor Brown-Séquard stated that inhalation of carbonic acid gas produced anaesthesia of the larynx; Dr. Weill, of Lyons, moved by this statement, has made use of carbonic acid inhalations in dyspnoea, and finds that, whatever the cause, that distressing symptom is appreciably relieved. In phthisis the results were particularly good, an observation confirmed by M. Linossier (*Lyon Médical*), who said that both the difficulty of breathing and cough were quickly relieved by merely inhaling the gas given off from a glass containing a solution of bicarbonate of soda and tartaric acid in effervescence.

ROYAL METEOROLOGICAL SOCIETY.

AT the ordinary meeting of the Society, to be held by kind permission of the Council of the Institution of Civil Engineers at 25, Great George Street, Westminster, on Wednesday, March 21st, at 7 P.M., an address will be delivered by the President, Dr. W. Marce t M.D., F.R.S., on Atmospheric Electricity, illustrated by experiments; after which Mr. G. J. Symons, F.R.S., will make a short communication on "The Non-existence of Thunderbolts, elucidated by accounts of searches after them and the exhibition of specimens." The meeting will then be adjourned, in order to afford the Fellows and their friends an opportunity of inspecting the exhibition of apparatus connected with atmospheric electricity, including lightning conductors, photographs of lightning and damaged objects, and of such new instruments as have been invented and first constructed since the last exhibition.

DISPLACEMENT OF THE TESTICLE.

AT a recent meeting of the St. Petersburg Society of Russian Practitioners, Professor Vladimir N. Popoff showed (*Vratch*, No. 4, 1888, p. 75) a unique case of ectopia of the testicle in a patient aged 24. The scrotum was found to be normally developed, with the right testicle in its usual situation; but the left half of the scrotum was empty, while exactly at the root of the penis there was a swelling of the size of a walnut, covered with normal skin and containing an oval body which measured about four-fifths of the normal testicle, but felt somewhat softer. The patient said the swelling had been there since birth. He had, however, suffered in early childhood from an inguinal hernia, and Professor Popoff thinks it more likely that the displacement of the testicle developed under the influence of the rupture. The man's sexual power was formerly quite normal, but for about six months he had been impotent. Dr. Popoff could find no similar case in medical literature. Professor Wenzeslaw L. Gruber, the great Russian anatomist, who takes special interest in anomalies, considered the case unique.

ANOMALIES IN THE GENITALS OF IDIOTS AND EPILEPTICS.

IN the *JOURNAL* of February 25th appeared a review of Madame Sollier's work on the dentition of idiots. The result of a series of researches on the genitals of patients similarly afflicted was published in the *Progrès Médical* of February 18th. This task has been performed by Drs. Bourneville and Sollier. These observers found that certain malformations of the male organs were very frequent in 728 cases of idiocy which they examined. These malformations were phimosis, hypospadias, including the least aggravated form where the meatus lies unusually far back, in the normal site of the frænum, varicocele, atrophy or arrested development of the testicle, cryptorchism in various stages, and lastly club-shaped penis. The latter condition signifies a disproportionate size of the glans. The authors note that there is no evidence that this anomaly is produced by bad habits. We believe that they might have safely added that it represents a reversion to a lower type, like the flattened-out ears frequently seen in

idiots and weak-minded persons, and very characteristic of the cars of the higher quadrumana. The authors finally conclude as follows: 1. Idiots and epileptics present very frequent anomalies of the genitals, as proved by careful comparison with sane subjects. 2. These anomalies are least marked in epileptics who have not fallen ill till many years after birth. Their sexual potency, unfortunately, appears less impaired than in more aggravated cases, judging from the relative rarity of cryptorchism amongst them. 3. Atrophy of the testicle is slightly more frequent on the left side. 4. The physical and intellectual degeneration produced by epilepsy seems to exert a distinct influence on the production of varicocele, hardly ever seen in non-epileptic idiots. 5. Epilepsy beginning at birth produces a far more marked arrest of development, especially in the genitals, than when it appears later in life. 6. Idiots, epileptic or otherwise, frequently present a special club-shaped form of the penis, as above described.

ST. THOMAS'S HOME.

WE understand that there is a wide-spread feeling of dissatisfaction among London surgeons with the way in which the institution called St. Thomas's Home is conducted. It will be remembered that the easternmost block of St. Thomas's Hospital has been converted into a home hospital for paying patients; for an inclusive charge of eight shillings a day, they are provided with board, lodging, drugs, skilled nursing, and the services of a highly competent resident medical officer. It is alleged that no supervision whatever is exercised over the admission of patients, and that no inquiry is made as to their social or pecuniary circumstances. A very strong feeling exists that, under the guise of charity, a great injustice is being done to the medical profession, whose patients are, by extensive advertising, induced to enter St. Thomas's Home. It is said to be the practice, in surgical cases which are not treated by the resident medical officer, to call in some member of the St. Thomas's Hospital staff, who has to be satisfied with a reduced fee. Obviously the mere fact that many persons avail themselves of these facilities is no proof that they are deserving objects of this vicarious charity. There are in London a considerable number of nursing homes, which afford, at various rates, the advantages of a home hospital to patients who can there be treated by their own medical men, and there is a general opinion that a public charity like St. Thomas's Hospital ought not to go out of its way to compete for private patronage, and interfere with the ordinary relations existing between medical men and their patients.

DERMOID CYST OF THE MEDIASTINUM.

AT a recent meeting of the Berlin Medical Society, Dr. Loewenmeyer brought forward a tumour of this kind, rather larger than a child's head. It was removed from the body of a man who had been shown to the Society four years previously, his symptoms being then difficult to interpret. Apart from hæmoptysis and a moderate degree of pleuritic effusion on the left side, the attention was chiefly drawn at that time to a projection of the left side of the thorax, with loss of resonance, reaching from the clavicle to the sixth rib. The apex beat could not be felt over the cardiac region, but a thrill was noticed to the right of the sternum, also epigastric pulsation. A precise diagnosis was not made. The patient improved somewhat in hospital, and then went out and worked for a few years regularly, but no symptoms of pressure came on till quite recently, when severe recurring attacks of dyspnoea and cyanosis quickly induced a fatal result. The necropsy revealed a tumour occupying the greater part of the left half of the thorax. Anteriorly it was in contact with the chest wall, having pushed the heart entirely over to the right. Professor Virchow had examined the tumour, which contained in its interior cysts lined with epithelium and filled with soft sub-

stance of gelatinous consistency, but the outer and firmer portion of the tumour was composed of dermoid products, namely, epidermis, hair, fat. Cartilaginous plates were also found. Evidently there had existed abnormality of the chest wall in the embryonal stage of existence of the patient, so that part of the integument had been displaced inwards, and part of the respiratory apparatus outwards, at the time of closure of the thorax.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

AT a meeting of the Medical Sickness, Annuity, and Life Assurance Society, held on Wednesday, March 14th—present, Mr. Ernest Hart, in the chair, Dr. de Havilland Hall, Mr. S. W. Sibley, Mr. Noble Smith, Dr. Major Greenwood, Mr. F. Wallace, Mr. J. Brindley James, Mr. E. Bartlett—it was reported that seventeen proposals for membership had been received during February, sixteen of which had been accepted after due examination; £146 had been paid during the month in sickness pay for cases of locomotor ataxy, pulmonary disease, severe pneumonia, compound fracture, vesical calculus, etc. There was a sum of £2,000 surplus reserve available, £1,600 of which was ordered to be invested in municipal bonds at $3\frac{1}{2}$ per cent., making a total invested reserve of over £22,000. It was stated that £5,000 of the reserve which had been invested in corporation stocks showed an improvement in market value to the extent of £514, and that the other investments of the Society were in an equally healthy state. Inquiry was ordered into one or two claims in respect to which apparent irregularities had occurred. It was mentioned that since the starting of the Society in 1884 over 1,000 candidates had sent in proposals for membership. Much satisfaction was expressed at the continued prosperity and growing professional usefulness of the Society. Forms of application and copies of the rules can be obtained of the Secretary, Mr. C. J. Radley, 26, Wynne Road, Brixton S.W.

MORTALITY OF MODERATE DRINKERS.

SOME light is thrown on the vexed question of the superior healthfulness of abstinence or moderate drinking by recently published returns. The United Kingdom Temperance and General Provident Institution has two sections of lives. The one section consists of abstainers only; the other of non-abstainers, known drunkards being excluded. During the period of 21 years the number of expected deaths in the moderation section was 5,785. Only 164 fewer deaths actually occurred. The expectancy among the abstaining assured was 3,655, and the deaths amounted to 1,076 less. There is, therefore, the enormous deficiency in favour of teetotal survivors beyond expectancy of fully 26 per cent. The teetotal assured have received bonuses, on an average 24 per cent. higher than have accrued to the restricted drinkers. Authentic returns of the time during which members of friendly societies have received benefit tend to show the comparative freedom from incapacitating illness of abstainers. The *Rehabite Directory* for 1887-8 (quoted by the *Wiltshire County Mirror and Express*) gives some interesting comparisons. Between 20 and 60 years of age the Salford Unity of Rehabites (all abstainers) show only 48 weeks, as against 59.6 weeks of the Manchester Unity of Oddfellows, a superiority of 11.6 weeks. Between 60 and 70 years the Rehabites had 50.1 weeks to 62.5 weeks of the Oddfellows, a difference of 12.4 weeks. Grouping these figures together, the Rehabites had 98.1 weeks as against 122.1 weeks of the Oddfellows, a gain of 24 weeks. The abstaining followers of the son of Rehab also come out well compared with the Foresters. From 20 to 70 years of age they suffered from 98 weeks of ill-health, as opposed to 126.3 weeks among the Ancient Order of Foresters; between 70 and 80 years, from 122 weeks as opposed to 148.2 weeks among the Foresters. Collecting these returns together, the Rehabites

required financial benefits during 220 weeks, and the Foresters during 274.5 weeks, a difference in favour of the Rechabites of 54.5 weeks. There can be little doubt as to the general tendency of these striking tables in favour of the healthfulness of abstaining temperance.

HOW A BLIZZARD KILLS.

A CURIOUS observation has been made from a study of the condition in which the victims of the blizzard, which recently swept over Indiana and a wide tract of the North American continent were found. It seems that death was due not to the cold, but to suffocation; the unparalleled suddenness and extent of the fall of temperature converted the snow into ice crystals, which were ground by the gale to a fine, dry ice-dust, and the air was thus rendered quite unfit for respiration. This would make the effect of the blizzard analogous to that of the dreaded sand storms of the Sahara. It is stated that the number of deaths, so far from being exaggerated, has been a good deal understated by the local newspapers.

SULPHUROUS INHALATIONS FOR PHTHISIS.

A SERIES of observations has recently been made on a method of treating pulmonary tuberculosis, which, if not curative, would appear to possess a beneficial power over the progress of this dread malady. The method consists in the systematic inhalation of an atmosphere impregnated with the fumes of sulphurous anhydride (SO_2); and several ingenious plans of obtaining a constant supply of the gas have been devised, the best of which is a lamp constructed to burn bisulphide of carbon. The simple plan of burning flowers of sulphur in a closed room can, however, be resorted to if desired. Under its influence, it is said, the expectoration becomes more liquid, the mucous surfaces are relieved from the irritation caused by the presence of mucopurulent secretions, and the patient is spared the fatigue of violent paroxysms of cough. In a certain number of favourable cases the improvement in the general health which follows is reported to be sufficient to allow of the cicatrization of cavities and the subsidence of the more disquieting symptoms. The irritating effects of the vapour may be mitigated to some extent by burning opium and gum benzoin at the same time. Some two hundred observations have already been recorded, and the results have been sufficiently good to warrant a more general trial. Caution is advisable in the quantity of the gas, which should not exceed a certain proportion, which must be ascertained by close supervision of the patient during its administration.

CEREBRAL HYGIENE.

THE science of hygiene has accomplished so much good for society, that every one must look to its further development as an object to be desired by all well wishers of mankind. We desire here to refer to a special branch of hygiene which seems to call for more consideration than it has received at the hands of sanitarians. *Mens sana in corpore sano* is the wish of every man, and it is our work to discover the conditions under which this is to be attained and preserved, as well as how to avoid typhoid fever and small-pox. We possess already much knowledge upon these matters, but we need fuller and more precise information; overwork and constant worry lead to brain fever, but we want to know exactly how such agencies produce their effects; we need to formulate the physical signs of fatigued brain exhaustion, and to collect proofs as to the exact nature of their more common antecedents. The signs of rickets are often found in those who suffer from epilepsy, recurrent headaches, and other neuroses; but the exact causal connection has not to be demonstrated, and the frequency of such causation needs to be shown by large bodies of statistics. Syphilis, both

congenital and acquired, may produce brain disease, but how common this cause is we do not know. It is a matter of common observation that climatic and atmospheric conditions affect the working condition of the nerve system; some men work best in warm weather, others have most strength when it is cold. Dr. Warren P. Lombard has contributed an elaborate article on "the variations of the normal knee-jerk, and their relation to the activity of the central nervous system" in the *American Journal of Psychology*, and has there shown the relation of knee-jerk to atmospheric conditions; such exact observations are very important. What is the average strength and capacity for work in a man's nerve system, and how may it be estimated? There is a widely spread opinion that modern civilisation and social pressure have caused some degeneration of brain power, and that insanity and neuroses are on the increase; this is a question of vital importance to us. The effects of present systems of education on the brains of children may not be all for good, yet their object should be to aid cerebral evolution. It would be very interesting to have some exact information as to the brain condition of a large body of school children, founded upon observations carefully carried out.

EAST END SWEATERS.

A NOVEL but by no means an insignificant application was made recently to a magistrate at Thames Police Court, on behalf of an organised trade society of East End tailors by its secretary, himself a tailor, that proceedings should be taken in respect to the insanitary condition of 2,000 dwellings used as sweaters' dens. The complainant stated that he had a right to make the application, because he had reason to believe that the local authorities would not take any action in the matter, although they were fully cognisant of the evil. It would be, in our opinion, rather delicate for a magistrate to accede to such a course without some deliberation, because there was no evidence to show either the existence of 2,000 dwellings used as sweating dens, or that the administration of sanitary law with which local authorities are charged has been neglected to the extent stated. We have had ample proof, however, of the weakness of existing Acts on labour to grapple with this evil in places where adult labour only can be found, and we have also had an exposition of the inattention of local authorities to enforce cleanliness in those places wherein their several jurisdictions lie. But, whatever view be taken of the application, it seems clear that the sweated men and women in the East End are availing themselves of the various revelations lately made by official reports and declarations made in the House of Lords to rid themselves of the bondage under which they groan in having to work in such filthy places. It is singular that the persons complaining are not of the immigrant class, but London born, and it is they who cry out loudest against immigration, although their parents were introduced here under circumstances now so loudly complained of by their children. Mr. Slade stated that if any evidence could be adduced to prove that local authorities would not act after application to them, he would then grant process; but the Act of 38 and 39 Vict. cap. 55, known as the Public Health Act of 1875, says that the local authority has power to cause inspections to be made of any house as to the existence of any nuisance, and such inspection to be between 9 A.M. and 6 P.M.; and if any person make a written complaint that a nuisance exists, the local authority may authorise their officer to inspect, after twenty-four hours' notice, or without notice in case of emergency. A house is defined to include factories and other buildings in which persons are employed in any manufacture, trade, or business. There is nothing to show that other steps can be taken by a complainant, unless power such as is asked for here can be granted under 11 and 12 Vict. cap. 43, upon oath of complainant that by his personal application in writing;

he failed to move the local authority. It is nothing short of a public disgrace that these 2,000 dwelling-houses should be converted into filthy dens of workshops, where not only are persons assembled for daily work, but where the rooms are occupied by the families of immigrants or of workers for the sweaters. There have been reports enough for years past to show that this great evil is not abated, and it is high time that the Acts, now seemingly inoperative, should be made living factors by defining the duties of all local authorities, and making it incumbent upon the inspectors under the Local Government Board, especially the medical staff, to see that local officers do their work as men ought who are entrusted with important duties. The filthy condition of these workshop dens and dwelling-houses, which were built for bedrooms in small houses, where the atmosphere is pestiferous and over-crowding excessive, ought not to be allowed; such places are not to be found amongst our country people, but entirely amongst the foreign population, who import *inter alia* their dirty habits to the East End, at present stocked with at least 30,000 men, women, and children of foreign Jews. If the applicant can make good his case, and can show, as a deponent to facts, that the local authorities have failed in their duty, it will be good *prima facie* evidence that higher powers should be evoked to aid sufferers who seem resolved upon asserting their right as ratepayers to ask that the servants of the vestries be called upon to do their duty even though vested interests should, in some cases, intervene.

NURSING IN BURMAH.

THE first annual report of the Burmah Branch of the National Association for Supplying Female Medical Aid to the Women of India is a record of the important work which the Countess of Dufferin's Fund has, by its extension, been able to accomplish at Rangoon for Burmese women. Failing to obtain the use of the female wards of the Rangoon General Hospital as a maternity hospital, a large bungalow, centrally situated, was rented and opened as a hospital in April of last year. Accommodation has now been provided for 15 in-patients, and the total number of patients up to November 30th, 1887, was 142; of this number, 88 were obstetrical cases; 5 patients died. The Local Government makes an annual grant of 4,000 rupees, and a like sum has been promised by the Municipal Committee of Rangoon. Obstetric cases, except under particular circumstances, are received at the Lady Dufferin Hospital instead of at the General Hospital. Dr. Maria Douglass is the resident medical officer and superintendent, and Brigade-Surgeon Griffith consulting medical officer. It has been decided to grant six scholarships of 10 rupees a month to assist as many needy pupils. The difficulties of the teacher are necessarily great, for no books bearing upon the subjects of instruction have hitherto been printed in Burmese. Of those chosen by the committee for translation, one, *First Aid to the Injured* (St. John Ambulance Association), has already appeared. Dr. Barnes's *Manual for Midwives* and a book on nursing are being prepared for the press. Premises of grants in aid of the education of midwives have been received from Prome, Pegu, and Paungde. The honorary secretary is Dr. T. F. Pedley.

SCHOOLS AND INFECTIOUS DISEASE.

DR. TATHAM, the health officer of Salford, has done well to call public attention once more to the dangers resulting from the attendance at school of children who are suffering from infectious disease, who have not sufficiently recovered from an infectious disease, or who are still suffering from ear discharges or sore throats. He points out that scarlet fever, diphtheritic sore throats, whooping-cough, etc., are at the present time very prevalent, and that there is reason to believe that they are being extensively propagated through the instrumentality of schools. A very large

proportion of the sore throats occurring amongst children of school age are communicable from person to person, and there is ample evidence that children sent to school before they have perfectly recovered from scarlet fever or diphtheria, or whilst their throats are still in an inflamed condition, have, again and again, been the means of communicating disease to their school-fellows. The same remark applies to children who have not perfectly recovered from whooping-cough. School managers and teachers are often blamable, especially when they disregard, or do not fully recognise, the extent of the danger, and when, with an eye to fees and the government grant, they encourage the too speedy return of children to school after illness. But more generally the real culprits are the parents (and by no means the humblest of those only) who persist in sending their children to school solely to get them out of the way, and without consideration of their power of doing mischief to others. Dr. Tatham, therefore, advises managers of schools to refuse admission to any pupil (1) who is suffering from a sore throat, or from discharge from the ears, or (2) who has only recently or but imperfectly recovered from scarlet fever, small-pox, diphtheria, or whooping-cough, or (3) who comes from a house in which either of these diseases prevails, although the pupil himself may be apparently well, unless a medical certificate is produced to the effect that the pupil may return to school with safety to his fellows. It may be well further to draw attention to the provisions of Section 126 of the Public Health Act, 1875, which prescribe a heavy penalty against the wilful exposure of persons whilst suffering from any dangerous infectious disease, and it is desirable likewise to let it be generally known that the sending of a child to school whilst imperfectly recovered from such a disease constitutes exposure, and would render the parent or guardian liable to punishment under the Act.

HAYA POISON AND ERYTHROPHLŒUM.

DR. F. GOLDSCHMIDT, of Nürnberg, has made a further trial of the Haya poison (*Centrab. f. Klin. Med.*, No. 7). He confirms Lewir as to the effects of the above doses, but tried still weaker dilutions—namely, $\frac{1}{2}$ per cent. Instillations of this strength caused perfect anaesthesia within ten or fifteen minutes, and the connective tissue and cornea could be treated in any way, even with the actual cautery, without giving any pain; but the effect only lasted three or four hours, then gradually declining, whereas the large dose took effect for two days or two days and a half. The anaesthesia could be prolonged at will by a daily instillation of a small dose and this fact is important to notice. There was only a slight temporary irritation of the conjunctiva after the $\frac{1}{2}$ per cent. instillation; the pupil did not widen, intra-ocular pressure was not increased, and no corneal turbidity ensued after several days' use of the solution. The iris was less sensitive after several applications, but could not be rendered perfectly anaesthetic. The anaesthetic effects were then tried in the out-patient department (Dr. v. Forster's eye patients), and were found to be excellent. A drop of $\frac{1}{2}$ per cent. solution applied to the eye induced in fifteen minutes perfect insensibility of the cornea and conjunctiva lasting three or four hours. There was at first slight conjunctival irritation, also a feeling of heat in the eye, soon giving place to anaesthesia. If the eye was already inflamed the irritation was still greater. Splinters of iron in two cases were extracted from the eye under its use, and the lachrymal canal was in one case set up without any pain. The anaesthesia was accompanied by vascular dilatation, not, as in the case of cocaine, by vascular contraction. Hence Goldschmidt thinks that the new drug will have a less extensive field of application than cocaine, but, on the other hand, it has not the effects on the pupil which cocaine has, and does it affect accommodation or intra-ocular pressure. Whether it can be used for iridectomies and such-like deeper operations of experience must determine. As to its action on the buccal and pharynx

geal mucous membrane, 1 per cent. solutions had no effect; but it must be remembered that cocaine also requires to be used here in much stronger doses than when instilled into the eye. Goldschmidt obtained some of the drug from Herr Weigle, Nürnberg, but the price is very high at present. Professor Liebreich has a long article on this subject in the *Berliner Klin. Wochenschrift*, February 27th. He is of opinion that the Haya poison is in reality a snake poison from the *Naja Haya* (snake), and that the specimen examined by Dr. Lewin was accidentally contaminated with erythroplœum cortex. Professor Liebreich bases his opinion on the fact that the poison only acted when injected beneath the skin; as to the frogs rendered insensible to pain by it, he declares that they pass into a "leuco-phlegmatic" condition in captivity, already described by Du Bois Reymond, and are insensible to injuries; further, that undoubted Haya (snake) poison supplied to him by Professor Robert Koch caused the local anæsthesia of the eye, and other physiological results attributed by Lewin to erythroplœum; lastly, that a great many substances cause local anæsthesia, especially those which coagulate the blood—for example, iron perchloride, dialysed iron solution, resorcin. Liebreich is somewhat severe in terming some of Lewin's conclusions "a mixture of hypothesis and erroneous observation." Finally, Mr. T. Christy has written to Herr Lewin to say that the name "Haya" was given because a Mr. Hay, of Aden, procured the substance.

SCOTLAND.

GLASGOW TRAINING HOME FOR NURSES.

THE annual report of this Home shows that it continues to grow in the estimation of medical men and of the public. From it nurses had been sent out to 448 cases during the year, an increase of 31 over the preceding year; while 216 patients had been treated in the private hospital, 157 of whom required to undergo operation. The total expenditure was a few pounds short of £4,000. The institution is now practically self-supporting, and during the fourteen years of its existence no less a sum than £26,000 had been earned as fees for nursing.

LANARKSHIRE LUNACY DISTRICTS.

THE General Board of Lunacy has decided to divide the Glasgow Lunacy District, which embraces the whole county of Lanarkshire, into four districts. Of these, three—that of the City of Glasgow parish district, Bavour parish district, and Govan Combination parish district—are mainly town districts, the fourth embracing the remainder of the county of Lanark.

BLIND AND DEAF-MUTE PERSONS IN SCOTLAND.

By the latest return, it appears that the number of blind and deaf-mute persons in Scotland assisted from the poor-rates was, on May 14th last, 987, of whom 345 were blind males and 421 blind females, while of deaf-mutes there were 102 males and 119 females. Of the total number, 352 were housed and 635 were in receipt of outdoor relief. The cost to parochial boards for each adult maintained in special institutions varied from £10 to £22.

MILK ADULTERATION.

At the Glasgow Sheriff Court, on March 9th, a particularly bad case of milk adulteration came up for disposal. The analysis showed, in the case of cream, 22 per cent. of added water and 10 per cent. of boiled starch added for thickening purposes; and in the case of sweet milk, 3 per cent. of water and 6 per cent. of boiled starch. The sheriff marked his sense of the grossness of the fraud by imposing a fine of £10, with the alternative of thirty days' imprisonment.

POISONING BY CARBOLIC ACID.

A CHILD, 6 years of age, died at Cambuslang on March 9th from the effects of drinking carbolic acid. The boy was ill with typhoid fever, and had been left alone for a short time. During this time he got up and drank part of the contents of a bottle of carbolic acid obtained for disinfection. He died in four hours, having speedily become unconscious.

INFECTIOUS DISEASES IN EDINBURGH.

THE daily return of patients in the City Hospital, Edinburgh, submitted to the Town Council on Tuesday, showed the number was the lowest for a year. There were 91 patients under treatment—53 adults and 38 children—and the cases consisted of 36 of scarlatina, 21 of measles, 14 of erysipelas, and 10 of enteric fever. This is in marked contrast to the state of matters a year ago, when it was scarcely possible to accommodate the great number of cases of scarlatina requiring admission.

ST. ANDREWS UNIVERSITY STUDENTS AND DUNDEE UNIVERSITY COLLEGE.

By a majority of votes the Students' Representative Council of St. Andrews University have given the cold shoulder to the proposed amalgamation with Dundee University College. A meeting for the discussion of the subject was held in one of the class-rooms on Monday, when the following resolution was proposed and carried by a large majority of votes:—"That this meeting strongly protests against any proposal which would interfere with the integrity of St. Andrews University, as amalgamation with University College, Dundee, would most certainly do." By amalgamation, the resolution meant any arrangement whereby Dundee University College should become part of the University of St. Andrews, and its officials have a share in the management of the University. A counter motion was proposed, but was defeated by eighty votes to eighteen. Fortunately for both institutions and their probable united future, the resolution passed is of ephemeral and purely academic interest. Any suitable arrangement by which a proper School of Medicine and Science in Dundee may become an integral part of St. Andrews University associated with it in the teaching of medicine and granting of degrees would be of infinite value to both, and would utilise the large field of Dundee for clinical purposes and of St. Andrews University for culture.

THE SCOTTISH UNIVERSITIES' BILL.

A DEPUTATION, representing the University Council Associations of Edinburgh and Glasgow, waited on Lord Lothian at Dover House on March 9th. The deputation consisted of Mr. McKie, advocate, and Dr. Littlejohn, of Edinburgh, and Drs. McVail, Duncan, J. K. Kelly, and Knox, of Glasgow, with the Secretary and Treasurer of the Glasgow Association. The deputation was introduced by Lord Wemyss, and accompanied by an imposing array of Scotch Members of Parliament. Mr. McKie and Dr. McVail, on behalf of the Associations, which now number fully 2,000 members, urged that the University Council under the Bill should be representative of the Senate, the graduates, and the public in equal proportions, and that the Court should be made the University governing body, with sole control of the funds. Dr. McVail urged that power should be given to the universities to affiliate colleges. Lord Lothian, in reply, expressed the belief that the Bill would be found generally to meet the views expressed in a satisfactory manner. He indicated his desire to have the students represented in the Court, with which Mr. McKie and Dr. McVail expressed sympathy. He also indicated that the Bill would be made public in a few days.

MYSTERIOUS EPIDEMIC IN GLASGOW.

Dr. RUSSELL, Medical Officer for Glasgow, is investigating an epidemic disease which has appeared in the Roman Catholic Industrial Schools there. (A telegram received from a high authority in Glasgow states that a large number of boys have been attacked in rapid succession, and four have died. The girls' school, which is a separate building, but with a kitchen common to girls and boys, remained exempt till very recently, when two girls employed in the kitchen became infected—it is supposed by direct contagion. Many of the sick have been removed to the Belvedere Hospital, but as yet no information has been obtained tending to elucidate the nature, or cause of the epidemic, which has some points of resemblance to a very malignant type of influenza, and is often attended by pneumonia, but not by any characteristic eruption, the temperature often rising to 105°, or even higher, but with very marked remissions, not distinctly periodic. In two fatal cases a *post-mortem* examination was made, but nothing very distinctive was elicited. The school is in close proximity to an old graveyard, and otherwise has been regarded as under suspicion from a sanitary point of view. Dr. Russell is preparing a report on the whole subject, and an inquiry is also being conducted according to instructions from the Home Office.

IRELAND.

BELFAST DISPENSARY DISTRICT.

THE Local Government Board has confirmed the decision of the Belfast Dispensary Committee dismissing Dr. Spedding from his position as one of the dispensary officers for Belfast.

OVARIOTOMY IN BELFAST.

A GREAT revival of the operation of ovariotomy has taken place in Belfast within the last two or three years. At the last meeting of the Ulster Medical Society, a very satisfactory series of successful cases performed during the past twelve months was reported, the operators being Professor Sinclair, Dr. Dempsey, Dr. Byers, Dr. Kennedy Wheeler, and Dr. Mackenzie.

BELFAST MEDICAL STUDENTS' ASSOCIATION.

At a recent meeting of this Association, the President reported the result of an interview with Dr. Dunne, secretary of the Royal University, regarding the grievances of the medical students of the Belfast School of Medicine, and stated that his representations had been most courteously received, and that the University had agreed to concede some of the most important points in dispute. A long discussion ensued on some points regarding clinical teaching in Belfast, but finally the whole question was adjourned for further consideration.

FEEES TO MEDICAL OFFICERS OF HEALTH.

A CASE interesting to medical officers of health was decided in the Appeal Court, Dublin, on Saturday, March 10th. The case was brought by the Irish Medical Association, on behalf of Dr. Roulstone, against the Guardians of the Strabane Union. The Court of Queen's Bench had already ruled in favour of the defendants. The question turned upon the construction of the following rule: "We, the Local Government Board, do hereby, in the cases falling within the provision recited, approve of such rate of remuneration, not less than £1 ls., and not exceeding £2 2s., a day, or part of a day, as may be fixed by the sanitary authority, in each case of legal proceedings as aforesaid." The plaintiff contended that the fee was to be paid for each case, while the defendants held that it was only to be paid for the day's attendance. The Court of Appeal now gave judgment, uphold-

ing the decision of the Court below, namely, that the rule prescribes a payment per day. It appears certain that the rule, although clumsily drawn, does mean this. The phrase is "per day," "in each case of legal proceedings as aforesaid." But the discussion suggests that the Local Government Board should have been more liberal in its allowance. The fee "per day," which may mean that the witness has to travel a long distance and give evidence in fifty cases for £1 ls. is a preposterous one. Imagine a barrister being paid in the lump in this fashion. We would suggest that the Irish Medical Association should now seek to have this rule revised. The medical witness ought to be paid a fee of £2 2s. for the first case, and at a smaller rate for those which succeed at the same sitting. Perhaps the new Medical Commissioner, whoever he may be, will signalise his advent by a more liberal view of the value of medical services. When a medical man permits such an estimate to be put on the work of his professional brethren it is hard to expect that others will view it differently.

THE LOCAL GOVERNMENT BOARD COMMISSIONERSHIP.

THE statement which we made last week, on the authority of a Dublin telegram, that Dr. Henry Fitzgibbon had been appointed to succeed the late Dr. Croker King as Medical Commissioner of the Local Government Board, was incorrect; it had, however, some foundation. There is no doubt that the appointment was determined upon, but an unwary divulgence of the fact brought out very strong opposition from the Dublin newspapers, and further set in motion an active member of Parliament, who protested against the intentions of the Government. The original determination has not been carried out, and it is now stated very confidently that Dr. F. F. Maccabe is to be the new Commissioner. To this gentleman there can be no possible objection on the score of his entire fitness for the office. He has been a dispensary medical officer and an inspector under the Local Government Board. He is now medical member of the Prisons Board and Inspector of Reformatory and Industrial Schools. He is generally regarded as a very able administrator, and he is certainly an experienced official. The mode of making these appointments is a very bad one, and in this case it has inflicted a gross injury upon a candidate. Dr. Fitzgibbon was selected, and then as quickly "dropped," owing to political pressure. It is the business of the Government officials who confer these appointments to make them on merit alone, and not for reasons of friendship or influence. There ought to be no undue haste, but a deliberate weighing of the abilities of every candidate before a decision is arrived at. Of course, it is hardly necessary to say, this is not done. Very often it is "first come, first served;" or the importunities of a pushing friend end in carrying away a prize which ought legitimately to go to someone who better deserves it. Even such high personages as Cabinet Ministers are paid by the country to do their duty without favour or affection. It does not add to our respect for them when we find that they must be reminded of this elementary fact so frequently. On March 15th the *Irish Times* announced on authority that "the statement of the appointment of Dr. Maccabe is premature and unauthentic, and will in all probability be found incorrect." But our Dublin correspondent telegraphs that the belief is nevertheless very general that Dr. Maccabe has been appointed, and that Dr. O'Farrell, Local Government Inspector, will succeed him on the Prisons Board.

THE LATE DR. DELAHOYDE, OF DROGHEDA.

DR. DELAHOYDE, the oldest medical practitioner in Drogheda died recently, aged 78. He had for many years held the post of medical officer to St. Mary's Dispensary, Drogheda Union, but resigned last January. It was proposed to present him with a

retiring allowance, but pending the consideration of the matter his death took place. The guardians last week adopted a vote of condolence with the deceased gentleman's family.

THE WATER SUPPLY OF BELFAST.

THE alarming reports which have lately been in circulation regarding the quality of the water supplied to the inhabitants of Belfast are not corroborated by the report just issued by the borough analyst, Dr. Hodges, which is somewhat reassuring in character. Six specimens were submitted to him for examination, and have not been found to differ materially from those examined in previous years. They show, however, an increase of solid matters, both mineral and organic, but these "are chiefly in suspension, and are rapidly deposited on the water being allowed to remain at rest." Dr. Hodges adds that the amount of free and albuminoid ammonia present, and the absence of nitrates (except a trace in one specimen), also the small amount of chlorine, are satisfactory proofs that the organic matter is mainly vegetable in origin. One specimen he regards with suspicion, as it shows an excess of albuminoid ammonia. He concludes by stating that the water is one which is greatly improved by subsidence, and would be still more improved by efficient filtration. The prolonged and unprecedented drought has greatly increased the difficulties of the Water Commissioners, who have in the past earned public confidence by their zeal and efficiency. They are pushing forward the new extensive waterworks as rapidly as possible, and hope to have at least a portion of them in operation by next July or August. Fortunately, a considerable rainfall has now come to relieve their most pressing necessities.

DEGREES FOR LONDON MEDICAL STUDENTS: THE FORTHCOMING ROYAL COMMISSION.

LORD CRANBROOK'S official statement in the House of Lords fore-shadows the early appointment of that Royal Commission for which we asked from the first to consider the applications of the Colleges of Physicians and Surgeons of London for a degree-granting university, and the collateral applications of the Teaching University of London and of University and King's Colleges for like powers. In some quarters this decision of the Government has caused great disappointment, for some at least of the delegates of the two Colleges were led to believe that they had only to ask the Privy Council for the powers which they sought, to obtain them; and if this application had been expressed in a more constitutional and well considered scheme, that anticipation might well have been realised. We pointed out from the first that such an application could only succeed under the conditions giving to the new degree-granting power a suitable representative shape, and creating university powers with due regard to broad and just principles, and without aiming at a special monopoly.

Those counsels did not prevail, and the powers were sought in such a form as jeopardised the principle involved. Under the circumstances the appointment of a Royal Commission became absolutely necessary, and its early issue is very desirable. This will of course put an end to the proposed legal arguments, which would otherwise have been held before the Privy Council, and there can be little doubt that the much wider basis of inquiry which will be opened by the investigations of a Royal Commission, will lead to a broader discussion and a more valuable result than could otherwise have been attained. As to the *personnel* of the new Royal Commission, many rumours are in circulation, none of which have, we believe, at present any solid foundation. Among those mentioned are Lord Selborne, Lord Herschell, Sir Francis Sandford, Sir Lyon Playfair, Mr. Mundella, Mr. Plunket, and representatives of the London University and the two Colleges; but speculations as to the constitution of the Commission are of course complicated by the doubt whether any or which of these gentlemen would be willing to serve. For our own part we should be glad to see such men as Lord Derby and Sir Henry James acting on the Commission. It is above all things desirable that it should be weighty and impartial, and not likely easily to yield to the powerful personal influences which may probably be brought to bear upon it.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

March 15th, 1888.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

ELECTION OF MEMBERS.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTERPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887 will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.—A conjoint meeting of the above districts will be held at the Grand Hotel, Brighton, on Thursday, March 22nd. F. W. Salzmann, M.B.C.S., will preside. Meeting at 3.30 P.M.; dinner at 5.30 P.M.; charge 6s., exclusive of wine. The following communications are promised: Dr. Starling: A case of Fibroid Induration of the Stomach (with specimens). Mr. Howard Marsh: Recovery after Laparotomy for Intestinal Obstruction; with Remarks. Dr. Mackey will show: Cases of Lupus Erythematosus, etc. Gentlemen desirous of contributing short papers or cases, should write at once to the undersigned or to Dr. Gostling, West Worthing.—T. JENNER VERRALL, Honorary Secretary, 97, Montpellier Road, Brighton.

SHROPSHIRE AND MID-WALES BRANCH.—The next meeting of the Branch will be held at the Salop Infirmary, on Tuesday, March 27th, at 3 P.M. Mr. W. Eddowes in the chair. Gentlemen wishing to exhibit or read notes of cases, or to bring forward subjects for discussion, are requested to communicate with the honorary secretary, EDWARD CURETON, Shrewsbury.

SOUTHERN BRANCH: SOUTH WILTS DISTRICT.—The next meeting of this Branch will be held at the Bath Arms, Warminster, on Wednesday, March 21st, at 4 o'clock. Dinner at 6 o'clock. Tickets 5s., not to include wine. Members intending to be present, to communicate with the honorary secretary, H. J. MANNING, Laverstock, near Salisbury.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.—The next meeting of the members of the Essex District and their friends will be held at the Saracen's Head Hotel, Dunmow, on Friday, March 23rd, at 2.30 P.M. R. B. Marriott, Esq., Swaffham, President of the Branch, will preside. There will be high tea at the hotel at the conclusion of the meeting. Trains leave Dunmow for Braintree, Colchester, and Ipswich at 6.35, and for Stortford and London at 6.45. The following papers have been promised—R. B. Marriott, Esq. (President): Short Notes on a few cases of Stone in the Bladder. Dr. F. de Havilland Hall (Lon-

don): Remarks on certain Remedies employed for the relief of Pain and Spasm. R. C. Lyle, Esq. (Dunmow): Remarks on two unusual cases of Constipation. Gentlemen wishing to be present will kindly communicate to that effect with the Honorary Secretary on or before Wednesday, March 21st.—C. E. AUBORT, Honorary Secretary.

NORTH WALES BRANCH.—The intermediate meeting of this Branch will be held at the Pwll-y-crochion Hotel, Colwyn Bay on Tuesday, March 20th, at 2.45 P.M., Charles Williams, Esq., President of the Branch, in the chair. After the usual formal business the President will deliver his address, postponed from the annual meeting. The following papers and communications will be read:—Mr. T. H. Bickerton: Two cases of successful Extraction of Foreign Bodies from the Eye. Mr. L. F. Cox: Climacteric Insanity. Dr. F. Inlath: A case of Hystero-Epilepsy of twenty years' duration treated by Removal of Uterine Appendages. Mr. Robert Jones: Some Common Errors in the treatment of Fractures. Dr. John Roberts (Menai Bridge) will show Pneumococci in the sputum of a case of so-called "Creeping Pneumonia." Mr. J. Lloyd Roberts: Disinfection. Mr. Richard Williams: Some remarks on the Removal of Nasal and Aurial Polypi. Dr. E. J. Lloyd will open a discussion as to the question of holding Consultations with legally qualified homoeopaths.—W. JONES-MORRIS, Honorary Secretary, Portmadoc, Baintree.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—An ordinary meeting of the Branch will be held at 198, Union Street, Aberdeen, on Wednesday, March 21st, at 8 P.M., Dr. Smith, of Kinnairdy, President, in the chair. Business:—1. Minutes, nomination of new members, etc. 2. Ballot for the admission of Dr. John Anderson, Elmhill House, Aberdeen; Professor Cash, Dee Street, Aberdeen; Dr. Hutcheon, Alford; Dr. George Mair, Crown Street, Aberdeen; Dr. Morrison, Rosieburn, Methlie; Dr. Stephen, Belhelvie; and Dr. Whitton, Aberchirder, as ordinary members of the Branch. 3. Communication from Council of Association ament fees payable to medical witnesses in criminal cases. 4. Dr. Gordon: Case of Complete Occlusion of External Auditory Meatus (exhibition of patient). 5. Dr. Gordon: Exhibition of Electrical Apparatus, including a Uretlral Endoscope and demonstration of its Use. 6. Dr. Mackenzie Booth: Case of so-called Spontaneous Combustion, with Photograph. 7. Dr. Edmond: Specimens of Disease of Liver.—ROBERT JOHN GARDEN, J. MACKENZIE BOOTH, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The spring meeting of this Branch will be held at Pontypridd about the second or third week in April. Members wishing to read papers, etc., are requested to send titles to either of the Honorary Secretaries by the end of March, in order that they may be inserted in the circulars.—ALFRED SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The next meeting of this district will be held at the North West Hospital, Kentish Town Road, on the evening of Wednesday, March 28th, at 8.30, when A. E. Durham, F.R.C.S., President of the Branch, will take the chair. Some interesting cases to the hospital will be exhibited. Dr. Hood will read a paper on Empyema following Pneumonia; or Clinical Notes on Membranous Sore Throat. The new committee of this district will assemble at 8 P.M. All members of the profession are welcome to attend.—GEORGE HENTY, M.D., Honorary Secretary, 30, Camden Road, N.

ADELAIDE AND SOUTH AUSTRALIAN BRANCH.

THE monthly meeting was held on January 26th, 1888. The President (Dr. DAVIES THOMAS) was in the chair, and the following gentlemen were present: Drs. Lawley, Gardner, London, Mackintosh, Mitchell, Poulton; Messrs. Aitken, Bickle, Clindening, Corbin, Finnis, Giles, Hayward, Lawrence, and the Honorary Secretary (Mr. Cleland).

New Member.—William Baly, M.R.C.S., was elected a member of the British Medical Association and of its South Australian Branch.

Case.—Dr. POULTON brought forward a man whose ankle he had excised for disease, the result being a useful joint.—Mr. CORBIN exhibited a patient suffering from exophthalmic goitre.—Dr. LONDON showed a case of buphthalmos in a little girl, a patient at the Adelaide Children's Hospital.

Excision of Cancerous Larynx.—Dr. GARDNER read notes of a case in which he had successfully removed the entire larynx for carcinoma, and showed the specimen. He had performed the operation twice, each time successfully. He thought sufficient data had not yet been collected, owing to the paucity of cases—not over 100 in all—to enable surgeons to decide whether the operation was a justifiable one or not. If Hahn's (of Berlin) success could be calculated on, namely, where one at least of his fifteen cases had had no recurrence of the disease after a lapse of seven years, the operation certainly would be justifiable. Unfortunately in Great Britain there was a prejudice against the operation, and he thought the ill-success was mainly due to climatic influences. The artificial larynx he recommended was a vulcanite one made by Dr. Woodburn for him, modelled after Dr. Foulis's original instrument.

Double Mouth.—Dr. LONDON read a brief account of a male infant who was under his care at the Adelaide Children's Hospital, and who lived to three months old. The patient had two mouths, separated posteriorly by a central pillar of the fauces, and leading into a common pharynx, but united anteriorly by a common

buccal orifice, to the upper border of which was attached the remains of the fused adjacent cheeks. These occupied a great portion of the mouth cavities, and extended backwards to the central faucial pillar. There were two tongues, which moved independently, and two pairs of jaws, considerably distorted in parts. There was a third central nostril. The division of the larynx was doubtful. No *post-mortem* examination was allowed.

BERMUDA BRANCH.

A GENERAL meeting of the Branch was held at the Town Hall, Hamilton, on Saturday, January 28th. Dr. PARK TUCKER, President of the Branch, occupied the chair. About twelve members and visitors were present.

Narcotic Inebriety.—By request of the Society, Dr. J. B. MATTISON, of Brooklyn, gave an address on the subject of narcotic inebriety. Attention was called to the increased use of opium, chloral, and cocaine, notably in France, Germany, and America. The genesis of the disease was a physical necessity in most cases. The speaker said in such cases his plan was to establish an entire narcotic disuse by regular reduction in ten days, meantime bringing the nervous system under the sedative influence of bromide of sodium in initial doses of thirty grains at twelve-hour intervals, increasing the dose ten grains daily, and reaching, if required, a maximum of 120 grains at the end of the withdrawal period. The resultant reflex irritation was treated by hot baths, cannabis indica, coca, and electricity, with a subsequent strengthening regimen. The prognosis was good as to recovery, but in most cases sooner or later there was a return to the narcotic due to a renewal of the original cause, or to other conditions beyond control.

Vote of Thanks.—A vote of thanks to Dr. Mattison closed the meeting.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

THE spring meeting of this district was held at the Queen's Hotel, Upper Norwood, on Thursday, March 8th, at 4 P.M., W. F. R. BURGESS, M.D., of Streatham, in the chair.

Next Meeting.—After reading the minutes of the previous meeting, it was proposed by Dr. THOMPSON, seconded by Dr. A. CARPENTER, and unanimously resolved, that the next meeting be held at Croydon on Thursday, May 10th, and that Mr. T. A. Richardson, of Croydon, be invited to preside.

Representative on Council.—Dr. John H. Galton, was unanimously nominated by the meeting to represent the Branch in the Council of the Association.

Mechanical Treatment of Joint Disease.—Mr. NOBLE SMITH gave a demonstration of recent improvements in the treatment of diseases of the joints, exhibiting numerous splints and other mechanical contrivances, and their mode of application in each particular case.

Possible Danger of Milk Diet.—Dr. ALFRED CARPENTER showed a hard mass of solid cheesy substance vomited from the stomach of a calf fed entirely on milk, and pointed out the possibility of a similar concretion occurring in patients restricted to milk diet.

Hysterectomy.—Mr. H. G. PLUMMER read notes of a case of rapidly-growing soft tumour of the uterus, which, even on abdominal section, seemed so fluctuating that it closely simulated an ovarian cyst. After removal of the uterus with the tumour and the uterine appendages (small cysts being found in the ovaries), the stump was fixed in the lower angle of the abdominal wound. The progress of the case was very satisfactory. The tumour was a myxo-myoma.

Dinner.—After the meeting fourteen members and visitors dined together.

ERRATA.—In the review of Dr. McVail's *Vaccination Vindicated*, published on March 10th, there is an error in the statement with regard to the Kilmarnock statistics. Instead of (p. 541, line 12) "small-pox was accountable for 91 out of every 100 deaths under 5 years of age," read "91 out of every 100 deaths from small-pox were under 5 years of age," also, in the concluding line of the first paragraph of the review, for "Royal Commission," read "Select Committee."

AMBULANCE CLASS, TOBERMORY.—Dr. Shaw, Glasgow Royal Infirmary, examined the ambulance class conducted by Dr. Maxwell, Tobermory, awarded a certificate of proficiency to every member of the class he had examined, and complimented them on the very satisfactory appearance they had made.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

On the Diagnosis of Carcinomatous and Tuberculous Perichondritis of the Larynx.—Syphilitic Conjunctivitis.

DR. M. HAJEK, assistant to Professor Schnitzler, reports, in a recent number of the *Internationale Klinische Rundschau*, a case of laryngeal disease which he had observed at the Vienna Polyclinic, with the view of showing that the differential diagnosis between cancer and tuberculosis of the larynx sometimes presented the greatest difficulty, even when every possible means of diagnosis was used. A man, aged 55, was, on June 15th, 1887, admitted, for the first time, into the wards of Professor Schnitzler for hoarseness, which had lasted three years, and severe dyspnoea, which had recently supervened. The patient had previously been treated by Dr. Mahl, of Lemberg, who gave the following particulars of the case:—"The patient had, in March, 1886, fallen ill with symptoms of simple laryngitis, and, from three to four months later, Dr. Mahl discovered a growth as large as a bean and having the appearance of a gooseberry, on the right vocal cord. He removed the growth with forceps and cauterised the seat of implantation with chromic acid for some days. The patient's voice greatly improved after the operation. Six weeks later the growth recurred, with vegetations on the edge of the cord. Owing to repeated chills to which the patient was exposed in the course of his daily work (he was a railway servant), considerable swelling of the right arytenoid cartilage, with gradual immobility of the right part of the larynx, also took place. The patient's condition grew worse from that time; cough, dysphagia, and dyspnoea gradually increased."

Laryngoscopic examination in the Vienna Polyclinic revealed the presence of considerable swelling of the epiglottis, and extensive swelling of both ventricular bands and the arytenoid cartilages, the right one being almost immovable. The vocal cords could not be seen, except the posterior end of the left one, which appeared to be moderately congested. The subglottic region could not be seen owing to the great narrowing of the rima glottidis.

External examination of the neck showed that the thyroid and cricoid cartilages were much thickened, and that the surrounding tissue was infiltrated. The cervical glands formed a tumour as large as a man's fist, which at one spot showed distinct fluctuation on the left side.

Examination of the lungs revealed the presence of catarrh of the apex, but the patient had never suffered from hæmoptysis, and there was no tuberculosis in his family. The sputum proved to be free from tubercle bacilli after repeated examinations. The patient had never suffered from syphilis.

Taking all these facts into account, what diagnosis could be come to? Tuberculosis was first thought of. The infiltration of the epiglottis, and the swelling of the ary-epiglottic folds, which was characteristic of tuberculosis, was suggestive of diffuse tuberculous infiltration of the larynx.

The fact, however, that the inter-arytenoid mucous membrane, which as a rule is chiefly affected in tuberculosis, was only slightly swollen, and that no ulceration could be detected anywhere, led Professor Schnitzler to diagnose cancer. There were nevertheless certain features in the case which made the diagnosis of carcinoma doubtful, namely, the size of the enlarged cervical glands, the fact that they were not so solid as they usually are in a case of cancer, and the presence of fluctuation over a circumscribed area, which is also not a common accompaniment of carcinoma of the larynx. All these conditions, on the other hand, were characteristic of scrofula.

The enlargement of the lymphatic glands in carcinoma is generally limited to the sub-maxillary glands, which were solid and never attained any considerable size. The fact that no tubercle bacilli could be detected in the sputum had to be taken into account as far as active tubercular disease in the lungs was excluded by it; it was of no significance, however, as establishing the nature of the laryngeal affection.

Recourse was next had to two kinds of exploration, namely, (1) puncture of the fluctuating cervical gland; and (2) excision of part of the right ventricular band for microscopic examination. The pus which escaped, on incising the abscess quite

resembled that from suppurating scrofulous glands, and it was supposed that a tubercular perichondritis of the thyroid and cricoid cartilages, with chronic œdema and a tubercular cervical gland might be present. There were no tubercle bacilli in the pus, a fact which was not, however, inconsistent with the theory of tuberculosis, as it had been stated by several authors, such as Koch, Garré, Krause, etc., that pus of tuberculous abscesses contained only few or no tubercle bacilli. The microscopic examination of the excised portion of the right ary-epiglottic fold was negative; only the epithelium seemed to have been relaxed. It was, therefore, reasonable to suppose that the whole swelling at the orifice of the larynx was only due to chronic œdema, and that it was not due to the deposition of tuberculous or carcinomatous material. Two possibilities, had, therefore, to be taken into consideration, namely, a subglottic carcinoma with chronic œdema of the larynx and consecutive perichondritis, or primary tuberculous perichondritis of the thyroid or cricoid cartilages. No positive proof, however, could be obtained of either hypothesis.

Professor Schnitzler adhered to his diagnosis of cancer. The condition of the patient grew worse from day to day, and, four weeks after his admission, tracheotomy was performed by Professor von Frisch. Bronchitis developed, and at the end of the seventh week after admission a piece of cartilage was expectorated, to which a little quantity of blood adhered, a fact which did not throw any additional light on the case, as such a condition was met with in tuberculosis as well as in carcinoma. Effusion into the left pleural cavity, together with hæmorrhage from the larynx, supervened in a short time; these symptoms, combined with the horrible fetor of the patient's breath, induced even those who had hitherto doubted the presence of carcinoma, to accept the diagnosis. Professor Schnitzler considered the pleuritic effusion to be of carcinomatous origin. The patient died in a few days after these conditions had been observed, and the *post-mortem* examination, which was made by Docens Dr. Zemann, fully confirmed the diagnosis of cancer, as well as that of a carcinomatous pleuritic effusion.

At a recent meeting of the Royal Society of Physicians of Budapest, Docens Dr. Goldzieher made an interesting communication on conjunctivitis syphilitica. Syphilitic affections of the eyelids had to be divided into three classes, namely, primary lesion (initial sclerosis), exanthem, and gumma. Discussing the various pathological conditions in syphilis of the eyelids, he said that the symptoms of diffuse syphilitic conjunctivitis had not yet been described as a whole. He related two cases which showed that there really existed a sort of granular ophthalmia which was due to syphilis. The first case was that of a man aged 32, who had contracted syphilis six years before, and had suffered from chronic iritis since that date, so that iridectomy had to be performed. For the last few months an inflammation of the conjunctiva had supervened, which had been treated for a long time. On his admission into the hospital, erythema and diffuse swelling of the eyelids, with the formation of granulations in the mucous membrane, were found; besides this, there was swelling of the lymphatic glands in the region of the ear and the neck. After energetic treatment by mercurialunctions for four weeks, the conjunctiva regained its normal appearance, and the patient was discharged cured. The second case was that of a man aged 26, who had contracted syphilis two years previously. Six months before his admission into the hospital he was attacked with conjunctivitis in the left eye, and was, like the first patient, treated without success by applications of the nitrate of silver, sulphate of copper, etc. He presented exactly the same changes in the conjunctiva as the first case, and, moreover, keratitis profunda, iridochoroiditis, and lymphadenitis universalis. After an anti-syphilitic course of treatment, he was also quite cured. Dr. Goldzieher remarked that similar changes of the conjunctiva were observed in syphilitic inflammation of the tarsal cartilage. As the conjunctiva possessed a layer of adenoid tissue, and the infiltration referred to above was only to be looked upon as a follicular vegetation of this layer, the morbid process above described had, therefore, from the anatomo-pathological standpoint, to be considered as being identical with syphilitic lymphadenitis.

SAN REMO.

[FROM OUR OWN CORRESPONDENT.]

THE past week has been an exciting one in San Remo. When I last wrote you Prince William was still here, with Professors von

Bergmann and Waldeyer, and the attention of half Europe was concentrated upon the result of the latter's microscopic examination of the expectoration of the Crown Prince. This result, as I predicted, has not been made known, and the statements made in the daily papers in reference to it are purely speculative and imaginative. I have reason to believe, however, that his observations coincided to a very great extent with those of Virchow, but that his deductions from them differed somewhat materially. The events of the last few days, however, have even thrown the absorbing interest of this subject temporarily into the background. Prince William left somewhat hurriedly on Monday for Berlin on account of the Emperor's indisposition, and on Wednesday his critical state became known, and the subject of the Crown Prince's possible return was discussed. In the evening worse accounts arrived, and it was practically decided that he should go. I believe that Sir Morell Mackenzie very reluctantly came to this decision, as his august patient was gaining ground rapidly day by day. The cough and expectoration had nearly ceased; the latter was only occasionally tinged with blood, a result attributed largely to the introduction of the new cannula made here. The patient was sleeping and eating well, and spending the greater part of each day in the open air. State exigencies, however, were, I believe, imperative, and I understand that Prince Bismarck himself urged the step, if it were in any way practicable. Four or five days before it would have been simply impossible; but the Crown Prince himself, with returning strength, was keen to undertake the journey.

On Thursday morning, after Sir M. Mackenzie had held long and anxious consultations with the Crown Princess, the start was fixed for Saturday morning. All Thursday telegrams from Berlin poured into the Villa Zirio, and by evening it was known that there was no possibility of the aged Emperor rallying. The Crown Prince was much agitated and affected by the news, and on Friday morning at 10 o'clock, when the fatal tidings arrived and were communicated to him, he nearly fainted, being supported for a moment by Dr. Schrader, the household physician. He soon regained composure, and attended during the day to the innumerable despatches arriving. He walked in the garden for some time, and dined for the first time with his family.

I am told a very touching and pathetic incident occurred on this occasion. The new Emperor, upon entering the room, approached the Crown Princess—or, rather, Empress—and invested her with the Order of the Black Eagle.

On Saturday morning the Royal train—a German one—was ready at nine o'clock. The departure was made as private as possible, but, owing to the intense sympathy felt, a large concourse of people assembled outside the station. Beyond the Government and town officials, only a limited number were admitted on the platform, a few residents, and those personally known to their Imperial Highnesses. The scene was a most impressive and almost funereal one, all the Germans being in black and others in mourning, and the day itself being overcast and gloomy. The Emperor and Empress arrived in the last carriage, and were greeted outside the station by the national acclamation of the assembled Germans. The Emperor walked firm and erect, bowing right and left, and shaking hands with many whom he recognised. He was very pale and looked like a man who had gone through a serious illness; beyond this, there was nothing to suggest the operation and malady from which he is suffering, except once, when, wishing to speak to a lady, he put his hand pathetically to his throat. The Empress, with that characteristic so well known in all our Royal Family, recognised each individual with whom she was acquainted, and shook hands and said a kind word to all. She graciously accepted one or two bunches of San Remo wild flowers, of which she is very fond, the customary parting bouquets being, of course, dispensed with.

Sir M. Mackenzie and Mr. Mark Howell travelled in the Royal carriage, the former looking careworn and haggard, and evidently feeling the heavy responsibility attached to him. He is, I am told, confident as to the result of the actual journey, and, while dreading the climate of Berlin, trusts that the Emperor may not remain there except for a short time, but speedily go to Wiesbaden, which is much milder and comparatively warm.

Whatever may be the verdict of German or other professional opinion on Sir M. Mackenzie's management and treatment of this obscure and difficult case, it cannot be denied from one point of view that he has achieved an enormous success. His aim and object has been to prolong the Crown Prince's life. It is freely said here that, had he gone to Berlin with the Crown

Prince instead of the Emperor of Germany, it would have been at considerable risk to his own safety, so great is the fanaticism on this point said to exist in the German capital.

On Friday, the eve of departure, the Empress, in spite of the extreme anxiety and sorrow she was under, graciously received two or three residents, amongst them Dr. Freeman, to whom, I believe, she expressed her intense regret, that circumstances compelled the Emperor's departure at the moment when daily improvement was so marked. She added, however, that it was a necessity. Her Majesty also sent messages of regret to the ladies of the "Home" here, the institution in which she has taken so much interest.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Lactic Acid in Laryngeal Phthisis.—*Friedländer's Microbe in the Saliva of Healthy Persons.*—*Chlorate of Potash in Epithelioma.*—*Hypodermic Injections of Eucalyptol in Phthisis.*—*Poisoning by Benzine and Nitro-Benzine.*—*M. Terrillon on Ovariectomy.*—*Sanitary Aspects of the Pilgrimage to Mecca.*—*Transport of Sick and Wounded by Water.*—*Disease in Imported Meat.*

The treatment of tuberculous ulceration of the larynx by lactic acid and iodoform; recommended by Dr. Krause, of Berlin, and Dr. Heryng, of Warsaw, has lately been successfully employed by Dr. Luc, in the case of a young woman suffering from laryngeal tuberculosis. The patient was weak and thin; the least fatigue produced dyspnoea, and aggravated the wheezing from which she constantly suffered. At night there was fever followed by profuse perspiration. The voice was completely lost. The patient coughed incessantly, and the sputa contained numerous bacilli. There was dulness, with moist râles at the apex of the left lung. The epiglottis was but slightly affected. The vocal cords were red and swollen, and could not be completely adducted; this was apparently due to infiltration of the mucous membrane covering the arytenoid cartilages, which was studded with excrescences which were especially prominent in the glottis. The appetite was poor. The patient complained of intense pain in the larynx when she coughed or spoke. A few days' rest was prescribed, during which medicinal inhalations were administered. The larynx was anaesthetised by means of a 1 in 5 solution of hydrochlorate of cocaine applied with a brush. The arytenoid excrescences were destroyed by galvano-cautery. At the end of a fortnight the eschars came away. The infiltration of the mucous membrane was considerably reduced. The membrane presented a granulating surface of healthier appearance. The vocal cords were more easily brought together, and the voice was much stronger. During six months the larynx was constantly painted with a 50 per cent. solution of lactic acid. Powdered iodoform was insufflated after each application of the acid. Under this treatment the patient recovered her voice. The stridor and laryngeal pain disappeared; expectoration diminished, nocturnal coughing ceased. Dr. Heryng, who examined the patient after this treatment, regarded the laryngeal lesions as completely healed. This method had no effect on the general tuberculous symptoms.

The report of the *Société de Biologie* of Paris, of December 30th, 1887, contains an interesting communication from Dr. Netter relating to his discovery of the microbe of Friedländer in the saliva of healthy persons. Dr. Netter found in the saliva of three healthy persons a pathogenic microbe capable of causing the death of certain animals. This microbe is a bacillus identical with the organism discovered by Friedländer in the lungs of patients attacked by pneumonia, and known as the diplobacillus pneumoniae of Weichselbaum. It is sometimes associated with the pneumococcus of Fränkel. This microbe is very rare, and the author found it in only three cases out of 180 samples of saliva taken from 105 healthy persons. It is easily cultivated, at the ordinary indoor temperature, on peptonised gelatine, etc., and can be isolated by cultivating in gelose or gelatine the blood of animals that have died after subcutaneous injection of saliva. Its presence may be but temporary, and, as the experiments of Thost have proved, Friedländer's microbe may sometimes also be met with in the nasal mucus of healthy subjects. The presence of this organism in the air-passages may allow it to penetrate into the pneumonic patch, but it does not necessarily follow that it is dangerous to man, for although, when injected into the blood of

guinea-pigs and mice, it rapidly causes the death of these animals, it has no effect whatever upon rabbits. Man may possibly share this immunity, for it has not yet been satisfactorily proved that this microbe is really dangerous to man, and for that it remains yet to show that it is necessarily active in pneumonia, ozena, rhinoscleroma, and otitis. Dr. Netter, after passing in review the observations of Friedländer, Weichselbaum, Fränkel, Talamon, and others on this subject, says that he thinks himself justified in considering pneumonia as always connected with the pneumococcus of Fränkel, the presence of which in the pneumonic patch has been proved to be constant, but that the pathogenic action of Friedländer's microbe in pneumonia is far from being proved, and that where this organism was found it was undoubtedly simply in cases of secondary infection due to the presence of the bacillus in the air-passages, and its subsequent development on the surface of a favourable region. It is, however, worthy of remark that if this microbe is sometimes met with in healthy subjects, it is more frequently met with in the saliva of those who have previously suffered from pneumonia. The author concludes that the pathogenic action of Friedländer's microbe still remains to be determined, and that subsequent studies can alone elucidate the question.

Dr. Hyvernaud has treated 63 cases of epithelioma by local applications of chlorate of potash; of these, 32 were cured, 15 were benefited, and 16 cases were unrelieved. In the successful cases the disease was situated on the skin of the face, nose, eyelids, cheeks, neck, in the lumbar region, on the back of the hand, and on the inner surface of the leg. Chlorate of potash fails as a rule when the mucous membrane is the seat of disease, although two cases of epithelioma of the lips and nostril were cured by it. It is especially useful when the affection is slow in its progress. A 6 per cent. solution slightly heated, or a fine powder of chlorate of potash, is applied to the wound, after it has been freed from scabs. The dressing is renewed once a day or oftener. The effect of the solution is chiefly to heal the wound, while the powder slightly cauterises it. The surface of the tumour or ulcer is thus destroyed, small eschars come away, and cicatrization ensues. In most cases several weeks, or even months, are required to obtain complete cicatrization.

M. Edmond Habert has found subcutaneous injections of eucalyptol and iodoform useful in ordinary phthisis accompanied by bronchial catarrh, and also in emphysema and chronic bronchitis. Cough and expectoration are diminished; the general condition is improved; sleep and appetite are restored. There is, however, no diminution in the number of bacilli in the sputa. The following solutions are employed: R Absolute eucalyptol, 5 grammes; oil of vaseline, 20 grammes. R Absolute eucalyptol, 5 grammes; iodoform, 0.25 gramme; oil of vaseline, 20 grammes. Each Pravaz's syringe contains 0.20 gramme of eucalyptol for the first solution, and 0.1 more of iodoform for the second. The doses, which gradually increase, vary from 2 to 5 centigrammes in twenty-four hours. The solution must be absolutely pure, and the syringe must be properly disinfected. The quantity of liquid injected should not exceed thirty or forty drops. The needle should be introduced a good way beneath the skin.

MM. E. Neumann and Alb. Pabst, in the *Annales d'Hygiène*, have published some observations on the morbid phenomena produced by benzine and nitro-benzine. In cases of slight poisoning the symptoms, which are principally met with in persons employed in dyeing and cleansing, are: headache, vertigo, dizziness, and intoxication, which may reach the unconscious stage. These symptoms rapidly disappear if the patient leaves his work and goes into the open air. Benzine also causes slight trembling in the hands and arms, accompanied by tingling sensations and numbness. MM. Neumann and Alb. Pabst believe that these accidents are not entirely due to benzine. Benzine in a pure state is very expensive, and is usually replaced in dyeing and cleansing establishments by homologous substances which boil at above 130° C. (266° Fahr.) (methylbenzine, or toluene trimethylbenzine, or cumene, etc.), or by a kind of petroleum oil, sold as benzine. In workmen employed in benzine distilleries symptoms of a more serious nature are sometimes observed, namely, intoxication accompanied by delirium; the patient talks incessantly; in some cases his speech is embarrassed, and he stutters. Aphasia which lasts several days is sometimes present; also epileptiform attacks, followed by coma, aphonia, and mental disturbance. Loss of sexual power is, often one of the earliest symptoms of chronic benzine poisoning. Paralysis, facial hemiplegia, disturbances of sensibility (anaesthesia, hyperaesthesia), are also met with.

M. Quinquaud has observed anaemia in workmen engaged in distilling benzine. The pulse is accelerated but regular, the skin hot, the eyes and face are animated. The patient emits a strong odour of benzine; the teeth and gums present a blackish edging, darker than that observed in lead-poisoning, and threatening to spread all over the teeth. The digestive organs are normal. The action of benzine may be compared to that of chloroform and alcohol. Workmen who are addicted to taking large quantities of alcohol are more rapidly and seriously affected than others by the influence of benzine. Nitro-benzine, like aniline, may be introduced by the digestive passages, or by inhalation. The first effects are observed half an hour or an hour after it has been taken. The symptoms consist of general uneasiness, weakness, headache; the skin of the face and extremities assumes a livid, bluish hue; the nails are of a dead blue colour. Cyanosis invades the mucous membranes, the walls of the mouth, the gums, tongue, pharynx, etc. The patients exhale an odour of bitter almonds. Vomiting occurs in certain cases. The vomited matter and the sputa smell of bitter almonds. These first symptoms are followed by dyspnoea and quickened action of the heart, which gradually becomes slower. The pulse is accelerated and weak. Convulsions, cramp, contractions in certain muscles (trismus, opisthotonos, etc.), are observed. There is occasionally loss of consciousness, of sensibility, and of reflex power; the intellectual faculties are not usually affected. The urine has the odour of bitter almonds, and is thick, but free from albumen. In certain cases the affection runs a very acute course, and death speedily ensues. In others the morbid phenomena become gradually more marked, ending in coma or convulsions. These often last several hours, and are followed by death. In some cases coma is followed by the gradual disappearance of all the phenomena. Of forty-four cases of poisoning by nitro-benzine, fourteen proved fatal. These symptoms are frequently manifested by workmen employed in establishments for the manufacture of nitro-benzine. Occasionally they are limited to a general sense of uneasiness, heat in the mouth, pricking in the tongue, cyanosis, and vertigo. Coma is only observed in those who have worn clothes imbued with liquid nitro-benzine for a considerable period. Most of the symptoms disappear if the patient abandons his calling, but they frequently recur when he resumes it.

M. Terrillon has performed thirty-five ovariectomies with twenty recoveries. Four of the patients died, all from exhaustion, after operations of exceptional difficulty. In no case did death occur from peritonitis or septicæmia. M. Terrillon insists on the necessity of using proper antiseptic precautions. He considers it advisable to substitute vegetable sponges or a spongy tissue for ordinary sponges. The cleansing of the peritoneum with boiled, filtered water, is an important matter. M. Terrillon gives purgatives the day after the operation, especially in the case of patients who are troubled with wind, or colic.

In a report by M. Mahé, French Sanitary Officer at Constantinople, on the Mahometan pilgrimage to Mecca in 1887, he states that amongst the 90,000 pilgrims, 605 deaths were known to have occurred, and it was probable that there were in reality three times that number. Dr. Mahé points out: 1. That the station of Camaran, established in 1882 for the landing and inspection of the pilgrims coming into the Red Sea from the Indian Ocean, checks the spread of disease, and is a resting place for those debilitated by the voyage. This control over the pilgrims immediately on landing has prevented the importation of cholera into Hadjaz during four consecutive years. 2. As long as the presence of Christians in the pilgrimage is prohibited, a uniform healthy condition of the pilgrims cannot be hoped for. 3. One of the greatest dangers to the pilgrimage is the extraordinary number of pilgrims from India, with the close crowding and unhealthy state of the vessels which transport them. A new statute is being formulated by the Conseil de Santé de Constantinople, with a view to abolish this evil.

The administration of the sanitary service of the War Department have repeated the experiments made last summer on the transport of the sick by water. In order to see whether this plan could be employed with equal success in winter, a steamboat left the Quai Henri IV., last week for a two days' voyage. The passengers were composed of army surgeons, engineers, and hospital attendants. The boat was heated by different kinds of stoves. The experiment was eminently successful, and proved that this plan, by which the sick and wounded may be conveyed without jolting or shaking, will be of great advantage in time of war.

The Comité Consultatif d'Hygiène de France met the other day

to discuss the importation of fresh meat, especially mutton. A question was raised by the Conseil Supérieur de l'Agriculture as to the necessity of the viscera being left in carcasses imported from abroad, in order to determine the presence of disease. It was decided, after a short discussion, that the presence of the viscera is not indispensable.

SHEFFIELD.

[FROM OUR OWN CORRESPONDENT.]

Lead in Drinking Water: The Action of Peaty Water on Lead.—Inquests without Viewing the Body.—News.

MR. A. H. ALLEN, the borough analyst, read a paper before the Sheffield Literary and Philosophical Society, on March 6th on the Action of the Sheffield Water on Lead. He did not agree with some observers, that incredibly small proportions of lead would produce poisonous effects. His belief was that, except in the case of very susceptible persons, poisoning had usually occurred from the habitual drinking of water containing more than a quarter of a grain per gallon. Anything over that proportion must not be neglected. He referred to the water supplied from Redmires, as being that which acted so prejudicially on the lead piping. Dr. Tidy and his coadjutors believed that the activity was due to the small amount of silica at present in the water, and suggested that it should be subjected to an elaborate system of filtration through flint and limestone, with a view to introducing the requisite amount of silica, which was at least half a grain per gallon, to render it inactive. As, however, the Redmires water contained a sensible quantity of free acid which was of vegetable origin and probably derived from the oxidation of peat, he regarded the presence of this acid as a highly probable cause of the activity of the water. He did not think attempting to neutralise this acidity by bringing the water into contact with limestone would be sufficient. At Keighley it had been necessary to supplement the limestone by placing blocks of quicklime in the conduits. He thought it would be preferable to add the lime in fine powder, or in just such quantity as would neutralise the acid at present in the water. The special activity of the Redmires water just now appeared to be due to the absence of rain. During last year the rainfall at Redmires was under 25 inches, whereas for a whole period of fifty years, the average had been 41 inches. After an exceedingly dry summer, the October rains came in limited quantities, with the result of getting all the acid without the water to dilute it. The President, Dr. Dyson, pointed out that the opinion of medical men agreed with Mr. Allen, that in regions supplied by the Redmires water, patients had suffered from lead poisoning which could not be attributed to anything but drinking the water. He did not think the matter was a light one, for in many instances the damage was lasting.

Following the example of the Sheffield coroner, an inquest has been held by Mr. Busby, without viewing the body, at New Tupton, Clay Cross, on a miner who was found dead in his house on the previous morning. Medical evidence was given that the cause of death was hemorrhagic small-pox. A verdict to this effect was returned.

Dr. McDowell, who has been for several years at the Wadsley Asylum, has been appointed Medical Superintendent of the new Menston Asylum. While congratulating him on his well-earned promotion, his old friends at Sheffield will regret his departure from their midst.

Mary Price died on March 9th in the Fir Vale Workhouse, Sheffield, having just passed her 101st birthday. She was born on March 8th, 1787. Her husband, a soldier, was engaged at the battle of Waterloo, which she witnessed. He died many years ago.

NEWCASTLE - UPON - TYNE.

[FROM OUR OWN CORRESPONDENT.]

The Workhouse Scandal.—Medico-Legal Case at Durham Assizes.—The Pathological Society.—The College of Medicine.

At the meeting of the Newcastle Board of Guardians last week, the master and medical officer of the workhouse were re-elected, though only a few weeks before a Government inquiry had been held to consider the manner in which both officers had lately discharged their duties, with the result that both were called upon to resign forthwith. The master was re-elected by 26 votes to 15, the medical officer by 20 to 14. The Board has thus set the

Local Government Board at defiance, and it remains to be seen what the outcome will be; the ratepayers at a town's meeting held to consider the subject, with the Mayor in the chair, by a very large majority, carried a resolution condemning the re-election of both gentlemen, and also recommending that the result of the meeting should be forwarded to the central body in London. Dr. Harcastle has held the appointment of medical officer for many years, and though not altogether free from blame in the manner in which he has discharged his duties, is yet probably more sinned against than sinning. Until the advent of the present master everything seems to have gone smoothly, but during the past few years the master and medical officer have not been on good terms; bickerings have been constantly going on, the climax being reached during the late outbreak of scarlet fever. The guardians have decided to appoint a resident medical officer, whose duties will be to work under the senior medical officer; a good many candidates are already in the field for this appointment.

At the Durham Assizes last week, before Mr. Justice Charles, an action for negligent treatment was brought by a miner against Mr. Ellis, of Bishop Auckland. The facts of the case are shortly these. Mr. Smith, an unqualified assistant, in the absence of Mr. Ellis, attended the plaintiff's wife in her confinement; a portion of the placenta was left after delivery. She subsequently became very ill, delirious, and unmanageable. Mr. Ellis still being away from home, Mr. Arnold, a Licentiate in Medicine of Durham University, was called in; he prescribed mustard poultices and injections; finally, the portion of placenta was removed, and the woman recovered. Mr. Arnold was submitted to a very severe cross-examination by Mr. Waddy, as to the nature of his qualification, and also as to his antecedents, eliciting many details having no bearing on the case, but which could not tend to increase the value of Mr. Arnold's evidence. Dr. Oliver, one of the physicians to the Newcastle Infirmary, gave evidence that, on examining the woman, he found evidence of inflammation, but it could not be traced to parturition. The judge thereupon dismissed the case.

The last monthly meeting of the Pathological Society was held on Thursday last, and was well attended; the agenda paper was a long one, and many interesting patients and specimens were exhibited. I understand that Drs. Anderson (Seaton Delaval), Murphy (Sunderland), and Gowans (South Shields), were nominated for the post of president for the ensuing two years. The result of the voting will not be known until next session. All three gentlemen are active members of the Society, and have pretty equal claims on the members for election; the contest will be a very close one.

The Council of the College of Medicine, at their last meeting, elected a demonstrator of anatomy, or, rather, a medical tutor, for the primary examinations. Three candidates applied: Dr. Ridley, house-surgeon to the Newcastle Dispensary, who lately passed the primary F.R.C.S., and who is engaged in giving tutorial instruction to students for their first examinations; Mr. Rutherford Morrison, a local surgeon; and Mr. Bennington, a surgeon, now reading for the Durham degree. Mr. Bennington was elected to the post. Mr. Henry Armstrong having resigned the post of Secretary to the College, Dr. W. P. Mears, lecturer on anatomy, was elected to the vacancy.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Owens College.—The Royal Infirmary.—The Vacant Obstetric Chair.—Small-Pox at Blackburn.

At the half-yearly meeting of the Governors of Owens College, the Duke of Devonshire was re-elected President for another period of five years. The Court has decided that permanent arrangements shall be made for the instruction of women students. So far this regulation does not apply to the medical classes.—At the same meeting the title of Emeritus Professor was conferred on Professor Lund, who has resigned the chair of Systematic Surgery.

Mr. A. M. Paterson, Senior Demonstrator of Anatomy in Owens College, has been elected a Lecturer in Victoria University.

The total sum collected on Hospital Saturday amounts to £2,858, and on Hospital Sunday £4,484.

We understand that important negotiations are being conducted between the authorities of Owens College and the Royal Infirmary Board of Management with the view, if possible, of securing a more intimate relation between these two institutions. At the

present time the clinical teaching at the Infirmary is carried out by the Infirmary staff, and a professor of medicine or surgery in Owens College as such has no beds attached to his chair. Were the College in a position to offer to its professors of the practical subjects not only the position of professor, but beds in a hospital, without doubt there would be a much larger number of candidates for these chairs. Another question under consideration is the division of the hospital fees paid by the medical students. At present the medical students pay a sum for the hospital practice, and for instruction therein, and this sum is divided amongst the members of the Infirmary staff, and it does not appear that the Infirmary funds profit by the large sum thus annually contributed by the medical students. In some hospitals it appears that a separate fee is charged for admission to the hospital and another sum or sums for the clinical instruction therein received. The former sum goes to the Infirmary, and the latter is divided in certain proportions amongst the members of the teaching staff. In Manchester, however, practically all the hospital fees go to the staff.

The vacant chair of Obstetrics will probably be filled about the end of this month.

Small-pox continues to spread in Blackburn, where at present there are nearly thirty cases.

CORRESPONDENCE.

LOOSE BODIES IN THE KNEE-JOINT.

SIR,—In the report (JOURNAL, March 3rd, p. 469) of the brief discussion on this subject at the Medical Society, I am correctly stated to have expressed my scepticism with regard to the possibility of the formation of these bodies by the detachment of portions of the articular cartilages; and I would be glad to state more at length my reasons for this scepticism, knowing that the view which regards this as one of the modes of origin of such bodies is generally accepted.

1. It must be a very extraordinary and violent accident that would break off into the knee-joint a piece of the articular cartilage, with or without bone, of the femur or the tibia. One can scarcely imagine the occurrence of such an accident, or conceive how it could take place. Even a smart blow from a hammer would hardly produce it; and in any event such an accident would be attended with severe shock and confusion of soft parts, ecchymosis and immediately consecutive pain, inflammatory and other trouble, which the sufferer would not quickly recover from, and would not easily forget, but which we do not find forming part of the history in cases of loose bodies in joints.

2. Such a detached or semi-detached fragment could scarcely assume the even-surfaced, spherical, or circular flattened form of a loose cartilage.

3. We have a ready and sufficient explanation of the formation of loose bodies in the growth into the joint of tufts or processes of synovial membrane which may assume various forms, which, naturally containing cartilage cells, may become the seat of cartilage-growth and ossification of the cartilage, which become pendulous as they increase, and by rupture of the pedicle become loose in the joint; and we frequently see the various stages of this process in the same joint. We need not therefore search for other and highly improbable modes of origin. I may observe that the ossification which takes place in them accords with the ordinary process of ossification in cartilage; and a section of one of them does not correspond with that of articular cartilage and bone. This process is quite sufficient to explain the origin of the single as well as of the multiple loose bodies, which latter are common in rheumatic arthritis; and we not infrequently meet with instances in young persons where a solitary loose body, not having yet broken loose from its moorings, retains its attachment to the synovial membrane.

I can scarcely suppose that anyone really believes that a portion of bone detached by the process of necrosis can be converted into one of these bodies, though such a suggestion is actually made in a recent and important work on surgery.

The explanation of the idea that these bodies are sometimes due to the detachment of portions of the articular ends of the bones is, I believe, to be found in the fact that now and then we meet with a loose cartilage which does not present a cartilaginous covering over its whole surface, the bone being more or less ex-

posed at one part, so simulating, though very remotely, a detached fragment of bone and cartilage. But in these instances, so far as I have observed, the exposed bone is smooth, and its exposure is due to the cartilage which covered it having been rubbed off by attrition against some part of the femur or tibia in the movements of the joint; and the attrition may have produced a depression in one of these bones, which may be thought to confirm the idea of the loose body having been caused by a fracture. This is well illustrated by a specimen, in the pathological collection of this University, of a knee-joint with rheumatoid arthritis which I excised, with good result, from a man aged 60. In addition to the usual evidences of the disease, such as wearing away of the articular cartilages and the bones, with bony growths around, and with thickening of the synovial membrane and filamentous processes from it, there are numerous masses of various shapes and sizes, for the most part spherical or spheroidal, consisting of true hyaline cartilage and true bone, some of which are loose in the joint and some hanging from the synovial membrane. One of these, of about the size of a filbert, closely bound down by the fibrous structures on the inner side of the head of the tibia, has by its pressure caused absorption in the articular margin of that bone, and so formed for itself a concavity in which it is lodged. Its form and surface, and the cavity in which it lies would give the impression that it is a detached fragment of the tibia. This, however, is disproved by its similarity to the other masses with which it has no doubt the same origin, namely, from the synovial membrane, and by the fact that it is larger than the cavity which accommodates it, having grown in between the articular surfaces of the tibia and femur, as well as by the absence of any account of an injury that could have caused such a fracture.

Surely the origin of a loose cartilage from a detached fragment of cartilage or bone borders so closely on the impossible, that it ought not to be ranged in the category of the probables by so good a surgeon and pathologist as I know my friend and quondam house-surgeon Mr. Sheild to be.—I am, etc.,

Cambridge, March 6th, 1888.

G. M. HUMPHRY.

MENSTRUATION AFTER HYSTERECTOMY.

SIR,—In the JOURNAL of February 25th, page 415, Dr. Greathead reports an interesting case of menstruation after hysterectomy, with removal of ovaries, and remarks: "I am aware that such a phenomenon has been observed after double ovariectomy." By inference, therefore, one may conclude that Dr. Greathead is unaware of any other case of menstruation occurring after the removal of the uterus and its appendages. If he will refer to the JOURNAL for October 22nd, 1887, he will find the report of a case where, although I amputated the uterus close to the vaginal attachment and removed both appendages, the menstrual period returned at the next period, normal in time and quantity.

In a number of double ovariectomies that I have performed menstruation has occurred once, usually two or three days after operation; in fact, I look on its occurrence as the rule rather than the exception in such cases.

In a case of removal of both appendages for rapidly growing fibroid, which I did twelve months ago, although the tumour has dwindled, menstruation continues as profusely as before, and I am now treating the case by electrolysis, with apparent success.

Fortunately, uterine bleeding does not always occur after double ovariectomy, as a fortnight ago I removed both ovaries for cystoma in a woman three months pregnant, and as there has been no discharge I conclude that she is now safe from miscarriage.—I am, etc.,

A. W. MAYO ROBSON.

Leeds, March 2nd.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

SIR,—The following resolutions have been agreed to by a committee of medical men, appointed to consider the objections to be taken to the scheme of the above Association, and I have been instructed to invite the attention of members of the profession to the subject, and to obtain the signatures of such as are disposed to acquiesce in the views expressed, or to offer suggestions in the matter.

Resolved that:

1. The resolutions adopted at a public meeting, held at the Society of Arts in December, 1887, cannot be accepted as embodying the opinion of the medical profession.

2. That objections to the scheme of the Metropolitan Provident Medical Association are based on the following grounds:

a. Provision for medical attendance on those unable to pay the fees required in ordinary practice is already amply provided for by existing charitable institutions, or by the individual or collective efforts of general practitioners.

b. Measures hitherto taken by the lay public to establish so-called provident medical institutions have invariably resulted in introducing a system of unhealthy competition, detrimental alike to the best interests of the profession, and subversive of its influence with the general public.

c. The wholesale distribution of handbills by the organisers of any scheme of medical relief is to be condemned as much as similar action on the part of individual members of the profession.

3. The committee would further suggest that to carry out the principles embodied in these resolutions it is desirable, in order to preserve the rights of general practitioners, that an organisation be formed for that purpose.

It will be observed that it is proposed to form a definite organisation to oppose this scheme, and the following members of the committee, or myself, will be glad to receive the names of all members of the profession who are willing to co-operate:—Dr. Cohen, 195, Sutherland Avenue, Maida Vale, W.; Dr. Maunsell, St. Mark's House, Bolingbroke Road, S.W.; Dr. Paramore, 2, Gordon Square, W.C.; Dr. Kisch, Abingdon House, Sutherland Avenue, Maida Vale, W.; Dr. Sargent, High Street, Shadwell; Dr. Wainwright, 230, Brunswick Road, Poplar; Dr. Simpson, 110, Lavender Hill, S.W. (treasurer).—I am, etc., F. H. CORBYN, Hon. Sec.

18, Abercorn Place, St. John's Wood, N.W.

P.S.—The resolution passed at the Society of Arts was in favour of establishing metropolitan provident dispensaries all over London.

CONSULTATION WITH HOMEOPATHS.

SIR,—As a member, and a member of the Council, of the Gloucestershire Branch of the British Medical Association, I desire to record my personal protest against the concluding paragraph in the report of the meeting of that Branch in last week's JOURNAL.

The paragraph was as follows: "The result of this meeting was most important, showing the great feeling in favour of admitting homœopaths to equal fellowship, and as far as the county of Gloucester is concerned, having settled the question as to the right of holding consultations with them."

The meeting was not summoned for the avowed purpose of settling this question, and it was not representative of the county or the Branch. The number present was very limited. Cheltenham, Lydney, and Gloucester alone were represented, and the two former of these only by one member each.

I am not here concerned with the merits of the question under discussion, but simply desirous of expressing my dissent from the individual conclusion of the reporter that a meeting, summoned and attended as it was, is to be regarded as settling any important question on behalf of so large a constituency as that of the Gloucestershire Branch of the Association.—I am, etc.,

Gloucester, March 12th.

FRED. NEEDHAM.

TREATMENT OF UTERINE FIBROIDS BY ELECTROLYSIS.

SIR,—Mr. Knowsley Thornton, at the meeting of the West London Medico-Chirurgical Society on March 2nd, stated that he knew of one case of uterine fibroid treated by electricity having ended fatally. When asked to state the case it was found that he had gone, and so I take this opportunity of asking him to give a few of the facts in connection with it, so that those who are now trying electricity may profit by the example.—I am, etc.,

9, Collingham Place, South Kensington. J. INGLIS PARSONS.

CASE OF CEREBRAL ABSCESS.¹

SIR,—In my account of a Case of Cerebral Abscess, published in the JOURNAL of March 10th, p. 530, I have omitted to mention a similar case reported by Dr. Maccwen, in the *Lancet*, March 26th, 1887, which I had accidentally overlooked, and to which my attention was called at the meeting of the Medical Society. I had intended making the necessary correction before the paper was published, but for some reason the proof was not submitted to me.—I am, etc.,

DAVID FERRIER.

34, Cavendish Square, W.

¹ The surgical history of the case, by Mr. Victor Horsley, F.R.S., will be published next week.

NAVAL AND MILITARY MEDICAL SERVICES.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

ONE of the largest Volunteer Ambulance classes yet held, numbering 120 members, was brought to a most successful conclusion on Monday, March 12th, at the headquarters of the London Scottish R.V., where the official inspection was held by Surgeon H. R. Cox, of the Coldstream Guards. After the drill and examination of each member, the whole class were awarded the army ambulance certificate, and were highly complimented on their collective and individual efficiency.

On Friday, March 9th, no fewer than fourteen detachments entered for the prize competition, held at the Queen's Hall, Westminster. Surgeon O. M. White, T.H.R.B., and Surgeon Heather Bigg, London Irish R.V., were the judges, and awarded the first prize to a detachment of the Victoria R.V. and St. George's R.V.; second prize to the Queen's Westminster R.V.; third prize to the London Scottish R.V. The Royal Naval A.V. were fourth in order of merit. A prize for old members was taken by the 17th Middlesex (North London) R.V.

Dr. Walter Pearce, of the Artists' Corps, the medical officer instructor, was entertained to dinner by Dr. G. Ogilvie, of the London Scottish, and the officers, non-commissioned officers, and men, of the class, at Anderton's Hotel on Saturday, March 10th. Thirty-one corps were represented, comprising Royal Naval Artillery, Yeomanry, Artillery, Engineers, and Rifle Corps of the metropolitan district. During the evening Dr. Walter Pearce was presented with a handsome silver inkstand bearing an inscription, and an address, with one hundred signatures, expressing the appreciation of his endeavours to perfect the instruction of the regimental stretcher bearers of the volunteer force.

The course of instruction included lectures on barrack and camp hygiene, which were delivered in the anatomical theatre of St. Mary's Hospital, by the kind permission of the Dean of the St. Mary's Medical School.

INDIAN MEDICAL SERVICE.

"A READER" is informed that competitive examinations for appointments in the Indian Medical Service are usually held twice a year, in February and August, and the number of vacancies is advertised some time before. The examination is identical, and held simultaneously with those for the army and naval medical services. All information can be obtained by application to Lieutenant-General A. B. Johnson, C.B., Military Secretary, India Office, Whitehall, London, S.W. There is no absolute physical standard laid down for officers, but all have to undergo a medical examination previous to being allowed to compete for commissions; of course, any serious physical defect or imperfect vision or hearing might be held to incapacitate, but every case would be broadly judged on its merits. India has always afforded a noble field for the medical officer.

INDIAN CIRCULARS.

AS officer of the Medical Staff writes from India that grave dissatisfaction is caused in that country by the "never ending flow of circulars" on "every possible and impossible subject" issued for the guidance of the medical service. One lately obliging senior and junior officers alike to submit to periodical written examinations, was soon cancelled as impracticable.

Especially do medical officers resent the fact that when their hospitals are inspected by the surgeon-general he is accompanied by an apothecary as staff officer instead of by one of his secretary medical officers.

THE RIGHT OF RETIREMENT AFTER TWENTY YEARS' SERVICE.

SURGEON-MAJOR 19½ YEARS' SERVICE writes: From the War Office memorandum in the army estimates just issued, it appears to be the intention of the Government not to allow medical officers to retire on a pension after twenty years' service. Should this be carried into effect a serious breach of faith will be caused, and all the surgeons admitted into the army since the Royal Warrant of November, 1879, will have been obtained under false pretences. I believe they number between five and six hundred, and I recommend that a vigorous protest be at once entered before the appearance of a new Royal Warrant.

ABOLITION OF RELATIVE RANK IN INDIA.

THE *Indian Medical Gazette*, in a retrospective article on the year 1887, refers to the deep feeling excited by the abolition of relative rank, and says that it was naturally looked upon as a deprivation of all rank, with the exception of departmental rank.

"Recent warrants and orders," it adds, "have striven to remove this impression by indicating the value of departmental rank in terms of army rank, and it is rumoured that on each occasion of gazetetting a medical officer, his army rank will be specified as well as his departmental rank. As long as the status of medical officers in the army is clearly indicated, it does not signify much in what manner this is done. We are opposed to the substitution of combatant for departmental titles; but by the use of such compound terms as surgeon-lieutenant, surgeon-captain, surgeon-major, etc., both departmental status and military rank might be easily and conveniently specified."

ROYAL WARRANT.

ESTABLISHMENT OF ARMY MEDICAL RESERVE OF OFFICERS.

VICTORIA R.
Whereas We deem it expedient to provide for the establishment of an Army Medical Reserve of Officers:

Our Will and Pleasure is that the following shall be the conditions under which the said Reserve shall be formed:—

1. The ranks of Officers of the Army Medical Reserve shall be those of Surgeon-Major and Surgeon.

2. Medical Officers of Our Militia, Yeomanry Cavalry, and Volunteers, who may desire and be permitted to join the Army Medical Reserve of Officers, shall undertake to perform Army duties at home under rules to be fixed by Our Secretary of State, and to act under the orders, for administrative purposes, of the Director-General of the Army Medical Department.

3. Acting Surgeons, and Honorary Assistant Surgeons, of Volunteers may be permitted to join the Army Medical Reserve of Officers if they have passed the prescribed examination for proficiency.

It is Our further Will and Pleasure that the rank of Surgeon-Major shall be conferred on those Surgeons of Our Auxiliary Forces who may desire and be permitted to join the Army Medical Reserve of Officers on completion of 12 years' service from the date of their first appointment to the Auxiliary Forces; and also that Acting Surgeons, and Honorary Assistant Surgeons, of Volunteers permitted to join the Reserve shall be granted the rank of Surgeon therein.

Given at Our Court at Windsor, this eighteenth day of February, 1888, in the 51st year of Our Reign.

By Her Majesty's Command,

EDWARD STANHOPE.

Secretary of State's Instructions on the foregoing Warrant.

1. No Medical Officer of the Auxiliary Forces shall be appointed to the Army Medical Reserve who is not medically fit for service, and whose character and qualifications are not in all respects satisfactory.

2. The names of all Officers of the Army Medical Reserve shall be included in a special Army Medical Reserve List.

3. Officers shall be removed from the Army Medical Reserve List on attaining the age of 65.

4. Officers of the Army Medical Reserve shall be liable to be called to Army service at home, in times of great national emergency, to take the place of such of the Medical Staff of the Army as may be withdrawn for active service; and when so called on shall receive the pay and allowances of their rank.

5. Medical Officers of the Auxiliary Forces who may be permitted to join the Army Medical Reserve shall undertake to accept the charge of the Officers and men of any detachment of troops, not having an Officer of the Medical Staff attached to it, at any station at which they may reside, with the rates of remuneration laid down in Art. 354 of the Royal Warrant for Pay, etc., 1887.

6. Officers of the Army Medical Reserve who are willing to offer their services will have a prior claim to employment in the district in which they reside to other Medical Officers of the Auxiliary Forces, or to civilian medical practitioners.

7. The acceptance of appointments in the Army Medical Reserve will in no way modify the position of Medical Officers in the regiment or corps of the Auxiliary Forces to which they belong.

8. Officers wishing to apply for appointment to the Army Medical Reserve will forward their applications, through the Officer commanding the Corps to which they belong, to the General Officer commanding the District, for transmission to the Military Secretary.

ARMY MEDICAL RESERVE.

M.S. writes: Paragraph 4 of the Secretary of State's instructions on the Warrant for the formation of an Army Medical Reserve of Officers, reads thus: "Officers of the Army Medical Reserve shall be liable to be called to Army service at home, in times of great national emergency to take the places of such of the Medical Staff of the Army as may be withdrawn for active service; and when so called on shall receive the pay and allowances of their rank." The italics are my own.

The above is plain enough. It ought to be our care to jealously guard against any encroachment on our privileges, such as the employment of any of these reserve officers, except in cases of national emergency.

Granting that our present rate of pay is good, it would no longer be regarded as such if service in the Medical Staff of the army was little more than perpetual foreign exile, which this reserve of officers might foreshadow, if our interests are not steadily defended.

THE NAVY.

The undermentioned appointments have been made at the Admiralty:—HERBERT M. ELLIS, Staff-Surgeon to the *Orion*; RICHARD A. MOWELL, M.D., Staff-Surgeon to the *Raleigh*; JAMES W. H. HAWTON, Staff-Surgeon to the *Valorous*; HORACE X. BROWNE, and JOHN E. WEBB, M.B., Staff-Surgeons to the *Raleigh*; VALENTINE STONE, to be Surgeon and Agent at Uzon and Montrose; Staff-Surgeons RICHARD G. BROWN and JOHN MACKIE, to the *President*, additional.

THE MEDICAL STAFF.

BRIGADE-SURGEON JOHN MACKENZIE, M.D., has been granted retired pay. He entered the service as Assistant Surgeon, August 5th, 1858; became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; and Brigade-Surgeon, September 10th, 1884. He served throughout the war in North China in 1860, and received the medal granted for that campaign.

Surgeon-Major and Honorary Brigade-Surgeon JOHN ANDERSON, M.D., C.I.E., has been allowed to commute his retired pay, which was granted April 15th, 1885.

THE INDIAN MEDICAL SERVICE.

SURGEON W. W. WEBB, Bengal Establishment, medical officer of the Meywar Bheel Corps, is appointed to officiate as Civil Surgeon of Bikaner, vice Assistant Surgeon Sahib Ditta, whose services have been replaced at the disposal of the Punjab Government.

Surgeon F. J. CRAWFORD, M.D., Madras Establishment, doing duty with the 5th Native Infantry in the Eastern District, is appointed to the officiating medical charge of that regiment.

The services of Surgeon D. ELICUT, Madras Establishment, are replaced at the disposal of the Public Department.

THE VOLUNTEERS.

SURGEON and Honorary Surgeon-Major J. HUNTER, of the 1st Argyll and Bute Artillery, has resigned his appointment, which bore date February 20th, 1871; he is permitted to retain his rank and uniform.

Acting-Surgeon A. MITCHELL, M.D., of the 1st Volunteer Brigade Eastern Division Royal Artillery (late the 1st Norfolk), has resigned his commission, which dated from December 8th, 1883.

Acting-Surgeon W. BULL, of the 2nd Tower Hamlets (East London) Fortress and Railway Forces, Royal Engineers (until lately known as the Tower Hamlets Engineer Volunteers), has also resigned his commission, dated August 9th, 1884.

The undermentioned gentlemen have been appointed Acting Surgeons in the corps specified: JOHN HILL, 1st Volunteer Brigade Southern Division Royal Artillery (late the 1st Hampshire); WILLIAM YOUNG, M.B., and T. S. KIRKLAND, M.B., to the 1st Linnithgowshire; and NEVILLE WILLIAMS, M.B., to the 1st Volunteer Battalion Prince of Wales's Own West Yorkshire Regiment (late the 1st West Riding of Yorkshire).

MEDICO-LEGAL AND MEDICO-ETHICAL.

UNSUCCESSFUL ATTEMPT TO REFUSE PAYMENT OF FEES.

THE following is one of those cases in which a groundless charge is brought against a medical man by a patient who, failing to obtain repeated applications for payment of medical fees, adopts this mode of retaliating by making serious and unfounded charges.

Dr. Valentine Rees, a medical practitioner residing in Brecon, sued a Captain Luxmore for £98 10s. for professional services rendered to the defendant from the year 1882 to 1885. Dr. Rees had frequently sent in his account, and the defendant had continually promised to pay. In the year 1886 Dr. Rees pressed for payment, when the defendant alleged that the charges were excessive and unreasonable, and at once issued a writ against Dr. Rees for damages for negligence. The plaintiff applied to the court for an order to stay the motion, so that the counter-claim on the action he brought should be tried that day. The plaintiff succeeded in every court, and the defendant's representatives ultimately withdrew their counter-claim. Dr. Rees courted a public judgment, and on being sworn stated that it was not until his solicitor had written a letter to Captain Luxmore threatening proceedings that the amount of his account was disputed, or any complaint made as to the success of his services; on the contrary, the defendant and his wife had frequently thanked him (the plaintiff) for his very careful attention and kind services.

The judge, in giving judgment, expressed his opinion that the charges were not excessive, but extremely reasonable, and pointed out that if the plaintiff had been unskilful and negligent it was incredible that the defendant should have continued to employ the plaintiff a whole year after he had discovered his negligence, and added he knew of nothing more despicable than for a man in any way to throw a serious imputation on his medical attendant, whose professional reputation was essential to his earning a livelihood. After making those charges, the defendant did not venture to come forward and substantiate them, but tried to sneak out of them by not appearing in court. He gave judgment for Dr. Rees with all costs, and also judgment on the counter-claim and costs.

COMPENSATION FOR DISMISSAL.

J.W.—An assistant, though unqualified, does not occupy the same position as a menial servant. The common rule as to a month's wages being the measure of damages does not, therefore, necessarily apply. Supposing the dismissal to be wrongful, the assistant would be entitled to recover as damages the amount of his probable loss consequent on the dismissal. This might include something beyond a month's salary, or might, if he got another engagement, be less.

A FLAMING ADVERTISEMENT.

REPREENSIBLE as are such unprofessional circulars as the one issued by Mr J. A. W. (which, moreover, seems to indicate a new departure from the old devices), we are inclined to think that its stilted foolishness will tend, in some degree, to counteract its claptrap, pretentious professions. Be that as it may, we would, alike in the interest of the profession and the public, impress upon all legitimate practitioners into whose hands such circulars and kindred advertisements may chance to fall, the expediency of sending a copy with a concisely written note, or, better still, a brief memorial signed by two or three local medical men, to the respective colleges of which the inculcated practitioner may happen to be a member, in order that the salutary influence of their disciplinary laws may be brought to bear on the offender.

CHARGE TO THE CLERGY.

HAD "A Member" been an observant reader of the JOURNAL, he could scarcely have failed to note that the question of professional charges to the clergy has been repeatedly replied to therein (twice within the current year), and that it is customary for a medical man to charge "the clergyman of his parish." As to what would, in that case, be a fair fee to charge a clergyman for a visit

and medicine is too general a question for us to give a definite reply to without a knowledge of the surroundings. If, however, our correspondent will refer to the new edition of the *Medico-Chirurgical Tariffs*, he will find the question of charges to the clergy carefully reviewed, and suggestions made.

PAUPER LUNATICS.

A MEMBER.—If the parochial authorities will not deal with the servant girl as a pauper, apparently nothing can be done with her unless she "is deemed to be a lunatic, and is not under proper care and control," in which case the constable, relieving officer, or overseer of the parish or place who shall have the knowledge of those facts shall, within three days after obtaining such knowledge, give information upon oath thereof to a justice, who, in his turn, shall proceed to act as directed in 16 and 17 Vict., Cap. 97, Sect. 68.

ETIQUETTE OF RETIRED PRACTITIONERS.

M.D. writes: I, A., three years ago, disposed of his practice to B. A. continues to live in the same place, and is on intimate terms with B. In the bond of settlement of purchase A. declares not to practise, excepting in consultation with another medical man. A solicitor's family living in the same place (old patients of A.'s, and who, by-the-by, partially executed the deed) are patients of C., who lives three miles off. An accident occurs to one of the family, and A. is immediately sent for, who promptly attends, not in consultation, but to fill up the gap till C.'s arrival.

2. A. occasionally acts as medical referee to an insurance company.
3. A. frequently gives, in a casual way, gratuitous advice as to the use of domestic remedies for ailments. Should not A. absolutely refuse to be made use of in the above way?

"* Although B. could no doubt enforce against A. the fulfilment of the covenants in question, we would counsel him to refrain from such a step, unless the proceedings (not unnatural from force of habit) of the latter entail upon the former an inconvenient pecuniary loss, and, even in that case, the better plan would, in our judgment, be for B. to avail himself of a fitting opportunity to remind A. in a kindly, courteous manner of his presumably unintentional omission to carry out the stipulations contained in their mutual deed of sale and purchase; for any hostile proceedings on the part of B. would not only be calculated to destroy their existing intimacy (a matter of import to B.), but would tend to raise a prejudice against him, and alienate A.'s old friends and patients, and so mar his future professional prospects.

With regard to the case of accident, even supposing that, in that emergency, B. had been called in, it would have been his duty on the arrival of the attendant in ordinary to resign the case to him. B. will, in our opinion, do well not to interpret his legal rights in too strict a sense.

ADVICE AND MEDICINE. 6p.; VISIT AND MEDICINE, 1s.; TEETH SKILFULLY EXTRACTED. 6p.

It is scarcely necessary to assure "Justitia" that any practitioner—be he physician, surgeon, graduate, or apothecary—who may professionally associate himself with the dispensary in question would, under the circumstances referred to, be deemed guilty of unprofessional conduct, and render himself amenable to the disciplinary laws of his college. If, therefore, our correspondent can assure himself of the individual personality of the physician and surgeon alluded to, and can procure satisfactory evidence of his complicity with the chemist, we would advise him to send a copy of the circular, with a brief note or memorial, concisely setting forth the facts, to the authorities of the university and college of which the practitioner in question is a member.

INGRATITUDE.

A COUNTRY SURGEON.—Deeply to be regretted as are such cases of professional ingratitude as that referred to by "A Country Surgeon," we would observe that the one in question has more especial relation to general sentiment than to medical ethics proper; and we are not, therefore, in a position to offer any comment thereon.

PROFESSIONAL BROTHERHOOD.

T.R.C.S. ENG., writes: My father, a M.D., aged 85, for upwards of twenty years member of the General Medical Council, for over half a century filling with success a public professional appointment, and, up to this year of grace, medical officer of a public charity, is now lying in probably his last illness. He is attended by a F.R.C.S.I., who is a hospital surgeon, etc., and who takes fees from this M.D. patient now, as well as on former occasions. My father, in bygone days, had been attended cheerfully by the leading men of the profession in the same fashionable city who would scorn to take a fee from him.

Now, when unforeseen family demands are being made upon his slender purse, I feel it my duty, even at the risk of incurring his displeasure (the having made no complaint) to ask through the *JOURNAL* your opinion upon this piece of "professional courtesy" (vide your answer to "Ex-Branch President" in the *JOURNAL* of March 3rd, p. 494).

"* Such a case is unusual, and it would be advisable to seek advice from other sources.

CONSULTATION WITH JUNIORS.

C.B. writes: May I ask if being requested to meet a man nineteen years younger than yourself, of no special professional prominence, the only difference being that he practises in a city and I in the country, would not be sufficient grounds for declining to meet him? What should be the etiquette on such an occasion?

"* The following is the rule laid down in the *Code of Medical Ethics*, p. 62, for the guidance of practitioners in such cases as that referred to by our correspondent:—

"When a practitioner is called upon to meet his junior in consultation for a second opinion, it will be competent for the former to represent the propriety and advantage of obtaining the assistance of a more experienced prac-

itioner; but if the patient specially desires to have the opinion of any qualified member of the profession, even though a junior, it will be at the option of the practitioner in attendance to acquiesce or withdraw. As a rule, however, a practitioner should never decline to meet another merely because he is his junior, and he will best consult his own interest and that of the profession by a ready and courteous assent to meet any junior of good repute. A contrary course would reflect discredit on himself and the faculty."

HOSPITAL AND DISPENSARY MANAGEMENT.

BELFAST ROYAL HOSPITAL: QUARTERLY MEETING.

THE usual quarterly meeting of the subscribers and life governors of this institution was held on February 27th, Mr. Alexander Tate, C.E., in the chair. The staff reported that during the quarter there were treated in the hospital 560 intern patients, of whom 235 were medical and 325 surgical; 83 operations were performed. During the same period there were treated as extern patients 2,670, of whom 611 were medical and 2,059 surgical; 192 minor operations were performed, and there were 369 cases of teeth extraction. It was stated at the meeting that Mr. Forster Green had withdrawn his proposal to build a new wing to the Consumption Hospital, the required endowment of £15,000 not having been subscribed within the stipulated time.

ULSTER HOSPITAL FOR WOMEN AND CHILDREN.

THE annual meeting of this charity was held on March 6th, the Mayor of Belfast (Sir James Haslett, J.P.) presiding. The report showed that 3,000 patients had attended at the extern department during the year, while 156 cases had been admitted to the wards, and 285 maternity cases had been treated in their own homes. The attendance of patients in the gynaecological department had shown a marked increase. The operation of ovariectomy had been twice performed in the wards, in both cases successfully. Owing to an outbreak of measles, the hospital had been closed for some time, but was now in full working order again. Two vacancies had occurred on the staff during the year, one owing to the lamented death of Dr. James Barron, and the other in consequence of the resignation of Dr. Kennedy Wheeler. Dr. Caldwell had been elected to fill the latter vacancy.

ROYAL MATERNITY AND SIMPSON MEMORIAL HOSPITAL, EDINBURGH.

THE forty-third annual meeting of the Royal Maternity and Simpson Memorial Hospital was held last week, when the report submitted to the directors stated that during the year 280 patients had been admitted to the hospital, and 714 were attended at their own homes. Two deaths had taken place in the hospital. There had been forty-five nurses trained at the institution, and 176 students had received clinical instruction.

GLASGOW OPHTHALMIC INSTITUTION.

THE sixteenth annual meeting of this Institution was held on March 12th. The annual report shows a total of 3,712 new cases treated during the year, of whom 463 were in-patients. These figures are nearly 200 in excess of the previous year. The average period of indoor residence was 20.65 days. Of the total cases treated 3,451 were dismissed cured, and 149 improved. In the sixteen years of the existence of the Institution, not far short of 60,000 patients have received the benefits it affords.

REQUESTS AND DONATIONS.—Under the will of the late Mr. Thomas Jessop the following bequests have been made to medical charities: The Jessop Hospital (founded by him at a cost of £30,000), further £4,000; the Sheffield General Infirmary and the Public Hospital and Dispensary, each £200; Free Hospital for Sick Children and the Blind Asylum, each £100.—Mrs. Bingham has given £500 to the building fund of the Sheffield Public Hospital and Dispensary. She makes the gift in memory of her late husband, and it is her desire that a ward shall be designated the "Edward Bingham Ward."

ST. JOHN AMBULANCE ASSOCIATION.—Two courses of lecture on "First Aid" have recently been given by Dr. R. L. Batterbury at the Town Hall, Berkhamsted, and at the second course, which has just concluded, thirty-one ladies (the full number sent up for examination) were successful in obtaining certificates.

DR. JONES, a former assistant at Earlswood, has been elected medical superintendent of that important establishment.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, March 9th.

Lunacy Acts Amendment Bill.—The House went into Committee on this Bill. Clauses 1 to 19 were agreed to. On Clause 20 Lord DORMER moved an amendment for the purpose of compelling the workhouse authorities to provide sufficient and proper accommodation for pauper lunatics. The amendment was negatived without a division, and the clause was agreed to, as were also Clauses 21 to 33.—Lord HERSHELL moved to insert the following clause after Clause 33:—"The notice by Section 19 of the Lunacy Act, 1853, required to be sent upon the recovery of a patient, shall state that unless the patient is removed within seven days from the date of the notice, he will be discharged. If the patient be not removed within seven days from the date of the notice he shall be forthwith discharged without further order." The clause was agreed to, as were also the intermediate clauses up to Clause 57 inclusive.—On Clause 58 Lord DORMER moved an amendment with the object of giving to the local authority power to build a hospital or asylum for private patients. The amendment was negatived, and the clause agreed to. The Bill passed through Committee.

Vivisection.—Viscount SIDMOUTH moved that a humble address be presented to Her Majesty for correspondence between the Home Office and the Society for the Protection of Animals from Vivisection, in reference to two recent instances of infringements of the law, and asked whether it would in future be a portion of the duties of the authorities at the Home Office to cause legal proceedings to be instituted in similar cases. In one case the operation was performed on a rabbit, but without anaesthetics; and in the other case a number of animals were inoculated in the presence of a number of persons and without anaesthetics. The law had been distinctly contravened; but, upon the attention of the Home Secretary being drawn to the cases, he replied in the one case that the licence would be withdrawn, and in the other that so long a time had elapsed since the infringement of the law that he did not feel justified in instituting proceedings. Under these circumstances he desired to know whether in future, in cases brought to the attention of the Home Office, it would be deemed its duty to institute proceedings.—Earl BROWNLOW said it certainly was a portion of the duties of the authorities at the Home Office to cause proceedings to be instituted in cases where the Vivisection Act had been infringed, and that duty had in the past been discharged. It appeared that the cases referred to were those of Mr. Hine and Mr. Pemberley. Mr. Hine had a certificate, but clearly exceeded the powers granted by the certificate; and the Home Secretary, on having his attention drawn to the matter, withdrew the licence. Mr. Pemberley had not a certificate, and the explanation was that he was acting as the assistant of Dr. Robertson, who had. It was clear, however, that he had infringed the law; but, having regard to the fact that a considerable time had elapsed, the Home Secretary did not think it was a case in which proceedings should be instituted. There were other extenuating circumstances. Cases could be dealt with by the Home Office according to their circumstances, and it was not necessary on every occasion to take legal proceedings. The Government had no objection to lay the correspondence asked for upon the table.—The motion was agreed to.

The Sweating System.—The Earl of DUNRAVEN moved: That the following lords form the Select Committee to consider the sweating system: The Archbishop of Canterbury, the Earl of Derby, the Earl of Onslow, the Earl of Aberdeen, Lord Clinton, Lord Clifford of Chudleigh, the Earl of Limerick, the Earl of Crawford and Balcarres, the Earl of Dunraven, Lord Sandhurst, Lord Rothschil, Lord Monkswell, and Lord Thring.—The motion was agreed to.

Monday, March 12th.

Pharmacy Acts Amendment Bill.—The report of amendments on this Bill was agreed to.

Teaching University for London.—Lord HERSHELL, in the absence of Lord Granville, asked the Lord President whether he had made up his mind as to the manner in which he would deal with the application for a charter for a Teaching University in London, and other like applications for charters; and whether he had come to a conclusion as to a Royal Commission on the subject.—Viscount CRANBROOK replied that he had come to the determination to recommend the issue of a small Royal Commission to inquire, and he hoped that at no great distance of time it would be able to report.

HOUSE OF COMMONS.—Monday, March 12th.

Scarlatina from the Cow.—Sir H. MAXWELL, in answer to Mr. PICTON, said that some months ago Professor Brown was instructed to make an inquiry into the existence among cows of an eruptive disease of the teats, which it was alleged in one case (the Hendon outbreak) had induced scarlatina in man by the agency of the milk. In the course of the inquiry he availed himself of Professor Crookshank's offered assistance in working out the micro-pathology of the affection. In regard to the outbreak in Wiltshire, Professor Crookshank had stated that he considered the disease was the Jennerian cow-pox. Professor Crookshank had not yet furnished a report on the micro-organism of the cow-disease. A report on the whole subject was being prepared, and would be issued as soon as possible by the Agricultural Department.

Deaths from Want.—In reply to Mr. KILBRIDE, Mr. STUART-WORTLEY said a return was now in course of preparation showing the number of deaths in the metropolitan district in the year 1887 upon which coroners' juries had returned verdicts that they were due to starvation, or were deaths accelerated by privation. As to bodies found in the Thames in the City of London and in the metropolitan district, there would be no objection on the part of the Government to furnish a return.

Army Medical Officers.—Dr. FARQUHARSON asked the Secretary for War whether he had received from the British Medical Association a statement containing an analysis of the opinions of nearly 900 army medical officers with reference to the recent abolition of relative rank, and whether a widespread feeling of dissatisfaction had thus been shown to exist throughout the department.—Mr. E. STANHOPE said: I have received a communication from the British Medical Association purporting to give the anonymous opinions of several hundred medical officers. These opinions must have been obtained and expressed in a manner altogether in contravention of military discipline. Medical officers, like other officers, have a proper channel through which they can be heard, and I am not prepared to accept any civilian association as their mouthpiece. On the general question of rank I can only repeat what I said several times last year, namely, that the status of medical officers is just as it was before, and that as regards titular rank they already hold professional titles for which the exchange to combatant titles, without combatant functions, would be a loss of personal influence.—Dr. FARQUHARSON said he would draw attention to this subject on the medical vote.

UNIVERSITY INTELLIGENCE.

GLASGOW.

THE following changes have taken place in the examinerships in Glasgow University:—For graduation in Medicine: In Anatomy, Mr. Alexander Hill, M.A., M.D., Cambridge; Medical Jurisprudence, Mr. A. W. Macfarlane, M.D., London; Midwifery, Mr. Samuel Sloan, M.D., Glasgow; Medicine and Clinical Medicine, Mr. G. Lovell Gulland, M.A., B.Sc., M.B., Edinburgh. The first three appointments are for three years and the last for one year.

UNIVERSITY OF OXFORD.

MR. WILKINSON OVEREND, B.A. OXON., of St. Mary's Hospital Medical School, has been elected to the Radcliffe Travelling Fellowship (£200 a year for three years).

CAMBRIDGE.

NEW ANATOMICAL AND PHYSIOLOGICAL BUILDINGS.—The Building Sites Syndicate have published a report suggesting the mode in which provision should be made for the various science subjects to be housed in or near the new museums. They recommend that the first work to be undertaken should be the buildings for human anatomy and physiology. Pathology can be temporarily accommodated in the old chemical laboratory, and medicine and surgery in the old anatomical buildings. The report seems well weighed, and is likely to be favourably received. The chief need, however, is ready money.

ASSISTANT TO THE PROFESSOR OF SURGERY.—The Special Board for Medicine recommend that an assistant to the professor of surgery be forthwith appointed to help in the teaching and to supervise the surgical collections in the museum. Professor Humphry, himself *sine stipendio*, has generously offered to provide a sufficient

stipend for the new officer. Mr. F. V. Dickins, M.B., has been appointed an elector to the new professorship of Chinese.

The following degrees were conferred at the Congregation held on Thursday, March 8th:—Robert Michael Simon, M.B., Gonville and Caius, admitted M.D.; Matthew Henry Spencer, B.A., Trinity and St. Thomas's, admitted M.B. and B.C.; Arthur Henry Williams, B.A., St. John's and Guy's, admitted M.B. and B.C.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

GUARDIANS AND MEDICAL OFFICERS.

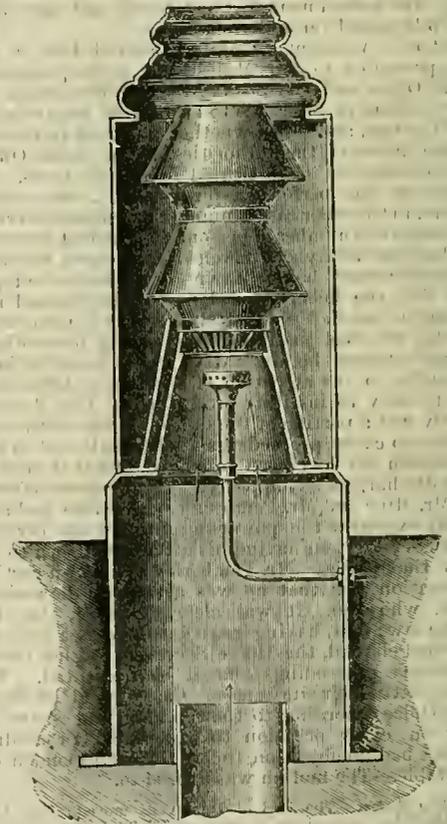
MR. EDWARD MARSHALL, medical officer of health to the Mitcham District of the Croydon Union, and medical officer to the Holborn Union Industrial Schools at Mitcham, appears to be having rather harsh measure dealt out to him by the Holborn Board of Guardians. Mr. Marshall has been medical officer to the schools for thirty years, during which he has discharged his duties without a single complaint having been made against him. A month ago he was suddenly informed that the guardians were dissatisfied with his conduct in his official capacity, and he was called upon to resign. The reason alleged was his neglect to visit the schools under his care with sufficient frequency. It appears that some time ago there was an outbreak of scarlet fever among the patients in the union infirmary, and at the time of the alleged neglect of duty, the disease had begun to show itself in the schools. Mr. Marshall admits that for three weeks he did not visit the schools, but he affirms that during all that time he was in constant communication with the managers of the schools. As soon as any child was taken ill it was at once transferred to the union infirmary, or to the infectious hospital of the Metropolitan Asylums Board, and we are assured that there is absolutely no evidence of Mr. Marshall's absence from the schools having been attended with the slightest ill effect. Nevertheless, a resolution was passed, at a meeting of the board, that, "owing to the pressure of work in his private practice, he (Mr. Marshall) was unable to attend to his duties at the schools," and calling upon him to resign. Mr. Marshall was allowed to appear before the board some weeks ago, and to be heard in his defence. He said that he had not gone to the schools because he kept himself thoroughly informed of everything that occurred, and there was really nothing that required his personal attendance. He was constantly visiting the infirmary, where there were many cases of scarlet fever, and he was seeing a good deal of the disease in private at the same time. It was, therefore, as a matter of fact, better that he should not go near the schools, to which he might easily have been the means of conveying the infection. He had carefully examined the sanitary arrangements at the schools, and had done all in his power to check the spread of the disease among the children. After hearing Mr. Marshall, the board referred the proposal that he should be called upon to resign to the General Purposes Committee, which has now, as we are informed, without making any inquiry into the truth of the allegations against the medical officer on the spot, supported the proposal, and urged the Guardians to insist on his resigning. This Mr. Marshall has declined to do, and we understand that he has appealed to the Local Government Board, begging them to inquire into the whole matter. We hope the Board will accede to this request, and will not allow itself to be put off with general statements of a more or less vague character, but will endeavour to ascertain the precise grounds of complaint against Mr. Marshall, and the specific facts on which they are founded, if any such are forthcoming. Mr. Marshall's appeal for an impartial inquiry by the proper authorities, is deserving of public as well as professional support, as it is of importance, both to medical men holding such responsible public appointments and to the community at large, that Boards of Guardians should be made once for all to understand that they will not be suffered to ride roughshod over medical officers who have faithfully discharged the duties of a thankless office for many years without reproach.

OFFENSIVE PUBLIC URINALS.

C. O. (Newcastle-under-Lyne).—An individual who can prove that the proposed erection will be a nuisance may obtain an injunction to restrain the Town Council from putting it on the site selected. The course to be pursued in such a case is essentially a matter for a lawyer. It would be impossible to give any useful advice without knowing all the facts in detail.

KEELING'S SEWER GAS EXHAUSTER AND DESTRUCTOR.
We are informed by the proprietor that during several months past Richmond, Ealing, Epsom, Leicester, East Dereham, and other towns have applied Keeling's Sewer Gas Exhausters and Destructors to extract and cremate the gases arising from organic decomposition. It is urged that the discharge of sewer emanations through ground level gratings is a crude and indefensible system. Nothing, it is said, conduces to the prosperity of a town or locality so much as a high repute for purity.

It is stated that Keeling's apparatus, has been tested by certain experts chemically as to its destructive power, and mechanically as to its economy. It consists mainly of an iron column with a powerful furnace, which produces an intense heat by the combustion of a small quantity of coal gas, and causes a strong current of air to pass constantly through it in all states of weather. The peculiarity of the furnace consists in a series of ribbed metal cones, which divides the sewer air into minute streams, and subjects it to contact with hot surfaces through a sufficient length to destroy the excess of organic matter which impregnates it.



The Ealing Local Board requested Dr. Russell, of the Chemical Laboratory, St. Bartholomew's Hospital, to test the action of the apparatus on the Ealing sewers, and to analyse the sewer air before it enters the column, and also after it passes through it. Dr. Russell's report was laid before the board on March 1st, and it contains the following description and results of his tests:

"In my first experiment, I introduced into the current of air 0.3 cubic centimetre of ether; this ether was completely oxidised; no smell of ether could be recognised at the top of the stove, only a slight smell of some of the products of the oxidation of the ether. The next experiment was with sulphuretted hydrogen, a gas which in extremely small quantities can be recognised by its smell, and a gas which often occurs in sewers. I generated this gas in a flask, and conveyed it by means of a tube to one of the openings at the base of the stove, so that the air passing through the stove was largely charged with this gas. Although smell is so very delicate a test for this gas, and although this gas was

passed into the base of the stove for half an hour in a tolerably rapid current, not the slightest indication of any undecomposed gas was recognisable at the top of the stove or elsewhere. The smell of the product of oxidation, sulphurous acid, was very perceptible. The above experiments were very satisfactory."

On February 11th the following experiments were made at Ealing Dean. "To test fully the change brought about by passing the air from the sewer through the destructor; two kinds of experiments were made, and in each case the air delivered from the top of the destructor was compared with the air extracted at the same time from the sewer itself. Permanganate of potash is known to oxidise most organic impurities in air, and is the best indicator we have of the amount of such impurities in any sample of air. Two experiments with the air from the top of the ventilator showed, as a mean result, that it required seven volumes of oxygen to oxidise the organic matter in a million volumes of air, or as it is usually expressed, this air contained seven volumes of organic matter in a million volumes. A sample of air collected in a field near contained six volumes of organic matter in the million." A bottle was lowered into the sewer, and by means of an aspirator filled with the air to be tested, it was found to contain twenty-one volumes of organic matter, that is three times as much; thus the heat in the destructor is sufficient to cause "efficient oxidation of the organic matter in the sewer air, any sulphuretted hydrogen present would, as shown by the first experiments, be converted into sulphurous acid, which would act on the permanganate in the same way as the organic matter does."

"The second class of experiments was to determine whether the micro-organisms or germs known to be abundant in sewer air are destroyed by the heating process carried on in this destructor. To determine this, I drew air from the top of the ventilator by means of an aspirator, for thirteen minutes, through sterilised glass wool; this wool was afterwards carefully introduced into a flask containing a cultivating medium. An exactly similar experiment was made with air from the sewer, after four days, the flasks, which had been kept at a temperature most favourable for stimulating growth, were examined; in the air which had the wool through which the sewer air had been drawn there were at least 7,000 distinct colonies or growths; two experiments with air from the top of the ventilator were made, one gave only six colonies and the other fourteen, a striking illustration of how efficiently organisms are destroyed by the method of heating used in this form of destructor. As a definite proof of the high temperature which the cones inside the destructor attain, I placed a piece of sheet lead in the inverted cone immediately above the burner; this lead became melted. The melting point of lead is known to be 617° F."

The following data are stated to be approximately correct. A No. 6 Bray's gas burner, regulated to consume 6 cubic feet of coal gas per hour, will give sufficient heat to exhaust and destroy 3,000 cubic feet of sewer gas per hour, or 72,000 cubic feet in 24 hours. A dozen destructors will be sufficient for a town of 20,000 inhabitants, costing for gas, on an average, £6 per annum, per destructor—less than £100 per annum for the twelve destructors. One destructor will keep a thousand yards of 12-inch sewers clean, say in three directions. The column may also be used as a lamp column.

If sewer ventilation by a furnace is considered a desirable method of meeting the difficulty it would seem that Keeling's destructor is an efficient means of creating a definite extraction of foul sewer air in stagnant conditions of weather, and regardless of external temperature.

WATER SUPPLY OF LARGE TOWNS.

The following notification has been issued in French by His Majesty the King of the Belgians:

By a decree dated December 14th, 1874, His Majesty the King of the Belgians instituted an annual prize of 25,000 francs for the encouragement of intellectual labour. The prize forming the object of international competition in 1893 will be awarded to the best work on the means of procuring abundant and cheap drinking water of the best quality for large towns, and in particular for Brussels and its suburbs, regard being had to the anticipated growth of population, (*Sur la manière de procurer abondamment et au moindre prix aux grandes villes, et spécialement à l'agglomération bruxelloise, la meilleure qualité d'eau potable, en tenant compte de l'augmentation prévue du nombre des habitants.*) Both manuscript and printed essays will be admitted to the com-

petition. A new edition of a printed work cannot take part in the competition unless it contains considerable changes and additions which have appeared, like the other competing essays, within the period of the competition—namely, in one of the years 1889 to 1892 inclusive. The essays may be written in any one of the following languages: French, Flemish, English, German, Italian, and Spanish. Those who desire to take part in the competition must send their essays, written or printed, before January 1st, 1893, to the Minister of Agriculture, Industry, and Public Works, Brussels. The essay which obtains the prize must be printed in the course of the year following that in which the prize is awarded. The award of the competition will be conducted by a jury named by His Majesty the King of the Belgians, and consisting of seven members, three Belgian and the remainder foreigners of different nationalities.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons, 5,838 births and 4,193 deaths were registered during the week ending Saturday, March 10th. The annual rate of mortality per 1,000 persons living in these towns, which had been 21.6 and 21.5 in the two preceding weeks, further rose to 23.3. The rates in the several towns ranged from 15.0 in Halifax and 15.2 in Derby to 28.2 in Plymouth, 29.5 in Norwich, 30.7 in Blackburn, and 31.3 in Manchester. In the twenty-seven provincial towns the death-rate was 23.5 per 1,000, and slightly exceeded the rate recorded in London, which was 23.0 per 1,000. The 4,193 deaths registered during the week under notice in the twenty-eight towns included 165 which were referred to whooping-cough, 59 to scarlet fever, 49 to measles, 45 to diphtheria, 43 to diarrhoea, 42 to "fever" (principally enteric), and 39 to small-pox; in all, 442 deaths resulted from these principal zymotic diseases, against 429 and 366 in the two preceding weeks. These 442 deaths were equal to an annual rate of 2.5 per 1,000; in London the zymotic death-rate was 2.6, while it averaged 2.3 in the twenty-seven provincial towns, and ranged from 0.0 in Preston and in Newcastle-upon-Tyne, and 0.4 in Brighton and Sunderland, to 4.2 in Oldham, 6.2 in Sheffield, and 6.7 in Plymouth. Measles caused the highest proportional fatality in Bradford and Plymouth; scarlet fever in Oldham and Blackburn; whooping-cough in London, Salford, Leicester, Wolverhampton, and Norwich; and "fever" in Leicester, Norwich, and Derby. Of the 45 deaths from diphtheria recorded last week in the twenty-eight towns 24 occurred in London, 3 in Birmingham, and 3 in Manchester. The 39 fatal cases of small-pox included 29 in Sheffield, 3 in Oldham, 2 in Manchester, 2 in Blackburn, and 2 in London. The number of small-pox patients in the Metropolitan Asylums Hospitals on Saturday, March 10th, was 14, of whom 2 had been admitted during the week. These hospitals also contained 1,201 scarlet fever patients on the same date, and showed a further decline from the number in recent weeks; 100 cases were admitted during the week, against 93 and 84 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 6.0 per 1,000, and was slightly below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, March 10th, 836 births and 611 deaths were registered in the eight principal Scotch towns. The annual rate of mortality in these towns, which had been 22.6 and 23.4 per 1,000, in the two preceding weeks, further rose to 24.2 during the week under notice, and exceeded by 0.9 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the lowest rates were recorded in Greenock and Leith, and the highest in Glasgow and Paisley. The 611 deaths in these towns during the week under notice included 76 which were referred to the principal zymotic diseases, equal to an annual rate of 3.0 per 1,000, which exceeded by 0.5 the mean zymotic death-rate during the week under notice in the large English towns. The highest zymotic rates were recorded in Leith and Paisley. The highest proportional fatality of measles occurred in Edinburgh and Leith; from diphtheria in Leith and Paisley; from whooping-cough in Glasgow, Aberdeen, and Paisley; and from "fever" in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns during the week was equal to 6.7 per 1,000, against 6.0 in London.

HEALTH OF IRISH TOWNS.—In the sixteen principal town districts of Ireland the deaths registered during the week end-

ing Saturday, March 10th, were equal to an annual rate of 32.3 per 1,000. The lowest rates were recorded in Kilkenny and Newry, and the highest in Limerick and Galway. The 224 deaths registered in Dublin during the week under notice were equal to a rate of 33.1 per 1,000 (against 28.4 and 34.0 in the two preceding weeks), the rate for the same period being only 23.0 in London and 18.8 in Edinburgh. The 224 deaths included 25 which resulted from the principal zymotic diseases (equal to an annual rate of 3.7 per 1,000), of which 7 resulted from whooping-cough, 5 from scarlet fever, 4 from measles, 4 from diarrhoea, 3 from fever, and 2 from diphtheria.

THE POST OF PUBLIC VACCINATOR AT WALSALL.

MR. T. W. WILLMORE (Walsall) writes: In reference to the paragraph in the JOURNAL for March 3rd touching the appointment of public vaccinator for Walsall, may I be allowed to add that the guardians, by a vote of eleven to six, re-appointed me to the office in December last.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

WANDSWORTH (Population, 257,742).—*A Curious Case of Hydrophobia.*—The many excellent summaries which make up this report deserve a more lengthy notice than our limited space will allow. Each contains matter of more than local interest, and every effort seems to have been made to ensure their giving a complete and accurate representation of the health of the district. The tables of statistics which concern the whole district are admirably compiled, and display some very important facts. The death-rates of the several subdistricts, inclusive and exclusive of outlying institutions, are given, as well as the amount and density of population and the proportional number of the industrial classes which each subdistrict possesses. The deaths occurring during 1886 are classified according to sex, age, and social position, the relative numbers occurring in each subdistrict being also given. The general death-rate for 1886 was 17.06, varying from 11.2 in the Putney district to 20.0 per 1,000 in West Battersea. This was a lower rate than in any preceding year, with the exception of 1885. It is worthy of note that small-pox was almost entirely absent from the district throughout the year. Whooping-cough, measles, and diarrhoea were the prevailing epidemics, and were attended with more than usual fatality. As a natural consequence, the death-rate of infants was correspondingly high. Considerable interest was excited by a case of hydrophobia. It occurred in the case of a woman rather past the term of middle life. She was ill for three or four days, and died with all the symptoms of hydrophobia, which the *post-mortem* examination, so far as it went, confirmed. The source of infection was very obscure. She had a small dog which she was in the habit of kissing and fondling in various ways. She had an abrasion on the inner side of the lip, and it was considered possible the poison may have been thus communicated. The old dog, which died soon afterwards, was in a wretched state of health at the time—thick viscid saliva constantly dribbled from its mouth. The difficulty was, however, that it did not possess any of the characteristic symptoms of rabies; and the question arose whether hydrophobia could be communicated to man by the saliva of a dog, in a bad condition, but showing no characteristic symptoms of rabies.

BATLEY (Population, 29,500).—*Infectious Hospital Needed.*—During the year 1886 the number of deaths from all causes was 579, being at the rate of 19.6 per 1,000. Dr. Swann's report shows that zymotic diseases prevailed during the whole year with changeable intensity, the death-rate varying from 0.4 per 1,000 in May to 8.5 in September, the rate for the whole year being 3.15. He adds that under existing circumstances it is quite impossible to stamp out or even limit the spread of infectious disease, and that he cannot look forward to being able to cope with any outbreaks until some means of securing the isolation of those who are attacked is provided. It is to be hoped, however, that, under Dr. Swann's strong advice, this state of things will not long continue; and as the inhabitants of the town have displayed great interest in the matter, possibly before long considerable improvement will have taken place.

BACUP (Population, 25,500).—*Hospitals in Readiness but not Resorted to: Infectiousness of Whooping-cough not Recognised by Parents.*—Bacup does not seem to have shared in the general healthiness of the other towns of England during the year 1886. Dr. John Brown reports a considerable increase in the number of deaths, the death-rate being 19.52 per 1,000, as compared with 17.9, in 1885. Owing to the epidemic of scarlet fever, which

carried off 28 victims, the zymotic death-rate was also largely increased. Three-fourths of the deaths were of children under 5. The Hospital at Southall was in constant readiness to receive patients, but in only two cases were its advantages availed of. The success with which these cases were isolated makes the fact, that for the past ten years no cases of infectious disease except small-pox have been sent to the hospital, the more to be regretted. Whooping-cough, which existed more or less through the year, proved fatal to 15 children. More than one half of the fatal cases were complicated with pneumonia, bronchitis, etc. Dr. Brown remarks on the need of care in preventing the spread of the disease, and the ignorance of parents as to its infectious character.

BOOTLE-CUM-LINACRE (Population, 44,000).—*High Mortality from Diarrhoea: Occurrence of Cases of Typhus.*—The death-rate for 1886 (21.04 per 1,000), though somewhat in excess of that for the preceding year, is, in Mr. Sprakeling's opinion, not to be looked upon as excessive when the general character and habits of the population are considered. The depression in trade and the consequent increase of poverty are shown to have had a prejudicial effect as regards the pauper sickness, and it is only reasonable to suppose they had a corresponding effect on the general mortality. The increased number of cases of diseases of the lungs was very marked, and also of those diseases brought on by insufficient and improper food. Seven cases of small-pox were reported during the year. Scarletina was much more prevalent and fatal than in 1885, and there was a very considerable increase of deaths from diarrhoea. As many as eighty-four deaths from this latter disease were registered, eighty-one of which were of children under five years, and many of infants under one year. Four cases of typhus fever came under treatment, and caused much anxiety, owing to the difficulty of isolation. The disease, however, did not spread, and no death occurred. The zymotic death-rate amounted to 3.84 per 1,000.

HOLBORN (Population, 35,850).—*High Death-rate: Hospital Influence.*—Dr. Septimus Gibbon bases his calculations for the year 1886 upon the population at the time of the last census, and hence the 875 deaths which occurred in the district produced a death-rate of 24.4 per 1,000. This is much too high, but as Dr. Gibbon has no reliable means of gauging the extent of the immigration into the district, he prefers to overestimate, rather than underestimate, the death-rate. The year was on the whole a healthy one, although not quite as favourable as 1885. There was a considerable increase in the number of deaths, the mortality from measles, scarlet fever, diphtheria, whooping-cough, and low fever, having risen from 68 to 118. And if correction be made by including deaths of residents in hospitals outside, and excluding those of non-residents within the district, there were 121 deaths from these six zymotic diseases. The three cases of small-pox recorded during the year occurred in common lodging houses, presumably in travellers or tramps, who contracted the disease outside the district. The diminished prevalence and mortality of measles may be in a measure explained by the diminished proportion of children in the population, owing to the continuously low birth-rate. It is satisfactory to note the decrease in the cases of delirium tremens and syphilis. The increase in scarlet fever and diphtheria was exceptional, but fortunately not very great. Dr. Gibbon thinks it is due to the existence of the hospital for children in the district. Certainly nearly all the deaths from diphtheria occurred in that institution. Every possible precaution is taken by the authorities of that hospital to prevent the spread of infectious diseases, but the risks arising from the conveyance of the little patients through the streets, before the disease is recognisable, are unavoidable.

OVER 36 per cent. of the deaths in New York State in 1887 were of children under five years of age. The death-rate at all ages was 23 per mille.

THE annual report of the East London Nursing Society, for nursing the sick poor in their own homes, states that the work was carried on in twenty-three parishes in the East End, and the nurses paid no fewer than 63,000 visits last year. The serious cases were 1,932 in number. The increasing interest taken by the general public in nursing had enabled the society to add to the number of its nurses. There were in all twenty-two nurses, and the cost of each nurse was about £54 a year.

OBITUARY.

ALEXANDER PEERS ADAMS, L.R.C.P.Lond., M.R.C.S.Eng., Surgeon, Madras Army.

We regret to announce the untimely death of Surgeon A. Peers Adams, of the Indian Medical Service. He was born on September 6th, 1855. He received his medical education at St. Bartholomew's Hospital, and obtained the diplomas of Member of the Royal College of Surgeons and Licentiate of the Royal College of Physicians in 1879, and passed into Netley at the February examination in 1880, when fifty candidates competed for twenty-three vacant commissions in the Indian Medical Service. He passed out of Netley at the examination held in August, 1880, and proceeded to the Madras Presidency. He subsequently served in Burmah, where his health suffered severely.

At the meeting of the South Indian Branch of the British Medical Association, held in Madras on October 7th, 1887, Surgeon-Major Drake-Brockman, F.R.C.S., Vice-President, paid the following tribute to his memory:—

"No panegyric is needed in referring to his life or work, for I am sure that all who had the privilege of his acquaintance must have had reason to admire the various qualities with which he was gifted. All who were thrown in his way must have been impressed with the conscientious and efficient manner in which he invariably discharged the various duties which, from time to time, were allotted to him; and it mattered not, whether in the performance of active field operations, or in the engagements which pertain to the lot of a civil medical officer, he was always found ready, willing, and painstaking."

"In the recent Burman campaign his powers had been put to the test, and he did not fail; for we are aware how his conduct and the excellence of his work called for a special representation to the Government. In the different civil charges to which he was at various times nominated, we have also proof of his unswerving attention to the discharge of his duties, and his care and gentleness to the sick who sought his assistance in their distress. His conduct was characterised by a modesty and love of retirement from public observation, which perhaps militated somewhat against his advancement; but that innate characteristic of considering himself of less repute in culture and professional attainments than others with whom he was brought into contact merely confirmed the opinion of those who knew him more intimately, that behind that modest and unassuming demeanour there was concealed a not inconsiderable knowledge of his profession. As we know, he was called upon to fill a number of responsible offices in this city immediately after a prolonged sojourn in the insalubrious climate of Burmah; and had he enjoyed better health, it seems highly probable that he would have finally occupied a prominent position in our midst, and would have given us, as an Association, valuable material for discussion at our monthly gatherings; but it has been ordered otherwise, and we must bow to that dispensation.

"As a friend, in social life, he was ever courteous, refined, and gentlemanly in his bearing and conversation, and although perhaps slow to make new friends, nevertheless, when once a friendship was formed, it was a firm and stable one."

JOHN CROFTON LAWRENSEN, Surgeon-Major, Madras Army.

WE regret to record the death of Surgeon-Major John Crofton Lawrensen, 21st Regiment M.N.I., which occurred at Me-cu, Upper Burmah, on October 4th from enteric fever.

The deceased officer entered the Indian Medical Service on March 30th, 1872, and arrived in India on November 1st of the same year. He served in various military appointments till the outbreak of the Madras famine in 1876, when his services were, with a number of other medical officers, placed at the disposal of the Sanitary Commissioner for duty during that time. During the trying hot months of May, June, July, and August he was in charge of the relief camps in the Kurnool district, for which services he was thanked by the Sanitary Commissioner. In October, 1877, he was appointed to the medical charge of the 21st Regiment M.N.I., and remained with it till the date of his death. In November, 1885, on the outbreak of hostilities in Burmah, he accompanied his regiment on service.

Surgeon-Major Lawrensen was a member of the South Indian Branch of the British Medical Association.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following Vacancies are announced:

- BOROUGH ASYLUM, Birmingham.—Clinical Assistant. Board and residence. Applications to E. B. Whitcombe, Esq., Medical Superintendent.
- BRITISH SEAMAN'S HOSPITAL, Cronstadt, St. Petersburg.—Resident Medical Officer. Salary, £180 per annum, with furnished apartments, etc. Applications to H. M. Consul, St. Petersburg.
- CHARING CROSS HOSPITAL.—Assistant Surgeon. Applications by March 27th to A. E. Reade, Esq., Secretary.
- CHARING CROSS HOSPITAL.—Surgical Registrar. Applications by March 27th to A. E. Reade, Esq., Secretary.
- DENTAL HOSPITAL, Exeter.—Surgeon-Administrator of Anæsthetics. Applications to the Honorary Secretary before March 19th.
- EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Board and lodging. Applications by March 22nd to the Secretary.
- EDEDERRY UNION.—Medical Officer, Carberry Dispensary. Salary, £135 per annum and fees. Applications to Rev. H. Johnston, Honorary Secretary, the Vicarage. Election on March 19th.
- GENERAL INFIRMARY, Northampton.—House-Surgeon. Salary, £125 per annum, with board, etc. Applications by March 27th to the Secretary, S. P. Bennett, Esq.
- GLENMUCK PAROCHIAL BOARD, Parishes of Glenmuck, Tullick and Glengairn.—Medical Officer. Salary, £45 per annum. Applications by March 20th to the Inspector of the Poor, Ballater.
- HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Resident Clinical Assistants. Applications by April 7th, to the Secretary.
- LIVERPOOL DISPENSARIES.—Two Assistant-Surgeons. Salary, £80 per annum, with board, lodging, etc. Applications by March 24th, to R. R. Greene, Esq., Secretary, Leith Office, Moorfields, Liverpool.
- MALE LOCK HOSPITAL, Dean Street, Soho.—House-Surgeon. Salary, £50 per annum, with board and lodging. Applications by March 19th, to the Secretary, Lock Hospital, Harrow Road, W.
- OWENS COLLEGE, Manchester.—Professor of Obstetrics. Applications by March 20th to the Registrar.
- ROSS-SHIRE, Parish of Resolis and District.—Resident Medical Officer. Salary, £62 per annum. Applications by March 17th to R. J. Eilanders, Esq., Fortrose.
- ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House-Surgeon. Salary, £50 per annum. Applications by March 24th to the Secretary.
- ST. HELEN'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Resident Medical Officer. Applications by March 20th to Mr. H. Whittle, Secretary, 55, Argyle Street, St. Helen's, Lancashire.
- ST. PETER'S HOSPITAL FOR STONE, etc., Henrietta Street, W.C.—Anæsthetist. Salary, £50 per annum. Applications by March 24th to the Secretary.
- WEST DERBY UNION Workhouse, Walton-on-Hill.—Resident Assistant Medical Officer. Salary, £100, board and lodging. Applications by March 21st, to H. P. Cleaver, Esq., Union Clerk, Brougham Terrace, West Derby Road, Liverpool.
- WEST LONDON HOSPITAL, Hammersmith Road.—Clinical Assistants. Applications to Secretary.
- WESTMINSTER HOSPITAL.—Medical Registrar. Salary, £40 per annum. Applications by March 26th to S. M. Quennell, Secretary.

MEDICAL APPOINTMENTS.

- BERRY, James, B.S.Lond., F.R.C.S., appointed Surgeon to the Alexandra Hospital for Children with Hip Disease, vice Howard Marsh, F.R.O.S., resigned.
- CAMERON, J., M.B., C.M.Glasgow, appointed Surgeon to the Bristol Dispensary vice A. G. Gibbs, L.R.C.P., etc.
- GORDON, James, B.A., M.R.C.S., M.R.C.P., appointed House-Surgeon to the Royal Surrey County Hospital, Guildford, vice H. W. McConnell, M.B., resigned.
- GOREHAM, John, B.A., L.R.C.S., appointed Medical Officer to the Workhouse and Dispensary District of the Oughteraid Union, vice W. W. Brereton, L.K.Q.C.P.I. and L.M., L.R.C.S.I. and L.M., resigned.
- JACKSON, W. F. Marsh, M.R.C.S.Eng., L.R.C.P.Edin., appointed Medical Officer of Health for Smethwick, Staffordshire, vice Mr. William Sutton, deceased.
- MCDOWALL, John G., M.D.Edin., appointed Medical Superintendent to the West Riding Pauper Lunatic Asylum, Menston, near Leeds.
- MACFARLANE, A. W., M.D., F.R.C.P.Edin., appointed Examiner in Medical Jurisprudence in the University of Glasgow.
- MITCHELL, G., M.D., appointed Medical Officer of Templemore Dispensary District.
- MITCHELL, Robert, M.D., M.Ch., appointed Honorary Surgeon to the Bury Infirmary, vice A. B. Telford, M.D., L.R.C.S.E., resigned.
- MOORHEAD, G. A., M.K.Q.C.P.I., appointed Medical Officer of Moate Dispensary.

LORD RANDOLPH CHURCHILL will take the chair at the annual festival dinner of St. Mary's Hospital, which is fixed to take place on May 12th.

BEQUESTS.—Mr. John Manship Norman, D.L., J.P., of Dencombe, Slaughtam, bequeathed £1,000 to the Charing Cross Hospital, and £100 to the Sussex County Hospital, Brighton.—Mr. William Henry Skynner, of Cavendish Place, St. Marylebone, and James Street, Buckingham Gate, bequeathed £500 to the Middlesex Hospital, and £500 to the Westminster Hospital.—Mrs. Mary Hotchkiss, of Harrington Street, Dublin, bequeathed £100 each to the Adelaide Hospital, the Mercer's Hospital, the Coombe Lying-in Hospital, the Hospital for Incurables, St. Mark's Ophthalmic Hospital, and the Convalescent Hospital, all at or near Dublin.—Mr. John William Taylor, J.P. of Almondsbury, bequeathed £200 to the Huddersfield Infirmary.—Mr. John Northage Bradley, of Westhorpe, bequeathed £100 to the Newark Hospital.—The Huntingdon County Hospital has received £100 under the will of Mr. John Seaton.

ANTIPIRYN AS AN ANODYNE.—The *Revista de Ciencias Medicas* of February 20th publishes two cases treated by Dr. La Guardia in the Mercedes Hospital at Havana, in which the power of antipyrin to relieve pain was very marked. A man, aged 64, had been suffering for six weeks from neuralgia of the eighth intercostal nerve of the left side, following herpes zoster of the corresponding region. Iodide of potassium was tried for some days without result; three grains of antipyrin were then given, and next day the pain entirely ceased. In the other case a man, aged 22, suffering from syphilitic nodes on both tibiae, the pain of which kept him awake at night, was ordered three grains of antipyrin every day. On the second day of this treatment he was perfectly free from pain. Some weeks later the nodes began to trouble him again, and the pain was at once subdued in the same way.

LANOLIN IN THE SKIN DISEASES OF CHILDHOOD.—Ointments in which pure lanolin, or lanolin with 10 or 15 per cent. of water, was the basis, are strongly recommended by Dr. Russell Sturgis (*Boston Medical and Surgical Journal*) in the treatment of eczema and urticaria in children. In acute eczema he first directs the affected surface to be cleaned in the usual way, and if weeping copiously, to be then dusted with finely powdered boracic acid; as soon as the inflammation has sufficiently subsided, an ointment of boracic acid ʒij to lanolin ʒj is prescribed. In eczema faciei, with induration, he finds a copious application of pure lanolin thoroughly rubbed in very useful; where the induration is very considerable, the addition of salicylic acid (gr. 5—15 to ʒj) is recommended. Simple lanolin acted most favourably in chronic urticaria.

SAD DEATH OF A MEDICAL STUDENT.—A funeral ceremony took place on Saturday, March 11th, at the newly-constructed chapel of the Westminster Hospital, on the occasion of the death of Mr. F. H. Hibbens, a student, who succumbed to syncope on the fourth day of an attack of scarlet fever. The deceased student had been working very hard, and was out of health, but it is uncertain whether he contracted the disease at the hospital from a case in one of the special wards or in the country. All his fellow students and many members of the hospital staff were present, the deceased having been an exemplary student, and very popular with his fellows.

MILK IN SWITZERLAND.—According to a recent statement the value of the annual production of milk in Switzerland is no less than £7,300,000; in other words, over 410,000,000 gallons are given annually by 662,336 cows and 277,277 goats (the total number of goats being 415,916). Of this quantity 39.6 per cent. is made into cheese and condensed milk, 42.6 supplied in its normal condition for consumption, and 17.8 used in the farmyard for rearing and fattening purposes. There are 2,900 cheese farms in the Alpine regions, and 2,600 in the valleys. The fertile canton of Bern yields the largest supply of milk, after which come the Cantons of St. Gall, Zurich, and Lucerne.

ITALIAN SOCIETY OF HYDROLOGY AND CLIMATOLOGY.—The Società Italiana d'Idrologia e Climatologia, which was founded last September at Pavia when the Congress of the Italian Medical Association was in session, will hold its first meeting at Bologna next October. Its objects are said to be to make medical men in Italy acquainted with the mineral waters of their own country, and to encourage the scientific study of balneology. An exhibition of objects connected with hydrology and climatology will also be held.

LORD DERWENT has been re-elected President, and Sir Charles Legard, Bart., and Sir George Cayler, Bart., Vice-Presidents, of the Royal Sea Bathing Infirmary, Scarborough.

THE ARTS EXAMINATION OF THE SOCIETY OF APOTHECARIES.—The examination in Arts qualifying for registration as a medical student was held in the Hall of the Apothecaries' Society on March 2nd and 3rd. There were 153 candidates; thirty have been placed in the second class, and eighty-seven have passed in some subjects, but have failed in others. The next examination will be held on June 1st and 2nd.

REGISTRATION OF PLUMBERS.—Certificates granted by the Plumbers' Company were issued at Guildhall, on Wednesday last, to thirty-seven master and operative plumbers from Stalybridge, Oxford, Hereford, Sheffield, Leamington, and various districts of London.

At a special meeting of the Forkhill Dispensary Committee, Dr. J. McDowel was elected, by a majority of one, medical officer, in the vacancy caused by the resignation of Dr. McBride.

Mr. G. W. Hastings, Q.C., has been appointed Chairman of the Select Committee on Police and Sanitary Regulation Bills. The Committee will not proceed with business till after Easter.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Stewart: On Locomotion and Allied Phenomena (Lecture IV).

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. William Adams: On the Successful Treatment of Hammer Toe by the Subcutaneous Division of the Lateral Ligaments. Dr. Borel: On Goitre and its Treatment by Extirpation. Illustrated by 22 cases.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. W. H. Dickinson: The Lumleian Lectures; The Tongue as an Indication of Disease. Lecture II.

PATHOLOGICAL SOCIETY, 8.30 P.M.—Dr. Goodhart: Ostetis Deformans. Dr. Wilks: Transverse Furrows on the Nails. Mr. Sutton: An Exostosis. Mr. Eve: On the Inoculability of Lupus. Mr. D'Arcy Power: Sarcoma of the Urinary Bladder. Mr. E. H. Fenwick: Sarcoma of the Urinary Bladder. Mr. Colman: Intestines in Diphtheria. Dr. W. Collier: Tubercular Disease of Suprarenal Capsules. Card Specimens.—Mr. Fenwick: Tumour of Urinary Bladder. Mr. Targett (for Dr. Fry): 1. Cystadenoma of Thyroid. 2. Popliteal Aneurysm. Dr. F. T. Pearce: Advanced Surgical Kidneys. Dr. M. Murray: Cystic Disease of Kidneys.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Stewart: On Locomotion and Allied Phenomena (Lecture V).

HOSPITAL FOR CONSUMPTION, Brompton, 4 P.M.—Dr. J. Kingston Fowler: On the Diagnosis of Functional from Organic Diseases of the Heart (with Cases).

PARKES MUSEUM OF HYGIENE, 3 P.M.—Dr. A. T. Schofield: On Domestic Hygiene.

ROYAL METEOROLOGICAL SOCIETY, 7 P.M.—Dr. W. Marcell, F.R.S.: On Atmospheric Electricity. Mr. G. J. Symonds, F.R.S.: The Non-existence of Thunderbolts; elucidated by accounts of searches after them, and the exhibition of specimens.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. W. H. Dickinson: The Lumleian Lectures; The Tongue as an Indication of Disease. Lecture III.

PARKES MUSEUM OF HYGIENE, 5 P.M.—Mr. A. S. Murray (Keeper of Greek and Roman Antiquities, British Museum): On Physical Training of the Greeks and Romans.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 P.M.—Professor Charles Stewart: On Locomotion and Allied Phenomena (Lecture VI).

CANCER HOSPITAL, Brompton, 4.30 P.M.—Mr. F. Bowtman Jessett: On the Treatment of Cancer and Malignant Disease.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—1. Dr. Ord: Case of Hyperpyrexia and Acute Rheumatism, treated by ice-pack. 2. Dr. Arkle: Two Cases of Hyperpyrexia, treated by cold. 3. Mr. Pearce Gould: Case of Gall Stones; Spontaneous Fracture; Operation; Recovery. 4. Mr. Parker: Living Specimen: A Case of Aneurysm in a child aged 2½ years.

BIRTHS, MARRIAGES, AND DEATHS.

The charges for inserting announcements of Births, Marriages, and Deaths is 5s. 6d. which should be forwarded in stamps with the announcement.

BIRTH.

BARNES.—On February 18th, 1888, at The Bungalow, Prospect Camp, Bournemouth, the wife of Surgeon H. I. Barnes, M.S., of a son.

DEATH.

BINNS.—On Saturday, March 10th, 1888, at the residence of his father, T. Grange, Leeds, Yorkshire, William Binns, Surgeon, of The Cedars, E. Bergholt, near Colchester, aged 43.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.; Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.; Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.; West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department);

WEDNESDAY....10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.; Middlesex.—1.30 P.M. St. Bartholomew's, St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.; London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.; King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p., Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

TREATMENT OF TRACHEAL COUGH.
CANTAR asks for suggestions as to the treatment of tracheal cough in a case where cocaine, expectorants, and potas. have severally failed.

ANSWERS.

T. T.—Of course a Licentiate is as much a member of the profession as a Fellow or Member of any college.

W. BROWN.—"Stip. emul." *stipendium condonato*, signifies that the university received the fees on account of the unusual excellence with which the candidate had fulfilled the exercises for the degree.

CHRONIC SWEATING IN THE AXILLA.
DR. R. L. BATTERBURY (Berkhamsted) would suggest to "M.B." that a little extract of belladonna be smeared on the axilla for a few nights in succession. This will, in all probability, cure the affection, or greatly relieve it; and, if it should return, a repetition of the treatment will keep it in check.

MR. E. MANSELL SYMPSON, M.B., writes: In reply to "M.B.'s" question (JOURNAL for March 10th), I should recommend boroglyceride. Taking the hint from Dr. Whitla, I have used it successfully in cases of foetid sweating of the feet. Pads of lint fastened on to a jersey might be soaked in a warm solution, dried, and placed in the axilla.

"QUINTAN" AGUE.

DR. J. P. HENRY (Dublin) writes: In reply to the query of "T. E. L. L.," I beg to state that the blood in my case of "quintan" ague was not examined for the filaric sanguinis hominis, as, leaving out the fact that the patient had never been in any part of the world where the parasite is common, there were none of the usual symptoms produced by it, such as chyluria, lymphangitis, etc., present. Dr. Manson, of China, while stating that the febrile symptoms occasionally caused by the filaric resemble the paroxysms of ague in their general character, says that they differ from them in the irregularity of the interval, and in its extending over weeks or months. If the exigencies of space had not compelled me to omit a detailed account of the symptoms, "T. E. L. L." would have seen that they were perfectly typical of ague; and even if I had any doubt of the diagnosis, which I had not, the prompt effect produced by quinine would have dispelled it.

Since writing the memorandum of my case, I find that a case of "quintan" ague has been already recorded by Saint Vel (*Gaz. Heb.*, 1863). He also mentions others presenting sextan, septan, and octan types, and one in which the attacks recurred every thirty days. A similar case to the latter was described by Velasco, of Taranto, so early as the fourteenth century. Several of the older writers, such as Dmetos, Tulpius, Muller, and Sprengel, refer to the sextan type, and Thelenius and Binz to the octan. Celso, after describing the ordinary types, mentions the occurrence of a longer interval in the following words:—"Interdum etiam longiore circuitu quædam redeunt; sed id raro evenit."

TREATMENT OF EPILEPSY.

MR. WM. PROWSE (Bleaton) suggests to "B." the administration of Fowler's arsenical solution in medium doses for a lengthened period. The bromides may be persisted in with occasional intermission for the benefit of his patient. Arsenic, in most cases, is a complete preventive of the bromide rash or tendency to the ulcerative process. Mr. Prowse asks whether "B." considers the ulcer curable?

NOTES, LETTERS, ETC.

ENGLISH AND SCOTCH DEGREES.

E. G. (Manchester) writes: In the JOURNAL of March 10th Mr. Pinder (Manchester) complains about what he calls the unfairness of Scotch degrees not being thrown open to English students. Why, the very same rule applies to the University of the city in which he resides. Here an I, an Edinburgh student, with full curriculum, in a position similar to that occupied by Mr. Pinder: I am anxious to obtain a degree, but am debarred from taking that of the Victoria University for the same reason as Mr. Pinder is prevented from taking a Scotch degree. In both instances it is impossible to obtain the degree without having previously complied with the regulations of the particular university.

Mr. Pinder finds fault with the Scotch degrees because they are not thrown open to him. If he wants a degree, why not get that of the Victoria University in Manchester? He has no need to cross the Tweed. Why not be fair, equalise matters, and, if Scotch degrees ought to be thrown open to English students, then throw open English degrees to Scotch students?

CASE OF PERSISTENT SNEEZING.

DR. ARTHUR W. SANFORD, L.R.C.S.E. and P. Edin., (Newcastle-on-Tyne) writes: S. C., aged 10 years, was seized on Friday, February 24th, with persistent and continuous sneezing, a sneeze occurring every fourth second. There was no evidence of acute mischief nor any existing disease to which the sneezing could be traced as a reflex symptom, the only previous history being violent headaches which had from time to time been complained of. Bromide of potash was freely given, but only with the result of procuring a night's rest in every three. The patient was put under chloroform and galvanism was tried, but with no permanent benefit. A blister was put on the nape of the neck, and large doses of the iodide of potash were given on the seventh day, and on Monday, March 5th, the sneezing suddenly stopped, having continued uninterruptedly (with the exception of a few hours' sleep on three nights) for ten days.

TWINS: SPONTANEOUS EVOLUTION

G. F. SYDENHAM, M.R.C.S. (Harwich, Essex) writes: On February 14th I was called to Mrs. R., at 5 A.M., a multipara, aged 36. I found a male child born alive, and the hand of a second protruding at the vulva.

On examination, I found the right shoulder jammed in the pelvis, the head in the right iliac fossa. While examining she had a pain, which forced the thorax deeper into the pelvis, and, during more pains, the thorax, breech, and lower extremities were born; the head quickly followed with occiput anterior. The child, a male, was dead.

THE LUMLEIAN LECTURES

ON THE TONGUE AS AN INDICATION OF DISEASE.

Delivered at the Royal College of Physicians, March, 1888.

By W. HOWSHIP DICKINSON, M.D., F.R.C.P.,

Honorary Fellow of Caius College, Cambridge; Senior Physician to St. George's Hospital; Consulting Physician to the Hospital for Sick Children.

LECTURE I.

THE knowledge which enables many a practical physician to make the tongue an index of diagnosis, treatment, and prognosis is, for the most part, unwritten. It has been handed down to us as part of the tradition of the elders, and few attempts have been made to analyse or educe laws from the accumulation of experience of which it consists. The labour which has been bestowed upon the pulse is in remarkable contrast with the neglect which, in recent times, has been the lot of the tongue. "Various and full of meaning," says a great writer, one whose words must ever be received with reverence within these walls, "are the conditions and appearances presented by the tongue. A patient would think you careless or ignorant of your craft if you did not at each visit look at his tongue as well as feel his pulse." But of late the tendency in this matter has been to agnosticism: it has become the habit with many, and those not the least influential, to look upon the changes which this organ displays as of less and less importance, to regard them as accidental rather than essential, as the results of unimportant local conditions rather than as inseparably connected with constitutional disturbances. "The tongue," said a great surgeon in my hearing, "belongs to the mouth in the first place, and to the general system only in the second." I should have put the general system first; but I will not anticipate my conclusions.

I am about to examine the subject with a fresh appeal to Nature, and, putting aside for the present both ancient faith and modern scepticism, shall be content simply to collect the evidence of the wards and the dead-house, and let the tongue speak for itself. This is simple in theory but in practice complicated, as will become sufficiently apparent, and on this ground I ask not only the indulgence, but the patience of those who honour me by attending.

It is not my purpose to deal with ailments local to the organ, but only with those changes which have their origin outside it, or belong to the system at large. I look at the tongue as a physician not as a surgeon, and regard it as symptomatic of disease rather than as the seat of it. My first endeavour has been to make a trustworthy and usable classification. Many terms have been hitherto applied vaguely and in confusion; tongues have been described as "furred," "coated," or "dirty" almost indiscriminately, while there has been too often a failure to attach due importance to such signs as dryness and nakedness. To secure a working classification I prepared hardened microscopic sections of a number of tongues of many kinds (they amounted to 104), and made with the help of the camera lucida the outlines of those which are now before the College. I was thus enabled to associate the minute and intimate changes with the appearances presented during life to the naked eye. Taking together both naked eye and microscopic appearances, I arranged the series into what, if I may borrow from the botanists, I may call "natural orders," using as guides chiefly such characters as appeared on minute examination to be important, and which, at the same time, were distinguishable with the naked eye during life. It is sufficiently evident that no sub-division, excepting one connected with characters evident to common sight, could have any practical utility. Thus the classification, though made with the help of the microscope, can be applied without it. It might have been more accurate, in some respects, more satisfying to the votary of pure science, could I have relied only on minute anatomy; for there are some changes, especially one—increase of the deep epithelium—which are not easy to be recognised without the use of microscopic sections.

I may say more of this hereafter; putting it aside for the present, I have made a classification which I think will work in practice, in which the minute and essential particulars are conveniently bound up with obvious external characters. The amount and distribution of the superficial or horny epithelium is important, since this essentially constitutes the white covering which is so noticeable during life. Other characteristics are—the elongation of the papillæ; the presence of incrustation, by which the proper surface of the organ is concealed; loss or attenuation of the epithelial layers, by which the surface becomes red, bare, or raw; and the quality of dryness; this last is of great importance, and it may be added that it is recognised only with the naked eye.

The classification may be thus sketched. First comes the condition of health; rather a variable standard—an average state, rather than an absolute one. Next come the stages of addition, then those of subtraction. In the stages of addition the epithelium increases more and more, and finally acquires a superstructure largely composed of foreign material. This is the maximum of clothing; it is succeeded by a process of divestiture, under which the tongue may become not only naked, but flayed.

In detail the first stage is where the papillæ are separately capped with a minute white patch, which consists mainly of horny epithelium; this tongue I call "stippled" or "dotted." As the covering increases, the spots coalesce, cease to be discrete, and become confluent, or at least appear so to the naked eye. To this degree the term "coated" is applied, as indicating continuity. The increased growths on the papillæ form the larger proportion of the surface: the intervals are more or less filled up by the deeper variety of epithelium and adventitious matters. The coat attains its highest development in what may be conveniently designated as the "plastered tongue," of which the covering is thick, uniform, and conspicuous, and often looks as if laid on with a trowel. The term "furred" is restricted to another acquirement—elongation of the papillæ, which remain separate from each other, at least at their extremities, so as to give a shaggy look, or one suggestive of coarse hair or fur. The last stage of increase, one which may succeed upon the furred tongue, or ensue without its intervention upon the coated or plastered, is where the papillæ are concealed by an incrustation, usually dark and dry, by which the surface is overlaid. From this, as the climax of addition, the scale descends through processes of subtraction. The accumulation comes off to expose either a normal surface or one which is imperfect: the former generally when the crust shaves off gradually, the latter when it breaks away abruptly. Irrespective of the formation and removal of crust, there are other modes of waste and defective growth by which the surface of the tongue is swept clean, and its coverings attenuated or even abolished in parts, so that these become absolutely skinless. We now have the several forms of the red, denuded, and raw tongue, and with these the scale finishes.

Classification of Tongues.

Naked Eye.	Microscopic Description.
1. Healthy. Moist.	White epithelium in small amount on papillæ, not continuous or superabundant.
2. Stippled. Moist. Dotted with white.	Excess of white epithelium on papillæ, not extending between them.
2 (D). Stippled. Dry.	Ditto.
3. Stippled and coated. Coat continuous in parts. Moist.	White epithelium on papillæ in excess, with partial filling of intervals.
3 (D). Stippled and coated. Dry.	Ditto.
4. Coated white. Moist. Coat continuous.	Excess of white epithelium on papillæ. Intervals more or less filled up with epithelium and accidental matters.
4 (D). Coated white. Dry. Coat continuous.	Ditto.
5. Strawberry. Coated and injected, especially showing in fungiform papillæ.	Like the coated or plastered, but with more injection.
6. White, plastered. Thick uniform coat, abrupt and striking.	More elongation of papillæ than with coated tongue; more filling of intervals, with superficial accumulation.
7. Furred or shaggy. Moist. Greatly elongated papillæ.	Extravagantly long papillæ, mostly of horny epithelium.
7 (D). Furred or shaggy. Dry.	Ditto.
8. Encrusted, dry, brown. Thick, felted dry coat over papillæ.	Continuous crust on and between papillæ, largely of parasitic matters.
9. Furred or encrusted, becoming bare. Generally dry.	Crust breaking away, together with more or less of normal surface.
10. Denuded. Red. Absence of normal covering.	General absence of all epithelium excepting the Malpighian layer; sometimes of that also.
11. Red. Moist. Dry membranous covering.	Level membrane replacing epithelial processes.
12. Cyanosed.	Injected; hypernucleated; excess of deep epithelium.

Before dealing with these classes individually, I will say a word about the plan I propose to follow. I shall first describe each variety of tongue, and then mention the clinical conditions which have been found with it. With this in view, I have made a habit of arranging cases which have come before me in a tabular form, according to the state of the tongue, annexing at the same time other details. As I must content myself with producing only extracts of these tables, I may say that the particulars systematically noted were: the disease and its duration; the general state as to strength, prostration, and consciousness; the temperature of the body; the arrangements as to food and drink; observations relating to the bowels and stomach, to the nervous system, to respiration with regard to the mouth and nose; the presence of morbid discharges by diarrhoea, diuresis, or suppuration; the amount of the saliva, and the moisture or dryness of the mouth. My performances in this matter have fallen short of my intentions. I had hoped to have made a complete compendium of hospital practice; but many cases, chiefly the less important, have escaped notice, so that my tables include only 366 cases; these must be taken as a sample of hospital experience rather than as hospital experience in bulk. They do not fairly show the relative frequency of each kind of tongue, for the more trivial were more often omitted than those which were striking or considered interesting; but they show, I believe correctly as far as they go, the kinds of disease associated with each. However inadequate, I think these records will be of use, helped out as they must be with a larger amount of unrecorded observation. Having described each tongue with its environment of disease, I shall next regard the association from the other point of view, and, taking a few typical diseases and constitutional states, shall show with what varieties of tongues they are accompanied. Finally, I shall draw together such general conclusions and rules of practice as the foregoing details appear to warrant.

I will now proceed to describe the healthy surface of the tongue so far as is necessary for the purpose in view.

CLASS I.—*Healthy Tongue.*

The healthy condition of the tongue is by no means easy to limit or define. Not only does it change its aspect and character with often inconsiderable deviations from ordinary health, but it presents many differences within this state in different persons and in the same persons at different times. There are congenital varieties in the number and prominence of the papillae; and there are such habitual differences, whether congenital or acquired, in the amount of epithelium, that to some persons it is normal to have a clean tongue, to others not less normal to have a coated one. Thus, whether the tongue be looked at with the naked eye or with the microscope, the range of health is wide; the same degree of coating may be normal in one person and abnormal in another, so that it is impossible to set up an exact ideal and say that all departures from it are the results of disease. Nevertheless, some broad outlines may be adventured outside which pathology begins.

The shape, colour, and general appearance of the tongue in health are so well known that it is only necessary briefly to indicate what must be held to be consistent and what inconsistent with this condition. The shape is not too broad or the end too blunt, as with the flabby tongue of anaemia, of depression after alcoholic excess, and of many other asthenic conditions; nor is it indented with the teeth; nor is it narrowed and sharply pointed, as it is said to be chiefly with acute febrile and inflammatory states. The tongue should be protruded steadily and kept still, neither jerky nor tremulous. In colour it should present a basis or substratum of delicate pink, in which the forms of the papillae are distinguishable by their shape, but not by hyperemia or injection, which conditions are conspicuous in many disorders, notably in scarlatina, as the chief characteristic of the strawberry tongue. The surface may be nearly clean or uncovered, but more commonly presents a superstratum which has been termed "fur" or "coating," to the amount and character of which much importance has been attached. In ideal healthiness this is no more than a delicate white sprinkling or stippling, which may be likened to hoar-frost, a little speck lying like a cap or summit to each of the filiform papillae, their extent not being enough to conceal, but only to modify, the general effect of the colour below. The filiform papillae are more constantly coated than the fungiform: the circumvallate seldom. But this covering, even in perfect health, is not always, even not often, so limited; sometimes it stretches between the papillae, partially fills up the intervals

between them, and spreads more abundantly on the central and back parts than at the sides or tip. The coat is nowhere excessively thick, nor enough quite to conceal the configuration of the surface; it thins gradually without abrupt demarcation; it is not absolutely white, but is greyish where thin, yellowish where thick; the proper tissue, where exposed, is not of a bright, but a dull pink, not exaggerated by injection, so that no striking contrasts of white and red are noticeable. The tongue and inside of the mouth are moist. Saliva can be voluntarily collected and spat out; it can be made to issue freely through a cannula in the parotid duct by placing a little acetic acid on the tongue.

To obtain an idea of the minute and essential changes which give rise to the altered appearances presented to the naked eye, it is not enough—it is, indeed, misleading—to be content with scraping the surface. It is needful to secure sections which show everything down to the muscular tissue; the amount, nature, and disposition of the epithelial investment must receive attention in its whole thickness, as well as the state of the corium with regard to injection, nucleation, and extravasation; and the characters of both apart from disease must be indicated. As the purpose is clinical, it will be enough to describe the upper surface, where what may be called the symptomatic changes are mainly observed.

Starting from within, and using the terms descriptive of the skin, which the covering of the tongue much resembles, we come first to the cutis vera or corium, a layer of dense connective tissue between the muscular tissue and the epithelial. Projections from this form the central parts of the papillae. The injection and nucleation of the corium are its chief points of morbid interest. The nucleation varies much, even in health; it is most abundant within the papillae and near the surface. Upon the corium is the epidermis, of which there are three layers, the deepest, or rete Malpighii; upon this a stratum composed of lozenge-shaped nucleated cells, which correspond, with a difference, to the corneum of the skin; and upon this a horny formation which is special to the tongue, and chiefly forms the white coat.

To take these separately, the rete Malpighii presents in contact with the corium a compact arrangement of columnar cells, in health little more than a single course, which are distinguishable, though not abruptly, from a bulky collection of polygonal cells which complete the Malpighian layer. Towards the surface these cells elongate and flatten, still remaining nucleated, and with rather a quick transition become squamous and form a layer which varies much in different circumstances, by which the surface of the tongue is generally covered. This corresponds with the corneum of the skin, though in the tongue, unlike what happens in the skin, the cells retain their nuclei. On the prominent parts, where the growth is oldest, notably on the ends of the papillae, the cells undergo a further change, losing their nuclei and cellular form and becoming fibrous, losing their power of staining with carmine, but greedily absorbing the aniline dyes. It is this horny epithelium which essentially constitutes the coat or fur, and to which many of the clinical characters of the tongue are due.

The superstructure has but a brittle connection with the rete Malpighii, a line of fracture often presenting itself with much regularity along their junction; on the other hand, the rete Malpighii is intimately attached to the corium, so that not only abnormal, but even exceptional, circumstances are needed for their separation. The Malpighian layer is a very definite and constant structure—the chief landmark anatomically; what is above varies almost infinitely; the deep layer should not be quite bare, nor should the accumulation be such as to be level with, and so obscure, the papillary eminences. The papillae themselves commonly show each a tip of horny epithelium, white to the naked eye, yellow to the microscope. This varies much in health; so much in disease that the characters of coating and furring mainly depend upon it.

On the surface of the tongue, attached chiefly to the prominences of the epidermis, is a varying amount of parasitic growth, chiefly in the shape of the micrococcus. This presents itself chiefly in the shape of rounded accumulations upon the outstanding fibrillae, like the inflorescence of a bulrush. Besides this there are often seen, especially about the papillae, granular heaps of bacteria and other parasitic matters, as well as detached epithelial cells and accidental matters derived from food; but the total bulk of the accumulation, whether parasitic or accidental, bears but a small proportion to the epithelial structure of which the coat or fur essentially consists. The adventitious growth

rather an appendage to the coat or fur than a necessary part of it. In certain conditions of disease, of which more hereafter, the parasitic growth, as well as the epithelial, may be in great excess.

The characteristics of health in the mucous membrane of the tongue may be thus summed up. The corium must not be over-injected or over-nucleated, nor must it present numerously the extravasation of leucocytes. The Malpighian layer must display no excess of proliferation. The middle layer of epithelium, which corresponds to the corneum of the skin, must be present but not superabundant. It should completely cover the rete Malpighii between the papillæ, but should allow these to be prominent at their points of emergence. The epithelial processes of the papillæ should be distinguishable, but not too long; upon these may be a few scattered points of vegetation. Finally, the surface described must be exposed, not concealed by any coat or accumulation, however derived, and it must be normally moist.

I need say little clinically about the healthy tongue. It will at once be seen that the healthy tongue is not the same thing as the tongue in health. There are individual peculiarities in the growth of lingual epithelium in virtue of which some tongues are always coated, others not so when coating might be expected. With some persons a coated tongue is habitual, and not only consistent with health, but a sign of it. On the other hand, diseases like pneumonia, in which commonly the tongue is quickly and thickly coated, may fail to produce this result. It takes time to coat the tongue. In the table two cases of pneumonia are referred to with a clean tongue. One was only in the second day, and scarcely counts. In the other, a not very severe case of pleuro-pneumonia with a temperature of 102°, the tongue remained throughout so far clean that it could not be called otherwise than natural. It displayed a general fine white sprinkling, like April hoar-frost spread, which did not overcome the underlying tint. This absence of coat is quite exceptional in the circumstances, and probably shows habitual but unusual scantiness of the epithelial crop. There are also peculiarities in health which concern the saliva. An old woman, to be later referred to, displayed under capillary bronchitis a red, dry tongue, from which I was disposed to augur ill. She got well and the tongue remained the same; she assured me that it had always been so, and I could only infer that the want of saliva, to which, as I shall presently show, the dryness and bareness of the tongue were due, was habitual and consistent with general health.

There are local and chronic diseases in abundance in which the tongue is normal, few involving pyrexia or any general disturbance. I shall show that this organ responds chiefly to constitutional variations. If the system at large is unaffected, so as a rule is the tongue. It is obvious that the conditions of observation in a hospital, whence my tables were chiefly derived, necessarily presented disease more abundantly than health, so that the morbid associations of the clean tongue are exaggerated.

1. Not Abnormal.

Tetanus	...	...	...	...	1
Chorea	...	...	...	...	2
Sunstroke	...	...	...	...	1
Valvular disease	...	...	...	...	1
Intra-thoracic aneurysm (dry diet)	...	...	...	...	1
Pneumonia (one on second day)	...	...	...	...	2
Pleuritic effusion (dry diet)	...	...	...	...	1
Pyo-pneumothorax	...	...	...	...	1
Phthisis	...	...	...	...	1
Whooping-cough	...	...	...	...	1
Ascites (hepatic); dry diet	...	...	...	...	1
Chronic albuminuria	...	...	...	...	2
Diabetes insipidus	...	...	...	...	1
Syphilis	...	...	...	...	1
Anæmia	...	...	...	...	1
Convalescent	...	...	...	...	6

Total 24

Observations relating to the above Cases.

Pyrexia (temperature from 102° to 104°)	...	...	...	...	2
Hyperpyrexia (temperature over 104°)	...	...	...	...	0
Temperature not recorded	...	...	...	...	1
Prostration	...	...	...	...	0
Chiefly on liquid diet	...	...	...	...	7
Diet strictly limited to liquids	...	...	...	...	0
Dry diet	...	...	...	...	3
Saliva abnormally deficient	...	...	...	...	2

Average temperature of 20 cases, 98.5°. Died, 2; recovered, 8; relieved, 13; not relieved, 1.

CLASS 2.—Stippled or Dotted Tongue.

This presents the first deviation from health. This is an excess of coat or fur, not uniformly spread, but displayed only on the points of the papillæ. The term "fur" is perhaps more suited to an interrupted or punctiform covering than coat, which may be limited to one which is continuous; the fur, however, is here but a mere beginning, which may develop into the coated tongue, or that which will be described as furred or shaggy.

Before proceeding to minute particulars, the naked-eye characters may be briefly indicated. The tongue in this phase presents merely an exaggeration or accentuation of the covering of health; the state may indeed be so nearly that of health that the difference may pass without notice. The tips of the papillæ are covered with white more closely and broadly than within healthy limits, and there is perhaps a little more than the normal contrast between the white summits and the pink intervals. The term "stippled" or "dotted" fairly describes the aspect of the dorsum. To borrow from the nomenclature of small-pox, the acquisition is discrete, not confluent. The spots on the papillæ are usually white, less often yellowish or brownish. The spotting is almost or quite absent on a narrow lateral margin, and also on a small triangular patch at the tip, the apex pointing inwards. These clear spaces are made so by the friction of the teeth at each side, and of the palate or gums at the tip.

The minute changes are to be made out only by examination in section. It is thus made evident that the essential alteration is in the amount and disposition of the epithelial covering. The change is in way of excess, but the excess relates only to the condensed superficial structure, where the cells are flattened, fibrous, and rejective of carmine; not, or but very slightly, to the deeper parts, where the early shape and characters of recency remain. There is as yet no considerable or constant increase in the epithelium of the deeper sort, though there may be indications of a tendency in this direction; and here and there, but as yet not abundantly, excess of nucleation appears in the corium, especially about the papillæ. There is no marked injection of the blood vessels. The intervals between the prominent papillæ are nearly empty, as in health. On their tips is commonly more or less parasitic growth, mostly the micrococcus, gathered, as it is apt to be, upon the projecting filaments. The proportion which these parasitic products bear to the total thickness of the coat or fur can be seen only in section. By mere scraping of the surface a false impression is given of the amount of these superficial products. The crop bears only a minor proportion to the bulk of the coat, the major part of which is epithelial. The parasites are the fringe of the garment rather than the garment itself.

We see in this tongue mainly the evidence of disuse. The length of the papillary processes may be explained by the absence of customary wear, and, indeed, is exactly what want of friction and scour might be expected to cause. There is little evidence of overgrowth in the shape of new epithelium, but only a retention of what must necessarily be old. In the parasitic formation there is nothing special or peculiar, but only what is found in health in less abundance. As with the epithelium, what is indicated is rather the retention of what is old than the development of what is new. We may attribute the accumulation, whether epithelial or parasitic, to the absence of food connected with less of appetite, and perhaps in some measure to the stillness of tongue which illness engenders. I have referred to slight and early evidences of overgrowth of epithelium. This will become more apparent when I speak of more advanced changes.

This variety of tongue presents the first step in morbid acquirement and the first departure from health. A large number of persons could be found with this tongue whose condition is not abnormal. I have tabulated sixty-one cases in which this state of tongue was seen. All were hospital patients, in whom absolute health was scarcely to be looked for; among them acute disease was infrequent, chronic disease common. Heart disease was more numerous presented than any other disorder, occurring in seven. Pneumonia and pleurisy, taken together, were found also in seven; but among these was only one instance of pneumonia in an active and pyrexial state. Rheumatism described as acute was present in five cases, but in only three was this adjective applicable in its fullest sense.

The general absence of pyrexia was striking: the temperature in only three cases reached 102°, in no case was it known to pass

103°. The diet in the large majority of cases comprised solid food. Three patients were kept, for special reasons, as short of liquid as was practicable. In these the saliva was markedly deficient—a deficiency which was noted in but four other instances. Extreme prostration existed in but one, together with acute obstruction of the bowel. Thus this tongue does not belong to pyrexia, and seldom concurs with grave constitutional disturbance of any kind. With the acute obstruction the temperature was normal. It presents itself often with local or organic disease, where there is little fever and seldom much vital failure.

Subjoining the cases where the stippled or dotted tongue was dry, and putting aside one where the dryness was due to diet, a larger proportion of acute disease and of constitutional disturbance is apparent when the tongue is dry than when it is moist.

2. *Stippled or dotted with white; moist.*

General paralysis or paresis	...	...	2
Chorea	...	...	1
Hysteria	...	...	2
Neuralgia	...	...	1
Valvular disease of heart	...	...	7
Pericarditis	...	...	1
Pneumonia, pleuro-pneumonia, broncho-pneumonia	...	...	6
Pleurisy	...	...	1
Laryngitis	...	...	1
Bronchitis	...	...	2
Phthisis	...	...	1
Tonsillitis (follicular)	...	...	1
Acute obstruction of bowel	...	...	1
Fæcal accumulation in colon	...	...	1
Epistaxis (nostrils plugged)	...	...	1
Jaundice	...	...	2
Ulcer of stomach	...	...	1
Dysentery	...	...	1
Chronic albuminuria	...	...	5
Diabetes mellitus	...	...	2
Hæmoglobinuria	...	...	1
Acute rheumatism	...	...	5
Subacute rheumatism	...	...	2
Acute gout	...	...	1
Chronic gout	...	...	3
Anæmia	...	...	4
Lymphadenoma	...	...	1
Acute alcoholism	...	...	2
Dry diet (1 for ascites, 1 for pleural effusion, 1 for cardiac dropsy)	...	...	3
Total	...	...	62

Observations relating to the above cases.

Pyrexia ¹ (temperature 102° to 104°)	...	3
Hyperpyrexia (temperature above 104°)	...	0
Much prostration (acute obstruction of bowel)	...	1
Prostration not severe (pericarditis)	...	1
Chiefly on liquid diet	...	10
Strictly limited to liquid diet (acute obstruction of bowel)	...	1
Dry diet (liquids reduced as far as possible)	...	3
Saliva abnormally deficient (including 3 under dry diet)	...	7
Died, 15; recovered, 18; relieved, 25; not relieved, 3.	Average temperature of 42 cases, 98.5°.	

2 (D). *Stippled or dotted; dry.*

Pleurisy with effusion (dry diet)	...	1
Peritonitis (opium)	...	1
Acute obstruction of bowel (volvulus)	...	1
Chronic albuminuria	...	1
Total	...	4

Observations as to the above cases.

Pyrexia (temperature 102 to 104°)	...	0
Hyperpyrexia (temperature over 104°)	...	0
No observations as to temperature	...	1
Average temperature of 3 cases	...	98.6°
Much prostration	...	2
Prostration not severe	...	1

Chiefly on liquid diet	...	0
Strictly limited to liquid diet (1 fed by bowel)	...	2
Dry diet	...	1
Saliva abnormally deficient	...	0
Died, 1; recovered, 1; relieved, 2.		

CLASS 3.—*Stippled and Coated.*

The next step in the acquirement of coat is intermediate between the stippled and the coated, presenting a mixture of the characters of both. The white accumulation is present on the papillæ, but is not limited to them; at the back and along the median fissure it fills up the depressions, so that the tongue, while displaying the dotted character about the anterior and lateral parts, is at the back continuously covered, the continuity being implied by the term "coated." This tongue is one of very frequent occurrence, perhaps more so than any other which can be regarded as morbid; it represents but a slight departure from health; since it partakes much of the class preceding and of that following, it may be dismissed with brief description. A partial stippling may present itself as a stage either in the formation of coat or its removal; an example of the latter is seen in the drawing taken during recovery from pneumonia.

The microscope displays in a more marked manner the characters which have been described as belonging to the stippled class; the papillary processes are elongated and conspicuous, but there is in addition some increase of the deep epithelium by which the intervals are partly filled, the filling up made more complete by detached epithelium and accidental matters. Though the deep epithelium does not present to the naked eye the whiteness of the superficial or horny kind, yet the increase of the latter and the mixing together of the sloping ends of the papillæ give a continuity of whiteness, though only in the central and back parts, where the epithelium is most plentiful. This tongue shows want of wear, together with more evidence of increased growth than in the preceding class.

Looking at this class clinically, we still find a large proportion of chronic disease, but note an increase of acute and constitutional affections. I may observe as an apparent exception that pneumonia is presented less numerously, though acute rheumatism is more so, and typhoid is now introduced. The change in the character of the cases is shown by the increase of pyrexia, though this is still slight compared with what will be seen presently, by the increase of constitutional depression, and by the number of cases in which the state of the patient was such as to necessitate liquid diet.

3. *Partly stippled; partly coated; normally moist.*

Bulbar paralysis	...	1	Constipation	...	2
Cerebral hæmorrhage	...	1	Colic	...	1
Cerebral embolism	...	1	Chronic albuminuria	...	6
Hemiplegia (cause uncertain)	...	1	Acute rheumatism	...	7
Giddiness	...	1	Subacute rheumatism	...	2
Chorea	...	1	Chronic rheumatism, or sciatica	...	2
Hysteria	...	2	Gout	...	3
Valvular disease of heart	...	5	Congenital syphilis	...	1
Pericarditis (not rheumatic)	...	1	Anæmia, chlorosis, etc.	...	4
Pneumonia	...	2	Addison's disease	...	1
Laryngitis	...	1	Ague	...	1
Bronchitis	...	1	Typhoid	...	3
Asthma	...	1	Erythema nodosum	...	1
General tuberculosis	...	1	Eczema	...	2
Phthisis with hæmoptysis	...	2	Pemphigus	...	1
Ulcer of stomach with hæmatemesis	...	1	Acute alcoholism	...	1
Cirrhosis of liver	...	1	Abscess, internal, no discharge	...	1
Ascites (cause uncertain)	...	1	Stricture of œsophagus	...	1
Anasarca (cause uncertain)	...	1	Convalescent	...	2
Diarrhœa	...	1	Total	...	69

Observations relating to the above cases.

Pyrexia (temp. 102° to 104°)	...	6
Hyperpyrexia (over 104°)	...	0
No observation as to temperature	...	14
Much prostration	...	5
Prostration not severe	...	6
Chiefly on liquid diet	...	23
Strictly limited to liquid diet (stricture of œsophagus, 1; diarrhœa, 1; constipation, 2; colic, 1; typhoid, 3)	...	8

¹ The temperature was not noted in 13 cases; it may be taken as generally not materially elevated.

Dry diet, liquids reduced as far as possible (ascites) 1
 Saliva abnormally deficient (decidedly), including 1 under dry diet 6
 Average temperature of 54 cases, 98.7°.

Died, 7; recovered, 30; improved, 26; not improved, 5; uncertain, 1.

CLASS 4.—*The Coated Tongue.*

The next degree of epithelial excess, whether by retention or overproduction, results in the formation of a continuous coat, or one continuous over the greater part of the dorsum. This covering presents great variety and many indications to the naked eye. There is scarcely an acute or subacute disorder at some period of which the tongue is not coated; this holds good especially with febrile complaints. This state of the tongue is often a step to other changes, those often of more serious import. Two special varieties of coated tongue will receive separate notice; the "strawberry" tongue, which, besides being coated, is much injected; and the "plastered" tongue, in which the coat is superabundant, and has certain characters of recency. Putting these kinds aside for the present, the generally coated tongue is only an advance upon that which is partially so, just as the partially coated tongue is an advance upon that which is simply dotted.

In the ordinary varieties of coated tongue, the coat which is continuous between the papillæ covers the greater part of the dorsum, being thickest where friction is least, about the back and median furrow. It may be dirty-white, greyish, or yellowish. The limitation at the tip and edges is not abrupt; there are no striking contrasts of colour; neither is the coat very white, nor where it is absent is the mucous membrane vividly red. The fungiform papillæ may be visible where the coat is shelving, but they are not remarkably injected as with the strawberry tongue. Such a tongue may be anemic or sodden-looking, especially when the patient is anæmic; the condition chronic, or associated with nervous depression. Good examples of the chronically coated tongue are presented in the drawings from a case of floating kidney and neuralgia under morphine; and in one from a case of chronic dysentery under opium. The coat may be variously tinted by accidental circumstances, especially by colouring matters, which are swallowed or vomited. It may be made bright yellow or olive-green by bilious vomit, or brown by faecal vomit. Iron will sometimes make it inky. Iron and port wine used alternately will sometimes convey a deep brown to the coat, tannate of iron resulting from this combination. I once knew an intensely black colour to be imparted to an otherwise light-coloured coat by artificial teeth. Probably some mercurial amalgam had reacted with sulphuretted hydrogen in the coat and produced the black colour.

The coated tongue may lose its coat in two ways: it may gradually thin off with a shelving edge, exposing a moist and natural surface; or it may break away in flakes after displaying a surface which is red and dry; the former method, implying, as it usually does, the restoration of the healthy surface, is obviously of the better omen.

Often, in circumstances which will hereafter claim attention, the coat becomes dry, brown, and cracked, sometimes presenting rectangular fissures like crocodile's skin. This amounts to what I shall presently describe as the "encrusted tongue," towards the making of which the coated tongue is a step.

Microscopic examination of the coated tongue shows as the essential change excess of epithelium of every kind. The papillæ are prominent, their pillars of corium stand well out, and upon them are long processes of the carmine-refusing epithelium, which is horny, superficial, and old. Between these protrusions is a superabundance of the full-bodied nucleated epithelium such as belongs to the intervals by which these spaces are more or less filled up. In some cases this accumulation is surrounded by a thin layer which has undergone the horny transformation. When this is so, it easily accounts for the continuity of whiteness, since epithelium of this sort is, when moist, white to the naked eye. The continuity of whiteness, however, upon which the definition of the coated tongue rests, is more commonly maintained by the approximation of the long processes, and the filling of the intervals by accidental matters. There is as yet no marked injection, no great evidence of overgrowth in the Malpighian layer, no constant hypernucleation of the corium. What alteration of growth there is is in the direction of too much; but there is no such extravagance, as will be noted in some conditions to be presently considered.

On and about the papillæ parasitic growths such as have been already described are often abundant, but as these are not essential to this variety of tongue, nor add very materially to the bulk of the coat they need no detailed notice.

Clinically, the coated tongue brings with it a further increase of acute and febrile disease. Taking together the moist and dry kinds, pneumonia or pleurisy was present in 10 of 68 cases; typhoid was slightly more frequent than in the preceding classes, while other febrile disorders now intrude themselves into the list. Pyrexia and prostration are both on the ascent, showing that the generally coated tongue is associated with a larger proportion of constitutional affection than where the coat is more partial. It was observed that the saliva was noticeably deficient in a larger proportion of cases than heretofore—in 12 of 68 of the coated tongue, in only 5 of 69 where the coat was partial.

4. *Coated white; normally moist.*

Cerebral hæmorrhage 1	Dyspepsia 1
Hemiplegia (cause uncertain) 2	Repletion 1
Pneumonia (pleuro-pneumonia) 6	Stricture of œsophagus ... 2
Pleurisy 2	Starvation 1
Laryngitis 2	Peritonitis 1
Bronchitis 1	Chronic albuminuria ... 1
Cancer of lung 1	Œræmia, vomiting, suppression of urine 2
Phthisis 1	Acute rheumatism (including cardiac affection) ... 1
Phthisis and hæmoptysis ... 2	Subacute rheumatism (including cardiac affection) 3
Aneurysm (?) 1	Chronic rheumatism and sciatica 1
Acute obstruction of bowel (small bowel) 1	Typhoid 4
Chronic obstruction of bowel (sigmoid flexure) 1	Fæbricula 1
Diarrhoea 2	Erysipelas 1
Ulcer of stomach (hamatemesis) 1	Erythema nodosum 1
Vomiting (uterine) 1	Convalescent 2
Total 48	

Observations relating to preceding cases.

Pyrexia (temp. 102° to 104°) 9
Hyperpyrexia (temp. over 104°) 0
No observations as to temperature 5
Much prostration 11
Prostration not severe 4
Chiefly on liquid diet 11
Strictly limited to liquid diet 15
No food by mouth; fed by rectum (stricture of œsophagus) 2
Dry diet 0
Saliva abnormally deficient 6

Average temperature of 41 cases, 99.1°.

Died, 11; recovered, 15; improved, 21; not improved, 1.

4 (D) *Coated white; partly dry.*

Hemiplegia 1	Acute obstruction of bowel 1
Myelitis (acute) 1	Tonsillitis 1
Valvular disease and disease of aorta 2	Dyspepsia 2
Pneumonia 2	Repletion (surfeit) 1
Phthisis and pneumonia (?) 1	Chronic albuminuria ... 1
	Diabetes 2
	Acute rheumatism 5
Total 20	

Observations relating to the above cases.

Pyrexia (temp. 102° to 104°) 6
Hyperpyrexia (over 104°) 0
No observations as to temperature 2
Much prostration 3
Prostration not severe 0
Chiefly on liquid diet 12
Strictly limited to liquid diet 3
Dry diet 0
Saliva abnormally deficient 6

Average temperature of 18 cases, 99.5°.

Died, 6; recovered, 5; relieved, 8; uncertain, 1.

CLASS 5.—*Strawberry Tongue.*

This needs but a brief mention. Usually with what may be called the acute coated tongue, more especially when this approaches the plastered character to be next noticed, the fungiform papillæ show through the coat at the tip and edges. These are often more or less injected, especially with scarlatina, where they

show in a striking manner the increased vascularity of the organ due to its participation in the cutaneous eruption.

The association with scarlatina would have been displayed more prominently in the table but that this disease is not, as a rule, admitted into St. George's Hospital. The strawberry state is sometimes seen in other disorders, most of which are of the acute febrile kind; pneumonia, typhoid, and perityphlitis are presented in the record. Injection of the tongue is an accompaniment of many febrile states, not only giving colour to the substratum, but also promoting the epithelial growth. Pyrexia is generally present with the strawberry tongue, and that to a greater degree than with the antecedent classes.

5. Strawberry tongue; moist.

Typhoid	1	Pneumonia	2
Scarlatina	3	Perityphlitis	1-7

Observations relating to the above cases.

Pyrexia (temp. 102° to 104°)	4
Hyperpyrexia	0
No observations as to temperature	2
Prostration, not severe	1
Chiefly on liquid diet... ..	5
Strictly limited to liquid diet	2
Dry diet	0
Saliva abnormally deficient	3

Average temperature, 5 cases, 102°.
Died, 0; recovered, 2; improved, 3; sent out, 2.

CLASS 6.—Plastered Tongue.

The variety alluded to as plastered is well marked, has much clinical importance, and demands a separate notice. Clinically, this might be called the coated tongue of acute disease. The coat, which is white, moist, though generally not fully so, and uniform, except at the edges, is spread over the dorsum, excepting a narrow margin and a small space at the tip, with a thickness, smoothness, and definite limitation which suggests the laying on of plaster. The edges, though definite, are somewhat bevelled, and are perforated as they thin with the red fungiform papillæ, after the strawberry style. Sometimes, as in the drawing displayed, taken on the fourteenth day of typhoid, the covering is so white, thick, and fine in grain as to give the idea of plaster-of-Paris or white lead smoothly spread; at other times it is coarser and less purely white, as if a fine kind of mortar had been used. The mucous surface, where exposed, is often redder than natural, especially when the coat is of the whiter kind. The more recent the illness the whiter the coat. When very thick, white, and strongly contrasted with the red margin, the indication is of acute disease—in other words, of disease recent and severe. Were it not recent, the coat would not be so purely white; were it not severe, the thickness could not have come in the time. Each day the tongue becomes less white, and gradually assumes a dirty yellowish or brownish tint. A brown colour associated with dryness and cracks commonly appears when the disease is severe, of long continuance, and attended with prostration. The properties of brownness and dryness may accompany many states of tongue, and will receive further notice.

I may in a few words indicate wherein the minute characters of the plastered tongue differ from that which is commonly coated. The difference is mainly one of degree. The papillæ are now more elongated, even so much so as to resemble those of the shaggy or furred tongue. With this we have more complete filling up of the intervals, and even some overlying of the papillæ with matters partly derived from the tongue itself as epithelium, partly parasitic and partly accidental. This condition is a great way towards the encrusted tongue, the chief difference being in the presence or absence of moisture. The plastered tongue, when dry, becomes the encrusted. In the plastered tongue the hypertrophy of the superficial epithelium, as yet uncomplicated to any great extent, attains its climax.

Clinically, this tongue never fails to arrest attention; it is the ensign of recent acute febrile disease. The chronic coated tongue is distinguishable from the plastered by its dirtier colour, and the less vivid apposition of white and red. Of 32 cases of the plastered tongue, the table shows 8 of pneumonia, 3 of acute bronchitis, 3 of acute rheumatism, 6 of typhoid, and 4 of other acute febrile affections. Pyrexia was marked in 18 cases, while the general average of temperature was 101.6°, a higher level than has yet appeared, save with the strawberry tongue, a nearly allied condition. Prostration, mostly such as belongs to the febrile state, was recorded in 8, while the increased proportion of patients on

liquid diet bears testimony to the same association. The saliva was noticeably deficient in a larger proportion of instances than with any tongue yet before us, save the small strawberry class. This does not imply merely that the tongue was dryish, which might be due to the evaporation caused by the increased heat of the body, but to lessened secretion, as was in some instances ascertained with the cannula. We see a close association with pyrexia which stimulates cell growth, and is probably the chief agent in producing the characteristic epithelial luxuriance, the products of which are abnormally retained partly by reason of the scantiness of saliva.

6. White; plastered; moist.

Cerebral tumour	1	Jaundice (enlargement of liver)	1
Pneumonia, pleuro-pneumonia	8	Acute rheumatism (including pericarditis, etc.)	3
Bronchitis (acute)	3	Typhoid	5
Phthisis and hæmoptysis	1	Febricula (or febrile attack of uncertain nature)	1
Stomatitis	1	Measles	1
Acute obstruction of bowel (volvulus)	1	Mumps	1
Dysentery	2	Pyæmia	2
Perityphlitis	1		
Total	32		

Observations relating to the above cases.

Pyrexia (temperature 102° to 104°)	15
Hyperpyrexia (over 104°)	3
No observations as to temperature	5
Much prostration	5
Prostration not severe	3
Chiefly on liquid diet	16
Strictly limited to liquid diet	8
Dry diet	0
Saliva abnormally deficient	13

Average temperature of 27 cases, 101.6°.
Died, 10; recovered, 11; improved, 11.

Before proceeding to other varieties of tongues, I will, now that we have reached in the plastered tongue the climax of simple coating, look back upon the several grades of that condition, and try to collect the instruction which flows from them.

First pathologically. The most important item is the lengthening of the papillæ; and the first question, how far this depends on disuse, from want of food, etc., and how far on overgrowth. Want of wear must have some effect in allowing this elongation, but it would seem to be too rapidly produced to be wholly thus accounted for. A greater length is attained within the short duration of an acute disease than in its longer time of a chronic one, even though it entail more complete disuse. Not only are the epithelial ends to which only the wear applies elongated, but so in many cases are the deeper parts of the column which are unexposed. The epithelium also between the papillæ, which, as being less exposed than they are, must be less influenced by wear, is also in many cases increased in thickness; when it is so it gives strong evidence of over-production as against deficient removal. Coating, therefore, is the result in part of disuse, want of rubbing and washing, as the somewhat increased surface parasites show, but chiefly of morbid overgrowth.

The clinical circumstances give similar evidence. It is true that the greater degrees of coating occur chiefly in patients who are kept without much solid food. On the other hand, in many conditions with which solid food and mastication are almost completely absent, the thick and rapid covering of acute disease does not present itself. I have watched with interest from this point of view cases of stricture of the œsophagus. In three such only the lower degrees of coating were presented, though in all solids were impossible, and in two food was introduced chiefly by the bowel. In a fourth the tongue was dry and furred, but the furring came on with dryness, on which it was apparently dependent. I shall revert to the influence of diet upon the tongue, and simply say here that a comparison between the thinly or partially coated tongue of simple abstinence, and the thickly and generally coated tongue, where a less degree of abstinence is associated with a febrile state, shows conclusively, as it appears to me, that in the latter condition we have something to look for beyond inaction.

I shall refer later to the effects upon the tongue of the limitation of liquid, but it is enough for the present to say that want neither of food nor of drink avails to produce the thick coating which in other circumstances is so characteristic.

A condition which may be briefly referred to in connection with

coating of the tongue is diminution of saliva, though I shall consider this subsequently on a wider basis. As a general rule, whatever be the reason, the saliva lessens as the coat thickens. Taking together the lesser degrees of coat presented with the stippled, and stippled and coated, classes, this secretion was notably deficient in 12 of 170 cases. Taking together the higher degrees of coat in the strawberry and plastered kinds, the saliva was notably deficient in 16 of 39. Thus generally, up to this point, the less saliva the more coat. But it will appear later that almost total absence of this fluid may concur with a tongue which is almost absolutely without coat. For the present it is enough to point out that the deficiency does not alone account for the excess of covering under consideration.

To account for this there remain but two causes which present themselves as probable: the hypothetical existence of a morbid poison as in fevers, and pyrexia. As to poison, looking at the high degrees of coat in the classes of strawberry and plastered, I find that of 39 such cases 14 were of typhoid, febricula, scarlatina, measles, mumps, or pyæmia, and 3 of acute rheumatism. Thus, unless we include pneumonia, of which there were 10 cases, less than half fell within this hypothesis. Among the rest were many cases of local or organic disease, which were clearly outside this supposition. Among these were 3 cases of acute bronchitis, 1 of phthisis, 2 of perityphlitis, 1 of volvulus—enough to show that local disease, or disease not connected, so far as we know, with any blood contamination, may give rise to what may be called acute coating of the tongue.

Pyrexia remains to be considered. When the tongue is normal, so as a rule is the temperature. I have already referred to one case as exceptional in which the tongue remained clean in the presence of pneumonia. Putting this aside, I have already referred to 22 cases in which, in different circumstances, the tongue was reasonably clean; the temperature was raised only once, and then only to 101.5°. Taking now the degrees of coating in ascending order, we find that as the coat increases, so with almost exact correspondence does the temperature.

Relations of Body Heat to Coating of Tongue.

Class of Tongue.	Percentage with Pyrexia.	Average Temperature.
Stippled	4.9	98.5°
Stippled and coated	8.6	98.7
Coated, moist	18.7	99.1
Coated, dry	30.0	99.5
Strawberry	57.1	102.0
Plastered	53.1	101.6

The annexed statement needs no explanation; whether we look at the frequency of pyrexia in the class, or at the average temperature of all cases in it, the figures are equally significant. Taking the strawberry and the plastered tongues as practically the same, the proportion between coat and heat is maintained with remarkable exactness; and we have as yet failed to find any other condition besides heat of body which has as uniform a relation to the alteration in question.

That heat up to a certain point promotes the growth of cells is a fact well known to experimental physiologists. I take it on the authority of Dr. Delépine that a temperature of between 100° and 104° is favourable to the growth of tissues, one of above 105° detrimental to it. It probably very rarely happens that the dorsum of the tongue, exposed as it is, and necessarily cooler than the constantly covered parts, reaches a temperature high enough to lessen growth; almost any degree of elevation possible in the circumstances must be within the limits of that which tends to increase. In pyrexia, therefore, we have, if not the only maker of coat, certainly the chief one.

CLASS 7.—The Furred or Shaggy Tongue.

As the papillæ of the coated tongue continue to lengthen, and adventitious matter to collect between and upon them, the advancing process presents itself in two shapes, which differ as the elongation or the accumulation preponderates. When there is great projection of the papillæ, so that these stand out distinctly, the term "furred or shaggy" represents this condition. Where these shapes are covered in, and levelled over by matter, whether derived from the tongue itself, or from without, the term "encrusted" may be employed. The two conditions occur in many similar circumstances, and are continually intermingled; nevertheless, they occur separately, and must be so described. A stippled or dotted tongue, by increase of each point of coating, may become furred, a process which dryness facilitates. In a different way a thickly

coated tongue may become furred. The lengthened papillæ may present themselves as a coarse pile like plush, and so make the "moist furred tongue." A little drying will cause the threads to collect in sheaves, and so form the "dry furred tongue" which I am about to describe.

To the naked eye and during life the fore part is irregularly rough, with large pointed papillæ, on the tips of which are brown spots, or the whole may be more or less brown. The central and back parts are often covered with irregular pointed masses, such as are represented in the drawing, frequently more or less mixed up with and obscured by dry crust often like crocodile's skin. I have seen after death (in a case of malignant disease of the larynx) much of the hinder region of the tongue covered with a shaggy villous growth, like coarse hair; but in life this hirsute state is commonly much obscured by incrustation.

Under the microscope the chief characteristics of the tongue are the enormously elongated filiform papillæ, every part of which is increased, both the deeper portion derived from the corium and the superficial epithelial part, the latter most so. Micrococci are sometimes present on the tips of the papillæ, but do not add materially to their bulk.

The elongation may conceivably be due either to over-growth or deficient removal; there is often some increase of the deep epithelium, but seldom much; occasionally some over-nucleation of the corium is present. In fine, there is some evidence of hyperplasia, but not enough to account for the striking changes which the tongue presents. These would seem to be mainly due to want of wear, of which the papillary ends, hardened by dryness, are especially resistant. Beyond the resistance which dryness entails, it is possible that the unnatural state of surface which goes with it may act as an irritant and stimulate growth.

As to the clinical relations of this tongue, I have been able to collect, notwithstanding the generality of dryness, a few instances in which the furred tongue was moist, or at least not dry. One of these was of a kind sometimes seen where great elongation of the papillæ is consistent with appetite and health. The only conditions which could be suggested as provocative of the state of the tongue in this case were old age and constipation. I have referred to the state of pile, which may be regarded either as an advanced stage of the coated tongue or an early one of the furred. In the table it is seen to be associated with pneumonia and with anæmia.

The "dry" furred tongue is of more importance than the moist, but it occurs in different circumstances and is by no means uniform in its indications. It may succeed, as has been shown, either upon the dotted tongue or the coated, in the course of advancing disease; it may also occur with retrogressive disease, as when the encrusted tongue sheds its coat so as to expose the subjacent elongated papillæ. The class therefore presents much clinical variety. It has been shown that the furred or shaggy tongue is largely the result of disuse and want of moisture, which latter condition is nearly essential, though not absolutely so. The papillæ harden with dryness, as has been stated, and become abnormally resistant of friction, which, in the absence of solid food and mastication, is diminished. The saliva is obviously deficient, as judged by the difficulty of spitting and by the results of catheterisation of the parotid. It must be stated, however, that the latter operation was not often performed, the extreme illness of the patient often opposing a hindrance. The fact, however, was clear without this test; and the conclusion warranted that the dryness was in general due to want of this secretion.

The accompanying tabulation speaks for itself. I need not allude again to the instance where a profuse hirsute growth was conjoined with sarcoma of the epiglottis and tonsil; here the results of want of friction were chiefly evident, though there was some evidence of overgrowth in hypernucleation. I may next refer to a group of cases in which, as presumably in the last case, the condition was present with little or no pyrexia. This includes two cases of coma from brain disease, two of advanced cirrhosis, one of enlarged liver of uncertain nature, two of diarrhoea, and three of enforced dry diet. Thus, dehydration, be its cause what it may, is a definite factor in producing the tongue in question. In other cases—to wit, typhoid and acute rheumatism—pyrexia was present, but it is clear that this is not essential. It is worth observing how infrequent is pyrexia, and how low its range in the dry tongue now in question, as compared with the plastered moist tongue last discussed. This shows how little of the desiccation is to be attributed to evaporation connected with increased heat of body. And I may make similar negation with regard to

another condition to which dryness and furring have been attributed, namely, habitual openness of the mouth, especially during sleep; I find but three instances in which this attracted notice, and I am persuaded that other causes of drying and furring are far more important.

In short, the dry furred tongue is essentially due to two causes which are connected together—want of saliva and want of wear. Among the causes of want of saliva, the most important is a state of system which cannot be otherwise defined than as failure of nutrition and vital power. With how great a variety of disorders this failure is associated I need not recapitulate; I have expressed the greater degrees of it by the term "prostration."

7. *Furred or shaggy; not dry.*

Pneumonia, pleuro-pneumonia ...	2
Perityphilitis, perforation of appendix ...	1
Chronic constipation ...	1
Granular kidney; uræmia ...	1
Total ...	5

Observations relating to preceding cases.

Pyrexia (temperature 102° to 104°) ...	1
Hyperpyrexia ...	0
No observations as to temperature ...	2
Average temperature (of 3 cases) ...	99.8°
Much prostration ...	2
Chiefly on liquid diet ...	2
Strictly limited to liquid diet ...	1
Saliva abnormally deficient ...	2
Died, 2; recovered, 1; not improved, 1.	

7 (D). *Furred or shaggy; dry.*

Disease of brain (coma) ...	2	Stricture of œsophagus ...	1
Hemiplegia (embolic) ...	1	Diarrhoea ...	2
Chorea ...	1	Perityphilitis ...	1
Valvular disease ...	1	Abscess (in axilla) ...	1
Aneurysm or dilatation of aorta (dry diet) ...	3	Acute rheumatism ...	1
Broncho-pneumonia ...	1	Typhoid ...	1
Pleurisy ...	1	Convalescence from typhoid ...	1
Cirrhosis of liver ...	2	Febricula ...	1
Enlargement of liver (cause uncertain) ...	1	Movable kidney and rheumatism ...	1
Total ...	24	Chyluria ...	1

Observations relating to preceding cases.

Pyrexia (temp. 102° to 104°) ...	3
Hyperpyrexia ...	0
No observation on temperature ...	2
Average temperature of 22 cases ...	99.1°
Much prostration ...	6
Prostration not severe ...	2
Chiefly on liquid diet ...	9
Strictly limited to liquid diet ...	5
No food by mouth (fed by rectum) ...	1
Dry diet ...	3
Saliva abnormally deficient ...	8?
Died, 9; recovered, 7; relieved, 8.	

DONATIONS.—The annual report of the Leeds General Infirmary acknowledges the receipt of £150 from the Yorkshire Football Club, making a total of £1,000 in eight years.—The Trustees of Prison Charities have given 100 guineas, additional, to the National Hospital for Consumption at Ventnor, and 100 guineas to the Metropolitan Convalescent Institution.—The Sheffield Church Burgesses have given £120 to the Sheffield Public Hospital and Dispensary, and £68 to the Jessop Hospital.—The Mary Wardell Convalescent Home for Scarlet Fever has received £100 as "A Jubilee Offering."—Mr. Harold Smith has given £100 to Charing Cross Hospital.—University College Hospital has received £85 from the People's Contribution Fund.

The General Court of the Governors of Guy's Hospital have sanctioned the erection of a residential medical college upon a site immediately adjoining the hospital. It is proposed that the sum required for this purpose, estimated at £20,000, should be raised by private subscriptions among the governors, the medical staff, the lecturers and teachers in the medical school of Guy's Hospital, and their friends. The special appeal fund lately raised, and which is only available for purely hospital purposes, now amounts to £85,000.

THE TREATMENT OF DIPHTHERIA AND TONSILLITIS.

By THOMAS F. RAVEN, L.R.C.P., M.R.C.S.ENG.

FROM time to time communications appear in the JOURNAL, and other medical periodicals, relating to the treatment of diphtheria. Various drugs, applications, and antiseptics are employed, and, when the result is satisfactory, a record is made of successful treatment, and sometimes even the specification of a remedy is announced. The clinical features of the disease, however, are often omitted, and when this is so, the value of the observation must suffer.

It is held by many authorities that sore throat, with membranous deposit, is in itself a sufficient evidence of the disease called diphtheria. The writer of the article on diphtheria, in Quain's *Dictionary of Medicine*, inclines to this view. Others, however, are driven to the conclusion that sore throat, with membranous deposit, occurs sometimes sporadically, sometimes in epidemics (with local appearances exactly resembling those of true diphtheria), which can be clearly distinguished, especially, "after the event," from diphtheria. My own experience compels me to take sides with the latter view. Recently I witnessed, in an institution containing eighty children, a severe epidemic of exudative tonsillitis. The disease was sthenic in type, and the local appearances of wash-leather-like patches of considerable extent upon the pharyngeal mucous membrane were indistinguishable from those of diphtheria. The cases were almost all severe, with temperatures, especially early in the disease, as high as 105°; relapses were common. Three cases of acute rheumatism (with cardiac mischief), one of erysipelas of the face, and one of diffused cellulitis with suppuration (in an adult) were associated with the epidemic. The disease was extremely infectious, and it undoubtedly arose from the poisonous effects of sewer gas. Had I treated the patient with sulphurous acid, or biniodide of mercury, or sulphite of magnesia, or turpentine, I should have been justified, by authority, in recording the successful treatment of sixty cases of diphtheria, by one or other of these remedies. For under careful management, the disease ran its course, and all got well; and, although chlorate of potassium was freely given, I never thought of attributing the recovery of the patients to its employment. During the epidemic albuminuria was never found in any case, nor swelling of the glands at the angles of the jaw; and afterwards there was not a single instance of paralysis or peripheral neuritis.

Within the last few weeks a similar but smaller epidemic has been under my observation. Almost exactly the same symptoms appeared, but the disease was less severe than in the epidemic which I have just given an account of. Thirteen cases of exudative tonsillitis occurred, some mild, some severe. In one case laryngeal symptoms appeared, but subsided in the course of a few days without operation being necessary. All the patients got well, and no remedy but chlorate of potassium was given, and in no case were the sequelæ of diphtheria manifested. The disease, which resulted from the escape of sewer gas into a lavatory and near a bedroom window, was decidedly communicable. This was shown by the fact that when the first case was removed to a lodging for supervision, a little girl in the house contracted the disease.

It is to be hoped that the Collective Investigation Committee, with the new schedules, clear and simple as they are, giving scope to every contributor to record his own experience in his own way, will do good work by collecting sufficient evidence by which a distinction can be definitely drawn between diphtheria and exudative tonsillitis. The subject is one that can hardly be overrated in importance and interest, and most practitioners have experience and notes bearing on the matter.

SCARLET fever has, we learn, broken out on board the Thames training ships *Shaftesbury* and *Exmouth*, lying off Grays. Sixteen cases from the former and one from the latter have been removed to the hospital.

FRENCH ACADEMY OF MEDICINE.—At a meeting of the Académie de Médecine on March 13th Dr. de Saboia, of Rio de Janeiro, and Dr. Lusk, of New York, were elected Corresponding Members in the Section of Surgery. In addition to these two gentlemen, the names of Professor Victor Horsley and Sir William Mac Cormac, of London, Dr. Macewen, of Glasgow, and Dr. Sayre, of New York, were submitted to the Academy.

NOTES

ON A

CASE OF CANCER OF THE PYLORUS
IN WHICH PYLORECTOMY WAS
PERFORMED.

By McCALL ANDERSON, M.D.,

Professor of Clinical Medicine in the University of Glasgow;

AND GEORGE BUCHANAN,

Professor of Clinical Surgery in the University of Glasgow.

MEDICAL HISTORY OF THE CASE BY DR. McCALL ANDERSON.

The following case¹ is worthy of being recorded in connection with the question of operative interference, as it is desirable that unsuccessful, as well as successful, cases should be published.

On January 9th, 1888, on the recommendation of Dr. Samuel Sloan, Mrs. S., aged 48, was admitted into the Western Infirmary complaining of symptoms, referable to the stomach, of four months' duration. Her father died, aged 40, of "chest affection," her mother of "paralysis," at 70; two brothers and two sisters died in infancy, and two sisters, at the ages of 30 and 40, of bronchitis and enlargement of the liver respectively. Her remaining two sisters are alive and well. She herself has had six children, three of whom are dead, one being stillborn, and the other two having died of scarlet fever. Of the remaining three two are well, and the third is at present under my care suffering from chorea. She has always, hitherto, enjoyed good health, and menstruated regularly; but now she seems to be approaching the menopause. She has been a total abstainer all her life.

About four months ago, without obvious cause, she began to complain of flatulence and of "waterbrash," to which symptoms pain in the epigastric region and vomiting were added two months thereafter, and her friends noticed that she was losing colour and getting very thin. The vomiting always occurred two or three minutes after food, and consisted of the ingesta, little altered, and never contained any blood, nor presented the "coffee-ground" appearance. The pain occurred at first only after taking food, but latterly it has been more continuous, and has often been very severe, although she cannot well describe its character. Since her illness commenced her appetite has been very fitful, and has never been very good, although anorexia is not a prominent feature, but, for the last two months, her bowels have been very costive, and she has never had a natural motion.

On examination she was found to be very pallid, very weak, and much emaciated, but she had no fever, nor was there any evidence of disease in any organ with the exception of the stomach.

On placing her on her back and exposing the abdomen, inspection at once revealed a very considerable distension in the epigastric and left hypochondriac regions, having quite the shape of a distended stomach. The great curvature of the stomach was very distinctly indicated, extending at its lowest point as far as the umbilicus, and on passing the hand along its course to the right, it was found to terminate in a hard and nodulated tumour about the size of a hen's egg. This tumour, which was only slightly tender on firm pressure, was freely movable in all directions, and fell very much to the left on lying on that side. There was dulness on percussion over the tumour, but over the rest of the distended stomach the note was tympanitic, and even after fasting for sixteen hours succussion was easily made out.

On January 10th treatment was commenced. She was allowed nothing by the mouth except a small piece of ice when she was thirsty, and a teaspoonful of Carnrick's beef peptonoids thrice daily; but a milk suppository was inserted into the rectum every two hours, and at the alternate hours she had an enema of Carnrick's peptonoids (3 drachms in 3 ounces of warm water). Her bowels were regulated alternately with a simple aperient pill and a warm water enema.

On examination, on January 23rd, it was found that under this treatment the symptoms of dilatation of the stomach had entirely

disappeared, and the tumour was now felt immediately to the right of the left edge of the ribs, and extending nearly to the middle line. On sitting up, however, it descended about a couple of inches. Under the treatment just mentioned she felt very much more comfortable in every respect, and did not seem to be any weaker than at the time of admission.

The symptoms presented in this case led to the conclusion that she was suffering from a cancerous obstruction at the pyloric orifice of the stomach, while the small size of the tumour and its remarkable mobility—which pointed to its being non-adherent—along with the absence of any evidence of implication of other organs, led me to think that it might be a suitable case for resection of the pylorus. Accordingly, after consultation with my colleagues, it was decided to place the whole matter before the patient and her friends, without concealing in any way the great danger of operative interference, and, as they were unanimous in their desire to have it done, she was transferred to the service of my colleague, Professor George Buchanan.

DESCRIPTION OF THE OPERATION, WITH REMARKS THEREON BY
PROFESSOR GEORGE BUCHANAN.

The patient referred to in the report by Dr. Anderson was placed under my care on January 24th, 1888. The danger of the operation was fully represented to her and her husband by me in such form that, so far from recommending or even biasing, I told them that their acquiescence must take the form almost of a request rather than a consent. But they had well weighed Dr. Anderson's words, and quite resolved to have it done.

The operation was done after the manner of Billroth, as detailed in Wölfler's monogram and in Butlin's *Operative Surgery of Malignant Disease*, with one or two slight modifications.

I did not adopt the recommendation that the stomach should be washed out with tepid water for a few days previously to, and also two hours before, the operation. I am confident that if the stomach could be by any treatment put into the state of Mrs. S.'s, such manipulation, a most harassing thing for the patient, would not be required. In her case the stomach was practically empty for days, and on the morning of the operation was so, as was proved at the operation. Such strength as remained to her was not, therefore, taxed in the morning by any such disagreeable process.

She was placed on the table at 11.30 A.M., and was put back to bed at 2.30 P.M. From the commencement of the giving the anæsthetic till the bandaging up of the wound occupied two hours and a half.

There were present, besides others, Sir G. Macleod, Dr. Patterson, Dr. Cameron, and Mr. Maylard who had himself done an operation of the kind two years ago, and as he offered to devote the whole day to be present, he afforded the most valuable assistance in the most trying part of the proceeding, namely, holding up and coapting and assisting in passing the needles through the cut orifices of the stomach and duodenum. Ether was administered by Dr. J. L. Steven with most excellent effect.

I made a vertical incision from the umbilicus to the ensiform cartilage, and without any hæmorrhage cut through the linea alba into the peritoneum. I put my hand into the abdomen and felt nearly opposite the incision, a little to the right side, the end of the stomach with a smooth tumour the size of a large hen's egg surrounding the proximal end of the pylorus. Its right limit was sharply defined at the pylorus, and an almost as clearly defined extremity to the left marked the extent of the stomach invaded. It was freely movable, and there were no adhesions, so that without trouble it could be lifted up to the abdominal wound, and the thin diaphanous webs of the lesser and greater omentum examined. The process of separating the lesser omentum from the upper and the greater omentum from the lower curvature of the stomach is very tedious, as every half-inch has to be secured with a double ligature, and snipped between. When this was accomplished Mr. Maylard used the forefinger and thumb of both hands as a clamp on the proximal part, a flat sponge was placed underneath the stomach and duodenum now drawn up to the wound, and the stomach was cut through. Scissors were used, and the section proved most satisfactory. Not a particle of fluid flowed out, and so far as one could judge the gastric wall, where divided, seemed beyond the tumour.

It is unnecessary to detail all the manipulations with needles and the different modes of introducing them which are necessary, according as one deals with the sewing from within or from outside the viscera. The really critical and difficult part of the

¹ Reported by William MacLennan, M.B., Resident Physician.

operation, viewing it as a piece of skilful manipulation, is where the upper point of the cut duodenum is joined to the lower point of the upper curvature of the stomach, where it has been stitched to close in the upper two-thirds of the gap left by the piece cut off with the tumour.

To do this the assistant must have the stomach end in one forefinger and thumb, and the duodenum end in the other forefinger and thumb, and hold the points in absolute contact; but, besides, must elevate and depress them synchronously with the movements of the surgeon's curved needle, so that the action, to be completed satisfactorily, is composed of the harmonious motion of four hands. So much was I impressed with this, that I can easily conceive that Billroth and his assistants, who have together done the operation many times, ought to accomplish it far more rapidly than the most skilled operator doing it for the first time; and, as the shortening of the time occupied is one of the most necessary desiderata, it is not improbable that increased experience and modification in manipulation may have this effect, and so lessen the primary mortality of the operation. In all, over forty stitches were introduced, besides those used to close the abdominal wound.

When the stomach and duodenum were joined, and just before the abdomen was closed, the parts seemed to fit each other so exactly that it was difficult to realise that four or five inches had been cut away. Also it was satisfactory to notice that neither blood-clot nor any of the contents of the stomach or duodenum had gained admission to the abdomen, though a small vessel in the cut edge of the duodenum had to be ligatured with a fine silk thread.

During the first two hours the patient, who was completely under the effects of ether, was fairly well, but about this time began to show signs of exhaustion, getting very pale, with feeble pulse. Stimulants were carefully administered by subcutaneous injections of ether, enemata of brandy, and small quantities of brandy rubbed inside of the cheeks. But by the time the operation was completed she was in a state bordering on collapse, almost pulseless, cold and white.

She was placed in bed, warmth was applied to the surface, and small quantities of brandy given.

I saw her again at 6 P.M., and by this time the heat was restored and the pulse was fairly good. There was no vomiting, and she declared she felt neither pain nor sickness, but very weak. This rallying went on till midnight, when signs of depression again came on, and she gradually sank till 8 A.M., when she died.

Post-mortem Examination.—On removing the stitches from the abdominal wound the coated surfaces of the peritoneum were found closely applied, seemingly even partly glued together. The abdominal cavity was freely opened in such a way as to obviate the slightest displacement of its contents. They were found precisely as they had been placed at the operation, and not a particle of blood or other fluid had escaped from the line of union. The cut end of the duodenum was lying on the surface of the pancreas, and seemed already to be partly adhering to its peritoneal covering. The stomach and duodenum were carefully removed and laid on a slab, and the stitches kept the parts so well in position that they could be moved about without disturbing the union. The weakest point of union was at the posterior wall of the duodenum, where the stitches were closely placed by interrupted suture, and here, with a little pressure, the point of a probe could be made to pass through the line of union. Here, however, the line of suture while *in situ* was resting on the pancreas, and if the patient had lived adhesion between the peritoneal surface of the bowel and that of the pancreas would have occurred, in fact, had already begun. So far as the anatomical manipulation was concerned, the examination was evidence that the result was just what was desired. The stomach contained about two ounces of brownish fluid. Examination of the seat of the incision showed that the diseased structure had been completely removed. The structure of the tumour removed was cancer of the colloid variety. A small gland in the lesser omentum, seen at the *post-mortem*, was removed, and on microscopic examination proved to be infiltrated with a material somewhat resembling the primary tumour.

REMARKS.—The conclusions I have drawn from the experience of this case, and from a study of the subject² are: 1. That if pylor-

rectomy is to be undertaken with any prospect of success the patient must be urged to submit to it long before he is reduced to a state of approaching inanition by starvation. 2. The success or fatality of the operation itself will be greatly affected by the length of time the abdominal cavity is kept open. 3. The freedom of the tumour from complications, as adhesions and secondary infiltrations, is necessary, but sometimes can only be ascertained during the operation. Meanwhile, as the number of operations performed is still very limited, the question, "Is pylorotomy justifiable or not?" may be disposed of by quoting the two following opinions, one by Mr. Butlin, who has made the question the subject of very extensive study from the history of all the recorded cases; the other from Professor Billroth, the contriver of the operation and the most extensive and successful operator.

Butlin: "The excessive mortality due to the operation, the rapidity of recurrence in what have appeared to be most favourable cases for operation, the return of the symptoms of obstruction in some if not many of the cases, and the fact that there does not appear to be one case which can be claimed as a genuine cure, lead me to doubt whether the operation of resection of the pylorus for cancer is ever a justifiable operation."

From Professor Billroth's assistant: "Wien, Klinik Billroth, February 2nd, 1888. To Professor George Buchanan.—Dear Sir, —Professor Billroth does not only consider the operation of resection of the pylorus as a justifiable one, but he continues operating with good results in many cases, as you will see from the pamphlet following this letter. Of course he does not operate in cases of carcinoma, if there are already infiltrations and adhesions to the liver and pancreas. In these cases he prefers Wölfler's operation or gastro-enterostomy.—Believe me, yours truly, FRITZ SALZER."

Accompanying this letter was a statistical table of the operations done in Professor Billroth's *Klinik* in 1887, three by Billroth and one by Salzer. Three of these recovered and were alive at the time of writing; the fourth died after fourteen days. Surely there is, in the presence of such facts, good reason for a little longer suspending judgment.

I remember the time when one of the most accomplished surgeons of his day publicly asserted that, if a surgeon performed ovariectomy again and it was followed by a fatal result, he might with justice be tried as a criminal charged with culpable homicide; and this owing to the almost uniform mortality from the operation.

I am not an advocate for the very frequent performance of pylorotomy, and I have before stated the conditions which may lead to further success in the future. Meanwhile I would counsel everyone who has the prospect of being called on to do it to practise it frequently on the dead body. The time occupied in passing the stitches can only be curtailed by frequent practice on the parts *in situ*.

As this is one of the surgical manipulations requiring special aptitude and interest and frequent repetition to ensure anything like success. I am of opinion that the operating surgeons of a large community, with so many hospital appointments, might agree to delegate all such operations to one or two young men who would be willing to take it up, and who would accept the duty, not because they could at first do it better than their competers, but because they would cheerfully face the responsibility of keeping up the special knowledge required by mastering everything written about it, and the special aptitude required by the frequent practice of it in the *post-mortem* room.

ST. JOHN AMBULANCE ASSOCIATION.—The course of "First Aid" lectures which were held at Esher and which were attended by H. R. H. the Duchess of Albany, was finished on March 1st, and last week the examination took place, when seventeen candidates out of the twenty-seven composing the class were examined, amongst the number being the Duchess of Albany. The examiner was Dr. Coates, R.N., who, after a searching examination, reported all the candidates, with one exception, as being very well up in their work, amongst the successful candidates being the Duchess of Albany. After the examination, Her Royal Highness thanked the lecturer, Surgeon Lees Hall, for the very pleasant, instructive, and interesting course of lectures given, and which she felt sure the whole class had enjoyed.

² Authorities consulted: Wölfler's monogram on the Method of Extirpating the Pylorus; Hacker, Die Magenoperationen an Professor Billroth's Klinik, 1880 and 1883; Salzer, Statistics of Operations in Billroth's Klinik in 1887; Winslow,

American Journal of Medical Science, 1885; Butlin, Operative Surgery of Multiple Disease, 1887.

CLINICAL LECTURE

ON

THE TREATMENT OF CARBUNCLE

BY SCRAPING.

Delivered at St. Mary's Hospital, January 27th, 1888.

By HERBERT W. PAGE, M.A., M.C.CANTAB.

Surgeon to the Hospital.

GENTLEMEN,—I shall make no apology for offering to you some remarks upon a disease which was thought worthy of a place in the Clinical Lectures of Sir James Paget. I wish, however, to-day to speak more especially on the treatment of carbuncle by that plan of free scraping away which you have seen practised in the hospital, and I do not intend to take up your time by a description of the disease, of the symptoms it presents, or the course it runs. I assume that you are familiar with the usual appearances, and that by the size and severity of the local inflammation, by the angry look, and the boiling out through many openings in the sloughing skin of the unhealthy gangrenous tissue beneath, you are able to say when the term "carbuncle" may be properly applied. I assume also that you know what is the general condition of patients thus afflicted, how, even in cases where there is no such special debilitating cause as diabetes, there has commonly been an antecedent state of ill-health, brought about very possibly by over-work, insanitary surroundings, or insufficient food, and how the carbuncle tends further to increase the debility so induced, by establishing one of those vicious circles which we so continually are trying to break down. As debility led originally to the carbuncular inflammation, so this in its turn increases the debility, until the patient's condition may be one of great danger, demanding the use of every means likely to keep up his strength, and thereby obviate the tendency to die. With these things I assume your familiarity, and if you turn to your textbooks of surgery to find how to treat the patient, you will learn a good deal which is of importance as to maintaining his strength, but you will find little that is satisfactory as to the local treatment of the disease. On this point opinions have differed widely, some surgeons advocating free crucial incisions to relieve both tension and pain, at the risk even of much bleeding, which is clearly a thing not to be lightly regarded in the circumstances; others thinking the separation of the slough may be hastened by pushing small pieces of potassa fusa through the skin-holes into the gangrenous tissue beneath, a plan of treatment from which I hope myself to be preserved; some advising pressure; most recommending the use of well-made and frequently changed hot linseed poultices for the relief of the pain, for the softening and detachment of the sloughs.

With the method by incision Paget deals at length in the lecture to which I have referred; but, without repeating his arguments against it, I may tell you that, from the observation of many cases, he had arrived at the general conclusion that the best of all treatments was to "do nothing," understanding by that phrase that his patients were "carefully fed, washed, cleaned, and bedded, and their carbuncles were very skilfully dressed and washed with proper things, and every care was taken to shut out all untoward influence from them." Thus treated, "no complications occurred, and therefore the cases remained without treatment, as it is said—that is, without medicine, and with no active surgery, no incisions, or anything of that kind." And then he goes on to speak of the value of poultices and perfect cleanliness; of the need in some cases of opium; of the smaller need than is commonly imagined for excessive feeding or stimulants; of the vast importance of letting the patient have very free air. Nor had the experience of ten more years, and the opportunity of having seen a much larger proportion of fatal cases, as we are told in an appended note, led him to deviate from the plan advised when the lecture was given.

Now, all these methods of treatment, whether by incision, by potassa fusa, by pressure, or by poulticing, have this in common, that the tissue which has been destroyed by the violent inflammation is left to be got rid of in Nature's own way, by cessation of the gangrenous process, by the formation of granulation tissue,

and by gradual detachment of the sloughs which have been formed in and beneath the skin. During this slow and tedious process the patient is subjected to many risks, and has much to contend against, the worst of them being exhaustion and pain, septicæmia and pyæmia, and it is from one or other of these last conditions that death commonly ensues.

In speaking of acute septic gangrene, you have heard me advise that the best thing for the patient is to get rid as soon as possible of the gangrenous area or limb, and, as an example, you could not have a better case than that of the lad whose thigh was amputated on the 16th, whose temperature fell at once from 106° to 99°, and who was rescued in the nick of time from a state of supreme danger.

Descending from great things to small, I believe that the risks incidental to carbuncle may be avoided, and the general condition of the patient very rapidly improved, by the free removal of the carbuncle by scraping with a Volkmann's spoon, or rather with Lister's scraper. You know perfectly well the many conditions in which this comparatively new and most useful instrument is employed in surgery: for scraping away unhealthy granulations, strumous or lupoid, diseased glands or synovial thickenings, and in a hundred other ways, but in none is it, I think, of more immediate or practical benefit than for the bodily removal of the sloughing tissue of a large carbuncle. You object to it, perhaps, that there must be severe bleeding, the very thing we spoke of as undesirable in the treatment by crucial incision. Experience, however, shows that there is nothing of the kind. We have been astonished at the singularly little bleeding which has arisen even in the most extensive scraping, and I feel pretty confident that there is no danger on this score.

The mode of treatment is simplicity itself. The patient is anaesthetised, and if the slough has not already begun to boil through openings in the skin, a small central incision, or incisions, is made into the parts beneath, and then with the spoon you scrape out every particle of sloughing tissue, working down into the depths, going from part to part, controlling by gentle pressure any venous oozing there may be here while you are scraping there until the whole slough is cleared out; and such skin as seems to be dead, blue, and bloodless you may cut away with knife or scissors, although it is marvellous how much of apparently worthless skin will return to life, and had better be preserved. Then, having well irrigated the large open wound with perchloride or carbolic lotion, you dust iodoform over it, bandage upon it with some pressure wood-wool pads, and the procedure, which hardly deserves the name of an operation, and which has not taken many minutes, is at an end.

The following cases may be cited in illustration of what has been said and in support of the usefulness and value of this plan of treatment, which I cannot help thinking will come in time to be very generally employed.

CASE I.—R. F., aged 41, admitted April 27th, 1887, looking wasted and very ill, has been out of work for a long time, has been starved, and been mentally much depressed. A carbuncle has been forming between his shoulders for the last eighteen days. It measures eight inches in one diameter, six inches in another, and is boiling out by many openings. He is in great pain. His pulse is very feeble, his morning temperature is 100.2°, and he looks like a man who has been starved. There is no albumen or sugar. On April 29th the carbuncle was freely scraped away; there was no hæmorrhage. The same evening his temperature was 103.6°, and in the following morning and evening 100.6° and 100.4°. He expressed himself as already feeling much better, and thereafter, with a normal temperature, the history is one of rapid improvement. In five days the surface was covered with healthy granulations, and healing took place in the usual way, being helped later on by skin grafts, under the careful dressings of Mr. Kershaw. He left the hospital on June 21st.

CASE II.—H. B., aged 65, the subject of a circular carbuncle, five inches in diameter, on the back of the neck and occiput, was admitted on May 25th. It had begun as a pimple three weeks before, and was now boiling out in a typical manner. He was very weak and ill, and in great pain. On May 26th the whole thing was scraped away; there was no bleeding. The large surface cleaned rapidly, and by June 6th was covered with healthy granulations. His rapid general improvement was in every respect most striking. After the removal of the carbuncle he lost all pain, and soon began to enjoy his food. He was discharged on August 2nd.

CASE III.—X. S., aged 55, was admitted on September 7th. Has

been suffering for some time from cold and indigestion, and looks weak and ill. There is no albumen or sugar. He has a carbuncle four inches in diameter on the back of his neck, which began fourteen days before with aching pain, and the formation of a pimple which rapidly increased in size. The pain is great, although the carbuncle is much broken down. On September 8th the carbuncle was scraped away by my house-surgeon, Mr. Crowle. By September 16th the surface was covered with healthy granulations, and healing forthwith went on in the usual way. His general appearance at once improved, and from the day after the operation he had freedom from pain. Discharged October 4th.

Our latest case was treated yesterday by Mr. Norton, my present house-surgeon. To-day the man looks much better, and is quite free from the severe pain which he was suffering before the scraping.

That each and all of these patients derived immense benefit from the treatment, there could be at the time no doubt, nor is there any, I think, that the risks of septicaemia, pyaemia, and exhaustion were very much lessened. Clearly, it cannot be otherwise than an advantage to get rid as early as can be of so nasty a thing as a carbuncular slough, as I hold it is the right thing to get rid of sloughs however caused. You may remove them too late, you can hardly do so too soon. Many of you know the woman in Manvers ward, who was so long an in-patient because of an extensive burn of arm, breast, side, and axilla, who began on the sixth day to wander and have high temperature, and to be distinctly septicaemic, and who rapidly improved, and whose temperature fell as soon as Mr. Crowle had carefully scraped away the sloughing tissue. So, also, is it with the scraping of carbuncles.

This plan of treatment has, no doubt, occurred to and been practised by other surgeons, but a search through books and journals has enabled me to find only one paper bearing on the subject. The paper "On Scraping in Surgery" was well worth finding (*Liverpool Medico-Chirurgical Journal*, January, 1887, p. 41); and I will read to you what Mr. Teale, the writer of it, says.

"*Carbuncle*.—Probably in no disease involving severe pain, and occasionally threatening life, is treatment by scraping more conspicuously of value than in carbuncle. A central crucial incision of moderate size, with vigorous scraping in every direction in which the scraper can penetrate into the half-dead tissue, will cleanse the diseased mass of much of the half-dead, putrefying, poisonous material. This main attack should be supplemented by smaller crucial incisions and scrapings in the contiguous carbuncular skin, and by numerous small incisions or lancet-punctures into any neighbouring skin, which, though not carbuncular, is oedematous, infiltrated by the spreading poison, and already half-condemned to a destructive career. Having rid the mass as far as possible of all diseased, decaying, infecting material, the resulting cavities and crevices should be well soaked, either with pure carbolic acid, carefully used so as not to scald the skin, or perhaps more advantageously with glycerin acid carbol, so that every crevice where half-dead tissue remains may be soaked and penetrated. Finally, the raw surface is well charged with iodoform, and dressed with salicylic acid or some such absorbent antiseptic material. The result is cessation of pain and feverishness, restoration of normal temperature, and a rapid establishment of comfort, convalescence, and healing."

I could wish for no better encouragement in bringing this mode of treatment to your notice than that it should have found an advocate in Mr. Teale, of Leeds.

BEQUESTS.—Lord Hindlip bequeathed £1,000 to the Burton-on-Trent Infirmary.—The Sheffield General Infirmary has received £500, and the Public Hospital and Dispensary, £250, under the will of Mr. Samuel Fox, of Deepcar.—The Glamorganshire Infirmary and Dispensary has received £500 under the will of Miss Mary Pothergill, of Hensel Castle.—Mr. Henry Browning, of Grosvenor Street, bequeathed £300 to St. George's Hospital.—Mr. George Ash bequeathed £200 to the Kent and Canterbury Hospital.—Mr. Michael Ganly, of Shelbourne Road, Dublin, bequeathed £100 each to the Mater Misericordiae Hospital, St. Vincent's Hospital, the Hospital for Incurables, and the Adelaide Hospital.—Mr. Charles Chevely, of Widford Lodge, Chelmsford, bequeathed £100 to the Essex Idiot Asylum at Colchester, £100 to the Chelmsford Infirmary, and £100 to the Dispensary.—Mr. Thomas Samuel Bolitho, of Trengwainton, Penzance, bequeathed £100 to the local infirmary.

CASE OF CEREBRAL ABSCESS SUCCESSFULLY TREATED BY OPERATION.

BY VICTOR HORSLEY, B.S. (Lond.), F.R.S., ETC.,
Assistant Surgeon to University College Hospital, and Surgeon to the National Hospital for Paralysis and Epilepsy.

(Continued from page 531.)

I SAW the patient on December 9th, 1887, in consultation with Dr. Ferrier. There was a rather offensive purulent discharge from the left ear, the pinna and external auditory meatus being tender; the passage also was a little swollen and narrow. Wiping out the pus completely was rendered difficult by this tenderness, and examination of the membrana tympani consequently very incomplete. It was, therefore, doubtful whether the opening was in the posterior segment, as it appeared to be, or not.

As set forth in the medical history of the case, the otitis was supposed to have commenced six weeks before with *malaise*. Discharge of pus began with severe pain three weeks before admission, but soon stopped, namely, in ten days. It reappeared the day before seeing him, but in much less quantity.

On palpation and gentle pressure the scalp and pericranium were found to be tender at a point which was situated just in front of a vertical line drawn through the external auditory meatus at about the junction of the third and lowest fourths of the distance between the meatus and the sagittal suture. This tender point above the meatus clearly corresponded with the superior temporo-sphenoidal convolution about opposite the lower border of its middle third, that is, vertically under the lower end of the fissure of Rolando.

At the same time, as described in the medical history, there was almost complete aphasia, marked paresis of the right side of the face, and less marked paresis of the movements of the right upper limb, especially those of the hand and digits. In both discs there was intense optic neuritis, the same being accompanied by hemorrhage in the right disc, that is, that of the side opposite to the abscess. It may be remembered that in the case published by Dr. Gowers and Mr. Barker, the optic neuritis was also most intense in the opposite disc. Considering the proximity of the abscess in each case to the fibres of the optic tract this, at the first sight, somewhat extraordinary fact may have a simple anatomical explanation in view of the decussation at the chiasma, and the fact of the lymphatic vessels lying for the most part parallel to the plane of the fibres.

December 10th, 1887. The patient having been put under chloroform, and the previous treatment of the head, including very thorough cleansing of the external auditory meatus with boric acid, etc., having been carried out, as detailed in a paper by myself (see *JOURNAL*, October, 1886), an incision was made of the following T shape. The horizontal limb was almost semicircular, the centre of the convexity being at the junction with the vertical limb. The anterior end of the incision began at the superior temporal ridge, and the posterior terminated at a vertical line drawn behind the middle of the parietal eminence. The junction of this horizontal limb with the vertical one corresponded with the painful spot. The vertical limb was simply carried down in front of the pinna as low as the tragus.

The skin and fat of the flaps thus marked were first reflected, and then the temporal muscle and periosteum were similarly turned off the bone. At the seat of the painful spot the bone was doubtfully yellow. When an inch disc of bone was removed at the same place, the dura beneath was found to be congested, at the same time bulging, without pulsation, and of a dark, almost purplish, colour. It was therefore clear that the abscess was pointing towards this spot. The dura was then opened, and the dark-red oedematous brain tissue bulged strongly through the incision. As it was fairly certain that the abscess extended deeply into the temporo-sphenoidal lobe, the lower half of the circumference of the hole in the bone was cut away into a V-shaped notch. The dura was opened further by another incision vertical to the first, just as in the skin. The brain was punctured with an ordinary trocar and cannula (about 3 millimètres diameter), the pus liberated, being first met with at about the depth of 1 centimètre. The amount

of pus was about half a fluid ounce (3v); it was inodorous and creamy. The cannula was kept in until no pus and only blood oozed through it. It was then replaced by the inner tube of a silver tracheotomy cannula; (this was changed for a smaller silver drainage-tube on the second day after the operation).

Owing to the inodorous, etc., nature of the pus, I thought it wisest to leave the cavity simply draining, and without syringing it out. The issue showed that this was correct in this instance, but of course each case must be treated on its own merits, and it must be obvious that such a procedure as syringing, etc., may be rendered advisable or not, according to other circumstances than those mentioned, such as the point in the abscess wall at which the opening is made, etc. For instance, in this case there is little doubt that the abscess was tapped at or below its centre, and consequently there was no hindrance to the flow of the pus.

The periosteum and temporal muscle were replaced and adjusted round the tube, which they pretty closely enveloped, a matter of satisfaction, since the brain continued to protrude considerably (owing to the usual œdema), after the withdrawal of the pus, and of course such bulging was more successfully opposed by the addition of a layer of muscle in the covering flaps. Finally, the skin incision was everywhere completely apposed by horsehair, and a few silk sutures. The wound was covered with a carbolic gauze, boracic acid powder, and sal. alembroth wool dressing.

The subsequent course of the case was really without incident, save the rapid recovery from all the symptoms. The temperature rose to 101° on the second night after the operation, but fell to normal the next day, and remained so.

December 10th, 11 P.M. Had vomited a little, and was restless. Pulse 124. Slept well after a hypodermic injection of morphine.

December 11th, 9 A.M. Pulse 96. At 6 A.M. vomited a little. No pain. Talked sensibly, but occasionally used wrong words. The aphasia was thus rapidly recovered from, as might have been expected from its special character. The loss of words, still present, was not peculiar to one class, for example, nouns. Wound dressed, and found to be uniting by the first intention.—2 P.M. Pulse 96.—6.30 P.M. Temperature 101°; pulse 108. From this time both the temperature and pulse became normal.

December 12th. Wound dressed; tube changed; answered questions rationally; no pain.

December 13th. Given solid food.

December 14th. Face: still a little weaker on the right side. Upper limb: grasp, right 87, left 93. Tactile sensation normal, and no pain on movement of limb.

December 15th. Wound dressed; tube quite empty; flaps completely healed. A little pus was syringed from the auditory meatus, which had been carefully cleansed and filled with powdered boracic acid at each dressing. At the next dressing this discharge had ceased, and never recurred.

December 23rd. Tube left out; wound simply covered with powdered boracic acid.

January 5th. The paralysis, or rather paresis, had apparently disappeared, but the grip was still deficient on the right side, thus: right 90, left 100. The fundi oculi, examined by Mr. Brudenell Carter, showed no trace of hæmorrhage (noted in right eye), and the swelling of the discs had almost vanished.

During the remainder of the patient's stay in the hospital he showed no further symptom, and was discharged in perfect health. The membrana tympani was intact, but a cicatricial (?) mark was apparently visible behind the tip of the handle of the malleus.

The genesis of the abscess in this case was singular in many respects. In the first place, it seemed as though the acute otitis media commenced at the most three or four weeks before the abscess arose. Further, here was a rapidly developed abscess of considerable size situated high up above the roof of the tympani apparently about an inch of brain substance intervened, and yet the pus, though of course infective, showed no sign of decomposition or indication of being extremely septic in explanation of the acuteness of the mischief.

The localisation was fairly easy in view of the paresis and arthritis, coupled with the tender spot, the pain of which was not continuous with that felt in the meatus.

As regards the operative procedure, I have nothing to add to that is now common knowledge. These cases are fortunately simple, perhaps the simplest, examples of intracranial surgery, but there remains yet the method of diagnosis. This is purely a question of localisation, and of all imaginable suggestive symptoms are more demonstrative than graduated paresis.

THE GOULSTONIAN LECTURES ON INSANITY IN RELATION TO CARDIAC AND AORTIC DISEASE AND PHTHISIS.

Delivered before the Royal College of Physicians of London.

By WM. JULIUS MICKLE, M.D., F.R.C.P.LOND.,

Medical Superintendent, Grove Hall Asylum.

LECTURE III.—INSANITY IN RELATION TO PHTHISIS.

THOSE who have chiefly written on so-called "phthisical insanity" have founded their description partly on cases in which the phthisis came on about simultaneously with the insanity, partly on examples in which phthisis evidently began long after the insanity, partly on others in which the recorded facts as to precedence are fragmentary and valueless. Of these three kinds of case I would reject the last two when offered as examples of phthisical insanity, and would allow to the first only a modified claim to be so entitled.

To work out the subject more satisfactorily, I have arranged three great groups of cases: one in which phthisis distinctly preceded insanity; one in which the two affections apparently came on about simultaneously; and one in which phthisis supervened in the course of well-established, or even chronic, insanity.

First Group: Phthisis influencing the Production of Insanity.—Taking up the first of these groups, it is desired to analyse cases in order to determine the influence of pre-existent phthisis on the production of insanity, or in modifying the clinical aspects of mental derangement subsequently arising partly or chiefly from other causes. In dealing with this as with the other parts of this subject of phthisis and insanity, I purposely exclude all cases of general paralysis, epilepsy, senile dementia, and various other conditions with gross organic brain changes; and I do so inasmuch as in these cases the clinical aspects are chiefly dominated by the intra-cranial lesions. Omitting these, I have had under my care during a term of years at least 106 cases which appeared to have some relation to the decision of the first question we meet—that of the influence of phthisis on the production of insanity—and from which the constituent members of the first two groups are selected. The third group is constructed of other and different material.

Of these 106 cases I found fifty-one not to bear so directly on the question of mental symptoms springing from phthisis as the remaining fifty-five. For in many there was doubt as to the true and precise order and dates of incidence of the phthisis and the insanity, the two either occurring at about the same time, or the history being imperfect; in many of them other causal factors were of predominating importance, and controlled the play of pathological events.

And even of the group of fifty-five, I will exclude some from further consideration in this place, and for various reasons. For example, in several the attack of insanity, supervenient on phthisis, was a second attack; in some a closer analysis revealed either an obscurity of relation or another factor, or other factors, as possibly being predominant; or revealed a possible causation too complex to permit the case to be of value for our purpose. In one or two the complication by cardiac disease, or meningeal tuberculosis, destroyed the simplicity and validity of the example; in some, on a closer scrutiny, the order of incidence of phthisis and insanity was not absolutely clear, the two apparently coming on almost simultaneously, and therefore, possibly, concomitant effects of a general deterioration of system and breakdown of the nutritive and resistive powers of the organism; a view quite compatible with that of phthisis, a form of successful bacillary invasion. For one or other of these several reasons, twenty-one cases in all have been placed in the second line, leaving the thirty-four cases most adapted and reliable for our synthetic purposes, as regards phthisis producing insanity, or modifying the clinical aspects of insanity subsequently arising, or partly so, from other causes: whilst at least twenty-four others out of the 106 will be used to cast a synopsis of those cases in which the precise order of incidence of phthisis and insanity is doubtful, but that incidence nearly simultaneous. Even of the thirty-four left as being those in which

the relations and circumstances of the cases are more clearly defined, satisfactory, and demonstrable, the evidence is not in all cases of the same validity; for the difficulty in assigning accurately the etiological factors in insanity is notorious, and, indeed, in the majority of the insane the causation is complex; the factors influencing the production of insanity usually are not single, individual, and simple, but plural, conjoint, and complex.

These cases I have placed in five sub-groups, namely, persons affected with:

1. Active, in part quasi-delirious, symptoms. Hallucinations.
2. Depressed, melancholic symptoms.
3. (a) Morose, angry mania; or (b) delusions of injury, of persecution, etc. (not systematised); or (c) rarely, gay maniacal excitement (probable organic brain disease).
4. Imperfect or abortive monomania; or monomania.
5. (a) Dementia supervening on feebleness of mind, imbecility; (b) rarely, moral insanity, impulse, and so on.

First Sub-group.—Those in whom mental derangement most clearly and immediately seems to depend on the pulmonary affection are persons, forming a comparatively small sub-group, who, in advanced phthisis, take on active and partly quasi-delirious symptoms. These persons are hallucinated; hallucinated in most cases they certainly are, and probably so in the remainder.

For example: (A) Emaciated, and with softening lungs or with actual cavities, such an one becomes restless, continually dresses and undresses himself; if in bed, gets out of it or attempts to do so; if out of it, or not yet confined to bed, rolls on the floor, and apparently fails to understand what is said to him. And for a time he may quite lose his mental control, and when it is restored, temporarily or partially, there is but a vague and slight recollection of the attack; and for some days or weeks thereafter a state of mental confusion persists, together with a feeling of being weak in mind and of impaired memory, and possibly with transient diplopia. The mental confusion evidences itself in various ways, amongst others by the mistakes made as to the identity of those who are about him, and as to the recollection of times when, and places at which, he has previously met them. Nor does the error of mind concern others only; it is manifested also in an extremely confused recollection by the patient of his surrounding and location, so that, whilst continually occupying one and the same bed, he relates his experiences of being now upstairs and now down, now in one apartment and again in another. And even on trivial matters his statements are self-contradictory. His condition fluctuates, better to-day, coherent and fairly rational; to-morrow, perhaps, he is incoherent, restless, and in bewilderment tries to rise at night, and wander about the room.

(B) The case does not always take this mild form; as compared with which the more urgent conditions may be reached by rougher paths, and with more impressive and more dramatic phenomena. Thus, a subject of advanced phthisis with bronchitic signs having become delirious, and then actively maniacal and raving, thinking his master called him from the street, has rushed to the window, and smashed it, cutting his hand; and subsequently, objecting to go to bed, has slept badly, been incoherent, excitable, and violent, especially at night; has refused food, deeming it to be poisoned, or with difficulty has been induced to take it. Then comes a space of time during which he is usually coherent and free from delusions, but the tranquillity and reasonableness are interrupted by paroxysms, lasting about a day, in which he is restless, fumbles his clothing, undresses himself, is with difficulty persuaded to eat, fails to recognise his doctor, stares as if in terror and at imaginary objects, and is apparently absorbed in his delusions and corporeal illusions. When again lucid, he tells us that in the paroxysms he felt, as it were, people pushing something up the back of his head, but was chiefly in terror and panic-stricken by fear of injury. Practically recovering from active disorder of mind, he dies a few days later, the end being precipitated, rather, by the further encroachment on the limited breathing space, made by intercurrent lobular pneumonia and pulmonary congestion, than by the invasion of a phthisis florida.

(C) This wandering of the mind, this jolting of the mental ploughshare from the furrow, or insane delirium, in a case here and there is found to take another phase; and the flight of ideas is expansive. The morbid conceptions of such an one run on daring enterprise and dazzling project. Although changeable, shifting, phantasmagorical, and expressed in a rambling way, the conceptions are large, generous, and ambitious, but deeply tinged with puerility and grotesque absurdity. For example: It is

owing, he says, to his father's head being turned by a (real) Royal visit to the town, that that parent has sent him to an asylum; and the large factory he himself is about to establish for planning improvements in tramway construction will reduce the cost per yard thereof, to that of "a flannel petticoat," as he inconsequently adds. Restless, he telegraphs to business firms for prices of wood and iron; asserts that he has invented a tramway which will pay splendidly, and talks ramblingly about his inventions, the appointment of surgeons to his factory at enormous salaries, and the erection of chambers for the spiritual benefit of those employed thereat. Correspondingly, and notwithstanding irritability of temper, the feelings are gay, buoyant, possibly exultant, the mental colouring is bright and roseate. Truly, here, "hope springs exulting on triumphant wing," but only to sink in the deluciscent and deepening abyss of physical perdition; the delusion is thrown into bolder relief by its glaring inconsistency with the true; for, in desperate contrast with his large ideas, adventurous schemes and exaltation, is the real state of this sufferer from frequent pulse, diarrhoea, insomnia, advanced pulmonary phthisis and excavation, emaciation, prostration, colliquative perspiration, hypostatic oedema.

(D) Where predisposition is marked, symptoms like some already mentioned may come on at an earlier stage of phthisis; and, if recovery does not occur, assume a more fixed and settled form. Thus, at first, in maniacal agitation, incoherent, sleepless, noisy, restless, and violent to those around, the patient swears, speaks ramblingly on religious topics, declares that those near him are devils; or that he is commanded to destroy his family, because they are infidels. Or he throws himself on the floor, breathing violently, making cries, ejaculating about "God, and the sin of the world," asserts that by shonting he is saving those about him from hell, and hurls his food on the floor. Subsequently, in calmer mood, he is still confused, says he has only been as many minutes here as he has been days in reality; and is depressed in mind, bangs his head, declares he cannot speak, has lost faith in the Lord, has been starved, and must go to prison for neglecting his family. He hears the birds talk to him at night. To him, one month appears as seven, or eight, or nine. He tells how his depression is due to his being "lost," owing to his "not working with the Word;" how his mind wanders, and things that don't belong to it come up in it; and how before he entered the asylum he had been in low spirits, and when on the streets seemed to be ill-used, nicknamed, and accused of crime and of everything wrong. About these ideas there was nothing fixed or systematised. At times indisposed to take food, he smashed the table utensils. Now and then, later on, were delusions and hallucinations, such as concerned his being burnt to death, or seeing flames, or hearing whispers about him at night.

(E) In other cases, with storms of excitement and depression, laughter, weeping, suicidal and other violence, are more vivid hallucinations, and hypochondriacal fancies. Here, with hereditary psychic degeneration and a monomaniacal strain, we get arrest of the advanced phthisis under treatment, and a deferring of the fatal end for years to come. For example, puppies, says one, are alive in his stomach and pain him, or on his abdomen the Saviour rests. His body is in telephonic communication with a factory; he is tied down, and for an immoral purpose; is mesmerised, his food is blood. Later on he obstinately refuses to eat, under the delusion that his relations are killed, put downstairs, and served up to him as his food. He gets strange tastes, and a strong smell of blood. He hears answers and comments on hallucinatory voices. "The birds speak to him, and the same sounds immediately go about the house." Later on he feels "a restraint on the mind," put there for some indefinitely explainable purpose; feels a connection with and hears voices from a factory. The perversion of taste and smell continues, and so does self-abuse. He says his food is manured with the excreta of diseased individuals: personages of notoriety, or of history, are buried near him by hundreds, Cavendish, Burke, Kings Charles I, Henry V, and so on.

Thus, these last two kinds of case link the present sub-group with the next.

Second Sub-group: The Sub-group Characterised by Mental Depression, by Symptoms of the Melancholic Order.—Nearly one-third of the cases of the group we are considering come into this depressed or melancholic sub-group. The limits of space preclude the insertion of detailed histories, such as those before me at the moment of writing, or even of individual summaries of these cases, and, indeed, of more than a very general summary.

Summary.—In all there is emotional depression; downcast, despondent, grieved, some of them are in tears. In very nearly all are suicidal ideas, and in many these are carried out in suicidal attempts. The emotional state is not always merely one of depression, with or without weeping, moaning, and a lugubrious aspect; indefinite fear or dread may possess the patient; he may be afraid to go to sleep, or perhaps, vaguely, of something about to happen. Some are extremely suspicious, or are timid, anxious, careworn, or are listless, or very obstinate, irritable, unsociable, sullen, sulky, slovenly, neglectful, forgetful.

Hallucinations and illusions exist in all, if we include those few cases taking the form of a *melancholia cum stupore*, where, extremely probable as is their existence, it cannot be definitely ascertained. Relatively predominating are the hallucinations of hearing, next most frequent are those of smell, and nearly as many have hallucinations of taste or of sight. At one period or another, or at several, refusal of food is a marked symptom in about two-thirds, and some disinclination for food or anorexia is noted in a few others. Insomnia is a frequent symptom. Some exhibit general apathy, at least at times. A few show marked mental confusion or excitement; and some are inattentive, or mistake the identity of their attendants, taking them for relatives; others wander aimlessly about.

Although only slight and transitory in one case, usually of *melancholia simplex*, delusions are found in all, except in the "thunderstruck" or stuporose, where, too, they doubtless exist. In some they concern the religious feelings and ideas; the patient fancies that he has done some wrong, or is forced to do it by his surroundings, or, cut off from hope of heaven, he bemoans his "poor soul," and has anxious, gloomy thoughts of the future. Some take the delusion that they have been poisoned, and usually by something placed in their food, and delusions as to their medicine, or in a few, as to deprivation of food, may be evinced. Some have delusions as to the hostility and malevolence of those around them, or of absent or of imaginary persons, or of all of these.

(To be continued.)

THE DIFFICULTY OF DIAGNOSIS BETWEEN DISEASE SYMPTOMS AND DRUG SYMPTOMS.¹

By ALFRED CARPENTER, M.D., M.R.C.P.

THE difficulty in diagnosis between symptoms produced by disease and those produced by drugs is not always an easy task to settle even by experts. It is not always easy in the police cell to distinguish between a so-called "dead drunk" person and one who is labouring under the effects of compression of the brain, caused by rupture of a cerebral vessel, or of compression produced by fractured skull. But this is not so difficult as is the task which the physician has to contend with, when called in to advise with another practitioner who has been freely exhibiting active remedies before the second opinion is sought for, or when the patient has been physicking himself with ardent spirits or other narcotics.

Having met with these difficulties on several occasions, I propose to consider one or two of them, and to detail to you some that I have met with in which the treatment, having been based upon imperfect information, was rapidly tending to poison the patient, and certainly would have done so if a change of treatment had not been made. The use of the thermometer, a careful examination of the heart sounds and the character of the heart's impulse, the condition of the respiratory function, the state of the skin, the action of light upon the pupil, and the smell of the expired air from the lungs, will always enable the skilful surgeon to be certain about the police case, unless there is drink and compression combined (not a rare state of things). It is always right to err on the safe side, and to give the patient the benefit of the doubt, if there is any; though it is very unlikely that severe mischief can be produced to the brain, even if the man be drunk, without there being some evidence of its nature, if it be looked for. However, it is not my intention to enter into the consideration of police cases, so much as to refer to some other conditions which the medical practitioner occasionally meets with in the sickroom.

I propose to detail two typical cases for your consideration, just as I met with them, but for manifest reasons giving no public clue to their whereabouts.

The first was that of an eminent merchant with numerous family connections, 65 years of age, a *bon vivant*, well known as a hospitable host as well as a genial guest. I am at his bedside in consultation with his ordinary medical attendant. He is semi-comatose; he has been so for twelve hours. His friends have been summoned from different parts of the country in the expectation of his death. There is general anasarca, some oppression of breathing, but a fair pulse, regular in its beat, 78 per minute; there is an aortic murmur with the first sound of the heart, but not very loud. The patient was able to be roused if spoken to loudly, and then dimly understanding what was said to him, but lapsing again into stupor; the eyes responded equally to light, and contracted to a point, equally dilating again on its removal; the conjunctivæ were turgid, the skin dry and felt hot, but the temperature, as taken in the mouth, showed that it was below normal, namely, 97.8°. The urine was very albuminous; the bowels had been freely relieved, indeed there had been slight relaxation for some time previously to the onset of his semi-coma. He had complained of feeling faint when the bowels acted; had for some days taken freely of stimulants, principally champagne and brandy, and since the previous day had swallowed about twenty-four ounces of the latter. He had passed at least three pints of water in the preceding twenty-four hours, and it was dribbling away slightly into the bed at the time of my visit. A catheter was introduced into the bladder and a portion drawn off, which was seen to contain about a quarter albumen after boiling. The comatose condition did not appear to me to be caused by uræmia, as there had been no arrest of urinary secretion, but the contrary, and there had been also relaxed bowels. The faintness was not caused by any serious heart embarrassment, for that organ, though probably fatty, and with aortic valves imperfect in consequence, as I supposed, of atheroma, was doing its duty. I came to the conclusion that the coma was rather the sequence of alcoholism than that of uræmic poisoning. I advised the cessation of the brandy treatment, which had really been pressed by the friends and nurses rather than the doctor, because it had been advised some time previously by an eminent London physician. I advised the administration of ammonia in its place, in minute quantities, with liq. potassæ, also in small doses. I urged the continuance of intestinal evacuations by means of assafoetida injections with small quantities of turpentine, and suggested a milk diet only. The following day the coma had lessened. It disappeared in forty-eight hours, and symptoms of gout manifested themselves a few days afterwards in the hands and elbows, whilst the respiratory difficulty diminished. The patient made a fair recovery in a few days from the imminent danger in which he was placed, and the anasarca lessened. He had however too much gout in his kidney, and atheroma in his aorta, to become convalescent; though he lived for four years after the time at which he was being rapidly poisoned by alcohol. The belief that the coma was due to the brandy, and not to the presence of uræmic poisoning, was thoroughly established by the result. Fortunately the kidneys did not immediately resent the excessive intrusion of the stimulant, for they continued to act freely, though the water was albuminous as long as he continued under my observation; the general dropsy declined, the aortic insufficiency however was not improved, and he remained for a long time incapable of exertion, though he did recover so much as to be able to take his place at the dinner-table again, and ultimately fell a victim to the renewal of his social habits of life, and a return to the pleasures of the after-dinner wine.

In this case, as in some others which I have met with, the aortic insufficiency has seemed to me to have been dangerously added to by the alcohol; and that in such cases, especially when there is gouty habit with albuminous urine, it seems to produce its comatose tendencies more rapidly than in other people, and in such cases I believe that all alcoholic stimulants should be rigorously withheld. This patient had been advised to take gin, by an eminent London physician, and for some weeks before the time at which I saw him had taken something like a pint a day, in the place of the port and brandy to which he was addicted. He could not or would not continue an abstaining course, for he preferred his port wine and obliviousness to discomfort and continuance in the flesh, though I am certain he would have lived some time longer if he had followed on the other tack, and even might have had a chance of recovery if he would have continued his absti-

¹ A paper read to the British Medical Temperance Association, Tuesday, February 21st, 1888.

nence, and have avoided those causes which tended to produce atheroma; for a kind of gluttony was indulged in, as well as a liking for wine.

The second case is altogether different in character, but quite as marked.

It is that of a young student who is working at his college; he comes home in consequence of inability to continue his mental labour, and with a feverish attack. He becomes ill, and I see in him what is considered to be the fifth day of an attack of typhoid fever. He is restless, has severe headache; his eyes are brilliant, and pupils somewhat inactive to the stimulus of light; his skin pale, and temperament leucophlegmatic. He has not slept much for some week or two, and talked a little at random on the preceding night. His pulse 102, running and thready; temperature 102.4° ; tongue very moist, but little furred, and slightly swollen. He is not particularly thirsty. There is some tympanites; skin dry; bowels confined. He had vomiting for a day or two at the first commencement of fever, but the sickness is gone, and he does not care for food, though he enjoys cold drinks. The urine somewhat scanty, high-coloured, but loaded with lithates, and non-albuminous. I regarded it as one of those cases of typhoid in which cerebral symptoms were likely to develop very rapidly, in consequence of the brain having been over-excited and not purifying itself from the consequences of its work. Every case of this kind which I have met with which had been treated with stimulants had died, sometimes after violent and continuous delirium, leading in subsultus and unconsciousness for twenty-four hours or more before death.

I advised, therefore, that all alcoholic beverages should be laid aside, and the case treated with salines, bromide of potassium, and milk; whilst we should relieve the loaded bowels by gentle aperients, and watch for complications. The heart sounds were normal, but there were some mucous râles in the chest, which were uncomfortable at so early a stage of the fever.

The case, after two or three days of suspense, ran a satisfactory course; the bowels were relieved by slight laxatives, the restlessness subsided, fair sleep was obtained, the characteristic rash came out about the ninth to the fourteenth day, with slight diarrhoea; the tumid abdomen subsided, the tongue lost its swollen character, and on the nineteenth day (when I saw him for the third time) was clean. The temperature 99.8° , the skin acting freely, and the appetite becoming more keen, so much so that I said to the mother, "In two or three days you will be altogether out of the wood." Two days afterwards I had a telegram, saying, "Come as quick as possible: my boy is dying." I went that afternoon. One of his medical attendants met me at the station, and said at once, "I don't know what has produced the condition, but it is comatose. He was very excited yesterday, wanted to get up and go out, insisted upon doing various things, was violent in the night, and to-day has been unconscious since 10 A.M." (this was at 4 P.M.). I found him as reported; the conjunctivæ were turgid, and non-resistant when the finger was placed on them, the pupils were contracted to a point, the skin was hot and dry, the face flushed, and the patient took no notice whatever of those about him, but the pulse was full and steady (88), not like to that of a dying man, the heart-sounds normal, the breathing steady, but inclined to stertor. The bowels had acted freely two or three times the day before, and there had been a free secretion of urine, and it continued free from albumen. The temperature had been taken several times since my visit two days before. The same night it sank to 98.4° . In the night it was 98° only, yesterday it sank to 97.6° , then in the evening it was 96.8° , and now I find it 96.2° . The medical attendants had viewed this fall of temperature with some alarm, and, acting upon an implied consent to the administration of alcohol, had allowed him to have champagne the day before, with the natural result of a still lower temperature. Since last night he had had eight ounces of brandy in addition to the half bottle of champagne which he had insisted upon having, and which fact the nurses had not communicated to the medical men in attendance. The error arose from my inadvertent consent to his urgent entreaty that he should be allowed a little claret and water on the occasion of my third visit. He had had that claret and water; it gave him a restless night, reduced his temperature below the normal standard, and, from a mistaken idea that alcohol would elevate the temperature, it was administered more freely the next day. The restlessness and excitement were increased; those symptoms were looked upon as reasons for increasing the dose of the stimulant, until at length its narcotising properties

were forthcoming. Perhaps he might have slept off the effects, and have recovered in spite of the treatment, which then in that case would have been regarded as the cause of the recovery. Having carefully considered all the points with his medical attendants in another room, I came to the conclusion that the coma was caused by his so-called remedies. I went back to his bedroom, and giving him a good shake, called out quite loudly, "H—, old boy, how are you?" He heard me, and opening his eyes looked at me with a tipsy leer, said, "Oh! is it you?" and lapsed again into insensibility. I was quite satisfied as to the condition, but felt myself on the horns of a dilemma. However, I asked his medical attendants to leave me to get out of the difficulty without casting any reflection upon their treatment, having pointed out to them the real state of the case. It was my duty to restore the patient, not to make reflections. I saw the mother downstairs; I told her that of course there was jeopardy, but that I thought the danger more apparent than real; that we should discontinue the stimulants which had been given, as not being efficient enough to meet the severity of the case, and that I proposed to give him a more powerful remedy—a single drop of the strongest liquor ammonia every half hour. I advised that he should be made to swallow as much liquid as could be managed in the form of tea and milk and potass water, and with external appliances I hoped to find tomorrow that he had recovered his consciousness, and that he would be restored to her as I had promised on my preceding visit.

There was no idea on the part of the parents as to the error that the nurses, rather than the doctor (for there were two experienced women in charge of the case), had committed, and I had the pleasure the next day of finding my anticipation correct; the coma was gone, headache and *malaise* alone remained, the temperature had risen to 98.4° , there was slight tumidity over the abdomen, the bowels had not acted, but the tongue was moist, a little whiter than normal. He had slept, however, for some half-an-hour at a time after several small doses of bromide of potassium, and two days afterwards was sitting up in bed, and suffering from nothing but a ravenous appetite and general debility.

I have brought these typical cases to your notice for the purpose of showing that one must not always assume that the symptoms in the case are those of the disease which you are called upon to treat. You must ask yourselves whether they are masked by previous treatment; patients and their friends will treat themselves before the doctor is sent for, and in cases in which a consultation is sought for, either at the instance of the medical attendant or of the patient's friends, the former may have exhibited larger doses of powerful remedies than he is aware of, and the symptoms of the remedy may be masking the character of the disease. I have seen this in at least two cases in which belladonna had been given in excess. Narcotics and stimulants are the most usual medicines which have been prescribed, especially the latter. The reduced temperature, the moderately quick pulse, the contracted pupil, the flushed conjunctivæ, the dry skin, and the headache, may all be added to or produced by the remedy used; and may therefore mask the disease and cause erroneous views as to nature, prognosis, and necessary treatment. We can only act upon the information afforded, and if deceived, either wilfully or by ignorance, it is the patient who suffers as well as the reputation of the physician who is consulted.

I am satisfied that it is far better to allow disease to run its course in a natural way, and to pilot the case through the blood-storms which the disease may be setting up, rather than by rendering the nervous system less sensitive to the influences of disease by deadening the activity of those nerves, and whilst so deadened allowing disease to establish itself, and so organic change may take place, never to be entirely removed. This appears to me to be the effect of the alcoholic treatment of disease. It is better for the patient to endure the discomfort, and ultimately get quite well, than to be comforted, as it is called, by the use of intoxicating liquor, and so allow real disease to gain a standpoint, instead of treating upset which arises from the functional disturbance caused by the determination of natural laws to assert their predominance, and so to lead to a perfect cure.

MR. P. MILLS has been appointed Librarian to Guy's Hospital. The Bootle Town Council have increased the salary of Mr. Robert J. Sprakeling, the medical officer of health, from £100 to £120 per annum.

ABSTRACTS OF THE MILROY LECTURES ON SOME GENERAL CONDITIONS WITH REGARD TO EPIDEMICS.

Delivered at the Royal College of Physicians of London,
February and March, 1888.

By ROBERT LAWSON, L.R.C.S.ED.,
Inspector-General (Retired) Army.

LECTURE IV.—CHOLERA.

Clinical Resemblances between Malignant and Summer Cholera.

—The lecturer first observed that similar difference of opinion as to the mode in which cholera was propagated existed, as in the case of yellow fever; one party holding that it was highly contagious and always transmitted from man to man, the other that it was devoid of contagion, and depended on local causes. He considered that cholera occurred under two forms, cholera nostras, or summer cholera, and Asiatic, Indian, or, as he preferred to call it, malignant cholera. Cholera nostras appeared every summer to a limited extent; malignant cholera, in temperate climates, as an epidemic advancing over new ground in successive years. Though typical cases of the former could be readily distinguished, sporadic cases were met with presenting the characters of the malignant disease so completely that if observed during an epidemic of the latter, they would be accepted without hesitation as typical examples of it. Such cases sometimes occurred in small groups, but were not invasive, and for this reason, and because they cannot be affiliated to a previous case, those who hold the theory of contagion do not admit them to be examples of malignant disease.

Epidemics without Importation.—Epidemics had, however, occurred where the most careful investigation by experienced observers had entirely failed to establish any history of communication. An instance of this was, he considered, afforded by the outbreak at Southampton and Theydon Bois in 1865 when impartially studied. The circumstances were investigated by the late Dr. Parkes, whose summing up, with regard to the epidemic at the former place, was: "The origin of an unknown epidemic influence, alone or concurring with local conditions, presents formidable difficulties, even if we cannot quite reject it. The origin by importation is deficient in precision of evidence." Another instance was that of the epidemic which commenced in New Orleans in 1873, and extended up the valleys of the Mississippi, Ohio, and Missouri. The Board of Health at New Orleans, after most minute examination of every circumstance connected with the shipping, came to the conclusion that it had not been imported, and Surgeon Van Buren Hubbard, United States Army, who had made an investigation for the Government, stated that it had "been found utterly impossible to establish the arrival of individuals who were personally affected with cholera." The outbreak of cholera without importation being admitted, it could not be maintained in other instances where an outbreak had been preceded by the importation of cases of cholera, that the epidemic was produced by them unless local causes could be excluded.

Epidemiological Relations of Malignant and Summer Cholera.—Cholera nostras was not a disease depending on the warmth of summer, or the abundance of fruit. The English, the Scotch, and the French returns, when examined for sufficiently long periods, showed that the frequency and fatality of cholera nostras rose as the country was approached by the epidemic malignant disease, and fell again as it passed on. The military returns taught the same lesson for other parts of the world. There therefore appeared to be the same kind of connection between cholera nostras and malignant cholera, as between benign plague and plague.

Cholera in India.—Recent investigations had rendered it doubtful whether the district of Bengal, which the late Dr. Bryden had described as the endemic area, was the only one which existed even in India. Dr. Bryden had concluded that the spread of the disease from that area was governed by the meteorological conditions prevailing at the time, the *materies morbi* being airborne; he was further led to infer that this *materies* existed in two forms, one in which its pathogenic properties were fully developed, the other in which these properties were only potential. This potential *materies* was often deposited far in advance

of the epidemic, and took twelve or fourteen days to develop under favourable circumstances; but at the end of the cholera season might remain dormant for months, until the return of that season when, like other forms of vegetation, it would develop its potential pathogenic properties.

Cholera at Sea.—From the examination of cases of cholera occurring on board coolie ships, and on certain islands and sea-coasts in the Indian Ocean, it appeared that the choleric factor was active from 1872 to 1874, over the sea from Sumatra to the south-west as far as Mauritius, while over the greater part of Hindustan it was inoperative, and the disease had almost disappeared. This frequency of cholera over the sea ceased suddenly in 1875, and coincidentally the epidemic spread over Hindustan from Cape Comorin to Lahore; Ceylon being affected before the mainland, a most unusual sequence.

The lecturer had collected a large number of notices of outbreaks on board ship in the Atlantic and Indian Oceans; they show that the choleric influence, when it exists, is widely diffused in the south-western part of the Indian Ocean, and that there was a prevalence of choleric diarrhoea and sporadic cases of cholera in Cape Colony and Natal some months before epidemic cholera appeared nearer the equator. Special reference was made to the cases of the *New York*, from Havre to New York, with German emigrants, and of the *Swanton*, from the same port to New Orleans, also with German emigrants (1848). Cholera broke out on board both vessels. After relating the particulars of these outbreaks, the lecturer said: "The question arising out of these occurrences at the time was, How did the passengers in these ships contract cholera in the middle of the Atlantic? One body of epidemiologists said the cause of the disease had been brought from Germany in clothing, and was communicated to those who wore it, after being unpacked, on November 24th. Though the narrative is wanting in many particulars as to localities and dates we should look for now before coming to a conclusion on the subject, it might have been accepted then had the *New York* only been affected; but it was quite inapplicable to the *Swanton*, which had not had cold weather on the 24th, nor any overhauling of chests for warm clothing. Another body of epidemiologists, seeing that a change of wind to the south-east took place with both ships before cholera appeared, were of opinion something must have been conveyed by the wind to cause the disease in both, but where it came from they were unable to indicate."

The Influence of Winds.—The remark of the captain of the *Swanton* that it was "more like artificially heated air than anything else," affords a clue to the mystery that now enables it to be explained. Anyone who has experienced a "hot wind" will see at once this is what he described; but as a hot wind always originates over arid land, how could such a wind have been experienced from the south-east at the place where the *Swanton* was, from which a south-easterly line would pass through the South Atlantic clear of all land? The wind was really from the desert in North Africa. In November, when the north-east trade wind is being re-established over the northern Atlantic, it reaches to 60° north; and about long. 30° west and lat. 20° north at this season winds are frequently experienced of the character described by the captain of the *Swanton*, and, in addition, often bearing red dust in such quantity as to cover the sails and rigging of passing vessels, leaving no doubt as to where they originated, and illustrating their transporting powers. Such a current of air which did not come to the surface of the sea, but continued to flow at some elevation above it, would retain its peculiarities for a long time; it would pass to the inner limit of the trade wind, about 6° north at this season, and then, rising in the atmosphere as the air of the trade does, will then double back to the north-west, becoming a south-east wind, and would reach the *Swanton* as such as described above. In November, 1848, when these occurrences took place, there had been cholera in Egypt and along the north coast of Africa, and with a moderate velocity of twenty miles an hour, the wind might have transported emanations from that to the *Swanton* in from ten to twelve days; and, if to her, there is nothing unreasonable in the inference that it was capable of transporting them to the continent of America itself, which really seems to have taken place on many occasions.

An Air-borne Miasm.—This transport of the exciting cause of cholera by a current, at some elevation in the atmosphere, and separated from the earth's surface by a thick stratum of air which may either be motionless, or forming a current flowing, it may be,

in a different direction, plays a frequent part in connection with the manifestation of that disease. In reading accounts of the circumstances preceding the occurrence of isolated outbreaks in India, one is struck by the frequency with which these immediately follow a thunder storm, or a heavy fall of rain, or even a dust storm, all of which bring a portion of the higher strata to the ground, and with that, of course, whatever material it may contain; this sequence is quite as remarkable at the elevated mountain stations as in the plains, and, as was the case at Peshawar in 1862, this was repeated no less than four times between July 7th and November 3rd, causing a distinct outbreak of cholera on each occasion.

Ships as Infective Areas.—Ships behaved towards cholera in much the same way as towards yellow fever. In some cases, even when crew or passengers have gone on board infected with cholera, the disease ceases after a few days at sea. In other cases the ship became a focus for cholera, so that not only those on board, but also others who came within range of the emanations from her contracted the disease. This had taken place only in crowded emigrant ships, and in them the steerage passengers alone were affected. An example was afforded by the *England* in 1866; out of 1,059 steerage passengers from 280 to 300 died, but none of the cabin passengers were attacked.

HISTOLOGICAL MEMORANDA.

THE "PAL-EXNER" METHOD OF STAINING SECTIONS OF THE CENTRAL NERVOUS SYSTEM.

THIS, like the "Pal-Weigert" method described in the *JOURNAL* of March 10th, is a new and valuable modification of an older method. As taught and practised in the laboratory of the Pathological Institute in Vienna, the method is as follows:—

The fresh brain or other nerve tissue to be examined is divided into small cubes or pieces and hardened for two days in a watery solution of osmic acid, which latter must be changed at least twice. The hardened tissue is then washed carefully in water, and dipped for about two seconds into absolute alcohol. It is then embedded in wax mass or celloidin, and sections from the block are cut by a Rivet-Leyser or other microtome direct into glycerine. From the glycerine the sections are transferred to water and thoroughly washed, and then they are dipped into a one-fourth per cent. watery solution of potassic permanganate for from ten to fifteen seconds to differentiate them. They are further decolorised in "Pal's solution" (oxalic acid and potassic sulphide of each 1 part, and distilled water 200 parts). The sections may now, after being washed in water, be stained further in safranin or picrocarmine, the process being completed by dehydration in absolute alcohol, clearing in creasote, and mounting in Canada balsam.

One great advantage this method presents is that, while retaining all the value of the original osmic acid method of Professor Exner, it enables the sections so prepared to be kept for future reference. From personal experience I consider it a distinct advance, and likely to prove of great service in further investigations on the minute histology and pathology of the nervous system.

For further details regarding this method I may refer to Dr. J. Pal's original and excellent paper read before the Imperial and Royal Society of Physicians in Vienna, in which he describes his modifications of the methods of Professors Exner and Weigert.

London, W.

JOHN J. REDFERN, M.A., M.D.

OBSTETRIC MEMORANDA.

STOPPAGE OF HÆMORRHAGE IN A CASE OF PLACENTA PRÆVIA BY THE EARLY APPLICATION OF FORCEPS.

I THINK the following case may be of interest. On my arrival I found Mrs. S. in labour with her seventh child, and almost moribund from hæmorrhage. On examination by the vagina the os was found about the size of a five-shilling piece, and completely occluded by the placenta, which was adherent all round excepting anteriorly, where the membranes could be reached. Having ruptured the membranes and partially detached the placenta, I waited a little time, in the hope that the hæmorrhage would cease, but, being disappointed, I determined to apply the forceps, fearing

version would cause instant death. This was accomplished much more easily than was anticipated, and I had the satisfaction of finding that slight traction controlled the hæmorrhage. I continued to apply sufficient traction for this purpose for three hours, during which time I fed the patient with egg, milk, and brandy. At the end of this time the patient showed signs of rallying, and there was a return of uterine contraction. The child was born in about half an hour, and the patient made a good recovery.

G. H. WARREN THOMAS,
Teignmouth, Devon. L.R.C.P.Lond., M.R.C.S.

CLINICAL MEMORANDA.

SCARLET FEVER IN A SUCKLING MOTHER.

A FEW weeks ago I attended a lady who had been confined about six weeks, and who had a copious scarlet fever rash on her chest, abdomen, etc., at the time that I first saw her. She had nursed her baby up to within a few hours of my seeing her, although she had felt ill, sore throat, vomiting, etc., and was struck with the fact that the milk, which had been abundant, had failed rapidly after she first began to feel ill. There had been a case of scarlet fever in the same house a few weeks previously. Both patients went through the usual period of "peeling," and recovered perfectly. The child showed no signs of the fever, and was merely a little upset by the sudden weaning that was, of course, necessary.

The patient's breasts were quite flaccid, and, apparently, little or no milk was secreted after the first onset of the disease, nor did it return when the first few days of fever were over.

The entire immunity of the child and the rapid disappearance of the lacteal secretion are, I think, worthy of record, although I am aware that such cases have been frequently published before.

Clifton. BARCLAY J. BARON, M.B. Edin.

HOW DO ROUND WORMS CAUSE CONVULSIONS?

IT is well known how often round worms cause convulsions, and even death. The way in which they act, however, does not seem to be clearly understood. Eichberg (*JOURNAL*, October 31st, 1885, p. 842) mentions cerebral effusion, but in a case recorded by me (*JOURNAL*, January 9th, 1886, p. 66) I found the brain perfectly healthy. The following case seems to suggest a more mechanical explanation.

On January 21st, 1888, I was summoned by the police to view the body of A. B., aged 13 months, who had died suddenly. At 9 the evening before, she was attacked with short quick breathing. She continued in the same state all night, and died at 10 the next morning. There was no vomiting. The necropsy showed the ascending colon twisted on its long axis about four inches beyond the valve. Above the constriction caused by the twist the bowel was distended with flatus, the mucous membrane reddened, and the solitary follicles very prominent. There was a considerable faecal accumulation in the cæcum above the twist, but the rest of the large intestine was nearly void, except of some flatus. On dividing the peritoneum over the ascending colon, the bowel revealed its normal calibre. There were a few round worms in the small intestine, and one in the stomach. The other viscera were healthy.

The next day, January 22nd, the cousin of the deceased, aged 3 years, was brought to me with precisely similar symptoms, namely, short quick breathing and apparent unconsciousness. It was passing round worms. Under castor oil and santolin the symptoms vanished in two days.

It seems fair to suppose, from the necropsy, that the symptoms in the first case were reflex and due to the twist of the colon, and that this was caused by movements of the worm or worms. Whether there was the same mechanical condition in the second case, followed by untwisting of the bowel is, of course, a question.

BEAVER RAKE, M.D. Lond.,
Government Medical Officer, Trinidad.

A CASE OF MYXEDEMA.

E. M., aged 31, but looking ten years older, who used to be a domestic servant, has been ill for about five years or a little more. She had rheumatic fever about nine or ten years ago, and was told that she had "cardiac dropsy"—that is, her present illness. The swelling was the first thing noticed; it began first in her hands, and after some time in the face around the eyes. She used to menstruate regularly up to the time the swelling commenced, but has not done so since. There is no history of any

mental or nervous shock, nor of any other assignable cause. She never suffered from menorrhagia or such uterine hæmorrhage, nor were her periods too profuse; and she has never had "whites." Her bowels act regularly, but she is subject to severe attacks of diarrhoea, which occur, she says, about once a month. She frequently suffers from indigestion, with headache and giddiness. Her urine was never dark-coloured, nor had she ever to get up at night too frequently to make water. She never feels too cold, though her hands occasionally get cold. She says her vision was dim at the beginning of her illness, but is now normal. From the commencement of her illness she has decidedly noticed herself becoming very slow and heavy in all movements and actions, and very readily fatigued. Her memory and intelligence seemed very fair. Her appearance is very striking. The face is large, broad, waxy, and pale, like that of chronic Bright's disease. Swelling is marked in both eyelids, and especially in the upper; the mouth is large and the lips swollen; the lower lip is of a purple colour. The cheeks are not flushed. Her eyelashes and eyebrows are normal, her hair coarse and shaggy, and abundant. Her tongue is large and flabby. Her speech is deliberate and somewhat slow, but quite distinct. The front upper incisors are gone, and the lower ones decayed and loose. Her hands are broad and much swollen, both the fingers and the backs being much swollen, but not pitting on pressure. Her feet are even more swollen, so that she cannot get shoes to fit her, and has to wear stockings and cloths around them. Her belly was enlarged some years ago, but is not much so now. The nose is much swollen, especially at the ale, which are of a purple colour. The ears are very large and swollen. The swelling came on gradually, and gravitation does not seem to have any effect on it, nor is it altered at night or morning, being always about the same. The heart-sounds are weak, but normal, and the impulse feeble. The pulse is 108; the temperature normal. Sensation is good and not delayed. The knee-jerk seemed absent on both sides. There was no clonus. There was decided occasional rotatory nystagmus. The specific gravity of the urine was 1,024; no albumen with heat, nitric or picric acid tests. The optic discs and retinæ were normal, but the retinal arteries were tortuous at either end of the disc.

Ebbw Vale, Mon.

FRED. TRESILIAN, M.D.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ST. MARY'S HOSPITAL.

EXTENSIVE CARBUNCLES TREATED BY ERASION: RAPID CONVALESCENCE.

(Under the care of EDMUND OWEN, F.R.C.S.)

[Reported by Mr. R. H. COLE, Dresser.]

THE patient was a thin, unhappy-looking man, aged 55, a carpenter by trade. He had been out of work for some time, and had not had enough to eat. He was admitted on December 9th last for carbuncles over each shoulder-blade. They had been developing for about three weeks, the right sore being about four days older than the left. The long diameter of the right sore was five inches, and beyond that limit the skin was undermined; in the depths of the sore was a large slough bathed in offensive pus. The left sore was rather larger than the right, but the slough was more adherent, and more covered by bridges of dusky skin. The man was utterly prostrated; the urine, specific gravity 1009, contained neither albumen nor sugar.

Mr. Owen at once ordered his removal to the theatre, where, after having been administered, Mr. Callender, the house-surgeon, set to work to remove the sloughs and to scrape out the sores; there was hardly any bleeding during the operation; no vessel had to be tied. The undermined skin was trimmed, and divided by adiating incisions, so that it might not retain discharges, and the revic under it was thoroughly cleaned out with Volkmann's spoon. The surfaces were then washed with the mercuric solution 1 in 1,000, dusted with iodoform, and covered with moist perchloride gauze and with bulky pads of blue wool. Brandy and other tonics were subsequently prescribed, and the man made a rapid

convalescence. From the day after the operation he began to pick up, and was soon a different man.

REMARKS BY MR. OWEN.—Some months ago I read, but I regret to say that I do not remember where, some remarks upon the treatment of carbuncle by erosion, and I determined to make trial of the method on the first opportunity. But when I saw this prostrate carpenter with his two large carbuncles, and heard how he had been out of work and unable to get sufficient food, I wondered if he could offer a fair test for the method. However, I determined to try it, and was afterwards extremely glad that I did so. Hearing that my colleague, Mr. Page, is publishing a clinical lecture upon the subject, I thought that I might report this solitary case under its shadow, rather than wait for further experiences of my own.

Anthrax is, in its pathology, closely allied to certain cases of acute osteitis or periostitis, in which inflammatory distension of capillaries determines the death of a portion of bone; in the child, possibly, of the entire diaphysis. In anthrax, the dead tissue is called slough; in necrosis, it is called sequestrum. In recent years the surgeon has been constantly on the alert to separate the dead bone from the living, and so to diminish the risk of secondary abscess and pyæmia, to improve the chance of reproduction of new bone, and to shorten the course of the disease. He has even gone so far as to give a new name to a disease, "acute necrosis," so as to justify, as it were, if justification be needed, his surgical attack. Necrosis, however, should not be considered a pathological entity, but rather as a result of disease. In removing a piece of dead (?) bone before a line of demarcation can be seen, there is always a risk of taking away too much or too little tissue. But in the treatment of carbuncle by scalpel, forceps, and spoon, this risk is absent; the surgeon sees exactly where the grey slough borders on the living tissue. I apprehend that within a few days after the occurrence of the acute inflammation, there would be little difficulty in determining the limits of the slough; and I regret that I did not see this patient at the beginning of his illness, for, after making the free crucial incision which is so necessary for the relief of tension and pain, I would, there and then, have been prepared to separate the slough and clean out the cavity. I think there is less likelihood of harm from too early interference in the case of anthrax than in "acute necrosis;" and I am strongly of opinion that the radical treatment of the former condition is a distinct advance. It is a great matter to be able to convert a septic and a painful mass into an aseptic and a painless one; and the removal of the decomposing slough, at the earliest possible moment, must be the means of shortening the natural process of the disease by several weeks. The sudden and rapid improvement of this patient immediately after the operation was a thing to be remembered.

GOVERNMENT LUNATIC ASYLUM, MADRAS.

A CASE OF CYSTICERCUS CELLULOSE OF BRAIN.

(Under the care of Surgeon H. ARMSTRONG.)

A NATIVE coolie, named Lonala Yenavado, aged 23, was sent as a criminal lunatic from Nellore Gaol on September 18th, 1887.

Surgeon-Major Price had the patient under observation in gaol, at Nellore, and reported the case as one of chronic dementia, the history and antecedents of the man being unknown.

On admission into the asylum he was observed to be a harmless imbecile, in a fairly well-nourished condition, weighing 128 lbs., suffering from right hemiplegia, and unable to give any account of himself. There was no change in his condition until October 9th, when he had an epileptic fit, which passed off soon. The following day he had three fits of the *petit mal* type, and then an interval of seven days without any. On October 18th a very severe fit was followed by shorter ones of increasing intensity, ten being counted in one hour. Surgeon Armstrong ordered him santonine and castor oil, which brought away a number of round worms. Bromide of potassium was also administered, but the fits continued daily, and on October 30th he became comatose, and died in the evening.

A *post-mortem* examination revealed the presence of active inflammation of the membranes at the base of the brain, the dura mater being very adherent to the cerebrum, and the surface of the cerebrum and cerebellum studded over with small cysts. On making a section into the brain, cysts were found in the ventricles, and in the grey or cortical structure. One was found in the left ventricle of the heart, and two on the pleura of the right lung, the other organs being healthy and free from cysts.

The cysts, on examination, were found to contain a minute worm, which under the microscope proved to be *Cysticercus cellulosa*—a specimen of which was exhibited under the microscope at the meeting of the South Indian Branch, November 4th, 1887, at Madras.

REMARKS.—The case is of interest chiefly on account of the rarity of *Cysticercus cellulosa* about Madras, and it is to be regretted that the history of the patient is unknown.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MARCH 20TH, 1888.

Sir JAMES PAGET, Bart., F.R.C.S., F.R.S., President, in the Chair.

Osteitis Deformans.—Specimens from a case of osteitis deformans were shown by Dr. J. F. GOODHART. The patient was an ostler, aged 65. His head was enormous, his body slight. He had been ill for four months. For fifteen years his head had been growing larger; it had gained two inches and a half in circumference in the last year. The head was enormously large and bossy; the bones of the limbs were curved. On examination after death, the skull, clavicles, vertebrae, and ilia were all found thickened and rarefied. The long bones were bent, but not otherwise diseased. In the liver were fleshy, probably cancerous, tubera, and the glands in the fissure were large. The pleura contained some nodules of growth. The spleen was enlarged, resembling the "hardbake" spleen of Hodgkin's disease; the growths in this organ were probably lymphomatous. The association of Hodgkin's disease with osteitis deformans was curious and unusual, and illustrated the inveterate tendency to cell growth in osteitis deformans. He combated the theory that osteitis deformans was a local disease, and urged that the occurrence of rarefying osteitis agreed as well with the theory of tumour.—Mr. EVE asked whether in this case there was any evidence of general calcareous degeneration. In one instance which he had seen, calcification of arteries and ligaments had occurred.—Mr. CLUTTON said that he grounded his argument in favour of the view that the disease was a variety of osteitis on the fact that in his case the bone was elongated. If the theory of cancer was true, there ought to have been more cases of the association of osteitis deformans with cancer.—Dr. HADDEN thought it probable that in some of the cases there was hypertrophy of bones and of soft tissues. In the disease described in France under the name of "acromégalie," there was a very extensive bony enlargement confined to the hands and feet.—The PRESIDENT said that "acromégalie" was a widely different disease; it did not affect the long bones nor produce bending. There was a remarkable enlargement of the bones of the face, hands, and feet, which overgrew, but the relations of the parts were maintained. The number of cases in which cancer was associated with osteitis deformans was more considerable than Mr. Clutton had said. Still, he thought the association accidental, for he had watched many cases for years where osteitis deformans was well marked and yet cancer had not ensued.—Dr. SAMUEL WILKS said that Dr. Fagge had described a case of "acromégalie," though he had not thought it necessary to give the condition a name; in that case there was a tumour in the brain.—Dr. SYDNEY COPLAND mentioned the case of a man who had been seen by the President and Professor Virchow; the face and hands were enormously enlarged; this was five or six years ago. Professor Virchow had not seen a case of the kind, but recalled an instance mentioned in a Swiss journal.—Dr. GOODHART said there was no calcification. He thought that Mr. Clutton had underrated the frequency with which osteitis deformans was associated with cancer; in his own experience half the cases of osteitis deformans also suffered from cancer.

Furrows on Nails.—Dr. WILKS showed drawings of furrows on the nails in a man aged 50. On August 2nd, 1887, he sailed for America, and was very sea-sick for three days. He then completely recovered, and so remained until he sailed for home on October 1st, 1887, and was ill again for three days. Two furrows subsequently appeared on his nails, which exactly corresponded with the dates of the sea-sickness. He had described the production of these furrows in a paper published about twenty years ago. As to the exact pathological meaning of this arrest of growth he felt somewhat uncertain. Several curious cases had been communi-

cated to him. Mr. Wagstaffe had described to him the case of a man whose arm was kept in a splint for some time, and the furrows had affected one side only. A correspondent, twenty years ago, had mentioned the case of a lady in whom the young hairs of the head lost their pigment whenever she had an illness. It was said that the number of calves a cow had could be told by counting the rings on the horns, one ring being produced for each calf.—Mr. BLAND SUTTON said that a gentleman who had studied the appearance of wild birds had told him that after a severe winter the feathers were stunted, and that if birds kept in confinement were badly fed the feathers were stunted and ill-shaped when they appeared after the next moult.—Mr. BULL said that the number of calves a cow had could be told by the number of rings on the horns; this was so well known that the rings were filed down by dishonest drovers.—Mr. SEDGWICK mentioned a family in which marked transverse ridges formed across the nails of the females at about the age of 52.—Mr. STEPHEN PAGET asked whether the hair in left-handed people did not grow faster on the left than on the right side.—Mr. BOWLBY said that nerve-injury was also followed by deformity of the nails. He had called attention to this in a paper on injuries to the nerve, and Dr. WEI MITCHELL had figured a very marked case.—The PRESIDENT said that in his own person he had observed that every severe illness was followed by a furrow. The case from which the photograph shown by Dr. Wilks was taken was valuable because it showed how short an attack of illness might produce the furrow.—I reply, Dr. WILKS said that he had made some inquiry about the teeth, and had found some evidence that the teeth might be grooved in the same sort of way.

An Exostosis.—Mr. BLAND SUTTON exhibited a specimen which had been sent to him by Dr. Rundle, of Truro, who described it as "resembling an ossified bird's head." Dr. Rundle was quite sure it was not artificial, as the source from whence he received it was above suspicion. The specimen was an osteoma connected with the fin-ray of a fish, probably *Ephippus*. Tumours of this nature connected with fin-rays of this species of fish were first described by William Bell (the original specimen is preserved in the museum of the Royal College of Surgeons), in a paper communicated to the Royal Society in 1793. The College museum also contained scores of these tumours, nearly all of which were Hunterian. The tumours were very characteristic; they were situated at the end of a fin-ray, and on section the ray could be clearly defined as runs through the tumour. Its exterior was smooth, hard, and ivory. Articulating with it by means of a shackle-joint was one, but usually two, smaller rays. Cuvier stated that these bones were common in osteological collections; they were brought home by travellers who had eaten of these fish, and then preserved the bones as curiosities. Mr. Sutton was not aware that any explanation of this curious condition had been offered. Bell stated, in his original description of this fish, that it was frequently caught at Bencoolen, and several other parts of the west coasts of Sumatra. Many of the bones have tumours; in the first fish Bell saw I thought they were exostoses arising from disease, but, on dissecting a second, found the corresponding bones had exactly similar tumours, and the fishermen informed him that they were always found on this fish.

Experimental Observations on Lupus.—Mr. EVE stated the chief facts for and against the theory that lupus is a local tuberculo- The tubercular theory had been opposed by Kaposi, Schwimmer and others. Schwimmer had urged that while the inoculation guinea-pigs with lupus caused general tuberculo- lupus, as such had never been produced in animals. Leloin failed to inoculate rabbits with lupus. The author had in two instances (the first ear in 1886) succeeded in producing a lupoid ulceration of the ear rabbits by inserting portions of the diseased tissue under the skin. A spreading ulcer covered with a dry scab formed, and similar ulcers developed at a distance from the primary one. Cicatrization took place after some weeks; and on killing the fish animal no visceral lesions were found. He had inoculated rabbits from other cases, but only small, quickly healing ulcers or abscesses had been set up. Passing lupus through the guinea-pig in one instance, did not increase its virulence. The production of lupus, as such, in animals was another point in favour of its being a modified tuberculo- of the skin. Three specimens of lupus a tuberculo- of the hand were shown, to illustrate the close relation of these processes. Specimen 1 was a raised plaque on the dorsum of the hand of a boy with spinal caries. It was not ulcerated, and had remained unchanged for some months. The microscope showed merely a formation of granulation tissue in

corium. The disease of the skin was probably secondary to that of the spine. Specimen 2 was a nodule removed from the palm by Mr. Bryant. It had microscopically the structure of reticular tubercle. The patient, aged 26, observed a growth four years before; this was removed two years and a half later, and subsequently the nodule shown appeared. Specimen 3, an old preparation from the College museum, was originally described as probably epithelioma. Recent examination showed distinct tubercles with giant cells in the corium, and a marked papillary thickening of the cuticle. No history was obtainable. This was probably a case of tuberculosis verrucosa cutis, a similar condition being described as lupus verrucosus.—Mr. CLUTTON mentioned some cases in which there was an association between lupus vulgaris of the nose and an ulcerative affection of the mouth, larynx, and even of the lungs; he related one case in which the patient died of phthisis; tubercular ulceration first occurred, and then lupus vulgaris of the nose.—Mr. GOLDING BIRD mentioned a case of tubercle of the tendon of the extensor carpi ulnaris, and suggested that this might probably have been the way in which the tumour on the back of the hand mentioned by Mr. Eve had originated; but Mr. EVE said that the subcutaneous tissue was not affected.

Sarcoma of the Urinary Bladder.—Mr. D'ARCY POWER showed a bladder containing a large sarcomatous tumour. The cavity of the organ was obliterated, except at its upper part, by the new growth, which infiltrated the anterior and lateral walls as well as the fundus. The portion of the growth which occupied the cavity of the bladder was a tuberous and cauliflower-like mass. The rectum had become involved by its extension backwards, and near the anus the tumour actually projected into the cavity of the bowel. The projecting portion, however, had broken down, and a fistulous passage was established between the bladder and the rectum. The preparation was obtained from a man aged 64, who had suffered from hæmaturia for eighteen months. The growth was partially removed by median cystotomy and dilatation of the prostate; but as it continued to increase in size, and micturition became difficult and painful, the bladder was punctured above the pubes. Microscopic examination showed the growth to be a typical mixed-celled sarcoma. Mr. Power drew attention to the alleged rarity of this form of vesical tumour, but stated that the museum of St. Bartholomew's was particularly rich in examples of it, for he was enabled to produce four other specimens, of which one appeared to be an alveolar sarcoma. In addition to those cases, there were two preparations of vesical sarcoma in the Hunterian Museum, one in the museum of Guy's Hospital, and one in the Middlesex Hospital.—Mr. HURRY FENWICK brought forward statistics of fifty cases of sarcoma of the urinary bladder. He showed that the cases fell into two groups: sarcomata of childhood before 5 years of age, and sarcomata of old age after 50. Each age seemed to possess especial characteristics. In children the growths were generally pedunculated. This was rare in after life, 10 per cent. only possessing pedicles. In childhood the growths were multiple, and affected the trigone and inferior zone of the bladder. In after years the growth was found to be usually single, and affected the posterior wall immediately behind the ureters. Mr. Fenwick submitted that the myxomata and sarcomata of childhood had been greatly confused.—Mr. GOLDING BIRD showed a specimen of round-celled sarcoma of the bladder recently removed by suprapubic cystotomy from a woman aged 55.

Disease of Adrenals without Bronzing.—Dr. COLLIER showed the right suprarenal capsule of a woman, aged 36, who had been ill or nine months with exhaustion and vomiting. She was anæmic, but well nourished, and not bronzed in any part; the pulse was extremely weak. While in the Radcliffe Infirmary, the most characteristic feature was the extremely languid condition in which he lay in bed. The patient died suddenly. Both suprarenal capsules were enlarged; the right capsule was entirely caseous, the left was reduced to a small sac containing cheesy material. The history showed that the suprarenal capsules had been diseased for at least nine or ten months, which rendered the absence of pigmentation the more remarkable.—Dr. WILKS said that asthenia and discoloration were the two main symptoms recognised by Addison, who was, however, aware that if death occurred at an early stage there might be no pigmentation.—Dr. COUPLAND said that in a few cases tubercle bacilli had been found.

Card Specimens.—Mr. FENWICK: Tumour of Urinary Bladder.—Mr. TARGETT (for Dr. FRY): 1. Cystadenoma of Thyroid. 2. Optic Aneurysm. 3. Isolated Fracture of the Base of the Skull.—Dr. F. T. PEARSE: Advanced Surgical Kidney.—Dr. M.

MURRAY: Cystic Disease of Kidneys.—Dr. ANGEL MONEY: Multiple Sarcoma of Dura Mater and Calvaria; Secondary to Suprarenal Sarcoma.—Dr. PENROSE: Vegetation on Mitral and Aortic Valves; Gap in first part of Aorta with Vegetations.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 19TH, 1888.

J. KNOWSLEY THORNTON, M.B., C.M., Vice-President, in the Chair.

On the Successful Treatment of "Hammer Toe" by the Subcutaneous Division of the Lateral Ligaments.—Mr. W. ADAMS read a paper on this subject, in which he observed that this contraction with deformity, which usually affected the second toe, was essentially an hereditary affection, often traceable through two or three generations. It was never caused by short or narrow boots, although this might aggravate the affection. In a slight degree the tendency to "hammer toe" was often traceable at five years of age, and the contraction steadily increased, but seldom became confirmed till the age of 15. He then alluded to the observations brought before the Pathological Society (December 21st, 1886) by Mr. SHATTOCK, who had dissected two "hammer toes" recently amputated, and had found that the deformity essentially depended upon a contracted condition of the lateral ligaments, and not upon contraction of the flexor tendons. In reference to treatment, Mr. Adams then described an operation which he had successfully practised for many years, essentially consisting in the subcutaneous division of the lateral ligaments. After having observed the failure of tenotomy to cure this contraction, he had adopted the method of dividing the lateral ligaments, and the correctness of this conclusion was now confirmed by Mr. SHATTOCK'S dissection. Immediate extension was adopted after the operation, and the toe retained in position by a metal splint for three or four weeks. Mr. W. Anderson had made a valuable contribution to the treatment of this affection, and had suggested a new operation of excising the head of the first phalanx, which he had successfully performed. This operation, which was described in the *Transactions of the Clinical Society*, vol. xx, p. 248, would be applicable to cases which could not be treated by the subcutaneous operation, and would supersede the necessity of amputation, which had generally been adopted in severe cases.—After some remarks from Mr. KNOWSLEY THORNTON, Mr. W. ANDERSON said that Mr. Adams's remarks had confirmed his own observations. He congratulated Mr. Adams on the good results of the division of the lateral ligaments, but he thought that the operation might not prove so simple in less experienced hands. The operation involving the removal of the head of the first phalanx had the advantage of giving a permanent result, which was not quite certain in division of the ligaments. He pointed out the similarity of this affection to that described by Mr. DAVIES COLLEY as *hallux flexus*. It always occurred during the period of active growth, but while "hammer toe" occurred indifferently in both sexes, *hallux flexus* had only occurred in males.—Mr. SHATTOCK observed that the etiology and pathology of these cases were obscure. He questioned the share accorded to the lateral ligaments in its production, and pointed out its analogy with the "claw hand" of Duchenne's paralysis. He suggested that a careful examination of the interossei might give a clue to the causation.—Mr. NOBLE SMITH said that he operated on the principle of dividing whatever tissue seemed to resist the replacement, and the results had been very satisfactory.—Mr. WALSHAM showed a dissection which he had been enabled to make of a case of "hammer toe," which pointed to the deformity being caused, in part at least, by the glenoid ligament. He observed that Dr. STEVENSON had been unable to detect any fault in the interossei by electrical tests. He was of opinion that the deformity was due to pressure from boots, etc. He doubted whether the lateral ligaments could be divided without opening the joint.—Mr. BERNARD PITTS thought that the majority of these cases were due to mechanical causes, and mentioned the case of a lad who had well-marked "hammer-toe" on one foot and an incipient one on the other foot, which, however, ceased to exist when the boot was taken off.—Mr. WALTER PYE said that they were agreed that the flexor tendons were not at fault. He alluded to the very strong hereditary tendency and to the corn which formed and favoured the secondary changes.—Mr. LENNOX BROWNE suggested that the hereditary theory was rather far fetched; he asked whether the heredity might not be in the bootmakers rather than in the patients.—Mr. ADAMS, in reply, paid a high tribute to the labours of Mr. Ander-

son and Mr. Shattock in this direction. He insisted upon the necessity for at least three weeks' after-treatment.

Extirpation of Goutre.—Dr. BOREL, after alluding to the geographical distribution of hypertrophy and cystic degeneration of goutre, mentioned that it was common in elderly dogs, being attributable, probably, to the large amount of lime they assimilated from a diet of cooked bones. The endemic disease in Switzerland had been made to disappear by drainage in some instances. He alluded to the undoubted regulating function of the thyroid over the cerebral circulation. In animals simultaneous extirpation of the spleen and thyroid caused death, though either could be removed separately with impunity. He referred to the observations of Kocher, of Berne, on cretinism following removal of the thyroid in very young people, the danger being less after puberty. He objected to interstitial injection of iodine, and attached but little importance to compression, shampooing, etc. Puncture might relieve cyst formations, but was useless in real hypertrophy. Operation in persons of advanced years was to be deprecated on account of the difficulty of arresting the hæmorrhage. He explained his method of operating, and mentioned that in cases of *goutres plongeants* (retrosternal struma), it might be necessary to dissect down to the arch of the aorta, enucleation being done with the fingers and scalpel handle. The operation might be one of urgency or merely of expediency. Cerebral disturbance and dysphagia, more or less ephemeral, might follow the operation, but he had never seen myxœdema follow. He illustrated the kind of mental disturbance which sometimes resulted by the history of three cases. The dangers were (1) entry of air into the veins, (2) primary arterial hæmorrhage and (3) asphyxia from compression of the softened trachea. He spoke of twenty-two cases in which he had performed extirpation.—Mr. KNOWSLEY THORNTON said that he was comforted on learning that a thyroidectomy had taken as long as five hours and a half, and involved two hundred ligatures. He had once passed three hours in removing a kidney and had thought it long.—Mr. LENNOX BROWNE said that the enormous *goutres* spoken of by Dr. Borel were really unknown in this country. He claimed priority in removal of the gland for Dr. Heron Watson, though the earlier operations were small compared to Dr. Borel's achievements. He thought the distinctions made between the so-called different varieties of thyroid tumours were more or less arbitrary. His experience of the seton was that the relief was not permanent. He had had six cases which he had treated by removal of the middle portion of the gland, and of the isthmus if enlarged. He never recommended recourse to operation for purely "cosmetic" purposes, nor unless there were serious symptoms.—Dr. KESER asked Dr. Borel whether he had had any experience of enucleation of the tumours without removing the gland itself.—Mr. BERNARD PITTS mentioned two cases, in one of which he had prevented imminent death from asphyxia by slitting open the tumour, and in the other, after having with difficulty performed tracheotomy, he had removed the whole gland with comparative ease. The latter patient, however, succumbed to cellulitis.

PATHOLOGICAL SOCIETY OF MANCHESTER.

WEDNESDAY, MARCH 14TH, 1888.

A. W. STOCKS, M.R.C.S., President, in the Chair.

Exostosis of the Orbit Associated with Cerebral Tumour.—Dr. PETER YATES showed a specimen of exostosis of the orbit, causing extreme proptosis of the left eyeball, with which was associated a cerebral tumour of myxomatous character. The exostosis occupied the position of the roof of the orbit, and had probably commenced in the frontal sinus. The bony growth encroached on the cranial cavity to the extent of about one inch, was very irregular, nodulated, and hard in texture. At the most prominent portion the dura mater was adherent, and attached to the latter by a pedicle, was a large, yellowish, gelatinous, lobulated, and flesh-like tumour with a distinct capsule. This growth was completely imbedded in the substance of the frontal lobe of the brain, and was easily shelled out. The cavity communicated behind with the lateral ventricle. During life there was a history of slight epileptiform seizures, but there was no loss of power or sensation, no vomiting, and absolutely no pain. The vision in the left eye was $\frac{1}{2}$ Jäger, that of the right being normal.

Abnormality of the Kidney.—Dr. A. M. PATERSON showed a preparation in which the right kidney was displaced, lying in the angle between the common iliac vessels, on the fourth and fifth lumbar vertebræ, and projecting downwards over the promontory

of the sacrum. The hilum was placed anteriorly, and from it the ureter passed downwards, a large vein upwards to the inferior vena cava. The left kidney was normal in position. Its hilum was placed in front also, and the pelvis of the ureter, lying on the anterior surface of the organ, was extremely large. The arteries to both kidneys were abnormal in number and mode of origin. The right kidney was supplied by four, and the left kidney by five vessels. The testicles and their vessels, and the suprarenal capsules were normal.

Renal Calculi.—Mr. SOUTHAM showed the kidneys of a man, aged 23 years. The orifice of the right ureter was blocked by a small calculus, and the gland was converted into a multilocular cyst full of pus. The left kidney was free from any traces of suppuration; its pelvis was much dilated and contained five calculi, three of which were of large size, weighing $5\frac{1}{2}$ ounces.

An Unusual Form of Uterine Polypus.—Dr. R. B. WILD showed a telangiectatic uterine polypus from the cervix, consisting of dilated vascular loops filled with blood-corpuscles; a loose connective tissue stroma with extravasated blood, and a few islands of glandular epithelial cells. The polypus was the cause of severe menorrhagia, and the microscopic structure explained the occurrence of hæmorrhage, quite out of proportion to the size of the tumour.

Sarcoma of the Pleura.—Dr. R. B. WILD showed a preparation consisting of nodular growths in the pleura, varying in size from a millet seed to a penny, and consisting of round and spindle cells, with a vascular zone between the normal pleura and the new growth.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MARCH 7TH, 1888.

JULIUS DRESCHFELD, M.D., F.R.C.P., President, in the Chair.

Trephining for Epilepsy.—Dr. HUTTON and Mr. WRIGHT showed a boy, aged 11, who suffered for nearly three years from epilepsy, which at first affected the limbs equally, but during the last few weeks had been mainly right sided, and accompanied by marked aphasia, with rapidly developing loss of mental power. A trephine two inches and a half in diameter was used, and the dura mater reflected. Exploration of the brain to the depth of an inch in various directions revealed nothing abnormal. The dura was stitched up, and the bone replaced after being cut into small pieces. Recovery from the operation followed without a bad symptom, but the mental condition remained unchanged, and the fits returned in a few days, though with less violence.

New Instruments, etc.—Dr. MULES showed (1) an instrument for the introduction of the artificial vitreous; (2) a series of drawings of rare ocular tumours.

Rupture of Kidney.—Dr. MULES also mentioned a case of rupture of the kidney through the capsule by direct violence, in which, with a large tumour in the flank, and considerable hæmorrhage from the urethra, recovery progressed uninterruptedly under the influence of complete rest and careful diet.

Tropho-Neurosis.—Dr. HUTTON showed a case of tropho-neurosis in a girl aged 9, which commenced as a gangrenous sore on the forefinger, and was followed three years and a half later by atrophy of the limb and sloughing of the skin over parts exposed to pressure, and general suppuration among the tissues of the left arm and hand.

Mitral Disease.—Dr. STELL read a paper on the auscultatory signs of mitral obstruction and regurgitation.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, MARCH 1ST, 1888.

E. NOBLE EDWARDS, M.R.C.S., Vice-President, in the Chair.

Skin Diseases.—Dr. MACKEY showed (1) a case of steatorrhea affecting one cheek in a young woman; (2) a case of erythema rheumaticum (?) of three months' duration, affecting the face and arms, in a cook, who had had two attacks of acute rheumatism.

Some Remarks on Spinal Caries and its Results.—Dr. F. PALEY read a paper in which he said the disease was generally due to the scrofulous or tubercular taint, with frequently a blood exciting cause. The children of agricultural labourers, thought, were especially liable to this disease. The pathology was described as first a low form of osteitis, with marked tendency to the caseation and breaking down of the inflammatory exudation, and with it of the rarefied cancellous structure of the vertebral bodies. These changes were shown to commence chiefly

the epiphyses of the bodies in close contiguity to the cartilages. The chief results were angular curvature, abscess and pressure on the spinal cord. The situation of caries, whether towards the back or front of the body, was the chief agent in determining pressure on the cord or a psoas or dorsal abscess. The agent of pressure on the cord was generally the thickened spinal dura mater. The diagnosis of early caries before curvature was exceedingly difficult. The author related the case of a woman, aged 41, which had been diagnosed as hysterical, but which a year afterwards was found to be caries, and resulted in fatal pressure on the cord. The author laid down some points of distinction between caries and the hysterical and irritable species. He considered that ankle-clonus, if well marked, was always a sign of organic lesion, and was never produced by hysteria. The prognosis of caries itself, as far as life was concerned, was considered to be good. The prognosis of abscess was bad, whilst that of pressure on the cord was regarded as very favourable, a case of complete recovery in about a year being narrated. As regards treatment, Sayre's jackets, with good food and tonics, were recommended. Abscesses should be opened early and drained under antiseptic precautions.—Mr. JENNER VERRALL remarked on the difficulty of diagnosis in many of these cases, and of determining whether rest or exercise should be employed.—Mr. ARTHUR DODD mentioned a case of death from dislocation of the spine in the cervical region from disease.—Dr. ADOLPHUS RICHARDSON referred to a case of hysteria in which, in opposition to Dr. Paley's view, ankle-clonus existed.—Dr. BLACK thought that none of the classical signs of spinal caries were reliable; he referred with favour to the plan of tapping the abscess close to the spine, and if possible removing sequestra.—Mr. SANDERSON recommended Davy's hammock method of applying the plaster-of-Paris jacket.—Dr. UTHOFF and Mr. GORDON DILL also took part in the discussion.—Dr. PALEY, replying, spoke in favour of Davy's method of applying the jacket.

Treatment of Laryngeal Phthisis and Abscess of the Antrum.—Mr. CRESSWELL BABER read a paper on some recent methods of treating these diseases. He gave particulars of Rosenberg's treatment of laryngeal phthisis by means of injections into the larynx of a 20 per cent. solution of menthol in olive oil, combined with inhalations of the same drug. He also referred to the treatment of this disease by lactic and chromic acids, but recommended the menthol treatment for trial on account of its painlessness. In the treatment of abscess of the antrum, which he remarked might exist without any external symptoms beyond unilateral fetid purulent discharge, he mentioned the means of diagnosis and the different methods of opening this cavity, namely, through the middle meatus, through the inferior meatus, and through an alveolus, giving the preference to the latter if it were impossible to obtain an entrance through the normal opening of the antrum.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THURSDAY, MARCH 8TH, 1888.

LAWSON TAIT, F.R.C.S., President, in the Chair.

Alcoholic Paralysis.—Dr. SÜCKLING read a paper on alcoholic paralysis.

The Treatment of Perforation of Gastric Ulcer.—Mr. J. W. TAYLOR and Dr. STACKY WILSON read a paper on this subject.

Multiple Peripheral Neuritis.—Dr. SÜCKLING showed a boy, aged 14, suffering from multiple peripheral neuritis. He had worked in lead and zinc for eighteen months. A few weeks before the onset of his illness he had changed his occupation to that of stamping bolts, and while at this heavy work weakness gradually came on. On admission he complained of weakness in his hands and feet, all of which were "dropped," power of extension being lost. There was much weakness in the other muscles of the extremities. Anæsthesia was well marked in all four extremities, but was not complete, and extended only a few inches from the wrist and ankle-joints; the knee-jerk was abolished on both sides; the calf muscles were tender on palpation. Faradic irritability was diminished, but the reaction of degeneration was not present. There was no blue line on the gums, nor had there been colic or constipation. The bladder and rectum were unaffected. Dr. Suckling considered that exposure to cold and hard work had been the exciting causes, but that his having worked on lead had predisposed to the affection.

Cancer of the Pancreas.—Mr. JORDAN LLOYD showed a specimen of cancer of the head of the pancreas, which had compressed the pancreatic and common bile ducts. The pancreatic bile duct was

dilated to a diameter of half an inch, and the gland was full of cysts varying in size from a pea to a pigeon's egg. The common bile duct and the hepatic ducts would admit an index finger. The gall-bladder was enormously distended. The patient was a woman nearly 80 years old, and had suffered during six months from pain in the abdomen and emaciation without jaundice. Cholecystotomy had been performed for the relief of painful distension of the gall-bladder.

Ossifying Enchondroma.—Mr. MARSH showed a typical specimen of ossifying enchondroma, the size of a large orange, removed a fortnight ago from the femur of a youth, aged 18. The growth was first noticed nine years previously, and its origin put down to a blow received a short time before; it had grown slowly ever since, without pain, but latterly its size caused inconvenience, and when knocked it was painful. The tumour was attached to the inner and anterior surface of the femur, four inches from the lower end, by a hard osseous pedicle. It was removed by longitudinal incisions on either side, and the pedicle sawn through with a chain saw. Dry boracic dressings were used, and primary union obtained except along the track of the drainage-tubes. Prior to the operation there was one-sixth to a quarter of albumen present, a sequel of scarlet fever. Since the operation this had entirely disappeared.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, FEBRUARY 3RD, 1888.

E. CARVER, F.R.C.S., President, in the Chair.

Election of Officers.—It was proposed by Dr. GROVE and seconded by Dr. EASBY that Mr. STEAR, of Saffron Walden, be elected President for the ensuing year. This was carried unanimously. Mr. Wherry was elected Vice-President, and Mr. Laurence Humphry was re-elected Honorary Treasurer and Secretary for the year. Mr. Francis was re-elected Co-Secretary.

Cases of Erysipelas.—Professor HUMPHRY related the case of a woman who was admitted into Addenbrooke's Hospital suffering from cellulitis of the forearm. Before admission she had a sore thumb, and had been recently washing some dirty rags from a case of erysipelas. Soon after her admission the cellulitis subsided, and a girl lying in the next bed with necrosis on the popliteal aspect of the tibia developed erysipelas in the thigh. Both these cases were removed to another ward and isolated. The first case shortly afterwards had erysipelas in the forearm. Subsequently a woman at the end of the ward, with an ulcerated leg, developed erysipelas. The cases were all of a mild type. The treatment pursued had been lint soaked in bichloride of mercury (1 to 1,000) and placed on the margin of the spreading line of erysipelas and a few inches beyond. The cases appeared to be benefited by the treatment, but a girl admitted with erysipelas of the face got on equally well without treatment. Professor Humphry referred to the more recent views of the presence of micrococci in erysipelas; he was doubtful as to the particular efficiency of any modes of treatment in ordinary cases.—Dr. LATHAM, Mr. CARTER, and others took part in the discussion.

Sarcoma of Lung.—Mr. GRIFFITHS read the notes of a case which was admitted into Addenbrooke's Hospital under Dr. Bradbury on January 21st. A man, aged 58, had been ill for one year with cough and wasting. On admission there was marked dyspnoea, and cyanosis, and swelling of the eyelids; expectoration mucopurulent. The physical signs were absence of movement of the left side of the chest, absolute dulness and feeble respiration, hyper-resonance and rhonchal sounds over right side. Microscopic examination of the sputum showed only pus cells. A needle was introduced into the chest, but no fluid withdrawn. The diagnosis was made of malignant disease of the lung. The right hand became very oedematous, also the face; but the superficial veins were not distended. After several severe attacks of dyspnoea he died on January 30th. On *post-mortem* examination the pericardial sac was found to contain two to three ounces of straw-coloured fluid. Projecting into it from the left side was a firm, somewhat irregular tumour, pushing the pericardium in front of it; and this tumour was continuous with a firm, solid mass in connection with the base of the heart at the back of the left auricle. On section of the left lung, a firm, fleshy growth was found, occupying the root of the lung, and extending by irregular processes along the course of the bronchi and larger vessels. Above it embraced the lower half of the arch of the aorta and compressed it somewhat. The branches of the pulmonary vessels were also completely surrounded and compressed, but there was no ulceration. Here and

there in the section there were the skeletons of bronchi (cartilage) completely surrounded, and their lumen was absolutely obliterated by the new growth. The left bronchus was greatly narrowed, but there was no ulceration into it. Posteriorly, the growth projected on either side of the œsophagus, causing partial compression, and on passing one's finger into the lumen of the œsophagus there was a distinct constriction. There were no secondary growths.

Glaucoma caused by Melanotic Sarcoma of the Eyeball.—Mr. WHERRY showed an eyeball, which, on section, discovered a black growth the size of a raisin, which, growing from the choroid, had stripped off the retina. The pigment cells, under the microscope, were those common in melanotic sarcoma. The eye was removed from a lady, aged 70, who had the symptoms of glaucoma in the left eye. The patient had symptoms three weeks before seeking advice. About five years previously she had been told that she had an incipient cataract. The sight had failed gradually and painlessly. The other eye was in good condition and with good vision. Six days after the operation, a black swelling, as big as an egg, came suddenly on the left side of the lower jaw; it was soft, painless, and uniformly purple-black in colour. It was taken to be a growth; but in a few days its colour faded at the margins, and it decreased to half the size, appearing like an ecchymosis. There was, after a fortnight, a dark, almost black, patch of skin, about the size of a penny. The patient had recovered well from the operation, and was in good health.

Intussusception of the Bowel with Diverticulum.—Mr. A. INGLE showed a specimen of intussusception with diverticulum of the ileum. A child, 5 months old, was attacked with pain, vomiting and on the second day. Bloody mucus was passed from the anus on the third and fourth days; tympanites and hicough followed, and the child sank and died on the fifth day. At no time could any tumour be discovered in the abdomen, nor had there been any pain on palpation. The parents refused to allow any operative interference. After death the intussusception, which was of the common variety (at the ileo-cæcal valve) was found just below the stomach, the diverticulum being two or three inches higher up the ileum. Mr. Ingle asked if the symptoms would have warranted insufflation, and if it had been employed, how, in the absence of any sausage-shaped tumour, one would have known when it had been carried far enough? He raised the question, whether the diverticulum could have in any way acted as the cause of intussusception?—Professor HUMPHRY replied that he thought insufflation might justly have been used. He considered it hardly likely that the diverticulum could have had anything to do with the intussusception.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, MARCH 7TH, 1888.

W. ROSS JORDAN, M.R.C.S. Eng., President, in the Chair.

Non-union after Osteotomy.—Mr. MARSH exhibited a boy, aged 7, with non-union of the tibia after osteotomy for anterior curvature of that bone. The boy had been operated on four years ago in a provincial hospital; he wore a plaster case for a month after his return home, union having taken place. Eighteen months ago, the deformity still existing (a relapse had probably taken place) he was again operated upon, this time at home by the local medical practitioner. There was a good deal of suppuration after the operation, the wound healing slowly, but no history of necrosis. The boy ultimately got about with the aid of crutches, and wearing a boot with an iron upright. The parents discovered the non-union three months ago, and last week brought him to the Queen's Hospital, Birmingham. The left leg was one inch and a-half shorter than the right, and the muscles wasted from disuse. At the site of the osteotomy, about two inches below the middle of the tibia, there was slight over-riding of the divided ends, the lower being anterior, somewhat atrophied and connected with the upper by fibrous tissue, free movement in any direction being only restrained by the fibula. This latter bone was hypertrophied and curved anteriorly in its lower half, and just above the malleolus was an indication of an old transverse fracture with close fibrous union. Mr. Marsh commented on the rarity of non-union of bones in children, and considered that in this case it was due to local causes, probably imperfect fixation and interference with the medullary artery, and not to constitutional taint, there being no marked diathesis.

Suture of Median Nerve.—Mr. MARSH exhibited a successful case of suture of the median nerve, over eighteen weeks' having

elapsed since its division. The patient, a woman, aged 23, severely cut her right wrist with a pane of glass on October 5th, 1887. The hemorrhage was profuse, and the ulnar artery was ligatured some days afterwards for a recurrence of this. The median nerve was not seen at the time. The wound suppurated and healed slowly. Sensation was lost over the palm of the hand, and over both anterior and posterior surfaces of the thumb and the two adjacent fingers, and partly over the radial side of the ring finger. Trophic changes in the skin and nails, with troublesome ulceration of the tip of the index and radial side of middle fingers ensued, the hand being cold and useless. She was admitted to the Queen's Hospital on February 8th, and the nerve sutured the next day. The proximal end was drawn to the ulnar side of tendon of palmaris longus, was large and bulbous, and joined at an angle by a thin band of fibrous tissue to the atrophied distal end, the annular ligament requiring division to expose the latter. The ends were refreshed, placed in good position by stretching the nerve a little, and flexing the wrist, and joined by three fine cat-gut sutures. Dry boracic dressings were used, and primary union of the wound obtained. Fifteen days after the operation the patient noticed that the thumb and fingers "began to feel different," and two days after this there was a return of sensation over the palm and the carpal ends of the thumb and middle finger. This area had slowly increased up to the present date (twenty-seven days after), the index finger alone remaining without sensation, the fibres supplying this digit probably not having yet united. With this exception there was a marked improvement in the nutrition of the skin and nails. The hand was warmer, much more useful, and complete recovery was only a matter of time.

Suppurative Phlebitis of Uterine Veins.—Mr. BARLING showed a specimen taken from the body of a woman aged 40, who died fourteen days after a miscarriage, having suffered from symptoms of peritonitis for eleven days. Three days before death it was found that she had a strangulated femoral hernia, which was relieved by operation, with temporary diminution of her symptoms. The post-mortem examination showed pelvic peritonitis, evidently extending from the right side of the uterus; and when this organ was divided pus was found in some of the veins on the right side, the suppuration having extended in two places to the tissue of the uterus, producing abscesses the size of a nut lying immediately beneath the peritoneum. The strangulated intestine had recovered from its constriction.

Sarcoma of Ovary.—Mr. T. W. TAYLOR showed a specimen removed by him from a patient in the Women's Hospital. The specimen had been examined and prepared by Mr. Bland Sutton, and was, in his opinion, of exceptional interest. The patient made a good recovery from the operation, and had remained well since.

Shortening of Forearm following an Accident.—Mr. AUGERSTON CLAY showed a boy aged 14, who had injured his forearm six years ago by falling off a cart. It was treated then as a sprain, and after three weeks was apparently well. Three weeks ago he again hurt his arm, and the shortening was discovered. The wrist was much wider than the other, and the hand was pushed over to the radial side by the increased length of the ulna, which was exceptionally prominent and slightly bowed.

Signatures of the late Dr. John Ash.—Mr. WRIGHT WILSON showed three old documents bearing the signature of Dr. John Ash, the founder of the General Hospital.

Sarcoma of Kidney.—Mr. LAWSON TAIT showed a large sarcomatous kidney which he had recently removed.

Congenital Heart-disease.—Dr. SIMON showed a case of congenital heart-disease in a boy aged 13.

Brassfounders' Ague.—Dr. SIMON read a paper on Brassfounders' Ague.

The Movable Dwellings Bill which Mr. George Smith, of Coalville, is promoting for the purpose of bringing gipsy, van, and other travelling children under educational and sanitary influences, will be introduced into the House of Commons in a few days by Mr. Burt, and will be backed by Dr. Cameron, Mr. T. M. Healy, Mr. Penrose Fitzgerald, and Mr. Hozier. There is reason to hope that the Government will give it their support, and Lord Derby has written of it in terms of approval.

PRESENTATION.—Mr. Marshall, the Senior House-Surgeon of the Huddersfield Infirmary, has, on the occasion of his severing his connection with that institution, been presented with a handsome stationery cabinet with silver mounts and salver, some useful medical works, and other souvenirs.

REVIEWS AND NOTICES.

THE ELEMENTS OF PHYSIOLOGICAL PSYCHOLOGY. By GEORGE T. LADD, Professor of Philosophy in Yale University. Pp. xii, 696. London: Longmans, Green and Co. 1887.

THIS admirable work by Professor LADD deserves a hearty welcome from the English public as the first book of sufficient extent of subject-matter and depth of thought to take the place in American and English literature that has been held since 1874 in both Germany and France by Wundt's *Grundzüge der Physiologischen Psychologie*. It is "a treatise on the activities and nature of the mind from the physical and experimental point of view," as Professor Ladd phrases it; and it is even more than that, for Professor Ladd does not hesitate in the third part, and that not the least weightily and valuable, to face the ultimate difficulties and to speak plainly "on the nature of the mind" from a standpoint which is not experimental, but introspective. He has been known widely hitherto as the translator of Lotze's *Diätate*, and though he does not follow Lotze on all points, it is easy to see that he has felt the full force of his influence. The greatest struggle of thinkers since thought began has been to transcend the duality of mind and matter, and no victory has as yet been achieved which the world will consent to receive as decisive. The advance of the present age, as has been well said, has been to reduce the general problem of mind and matter to the particular problem of mind and brain. In furtherance of any future attempts at advance, it is, in the first place, necessary that an adequate statement of the ever-growing data of the nervous mechanism should be provided before the correlations of the nervous mechanism and the mind can be profitably discussed. These data and this discussion occupy the first two parts of Professor Ladd's book. The third part, "On the Nature of Mind," might perhaps have been more logically introduced before the second; for on the conclusions as to its nature must be based the premisses for its correlations.

The description of the nervous mechanism, which occupies with the preface the first 236 pages, is one for which all serious students must be sincerely grateful. It is a most clear and accurate account of the elements of the nervous system, their combinations, functions, and development, and a description, more in detail, of the organs of sense—of taste, of touch, of smell, of sight, and of hearing. In his treatment of all these points he does not profess to bring forward any new personal research, but he states fresh conclusions reached in special departments by Helmholtz, Flüger, Schiff, Hitzig, Ferrier, and many others in brief language which, in its clear discrimination, carries part of the proof of its authority.

The desire to bring this large and constantly enlarging physiological field within a single survey has led him to decline very wisely the more detailed examination of such tempting by-paths as the cerebral localisation of speech, and the psychological inferences which may be drawn from its abnormalities. Such a subject might, perhaps, be more appropriate to Professor Max Müller as helping to illustrate the actions of a state where there is probably science of thought without a science of words. Professor Ladd shows a prudent inclination not to limit too narrowly the localisation of such a complex matter as speech, and not to follow the expression and understanding of articulate language too essential a part in thought when he writes (p. 292): "The literal meaning of the statements made by Broca—such as that this part of the brain is 'the seat of the faculty of articulate language'—is, however, not simply inappropriate to the facts, it is even absurd. There is no one 'faculty' of language which can, in any possible meaning of the word, be regarded as having its 'seat,' or locality, confined to some particular region of the brain. Speech involves, in a very complicated and large way, all the faculties. Strictly speaking, then, it cannot be located, with all its attendant operations of self-conscious, rational mind, in any one cerebral area. It is that the phenomena of aphasia show some special connection of certain cerebral centres with the complex process of apprehending and expressing articulate language seems entitled to credit as an induction based on a wide range of facts."

Turning to the consideration of the mind, Professor Ladd is far too skilled a psychologist not to be well aware that there is no easy short cut for the reason to bring it honestly to materialism, and no easy satisfaction for most men in what may seem a logically impregnable idealism. He realises that mind is self-con-

scious, and is in that respect unique. "If the question is further pressed as the physical basis for the activities of self-consciousness, no answer can be given or even suggested. From its very nature that marvellous verifying *actus* of mind in which it recognises itself as the subject of its own states, and also recognises the states as its own, can have no analogous or corresponding material substratum. It is impossible to specify any physiological process representing this verifying *actus*; it is even impossible to imagine how the description of any such process could be brought into intelligible relation with this unique mental power" (p. 545). He recognises that the problem of the freedom of the will has received no adequate solution, and, as briefly as is courteous, dismisses such recent materialistic formulæ of determinism as M. Luys has put forward when he says that thinking of an object by our will is an illusion; "and the object is only forced upon us by the cunning conjuror, the brain, because the cell territory where that object resides has been previously set vibrating in the brain." That is to controvert "a plain and universal dictum of consciousness by his private and unverifiable hypothesis on a question of cerebral physiology where experts and novices are alike ignorant."

He at first passes by as out of his province the more subtle hypothesis of modern phenomenalism, "A third view which regards both the so-called 'brain' and the so-called 'mind' as merely phenomenal aspects of some one reality that is like neither, but manifests itself in both;" (p. 588); and when he returns to reconsider it later (p. 655), he seems to esteem this "double-faced unity" as overthrown, because we have no answer to the question, "Why does it manifest itself both as physical motion and as mental states?" Nevertheless, his own inclinations seem to leave him no choice but dualism of mind and matter, of which each half is mind-with-matter and matter with mind, a dualism from which Lotze has hardly saved himself.

In speaking of such a book it would be straining criticism too far to dwell on phrases like "visor angle," which fall strangely on the English ear, or to complain of some of the smaller points of omission. Still, in speaking on sound we should have been glad to see Lord Rayleigh's great work mentioned, and on the larger issues of the physico-psychical problems some of those many original articles and pamphlets from Dr. Hughlings Jackson's pen, of which perhaps the most easily accessible results are contained in the Croonian Lectures for 1884.

Among the additions in England, which are perhaps almost too recent to be incorporated, we may reckon on the physiological side Mr. Victor Horsley's experiments on the brain, and on the psychological side Mr. James Ward's article on Psychology in the *Encyclopædia Britannica*, which practically amounts to a treatise.

In his introductory chapter Mr. Ladd has told us with excellent distinctness that "no attempt will be made to describe and discuss any of the phenomena which may be classed as abnormal or as consisting (so far as they are psychical) as so-called 'disturbances of consciousness,' except when reference to such abnormal phenomena is necessary in order to explain those which are normal or ordinary. The phenomena of insanity, delirium, hypnotism, somnambulism, ecstasy, mind-reading, spiritualism, or even sleep and dreaming will therefore be definitely excluded" (p. 8).

He has kept accurately to the prudent lines he has laid down for himself in this book, and we may hope that he may be induced to go on with a firm grasp of his first principles and a wide view of his field to deal with some of the puzzling questions of abnormalities which may be found to throw here and there a gleam of very vivid light on the true character of the natural man.

DE L'EPILEPSIE JACKSONIENNE. Par le Dr. E. ROLLAND, Médecin des Asiles "John Bost" de Laforêt. Paris: Aux Bureaux du Progrès Médical. 1888.

THE form of epilepsy associated with the name of our great neurologist, Dr. Hughlings Jackson, has a literature which is singularly scattered, and Dr. ROLLAND has done the profession a great service in collecting what has been written of the disorder in the work before us. We cordially agree with the remark of Dr. Arnozan, in his introduction to the book, "that the author has done right to publish his work." It is almost entirely a compilation, but of such a kind as to be an exceedingly valuable help to all who are working at nervous disease, or are desirous of reading a complete account of unilateral or cortical epilepsy.

A summary of the anatomy and physiology of the cerebral convulsions is followed by a chapter upon the History of Jacksonian Epilepsy. Here it is shown that, while Dr. Hughlings Jackson was the first to study the disorder completely and to trace it to its organic cause, it was nevertheless known, even in the time of Hippocrates. The chapter upon the Symptomatology, is properly very minute and comprehensive. The first case is reported in the graphic language of Dr. Hughlings Jackson himself, as communicated to the author, and already published in English. We may quote the following as interesting to our readers, although, as will be seen, it is only a repetition of Dr. Jackson's views: "In Cases of Hemispasm, 1. If the attack commences in the face, it is always the upper limb which is affected in the first place, and the lower limb afterwards. 2. If the attack commences in the arm, the convulsions ascend along the arm, next affect the face, and finally descend the leg. 3. If the attack begins in the foot, it ascends the length of the leg, then descends the arm. This last rule appears to have numerous exceptions; in this mode of commencement the face is rarely attacked by convulsions, and if attacked, is affected last." A case under the author's personal observation is reported with great care, and an account of the *post-mortem* examination given.

The anatomical relationships of the disease are deduced from *post-mortem* records of 109 cases, including three from the author's own experience. In the chapter on Treatment, the recent methods of operative procedures receive due description, and a very full account of Professor Horsley's work is given.

There are no new ideas in the book, but it is an excellent work, and will be warmly welcomed.

NOTES ON BOOKS.

Alassio: "a Pearl of the Riviera." By Dr. JOSEPH SCHNEER. 12mo. Pp. 80. (London: Trübner and Co. 1888.)—Dr. Schneer gives us a pleasing account of Alassio, of its past history and present beauties, and also describes the many excursions that can be made from it. His booklet may be of interest to those who are already settled at Alassio; but it supplies no medical information beyond a few meteorological tables; it does not give a hint as to the medical resources of the place, or of the accommodation it offers to visitors. It is really not a guide, for it offers no facts that would help physician or patient who thought of selecting Alassio as a health resort. There is not a word to characterise the place, or show in what respects it agrees with or differs from other stations along that coast.

The Hospital Prayer-book, containing Prayers for Daily and Occasional Use, also a Short Form of Public Service for Lay-readers in Hospitals, with a few Remarks on conducting the Same. Arranged by EDWARD JOHN WARING, C.I.E., M.D., F.R.C.P. Second Edition. Revised and corrected. (London: J. and A. Churchill. 1888.)—Those who are not already acquainted with this volume will gain an adequate notion of its aim from the full title transcribed above. The prayers are arranged for use morning and evening for a week; the short service is founded upon the liturgy of the Church of England. To this second edition some hymns have been added, and the service and many of the prayers have been abbreviated. The preparation and revision of the volume has evidently been a labour of love for Dr. Waring, who may be congratulated on having completed his task in a way which leaves nothing to be desired.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS,

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FLORADOR.

(Prepared by the Florador Food Company.)

This is an excellent preparation, consisting mainly of granulated wheat of the very finest description. Its composition, chemically, is that of good wheat flour, the albuminoids amounting to 12 per

cent. The main features which distinguish it from other wheat preparations are the mode of granulation adopted, which prevents the flourer, when boiled, from gelatinising into a structureless paste, and the purity of its flavour. When properly boiled it furnishes not only a very good food for young children, but is a capital basis for milk puddings and custards. Children will appreciate the addition to their dietary.

MALTINE AND COD LIVER OIL.

It has long been known that some patients who are unable to tolerate the purest and most carefully prepared cod liver oil can readily digest and assimilate it when mixed or combined with maltine and malt extract. Since this fact was first observed a number of preparations of the two have been placed before the public; some are good, but many are either bad or indifferent.

The maltine and cod liver oil made by the Maltine Manufacturing Company, of Hart Street, Bloomsbury, is certainly one of the best preparations of the kind we have met with. The admixture is complete and permanent, and the consistence is very convenient, being about that of ordinary treacle, so that the liquid readily flows from the bottle. As regards taste, that of the cod liver oil is almost entirely concealed, and what suspicion there is of it is not at all unpleasant. The therapeutic value of good combinations of cod liver oil and malt extract has been so thoroughly recognised, and is so well known, that it is not necessary to enter into this part of the subject, but we can recommend that prepared by the Maltine Manufacturing Company on the ground of its perfect admixture, the ease with which it is assimilated, the good quality of the cod liver oil, and the value in diastase of the maltine.

NEURIN.

This is an effervescent beverage manufactured by Mr. J. F. Edebury, of Wrexham. It is perfectly clear and colourless, and is put up in bottles of the size of pint champagnes. It is non-phosphated, but ten grains of mixed bromides are contained in each bottle. When poured out the liquid is remarkably bright and effervesces briskly. The taste of the bromides is almost entirely masked, and, in fact, the sensation left on the palate after drinking the beverage is an entirely pleasant one. "Neurin" is likely to be useful in those cases in which small and repeated doses of bromides are indicated. The dose is stated to be half a tumblerful when required either alone or with wine.

LIQ. PODOPHYLLIN ET PEPSIN (HOCKIN).

We have previously commented favourably on several preparations manufactured by Messrs. Hockin, Wilson and Co., of Duke Street, Manchester Square, and the preparation now before us is no exception to the general excellence of those already examined by us. It is a clear, dark-coloured solution, and mixes perfectly without precipitation with water and aqueous solutions, such as infusions, etc., as well as with alcoholic and ethereal liquids. It may be employed with advantage in doses of one fluid drachm in cases in which there is deficiency of gastric secretion associated with constipation and insufficient secretion of bile.

SALIX NIGRA CORDIAL (CHRISTY).

SALIX NIGRA, the black or pussy willow, is a tree indigenous to the United States of America, but is found more especially along the streams towards the south. It is stated to be a powerful sexual sedative, similar, in fact, to the bromides in its action, but without having any depressing effect.

It is also said to be useful in ovarian hyperæsthesia, dysmenorrhœa, and uterine neuralgia. Prostatorrhœa and involuntary seminal emissions are stated to be lessened by its use, and it is credited with possessing tonic and antiperiodic properties. It has been reported upon favourably in this country by Dr. J. Hutchison, of Glasgow, and Mr. Hurry Fenwick, of the London Hos- pital.

The fluid extract is the preparation ordinarily used, but this has a very rough and astringent taste, which is very persistent. To obviate this Messrs. Christy and Co., of 25, Lime Street, E.C., have introduced a salix nigra cordial, made so that one tablespoonful is equivalent to one fluid drachm of Christy's fluid extract of salix nigra. The preparation is elegant and palatable, and the disagreeable taste of salix nigra is hardly perceptible. Patients who might object to the fluid extract would, in all probability, readily take Christy's cordial. The dose is from half to one tablespoonful

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 24TH, 1888.

THE LOCAL GOVERNMENT BILL.

THERE can be no doubt that the Bill for the reform of the local government of this country, which was introduced by Mr. Ritchie in the House of Commons on Monday, is by far the most comprehensive measure of the kind which has been yet framed by any ministry, Conservative or Liberal. The broad principles of the measure will probably meet with very general acceptance, and they need not, therefore, be discussed in these columns at any length. The establishment of an intermediate authority between the central government and local boards has been an admitted necessity for the last fifteen years; and although one or two attempts have been made in this direction, no adequate scheme has heretofore been proposed. That the elaborate apparatus of the Local Government Board and Parliament should have to be set in motion for the everyday concerns of local authorities is ridiculous and wasteful; and to the establishment of County Boards probably few will be found to object.

The discussion of the particular proposals of the Government is, however, rendered impossible by the unaccountable postponement of the appearance of the Bill itself until after Easter. Unless the rumours as to the dissensions in the Cabinet on this subject have much greater foundation than usual, the Ministry must have made up its mind some time ago as to the details of the measure; and it is impossible, without seeing the text of the various clauses, to follow Mr. Ritchie's necessarily complicated analysis of the Bill with any degree of surety.

As to the County Councils themselves, there is but little ambiguity. Justice is to be administered as at present by the Court of Quarter Sessions, but almost every other kind of county business is to be turned over to Boards which are to be elected by popular vote. These Boards will administer county rates and financial business, bridges, lunatic asylums, reformatory and industrial schools, the granting of licences for music and dancing, the sale of alcoholic liquors, the registration of voters, and the administration of the Acts of Parliament relating to explosives, contagious diseases of animals, food and drugs, weights and measures, main roads, etc. At all events for the present, the area which each Council will supervise will be co-terminous with the existing county divisions; and we shall

therefore see the anomaly of Rutlandshire having for its administration an apparatus as elaborate as Warwickshire.

County Councils will be made up of members elected on the same franchise as municipal corporations are at present, such members to sit for three years. In addition to the elected members, there will be a species of aldermen, who will be elected by the Council and will sit for six years. The ten largest boroughs of England will each have a separate County Council to itself, and London, moreover, will have a Council of its own, which is to supersede and extinguish the Metropolitan Board of Works.

The proposals of Mr. Ritchie as to the manner in which the primary local authorities will act under the county authorities are, however, much less clear. So far as we gather from his speech, it is still proposed to have two kinds of primary areas, namely, urban districts, which will be the "existing and future municipal boroughs and local boards and rural districts," and rural districts. It is not clear whether any place which happens now to have a local board will be permitted to maintain its separate organisation, or whether the county authority will map out the county afresh, so as to redress the anomalies which at present exist. Whatever may be the proposals of the Government on this head, we think that it is above all things essential that the sanitary areas of the country should be thoroughly recast. They have grown up upon no sort of system, and if they are perpetuated, endless difficulties will arise in the future.

However much the Bill might have been watered down, Mr. Ritchie would, in any case, have had to confront a formidable phalanx of opposition. It is to be regretted, therefore, that the Government have not seen their way to go a step further, and to unify all the local authorities which now exist; so that there may be one local authority, and one only, exercising jurisdiction over a particular area. It is worth while in this connection to point out that nearly all the existing authorities are of modern growth, so that no halo of sanctity yet surrounds any one of them. No doubt the Government were wise in not attempting to hack about the present counties, which have associations of well nigh a thousand years clinging to them. But the Poor Law Union is a creation of only fifty years ago, which for the first half of its existence had no common life growing up round about it. Local Boards are barely twenty years old, rural sanitary boards only fifteen years old, and School Boards only a year or so older. These manifold, intricate, and irrational organisations ought clearly to be amalgamated and co-ordinated. Yet we find Mr. Ritchie proposing to leave the poor law unions and the poor law guardians absolutely untouched. This, in our view, is the weakest part of his proposals. John Stuart Mill has, with his usual clearness, very well expressed what ought to be held in view with regard to local administration. He says, in his *Considerations of Representative Government*, that "in each local circumscription there should be but one elected body for all local business, not different bodies for different parts of it. The local, like the national Parliament, has for its proper business to consider the interest of the locality

as a whole composed of parts, all of which must be adapted to one another."

All the efforts of sanitary and local government reform have been directed towards this unification of area and functions, and it seems to us a distinct flaw in the Government proposals that the administration of the relief of the poor should be divorced altogether from the other parts of local administration.

Probably one reason why Mr. Ritchie has proposed not to touch this matter is his anxiety "not to overload the machine at starting;" but it is obvious that unless the question is grappled with in a comprehensive spirit, we shall have a repetition of the constant tinkering at reform which have been the bane of the local administration of the country for the last generation.

The only purely medical point which is brought out in Mr. Ritchie's speech is the proposal to suppress the grants in aid of medical officers of health and inspectors of nuisances now given by the Local Government Board under the Public Health Acts. These grants were originally instituted by Mr. Stansfield in 1872 as a kind of bribe to local authorities to accept the supervision of the Local Government Board over the appointment of these officers. But it has never worked well, and is, like many other grants in aid, an anomaly which an occasion like the present affords a useful opportunity for suppressing. In lieu of the grants in aid the Government intend to hand over to the local authorities the receipts from licences for the sale of intoxicating liquors and various other licences, roughly amounting to £3,000,000. They propose also to grant what is described as "a substantial contribution from personalty" amounting to £1,800,000. This may very possibly mean that the Government are intending to make the inhabited house duty, which amounts to about that sum, a local instead of an imperial tax. As Mr. Ernest Hart observed in his address on Local Government delivered to the Sanitary Congress at Leicester in 1885, there would be great advantage in the substitution of the various grants in aid by "a tax like the house tax, which is incomparably a more legitimate source of local revenue than the appointment of a local sanitary officer, for example, is a matter for imperial subsidy."

So far as can be seen at present the licensing part of the Bill is that upon which the chief opposition will turn. Happily a discussion on this point is beyond our province, and we may be permitted to hope that the criticism as to the powers of the proposed County Councils with regard to licences will not wreck the other and more urgent parts of the Bill. Nothing can well be more anomalous and wasteful than our present system, and both parties must put forth a strong effort to make at least a start in Local Government reform, even if it be necessary to postpone some important sections of the question for another year.

THE PRESIDENCY OF THE COLLEGE OF PHYSICIANS.

The forthcoming election to the Presidency of the Royal College of Physicians will be regarded by the profession generally

and the well-wishers of the College with more than usual interest. In Sir William Jenner the College loses a President of conspicuous ability, great firmness of character, and large social influence and interest in public business. It would at any time be difficult to fill the place of a man of so much professional and social eminence and unselfish earnestness of purpose, and possessing so decided a power of guidance in public affairs. It is peculiarly difficult at the present moment, when the College is involved in public transactions of great moment to its own future, and to the prospects of medical education and graduation in the metropolis.

Not many years have passed since the College of Physicians took up a new position in relation to the profession, and by creating a great class of Licentiates assumed new and enlarged duties and responsibilities to the profession and to the State, and this greatly magnified its office. The effect of this tardy but wise proceeding was to infuse new life into the College, to replenish its then scanty exchequer, and to place it in the front rank of the large and active professional forces of the day. That step was not taken without the usual opposition from the elder and more conservative elements of the College, and its chief author, Dr. Quain, may to-day be heartily congratulated on the foresight and ability with which he led the College on that great occasion into a path which has been one of prosperity, power, and enlarged usefulness. At this moment, and as a natural consequence of its developed professional relations, and its large duties to the great class of Licentiates whom it welcomes from all the metropolitan and provincial schools, it finds itself called upon to assist in making some provision for the more ready graduation of its candidates, and for opening to them facilities for the title of doctor of medicine which are granted on equitable and not too onerous conditions to the students of other great centres of medical education in Great Britain and Ireland.

A Royal Commission is about to sit on the various schemes and counter-schemes proposed. The College of Physicians will play a large part, not only in the proceedings before the Commission, but also in the subsequent negotiations which will follow its report—the latter being probably the more difficult and delicate task. The present position of the College is one which will require of its President, not only the possession of eminent business qualities, but the habit of dealing with public questions and public men, tact, knowledge of the affairs of the College, and of the other professional bodies which will take a friendly or an unfriendly part in the future negotiations. Many eminent physicians have neither the experience, nor the social influence, nor the clearness of intelligence, nor the presidential faculty which are needed for the good guidance of affairs in this peculiarly important period in the history of the College. It is contrary to our custom, and would infringe the peculiarly reticent traditions of the College, if we were even vaguely to indicate the names of those who are spoken of as likely to find their names in the lists voted on Monday next at Trafalgar Square, or to discuss, from however

impersonal a point of view, their respective public records; but we feel justified in expressing the opinion that there has rarely been an occasion in the history of any public body when the best interests concerned require a more careful weighing of the proved fitness of the candidate for the trying public duties of the office, or one on which it is more important that individual likes or dislikes or minor considerations of a personal or irrelevant kind should be more decidedly put aside. We have indicated what will, we think, be generally recognised as the qualities needed at this time, and the character of the public record which should command the support of the Fellows. The College should, out of its rich personal resources, have little difficulty in making a selection which will answer to the necessities of the occasion.

MEDICAL APPOINTMENTS AND POLITICAL INFLUENCES.

CONSEQUENT on the promotion of Dr. F. X. Maccabe to the Local Government Board, Dr. G. B. O'Farrell has been appointed medical member of the Prisons Board, Ireland. The salary is £800 a year, and as the duties of inspecting reformatory and industrial schools are temporarily added, the annual income from both offices will be about £1,000.

We have no objection to make to Dr. O'Farrell on any personal grounds. He has had three years' service as a Local Government Board Inspector, and before his appointment to that service he enjoyed a large private practice. He is a gentleman of considerable ability, and he has fulfilled the promise which he gave in a distinguished university career. But there his claims end, and we are not surprised to hear that grave dissatisfaction exists as to the appointment. In writing on the subject of the public medical service last week, we referred to the great weight which personal influence has in the filling of offices, and to the necessity that exists for more discrimination on the part of the Government officials who are entrusted with patronage. Here is a case of distinct hardship. The whole affair was "managed." Dr. O'Farrell was a candidate for the Local Government Board Commissionership. He had most powerful friends, but as he could not be given the best thing he was given the next best—he was made member of the Prisons Board *vice* Dr. Maccabe. No vacancy was declared, and even the chance of a vacancy was not known until the appointment was declared.

Dr. O'Farrell has no special knowledge of prison work—he never, we are informed, held a prison appointment—and it is not a pleasant thing to hear it openly stated that he owes his good fortune to the friendship of a Parliamentary official. In Ireland there is a large body of medical men employed in the prison service. They have to perform arduous duties, especially in these times; they are badly paid, and they not unnaturally look forward to winning the only prize open to them. There are plenty of them who are men of marked ability: they are trained in the work; but twice in succession they have been passed over in the interest of outsiders. When Mr. Forster was Chief Secretary

the prison medical officers were promised payment for the increased duties; but his successor and the Treasury repudiated any liability, and declined to pay. They are compelled to provide substitutes at their own cost, even when absent on official duty. To find themselves "dished" in this cool way, in addition to suffering other wrongs, is rather hard for their human nature. Were Dr. O'Farrell's abilities even far superior to those of all or any of the prison medical officers—which it is not derogatory to him to say they are not—his appointment to the Prisons Board would be no less an insult to the prison surgeons of Ireland, and would be no less marked by the smartness of a political job. No one for a moment thinks that such appointments shall of necessity be vested in the service always to the exclusion of others. But, *ceteris paribus*, promotion ought to be retained in a department, and not given outside of it. We do not wish to give the least pain to Dr. O'Farrell, who is a most popular officer and a cultivated gentleman, nor do we blame him for having taken advantage of any special circumstances to secure the position. But we do blame the system which in all political parties tolerates this kind of thing. Public appointments—the more valuable they are, the better—seem to be fair game with both sides to bestow upon their friends, and we can only hope that repeated protests may in the end serve to break down what has become a public scandal.

THE CLIFTON LUNACY CASE.

THE case tried at Bristol this week and last is an instance serving admirably for illustration of the liabilities incurred, under the present lunacy laws, by medical men and others who are in any way concerned in the confinement of persons as being of unsound mind. In another column will be found an abstract of the case, as reported in *The Times*. The plaintiff brought an action to recover damages against two medical men for negligently and improperly certifying her to be insane, and libel in the statement in their certificates that she was insane; and also against the Mother Superior of a convent for trespass and slander in connection with the acts of placing her in temporary confinement, and eventually under care and control. The jury found for the defendants; and, waiving all the matters of fact with regard to which there was any conflict of evidence, it is difficult to see how the jury could well have arrived at any other conclusion. As reported, the plaintiff in cross-examination, stated that on one occasion, leaving the convent and taking a ticket for London, she left the train at Swindon, went to a wood and lay down, intending to wait there for death, but changed her mind and went to a hotel instead; that in her opinion, all along, the real reason why the nuns had combined to get her shut up was that they falsely considered her a person of immoral character; and that she had broken ornaments and glass when in the asylum because she was determined to give as much trouble as possible, being convinced that she was not to be released. Add to this the plaintiff's letter, produced in court, and written to the Commissioners in Lunacy, in which she described herself as being almost perpetually in a state of

trance, "or, as they say, under the influence of some supernatural power," and while in that state as having made herself out to be a bad character by means of signs and words of which she only understood the import after they were made and uttered, which signs and words were uttered independently of her actual will and knowledge: and stated that there was no kind of insult or humiliation to which she had not been subjected during the preceding nine months. And this comprises only part of the letter. Further it was in evidence that from time to time the plaintiff had been visited and seen by Visiting Justices and Commissioners in Lunacy, who approved of her detention. These facts form a body of striking evidence, and may be considered quite irrespectively of the testimony of the medical defendants who signed the certificates of unsoundness of mind and quite irrespectively of the evidence of the medical men under whose care the plaintiff was in different asylums.

The numerous actions taken against medical men for having signed certificates of unsoundness of mind, or against those who have to do with placing persons in public or private asylums are more than sufficient to establish the necessity for some more reasonably protective clauses in the future lunacy law. At present, anyone concerned in placing persons as of unsound mind under care and control is liable to a series of actions at law, no matter how carefully or properly he or she may have acted in the matter; may be subjected to these actions long after the event, and no matter how unreal or factitious the grievance alleged, or how thoroughly the attack may break down, and may be left to bear, not merely the annoyance and loss of time, but also, perhaps, his or her own heavy costs, irrecoverable from an impecunious plaintiff.

It is to be hoped that in its final form the coming lunacy legislation will vastly improve this state of affairs.

THE Croonian Lectures at the Royal College of Physicians will be given by Dr. Donald MacAlister at 5 P.M. on Tuesdays and Thursdays, June 14th, 19th, 21st, 26th, 28th. The subject, as already announced, is "Antipyretics."

MR. THOMAS BRYANT, whose appointment as surgeon to Guy's Hospital lapses from efflux of time in May next, will then retire, the governors having at a recent meeting of their court accepted his resignation. Guy's men far and wide will regret the severance of Mr. Bryant from the teaching staff of the hospital, in which he has held a prominent place for nearly thirty-one years. For fourteen years he was assistant-surgeon; for seventeen years surgeon; and for the last seven years of that time he has been senior surgeon. Mr. Bryant has also held the Lectureship in Surgery for thirteen years.

CORONERS.

A BILL introduced by Lord Halsbury proposes to take away the appointment of coroners from the freeholders in counties and the council in boroughs, and to vest it in the Lord Chancellor. Another provision extends the jurisdiction of coroners to cases of fire. An inquiry as to a fire would, however, only be held at the request of the Metropolitan Board within its area, or of the borough council in a borough, or of a county magistrate elsewhere. Provision is also made for the revision of the remuneration given to coroners; and power is given to the Queen to fix by Order in Council the area of a coroner's jurisdiction in a county.

THE AITKEN PORTRAIT FUND.

WE are asked by the treasurer to the Aitken Portrait Fund to intimate to the subscribers that the portrait of Sir William Aitken will be on view at the studio of the artist, Mr. W. R. Symonds, Art Studios, Holland Park Road, W., on March 31st and April 1st, between the hours of 3 and 6 P.M. The picture will be shown to subscribers and their friends on presenting their cards.

PULMONARY PHTHISIS.

THE *Revue de Thérapeutique* of December 15th, 1887, published a lecture delivered by Dr. Vibert at the Paris Morgue, in which he stated that among 200 necropsies which he had made on persons who had died a violent death, he had in as many as 20 per cent. found evidence of old tubercular lesions in the lungs, which had healed.

THE QUEEN'S NURSING FUND.

At a meeting held at Grosvenor House on March 15th, it was formally proposed by the Countess of Strafford, seconded by Mrs. W. E. Gladstone, and adopted, that £70,000 of the Women's Jubilee Fund—which had reached a total of £84,116—should be transferred to the trustees nominated by Her Majesty of the proposed Nursing Fund. Also that, after a sum of £10,900 had been retained for the statue in Windsor Park and contingent purposes, and after the purchase with the surplus of a personal ornament to be worn by the Queen, and any other payments, any balance remaining should go to the Nursing Fund.

A NEW DEVICE IN ELECTROLYSIS.

DR. A. B. CARPENTER announces in the *Cleveland Medical Gazette* a plan for applying electricity to the treatment of fibroid tumours of the uterus without troubling oneself about batteries. He says it is difficult to keep jar-cells and dynamos in working order, so he simply turns on the electric current from a street wire of the incandescent lighting system. He has had connections made in his office with the Edison incandescent circuit, and, by means of an ingeniously constructed rheostat circuit, the current is reduced so as to be scarcely perceptible. By means of a delicate instrument the current is accurately measured while passing through the patient's body. A switch-board is made use of, whereby the current can be increased from a fraction of a milli-ampère to the highest tolerant dose. The apparatus is absolutely safe, as the entire voltage of the wire can be handled with impunity.

INQUESTS AND CHILD MURDER.

THE lax manner in which some coroners fulfil their duties has long been notorious, but we doubt whether a more striking illustration has ever been afforded of this than is shown by a recent occurrence at Brixton. The body of a newly-born female infant was discovered, with the head nearly severed from the trunk. The East Surrey coroner held an inquest, which for its perfunctory character is not equalled by any similar inquiry that we can remember. A policeman deposed to having received the body from the man who found it, and to having taken it to the Brixton Police Station, where it was seen and examined by Dr. Knight, the divisional surgeon to the police. The opinion of the latter that the head had been nearly severed from the body as by some sharp instrument, and that the child had not been attended to at birth in any manner, was duly given to the jury at secondhand by the policeman; and beyond the evidence of the finding of the body, they had nothing else upon which to found their verdict. This was to the effect that the child was found dead with its throat cut, but that they had no proof as to whether it had had a separate existence. If the jury had said that no attempt had been made to obtain any evidence as to this last point, the verdict in this respect would, at any rate, have been true; it is an

equivocation, to say the least of it, to say there is no proof of any particular point without making an investigation. But the first part of their verdict is even more objectionable, for they said the child was found dead, which must imply, as the correspondent who has drawn our attention to the case pointed out, that the child had been living at some previous time. The jury had no right to assume that the child had ever lived, for there is, as is well known, a presumption in law in all cases of this kind that the child was stillborn, and, therefore, in the absence of any evidence to the contrary, the finding of the jury violated a well recognised rule. It is not the first time by any means that we have had to complain of the way inquests are conducted in this district.

MARCH DRAWING-ROOMS.

MR. PUNCH, in his playful wisdom, has lately aimed his shafts, not a day too soon, at the system which must be held responsible for the woeful miseries endured by those who, at seasons like the present, desire loyally to show their dutiful allegiance to the Throne. Whensoever conventionalism is allowed, at the risk of health and of human life, to usurp the place of common sense, it is clearly the duty of the medical profession to let its voice be heard. When fair daughters of Eve, in so-called full dress, ingeniously display to the utmost their shapely arms and backs and busts; when, with the help of the *modiste* and the *undressmaker*, they approach as nearly to the nude as may be; when the young and beautiful, after a brief season of gaslight gaiety, are seen to be careworn and haggard; when matrons, beautified with feathers and paint, complacently smile at the sight of their daughters thus victimised; when modesty is thus shocked and common sense outraged, then we come to know that we are in the halls of modern fashion and enjoyment. Is the medical profession justified in witnessing such vagaries of human judgment without protest? Perchance the counsel of the wise, if properly directed, might yet succeed in coming to the rescue of long-suffering and half-clothed humanity.

WAVES OF TEMPERANCE.

IN a recent address, Dr. T. D. Crothers referred to the various temperance revivals in America and England as physiological cyclones. Enthusiasts believed on each occasion that the power and influence of alcohol were destroyed for ever. Yet as each wave of enthusiasm receded, it was seen that intemperance flourished apace. The same ebb and flow of the tide of temperance is still witnessed. As the whirlwind of revolution clears the air and prepares the way for the advance of truth, all these revivals and missions have directed the attention of the thoughtful to the study of the whole subject. The voice of science is beginning to teach that inebriety is a disease, and must be treated accordingly. Four medical societies and one quarterly journal are devoted exclusively to the study of the laws which govern inebriety. This increasing recognition of the disease aspect of intemperance is only the re-affirmation of a truth urged centuries ago, but the times were not then propitious for its reception and growth.

PAUPER NURSING.

A QUESTION put by Mr. Pedder at a recent meeting of the Holborn Board of Guardians elicited the reply that at the Highgate Infirmary there were fifteen wards, with an average of seventy-five patients in each, whose nightly wants were ministered to by one nurse for two wards. A member hereupon volunteered the statement that there were helpless patients in one of the wards who had not been fed or washed for four days. This a Mr. Miller emphatically denied. Mr. Pedder further said that two patients died in one ward within twenty minutes of each other, so they could have had but little attention from one nurse. The clerk

said that for the fifteen wards there were eight "charge" nurses, eighteen assistant nurses, and two temporary nurses. It was resolved to consider as to appointing more assistance. Mr. Jacobs called attention to Gray's Inn Road Infirmary, where he said there were 122 lunatics, imbeciles, and sick in seven wards, and cared for by only three nurses. Only one nurse was in charge of the whole number during the night. This also was referred to the Committee.

A CENSURE ON A MIDWIFE.

IN the case which has occurred at Birkenhead, we have another instance of a midwife endeavouring to perform an obstetric operation, about which she could have known very little, and for the performance of which she proved herself utterly incapable. Of course it is well known that anyone may legally perform any operation, no matter how difficult or important it may be. If, however, he or she fails to prove that the operation has been performed with competent skill, then an action may be brought against the offender. It is evident in this case that competent skill was not exercised, the midwife having failed to remove the whole of the adherent placenta; the coroner had therefore good grounds for censure, and the midwife may be thankful for the good fortune which permitted her to escape with so slight a penalty. Once more the necessity for legislation for the examination and registration of midwives is brought before us. An excellent Bill is already in existence, and generally approved and adopted. The action of Parliament alone is required. In the mean time the lives of mothers are daily sacrificed by ignorant and self-sufficient women, who undertake the duties of a calling requiring careful training and guarantees of efficiency. Public safety demands the attention of our legislators to put an end to this disgraceful scandal.

MEDICAL WITNESSES AT ASSIZE TRIALS.

A CORRESPONDENT informs us that great improvement took place at the last Liverpool Assizes which are just concluded in the arrangements made for the medical witnesses. After the cases had been before the grand jury, the witnesses were told on what day the case would be taken, and that it would be unnecessary for them to attend during the intervening time; thus the medical witnesses were enabled to return and make provision for the appointed day, and, as a rule, their case was taken on the appointed day. In one case the medical witness would have had to attend from day to day for ten days under the old arrangement, whereas he only attended three days, namely, the day for the grand jury and the day appointed and the following day; this was a convenience to himself, for otherwise he would have been ten days from his practice, and it was a saving to the country in fees in this particular instance of seven guineas. Evidently the action taken by the British Medical Association and, in the first instance by the Lancashire and Cheshire Branch, has borne some fruit, and what should be next done is to try and obtain adequate remuneration for the medical witness either in the form of a sliding scale according to experience and standing in the profession, or a fee of not less than two guineas a day. "Surely," adds our correspondent, "there are none who will allow that a guinea is adequate remuneration for a witness who has to leave his practice and go twenty miles to the assize town."

FURROWS ON THE FINGER NAILS.

NEARLY twenty years ago Dr. Wilks directed attention to the fact that a transverse furrow appeared on the nails of the hand after a serious illness. Medical literature has since then contained a few references to the subject; he again brought the subject before the Pathological Society at its meeting on March 20th, and related a remarkable case (see p. 664). In that case the

furrow was produced in a 'gentleman in robust health by three days' sea-sickness. Mr. W. W. Wagstaff, whose enforced withdrawal from notive work is a matter of so much regret, addressed a note to Dr. Wilks, containing the following interesting observations: He pointed out that the furrow was at first, when near the lunula, shallow, and difficult to identify, but that when it reached the middle of the nail, it was distinct, and often, especially in nails with longitudinal ridges, dotted. The furrow reached the middle of the nail about three months after an illness, but moved onwards towards the free end at different rates in various cases, the rate increasing as the free edge was approached. As a rule all the finger nails were affected, but in some only the right hand showed the mark, and in others only special fingers, the ring finger most often escaping entirely. Mr. Wagstaff also stated that the furrows could be produced by a local cause, and mentioned a case in which the left hand was injured by a rocket stick, which fractured the metacarpal bone of the index finger, and the arm and hand remained in splints for a month; the left hand only showed the transverse furrows, but on all the fingers.

AN EPIDEMIC OF INFLUENZA FOLLOWING MEASLES IN ST. HELENA.

THE following particulars of an outbreak of influenza in the island of St. Helena, which assumed an epidemic form in January of the present year, has been furnished us by the colonial surgeon, Mr. F. S. Watson. He is inclined to attribute its severe character to the lowered condition of the people after a severe epidemic of measles which prevailed in the island from May to October, 1887, when it is estimated that, out of a population of about 5,500, from 3,500 to 4,000 suffered. Eight deaths only occurred, caused by pneumonia and bronchitis; the prostration was nevertheless very great, it being necessary to keep adults on the sick list for an average of about one month. The symptoms of the influenza were a definite chill going on to rigors, and ending in profuse perspiration. The chill commenced usually in the evening, and the sweating about six hours after, followed by pains in the forehead, orbits, and chest, and accompanied by a dry hacking cough and aching in the limbs. The temperature varied during the chill from 105° to 101° F., and afterwards was about 100° F. There was no coryza. The disease lasted about four days, and ended in bronchial catarrh or bronchitis, the latter being usual in delicate or old subjects. One attack was a preventive against a second. The epidemic lasted about a month, during which time Mr. Watson treated about 1,000 cases, with 3 deaths from pneumonia and bronchitis. Coming so closely after measles, it has considerably lowered the physical powers of the inhabitants, and it is thought, will increase the mortality, especially among infants, for several years to come. An interesting feature of this epidemic was that, though the disease attacked nearly the whole population without reference to European descent, those who had lived on the island but a short time escaped. Influenza colds are usual in St. Helena at that time of the year, and Mr. Watson asks: "Might not the disease have taken on the form of epidemic influenza due to the lowered condition of the people after the epidemic of measles?" A similar epidemic of influenza occurred in the island twenty years ago, and epidemics of measles in 1807 and 1843, which, Mr. Watson points out, followed the usual course amongst isolated communities, the first epidemic being very severe, but modifying the succeeding ones.

SMALL-POX IN LEEDS.

THE question whether the insanitary state of a residence, coupled with dirty surroundings, could have any share in the production of small-pox, was referred to by Dr. Goldie at a recent meeting of the Yorkshire Association of Medical Officers of Health. Every speaker considered a distinct negative reply must be given to

such a question, an opinion with which we are entirely in accord. What the origin of small-pox is no one knows, but notwithstanding the statements of anti-vaccinationists, there is not a particle of evidence to show that it is caused by a local insanitary condition. Dr. Buchanan has clearly shown that the poorer half of the vaccinated community in London had actually less mortality from small-pox among its children than the richer half (*vide* Eleventh Annual Report of the Local Government Board, supplement containing the report of the Medical Officer for 1881), and necessarily the poorer half are more exposed to such conditions as those mentioned. The difference is, indeed, due to the greater protection afforded by vaccination as performed at public stations.

THE EPSOM COLLEGE BIENNIAL FESTIVAL.

A PRELIMINARY list of subscriptions and donations on the occasion of the biennial festival of the Royal Medical Benevolent College is published in our advertising columns (p. 47) this week, and it will be seen that the amount received already exceeds £450. As we stated last week, so many gentlemen have already signified their intention to be present that the list will shortly have to be closed. A complete list of stewards will be published next week, and intending donors should communicate without delay with Mr. R. Freeman, the Secretary, at the offices of the College, 37, Soho Square, W.

PARASITES IN FISH.

A WRITER in *La Nature* tells us that, amongst the more recent discoveries of scientific research is that of the presence of parasites in fish. Of these tiny eel-like creatures ten kinds are recognised in the fish of the Mediterranean Sea, the Atlantic and Indian Oceans. They are generally found in some hollow part of the fish's body, the cavities of the starfish's respiratory organs being a very favourite abode. Sometimes, however, they attach themselves to a part of the fish where life is not so easy a matter for them; for instance, they have been found in a pearl-oyster, buried in a curl of the shell. These parasites do not endanger the life of the fish on which they live, as they feed on the microscopic organisms which are washed into the cavities of the fish by the sea-water—eating their messmates, as Van Beneden says.

CONGENITAL FACIAL PARALYSIS.

DR. B. H. STEPHAN, of Zaandam, publishes in the *Weekblad* of the Dutch *Tijdschrift voor Geneeskunde* an account of a rare case of congenital facial paralysis, the explanation of which is very obscure. The subject was a woman to whom her mother had given birth before the arrival of the medical man, the labour having of course been a simple and not a prolonged one. It was very soon noticed that the two sides of the face were different in appearance, the left being "like a mask," in striking contrast to the right, which was "full of expression." The condition remained unchanged as she grew up. When seen by Dr. Stephan, the pupils were equal, and reacted equally to light. There was but little difficulty in eating or drinking, owing to practice. Sensation was equal on the two sides. The hearing was, however, somewhat dull on the left side. No difference could be detected in the tympanic membranes. Dr. Stephan, on looking up the subject in medical literature, was unable to find any description of a precisely similar case. Professor Hensch, who mentions the existence of congenital facial paralysis in his lectures on the diseases of children, on being communicated with, replied that he had scarcely ever seen a case reported, and that he did not know of any description which had been published. Dr. Stephan believes that there are three forms of congenital facial paralysis, two of which are transient and depend on the application of forceps or the pressure of a tumour, etc., during a prolonged labour, and a third, of which his own case is perhaps the only described instance, where the paralysis is permanent, and where it may, as

he suggests, depend upon necrosis, the main apparent difference between this and the other two forms being the affection of the hearing, which may, he believes, be an indication of the permanent character of the paralysis, its existence in any case being sufficient to cause the practitioner to give a guarded prognosis.

TÆNIA AND CYSTICERCUS.

DR. GAVOY endeavoured to prove, in a communication read last year before the Académie des Sciences, that the cysticercus cellulose found in measy pork is not the larva of the common tapeworm, *tœnia solium*. His argument is chiefly based on the fact that the hooklets of the *tœnia* measure 160 micro-millimètres, whilst the hooklets of the cysticercus are from 180 to 200 micro-millimètres in length. Dr. Gavoy admits that the head of the cysticercus which is found in the human brain is identical with that of the *tœnia solium* expelled from the human intestines. He further notes that the Arabs and Algerian Jews, who never eat pork, are subject to tapeworm. Dr. Raphael Blanchard, in a letter recently published in the *Progrès Médical*, disputes the correctness of Dr. Gavoy's theory. Dr. Blanchard observes that Aloys Humbert, Küchenmeister, Leuckart, Hollenbach, and Heller, have all separately proved by experiment that the cysticercus of measy pork becomes the *tœnia solium* of man when the diseased pork is eaten by human subjects. The question of the length of the hooklets is, in Dr. Blanchard's opinion, of no value, as it is a matter of individual variation. Lastly, he shows that the *tœnia* of the Arabs is not the scolex or adult of the cysticercus of measy pork, but the scolex of a larval form found in beef—in fact it is the *tœnia saginata*.

PHLEGMASIA DOLENS AND ŒDEMA OF INFANTS.

DR. LÉON DUMAS, Professor of Clinical Obstetrics and Gynaecology, Montpellier, has recently contributed to the *Annales de Gynécologie et d'Obstétrique* a paper on the Probable Identity of the Œdema of New-born Children and Phlegmasia Alba Dolens. He concludes that this Œdema is but one symptom of phlegmasia dolens developed in the course of the first few days after birth. Its causes, though very varied, are essentially of the same nature as in the adult, and may be divided into predisposing and determining. The principal determining cause is the incomplete establishment of respiration, including pathological and other obstacles which that function may encounter before arriving at its perfect stage of efficiency. The symptoms of phlegmasia are the same in the new-born infant as in the adult, allowing for certain modifications in relation to the special physiology of the first days of life after birth. There is likewise the same pathological anatomy in both cases; but in the child the venous thrombosis is more often situated in the inferior vena cava. The treatment should be alike in both cases, and the same dangers are to be feared in the infant and in the adult, though the relative lesser vitality of the new-born child must always render the prognosis less favourable in its case than when its mother is similarly attacked. All the precautions by which impediments to the establishment of perfect respiration are overcome, including the avoidance of hasty and immediate ligation of the umbilical cord, together constitute the true prophylaxis against the affection in question.

DEXTROCARDIA.

A CASE of right-sided position of the heart was recently shown to the Vienna K. K. Gesellschaft der Aerzte, by Dr. A. Grass. The patient, a young woman, aged 20, was badly developed, and complained much of dyspnoea and giddiness. There had been some improvement of late years. The pulsations of the heart on the right side of the sternum were noted at birth, and there had always been some cyanosis and feeling of coldness. There was no cardiac dulness on the left side; on the right it began at the

fourth rib, extending inwards to the right sternal border, and downwards, being lost in the liver dulness. Auscultation revealed in the second left intercostal space a distinct systolic murmur, and there was a loud diastolic sound. The murmur was heard in both carotids. The pulse was very small, but otherwise normal. The abdominal organs were normally situated. The diagnosis made was pure dextrocardia and congenital pulmonary stenosis, without malposition of the viscera in general. Von Bamberger concurred in the diagnosis, and remarked that Professor Schrötter had lately stated that no single case of pure dextrocardia had ever been proved, whereas all anatomists of great experience, for example, Rokitànsky, Friedberg, Förster, etc., had mentioned such cases, and he himself had seen two. The murmur was due to congenital stenosis, for the acquired kind was extremely rare, though he and Dittrich had described such a case (due to a kick of a horse). The loud second sound excluded the aorta as its origin. He thought also that the great vessels were not transposed; the case had gone on too favourably for that supposition. Professor Kundrat said that the great vessels might be transposed, the position of the septum to some extent correcting the malposition.

GUAIACOL IN PHTHISIS.

PROFESSOR FRÄNKEL, who has repeatedly advocated the use of creasote in the treatment of phthisis, now recommends guaiacol as the effective constituent of creasote. The good effects of the latter are, Fränkel thinks after nine years' experience of its effects in phthisis, unmistakable in a strictly defined class of cases. If used promiscuously in this disease, its good effects are distinctly evident in 16 or 20 out of 400 or 500 cases, and are due not to destruction of the bacillus tuberculosis, but to its favourable influence on the digestion. It has long been known that creasote is a mixture of different substances, and last summer Professor Penzoldt remarked that guaiacol appeared to be its strict therapeutical constituent. Since then Dr. Sahli, of Berné, has reported on the clinical uses of guaiacol, and Professor Fränkel has been using it since the beginning of the year in the following mixture, which suits admirably—guaiacol, 13.5; tinct. gent., 80; sp. vini rect., 250; vini xerici, q. s. ad colat. 1,000—a dessert spoonful in a wineglassful of water two or three times a day. This mixture is superior to gelatine capsules or tolu balsam. Sommerbrodt's praise of creasote is hardly justified by facts. Fränkel remarks on this point that his own patients were nearly all hospital patients carefully investigated, only nine being private patients, whereas Sommerbrodt speaks of five thousand private patients, but without giving details. In due time creasote (or rather, for the future, guaiacol) will take its proper place.

GERMAN GYNÆCOLOGICAL ASSOCIATION.

THE *Centralblatt für Gynäkologie* announces that the Second Congress of the Deutsche Gesellschaft für Gynäkologie will be held on May 24th, 25th, and 26th, in the Frauenklinik of the University of Halle. The sittings will be held from 9 to 12 and from 2 to 4 on each day. Patients whom members of the Association desire to exhibit will be lodged, after due notice, in the wards of the Frauenklinik. Notice of papers and demonstrations must be sent to Professor Kaltenbach on or before April 20th.

SCOTLAND.

MEDICAL OFFICERSHIP OF HEALTH, ABERDEEN. On Monday the Aberdeen Town Council appointed Dr. Matthew Hay, Professor of Medical Jurisprudence, Aberdeen University, to be Medical Officer of Health for the City of Aberdeen.

SMALL-POX IN SCOTLAND.

A FEW sporadic cases of small-pox continue to occur in Scotland. Two such have been observed in Inverkeithing, Fifeshire, where a large number of the workers at the Forth Bridge are congregated. The contractors for the bridge and the local authority have provided suitable accommodation for other cases, should such occur.

INFECTIOUS DISEASES IN EDINBURGH.

DR. LITTLEJOHN'S report for February stated that, during the month, 1,212 cases of infectious disease were reported, as compared with 768 in the same month last year, 468 in 1886, and 222 in 1885. The large increase is due to the epidemic of measles which was and is still raging, there having been 1,106 cases of measles alone, the remaining cases being typhoid fever, diphtheria, and scarlatina. The fatal cases were 4 of diphtheria and 1 of scarlatina. The cases in the City Hospital at the end of the month were 123, 63 adults and 60 children; during the month 112 patients had been admitted, 155 were discharged, and 4 died. At the meeting of the Public Health Committee, an application from the Admiralty was read, asking permission of the local authority to send cases of infectious disease occurring on board gunboats arriving at Leith and Granton to the City Hospital in Edinburgh, but the public health authorities have been obliged to refuse the application, as on various occasions lately the hospital has been barely large enough for their own uses.

IRELAND.

TIPPERARY UNION.

THE medical officer of this workhouse has directed the attention of the guardians to the want of hospital accommodation. He states that either additional accommodation must be provided or fever tickets of admission should not be issued for the next two months. There is, however, a large ward not in connection with the hospital which might be fitted up for the treatment of the non-infectious diseases of children. A committee of the guardians has been appointed to report upon the matter.

THE VACANT LOCAL GOVERNMENT BOARD INSPECTORSHIP.

THE vacancy caused by the transfer of Dr. G. P. O'Farrell from the Local Government Service to the Prisons Board has brought forward many candidates. The salary begins at £500 a year, and rises to £700, in addition to travelling allowances. Of the candidates, the following may be mentioned: Dr. Hepburn, Surgeon to the Meath Hospital, Dublin; Dr. Albert Mouillot, of Gorey; Dr. Usher, Dundrum.

CORK MEDICAL PROTECTION ASSOCIATION.

A GENERAL meeting of this society was held on March 17th, to consider the recent correspondence with the Local Government Board in reference to Dr. Magner's case. There were present Dr. Stephen O'Sullivan, President, in the chair; Drs. O'Flynn, Crenn, Harding, W. A. Cummins, Giusani, Daly, Tuohy, W. J. Cummins, Magner, Power, Donovan, Tanner, Burke, Golding, Sandford, Grattan, Cotter, Corby, Atkins, Ryan, etc. The following resolution was passed: "Resolved—That this Association, apart from any personal or party sympathy with Dr. Magner, feels that one of its members has been subjected to extremely harsh treatment, inasmuch as his offence being no dereliction of professional duty, but a political misdemeanour for which he suffered the lawful penalty, he has, in addition, been visited with professional ruin by practically the same authorities. We feel it to be unreasonable that the punishment allotted by the law should be deemed insufficient,

and resent the fact that use has been made of the professional position of the offender to increase his punishment a hundredfold, and make him the scapegoat to bear extra penalties from which others have immunity. Further, we feel that the prospect of being suddenly ousted from their position for a fault utterly unconnected with personal character or professional duties is likely to deter men of ability and independence seeking service as poor-law officers—as in this case no previous intimation had been given of the light in which such offences would be regarded. And further that, as our petition to the Local Government Board (asking what we considered simple justice) has met with a refusal, we now appeal to the medical profession through the United Kingdom to support us in our effort to have him reinstated, and we feel confident that meanwhile no member of this honourable body will accept his position under the circumstances."

HOUSE OF INDUSTRY HOSPITALS.

AT a meeting of the guardians of the North Dublin district, last week, the over-crowded state of the house was mentioned. Dr. J. Kenny reported that seventy-one inmates had to sleep on the floor. After some discussion, the clerk was directed to write to the Chief Secretary, inquiring on what terms the adjacent hospitals could be acquired by the Board. It is not, however, likely that these hospitals will be handed over in the manner desired. The question of closing them is only part of a very much larger one which involves the continuance of the Government grants as a whole, and many interests are involved. The Government are not at present inclined to take up the recommendations of the Hospital Commission. The Chief Secretary's answer will, however, be awaited with some anxiety.

THE MEDICAL COMMISSIONERSHIP OF THE LOCAL GOVERNMENT BOARD.

THE announcement which we were able to make in the JOURNAL of March 17th, regarding the successor of the late Dr. Croker King, was correct. Dr. F. X. Maccabe has been appointed Medical Commissioner of the Local Government Board. Without in any way depreciating other candidates, it is generally conceded that the Government have in this case acted wisely, and no better occupant of the office could be found. Dr. Maccabe has lived an official medical life. He began life as a dispensary medical officer under the Poor Law; then became medical superintendent of the Waterford Lunatic Asylum (1865); was promoted to the charge of the Dundrum Criminal Lunatic Asylum in 1872; next passed into the local government service as inspector (1876); and from this, in 1885, to the Prisons Board as medical member of that body. He has served also, with Sir R. Rawlinson, as a member of a Royal Commission to inquire into the causes of the Dublin death-rate. It will, therefore, be seen that Dr. Maccabe has not only had very great departmental experience, but that he has been a "marked" man in the most agreeable sense; and it is satisfactory to be able to say that his further promotion meets with the approval not only of the public but of the profession.

A LEGAL VIEW OF THE LUNACY BILL.

THE following notes by a lawyer who has had special experience in lunacy laws will show how the present Bill is viewed by a legal mind.

The Lunacy Bill now before Parliament was read three last session in the Lords, once in the Commons, and then was withdrawn in the usual massacre of innocents. It has been read twice in the Lords this session. Very little discussion in Parliament has been its fate hitherto.

The Bill contains many amendments of the old lunacy law, chiefly suggested by lunacy officials before the Committee of the Commons in 1878, but its chief feature is, as the Lord Chancellor

tated a short time ago in the House of Lords, the introduction of the necessity for a judicial decision before reception of a private lunatic into an asylum for cure and treatment. There are also, somewhat in mockery of the loud outcry of a certain section of the community against all private asylums, certain provisions in the Bill to exclude any rivalry with the present licensees of such houses on the part of other would-be-licensees, whereby the former are, beyond all doubt, assisted.

It is noteworthy that the Committee of 1878 could not discover single case of improper reception, did not recommend any such judicial decision," and deprecated legislative interference with private asylums, thinking it best to leave the question of their revival or gradual extinction to the decision of the public in their future choice between private and other institutions.

A few words upon the judicial decision. That decision, if not a mockery, must proceed upon legal evidence taken from both sides, and must be upon a full inquiry. Is the excitement of that inquiry calculated to promote speedy mental recovery of a patient? Will it not at least delay treatment which all admit should be early in view to any recovery? Will it not necessarily add to the cost of treatment? Will it meet the general desire for privacy in the care and treatment of lunatic relations? There are other, perhaps minor, matters for consideration. Are the most eminent medical experts in lunacy likely to be witnesses at these inquiries? If so, at what cost? Will it be well that the medical witnesses should be persons having little experience in lunacy? Will an inquiry before a magistrate, possibly adjourned, not facilitate the escape of lunatics from all treatment, and enable them often to commit an outrage on society, or injure or ruin themselves? Will not the cost or difficulty, or publicity, of the inquiry induce many to place their insane relatives in illegal and landestine charge here, or send them abroad? There are now those who thus act, and the penalty inflicted on the guilty, when prosecuted, is nominal.

It may be said in reply to these remarks, that there is a provision for an "urgency order." Yes; that is a provision imported from Scotland, where the magisterial order, which follows it, is, in practice, ministerial, the lunatic being rarely ever seen by the sheriff. The "urgency order" enables a person to be received temporarily on a single medical certificate. Is that an improvement on our present requirement of two medical certificates? Even a temporary detention may be ruinous to a sane man; and the Scotch practice of sheriffs indicates plainly enough what the "judicial decision" here will be. That decision will be simply ministerial, yet will shield the petitioner from all that responsibility which is now so heavy, and which is the chief check against improper reception, and it will substitute no other responsibility whatever, save that of the magistrate, and he can only be responsible for actually malicious conduct.

Is this legislation in favour of the liberty of the subject? What the present mischief which calls for remedy? Is it not a well-known fact that while the Committee could not discover a single instance of improper reception under the order of a private individual, several cases occur yearly of admissions into public asylums of pauper patients sane, though ordered in as insane by magistrates who have seen and examined them.

In addition to the above remarks on the Bill, its other provisions suggest much unfavourable comment. The framers of the Bill have evidently not been experts in lunacy; official suggestions have been mixed up with other undigested and indigestible matters, and even the heroic features of the Bill are ill drawn. It may be doubtful whether magistrates will be found in every district to undertake the duties cast upon them; certainly some will be wholly incompetent to discharge these duties unless they abdicate decision to the medical practitioners called in, which, if, as we are so greatly mistaken, the course now taken by many magistrates to deal with pauper lunatics, and perhaps they could adopt no other course.

It is earnestly to be hoped that "Irishry" will not smother all discussion on this Bill. Is it too late to ask whether the imprisonment of a person charged with crime is on all fours with the confinement of an individual for treatment of mental malady?

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE eleventh annual meeting of the association was held at 49, Berners Street, London, on March 17th (St. Patrick's Day), when Sir Thomas Crawford, K.C.B., resigned the presidential chair to Professor Alexander Macalister, M.D., F.R.S. Among the other members present were Deputy Surgeon-General George Saunders, C.B., Professor Mapother, M.D., Dr. Maenaughton Jones, Brigade-Surgeon W. Alexander, M.D., Surgeon-Major Boileau, M.D., Dr. H. H. Phillips, Dr. T. Gilbert-Smith, Dr. W. H. White, and the Hon. Secretaries, Drs. Stewart and Abraham.

The annual report announced a steady increase in the number of members, the total now on the roll being 514, as against 466 on St. Patrick's Day, 1887, notwithstanding the loss of four members by death and four by resignation. Much satisfaction was expressed at the success of Sir Thomas Crawford in inducing the British Medical Association at its annual meeting last August in Dublin to pass a resolution condemnatory of monopoly in hospital appointments. The Council is now in communication with the Irish qualifying bodies, and hopes, with their aid, in time to remove some of the disabilities at present affecting Irish degrees and qualifications in England.

The treasurer's accounts showed a balance in favour of the Association of £154 6s. 5d.

On the nomination of the Council, Dr. Richard Fegan, Blackheath, was appointed president-elect. Brigade-Surgeon W. Alexander was re-elected honorary treasurer. The following were elected by ballot as the twelve non-official members of Council for 1888-89, namely, Sir Thomas Crawford, K.C.B.; Dr. J. Nicholas Dick, C.B.; Henry Fitz Gibbon, Dublin; H. Singer Gabbett, Eastbourne; J. Hill Gibson, Douglas Lithgow, Richard Heath, St. Leonards; Maenaughton Jones; H. H. E. Phillips, Reading; T. Gilbert-Smith, W. Dickson Smyth, R.N.; and W. H. White.

A very hearty vote of thanks to the retiring President was passed by acclamation; it was proposed by Dr. Gilbert-Smith, and seconded by Deputy Surgeon-General Saunders, C.B., who said that the regularity of Sir Thomas Crawford's attendance at the numerous meetings during the past year, notwithstanding his many public duties, proved what a warm interest he took in the Association. His value as a leader was markedly shown in Dublin, where he had exhibited great ability in the way he put forward the arguments against the exclusion of Irish graduates and diplomats from English hospital appointments.

Deputy Inspector-General Lloyd, R.N., and Dr. W. H. Cullimore were elected honorary auditors.

The annual dinner took place the same evening at the Holborn Restaurant—the President, Professor Macalister, in the chair—when seventy-three members and guests were present, including Professor Corfield, M.D., Dr. Donkin, Sir George E. Paget, K.C.B., Dr. J. Nicholas Dick, C.B., R.N., Dr. Steet, and several ladies. The usual loyal toasts were duly honoured. The toast of the evening, "Success to the Irish Medical Schools' and Graduates' Association," was proposed by Professor Corfield, who said that without such associations many most intimate friends in their student days would become complete strangers to one another, so far at least as personal recognition was concerned. Dr. Maenaughton Jones, in reply, said that good fellowship was certain to be promoted by a society such as theirs. In their list of members could be found now the name of every teacher of note in the Irish medical schools. The President had said that, having become the second largest medical society in the three kingdoms, they were an acknowledged medical power in the land. This power it behoved all those eligible for membership, but not yet enrolled, to increase by joining their ranks and bringing up the total on their list to a thousand members. Sir George Paget, in proposing "The Medical Departments of the Public Services," alluded to the fact that the Association had now on its Council the two Directors-General—a fact of which Irishmen might well be proud. The toast was responded to by Sir Thomas Crawford and Dr. J. Nicholas Dick, C.B., R.N. "The Health of the Guests" was proposed by the President, who said they were to have had Professor Curnow with them, and also that distinguished Irishman, the President of the Royal Society, Professor Gabriel Stokes, but both those gentlemen had been prevented at the last moment from fulfilling their engagements. The toast was responded to by Dr. Donkin. The proceedings were interspersed by Irish melodies, rendered by Messrs. Groome and Martin and Dr. W. H. Bourke.

A VALUABLE horse belonging to Mr. Holden, of Nenby Hall, or Clitheroe, died last week from hydrophobia. The disease is supposed to be assuming serious proportions in the district. Two horses, three cows, and a large number of dogs are reported to have been attacked, and the latter have had to be destroyed.

ASSOCIATION INTELLIGENCE.

COUNCIL. NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

March 15th, 1888.

NOTICE OF QUARTERLY MEETINGS FOR 1888. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887 will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SURREYSHIRE AND MID-WALES BRANCH.—The next meeting of the Branch will be held at the Salep Infirmary, on Tuesday, March 27th, at 3 P.M. Mr. W. Eldowes in the chair. Gentlemen wishing to exhibit or read notes of cases, or to bring forward subjects for discussion, are requested to communicate with the honorary secretary, EDWARD CURETON, Shrewsbury.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The spring meeting of this Branch will be held at Pontypridd about the second or third week in April. Members wishing to read papers, etc., are requested to send titles to either of the Honorary Secretaries by the end of March, in order that they may be inserted in the circulars.—ALFRED SREEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The next meeting of this district will be held at the North West Hospital, Kentish Town Road, on the evening of Wednesday, March 28th, at 8.30, when A. E. Durham, F.R.C.S., President of the Branch, will take the chair. Some interesting cases in the hospital will be exhibited. Dr. Hood will read a paper on Empyema following Pneumonia; or Clinical Notes on Membranous Sore Throat. The new committee of this district will assemble at 3 P.M. All members of the profession are welcome to attend.—GEORGE HENTY, M.D., Honorary Secretary, 30, Camden Road, N.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held on Thursday, April 19th, at the Hackney Town Hall, at 8.30 P.M. The chair will be taken by F. M. Corcor, Esq. A paper on the Surgery of Abscess will be read by Howard Marsh, Esq. Visitors will be welcome.—J. W. HUNT, 101, Queen's Road, Dalston, Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting will be held at the Railway Hotel, Taunton, on Thursday, April 12th, at 5 P.M. Dinner at 5.30 P.M. The subject settled by the Council to be discussed after dinner is Bone Setting. Mr. W. J. Pennv, Assistant-Surgeon to the Bristol General Hospital, and Demonstrator of Anatomy to the Bristol Medical School, has kindly promised to come and open the discussion. The election of representative of the Branch on the

Council of the Association for the ensuing year will take place at this meeting.—W. M. KELLY, M.D., Taunton, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place on Friday, April 27th, at the Hospital, Gravesend. R. J. Bryden, Esq., in the chair. Gentlemen desirous of reading papers or exhibiting specimens are requested to inform the Honorary Secretary of the District not later than April 8th. Further particulars will be duly announced.—A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT.—The next meeting will be held at the Red Lion Hotel, Dorking, on Thursday, March 28th, at 1 P.M. C. W. Chaldecott, Esq., of Dorking, in the chair. Dinner at 6 P.M., charge 7s., exclusive of wine. The following papers, etc., are promised:—Mr. A. E. Barker: A paper on Two Successful Cases of Cerebral Suppuration, due to Ear Disease. Mr. A. A. Napper: Some Cases of Gunshot Injuries.—A. ARTHUR NAPPER, Broad Oak, Cranleigh, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Infirmary, Sunderland, on Wednesday, April 25th, at 3 P.M. Members intending to read papers or show specimens are requested to communicate at once with the secretary. The dinner after the meeting will take place at the Queen's Hotel, at 5 o'clock. The following papers are already promised.—Dr. Bole: A Case of Congenital Fistula of the Stomach, Cured by Operation. Dr. Coler: On the Treatment of Effusion into the Pleura in Children. Dr. Mears: On Ambulance Work. Dr. Oliver: Notes on an Unusual Case of Haematuria.—G. E. WILLIAMSON, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne, Honorary Secretary.

NORTH OF IRELAND BRANCH.—A general meeting of this Branch will be held in the Royal Hospital, Belfast, on Thursday, April 19th, at 11 A.M. Gentlemen who wish to bring any business before the meeting will kindly communicate as early as convenient with JOHN W. BYERS, M.D., Lower Crescent, Belfast, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary, Oxford, on Friday, April 27th, at 3 P.M. Notice of papers to be read must be sent to W. Lewis Morgan, 42, Broad Street, Oxford, on or before April 18th. A dinner will be provided for those members who signify their intention to dine to the Secretary two days before the meeting.—S. D. DARBISHIRE and W. LEWIS MORGAN, Honorary Secretaries.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.
The spring meeting of the above district was held at the Cottage Hospital, Ashford, on March 15th. Dr. WILKS in the chair.
Next Meeting.—Dr. Parsons, of Dover, was elected chairman for the annual meeting of the District, to be held at Canterbury in May next.

Representative on Council.—Dr. Parsons was again unanimously nominated to serve on the Council of the Association.

Abdominal Section.—Mr. COLVILLE read notes of two cases of abdominal section, the first being one of acute strangulation of the small bowel, with symptoms nearly all masked; the operation was performed late, the patient dying soon after it; the bowel had ulcerated. The second case was one of retroperitoneal abscess. The abdomen was opened, and after separating the matted intestines, the abscess cavity gave way, this was washed out, and a drainage-tube put in; the patient made a rapid and complete recovery. In both cases repeated doses of castor-oil and salts had been given.—Dr. T. EASTES, Dr. JOYCE, Dr. MARSHALL, Mr. WHITEHEAD REID, and Dr. BOWLES took part in the discussion.

Apoplexy.—Dr. BOWLES read a paper on two cases of apoplexy and one simulating apoplexy, in which he spoke of the difficulty of diagnosing many cases of apoplexy, and thought that vascular section should be more often performed than it was at present.

Two Cases of Delirium Tremens and One Case of Alcohol Paralysis.—Dr. WILKS read a paper on this subject. One of the cases of delirium tremens was successfully treated by the cold douche after treatment by ordinary remedies of morphine, chloral etc., had failed.

Cases that Unexpectedly Get Well, with some Remarks on Prognosis.—Dr. TYSON drew attention to the great length of time that many people lived when placed under fair conditions, in good workable health, though suffering with chronic organic diseases.

Cases.—At the close of the meeting, Mr. COOPER WILKINSO showed cases of surgical interest.

Dinner.—There were twenty-four members and friends present fourteen of whom afterwards dined at the Saracen's Head, under the presidency of Dr. Wilks.

STAFFORDSHIRE BRANCH.

THE second general meeting of the present season was held at the London and North Western Hotel, Stafford, on Thursday, February 23rd, 1888. The President, Mr. W. D. SPANTON, was in the chair and there were twenty-five members present.

New Members.—The following gentlemen were elected members of the Branch: Mr. Horace Hartley, Stone; Mr. A. E. Taylor

County Asylum, Stafford; Mr. C. E. Strickland, Kids-grove; Mr. James Scott, H.M. Prison, Stafford; Mr. A. K. Holt, North Staffordshire Infirmary; Mr. V. J. Magrane, The Leys, Darlaston; Mr. G. Bower, Macclesfield, Cheshire; Dr. Stirling Christie, Aston Hill Asylum, Stafford.

Communications.—1. Mr. F. M. BLUMER showed a girl, aged 13, admitted into the Staffordshire Infirmary, July, 1887, suffering from a sprained ankle. Soon after the joint suppurated, and was opened and drained; finally the lower epiphysis and diaphysis of the tibia necrosed, and were eventually removed, the recovery afterwards being steady and uninterrupted.—2. Mr. F. M. BLUMER showed a child with a joint in the middle of each clavicle. The abnormality was hereditary.—3. Mr. F. M. BLUMER showed the bones of a boy's arm, amputated at the shoulder-joint, showing disease of the radio-ulnar articulation, and elbow-joint and extensive caries of both epiphyses of the humerus.—4. Dr. E. T. TYLLECOTE showed a testicle removed from a man, aged 48, and weighing 19½ ounces. The disease was round-celled sarcoma. Recovery was rapid.—5. Mr. SPANTON exhibited several calculi from the sacculated bladder of a man, aged 51. The first was removed by lithotripsy, and the others by lateral lithotomy once, and median lithotomy twice, followed by complete recovery.—6. Mr. SPANTON showed both ovaries and Fallopian tubes removed by abdominal section, for prolapsed cystic and adherent ovaries, followed by rapid recovery.—7. Mr. SPANTON exhibited photographs of a case of molluscum contagiosum, treated chiefly by incision.—8. Mr. VINCENT JACKSON showed a uric acid calculus weighing fifty-one grains, removed by suprapubic lithotomy, from a man aged 57. The calculus, which was flask-shaped, was tightly lodged in a diverticulum, on the left side of the base of the bladder at its junction with the posterior wall, and its removal was with some little difficulty effected by means of the left forefinger, and a small vesical scoop. The removal of the stone had previously been attempted by lithotripsy, and by median and lateral perineal lithotomy.

Papers.—The following papers were read: 1. Dr. C. ORTON: Treatment of Rheumatic Fever.—2. Mr. F. M. BLUMER: Notes of a Case of Litholapaxy in a boy, aged 5½ years.—3. Mr. SPANTON: A Case of Retention of Urine due to Retroversion of the Uterus.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

The fourth ordinary meeting of the session was held at the Museum and Library, Bristol, on Wednesday, February 29th, G. F. BURDER, M.D., President, in the chair. There were present forty-nine members and two visitors.

New Members.—The following gentlemen were elected: J. Wilding, M.B., Bristol; A. L. Marshall, M.B., Bath.

Cases.—The following cases were exhibited: 1. By Dr. C. A. WIGAN: Pseudo-Hypertrophic Paralysis.—2. By Dr. J. MICHELL CLARKE: Infantile Hemiplegia (without atrophy), three cases. Infantile Paraplegia (with atrophy). Infantile Paralysis of Muscles, passing from Spine to Scapula.—3. By Dr. E. MARKHAM SKERRITT: Advanced Bulbar Paralysis; Complete Special and General Hemianæsthesia in a Male. Mr. CROSS, and Drs. SHAW and HARRISON made observations on these cases.

Papers.—The following communications were also made: 1. By Dr. C. P. COOMBS: On Splenic Leukæmia; Drs. SPENDER, MARKHAM SKERRITT, and CLARKE, took part in the discussion that followed.—2. By Mr. N. C. DOBSON: A Case of Hydatid Cyst of the Omentum; Dr. PROWSE and Mr. BARCLAY made some observations on this case.—3. By Mr. W. J. PENNY: A Case of Acute Intestinal Obstruction, with early operation and successful result. Drs. NEWNHAM and COOMBS commented upon this communication.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Resection of Wrist.—Ill-Effects of Antipyrin.—Erythrophlein.—Sulphur in Diphtheria.—Congress on Tuberculosis.—Hypodermic Injection of Iron.

I. VERNEUIL opened the fifth annual meeting of the Congrès français de Chirurgie on March 12th. M. Ollier, of Lyons, spoke on resection of the wrist which, according to him, had of late been practised much more frequently than formerly. In 1870

only 70 cases were recorded whereas in 1886 there were 170 cases. M. Ollier, who has himself practised it forty or fifty times, only referred to orthopædic resections performed in cases of ankylosis. To preserve the functions of the part, a larger section of bone than was necessary for immediate cure must be resected; the digital and carpal tendons must be preserved, also those acting on the wrist. The movements of the thumb might be preserved. The joint being supported by these tendons, the fingers could be extended and bent more powerfully; thus patients had been able to straighten their fingers with dumb-bells of 8, 10, and 18 kilogrammes. In two cases of late resection, M. Ollier remarked the formation between the extremities of bone of an osteo-fibrous pad, scattered through which were osseous nodules.

At a recent meeting of the Académie de Médecine, M. Germain Sée denied the report circulated in the lay press that on account of the disagreeable effects sometimes produced by antipyrin, the Académie had condemned that substance as a therapeutic agent. He stated that these accidents were comparatively rare, and were of a mild and transient nature, and that if medical men in such cases would abstain from rashly administering atropine, which often caused symptoms of poisoning, the ill effects of antipyrin would soon disappear, and recovery would ensue in the course of two or three days. M. Sée read a letter from M. Daremberg, in which that gentleman stated that he had obtained good results with antipyrin in patients suffering from migraine and tuberculosis. M. Hardy remarked that, although he had found antipyrin generally gave good results, he had met with patients who proved refractory to its action. In certain cases it caused vomiting or signs of cerebral depression, amnesia, syncope, etc., consequently he did not consider this remedy so marvellous as it was generally held to be. He also warned medical men to be prudent in prescribing acetanilide, and related a case in which it had caused sudden death after the eighth administration of a one-gramme dose. M. Dujardin-Beaumez believed this to be a mere coincidence, and the case an exceptional one, but M. Hardy maintained that the extraordinary rapidity with which coldness and rigidity had set in caused him to attribute it to acetanilide. M. Brouardel regarded it as more probably due to defective renal elimination, and added that it was very essential that the state of the kidneys should be ascertained before administering this drug. MM. Gautier and Laborde were of opinion that the presence of aniline or any other impurity in the substance might account for many accidents, and that chemists ought not to be allowed to dispense it without prescription. M. Laborde had, under M. Houdé's direction, caused a dimethoxyquinizine preparation to be made, and it invariably caused a sudden rise of temperature at the onset from $\frac{1}{2}^{\circ}$ to $\frac{3}{4}^{\circ}$ of a degree Centigrade, followed by a corresponding fall after a longer or shorter period of time. This thermic action of antipyrin might be utilised experimentally with chemical reagents, such as perchloride of iron or nitrous acid as a test of the purity of the product. Locally, in hypodermic injections, the mere contact of the substance with the tissues, especially the muscular tissues, exerts on these a more or less marked irritating influence according to the dose.

At a recent meeting of the Academy of Medicine, M. Panas communicated the results of experiments with erythrophlein, which he had tried on human eyes, and on those of the lower animals. He states that this substance has a positive anæsthetic effect, which lasts longer than that of cocaine. He considers it objectionable, however, on account of the violent pain and inflammation which it causes. M. Panas prefers cocaine, and condemns erythrophlein in ophthalmic surgery; he had used it in treating granulations and granular pampus, but the results were not satisfactory.

M. Schnyder claims unfailing good results from local applications of flower of sulphur and doses of chlorate of potash in diphtheria. The sulphur is insufflated over the part of the throat which is covered with false membranes. In mild cases four insufflations a day are sufficient; in grave cases they should be repeated every two hours. The sulphur should also be applied to the nasal cavities if they are filled with diphtheritic membrane.

The Congress to be held in Paris for the purpose of discussing the question of tuberculosis observed in man and in the lower animals will be held from the 25th to the 31st July. The following questions will be discussed: The dangers caused by the consumption of meat and milk obtained from tuberculous animals, and the preventive measures to be taken? Which are the human races

and species of the lower animals most especially predisposed to contract tuberculosis? What are the channels by which the tuberculous virus is introduced into the animal economy and propagated? The early diagnosis of tuberculosis in man and the lower animals. M. René Serraud has recently published a book (*Du Diagnostic Précoce de la Tuberculose chez l'Homme*. J. B. Baillière, 1888) in which many of these subjects are treated, especially the question of the early recognition of phthisis. He states that patients who later on are attacked by pulmonary phthisis always present marked pharyngo-laryngeal symptoms, such as anaemia of the pharyngeal mucous membrane; imperfect apposition of the vocal cords, owing to atony of the adductor muscles; localised congestion of the mucous membrane covering the arytenoid cartilages, resulting in a swollen condition of this region. These three symptoms can exist separately or simultaneously; the presence of one indicates the possibility of future pulmonary phthisis, the three together are a certain sign that it is impending.

M. G. Ludovic Hirschfeld has lately discussed the question of hypodermic injection of ferruginous compounds, in a thesis for the Doctor's degree. After a short review of the various works which have appeared on this subject since 1872, when Professor Rosenthal, of Vienna, first employed iron preparations in hypodermic injections, the author proceeds to describe his own experiments at the Hôpital Cochin. His observations have led him to conclude that the method of administering iron preparations by means of hypodermic injections is excessively painful to the patient, and inefficient in its result. In defending the system of administering iron compounds internally, M. Hirschfeld quotes the opinion of Professor Hayem, who states that he has hardly ever met with a patient who could not take iron salts. M. Hirschfeld has closely studied his subject, and the result is a work of considerable interest and merit.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Erythrophloïn as a Local Anæsthetic.—Removal of Tumour from the Bladder.—Co-existence of Syphilis and Cancer.

DR. LEWIN'S report on the extraordinarily good effects of erythrophloïn as a local anæsthetic has induced several investigators in Austria and Hungary to make a series of experiments with this substance. The general opinion seems not to be in favour of the statements made by the Berlin observer. Professor von Reuss, of Vienna, has made a series of experiments on the eye, and reports as follows:—On the instillation of a 0.05 per cent. solution of erythrophloïn into the eyes of patients suffering from trachoma, the sensibility of the cornea and the ocular conjunctiva became impaired; this condition became still more pronounced during the ensuing half hour, but complete anæsthesia could not be obtained. Applications of solution of sulphate of copper and nitrate of silver to the eye were felt just as much as on the other eye (which had not been anæsthetised). Neither subjective disturbances nor any objective signs of irritation could be observed after the instillation of the erythrophloïn. In a patient in whom iritis had just completed its course, almost complete anæsthesia of the cornea was produced after thirty minutes; after about eight hours the patient was seized with severe pains in the eye, and ciliary injection could be seen after twenty-four hours. In a case of chronic iritis, anæsthesia did not come on for an hour, and did not begin till forty-five minutes after the application of erythrophloïn. Professor von Reuss next tried a 0.25 per cent. solution. After the instillation of from two to four drops of this strength, a disagreeable sensation in the eye was felt in some cases, and in others burning and pricking pains, as well as contraction of the eyelids and redness of the conjunctiva, supervened. In a lad aged 15, who had to be treated with the galvano-cautery for ulceration of the cornea, the pain caused by the erythrophloïn was so severe that the patient wept. The decrease of sensibility in most of the cases was first noticed fifteen minutes after instillation. After forty-five minutes there was anæsthesia to contact with a smooth piece of wood, but slight scraping with a piece of paper was still felt. This condition lasted for two hours, but a certain degree of impaired sensibility could still be noticed after twenty-four hours. In the case of a patient with leucoma of the cornea, who had already once been tattooed under cocaine, anæsthesia seemed to be present twenty-five minutes after the application of erythrophloïn; but he felt the punctures so much that a second instillation of erythrophloïn had to be resorted to. When tattooing was performed after forty-five minutes, the punctures

were still more felt than they had been under cocaine. In a case of "pannus trachomatous" only slight diminution of sensibility of the cornea could be produced; and in the case of ulcer of the cornea referred to above cocaine had to be resorted to for the application of the galvano-cautery. Among the changes which the eye underwent in these cases, dimness of the cornea was found to be regularly present. Dimness of vision came on after about two hours and increased until the evening, the erythrophloïn having been applied in the morning; the eye was irritated, there was lachrymation in some cases, pressing and pricking pains were felt during the evening. The other symptoms, such as redness of the conjunctiva, ciliary injection, etc., which had been observed after the instillation of the 0.05 per cent. solutions, were noticed to be present now in a much higher degree. As the $\frac{1}{4}$ per cent. solution of erythrophloïn had proved to be too strong, the author, in a third series of experiments, used a 0.125 per cent. solution. The first instillation of this strength was not attended with any trouble whatever. After twenty-five minutes the sensibility began to decrease, but after an hour there was no longer any diminution of sensibility. The cornea remained clear. A second instillation of the same solution on the same patient was followed by pricking pains and symptoms of irritation of the eye. Fifteen minutes later anæsthesia came on, which increased to such a degree that the patient had but little sensation. On examination of the eye six hours later the cornea was cloudy, but did not show any trace of stripes. In the evening, (nine hours after the instillation) severe pricking pains supervened, which lasted for three hours, and finally disappeared, together with the dimness of vision. After twenty-seven hours the eye had resumed its normal appearance, but the sensibility of the cornea was still slightly impaired. Dilatation or narrowing of the pupil was never observed, and its mobility as well as the accommodation of the eye did not undergo any change. Summarising the results of his experiments with erythrophloïn on the eye, Professor von Reuss states that the sensibility of the normal human cornea becomes impaired by it to a different degree in different individuals, but that the anæsthesia is never so complete as that produced by cocaine; its duration, however, was longer. The weak solutions (0.05 to 0.125 per cent.) when applied once did not produce any disturbance, but neither did they cause sufficient diminution of sensibility. The repeated instillation of such solutions, as well as a single application of a $\frac{1}{4}$ per cent. solution, were, however, always more or less attended with severe pain and corneal opacity. I may add that Docens Dr. Königstein, of Vienna, who had undertaken a number of experiments with erythrophloïn on the eye, testing its effect on the eye of animals and the normal and diseased eye of man, has come to the conclusion that erythrophloïn will not find a place in eye surgery. Professor Kaposi, who has made experiments with erythrophloïn on seventeen cases of diseases of the skin, in the dermatological clinic of the General Hospital, arrives at the following conclusions: Subcutaneous injections of erythrophloïn on man produce local anæsthesia. The dose which was required to obtain this effect varied in his cases from 0.0025 to 0.01 or 0.02 grammes. Anæsthesia was not produced until fifteen minutes after injection, but a certain amount of diminution of sensibility could sometimes be observed after a shorter interval of time. The anæsthesia as well as the diminished sensibility lasted from one to three hours. The anæsthesia affected only a small middle zone of the area into which the injections had been made. The large marginal area was paræsthetic, and sometimes showed anæsthetic and paræsthetic points diffusely mixed with each other. The analgesia was often more complete than the anæsthesia, as the sensibility of touch was hardly ever quite absent. Symptoms of local irritation were observed after the very smallest doses such as 2.5 milligrammes, and were always present on the application of doses of from one to two centigrammes. These symptoms were characterised by burning sensations in the area of injection, and severe shooting pains, which lasted for many hours, and even one or two days. The objective symptoms were redness, swelling, and increase of temperature in the area of injection, and elevation of the skin in the form of pomphus. General toxic symptoms supervened after from a quarter of an hour to one hour when a dose of two centigrammes was used. These symptoms consisted in giddiness, dilatation of the pupils, impaired and retarded action of the heart and the pulse, as well as in accelerated and shallow respiration. Nausea and vomiting were also observed in some cases; all these symptoms lasted for

several hours. In Professor Kaposi's opinion, erythrophlein cannot be recommended as a local anæsthetic for practical purposes. He even believes that, owing to its general toxic effects, and owing to the fact that the toxic dose differs but little from that which is required for producing local anæsthesia (0.02—0.01—0.005 grammes), the use of erythrophlein should be discouraged.

Professor Antal brought before the same Society a patient from whom he had removed, in June of last year, a papilloma situated at the fundus of the bladder by a modified "high operation." The wound healed by first intention, and the patient recovered. In six months after operation hæmaturia again came on, and the patient also stated that in December he noticed that small "bits of flesh" passed with the urine. In January, 1888, the patient was again admitted under Professor Antal, who found, on cystoscopic examination, that a pedunculated tumour with a nodular surface, and situated on a swollen and relaxed mucous membrane, was present near the opening of the bladder. The examination further showed that at the place from which the tumour had been removed a year previously there was only a white patch; hence there was no recurrence of the first growth. He introduced a straight forceps through the urethra into the bladder, and succeeded in tearing off the tumour, together with the pedicle. The parts of the tumour which had been thus torn off were in part removed by the forceps and in part by the catheter. Repeating these manipulations several times, the whole growth was got away. Microscopical examination of the tumour showed that it was a "papilloma fimbriatum" (Thompson). The case was interesting from the etiological point of view, as the patient had suffered from gonorrhœa and inflammation of the neck of the bladder, and the causal connection of this condition with the development of the tumour could not be doubted. Moreover, this was the first case, within the knowledge of Professor Antal, in which the male urethra was used for the removal of a tumour.

At a recent meeting of the Wiener Medizinisches Doctoren-Collegium, Professor Edward Lang, of Vienna, read a paper on the Co-existence of Syphilis and Cancer. But little attention had been hitherto directed to the fact that syphilis sometimes formed the predisposing soil for the development of cancer, or that both diseases might be combined with each other. Setting aside some observations of comparatively little value which had been made by ancient authors on this subject, it was especially Hutchinson and Langenbeck, who, before Professor Lang, had directed attention to the simultaneous occurrence of syphilis and carcinoma. The speaker had observed such a combination four times. The first case was that of a patient who had been admitted in 1883 under his care when he was at Innsbruck. Besides an old-standing iritis and other symptoms of syphilis, he was suffering from serpiginous and gummatous ulcerations on the nose, the cheek, and the angles of the eye. Most of the ulcers healed under antisyphilitic treatment, except one, which gradually changed its character and assumed the form of an "ulcus rodens," that is, a flat carcinoma of the skin. The patient was transferred to the surgical clinic, where he underwent an operation, and microscopical examination proved the simultaneous existence of both syphilis and carcinoma. The second case was that of a patient aged 46, who had previously been treated for recent syphilis by Professor Lang. There were syphilitic infiltrations of the floor of the mouth and under the tongue, and, moreover, various syphilitic infiltrations over the occipital bone and the body. All these lesions subsided under the influence of a common antisyphilitic treatment except the infiltrations of the floor of the mouth, which became transformed into cancer. The third case was that of a man aged about 30, who presented a syphilitic ulcer on the under lip. The ulcer disappeared under antisyphilitic treatment, but relapse and transformation into carcinoma occurred a year later. In all these cases the correctness of the diagnosis was proved by the anatomical examination. The fourth case was shown to the Society. The patient had extensive scars, ulcerations as well as infiltrations on the forehead, loss of the entire nose, loss of substance on the upper lip, ulceration and perforation of the hard palate, perforation of the soft palate, and cicatricial retraction of the uvula. On admission of the patient to the clinic of Professor Lang, in the middle of January last, some of the ulcerations were covered with a white tallowy mass, which led Professor Lang to suggest the presence of a combination of syphilis with carcinoma. The microscopical examination, however, revealed only the presence of pus corpuscles and products of decomposition. The infiltrations on the right side of the forehead after on slightly diminished, but from four to five weeks later a

vegetation on the anterior end of the ulceration of the hard palate appeared, the character of which was incompatible with that of syphilitic ulceration. A part of this vegetation was excised, and the microscopical examination of it, which was made by Professor Weichselbaum, showed that it was "epithelial carcinoma."

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Hairpins in the Female Bladder.—*Bacterio-chemistry of Tavel's Bacillus Strumitis.*—*Pigments of Green Pus.*—*Idiosyncrasy of Quinine.*

PROFESSOR AUGUSTE REVERDIN has recently published (in the *Revue Médicale de la Suisse Romande*, January, 1888, p. 33) a paper on hairpins in the female bladder. In less than three years he has met with four cases of the kind, which are remarkable, not only for their purely surgical interest, but from the fact that in only one of them was any secret made of the cause of the mishap. One of the patients, a married lady, aged 22, mother of a boy 10 months old, sought his help on the sixth day after the accident. Without the slightest hesitation or shame she stated that she had been in the habit of masturbating in that way ever since her school days. Her husband, a school teacher of thirteen years' standing, who was present, did not seem in the least surprised or shocked at this confession. Another patient, an unmarried woman, aged 42, a clergyman's servant, came on account of "her having apparently something (*quelque chose*) in the bladder." After the *quelque chose* (in the shape of a hairpin) had been extracted on the spot, the patient, on leaving Dr. Reverdin's house, advised his maidservant "never to go to bed without having previously removed all pins from your hair, otherwise some *triste accident* may so easily happen." A third patient, an English girl aged 17, said she had some time previously introduced six darning-needles into her rectum and two hairpins into her bladder; the former disappeared altogether, but the latter were found amongst the fragments of a vesical calculus which measured full 6 centimètres in diameter, and was removed by lithotripsy. According to the patient's own statement she had previously consulted two "professors," who, after due examination, had recommended her exercise and iron. The fourth patient was a diminutive girl aged 12, who openly confessed that whilst she had intended to introduce a hairpin into her vulva, the pin had slipped from her fingers and disappeared somewhere; she had at once taken another pin, which had followed the same way. Both were found in, and extracted from, her bladder. Commenting on this "epidemic" of hairpins in the bladder, Dr. Reverdin says that "masturbation in that way is practised by women much more frequently than is generally supposed." The hairpin is so often used for the purpose simply because it is always within reach of every woman. Some use it to titillate the clitoris; others put it up the vagina, or at least intend to do so, but sometimes, owing to their ignorance of anatomy, accidentally introduce it into the urethra instead. Others again—probably a minority suffering from some perverted sexual sensations—intentionally push the hairpin into the urethra. The slipping of the hairpin into the bladder is attributed by Professor Reverdin to a combination of several causes, namely, the weight of the pin, the spasmodic contraction of an irritated urethra, and temporary unconsciousness of the woman from excitement. The method of extraction must necessarily vary according to the peculiarities of the individual case. In cases of long standing, when a stone has formed around the foreign body, lithotripsy must be performed; but when the surgeon finds only hairpins, with or without incrustations, the best and simplest method will be to extract the foreign body by means of a pair of fine, slender, straight forceps introduced through the undilated urethra and guided by a finger in the vagina. The first point in such cases is to ascertain the exact position of the pin. If it is lying with the bent end towards the urethra, there is nothing easier than to seize and pull it out. When the pin lies in any other position, "version" of the pin should first be performed by gentle manipulation, so as to get the bent end forward. In the first of the cases just related a superficial incision into the urethra proved to be necessary in order to disentangle one of the pin's legs, the patient having previously applied to a midwife for surgical help.

M. James Kunz has recently carried out some interesting bacterio-chemical investigations in Professor von Nencki's laboratory at Berne. One series of researches was undertaken on the chemical products of Tavel's bacillus strumitis cultivated in a

slightly alkaline jelly with grape sugar. The gaseous bodies developed by the microbe were found to consist solely of pure carbonic acid. A marked acid reaction of the cultivation medium proved to be dependent on the presence of free ordinary fermentative lactic acid. Analysis by Brieger's method revealed, also, slight traces of a ptomaine.

Another group of M. Kunz's experiments related to the colouring matters of green pus. Having examined numerous pure cultures of the microbe of the pus, he was able to establish the fact that, side by side with pyocyanin and pyoxanthose (the colouring matters of blue pus), a third (still undescribed) pigment was present, which was characterised by a beautiful green fluorescence under direct rays of light. It was soluble only in water and diluted alcohol. M. Kunz has named this new body "pyofluorescin."

At a meeting of the Société Médicale du Valais, Dr. Ducrey read a paper on idiosyncrasy to quinine. In one of his patients, a gentleman, aged 60, even small doses of the drug (such as fifty centigrammes taken in a period of twelve hours) invariably caused a severe erythematous rash over the forehead, eyelids, and infra-orbital regions, followed by slight desquamation. The author met, also, several instances of purpura hæmorrhagica caused by the internal use of the remedy. He thinks that such clinical facts unmistakably point to a "real and special action of the quina preparations on the vasomotors of the skin."

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Mysterious Epidemic in Glasgow.—Typhus Fever and Small-pox in Glasgow.—Pleuro-pneumonia in Scotland.—Combe Lectures to Teachers.

DR. RUSSELL'S report on the outbreak of an epidemic of a remarkable character, which occurred in St. Mary's Roman Catholic Industrial School for Males in the east end of Glasgow, has been published this week. The history and character of the outbreak are briefly as follows: On the evening of March 2nd one of the boys complained of headache, and was sent to bed in his dormitory. He rose as usual next morning at 6, and made his bed, but was observed to be staggering, and was sent to the sickroom, where he died two hours later. On March 3rd another boy complained of headache, and was sent to the sickroom and put under treatment. He became delirious on March 5th, and died at 4 A.M. These deaths were reported to the Procurator Fiscal, as the medical man could not characterise them, but he permitted the interment without a *post-mortem* examination. On March 7th another boy complained of sickness and headache; he became comatose, and died within four hours. On the morning of the 8th, a fourth boy was found to be unconscious when the other boys were called shortly before 6, and he died in about half an hour. Grouped around these fatal cases nineteen boys were more or less ill. On this day (March 8th) Dr. Russell's aid was sought. He found the sick boys all with more or less febrile temperature; and several had symptoms of pneumonia in various stages, but the disease was of a kind quite new to him, and evidently not poisoning in a criminal sense. He immediately transferred twelve of the most serious cases to a separate ward in Belvidere. On March 10th three fresh cases were removed, and on the 11th two more, and up to the 16th an additional five cases had been removed to Belvidere; of these five, two were girls employed in the kitchen. The total number removed to Belvidere is thus twenty-two. Two more cases have occurred since March 16th, one on the 17th and another on the 18th. There have been, however, no more fatal cases, and there is, according to Dr. Russell, no immediate prospect of further loss of life. Of the 205 inmates of the institution, there had been in all fifty-six cases of illness or alleged illness. Now as to the nature of the disease. It was new to Dr. Russell. He procured the assistance of Dr. Coats, and on the afternoon of March 8th, the day he was summoned, a careful *post-mortem* examination was made. The general result showed that they had to deal with a febrile disease, arising from some blood poison, which, even in the short illness of the boys whose bodies were examined, had produced local changes suggestive of some alliance to the specific poison of enteric fever. Dr. Coats is engaged in microscopical investigation, in the hope of elucidating the problem, and with the same view Mr. Maylard is conducting a bacteriological inquiry. The characters of the illness are as follows. The onset is sudden,

generally with vomiting. Almost immediately after a hearty meal a boy may complain of headache and lateral pain, and look depressed, and be tottering on his limbs. The first temperature taken may be already 103° or 104°. A drowsy tendency is generally evident. The specific poison may kill within three or four hours of the first declaration of illness. If the patient resists the first assault, in a number of cases pneumonia, either single or double, is developed, but a pure febrile state, with high ranges and irregular intermissions, may ensue. At no time is there diarrhœa: In a few cases the fever passes off, sometimes in a few hours, with deep sleep and it may be perspiration, and the patient is well; but in all there is an increase of temperature, however short. In searching for the cause of this puzzling outbreak, Dr. Russell found anything connected with the food excluded by the circumstance that the girls and boys are fed with the same food, distributed from a common store, cooked in the same kitchen, and eaten in the same dining hall. Yet, up to the date of the report, only boys were attacked, though the disease was not confined to any class of boys or any one dormitory. Examination has, however, been made into the source and quality of the food and of the milk. No pleuro-pneumonia existed at any of the farms from which milk was obtained. The drains are also being examined. Dr. Russell has no information of any similar disease in any part of the town, and has not yet discovered anything similar on record. He points out, however, that the local authority has had repeated experiences of this particular institution, which call for urgent representation in the proper quarter of its entire unsuitableness for the purposes of an industrial school. Within a few years outbreaks of typhus and scarlet fever and small-pox have occurred within it, causing loss of life, and costing the local authority large sums of money. It is situated in the centre of a manufacturing district of the city, and a graveyard, still in occasional use, is its only free space. The building is defective in structure and accommodation, especially on the boys' side. There are not sufficient sickrooms, and there is no mortuary. The boys' lavatory is cold, damp, and unwholesome looking, without hot water at the taps. Every part of the house is filled to the limit of its capacity, and the moment sickness of any kind appears, there is no possibility of separating the well from the sick, and disaster is inevitable. A test of the drains, made since the report was issued, disclosed some defects in the soil-pipes within the house. In the washing-house there was a serious escape, and in the lavatory were six choked bell-traps. The Health Committee of the city have instructed that the report be forwarded to the Secretary for Scotland, with the request that immediate steps be taken to obtain the discontinuance of the school on its present site.

The number of cases of typhus fever registered in Glasgow during the last fortnight was the same as the preceding two weeks, 17. There were also 22 cases of enteric fever, and 16 undefined, including those removed from the Roman Catholic Industrial School. One genuine case of small-pox had been found, the first since January, 1886. The patient was stoker of a steamer, which left Santander on February 16th. He sickened on the 22nd of that month, and reached Glasgow on the 25th. The disease was happily recognised by a practitioner on the 27th, and the patient's removal to Belvidere was effected.

A large and influential deputation waited on the President of the Council at the Privy Council offices, on March 19th, to urge the necessity of the Government undertaking an investigation into the nature and treatment of pleuro-pneumonia in cattle. The deputation represented twenty-nine different local authorities. It was stated that since 1874 there had been an annual increase of the disease in Scotland, there being 239 outbreaks in 1887, while in 1884 there were only fifty-five. In 1887 the expense for compensation had amounted to over £34,000. In Lanarkshire alone since February, 1887, there had been spent in compensation almost £19,000, while the whole of the previous expenditure from 1872 to 1887 had been under half that figure. In reply, Lord Cranbrook promised a very careful inquiry, though he could not undertake to promise a Royal Commission. The value of inoculation is naturally one of the chief questions which the deputation wished to be carefully investigated.

Dr. Andrew Wilson begins his annual course of free Combe Lectures on physiology to teachers in Glasgow on April 3rd. His subject this year is the Physiology of Motion and Nutrition. The course will extend to fifteen lectures. A limited number of tickets will be granted to members of the general public desirous of attending.

CORRESPONDENCE.

TREATMENT OF UTERINE FIBROIDS BY ELECTROLYSIS.

SIR,—I did not intend to take part in the discussion on the so-called "Apostoli method" of treating diseases of the uterus (including fibro-myoma), because I have never tried it, and being a gynecologist, do not intend to, as I think it may more properly be left to the obstetric physician. A very brief and misleading report of the remarks I made in a discussion at the meeting of the West London Médico-Chirurgical Society on March 2nd seems, however, necessitate some exposition of my real views on this subject.

1. I think the whole discussion premature, because we know that fibro-myomata are most uncertain in their habits of growth and retrogression when left entirely to themselves, the most surprising alterations taking place in periods of three, six, or twelve months. Such alterations are still more common if the patients are carefully handled as to diet, alcohol, rest at the periods, and special medicines.

2. Nothing which has yet been published by Apostoli or his followers is inconsistent with these natural, or slightly aided, changes, and the results obtained are probably as much due to the rest and care while under treatment, powerfully aided by the effect on the nervous system of confident hope of cure, as to the specific action of electricity.

3. No results can have any scientific value till the cure is proved by a sufficient interval of health for at least twelve months after the treatment has ceased.

4. We do not yet fully appreciate the dangers of the method. I know of one case in which rapidly fatal pyæmia followed a very few applications in the hands of one experienced in the use of the method. The journals tell us of narrow escapes, and even of such careful manipulators as the Keiths record a serious case of cellulitis, of which the gravity is not lessened by attributing it to the carelessness of the patient.

5. I would ask the profession not to be carried away by the enthusiasm of anyone in a revival of this kind, but to wait patiently for definite results, confirmed by sufficiently long intervals.

Let those who believe in the new "panacea" work for a year or two, and then show us their cured patients, *i.e.*, if they then have any to show.

The above was intended for last week's JOURNAL, but was misdirected. It contains all the information I can give Dr. Inglis Parsons, the details of the fatal case were given to me by the family medical attendant of the patient. I trust that the profession will in due time have the full particulars from the operator.—I am, etc.,
J. KNOWSLEY THORNTON.

22, Portman Street, W., March 20th, 1888.

"THE ABORTIVE TREATMENT OF SYPHILIS."

SIR,—I was much interested in reading the valuable article under the above heading in the JOURNAL of February 25th, as it exactly coincides with what has been my experience for some years past in the treatment of syphilis, with this exception: that instead of grey powder in 1-grain doses three times a day, I have been using liquor hydrarg. perchlor. in doses varying from half to a drachm three times a day, accompanied by an inunction of gnetum hydrarg., well rubbed into the affected glands every alternate night (in cases where mercury is not well tolerated when given internally), until we have satisfactory evidence that the constitution is affected, directing and continuing our treatment in such a watchful manner that neither salivation nor any vicious effect of the drug is produced. We thus gain a result by the early administration of mercury which fully justifies us in thinking that the disease has been so checked or "aborted" that neither the so-called secondary symptoms are entirely absent, or appear in such a mild form as to leave little doubt (when contrasted with those cases in which mercury has been withheld) as to the specific efficacy of the drug.

I am not aware if the beneficial practice of mercurial inunction directly into the affected glands has been pointed out in any of the textbooks. Certainly I have found the treatment in certain cases attended with very happy results, and now never hesitate in treating my patients on mercury, internally or by inunction, and I do not feel obliged to diagnose the primary lesion to be a true syphilitic one; in any case in which there may be a rational doubt as to the nature of the sore.

It is interesting to note that at Fürth, where the manufacture of mirrors is extensively carried on, Professor Kussmaul could not find an instance of a worker in mercury contracting syphilis, while under the influence of the drug.—I am, etc.,

J. CARTER BATTERSBY, M.B.,
Dublin, March 14th. Surgeon Army Medical Staff.

SIR,—May I be allowed to make a few remarks about the word "abortive" as applied to the successful treatment of disease? It is now frequently used in this way both in our own country and abroad, but surely it cannot be logically correct. If a man tries various means to combat an ailment, and he fails, one says that all his efforts proved abortive, that is to say, ineffectual. Now, this is exactly what is not meant by those who advocate the "abortive treatment" of erysipelas, syphilis, etc. Their object is to render the disease itself abortive. If the surgeon's aim be to exterminate or to eliminate from the system a morbid poison, such as syphilis, why not call the treatment "exterminative" or "eliminative?" I do not find either of these words in dictionaries, but they may be quite legitimately formed from their root-verbs.—I am, etc.,

JAMES DIXON.
Dorking, February 29th.

CONSULTATION WITH HOMŒOPATHS.

SIR,—Dr. Needham's contention, in his letter published in the JOURNAL of March 17th, is perfectly just, namely, that at the meeting of the Gloucestershire Branch on February 21st, "the question as to the right of holding consultations with homœopaths was not settled so far as the county of Gloucester was concerned." No resolution was put to the meeting. There was simply a discussion as to the present position of homœopaths, and nothing more.

The meeting, though certainly not a large one, was by no means insignificant, and Gloucester itself was very fully represented.

For myself, I may be allowed to say that I am an utter disbeliever in the tenets of homœopathy, but I should be glad if some basis of agreement could be found which would put an end to a schism which is alike injurious to the science of therapeutics and to the best interests of the profession. This was the view I took of the question at the Gloucester meeting, and it seemed to meet with the approval of all who were present, with the exception of my friends Drs. Bond and Needham. I will only add that I acted on the principle of the old Greek philosopher; who said, "τοῦτο μέγιστος ἐστὶ τεχνητὸ ἀγαθὸ ποιεῖν τὰ κακά."—I am, etc.,

ANDREW S. CURRIE.
The Moorlands, Lydney, Gloucestershire, March 21st.

THERAPEUTICS WITHOUT ALCOHOL.

SIR,—The Board of Management of the London Temperance Hospital desire me to offer, in their name, some comments upon the sub-leader in the JOURNAL, entitled "Therapeutics without Alcohol." It is there stated that this hospital has been in existence above twelve years (in reality above fourteen), and that "the annual report for 1886-7 may be studied with advantage, in order to compare the results with those of other hospitals." I would ask whether the comparison should not have been made with the series of reports during the whole period, and not with the report of one single year's results? It is somewhat strange that though copies of the annual reports have been supplied to the medical journals, and also reports of the medical and surgical cases for the three years, 1883-4-5, your criticism should be confined to the Registrar's report for a single year. You observe: "In the surgical department the results have been satisfactory, so far as one is enabled to judge from mere figures, but turning to the medical cases we may restrict examinations to one or two groups of diseases with advantage." If the results of the surgical operations were "very satisfactory," why add the words, "so far as one is enabled to judge from mere figures," seeing that the cases are set forth with every necessary explanation? And it cannot be overlooked that it is in regard to such cases, where great loss of strength inevitably occurs, that the supposed value of alcohol is most frequently and firmly insisted upon. The article goes on to observe that the four cases of typhoid fever all proved fatal, though the subjects were young persons, and comprised three abstainers. Would the writer recommend that young people should not be abstainers; or would he insinuate that the abstinence of the three had anything to do with the fatal result?

"The treatment," it is said, "was the same as elsewhere, and the only difference consisted in the non-exhibition of alcohol."

Is it, then, a scientific inference that the absence of the alcohol was the cause of these deaths? Do patients never die to whom alcohol is administered; and is there never in any hospital what is called, for want of a better name, a run of bad luck? If the writer had consulted the thirteenth annual report, he would have seen that out of sixty-eight cases of typhoid fever, treated up to April 30th, 1886, only seven had proved fatal; and that out of these seven, two were complicated by double pneumonia, one by cirrhosis of liver, one by ovarian cyst, and one by peritonitis and perforation. Will it be pretended that the use of alcohol in these fatal cases would have been attended with the saving of life; and was not the recovery in sixty-one cases "very satisfactory?" I may add that the total in-patients admitted down to April 30th, 1887, were 4,160, and that the deaths were 240, the rate of mortality thus being 5.8. Since the erection of the new buildings in the Hampstead Road, this rate has, for obvious reasons, increased, and was 8.4 per cent. for the year ending April 30th, 1887.

You commend the plan upon which the Registrar's report has been drawn up—a plan settled by the Medical Committee, and approved by the Board. We are not afraid of the fullest publicity, and members of the profession are ever welcome as visitors to the hospital. All that we claim, and have a right to claim, is that our results should be fairly considered, and that we should not be subjected to a style of criticism from which other hospitals are exempt. We rejoice to know that in all other hospitals the consumption of alcohol has diminished, and is diminishing, with advantage to the patients; and as our visiting staff are authorised to prescribe alcohol whenever they deem it needful, its non-exhibition cannot be ascribed to any fanatical adherence to an abstract theory. Those who can recall the days when the free brandy and port wine practice of Dr. Todd carried captive the great body of medical practitioners, and resulted in the loss of numberless lives, may congratulate both patients and doctors upon the present more enlightened method of treatment; and we look to the medical profession for an intelligent appreciation of an institution which is submitting the supposed value of alcohol in special cases to a really scientific examination.—I am, etc.,

DAWSON BURNS, D.D.

Honorary Secretary London Temperance Hospital,
Hampstead Road, N.W., March 17th.

MENSTRUATION AFTER HYSTERECTOMY.

SIR,—The somewhat fierce discussions which have taken place during the last few years on the treatment of uterine myoma will have at least two satisfactory results. The first is already accomplished. This consists in the disestablishment of the belief, which was until a very short time ago prevalent throughout the profession, that the disease was one which had no great clinical significance, and might generally be let alone. The second is that it is leading to the reconsideration of the notions concerning the relations of ovulation and menstruation as cause and effect. So long ago as 1843 Dr. Ritchie wrote a book in which, to my mind, the ovular theory of menstruation was completely destroyed. Since then Kesteven, Reeves-Jackson, De Sinéty, Malassez, and a host of others have completely confirmed Ritchie's original observation.

All the clinical facts with which I am acquainted yield further proof that ovulation and menstruation have no association with one another as cause and effect. The occurrence of menstruation after hysterectomy has long been to me a very familiar phenomenon, and I have under observation one patient from whom I removed the whole of the uterus, as nearly as it can be removed in supravaginal hysterectomy, both tubes, and both ovaries nearly six years ago; and that patient has menstruated every month during the whole of that time. In another case where, three years and a half ago, I removed a pregnant uterus about the fifth month, on account of two large ovarian tumours of the nature of soft sarcoma, the uterus being infiltrated with nodules of a similar growth in large numbers, I, of course, removed everything I possibly could. That patient had a metrostasis after the operation. Menstruation appeared at the end of twenty-three or twenty-four days, and she has since menstruated with as much regularity as ever she did in her life, and all the phenomena of its appearance in this case are still identical with those of the normal process. Whatever these clinical facts may lead us to as conclusions in the future, it is per-

fectly certain that they established Ritchie's conclusion, that the ovular theory of menstruation is absolutely untenable.—I am,
etc.,

LAWSON TAIT.

7, The Crescent, Birmingham, March 17th.

THE DEFICIENT SUPERVISION OF MEDICAL STUDENTS.

SIR,—I write to ask you if there is any law by which a medical student can be saved from the clutches of pawnbrokers. It appears to me that the matter requires looking into, when a mere lad of eighteen years is able to hand in to a pawnbroker the whole of his medical books, microscope, dissecting case, etc., all of which have been bought by the hardly-earned money of his father, and which are the actual working tools of a student. Surely there should be some restraint placed upon the facilities of pledging by minors. When I was a student there used to be considerable care displayed that students should be fit before going in for their examinations, and in fact they were not permitted to do so unless up to a certain standard, the credit of the hospital being so jealously guarded. But times are changed, and in one hospital at least it appears that as long as a student's fees are paid he may either work or go to the devil. Again, if he has led a life of idleness for twelve months, not even having been signed up for his dissections, surely his friends ought to be warned, and not allowed to pay the next year's fees in blind ignorance. Once more, I protest that it was not my duty as a father to discover from an outsider that card-playing was carried on within the hospital walls (I do not refer to the dressers' rooms). I therefore take it that there must be a great want of supervision where it is needed over first year's men. I can only sign myself

A DISTRESSED PARENT.

* * A pawnbroker commits an offence, for which he is liable to be summarily punished, if he takes an article in from a person appearing to be under the age of twelve years. If the pledger is over that age, but a minor, the pawnbroker might in some cases be obliged to restore the property pawned, on its being shown that the minor had no authority to pledge it. The authorities of hospitals and other educational establishments ought undoubtedly to look after the youths whose fees they take. At some, we believe most, schools a certain amount of supervision is exercised. If the authorities neglect to do so, they incur a grave moral responsibility.

THE SUPERIOR LONGEVITY OF TEETOTALLERS.

SIR,—The valuable statistics cited in the JOURNAL of March 17th show very conclusively that total abstinence from alcoholic drinks is most conducive to longevity and to absence from acute and chronic diseases. I have for many years past felt certain that the medical men of this country when in possession of the results of the statistics of those of our London insurance companies which separate teetotalers from non-teetotalers will range themselves and their families in the ranks of the total abstainers, for nothing can be more clearly proved by the figures you quote than the safety—and, more than that, the great advantage—of leaving off beer, wine, and spirits as a part of diet. In France and Germany no such information exists, and consequently there are very few teetotal medical practitioners. Here the number of such is rapidly increasing, and I am certain that few changes could do so much good to the community as the conversion of practitioners to teetotalism.—I am, etc.,

London, March 17th.

C. R. DRYSDALE, M.D.

CASE OF LYMPHADENOSIS.

SIR,—In an account of the meeting of the Clinical Society of Manchester, published in the JOURNAL of March 17th, p. 594, it is mentioned that I showed a rickety child with great enlargement of spleen and liver, and it would appear from the report that I associated the rickets and the enlargement in the relation of cause and effect. This, however, is not the fact. I showed the child as a case of lymphadenosis, and contended that, although the enlargement of the above-mentioned organs coincided with rickets, it was not due to that disease, but to infiltration of a malignant character. My experience of rickets leads me to the opinion that as a rule the spleen is not perceptibly enlarged, and is never very much so, and that it is still more rare to find the liver affected.—I am, etc.,

T. C. RALTON.

32, St. Ann Street, Manchester.

THE Duke of Devonshire has been elected President of the Chesterfield and North Derbyshire Hospital for the ensuing year.

NAVAL AND MILITARY MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Deputy-Surg.-Gen. C. G. Irwin, M.B.	Bermuda	Edinburgh.
" F. W. Wade	Chatham	Bermuda.
Brigade-Surgeon J. Y. Donaldson, M.D.	Shorncliffe	Madras.
" W. Graves	Portsmouth	Bombay.
" S. E. Mausell	Woolwich	Jamaica.
" R. P. Ferguson	Madras	Shorncliffe.
" G. Perry	Coldstream Gds.	Brig. Foot Gds.
Surgeon-Major J. R. Murray, M.D.	Portsmouth	Hilsea.
" J. Barker	Bengal	Chatham.
" J. Maturin	"	Woolwich.
" J. Riddick	Winchester	Portsmouth.
" G. Corry	York	Sheffield.
" B. W. Fowler	Trinidad	Barbadoes.
" P. A. Hayes	Portland	Portsmouth.
Surgeon E. O. Reynolds	Trowbridge	Bengal.
" A. W. Carleton, M.B.	Athlone	Dublin.
" H. C. Kirkpatrick, M.D.	Netley	Shorncliffe.
" A. C. J. R. Lundy, M.B.	"	Woolwich.
" J. Tidbury, M.D.	Devonport	Trowbridge.
" W. P. Feltham	Netley	Newry.
" C. Seymour, M.B.	"	Aldershot.
" C. B. Hill	"	Portsmouth.
" O. Todd, M.B.	"	Colchester.
" A. O. Geoghegan, M.D.	"	Woolwich.
" W. R. Henderson, M.D.	Cork	Mitchelstown.
" A. M. Kavanagh	Netley	Woolwich.
" A. H. Burlton	Brighton	Canterbury.
" M. W. Kerin	Netley	Cork.
" J. G. W. Crofts	Ashton-n-Lyne	Fleetwood.
" A. J. Struthers, M.B.	Edinburgh	Glasgow.
" H. J. R. Moberly	Golden Hill Fort	Winchester.
" E. Butt	Armagh	Belfast.
" S. Townsend, M.D.	Cork	Queenstown.
" R. Haselden	Gosport	Portsmouth.
" C. A. P. Mitchell, M.D.	Edinburgh	Leith Fort.
" F. A. B. Daly, M.B.	Dublin	Belfast.
" J. Macnachie	Gosport	Golden Hill Fort
" J. R. Yourdi, M.B.	Bengal	Queenstown.
" G. T. Trewan, M.B.	Gosport	Portsmouth.
" J. W. Beatty, M.D.	Newcastle.	Sunderland.
" G. H. Younge	Bengal	Cork.
" J. M. Langhlin, M.D.	"	Dublin.
" W. L. Reade	Horfield	Clifton.
" W. Dick, M.B.	Bradford	Salford.
" S. F. Longhead, M.D.	Malta	Belfast.
" H. J. Wyatt	Dublin	Curragh.
" G. B. Russell, M.B.	Cahir	Fermoy.
" H. Mitchell	Portsmouth	Marchwood.
" J. R. Forrest	Colchester	Gt. Yarmouth.
" J. S. Green, M.B.	Dublin	Fermoy.
" J. J. O'Donnell, M.B.	Barbadoes	Trinidad.
" D. M. Greig, M.B.	Leith Fort	Edinburgh.
" H. A. Cummins, M.B.	Queenstown	Bengal.
" R. E. Kelly, M.D.	Mitchelstown	Madras.
" J. F. Donegan	Plymouth	"
" J. Donaldson	Belfast	"
" G. Bent	Sheerness	Bengal.
" G. H. Barefoot	York	"
" F. R. Newland, M.B.	Dublin	"
" C. W. Allport, M.D.	Cork	"
" J. J. Russell, M.B.	Fermoy	"
" A. B. Hinde	Portsmouth	Gosport.
" J. W. Ceckerill	Dover	Brighton.
" J. Ritchie, M.B.	Wrexham	Lancaster.
" S. Macdonald, M.B.	Edinburgh	Piershill.
" G. A. Wade, M.B.	Portsmouth	Gosport.
" W. P. G. Graham, M.B.	"	"
" G. F. Alexander, M.B.	Leith Fort	Edinburgh.
" E. M. Woods, M.B.	Portsmouth	Parkhurst
" G. T. Rawnsley	Dover	Shorncliffe.
" J. Glavin	Warley	Culchester.
" R. Crofts	Sierra Leone	Cape Coast Castle
Quartermaster D. Lackey	Egypt	Netley.

A SLIGHT TO SURGEONS IN INDIA.

MEDICAL STAFF writes: The offensive circular issued by the Military Secretary to the Viceroy, relative to the gold aiguillette worn by Honorary Surgeons to His Excellency, is not only an insult and indignity offered to honourable and gallant men, but to the entire medical profession to which they belong. It ought surely to be brought to the notice of the House of Commons. It is not a matter of mere sentiment and gold lace, but one of simple justice and honourable treatment in the public service.

RIGHT OF RETIREMENT AFTER TWENTY YEARS.

DISAPPOINTED SURGEON, Medical Staff, writes: If the right to retire after twenty years' full pay service is cancelled, a very gross breach of contract will be perpetrated on those medical officers who have entered the service on the terms of the Warrant of 1879. These men will have been secured on false promises. The pen will be drawn through the very best point in that warrant. Surely it is not contemplated to make changes retrospective?

THE NAVY.

SURGEON F. W. STERICKER has been appointed to the *Cockatrice*; and Surgeon G. H. MILNES to the *Starling*.

THE MEDICAL STAFF.

SURGEON-MAJOR D. C. W. HEATHER, having applied to retire before January 1st, 1888, is now granted the honorary rank of Brigade-Surgeon, and Quartermaster J. M. JOHNSON, is granted the honorary rank of Major.

Surgeon-Major A. MORPHEW, who has been serving in Bengal since the beginning of 1884, has been detailed to proceed to England in H.M.S. *Crocodile*, which was to leave Bombay on March 17th.

Brigade-Surgeon W. J. WILSON, M.D., serving in the Bombay command, is directed to proceed to England pending retirement from the service.

Brigade-Surgeon R. WATERS, serving in Beogal, is placed in administrative medical charge of the Allahabad division during the absence on furlough of Deputy Surgeon-General E. H. ROBERTS.

Inspector-General THOMAS DAVID HUME died at Gladstone House, Southsea, on March 16th, in the 80th year of his age. He entered the Army Medical Service as Hospital Assistant, October 26th, 1826; became Assistant-Surgeon, October 11th, 1827; Surgeon, July 2nd, 1841; Surgeon-Major, November 26th, 1852; Deputy Inspector-General, June 29th, 1855; and Inspector-General, December 31st, 1862; he was placed on half-pay, October 1st, 1865. Inspector-General Hume served at the siege of Sebastopol, and was Principal Medical Officer of the 3rd Division during the winter of 1855, and afterwards of the 4th Division until the end of the war. (He received the medal with clasp, the 5th class of the order of the Medjidie, and the Turkish Medal.)

THE INDIAN MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL J. PINKERTON, M.D., Bombay Establishment, is promoted to be Surgeon-General vice Surgeon-General W. J. Moore, C.I.E., retired. Surgeon-General Pinkerton entered the service as Assistant-Surgeon August 4th, 1855, and attained the rank of Deputy Surgeon-General May 1st, 1883. He was engaged in the Persian campaign in 1856-7.

Surgeon-Major D. A. PATTERSON, M.D., Bombay Establishment, is appointed Secretary to the Surgeon-General H.M.'s forces in Bombay, vice Brigade-Surgeon F. S. Turnbull, M.D., who has been appointed Deputy Surgeon-General, and posted to the Sind District.

Surgeon F. C. REEVES, Madras Establishment, whose services have been placed by the Government of India at the disposal of the Chief Commissioner of the Central Provinces, is posted to the Betul District as Civil Surgeon.

Surgeon A. H. JACOB, Madras Establishment, doing duty in the Eastern District, is posted to the Burmah Division, vice Surgeon W. H. Karney.

Surgeon-Major J. S. WILKINS, Bombay Establishment, officiating in medical charge 21st Native Infantry, is directed to act as Presidency Surgeon to the Second District in addition to his other duties during the absence of Brigade-Surgeon E. H. R. Langley.

The undermentioned gentlemen have obtained leave of absence for the periods specified:—Surgeon-Major J. C. FULLERTON, Bengal Establishment, Agency Surgeon, Beloochistan, for one year and 213 days on private affairs; Surgeon-Major P. F. O'CONNOR, Bengal Establishment, Medical Officer to the Native Cavalry, for one year; Surgeon D. F. BARRY, Bengal Establishment, 15th Native Cavalry, for one year on private affairs; Surgeon-Major J. DAVIDSON, M.B., Bombay Establishment, in medical charge of Bombay Sappers and Miners, for two years on private affairs.

Surgeon J. A. CLARK, late of the Bengal Establishment, died at Park Circus, Ayr, on the 4th instant.

THE YEOMANRY AND VOLUNTEERS.

SURGEON C. H. GAMBLE, of the Royal North Devon Yeomanry, has resigned his commission, which bore date May 21st, 1867; he is granted the honorary rank of Surgeon-Major, and is permitted to retain his uniform.

Mr. JAMES MOIR is appointed Acting Surgeon to the 2nd Volunteer Battalion Royal Scots Fusiliers (formerly the 2nd Ayrshire).

Acting-Surgeon J. H. DAVIES, of the 2nd Volunteer Battalion Welsh Regiment (late the 1st Glamorgan), is promoted to be Surgeon to the same corps.

Surgeon R. ROBERTSON, M.D., and Acting-Surgeon F. G. TOOKER, M.D., of the 19th Lancashire (Liverpool Press Guard) have resigned their commissions; that of the former was dated October 16th, 1872, that of the latter April 18th, 1885.

Acting-Surgeon D. C. SMITH, of the 2nd Volunteer Battalion Norfolk Regiment (late the 2nd Norfolk) has resigned his appointment, which was dated December 11th, 1886.

Mr. J. E. LANE, M.D., has been appointed Acting-Surgeon to the 3rd Volunteer Battalion East Surrey Regiment (otherwise known as the 5th Surrey Volunteers).

THE ALEXANDER MEMORIAL PRIZE.

THIS prize of £50 and a gold medal of the value of £10 has been awarded to Surgeon Robert Hammill Firth, F.R.C.S. Eng., Medical Staff, for the best essay on "The Relations between the Food and Work of the British Soldier." The subject for the next competition is, "The Use of Drugs in the Treatment of Disease in the Army; the Principles on which Medicines should be selected so as to meet the Requirements of Field Service." The competition is limited to executive medical officers of the army on full pay. All essays to reach the President of the Committee on or before December 31st, 1890. The conditions of competition will be found in our advertising columns.

SURGEON-GENERAL MOORE, C.I.E., who has vacated his appointment and severed his connection with the Bombay Presidency, has, on the eve of his departure, met with a singularly appropriate and almost unprecedented recognition at the hands of the medical officers and subordinates in Bombay; over whom he presided as the head of the department for nearly three years. A

subscription has been started in the Civil Medical Department to obtain a bust and portrait of Dr. Moore, the balance, if any, to be used for providing a medical prize or scholarship in his name. A few weeks ago a dinner was given in his honour by the members of the medical service at Poonah; and a similar entertainment was given more recently in Bombay. The committee of the Bombay Medical Union have forwarded a letter expressing their regret at his departure.

MEDICO-LEGAL AND MEDICO-ETHICAL.

MASON v. DRS. MARSHALL AND SHAW, AND OTHERS.

This action was tried before Mr. Justice Field, and occupied three days. Fortunately it ended favourably for the medical men. A victory in such cases is only one step better than a defeat. Worry and expense are inevitable.

Medically the case appears to have been plain enough. A young lady developed ideas of suspicion, and fancied people turned against her; she had hallucinations, and refused food. These symptoms induced her to avoid her friends, and caused them to fear that she would commit suicide. Medical men were called in, who, without fee or reward, signed certificates under which she was sent to an asylum. She was transferred to two other asylums, and was seen by commissioners and visitors; at the end of over two years she was removed from asylum care, and a year later took these proceedings against the medical men who signed the certificates. The action, so far as it interests us, asserted malice and conspiracy, as well as negligence, against the medical men; but the first two pleas were withdrawn, and the question of negligence alone remained to be tried.

There are some noteworthy points in the proceedings at the trial to which we shall refer. First, the power of attacking medical men through certificates which were accepted as sufficient by the Commissioners in Lunacy. Certificates must, especially when signed in the earlier stages of insanity, or when signed for "suspicious" or profoundly melancholic patients, contain inferences as much as simple facts. We never understood that certificates must be more than evidence of insanity of a kind requiring special detention. They cannot be exhaustive. Medical men have, in the interests of society, to run risks enough in signing certificates, and do not expect to find enemies in their own profession. We regret that two medical men at the trial gave evidence for the plaintiff in this case, one of whom is reported to have said "he had seen the defendants' certificates, and he was of opinion that a reasonable man would not have signed a certificate of insanity on the facts observed by themselves or reported to them."

The other medical man declined to go so far as to say "that rambling, incoherent conversations, refusal to answer questions, and vague statements of ill-usage" were sufficient to justify the certificates; and thus, though called to curse, he involuntarily was forced to bless. Such symptoms might cover acute mania or weak-mindedness, with suspicion of the worst form.

The general evidence of the trial was conclusive. The judge on several occasions endeavoured to get the plaintiff to reconsider her conduct, but it was fought to the bitter end. We quote parts of the judge's summing-up. "It was most important that insanity should be taken in its incipient stage, when alone there was a possibility that by proper treatment the patient might be cured." "Again, with regard to medical men, if it were to come to this that no respectable medical man would put his hand to a certificate it would be a most unfortunate thing for patients themselves. No doctor was bound to act, but, if he acted, he undertook a duty and was responsible for any breach of it." "As to the mode of procedure in the case, his lordship said the doctor's general duty was to take proper care and skill, and it was alleged they had not done that. There was no suggestion of any particular act of negligence; the whole case was that their inquiry and investigation were insufficient." "The only evidence as to the alleged negligence was contained in the plaintiff's own account of the interviews with the doctors. Certain of the acts reported to the doctors and mentioned in their certificates were not denied." "They had the views of experts, and they had, what was more important, the conduct of certain persons whose duty it was to examine the certificates, and to act or refuse to act upon them, and those five or six gentlemen, having examined and acted upon

the certificates, the jury would consider whether they were sufficient or not."

His lordship left these, among other questions, to the jury. "Did (1) Dr. Marshall or (2) Dr. Shaw sign his certificate without due care?" Answer of the jury, "No."

"Were the conduct, behaviour, and appearance of the plaintiff at the times in question such as to induce the defendants, or any and which of them, to believe, and did they honestly and bona fide believe that she was a person of unsound mind and a fit and proper person to be taken charge of and detained under care and treatment, and were the acts complained of done by the defendants acting honestly on such belief?"—"Yes."

"Was the plaintiff at the times in question of unsound mind and a proper person to be taken charge of and detained under care and treatment?"—"Yes."

The conclusion of the case is so far satisfactory, and we are glad to find Mr. Justice Field more alive to the importance of medical evidence than was suspected after some recent judicial decisions involving such evidence.

The exceptional question submitted by "Beds" is one for his own consideration. At the same time, it may be judicious to note that we cannot regard the idea otherwise than as objectionable and repellent.

DECEASED PATIENTS.

F.R.C.S.—Fees due to medical men for attendance during illness, whether the last or not, rank as simple contract debts. If the estate is unable to pay in full, they are entitled to no priority. There may be cases in which such fees have been paid without objection, but no court would give a medical man preference over other creditors in respect of such fees.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, March 19th.

Scotch Universities Bill.—The Marquis of LOTHIAN presented a Bill for the better administration and endowment of the universities of Scotland.—The Bill was read a first time.

Tuesday, March 20th.

Lunacy Acts Amendment Bill.—On the report of amendments to this Bill, EARL SPENCER moved the following amendment:

Where an agreement has been entered into, or shall hereafter be entered into, between the committee of visitors for any county appointed to provide an asylum for the pauper lunatics of the said county and the committee of visitors appointed to provide an asylum for the pauper lunatics of any borough, for the lodging, maintenance, medicine, clothing, and care in the said county asylum for each pauper lunatic not wholly chargeable to the said borough, then all money payable or to be paid under the said agreement for all charges (except lodging) for the pauper lunatics so belonging to the said borough (notwithstanding any Act of Parliament to the contrary) be paid in the following way, namely, the guardians of the union shall pay to the treasurer of the said asylum for each pauper lunatic within the said borough (and not wholly chargeable thereto) the same sum as shall from time to time be charged for each pauper lunatic in the lunatic asylum belonging to the said county, and the difference between that sum and the total sum to be paid under the said agreement by the said committee of justices for the said borough for each borough pauper lunatic as before mentioned, shall be a charge upon the borough rates, and paid by the treasurer of the said borough to the treasurer of the said asylum.

—Lord BALFOUR of BURLINGHAM said the amendment not only would not make any alteration in the law, but it would not meet all cases which were now provided for. He thought that the noble earl had overlooked the Act of 30 and 31 Victoria, which dealt with this question.—The amendment was withdrawn and the report was received.

HOUSE OF COMMONS.—Friday, March 16th.

Sick Leave Allowances.—Sir WALTER FOSTER asked the Under-Secretary of State for India whether an executive officer of the Medical Staff in India, who officiated for less than one month as Deputy Surgeon-General, in the absence of the Deputy Surgeon-General on sick leave or furlough, received no allowances for the period, although he performed the duties in addition to his other duties; whether, in such an instance, the half-staff of the appointment reverted to the State; whether the acting officer would be held pecuniarily liable in the event of loss of stores or other mistakes; and, whether officers officiating on the military (combatant) staff, in a similar way, drew the half-staff for the broken periods; and, if so, why the difference was made in the case of medical officers.—Sir J. GOSSET said: No reply has yet been received to the despatch on the subject of sick-leave allowance, which was addressed to the Government of India in July last. The Secretary of State will call the attention of the Government of India to the delay which has taken place.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON SANITARY DISTRICTS DURING 1887.

In the accompanying table will be found summarised the vital and mortal statistics for 1887 of the forty sanitary districts of the metropolis. Quarterly summaries of these statistics have already appeared in these columns. The mortality figures in the table relate to the deaths of persons' actually belonging to the respective sanitary districts, and are the result of a complete system of distribution of the deaths occurring in the public institutions of London among the various sanitary districts in which the patients had previously resided. By this means the precise number of deaths of persons belonging to the different sanitary districts is known, as all deaths occurring in institutions of persons who had previously resided in another sanitary district have been excluded from the total deaths in the district in which the institution is situated, and credited to the districts from which they came. By this means alone can reliable data be secured upon which to calculate trustworthy rates of mortality.

The births registered in London during the year 1887 were 133,075, equal to an annual rate of 31.7 per 1,000 of the population, estimated at 4,216,192 persons. The London birth-rate has steadily declined, year by year, since 1876, when it was 35.9 per 1,000, and was lower during the year under notice than in any

year since 1849, when it was also 31.7 per 1,000. In the various sanitary districts the birth-rates showed the usual wide variations, owing to the differences in the age and sex distributions of their populations. In those districts containing an undue proportion of unmarried females, chiefly domestic servants, such as Kensington, St. George Hanover Square, St. James Westminster, and Hampstead, the birth-rates are exceptionally low; while in Fulham, St. Luke's, most of the East districts, and Southwark, where the population consists largely of young married persons, the birth-rates show a marked excess.

The 81,113 deaths registered in London during the year under notice were equal to an annual rate of 19.3 per 1,000 of the estimated population, which was lower than in any year since the present system of civil registration was established in 1837. During the past seven years of the current decade, the mean death-rate in London has been only 20.4 per 1,000, while it was equal to 24.4 in the ten years 1861-70, and to 22.5 in 1871-80. The recent marked decline in the London death-rate is to some extent due to the decline in the birth-rate, which materially diminishes the proportion of young children in the population. The lowest rates of mortality among the forty sanitary districts during 1887 were 13.0 in Hampstead, 14.3 in Plumstead, 15.2 in Kensington, 15.9 in Paddington, and 16.0 in Hackney. In the other districts the rates ranged upwards to 27.0 in St. George Southwark, 28.3 in Holborn, 28.5 in St. Saviour Southwark, and 28.7 in St. George-in-the-East. During the year under notice 12,627 deaths were referred to the principal zymotic diseases in London; of these, 3,762 resulted from diarrhoea, 2,928 from whooping-cough, 2,893 from measles, 1,431 from scarlet fever, 951

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Complete Distribution of Deaths occurring in Public Institutions, during the Year 1887.

Sanitary Areas.	Estimated Population in 1887.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Undefined Fevers.	Diarrhoea.	Deaths of Children under one year of age to 1,000 births.
				Births.	Deaths.	Principal Zymotic Diseases.											
ONDON	4,216,192	133,075	81,113	31.7	19.3	3.0	12,627	9	2,893	1,431	951	2,928	18	587	48	3,762	158
<i>West Districts</i>																	
addington	111,065	2,916	1,779	26.1	15.9	1.7	188	1	32	38	29	19	—	11	1	57	128
ensington	190,357	3,040	2,882	20.8	15.2	2.2	417	1	109	44	40	87	—	12	3	121	172
ammersmith	93,798	2,941	1,780	31.5	19.0	3.8	337	—	101	26	44	52	1	13	2	98	156
ulham	58,866	2,870	1,431	48.9	24.4	4.6	269	—	79	30	19	30	—	16	—	95	159
elsea	99,887	3,211	2,098	32.3	21.1	3.5	346	—	108	24	19	57	1	27	1	109	160
St. George, Hanover Square	88,102	1,749	1,422	19.9	16.2	1.9	164	—	31	31	13	23	—	6	2	58	157
estminster	55,042	1,546	1,200	27.9	21.5	3.1	173	—	40	12	25	28	—	8	—	60	186
St. James, Westminster	27,849	572	508	20.6	18.2	1.8	50	—	11	7	3	15	—	2	—	12	177
<i>North Districts</i>																	
arleybone	150,468	4,740	2,988	31.6	19.9	2.2	326	—	62	49	14	89	—	18	2	101	138
ampstead	55,629	1,399	721	25.2	13.0	1.4	80	—	14	11	13	16	—	3	—	23	107
St. Pancras	243,125	4,805	4,805	31.1	19.8	2.9	699	—	147	59	62	204	—	26	1	260	165
lington	325,007	9,726	5,699	29.9	17.5	3.2	1,036	—	335	59	46	240	2	38	7	309	160
ackney	231,003	6,589	3,704	28.5	16.0	2.3	522	—	114	56	40	138	—	40	2	132	140
<i>Central Districts</i>																	
Giles	40,699	1,216	1,059	30.0	26.1	2.7	110	1	15	20	23	21	—	2	—	27	165
Martin-in-the-Fields	15,420	392	323	19.7	21.0	2.0	31	—	5	4	5	4	—	2	—	10	225
rand	29,708	718	694	24.2	23.4	2.7	79	—	8	9	10	19	—	9	—	24	202
ilbourn	31,052	940	876	30.4	28.3	2.9	91	—	24	9	9	21	—	—	—	23	228
erkenwell	69,745	2,363	1,543	34.0	22.2	3.9	269	—	69	23	17	57	—	12	—	90	171
St. Luke's	52,000	1,300	1,142	38.4	22.0	3.0	157	—	39	21	12	26	—	11	—	45	141
ndon City	40,061	781	920	19.6	23.0	1.3	52	—	14	5	5	13	—	2	—	12	178
<i>East Districts</i>																	
orditch	125,452	4,681	2,957	37.4	23.7	4.1	517	—	116	48	27	139	—	25	—	162	184
tham Green	130,619	4,889	2,917	38.3	22.4	3.2	413	1	72	60	27	102	3	29	2	117	188
itchapel	67,865	2,572	1,577	38.0	23.3	3.3	222	—	57	26	6	32	—	8	—	93	160
George-in-the-East	46,316	1,867	1,325	40.4	28.7	5.2	239	1	79	9	15	41	—	11	—	83	187
ney	58,716	2,063	1,478	35.3	25.3	4.7	273	—	76	31	14	68	—	—	1	76	215
the End Old Town	113,017	3,651	2,284	35.1	20.1	4.2	477	—	100	38	22	143	—	22	—	152	159
plar	182,706	5,976	3,307	32.8	17.6	2.8	505	—	120	29	30	171	—	23	—	131	160
<i>South Districts</i>																	
Saviour, Southwark	27,377	945	779	34.6	28.5	4.8	130	—	28	22	8	27	—	6	—	39	199
George, Southwark	59,606	2,251	1,692	37.9	27.0	5.3	313	—	73	88	12	64	—	1	—	68	199
ington	118,991	4,045	2,462	31.1	20.8	3.8	453	—	81	91	27	137	1	7	—	97	163
Olave, Southwark	10,375	392	272	38.3	26.6	3.1	32	—	5	9	2	3	—	1	—	11	270
mondsey	89,434	3,200	2,000	35.9	22.4	4.2	374	—	89	62	16	90	—	10	—	106	170
berthillie	41,883	1,450	845	34.8	20.3	3.1	129	—	10	24	6	29	—	—	—	52	168
ndbeth	280,235	9,199	5,220	32.6	18.7	3.2	904	1	154	121	105	182	—	43	—	283	154
ndsworth	277,026	9,134	4,528	33.1	16.4	2.7	739	—	117	100	51	156	3	29	2	251	139
erwell	246,514	7,447	4,134	30.3	16.8	3.1	769	—	130	100	65	208	4	35	3	229	152
erwich	152,072	5,326	2,991	35.1	19.7	2.8	424	1	131	32	37	86	—	27	2	107	141
esham	38,410	1,737	948	28.8	16.3	1.7	98	—	27	0	11	20	—	5	—	26	126
olwich	36,984	1,323	795	35.9	21.6	2.1	78	—	11	—	3	27	—	4	—	31	157
mpstead	80,241	2,581	1,141	32.3	14.3	1.8	142	2	27	4	19	48	—	5	—	42	110

from diphtheria, 653 from different forms of fever (including 587 from enteric fever, 48 from ill-defined forms of continued fever, and 18 from typhus), and 9 from small-pox. These 12,627 deaths were equal to an annual rate of 3.0 per 1,000, which, though slightly exceeding the rate in 1886, was considerably below the average rate in the preceding ten years 1877-86. The zymotic death-rate during the year 1887 in the various sanitary districts did not exceed 2.0 per 1,000 in London City, Hampstead, Paddington, Lewisham, St. James Westminster, Plumstead, and St. George Hanover Square; while it was equal to 4.2 in Mile End Old Town and in Bermondsey, 4.6 in Fulham, 4.7 in Stepney, 4.8 in St. Saviour Southwark, 5.2 in St. George-in-the-East, and 5.3 in St. George Southwark. Compared with the preceding year, the fatality of small-pox, "fever," and diarrhoea showed a slight decline, while that of each of the other zymotic diseases showed an increase. The mortality from scarlet fever, which last year considerably exceeded that recorded in either of the two previous years, was yet below the average for the ten preceding years 1877-86. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals, which had been 496 at the commencement of the year 1887, had risen to 2,600 at the end of November, after which it declined, and was 2,041 at the end of the year. The admissions, which had been 531, 475, and 688 in the first three quarters of the year, rose to 2,187 during the last three months of 1887. Measles showed the highest proportional fatality in Hammersmith, Chelsea, Fulham, St. George Southwark, Stepney, and St. George-in-the-East; scarlet fever in Fulham, St. Giles, Lambeth, Rotherhithe, Bermondsey, and Newington; diphtheria in Westminster, Lambeth, Hammersmith, and St. Giles; whooping-cough in Shoreditch, Newington, Stepney, and Mile End Old Town; "fever" in Shoreditch, Bethnal Green, St. George-in-the-East, Chelsea, and St. Luke's; and diarrhoea in Clerkenwell, Stepney, Mile End Old Town, Whitechapel, and St. Saviour Southwark. Only 9 deaths were referred to small-pox in the metropolis during the whole of 1887, the lowest number on record; of these, 4 belonged to South London, 2 to West, 2 to East, and 1 to Central London. Sixty-three small-pox patients were under treatment during the year under notice in the Metropolitan Asylums Hospitals, of whom 30 were admitted during the last three months of the year.

Infant mortality in London during 1887, measured by the proportion of deaths under one year of age to births registered, was equal to 158 per 1,000, against an average rate of 152 in the preceding ten years 1877-86. While the rate of infant mortality did not exceed 107 per 1,000 in Hampstead, 110 in Plumstead, 126 in Paddington and in Lewisham, and 138 in Marylebone, it ranged upwards in the other sanitary districts to 202 in Strand, 215 in Stepney, 225 in St. Martin-in-the-Fields, 228 in Holborn, and 270 in St. Olave Southwark.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, March 17th, 5,560 births and 3,656 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 living in these towns, which had been 21.5 and 23.3 in the two preceding weeks, declined again to 20.3 during the week under notice. The rates in the several towns ranged from 12.8 in Leicester, 15.5 in Hull, 16.0 in Wolverhampton, and 16.5 in Birmingham, to 26.2 in Norwich, 27.4 in Cardiff, 27.8 in Preston, and 31.6 in Blackburn. The mean death-rate in the twenty-seven provincial towns was 20.9 per 1,000, and exceeded by 0.8 the rate recorded in London, which was only 20.1 per 1,000. The 3,656 deaths registered during the week under notice in the twenty-eight towns included 363 which were referred to the principal zymotic diseases, against 366 and 442 in the two preceding weeks; of these, 148 resulted from whooping-cough, 49 from scarlet fever, 46 from measles, 33 from diphtheria, 33 from "fever" (principally enteric), 30 from diarrhoea, and 24 from small-pox. These 363 deaths were equal to an annual rate of 2.0 per 1,000; in London the zymotic death-rate was 2.2, while in the twenty-seven provincial towns it averaged 1.8 per 1,000, and ranged from 0.0 in Halifax and 0.5 in Birkenhead and in Hull, to 3.9 in Blackburn, 4.1 in Sheffield, and 7.4 in Plymouth. Measles caused the highest proportional fatality in Nottingham and Plymouth; scarlet fever in Oldham and Blackburn; whooping-cough in Brighton, Blackburn, Salford, and Norwich; and "fever" in Cardiff and Derby. The 33 deaths from diphtheria in the twenty-eight towns included 22 in London and 2 in Manchester. Of the 24 fatal cases of small-pox recorded during the week under notice,

18 occurred in Sheffield, 2 in Bristol, 2 in Manchester, and 2 in Huddersfield. The Metropolitan Asylums Hospitals contained 17 small-pox patients on Saturday, March 17th, of whom 6 had been admitted during the week. These hospitals, also contained 1,160 scarlet fever patients on the same date, against 1,295 and 1,201 in the two preceding weeks; there were 94 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 5.6 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 760 births and 531 deaths were registered during the week ending Saturday, March 17th. The annual rate of mortality, which had increased from 22.6 to 24.2 per 1,000 in the three preceding weeks, declined again to 21.0 during the week under notice, but exceeded by 0.7 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the lowest rates were recorded in Greenock and Aberdeen, and the highest in Paisley and Glasgow. The 531 deaths in these towns during the week under notice included 47 which were referred to the principal zymotic diseases, equal to an annual rate of 1.9 per 1,000, which almost corresponded with the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Leith and Glasgow. The largest proportional fatality of measles occurred in Edinburgh, and of whooping-cough in Glasgow. Five deaths from diphtheria were recorded in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.6 per 1,000, and corresponded with the rate from the same diseases in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, March 17th, the deaths registered in the sixteen principal town-districts of Ireland were equal to an annual rate of 29.4 per 1,000. The lowest rates were recorded in Newry and Kilkenny, and the highest in Lisburn and Londonderry. The death-rate from the principal zymotic diseases in these towns averaged 3.5 per 1,000, and was highest in Lurgan and Lisburn. The 190 deaths registered in Dublin during the week under notice were equal to an annual rate of 29.0 per 1,000, which showed a further decline from the rates in recent weeks. The 190 deaths included 19 from the principal zymotic diseases (equal to an annual rate of 2.8 per 1,000), of which 8 were referred to different forms of "fever," 5 to measles, 3 to scarlet fever, 2 to diarrhoea, and 1 to diphtheria.

DAMAGES FOR DEFECTIVE HOUSE DRAINS.

A CASE of some hygienic and public importance came last week before Mr. Commissioner Kerr in the City of London Court. Two ladies sought to recover £25, damages sustained by them by reason of the defendant's misrepresentations as to the state of the drainage at the house occupied by them as tenants at a rental of £90 a year. It was stated for the plaintiffs that a distinct assurance was given either by the defendant or his agent that the drains were in perfect order; but soon after the plaintiffs entered into possession they discovered that the drains were defective. Some repairs were made, and then came a plague of rats, as many as twenty-two having been killed in a fewer number of days. When complaint of this was made to the agent, he philosophically replied that "they would go away in due course." It was also stated that as the result of the insanitary state of the house the plaintiffs' boarders became ill and left, and the plaintiffs had suffered loss to the extent of the sum claimed.

Mr. Commissioner Kerr recognised the claim, and gave judgment for the plaintiffs for £10, with costs on the higher scale.

EXHAUSTION AND DESTRUCTION OF SEWER-GAS BY MEANS OF A STRONG AND DESTRUCTIVE HEAT.

MR. SPENCER HURLBUTT (Fulham Union Infirmary, Hammersmith, W.), writes with reference to Dr. Russell's report on the action of Keeling's sewer-gas exhausters and destructors, at Baling (JOURNAL, March 17th, p. 618):—"Professor Wanklyn's report of the action of this apparatus contains the following paragraph:—"A consumption of one cubic foot of coal gas in the destructor effect the extraction of 500 cubic feet of air from the sewers." The point of vital importance appears to me to be contained in the concluding paragraph of your valuable article, namely:—"A definite extraction of foul sewer-air, in stagnant conditions of weather, and regardless of external temperature, in the air of hospital wards can be definitely extracted and purified at the rate of say, 10,000 cubic feet per hour, night and day, by such means as Keeling's exhauster and destructor, and if the sewer-air of such institutions can be prevented from being discharged into the atmosphere and consumption of only a cubic feet of coal gas per twenty-four hours, by the consumption of only a cubic feet of coal gas per hour, it appears to me to be not only rational but imperative, that such means and safeguards should be employed."

WORKHOUSE INQUESTS.

Dr. T. MARSDEN (The Square, Bridgwater) writes: I have held the appointment of medical officer (non-resident) to the Bridgwater Workhouse for about six years. During this period I have received the usual fee for attendance and evidence at inquests held at the workhouse, but at the last inquest, a short time ago, was informed by the coroner that under the Coroners' Act, Section 23, Sub-section 2, of Act 50 and 51 Vict., he, the coroner, was under the impression he could no longer grant a fee, on the ground that a workhouse came within the meaning of the Act referred to. As this ruling would do away with all workhouse inquest fees for the future, I would gladly have the opinion of other medical officers as to the right course to pursue. I have stated the facts to the Local Government Board, under whom I hold the appointment, and am informed that as the matter is not one in which the Board have any jurisdiction, they are not prepared to express any opinion on the question submitted.

My intention is to sue for the amount in the county court, but I wish to be strengthened by the knowledge that the workhouse medical officers have not been withheld similar fees.

* * * It is not advisable to sue in the county court, as the case would be decided against our correspondent. Some coroners still continue to give the fee, though they are not legally compelled to do so.

HOSPITAL AND DISPENSARY MANAGEMENT.

PROPOSED HOSPITAL FOR LUNATICS.

Dr. WHITCOMBE, the superintendent of the Winson Green Asylum, has recommended that a separate hospital for the insane should be erected by the Birmingham Town Council. He is convinced that the medical treatment of the insane in asylums scarcely deserves the name—nay, more, he maintains that recent cases are injured by their admission into a lunatic asylum as at present constituted. Were this plan adopted, he prophesies that 60, instead of 40, per cent. of the cases admitted would be cured. We admire Dr. Whitcombe's enthusiasm, and we sincerely hope that his proposal will be adopted. We are not, however, so sanguine as he is in regard to the increased number of recoveries which will take place. We think he will discover what many have discovered before him—that an enormous proportion of cases are associated from the beginning with such a degree of mental degeneration or insane inheritance that anything like 60 per cent. of recoveries is impossible. If it be otherwise, if this high percentage is attainable, we are strongly of opinion that there is no good reason why it should not be attained in existing well-constructed asylums, officered as they are by properly qualified medical men. Every accommodation is provided, enormous sums are spent upon the proper construction of these institutions; baths, and, indeed, every appliance that the superintendent demands are granted by the authorities.

It has long been the boast of England that everything is done to facilitate the treatment of the insane in county asylums. Several years ago Dr. Bucknill wrote that the idea of medical treatment seemed to have been given up in asylums for the insane, and he cast no blame on their construction or the surroundings of the patients. The scepticism with which so many superintendents meet the suggestion of definite medical treatment suited to the individual case is, no doubt, sufficiently depressing; but seeing that it exists in spite of all the advantages at the command of asylum physicians to which we refer, we are at a loss to see how it would be succeeded by faith in medical treatment by the establishment of hospitals such as Dr. Whitcombe proposes. They exist ready in Germany in several university towns, but they end in simply resembling the ward for recent or destructive patients in an English county asylum. We believe that the results of treatment are no better than they would be under the judicious treatment of a capable superintendent of the Winson Green Asylum, under his present conditions. If such is the fact, we regard the frequent exclamation of county asylum superintendents, that they would receive a great many more patients if they had only had a separate building on the hospital system, as the painful cry of despair rather than a scientific opinion justified by any facts attainable where the experiment has been tried. By all means, however, let Dr. Whitcombe's prophecy be put to the test, and, should it be fulfilled, we shall have great pleasure in recording the fact.

In this connection we may note that a new hospital is to be erected near the Montrose Asylum, which is to accommodate fifty patients of each sex. The cost of this building will be about £3,000. There is to be a resident medical officer whose "entire duty" is to use the conventional language of the hopeful and confident framers of asylum rules, is to be "devoted to the treatment of patients in the hospital." The object of this building is not the same as that proposed by Dr. Whitcombe. It is, properly speaking, an infirmary, and is intended for those patients who are

suffering from acute illness, the feeble, and the paralytic, and, in short, all cases requiring medical care. Dr. Howden, the superintendent for many years of the Montrose Asylum, has no doubt advised the architect in every detail of this establishment, and nothing appears to be wanting in the appliances down to the smallest detail, judging from a description given in the *Dundee Advertiser*, March 17th, in which an elevation of the hospital is given. It is a handsome structure.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE report of this hospital records the noteworthy fact that in two years the Total Abstinence Sons of the Phoenix had collected and paid into the funds £300, and that the Mile End Working Men's Society had enrolled seven of its members as life-governors, at a cost of seventy guineas. Like most of the other great hospital charities, this institution is in great need of funds.

CASTLEBAR LUNATIC ASYLUM.

THE resident medical superintendent in his annual report draws attention to the necessity for additional accommodation in this asylum. In consequence of having no day room accommodation, classification is out of the question; besides, the sleeping accommodation is entirely short of the requirements. In November, 1886, fever broke out and forty patients were attacked, the cause of the outbreak being apparently due to overcrowding, and the patients sleeping in a vitiated atmosphere. In January, 1887, Dr. Nugent, inspector of asylums, in a report urged the board to provide additional accommodation, as the overcrowding was dangerous to the health of the inmates. Plans were prepared last May to build for 120 patients, and were forwarded to the Board of Control, but the latter were of opinion that 152 should be allowed for, and that more cubic space should be given for each inmate. Nothing has been done since, although the attention of the Board has been directed to the matter, and the amended plans have been before them for some months.

THE DENTAL HOSPITAL OF LONDON.

At the annual general meeting of the Dental Hospital of London recently held, some interesting results of the working of this institution were given. Some fourteen years ago the hospital was moved from its old site in Soho Square to its present one in Leicester Square, and during these fourteen years the work of the hospital and the medical school thereto attached has enormously increased. The report shows that the actual number of patients treated in 1887-8 was over 47,000, or 15,500 more than in 1874. This large increase in numbers has sorely taxed the resources of the present hospital and staff, and it has been necessary to increase the size of their building. This has been effected by purchasing adjoining property, and converting it into a new (west) wing, which was opened after the meeting. The cost of the improvements amounts to a considerable sum, and was met partly by a munificent gift of £1,000 from the medical staff and lecturers, and £500 from Miss Claudius Ash, and partly by smaller sums from other friends. The deficit still amounts to £5,700. The present hospital and school will well repay a visit when the recent additions of a handsome lecture theatre, patients' waiting-rooms, extraction and operating (filling) rooms should be seen.

UNIVERSITY INTELLIGENCE.

OXFORD.

NOTICE is given to candidates for the second examination for the degree of Bachelor of Medicine, who offer all the subjects of that examination together, and who passed the first examination for the said degree under the statutes in force before 1886, that the examination in materia medica and pharmacy will in their case be conducted as it was under the provisions of the old statute.

An election to the Sherardian Professorship of Botany will be held in the course of next term. A fellowship in Magdalen College is now attached to the professorship. The stipend of the professor, inclusive of this, will be £700 per annum. Application to be made to the registrar on or before May 1st.

CAMBRIDGE.

On March 5th, Robert Michael Simon, M.B., of Genville and Caius College, duly performed the exercises for the degree of M.D. Thesis "Brass-workers' Diseases."

OBITUARY.

ROBERT GORDON LATHAM, M.D.(CANTAB.), F.R.C.P., F.R.S. We briefly announced last week the death, on March 9th, of Dr. R. G. Latham, who was for many years a leading authority in this country on comparative philology and ethnology.

Robert Gordon Latham was born at Bellingborough Vicarage, Lincolnshire, on March 24th, 1812, the eldest son of the Rev. Thomas Latham. He was admitted on the foundation of Eton College in 1821, and entered at King's College, Cambridge, in 1829. He graduated B.A. in 1833, and immediately went abroad, first to Hamburg, and afterwards to Copenhagen and Christiania. A product of this time is seen in his translation of Bishop Tegner's *Frithiof Saga*, and in a work on *Norway and the Norwegians*, published in 1840. He became Professor of English Language and Literature in University College, London, in 1839. He had been elected a Fellow of King's College, Cambridge, and had studied medicine in St. Bartholemew's Hospital, when in 1842 he obtained the licence of the College of Physicians, and commenced to practise medicine in London. In the same year he became Physician to St. George's and St. James's Dispensary, and in 1845 he was appointed Lecturer on *Materia Medica* and on Forensic Medicine at the Middlesex Hospital Medical School. In the following year he became Assistant Physician to that hospital. He was, however, already deeply engaged in the study of the subjects in which he subsequently became famous, and in 1841 the first edition of his great work on *The English Language* appeared; a second and enlarged edition was published in 1848, a third in 1850, a fourth in 1855. Long before this, however, he had retired from the medical profession. He resigned the post of Lecturer on *Materia Medica* in 1849, and that of Assistant Physician in 1850, being in both cases succeeded by Dr. A. P. Stewart. In the former year his place as Lecturer on Forensic Medicine was taken by Dr. Goodfellow. Dr. Latham's chief, if not his only, contribution to medical literature, was an edition of the works of Sydenham, with a translation prepared for the Sydenham Society; to this volume Dr. Latham prefixed a life of the great English physician.

Several textbooks on English grammar were written by Dr. Latham, and have been known to many generations of students. One of his most successful was a *Handbook of the English Language*, published in 1851; it attained the honour of a ninth edition in 1875. His *magnum opus* was an edition of Johnson's Dictionary which came out in parts, and was subsequently re-issued in an abridged form. He wrote also much on comparative philology, one of his most recent works being an *Outline of General or Developmental Philology*; and many years before he had prepared the vocabularies for Mr. A. R. Wallace's book of travels in the Amazon and Rio Negro.

As with philology, his most important contributions to ethnology were systematic treatises, and he did much good work in laying the foundation upon which the modern science has been built. In quick succession he published works on the ethnology of the British Colonies and dependencies, of the British Islands, of Europe, and of India, the first appearing in 1851 and the last in 1859; but he had previously published an essay on "Man and his Migrations," and later a large work on *Nationalities of Europe* (1863). He was, according to his friend, Theodore Watts, the originator, in 1862, of the theory that the Aryan race had its cradle in Europe and not in Asia, a theory which has come into much prominence lately.

For many years before his death Dr. Latham had lived a very retired life, and for the last ten years nothing of any importance had come from his pen. He belonged to a generation which has passed, a generation of encyclopædists who have been replaced by a race of specialists. His death was due to brain disease, which had produced aphasia.

POST-GRADUATE COURSE IN DENTISTRY.—The Dental Hospital of London, Leicester Square, has announced a post-graduate course of demonstrations for registered medical practitioners and dentists. It is intended to make the course one of a very practical character. Two demonstrations are to be given each day, and include such subjects as treatment of fractured maxillæ, of pyorrhœa alveolaris, alveolar abscess, fittings and stoppings of various kinds, etc.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a Special Examination for the licence to practise Midwifery held on Monday, February 27th, 1888, the following candidate was successful:

John James Orr, M.D. R.U.I.

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.—Ten of the medical and surgical associations of America have united themselves together under the name of "The Congress of American Physicians and Surgeons." This Congress will hold its first session at Washington, on September 17th, 18th, and 19th, 1888, at which time and place the Association will hold their annual meetings separately as well as conjointly in the Congress. The preliminary programme issued, of which a copy has been forwarded to us, gives the following list of officers. *President*: John S. Billings, M.D., U.S. Army. *Vice-Presidents, ex-officio*: D. Hayes Agnew, M.D., Philadelphia, Pa.; President of the American Surgical Association; Edward L. Keyes, M.D., New York City, President of the American Association of Genito-Urinary Surgeons; Rufus P. Lincoln, M.D., New York City, President of the American Laryngological Association; Alfred L. Loomis, M.D., New York City, President of the American Climatological Association; William H. Draper, M.D., New York City, President of the Association of American Physicians; Jonathan S. Prout, M.D., Brooklyn, N. Y., President of the American Otological Society; William F. Norris, M.D., Philadelphia, Pa., President of the American Ophthalmological Society; James J. Putnam, M.D., Boston, Mass., President of the American Neurological Association; I. E. Atkinson, M.D., Baltimore, Md., President of the American Dermatological Association; Henry P. Bowditch, M.D., Boston, Mass., President of the American Physiological Society; Newton M. Shaffer, M.D., New York City, President of the American Orthopedic Association. *Chairman of the Executive Committee*: William Pepper, M.D., Philadelphia, Pa. *Treasurer*: D. B. St. John Reosa, M.D., New York City. *Secretary*: William H. Carmalt, M.D., New Haven, Conn. Among the subjects announced for report and discussion are the following: September 18th.—Intestinal Obstruction in its Medical and Surgical Relations. Papers will be read by Dr. Reginald H. Titz and Dr. Nicholas Senn, and will be followed by a discussion. September 19th.—Cerebral Localisation in its Practical Relations. Papers will be read by Dr. Charles K. Mills and Dr. Roswell Park, and will be followed by a discussion. September 20th.—Address by the President, John S. Billings, M.D., U. S. Army; to be followed by a general reception in the United States Army Museum Building. The Associations have decided to extend invitations to distinguished gentlemen from abroad, to visit America at that time as their guests, to be considered members of the Congress, and entitled to participate in all the discussions.

LECTURES TO SANITARY INSPECTORS.—The Parkes Museum, Margaret Street, have announced a fifth course of lectures and demonstrations for the instruction of sanitary inspectors, of which the following are the particulars: April 10th. (1) Introductory Lecture—General History, Principles, and Methods of Hygiene, Mr. A. Wynter Blyth, M.R.C.S. April 13th. (2) Ventilation, Measurement of Cubic Space, etc., Sir Douglas Galton, K.C.B., F.R.S. April 17th. (3) Water Supply, Drinking Water, Pollution of Water, Dr. Louis Parkes (Pub. Health Cert. Lond.). April 20th. (4) Drainage and Construction, Mr. E. C. Robins, F.S.A., F.R.I.B.A. April 24th. (5) Sanitary Appliances, Professor W. H. Corfield, M.A., M.D. April 27th. (6) Scavenging, Disposal of Refuse and Sewage, Mr. H. Percy Boulnois, M.Inst.C.E. May 1st. (7) Food (including Milk), Sale of Food and Drugs Act, Mr. Charles E. Cassal, F.C.S., F.I.C. May 4th. (8) Infectious Diseases and Methods of Disinfection, Mr. Shirley F. Murphy, M.R.C.S. May 8th. (9) General Powers and Duties of Inspectors of Nuisances; Method of Inspection, Mr. J. F. J. Sykes, B.Sc. (Pub. Health), M.B. May 11th. (10) Nature of Nuisances, including Nuisances the Abatement of which is Difficult, Mr. J. F. J. Sykes, B.Sc. (Pub. Health), M.B. May 15th. (11) Sanitary Law—General Enactments, Public Health Act, 1875, Model By-laws, Dr. Charles Kelly, F.R.C.P. May 18th. (12) Metropolitan Acts, By-laws of Metropolitan Board of Works, Mr. A. Wynter Blyth, M.R.C.S. A nominal fee only of five shillings for the course will be charged to cover expenses, and students attending the course will be granted free admission to the Museum and Library from April 1st to June 1st.

ROYAL HOSPITAL FOR SICK CHILDREN.—The Directors of the Royal Hospital for Sick Children, Edinburgh, have appointed Mr. George P. Boddie, M.B. and C.M., and George Wilson, M.B. and M. (at present resident physicians, Edinburgh Infirmary), to be resident physicians in the Sick Children's Hospital, for six months, commencing May 1st.

A SUNDAY COT.—There seems to be no end to the ingenious devices adopted by well-meaning individuals in appealing to the philanthropic for funds for benevolent institutions. The latest is that adopted by a lady who, being born on a Sunday, has adopted the expedient of appealing to other persons born on the same day for funds with which to endow a "Sunday cot" in the hospital for Incurables at Kilburn.

MEDICAL VACANCIES.

The following Vacancies are announced:

ETHNALL HOUSE ASYLUM, Cambridge Road, E.—Junior Medical Officer. Salary, £100 per annum, with board and washing. Application to the Medical Superintendent.

ROUGH ASYLUM, Birmingham.—Clinical Assistant. Board and residence. Applications to E. B. Whitcombe, Esq., Medical Superintendent.

STOL CITY LUNATIC ASYLUM.—Second Assistant Medical Officer. Salary, £150 per annum, with furnished apartments, board, and washing. Applications by March 28th, to the Chairman of the Committee of Visitors, the Council House, Bristol.

RUSSIAN SEAMAN'S HOSPITAL, Cronstadt, St. Petersburg.—Resident Medical Officer. Salary, £180 per annum, with furnished apartments, etc. Applications to H. M. Consul, St. Petersburg.

PARING CROSS HOSPITAL.—Assistant Surgeon. Applications by March 27th to A. E. Reade, Esq., Secretary.

PARING CROSS HOSPITAL.—Surgical Registrar. Applications by March 27th to A. E. Reade, Esq., Secretary.

DERBY BOROUGH ASYLUM.—Medical Superintendent. Salary, £350, with furnished house, etc. Applications by April 13th, to be addressed to the Derby Borough Asylum Committee, under cover to the Town Clerk, and endorsed "Medical Superintendent."

SEX LUNATIC ASYLUM, Brentwood.—Temporary Assistant Medical Officer for three months. Salary, £30 for the term, with board, lodging, and washing. Applications to the Medical Superintendent.

GENERAL INFIRMARY, Northampton.—House-Surgeon. Salary, £125 per annum, with board, etc. Applications by March 27th to the Secretary, S. P. Bennett, Esq.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Resident Clinical Assistants. Applications by April 7th, to the Secretary.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Pleasant, Liverpool.—Medical Officer. Salary, £70. Applications by March 29th, to W. J. Johnson, Esq., Secretary.

DERBY BOROUGH ASYLUM, Willerby.—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications by April 2nd, to the Medical Superintendent.

INFIRMARY FOR CHILDREN, Myrtle Street, Liverpool.—House-Surgeon. Salary, £85, with board and lodging. Applications by April 9th, to C. W. Carver, Esq., Honorary Secretary.

LIVERPOOL DISPENSARIES.—Two Assistant-Surgeons. Salary, £80 per annum, with board, lodging, etc. Applications by March 24th, to E. R. Greene, Esq., Secretary, Leth Office, Moorfields, Liverpool.

TROPICAL ASYLUMS BOARD—SMALL-POX HOSPITAL SHIPS, Long Reach, Dartford.—Clinical Assistant. Board, lodging, etc. Applications by March 27th, to the Clerk to the Metropolitan Asylums Board, Norfolk House, Norfolk Street, W.C.

GENERAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House-Surgeon. Salary, £50 per annum. Applications by March 24th to the Secretary.

PETER'S HOSPITAL FOR STONE, ETC., Henrietta Street, W.C.—Anaesthetist. Salary, £50 per annum. Applications by March 24th to the Secretary.

ST. LONDON HOSPITAL, Hammersmith Road.—Clinical Assistants. Applications to Secretary.

ST. MINSTER HOSPITAL.—Medical Registrar. Salary, £10 per annum. Applications by March 26th to S. M. Quennell, Secretary.

MEDICAL APPOINTMENTS.

FER, W. J. B., Esq., appointed Registrar to the Cancer Hospital, Brompton, vice W. H. Elam, F.R.C.S., resigned.

ALD, Archibald, M.A., O.M. Edin., appointed Surgeon to St. Mary's Hospital for Women and Children, Manchester, vice William Walter, M.A., M.D., resigned.

AL, A. O., M.B. Durh., M.H.C.S. Eng., appointed Pathologist to the Cancer Hospital, Brompton, vice Charles Stouham, F.R.C.S., resigned.

AL, A. F., M.R.C.S., appointed Assistant House-Surgeon to the York County Hospital, vice L. H. Williams, M.R.C.S., resigned.

OS, T. B., M.A., M.B., C.M., appointed Medical Officer to the Aberdeen Dispensary, vice James Brander, M.B., C.M., resigned.

ON, G. A. S., M.A., L.R.C.P. Edin., etc., appointed Resident Medical Officer to the Gainborough Amalgamated Friendly Society Medical Association.

ON, Matthew, M.D., appointed Medical Officer of Health to the city of Aberdeen, vice Theodore Thomson, M.A., M.B., resigned.

OOD, S. P., M.R.C.S., L.R.C.P. Lond., appointed Resident Clinical Assistant to the St. Marylebone Infirmary, vice W. P. Peake, M.R.C.S., L.R.C.P. Lond., resigned.

JACKSON, R. W. H., M.B., B.C.L., appointed House-Surgeon to the City of Dublin Hospital.

JONES, H., M.D., B.S., appointed Medical Superintendent to the Earlswood Asylum for Idiots, Redhill, vice C. S. W. Cobbold, M.D., resigned.

MACKEITH, Alexander Arthur, M.B. Glasg., and C.M., appointed Medical Officer and Public Vaccinator for the Bramford Speke and Upton Pyne districts of the St. Thomas Union, Devon, vice M. L. Brown, M.D., C.M., resigned.

MILLIGAN, William, M.B., C.M. Aberd., appointed Junior House-Surgeon to the Northern Hospital, Liverpool.

OPENSHAW, T. Horrocks, M.B., M.S., F.R.C.S., etc., appointed Curator of the Pathological Museum of the London Hospital Medical College, vice F. Charlwood Turner, M.D., F.R.C.P., resigned.

PEAKE, W. P., M.R.C.S., L.R.C.P. Lond., appointed Assistant Medical Officer to the St. Marylebone Infirmary.

ROLL, G. W., B.A., M.B., M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Leicester Infirmary and Fever House, vice E. Scott Sugden, M.B., resigned.

TYNAN, J. H., L. and L.M., R.C.S. and C.P. Edin., appointed Medical Officer to the Oldcastle Union (Crossroads) vice R. Ridgeway, M.D., F.R.C.S.I.

WALTER, William, M.A., M.D., appointed Physician to St. Mary's Hospital for Women and Children; Manchester, vice C. J. Cullingworth, M.D., F.R.C.P., resigned.

WARD, H. M., appointed Additional Examiner in Botany to the University of Edinburgh, vice Professor Bayley Balfour, resigned.

WATERS, W. E., L.K.Q.C.P.I., L.R.C.S.I., appointed Medical Officer to the Carbury Dispensary District, co. Kildare, vice W. Waters, L.K.Q.C.P.I., M.R.C.S., resigned.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON (Clinical Evening), 8.30 P.M.—Dr. Orwin: A case of Lupus of Mouth, Pharynx, and Larynx. Mr. Edmund Owen: A case of Injury to Lower Epiphysis of Ulna. Mr. William Rose: A case of Gunshot Injury of Knee-Joint. Mr. Davies Colley: A case of Trephining for Middle Meningeal Haemorrhage. Dr. Beevor: A case of Charcot's Disease of Shoulder-Joint. Mr. Walter Pye: A case of Obliterated Arteritis from Crutch Pressure. Dr. Purcell: Two cases of Thiersch-Gould's operation for Removal of Penis. Also cases by Mr. John Morgan and others.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. G. H. Makins: A case of Extroversion of the Bladder treated by Preliminary Division of the Sacro-Iliac Synchondroses. W. J. Walsham, F.R.C.S.: A case of Wound of the Femoral Artery and Vein; Traumatic Varicose Aneurysm; Ligature of both Artery and Vein; Recovery. With remarks on the Treatment of Wounds of the Femoral Artery and Vein.

WEST LONDON HOSPITAL (Clinical Afternoon), 5 P.M.—Mr. Keasley: 1. Case of Transplanting Skin from Arm to Face. 2. Cases illustrating Deformities of the Toes and their Treatment. Mr. Edwards: Cases of Disease of Testis. Mr. Bruce Clarke: 1. Cases of Wired Patella. 2. Severe Flat Foot treated by Excision of part of Tarsus. Dr. Herringham: Hemiplegia with Heart Disease. Dr. Ball: Cases of Atrophic Rhinitis.

WEDNESDAY.

BRITISH GYNECOLOGICAL SOCIETY, 8.30 P.M.—The adjourned discussion on the Electrolysis of Uterine Myoma will be opened by Dr. G. Granville Bantock. Specimens will be exhibited by Mr. Lawson Tait, Dr. Mauseil-Moullin, the President, and others. Council, 8 P.M.

HOSPITAL FOR CONSUMPTION, Brompton, 4 P.M.—Dr. J. Kingston Fowler: On cases illustrating some points in the Prognosis of Valvular Disease.

PARKES MUSEUM OF HYGIENE, 3 P.M.—Dr. T. A. Schofield: On Home Nursing.

HUNTERIAN SOCIETY, 8 P.M.—Dr. Ryle: A case of Tympanites treated by Puncture of Intestine. Mr. Corner: A fatal case of Acute Intestinal Obstruction complicating Utero-Gestation, with Specimen. Dr. J. Dundas Grant: On Tinnitus Aurium.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 8s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

LLOYD.—On the 14th inst., at 22, Broad Street, Birmingham, the wife of Jordan Lloyd, F.R.C.S., M.B., M.S., of a daughter.

MORRIS.—On March 10th, at Fernhurst, Haslemere, the wife of Edward Morris, M.R.C.S., L.S.A., of a son.

MARRIAGES.

JONES—EVANS.—On March 21st, at Emmanuel Church, Everton, Liverpool, by the Rev. C. Courtenay, vicar, Surgeon J. M. Jones, Army Medical Staff, eldest son of D. Jones, Esq., M.R.C.P., M.R.C.S., of Everton Road, Liverpool, to Kate, younger daughter of the late Captain G. O. Evans, United States Army, of Beaver Dam, Wisconsin, U.S.A.

SOMERVILLE—MAY.—March 14th, at St. James's Church, Higher Sutton, by the Venerable Archdeacon Gore, M.A., assisted by the Rev. F. Smith, M.A., vicar, John Somerville, F.R.C.S.E., to Geraldine, youngest daughter of John May, J.P., Ridge Hill.

DEATH.

KENYON.—On the 14th March, 1888, at 21, Park Lane, Bradford, Georgiana Elizabeth, the beloved wife of John E. Kenyon, L.R.C.P. Lond., M.R.C.S. Eng. Friends will please accept this intimation.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....	10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.
TUESDAY.....	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department).
WEDNESDAY.....	10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: St. Thomas's; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.
THURSDAY.....	10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.
FRIDAY.....	9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.
SATURDAY.....	9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.
GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.
KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 3; Dental, Tu. F., 10; Ear, Th., 2; Skin, Th., 3; Throat, Th., 3; Dental, Tu. F., 10.
LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Tu., 9; Dental, Tu., 9.
MIDDLESEX.—Medical and Surgical, daily, 1; Skin, Tu., 4; Dental, daily, 9; 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Obstetric, Tu. Th. S., 2.
ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.
ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p., Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu., S., 9, Th., 1.
ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.
ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.
UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.
WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

CLIMATE OF BURMAH AND SIAM.

M.B. wishes for information regarding the climate of Burmah and Siam in general, and the neighbourhood of Bangkok in particular.

VITAL STATISTICS OF CONVICT PRISONS.

Dr. J. BARON (16, Whiteladies Road, Clifton, Bristol) writes: Will some member kindly tell me where I can get statistics as to the longevity of convicts; also the death-rate in our prisons?

TREATMENT OF HEARTBURN.

A MEMBER asks for suggestions for the treatment of obstinate heartburn in a man, aged about 40, who has suffered severely for years. Dieting, mineral acids, nuxvomica, and the usual remedies have been tried in vain. The one thing which affords complete temporary relief is carbonate of soda. The pain is always most severe in bed, or whilst in the recumbent position.

ANSWERS.

T.S.E. (Gloucester).—Yes.

MEDICUS.—Communicate with the Honorary Secretary of the Brussels Medical Graduates Association, Dr. T. Ernest Pocock, The Limes, St. Mark's Road, North Kensington, W.

FAS EST, ETC.—We have not the required information; it should obviously be obtained from another source.

R.W. asks where the *Deutsche Medicinische Zeitung*, No. 22, 1886, can be seen, or in what other journal an account of salicylate of bismuth, by Dr. Solger, can be found.

* * * Our correspondent will probably find the information which he desires at the library of the College of Surgeons. Search should be made in the last three or four volumes of the *Index Medicus*, and Virchow and Kirsch's *Jahresbericht*.

M.B.—Dr. Boxall's paper on Puerperal Fever, read before the Obstetrical Society, in January, is not yet published in full, but will in all probability appear in the first fasciculus of the *Transactions of the Obstetrical Society of London for 1888*, which will be issued in April or May.

CHRONIC SWEATING IN AXILLA.

M.B. writes: Bathe the axilla at night with equal parts of vinegar and lukewarm water; or apply lin. belladon. externally, combined with tr. belladon. internally.

Mr. C. HAYDEN COX (Cottingham, Cambs) would suggest to "M.B." the use of salicylic acid rubbed into the axilla every morning and night for a week. He has found the above invaluable applied between the toes, and dusted into the socks in fetid perspiration of the feet. He has also used boric acid for similar cases, with nearly equal results.

TREATMENT OF EPILEPSY.

M.B. writes: Oxide of zinc with valerian root and cannabis ind. ext. might be tried. Begin with half-grain doses of the oxide thrice daily, and gradually increase if required.

Dr. J. F. OLIVER, (2, Hertford Gardens, Albert Bridge Road, S.W.), writes to suggest to B. the following prescription, which he has found to answer admirably in a similar case (male), after fifteen years persistent treatment by the bromides: R Sodii nit. gr. v; liq. Fowleri m x; tinct. bellad. n v-x; syr zingiberi ʒj; aqua purj ʒj. Ft mist. Sig. One dose to be taken three times a day. Pills consisting of the leaves of bellad. and the ext., at night time may also add to the mitigation of the disease.

A GYNÆCOLOGICAL COUCH.

"H" (34, Princes Avenue, Liverpool), offers to describe to "A Country Member" a gynæcological couch, which may be of use.

DURATION OF INFECTION OF WHOOPING-COUGH.

Dr. J. T. RICHARDS (Wirral Children's Hospital, Birkenhead) writes: In answer to the inquiry of "Portusis," it is believed that the infection of whooping cough lasts for six or eight weeks after the manifestation of the disease, and that recurrence of the cough after this period is unattended by risk of infection. This view is acted upon in children's hospitals.

TREATMENT OF TRACHEAL COUGH.

Mr. SLADE INNES BAKER (Abingdon) advises "Cantah" to try inhalations of G and G. Stern's pumiline two or three times a day.

ONLY DIARRHŒA AND PODOPHYLLIN.

Dr. D. H. CULLMORE writes: In answer to "Surgeon-General," whose patient has chronic nightly involuntary diarrhœa, I would suggest change of residence; a large bandel bandage covering the whole abdomen; suppositories, cocaine, or of cocaine and belladonna zymine—the extract or the tabloids. Burroughs and Wellecome are admirable—chloride of ammonium, five grains twice a day in half a tumbler of water. In one case that I saw, four years ago, also in a boy, of all the astringents, acetate of lead was by far the best. In another fatal case (not oily) of chronic dysentery, brought on by fasting, the cure of krameria answered best. The withdrawal of fats and milk, unless of ture of krameria answered best. The withdrawal of the boy just mentioned tried this, but without any great advantage. Turkish bath, with shampooing now de-nationalised into massage, would probably do good.

As regards podophyllin, I believe it equally effectual in the liquid and solid forms. In some persons it has, however, but little purgative effect, and the form are even some forms of diarrhœa where it is very useful. Other drugs have, owing to some altered physiological condition, an effect the opposite of that which usually attends them. Thus, tincture of iron sometimes acts as

purgative; and tea, so generally productive of excitement and sleeplessness, has in certain states of nervous exhaustion, particularly in elderly people, a calmative effect. I have seen one case of herpes zoster where the only drug that produced sleep was a cup of tea, taken about 10.30 p.m.

NOTES, LETTERS, ETC.

A CASE OF DISTRESS.

A MEDICAL MAN, aged 58, with a wife and seven children under 13 years of age, has been struck down with paralysis, and is unable to practise, or do anything for the support of his family. Two of the children (girls, aged 8) have been approved by the committee of the St. Anne's Schools as candidates for election, and a gentleman has most generously offered to give £40, half the amount necessary, to purchase an immediate presentation for one of these girls, provided that the remaining sum (£90) be obtained within the next two months, that is, before May 31st.

The little money the father was able to save has long since been spent, and the family are in the greatest distress, and are now solely dependent on a small sum—ten shillings a week—granted temporarily from the Medical Benevolent Fund. The case is urgent, and the need for help immediate, to prevent the home being broken up.

The facts of the case are vouched for by Dr. Broadbent, treasurer, and by Dr. Jonson, Chairman of the Committee of the British Medical Benevolent Fund, who join in this appeal. It is hoped that the amount required to secure the presentation may be subscribed within the time stipulated. Should there be any surplus it will be applied to the relief of the family.

Donations towards the special objects in view, or offers to help in providing for the education and support of any of the other children, will be gratefully received and acknowledged by Dr. G. C. Jonson, 16, South Eaton Place, S.W., or by Dr. John M. Bright, Park Hill, Forest Hill, S.E., who will gladly answer any inquiries.

CHANGE OF ADDRESS.

MESSES. POPE AND PLANTE, manufacturers of elastic stockings, etc., have removed from 4, Waterloo Place, Pall Mall, to 139, Regent Street.

ORAL INSTRUCTION OF THE DEAF.

DR. W. MACFIE CAMPBELL (1, Prince's Gate East, Liverpool) writes: I have seen some correspondence on this subject, and a query from this neighbourhood, in a recent number of the JOURNAL. A lady, fully trained under Mr. Van Praagh and others, has commenced classes in Croxteth Road in this city. I can highly commend her as a competent teacher, and have one of my children under her care.

A CORRECTION.

SIR W. B. DALBY (18, Savile Row, W.) writes: At page 531 of the JOURNAL of March 10th, I am reported as having said: "An experience of ten years had given a mortality in cases of antral disease of 5 per cent." What I did say was "8 per annum."]

METROPOLITAN PROVIDENT DISPENSARIES.

DR. ROBERT R. KENTON (Liverpool) writes: It would appear that Dr. Paramore neither believes in sick clubs nor in provident dispensaries. Many, however, are strongly in favour of a well-conducted club system, its managers working the "wage-limit" clause closely. He also adds: "I challenge anyone to show any difference between the club system and the provident dispensaries." Well, the latter do not grant sick pay, funeral allowance, widow's fund, or give any division of funds at Christmas. Few members, indeed, go into the sick club for the doctor's sake. The fact to prove before a committee that they will want neither doctor nor drugs is one of their chief planks. They also—1. Avoid the two extremes of life, limiting membership to those of 18 to 45 years of age. 2. Exclude those of certain callings. 3. Make candidates pass a medical examination. 4. And have stringent rules against members who contract illness through venereal disease, or drink. Further, they give the member the use of the doctor from the day the former enters, the provident dispensary system deferring benefits from one to two months after entry. Are these sufficient differences? If not, there are more. Is it not well known that few club patients trouble the club doctor, generally going to the hospital, or "prescribing" chemist?

Will Dr. Paramore, or anyone conversant with the needs of our wage earning classes, hold that they are able to pay even the low medical fees mentioned in *Whitaker's Almanack*? Surely not. Well, then, how are these people to provide themselves with respectable medical treatment and drugs? The average wage of the working classes, in and out of work, may be put down at 15s. weekly. No doubt if a single man or woman had continuous pay of 40s. weekly he or she might be able to pay a doctor; but when sickness comes, or he is out of work, wages stop, and he is often so hard up as to be unable to pay his usual fee to his sick club; consequently, his 12s. of "sick pay" often also goes. Practically, then, the man has little money left, and the relations of the working man do not seem to help him much. This want of funds is the key of the provident scheme. One would have thought that the question of the necessity of having some system for supplying medical aid to those of slender means had long ago been settled. If medical men would look at the social side of this question it might help in its solution.

Dr. Paramore also says: "Contract work is notoriously bad." What will our lecturers say to this—our paid hospital doctors; our army, navy, colonial, and mercantile marine surgeons; our poor-law doctors, vaccinators, and health officers—all contract-paid? Do not our Court physicians and surgeons, with their eyes very wide open, contract to act for £200 a year, while the surgeon-apothecary secures £1,000? Enough, then, that contract work is "notoriously bad." One admits the fact that our fees are too small, and that "the good ones help to make up for the small," but the consequences are of our own making, and none other. Do not the Leicester Provident Dispensary is abused, but what earthly scheme is not? Even one notorious respectability found fault with the way in which things were managed in Heaven. But be-

cause a good many tout for hospital appointments, and treat patients for 2d. each, as at Guy's, or take commissions from druggists, these facts do not give one the right to let loose unmeasured and unrestrained condemnation on hospitals and medical men.

Let the provident dispensary system be as free from abuse as possible, so that it may command the respect of the profession. At present we doctors are cutting and hacking at each other in a most wicked and godless manner. While we are trying to acquire each other's income, we are sinking the social status of the entire profession. Therefore, let us all try and act in a more business-like way in our professional transactions. At present we are the laughing-stock of the community. Only a few weeks ago, in Liverpool, one doctor touted round the various offices for a hospital vacancy, while another sent in a large bundle of testimonials to a sweeps' sick benefit society, offering to do the work of the surgeon for "sixpence less" than their own "medical attendant."

Dr. Paramore seems ominously silent regarding the great abuse of our medical charities.

OROTAVA.

DR. POULAIN forwards us a communication from a patient, who writes to him from this new health-resort, concerning which we published last year a series of letters from Mr. Ernest Hart, showing that Port Orotava is this year very full, even to overflowing, and that the limits of the existing accommodation are overtaxed by the afflux of visitors. The accommodation of the African steamboats is spoken of with much approbation; and the new hotel opened at Laguna, the stopping place on the drive across the island from Santa Cruz to Orotava is said to be very clean and satisfactory. A new hotel has been opened called Casa Carpenter, where accommodation is to be had on very moderate terms. "There can be no doubt," this lady writes, "about the climate; it is perfect, of such lovely golden sunshine over sea and mountains; but at present there is not the accommodation necessary to satisfy all the requirements of English travellers. I am afraid they are somewhat exacting; the people who live in villas are contented because they can have their food cooked and served as they like, but in hotels folks are very much given to grumbling and fault-finding. We should frequently have the food differently prepared. I can recommend the Casa Carpenter with every confidence to reasonable people who will not expect to find the luxuries of a West End hotel and club combined. The water is good, and Dr. Perez assured me quite safe to drink." She adds that there are this year plenty of mosquitoes, and the place is not free from fleas (as are indeed few Spanish hotels), so that Keating's powder is a useful adjunct to travelling appliances. The postal arrangements are irregular, but she writes: "We have the priceless sunshine and pure sea breezes." There are already 150 English persons in Orotava, and it is stated that sixty more are expected by the next boat. It will be remembered that in Mr. Hart's letters intending visitors were informed that the accommodation was at present limited, the Grand Hotel only making up forty beds, and that the visitors would do well to ascertain beforehand what vacant accommodation might be available. There is no doubt that the singular equability of the climate, and its delightful winter sunshine, together with an absence of cold winds, or from any sudden changes of temperature after sunset such as constitute the besetting dangers of the Riviera and of Egypt, will make Port Orotava more and more frequented as a watering-place, if any place in the world can offer equal advantages of climate or a more interesting scenery; but the hotel accommodation is far from being fully developed, considering the numbers who are flocking to the island. We hear, however, that not only is the Grand Hotel likely to be considerably enlarged next year, but that a new hotel is projected on a neighbouring site, which will offer equal advantages. Meantime, visitors should be cautioned to ascertain beforehand that they will be able to obtain adequate and comfortable accommodation.

The effect of Mr. Ernest Hart's "Winter Trip to the Fortunate Islands" has been to give to Orotava a reputation which may easily overtax its existing resources, but this is a sort of difficulty which, in these days of energetic enterprise, is likely soon to remedy itself. Those who go to Orotava, however, without due notice, and without ascertaining that they can be received, will have only themselves to thank if they find a difficulty in housing themselves satisfactorily. We would recommend medical men who are proposing to send patients there at present, to communicate with Dr. Perez, to ascertain whether the patients can be satisfactorily provided for.

BRITISH QUALIFICATIONS.

A.B.C. writes: The letter of Mr. G. Pinder, in the JOURNAL of March 3rd, seems to me to invite criticism, although Scotch degrees do not need defence in your columns. Your correspondent's language is so involved, and his attitude so peculiar, that one can hardly guess the object of his letter. He confuses degrees with qualifications, talks of things English, and in the same sentence dubs them British, and speaks of "numerous" Scotch universities, so that one must conclude that his inability to sign the certificate he mentions has had a very disquieting and confusing effect on his mind. This state of mind is further indicated by his wish to throw "open" Scotch degrees to Englishmen, as English qualifications are to Scotchmen. I do not know if your correspondent appreciates in this sentence the difference between degrees and qualifications; probably he does, as the arrangement is so one-sided. I can only point out to him that the Scotch universities from which degrees emanate are at present open to "we Englishmen," who largely avail ourselves of their thorough and liberal system of education; they are open in the same sense and degree that English corporations are open to Scotchmen, "open" as long as their laws and regulations are complied with. This is the real kernel of the question. The regulations and curriculum of a university are very different to those of a mere examining and trading body like the Apothecaries' Company, which no doubt answered a useful purpose in its time, but is now out of date, as, in my view, there should be no body examining for medical qualification which does not teach or further medical science in some other way.

It is an incongruity that certain bodies of examiners practically irresponsible should be drawing large salaries from the pockets of needy students, the amount of such salaries being practically dependent on a rough and ready "result system," the more passed the merrier for all concerned. There are other abuses inseparable from a system of examination in which the examiner and candidate have never previously met, and these have been pointed out in the JOURNAL.

The last sentence of Mr. Pinder's letter seems to me the most curious and obscure of all. He states that everything English is under a cloud, in assertion which requires elucidation or confirmation, and reminds one of the

THE LUMLEIAN LECTURES

ON

THE TONGUE AS AN INDICATION OF DISEASE.

Delivered at the Royal College of Physicians, March, 1888.

By W. HOWSHIP DICKINSON, M.D., F.R.C.P.,

Honorary Fellow of Caius College, Cambridge; Senior Physician to St. George's Hospital; Consulting Physician to the Hospital for Sick Children.

LECTURE II.

CLASS 8.—*Encrusted Dry and Brown Tongue.*

THE variety about to be described is distinct enough, though it has points of contact with the two preceding classes, as a later stage of which it presents itself. The essential characteristic is the covering of the tongue with a brown dry crust, which surmounts and conceals the papillæ. It occurs as a later stage of the furred tongue, the spaces between the elongated papillæ getting filled up, as it would seem almost necessarily, and the accumulation carried up so as to level or overtop their summits. It occurs also as a later stage of the coated tongue, more particularly of that kind which has been described as plastered, the growth of the papillæ and of the epithelium in the intervals and the accumulation of parasites on the dry surface producing the result.

To the naked eye the characters of the encrusted brown and dry tongue are almost sufficiently described by these three words. It is irregularly covered with brown dry incrustation, variously broken and fissured. Sometimes the cracks are quite irregular; often the deeper are transverse, with longitudinal longer and shallower fissures, which together divide the crust into more or less rectangular scales. The surface, particularly in front, often displays, instead of incrustation, coarse elongated papillæ which are antecedent to it, while towards the back and central parts the coat covers and conceals these prominences. The colour is generally brownish, and the upper surface rough and dry, while the under part is smooth, uncoated, and only clammy. The teeth are often encrusted with brown matter.

It may be asked, Why is the encrusted tongue brown? First, because it is dry. Many animal substances dry brown, among them the white coat of the tongue. I have dried a thickly-coated white tongue at the temperature of 100°, and also at that of an ordinary room. When dry it became brown. A brown, dry, encrusted tongue, when soaked in water, became nearly white, but not quite, and brown as before when re-dried. Thus dryness appears to be the chief producer of brownness, but staining by food and medicine no doubt helps. Many coloured matters—beef-tea, wine, etc.—go into the mouth of a sick man, and cannot but discolour the tongue if the natural wash by saliva is wanting. The crusts on the teeth are probably similarly produced. They are not due to the drying of saliva on the teeth, for saliva at the heat of the body dries white.

With the microscope the chief points are the elongations of the papillæ, and their being embedded and overlaid by a heterogeneous brown mass, which will be further noticed. The incrustation differs from what has been shown to form the coat or fur, though attached to it so as to be inseparable without fracture. Sliced in section from within outwards, it presents first much epithelium, more or less horizontally arranged, flattened, but usually not old enough to have lost the power of taking carmine. Through this project long papillæ, chiefly consisting of horny, unstratified epithelium, upon the exalted summits of which rests a confused mass which constitutes the crust. While the tops of the papillæ support this material, their intervals are filled up by it. Thus there are two constituents of the covering of the encrusted tongue; first, a large growth or accumulation of epithelium, much of which is in the shape of elongated papillæ; and, secondly, a definite structure, which lies upon this and in its interspaces. The superimposed substance is mixed and irregular; much of it can be described only as amorphous; in it can be distinguished epithelial cells disposed without regularity, fat-globules, occasionally other adventitious and accidental matters, and last, not least, a multifarious collection of organisms, chiefly vegetable. In

two cases, in one during life, in the other after death, I found lying on the tongue large detached masses of dry brown crust, one of which was not less than a quarter of an inch thick. Sections of these prepared in different ways were examined; I show a diagram representing one of these sections made from a drawing which I owe to the skilful hand of Dr. Délépine. Both masses showed a profusion of vegetable organisms, chiefly micrococci and the *oidium albicans*. I am indebted to Dr. Délépine for a minute description of these organisms, which, however, I will not read. Besides these were many strands of horny or superficial epithelium, many epithelial cells of the deeper kinds, many fat-globules, and much indeterminate matter. The dry incrustation differs from the moist coat chiefly in this; whereas the major bulk of the white coat is epithelial, a very large proportion of the dark dry crust is parasitic. In the deeper parts of the epithelial structure, more especially in the Malpighian layer, there is often much profusion of nucleation or cell growth, the corium is in many cases distinctly hypernucleated and often over-injected. More rarely leucocytes are extruded within the papillæ and elsewhere.

To sum up the evidence afforded by the morbid anatomy of the encrusted dry tongue, we see first the results of the absence of friction and irrigation, most conspicuously in the accumulation which forms the crust. It is probable, also, that the elongation of the papillæ may be partly attributed to this cause. But there are also signs of increased cell formation and nutrient activity, so that we witness here a double process, over-production conjoined in larger measure with deficient removal. It is obvious that the dryness which helps to define this tongue has played an important part in it, both by want of scour and also by induration.

Coming to clinical considerations, much that has been said about the furred tongue, applies also here. It will be convenient to take together two classes which, though I have separated them for some of the purposes of the inquiry, are not to be distinguished save as the earlier and later stages of the same state. I shall for clinical purposes fuse together the tongue which is completely encrusted and that which is in the process of shedding its crust in the way to become denuded. So various are the conditions under which the encrusted tongue is seen that it is not easy to discern what the link of association may be, except the somewhat loose one of severe illness, and that of some standing. The instinctive sense of the physician carries him thus far. His looks are ominous, he talks of the "typhoid state," and he orders stimulants.

Analysing the details in the two tables before us (Nos. 8 and 9), comprising together thirty-four cases, pneumonia takes the first place in frequency with six cases; then come pyæmia with four and continued fever with three. Acute rheumatism with hyperpyrexia occurred in one instance, and erysipelas in one. In short, there is scarcely any protracted and depressing febrile disorder in which, if I may supplement the scanty records before us with unrecorded experience, this tongue is not apt to be developed. It is often characteristic of typhus by means of the black colour it then presents—possibly due to hæmorrhage into the coat (but of this I cannot speak from observation). The encrusted tongue is so commonly looked for in advanced typhoid that it is often spoken of as the "typhoid tongue," though by no means the only variety displayed in this disease. But the association with fever does not contain the whole story, nor is the febrile condition essential. This tongue may occur with its complete absence. The abstract shows that of the thirty-four cases in question, fifteen displayed a temperature above 102°, eight a temperature under 99°, in three of which it was subnormal. The low temperature was manifested with abdominal cancer, advanced phthisis, albuminuria, syphilitic mania, diarrhoea, alcoholism, and prostration from an unknown cause. Thus, pyrexia, though often present with the encrusted tongue, and no doubt, by the evaporation which it entails, helpful to its production, is by no means necessary to it. The average temperature is lower than with the plastered tongue. It is scarcely needful to inquire, after what has been said, whether this tongue is to be generally attributed to openness of the mouth during sleep or coma. The dry encrusted or furred tongue—for the two have similar clinical relations—is an especial property of coma or insensibility. I have not recorded any case in which well-marked coma persisted for more than twenty-four hours without one or the other being developed. The records are scanty, but a larger experience supports the general rule that with coma or long unconsciousness the tongue becomes as described. Many reasons are

obvious—dryness and disuse the chief. But why the dryness? It is manifest that coma, if it involve habitual openness of the mouth, must tend to dry the tongue; but if health is good in general respects, it does not appear that the mere passage of air over the tongue in respiration can produce anything like the degree of desiccation in question. I have noticed how little dryness has resulted in a person otherwise well whose nostrils have been surgically plugged, and we must take another point of view. Coma, however it acts, is connected with only a minority of cases in which the tongue becomes dry and encrusted. Putting aside all states of coma and unconsciousness, all in which the mouth has been habitually open from other causes, and all states of pyrexia, there remain many conditions, and these most various, in which the tongue has presented itself. Advanced phthisis, intra-thoracic or abdominal cancer, idiopathic anaemia, and diarrhoea have been mentioned; all were attended with much depression or prostration, and, indeed, it appears that, whatever else be present, a condition of much illness or lowered vitality runs through all and supplies the common factor. It has been shown that a similar condition of prostration often attends the furred tongue. I should have preferred to have been more explicit, but it is not easy to narrow the statement within a more strict definition. To most of the conditions the term "sinking" would be applied as indicating what is present or threatened. There is not necessarily any loss of consciousness nor any obvious failure of the nervous system. Sense and senses may be alike unimpaired. There is, as a rule, failure of circulation, of muscular strength, and of nutrition. Perhaps the term "asthenia" best implies this state. Any disturbance may be superadded, but none other is generally essential. I say generally, for direct dehydration will cause the state of tongue in question. This is seen in the effects of dry diet, and perhaps less simply in the effects of diarrhoea. It is to be observed that exhaustion by suppuration, as will be seen, causes other changes in the tongue than this.

It has been shown that the essential local change is dryness, and that this, as a rule, is not due to direct dehydration or to increased evaporation from pyrexia or patency of the mouth. That it is due to deficient secretion of saliva is a necessary conclusion, warranted by the obvious deficiency of liquid in the mouth, by the difficulty or impossibility of spitting, and by the usually fruitless result of catheterisation of the parotid, notwithstanding that acetic acid may be applied to the tongue as a stimulant to this gland. I shall revert to this point, but am not wrong so far in assuming the dryness to be, as a rule, due to suppression of this secretion. Associating this with the asthenia which accompanies it, we cannot but regard the local as the result of the constitutional state, and probably may accept it as a sign that the prostration is telling upon the functions of at least some of the organs. The bowels, kidneys, and skin do not obviously participate in the failure; but how about the gastric and other digestive juices? Observations here are difficult or impossible, but it may be conjectured that the salivary failure does not stand alone, and we may accept the state of tongue before us as an index not only of asthenia, but of a failure of certain vital functions connected with nutrition.

8. Encrusted, dry, and brown.

Pericarditis, hydrothorax, tapping often	...	1
Pneumonia	...	2
Phthisis	...	1
Cancer of lung	...	1
Block in rectum and hepatic ascites	...	1
Choleraic diarrhoea	...	1
Granular kidney and uremia	...	1
Uremic coma	...	1
Diabetic coma	...	1
Obstructive jaundice	...	1
Cancer of pancreas, etc.	...	1
Acute rheumatism	...	1
Idiopathic anaemia	...	1
Typhoid	...	1
Typhus	...	1
Erysipelas	...	1
Pyæmia	...	3
Rapid emaciation, cause uncertain	...	1
Alcoholism	...	1
Total	...	22

Observations as to the above cases.

Pyrexia (temp. 102° to 104°)	...	8
Hyperpyrexia	...	1
No observations as to temperature	...	1
Average temperature of 21 cases	...	100.3°
Much prostration	...	12
Prostration not severe	...	0
Chiefly on liquid diet	...	13
Strictly limited to liquid diet	...	4
Dry diet	...	0
Saliva abnormally deficient	...	8

Died, 14; recovered, 7; relieved, 1.

CLASS 9.—The Process by which the Coated, Furred, or Encrusted Tongue becomes Red, Smooth, and Dry.

The cleaning of convalescence requires no further notice; the shelving off of the coat at the tip and edges has been described. In less favourable circumstances the process of making bare occurs in this wise. The incrustation is very dry and correspondingly brittle, and the epithelium beneath it, in connection probably with the same want of moisture, does not grow properly. The coat or crust now wears off more or less at the tip and edges, in a gradual manner, and displays not the normal surface, but a red and dry one, usually covered with a delicate membrane, so thin as possibly to escape notice, but discernible to a careful eye. Under the microscope it is evident enough. After, or more or less together with, the exposure of the fore part of the tongue, the central part loses its covering along a broad stripe which reaches from this point not quite to the back. This may be an inch or rather more in width, and is the part of the tongue most exposed to the breath, and consequently the driest. The clearing is often effected by a very obvious cracking and breaking away of the crust, which may be so rapid that I have seen a much encrusted tongue become nearly naked in a day. The exposed surface may look raw, but is seldom absolutely so, for it is skinned over with the dry translucent membrane which has been described. This stretches straight along the surface, like the arachnoid of the brain, not dipping between the papillæ, the outlines of which it obscures. The bare and polished stripe is often fringed with white fur or coating as a line down each side, outside which is the nearly normal lateral margin. After a time the whole upper surface becomes nearly equally red, dry, and bare, the surface being intersected with fine or deeper lines or cracks, some longitudinal, the deeper transverse. The coating is retained longest at the root. A resumption of moisture is a sign of constitutional improvement, and precedes a gradual reclothing—too seldom observed—which restores the tongue to its normal state.

I will now bring the microscope to bear upon the process which has been described. I pass over the gradual change of convalescence to consider the modes by which the morbidly dirty tongue becomes morbidly clean. Starting with the elongated papillæ of the furred tongue, these, together with all the superficial epithelium, are often swept off accurately down to the Malpighian layer, which retains its place, and still uniformly clothes the corium. In time, or almost simultaneously, this may become covered afresh with epithelium of the horny sort, not at first as in health, but in the shape of the thin membrane of which I have spoken. Supposing the denuding process to continue, the Malpighian layer itself is removed and the corium exposed, making a surface which is uneven microscopically, though to the naked eye smooth, and necessarily red and raw. This process is attended with vascular injection, hypernucleation, and often the extrusion of leucocytes. Much of the injection and hypernucleation may be the consequence of the loss of the protective epithelium, with exposure and irritation of parts which should be covered. But in some cases it is apparent that a general inflammatory infiltration of the superficial parts precedes the denudation, and helps to produce it by a destructive process. This is most marked with scarlatina, where the infiltration is often most abundant. This may be due to the especial effect of the disease, which the tongue appears to share with the skin and throat. I have now traced the flaying operation down to the true skin. All that is special to the tongue has gone, at least in places; but more often, as I have said, the process stops on reaching the Malpighian layer, and here begins a process of repair to which I have alluded, but to which I must revert. The tongue is now red, level, and polished. To the hasty eye it looks

1 The extreme illness of many of these patients made it difficult to estimate the absence of saliva by attempts to spit or by catheterisation of the duct. The number therefore appears small. It is probable that saliva was wanting in nearly all, so far as the state of the mouth could be taken as an index.

like raw beef, a similitude often used; but the beef is wrapped in a silver paper. A continuous layer of horny epithelium, of extreme tenuity, presents itself, and resting on the more elevated eminences of what were papillæ, stretches from one to another without dipping into the hollows, like the roadway of a bridge. The hollows, however, are not empty, but contain epithelium of the deeper sort. The somewhat gradual process which I have described is sometimes replaced by one into which violence more obviously enters. This relates especially to the encrusted tongue. The felted mass of crust breaks through its deeper part, the fracture passing through the bases of the papillæ, leaving their broken rumps standing. These quickly become levelled down, and the Malpighian layer soon presents itself with a delicate membrane, as described. In this breaking away of the crust accident cannot be excluded, but more is probably due to the rising up of new epithelium from beneath, by which the brittle and mostly effete mass above is pushed from its stool. Probably something of this sort happens when scarlet fever patients and snakes shed their skin.

9. *Furred or encrusted, becoming denuded; generally dry.*

Stenosis	1	Cancer of pancreas, etc. ...	1
Syphilitic mania	1	Peritonitis, fæcal extravasations	1
Alvular disease	1	Typhoid	1
Pneumonia	4	Pyæmia	1
Irrihæmia	1		
Dysentery, abscess of liver... ..	1		
Total	13		

Observations relating to preceding cases.

Pyrexia (temperature 102° to 104°)	5
Hyperpyrexia (over 104°)	1
No observations as to temperature	3
Average temperature in 10 cases	100.8°
Much prostration	7
Prostration not severe	0
Chiefly on liquid diet	9
Strictly limited to liquid diet... ..	2
No food by mouth (fed by rectum)	0
Dry diet	0
Saliva observed as deficient ²	2 (?)
Died, 10; recovered, 1; relieved, 1; not relieved, 1.	

CLASSES 10 and 11.—*Bare, Red, and Dry Tongue.*
 In the description of the process of denudation I have anticipated much that applies to the bare tongue. The completely bare tongue, red, raw, and dry—for this state, does not seem to be attained except with dryness—is comparatively rare. The term *completely* bare or denuded relates to the completeness of the loss of the epithelium in certain places, not to its spread over the whole tongue. This change is more limited in extent than the more allowed divestures which have been described. I have already traced the process down to the Malpighian layer, which has become covered anew with a straight membrane instead of the normal serrated one. Should the repair be exceptionally wanting, this membrane is not formed, but the Malpighian layer is left to break away and lay bare the corium beneath. Occasionally it would seem that the destruction occurs after the formation of this membrane, which it involves, for the broken bits are often seen overhanging a tract of excretion. The exposure is effected not quite abruptly; the neighbouring epithelial structures shelve off until the patch of complete exposure is reached. Here no epithelium of any kind remains; the corium is left bare to the cavity of the mouth, and is even sometimes itself approached upon. I have not seen this process descend quite to the surface, though sometimes it has approached, the muscular fibres. The exposed corium sometimes shows little change of structure, more often it is infiltrated with leucocytes, sometimes to such an extent that the surface appears to be entirely composed of them. There is also injection of the blood-vessels. The infiltration is probably generally due to irritation by the unaccustomed contact of the contents of the mouth, and is subsequent, not antecedent, to the covering. Even in scarlatina, where the inflammatory denudation may possibly be a part of the eruption, the enucleation is greater in the exposed parts than elsewhere.
 For clinical purposes I shall place together two classes that cannot be always distinguished except with the microscope, and give a common consideration to the red denuded tongue, whether

absolutely bare, or protected only by the thin membrane which has been described.

The qualities of redness, smoothness, and dryness are nearly related. If the tongue be uncovered with the opaque superficial epithelium it will necessarily display the vascularity of the deeper parts; and this is usually increased because the tongue is irritated by exposure. The denuded tongue is dry partly because the loss of epithelial protection allows of increased evaporation from its surface, but chiefly from want of saliva. Want of saliva may encrust the tongue; it may also make it bare: of this more anon. This variety of tongue is that on which aphthous growths are most apt to occur. It presents itself in diverse circumstances, generally of exhaustion. The most prominent fact is its occurrence as the result of exhaustive discharges, especially of pus, and it is linked with the constitutional state described as hectic. The table shows that of thirty cases seven were connected with an ostensible escape of pus, including one case of lumbar abscess, one of empyema, two of discharge of pus with the urine, one dysentery with open hepatic abscess, and two of advanced phthisis with much expectoration and diarrhœa. Besides these, in which loss of pus was obvious, there was one instance of profuse dysenteric flux in which an abscess had formed in the liver but not found exit; two cases of lardaceous disease with the customary discharges, and five of advanced diabetes, brought to fifteen, of thirty, the number of instances in which this state of tongue was associated with exhausting discharges. The frequency of diarrhœa deserves remark. It has not been shown so far that simple diarrhœa causes it, but diarrhœa was prominent with other morbid conditions, notably dysentery and phthisis. The most striking tongue of this kind which I ever saw (it was as red and almost as smooth as sealing-wax) was in the case already referred to of acute dysentery, with unopened hepatic abscess. I have to thank Sir Joseph Fayrer for giving me some of his Indian experience, with regard more especially to tropical diarrhœa. In advanced cases of this, the tongue, he says, is shrunken, red, polished, and smooth; the papillæ have disappeared, and the epithelium is stripped off in patches. The gums, lips, and buccal mucous membrane are often aphthous. The tongue is very tender; alcohol or salt causes great pain in passing over it. As significant signs of convalescence, Sir Joseph notices a softening of the tongue, a change of the red to pink, less of tenderness, and the reappearance of the papillæ.

There remain cases in which the red, dry, smooth tongue has presented itself without any obvious association with discharge. Among them were five of pneumonia, all with much depression; one was double, and attended with maniacal delirium; one was complicated with delirium tremens; another was in a drunkard; two were attended with great prostration (not explained). There were two cases of typhoid, of which one was characterised by sleeplessness and nervous agitation; one of tubercular peritonitis, one of biliary colic, and one of a dangerous gorge of grapes,—all these conditions being attended with much depression. Advanced tubercular disease presents itself as a not infrequent associate of this tongue; there were five cases of this sort in the thirty. Pyrexia is not needful to the production of this tongue, though often present. A temperature not above normal was found with it in cases of lumbar abscess, pyelitis, lardaceous disease, several of diabetes, and some under dry diet. As compared with the encrusted tongue, there is no great difference in the frequency of pyrexia; both may occur without it; the average temperature of the bare tongue is somewhat lower than that of the encrusted.

To sum up the circumstances of the red, smooth, dry tongue, they are usually more chronic than those of the encrusted. This must be so, since the one is often a later stage of the other. Exhaustion by discharge is frequent with the smooth tongue; or, if this be absent, there are generally especial circumstances of prostration or depression, which are often connected with the abdominal organs. This tongue implies failing nutrition. The clinical evidence accords with the indications of pathology in this respect. The saliva is, I believe, always deficient, though I think it is not usually so completely absent as with the encrusted tongue. It will presently appear that in certain circumstances want of saliva prevents the growth of epithelium; though this failure of growth may also have its connection with a more general impairment of the nutritive process. Increased moisture of the tongue is a sign of the best omen; this is usually followed by re-covering, and possibly by recovery.
 The prognosis with this tongue is bad: of the thirty cases in

¹ Mouth invariably dry, but special observations on saliva not generally made, not reliable.

which it was recorded, sixteen ended fatally. The mind commonly remains clear, though the patient may be weak unto death.

10 and 11. *Bare, Smooth, Dry, Red (Membrane or None Evident).*

Pneumonia	5	Surfeit	1
Broncho-pneumonia (also after recovery)	1	Diabetes, advanced	5
Phthisis or general tuberculosis, or of peritoneum	4	Typhoid	2
Hepatic ascites and dry diet	2	Pyæmia	1
Attack of gall-stones	1	Lumbar abscess, discharging	1
Lardaceous disease, ascites, etc.	2	Pus in urine (abdominal tumour)	1
Dysentery and abscess of liver	2	Tubercular pyelitis, pus in urine	1
		Empyema, discharging	1
Total	30		

Observations relating to the above Cases.

Pyrexia (temperature, 102° to 104°)	11
Hyperpyrexia (temperature over 104°)	2
No observations as to temperature	1
Average temperature in 29 cases	99.6°
Much prostration	21
Prostration not severe	2
Chiefly on liquid diet	11
Strictly limited to liquid diet	6
Dry diet	2
Saliva abnormally deficient	15
Died, 16; recovered, 6; relieved, 7; not relieved, 1.	

CLASS 12.—Cyanosis or Venous Congestion of the Tongue.

This tongue is characterised mainly by a superabundance of recent or deep epithelium, which occurs in circumstances indicative of excessive production, not deficient removal. It especially belongs to heart disease or cyanosis from some other cause. To the naked eye there is a bluish or purple colour, and a smooth, wet, slippery surface like that of an eel, upon which the papillæ are almost indistinguishable, as if fused together, or in some other way deprived of their separating intervals. Upon this substratum may be overlaid more or less of one of the grades of coat which has been ascribed to the partial obscuring of the deeper characters. Microscopically, the most noticeable peculiarities are superabundance of the recent epithelium, vascular injection, and hypernucleation. The deep epithelium is amassed thickly over the surface, sometimes rising to the tops of the papillæ, but leaving these exposed, sometimes overlaying them completely, so that the whole papillary structure is embedded. The Malpighian layer shares in the overgrowth. The horny epithelium is usually deficient, as also are superficial vegetations, so that the surface is often abnormally clean and smooth. The corium and deeper parts are enormously over-injected and over-nucleated, and the fibrous tissue of the corium is often coarse and hypertrophied. The appearances presented suggest the means by which they are produced. In the excess of deep epithelium and of nucleation we see evidence of increased growth, while the generally clean surface shows that wear is not wanting. The essential factor is a hypertrophic process connected with mechanical congestion. The thick covering of the tongue with epithelium of the deep character, is not confined to heart disease or cyanosis. My classification was based on what can be surely recognised with the naked eye. Had microscopic examination been the criterion, a separate class must have been made characterised by excess of epithelium of this sort. But this peculiarity is not obvious. The horny or superficial epithelium when wet is white and conspicuous; the deep epithelium is neither: its presence in excess may be inferred from the appearance of cyanosis, and guessed at from some degree of paleness and fulness. Such a tongue may be thickly covered with superficial epithelium, by which the deeper characters may be hidden. Taking as the standard great excess of deep epithelium as displayed after death by the microscope, I find that of nineteen cases four were connected with cyanosis (cardiac or pulmonary), six with chronic albuminuria, two with acute tuberculosis, two with pyæmia, and one each of the following—pneumonia, diphtheria, prityphlitis, lumbar abscess, and leucocythæmia. Thus we see this form of epithelial hypertrophy in circumstances of three kinds—venous congestion, albuminuria, and diseases attended with pyrexia. To take the last first, no details of temperature are needed when once the disorders have been named. The overgrowth was no doubt a direct result of the increase of body heat on principles which have been stated. No further reference need be made to the congestion of cyanosis; but

I must halt for a moment upon the question of albuminuria. I have sections of eight tongues from cases of chronic renal disease, mostly the granular kidney; in six there was such accumulation as has been described; in two there was less, but enough to show the tendency. Why in these cases should the epithelium grow in such profusion? Not from pyrexia, for there usually was none; not from venous congestion, of which there was generally no sign. Was the hypertrophic process due to the increased arterial tension so constant in the circumstances? If this be so, we should find hypertrophy of epithelium elsewhere. The reason may admit of doubt; but I think none need apply to the observation that in chronic albuminuria certain parts of the lingual epithelium are remarkably increased.

I have now concluded the separate consideration of each variety of tongue. I shall proceed to make a few observations relating to some general conditions which belong to it or affect it, and while I do so I must ask the College to tolerate a certain amount of repetition which it will not be possible to avoid.

Having regard to the importance of dryness as necessary to some of the most significant alterations of the tongue and its value *per se* as a clinical indication, I shall take this quality into consideration, abstracted, as far as may be, from others. Before doing so I shall venture to delay the College with a few observations upon the saliva.

On the Saliva.

I am satisfied that of all the immediate causes which make the tongue dry, or tend to do so, arrest in the secretion of saliva is the most important. In advanced conditions of dryness, not only is saliva obviously absent from the tongue and mouth, but the patient cannot spit. When the dryness is less complete, he will sometimes produce with difficulty a little spittle, which is often tenacious or bloodstained. Frequently, in the absence of saliva, such patients will, on the request to produce it, hawk up a little mucus from the throat, which is clearly a different thing. I have made many experiments upon the salivary ducts—or rather, I should say, upon those of the parotid, which lend themselves most readily to the purpose. A tube passed into one of these channels in health could generally be made to drip saliva somewhat abundantly by the application of acetic acid to the tongue, or the secretion could be seen working its way out by the side of the tube. When the tongue was dry it was usually impossible to obtain any by such means. With advanced and complete dryness I have never been able to get a drop; with lesser degrees often a little. These observations show the dryness to be, as a rule, due to deficient secretion of saliva, not to its drying on the tongue, as has been supposed by some. This failure of secretion appears to be of much significance. It is not possible thus to gauge any other of the secretions which are concerned in the digestive process; but it is, at least, probable that the gastric and others may be similarly affected. It is a matter of immemorial experience that the dry tongue, more particularly that which is also encrusted, is incompatible with the digestion of solid food; the physician orders liquids and stimulants. This ancient practice has been arrived at not by reasoning, but by a less unsafe though a longer road—experience. We may be sure that there is natural truth at its foundation, though we may not know what that truth is. Provisionally we may assume that a deficiency of saliva, if it depend on other than local causes, goes with a deficiency of other juices concerned in digestion. At the same time it would seem that other secretions—those, for example, of the bowel, the intestines, and the skin—do not take part in any failure of secretion which may be supposed to exist. Putting aside cases where an excess of some secretion, as with diarrhoea or diabetes, has been contributory to the dryness, there are many of daily experience where, together with a dry tongue, the urine is fairly abundant, the bowels free, and the secretion of the skin not wanting or even excessive. If, therefore, it be presumed that the failure of the salivary secretion is associated with a similar failure elsewhere, it is clear that the arrest is limited, not common to all the glands of the body.

I may add a few words upon the action of saliva upon the coat of the tongue; we have seen that, as a general rule, as the tongue becomes more and more coated, especially with acute disease, it gets drier and drier. This association of want of saliva with increasing coat suggests the question whether the secretion has any solvent action on the coat, so that this thickens from the absence of normal solution. This must be answered in the negative. I have taken coated tongues and kept similar pieces of them, one in saliva and one in water, for periods ranging up to sixty-eight

ours. Then, making sections of each in the usual way, I have satisfied myself that there was no greater loss of epithelium in saliva than in water, and the same result has been given when the experiment was conducted at a temperature of 100° F. as at the ordinary temperature of a room. Whatever effect, therefore, is to be attributed to want of saliva, it is not by less of any solvent action.

Other causes have been shown to conspire to make the tongue coated, but it would seem that want of saliva by itself will do this. A boy was brought under the care of my colleague, Mr. House, with, as was believed, a fracture of the base of the skull. He had left facial paralysis, and an injury apparently of the chorda tympani on this side. The tongue was normally protruded, but the left half, sharply defined by the median line, was dry and presented a milky appearance. The suppression of saliva was probably the cause of the coat, though other effects of nerve injury could not in this case be absolutely excluded.³ I will take a simpler case reported by Mr. St. Clair Buxton. A lady had rumps, after which her mouth became quite dry. The tongue, gums, cheeks, palate, and pharynx presented a "fearfully dried up state." The tongue was thickly coated with a tough, brown fur, which was horn-like and so hard that it sounded under a nail like the cover of a book. After ineffectual treatment by other means, the salivary ducts were probed, the glands galvanised, and the secretion restored. In the course of the following day, Mr. Buxton tells me, in a letter for which I have to thank him, the fur became soft and spongy, though it had previously been as hard and dry as wood; in a week all had cleared off, and in a fortnight or three weeks the tongue was perfectly normal. The fur stripped off in patches, leaving a rather raw surface underneath, which gradually assumed a natural appearance. It has been shown how closely the conditions of furring and encrustation are associated with deficiency of saliva, and inferred that these are largely the physical results of the ensuing dryness; the normally wet surface is soft and liable to wear; deprive it of moisture, and it becomes horny and resistant to it; besides which, with no saliva solid food is unacceptable. So that while induration is created attrition is reduced; and in general terms, and up to a certain point, it holds good that the less saliva the more coat.

But there is another relation between the secretion and the covering, and that of an opposite kind. An interesting case of atrophic suppression of saliva was published by Mr. Rowlands, of Great Crosby,⁴ and I have to thank him for further particulars by letter. Ten years before the date of the report, a lady, aged 60, underwent sudden and complete suppression of the saliva, after a nervous shock. Since this the mouth and tongue have been perfectly dry. The tongue now presents the appearance of a piece of raw beef; it is perfectly clean, and intercepted with superficial fissures; no papillæ are to be seen with the naked eye, though to be made out with a lens. Here is a typical red, dry, leathery tongue, sequent, and probably consequent, upon simple deficiency of saliva. It is scarcely necessary to revert to the red leathery tongue of disease, of which deficiency of saliva has been shown to be a constant, if not a necessary, attendant. These experiences, showing coating and denudation from the same cause, are not so contrary as at first sight appears, for many smooth tongues were formerly rough. The difference is largely one of degree: furring and encrustation are early results of want of saliva, and denudation a late result. It has been shown that with the bare tongue of constitutional disease two agents are commonly present; want of saliva, and failure of general nutrition; but that want of saliva by itself is able to cause bareness is shown by such cases as that reported by Mr. Rowlands. Of the *modus operandi* I am long in doubt. The epithelium is fed by the blood, not by the saliva. Why does it waste in the absence of the non-nutritive fluid? Conversation with my colleague Mr. Bennett has, I think, given the clue. The epithelium, though not nourished by the saliva, needs to be kept moist by it, otherwise it cannot assimilate what is provided by the blood. Be this as it may, a general law may be formulated; the tongue tends to become smooth whenever a long time it is kept dry from deficiency of saliva, or possibly from other causes.

For this observation I have to thank Mr. Peel Davies, then house-surgeon. *The Lancet*, vol. 1, 1888.

Mrs. FLORA SCHLAMM, of New York, aged 102, is said to have had 180 descendants. Her great-grandfather lived to be 120.

THE PATHOLOGY OF ABORTION IN RELATION TO TREATMENT.

By MURDOCH CAMERON, M.D.,

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It is not my intention to enter fully into the wide and complicated field of study as found in pathology relative to abortion, but simply to bring before your notice three specimens, which may interest as well as show the importance of a careful examination of the discharged clots in every case of abortion. I am afraid it is too much the custom to take the patient's description of the nature of the discharge, which is generally summed up as "a bleeding," or a "something that has come away."

Now, looking at the first two specimens, we see at a glance that there is a great difference in their appearance, and it is in being able to appreciate the reason for this that the accoucheur can carry out the proper treatment, and be alive to the dangers which may attend the one case rather than the other. Of course, in the early stage of abortion, say at the first month, there is the absence of the usual signs of pregnancy to guide us, and women them-



Fig. 2.—Embryo, sixth week. A. villi of chorion; B. umbilical vesicle with portion of amnion to the left.

selves frequently look upon the discharge simply as a period. If the ovum be discovered, it is found to be very small. In the second month, however, the absence of the last period, as well as the character of the pains, generally makes the patient suspect pregnancy.

If the discharged clots are carefully examined, the embryo will usually be found surrounded by its membranes, the amnion and chorion with its villi, some of which are found penetrating the decidua reflexa. This is well seen in Specimen I, in which a separation has been effected at the circular zone, marking the junction of the membranes of the ovum with those of the uterus, which, instead of following the ovum in its passage, remain attached to the uterus. You see the appearance of the discharged ovum is that of an ovoid mass, the surface smooth and rose-coloured, unless where the villi are exposed. These in the specimen are seen floating in the fluid. An incision in the wall has

³ Read in the Section of Obstetrics at the Annual Meeting of the British Medical Association held at Dublin in August, 1887.

cut successively the decidua, the chorion with its villi, and the amnion, thus allowing a full view of the cavity with the suspended embryo. At times the decidua gets divided, and so allows the enucleated ovum to escape, when it is seen entirely surrounded by the villi, which give it a shaggy appearance. This is very well seen in Specimen II. In such cases patients require more attention than in the preceding one, as the danger from hæmorrhage or septicæmia has to be guarded against if the membranes do not come away.

In this specimen the chorion was carefully divided, and the umbilical vesicle discovered. It is marked B on the card. A portion of the chorion and amnion was removed to obtain a clear view of the embryo, which is about the sixth week.

There is a popular idea that prostitutes are less subject to pregnancy than other women, but M. Serres has remarked that when they were cared for in a division of La Pitié, the excessive losses were as rare as in others, but the periods were sometimes delayed, and ended by the expulsion of what they called "*un bouchon*." He gave no heed at first to the expression, but having directed his attention to embryology, it was easy for him to detect in this discharge a portion having all the characters of the human embryo, and he was able to collect a large number in a short time, which had been expelled at the fourth or fifth week from girls 18 to 20 years of age.

In the third specimen which I show you, the ovum was expelled covered by the decidua vera and reflexa, which are still separate from each other. Several changes may be produced by any effusion of blood, and the appearance of the ovum is often very much modified, but this depends on the stage of development. Almost till the end of the second month the blood which escapes tends to surround the chorion. If a vessel in these circumstances ruptures, the blood will insinuate itself between the villi, and gradually invade the whole surface of the chorion. The ovum takes then a fleshy appearance. If the outside membrane is removed the chorion is found covered with coagulated blood, which is firmly retained by the ramifications of the villi which are imprisoned in its thickness. In this third specimen bleeding has occurred; but, as you will notice, it has been limited to one particular spot in the decidua reflexa, and forms a solid swelling, about the size of a nut, which has been incised at the point A to reveal the clot. It is difficult to explain in these cases the reason why the decidua vera is at times thrown off, as in this case, whilst in normal pregnancy it remains adherent to the uterine wall nearly till term.

Concerning the complications which might arise in such cases, those from hæmorrhage and septicæmia, or both combined, are the most common. The bleeding may be moderate in a large number of cases, yet at times it may be very alarming. This bleeding may be met with either at the outset, when the embryo is separating, or after it has been expelled, and the membranes yet remain within the cavity of the uterus, or even after complete delivery. The bleeding may be continuous or intermittent, even with days between the attacks. Sometimes the discharge arrested in the passage becomes clotted, and is expelled in a mass, which the physician is apt to mistake for the contents of the womb, unless he takes care to examine for the embryo and membranes.

Usually the bleeding ceases with the discharge of the embryo and membranes or placenta.

Should it continue it is likely that there is a portion retained within the cavity. If a small portion of the placenta remains adherent, the bleeding may continue for weeks.

If the odour of the lochia becomes foetid, we should be on our guard against septicæmia. The odour is very persistent, and the finger with which the patient has been examined retains the taint, in spite of repeated washings and scrubbing with a nailbrush.

The treatment adopted will determine the result for better or worse.

I do not wish to speak of the preventive treatment of abortion, but would like to say a few words on the treatment of these complications. To avoid the manufacture of complications, if I may so speak, I would recommend that the membranes should be left intact, and encouragement given to complete expulsion. If the membranes are ruptured, one should not be in a hurry during the earlier periods of pregnancy, but should pay special attention to the cleanliness and antiseptic condition of the passages, by making use of repeated injections.

Should the placenta be retained, I have seldom had much difficulty in extracting it with the fingers, and must say I have very little faith in the use of instruments for its extraction, unless when it is found protruding through the os. Some have recommended the use of a blunt curette, whilst others prefer a sharp one, with which they profess to remove the *débris* of the membranes. In addition to this, they either dilate the os to allow of such an operation, or they drag the uterus down by means of forceps. Now is such treatment reasonable in all cases? Is retention of the placenta so common and so frequently dangerous as to justify a procedure which is itself not without danger to the patient? I emphatically say No, and, after a very large experience, have no hesitation in condemning such practice. Why, in one case, after the uterus had been scraped, cauterised, and injected, to the surprise and chagrin of the operator there was expelled the next day an embryo minus the legs. Besides, with the curette you are working in the dark, and cannot fail to wound the healthy membrane and so assist septicæmia instead of preventing it.

If membranes alone have been retained, with proper antiseptic precautions there is little chance of evil resulting. Besides, when one considers the amount of injury that an inexperienced person can inflict with a uterine sound, we should surely pause before placing in the hands of every practitioner a curette, be it sharp or blunt, with the assurance "This is the real cure, use it."

In treating the hæmorrhage I generally make use of an antiseptic tampon, with the application of a well-fitting firm bandage, and usually find such means sufficient. I cannot say that I have got good results from ergot. Where spasm or rigidity of the uterus is the opposing cause of the escape of the placenta, I have frequently had good results from the administration of opium in the form of a two-grain pill.

Whenever a finger can be passed within the uterus, by fixing the fundus with the free hand little difficulty is experienced in extracting the portions retained. If there should exist any symptom of septic poisoning when the patient is seen for the first



Fig. 1.—Embryo, eight weeks. Portion of membranes removed. A. Amniotic cavity; B. decidua; C. villi of chorion; D. embryo.

time, I always make use of frequent antiseptic injections, say, every two hours.

Concerning medicinal treatment, I may say that quinine is freely given, and sometimes along with it salicylate of soda. Where everything has been discharged, and bleeding continues, very satisfactory results have been obtained by the administration of tincture of steel and ergot.

In conclusion, patience, I consider in such cases, will do less harm than meddling interference.

Dr. LOMBE ATTHILL confined his remarks to the treatment of cases in which abortion could not be averted. In such, if the hæmorrhage were alarming, plugging was the most certain mode of controlling it, but if used it was essential that the plugs should be removed after the lapse of, at most, six hours, when the uterus should be washed out with an antiseptic solution. But it was very seldom necessary to plug.

by washing out the uterus with a stream of hot water, a method which, if carefully carried out, was perfectly safe and nearly always efficient, the contents of the uterus being in the majority of cases soon expelled. He also expressed his disapprobation of the forcible removal of placenta in the earlier months of pregnancy till time was given to show whether it would not be cast off and expelled.—Dr. J. A. BYRNE said he was of opinion that, as a rule, the hæmorrhage accompanying, or preceding, or following abortion was not dangerous and did not terminate fatally; but still cases had been mentioned where death from that cause had occurred, so that we should be always ready to stop it if events called for interference. He agreed with Dr. Atthill that the washing out of the uterus with hot water was a most useful adjunct in this form of hæmorrhage. We must also attach great importance to the use of the *laminaria digitata*, and Dr. Robert Barnes's dilators and rapid dilatation if necessary, and if possible the removal of the ovum. He might mention that he was one of the first to draw attention to the difficulty in some cases of removing the placenta at an early period of gestation. Before the transformation of the chorionic structures and the formation of the placenta

there was not much difficulty in removal or expulsion, but about the fourth month the placenta was intimately soldered to the uterus. What first attracted his attention to this was a case in which a lady being almost moribund from hæmorrhage he proceeded to remove the placenta with his fingers; he did succeed after some time, but he was so much struck by the dense attachment of the placenta that he determined never again to attempt the removal, but to try to stop the hæmorrhage and allow separation and expulsion. He had lately seen a case in which fatal tetanus supervened upon an abortion.—Dr. AUST LAWRENCE stated that when the hæmorrhage was excessive he always plugged the cervix uteri with carbolised lint, and then, when the os was dilated, he cleared out the contents of the uterus with his fingers. If the contents could not be cleared out he passed into the uterus an iodoform bougie and plugged with iodoform wool, and then in twenty-four hours he could clear the uterus, and if he could not do so he repeated the

process.—Mr. LAWSON TAIT was of opinion that anyone who knowingly left a piece of placenta after a miscarriage might well lay himself open to a charge of gross carelessness. There was no need of any dilatation or of the use of any sharp curette. His (the speaker's) "alligator" ovum forceps would remove anything which had been left without any risk.—Dr. MURPHY (Sunderland) said that had he not heard the two distinguished members of the Dublin Obstetrical School who had preceded him advocate its use, he would have believed that speaking of the vaginal tampon as in use in the year 1887 was an anachronism; surely the place to plug was not the vagina, but the cervix, and the material not cotton wool—antiseptic or otherwise—but the caoutchouc hydrostatic bags of Robert Barnes if the cervix was large enough; if not, the instrument used by Professor Tarnier. On the question of treatment of the retained placenta was not Dr. Lombe Atthill, in advocating expectancy solely, relying on his experience as Master of the Rotunda Hospital, where he or an assistant Master was always

on the premises ready for any emergency that might arise? But how about his private patients, or those he saw in consultation at a considerable distance? Was it safe, however, in the one case or the other to leave a placenta *in situ*, and expose the patient to the risk of hæmorrhage and septicæmia? For his own part, he would not feel justified in doing so, and he invariably removed the placenta, the patient being chloroformed, and a hand introduced into the vagina and one or two fingers—the best instrument we possessed—into the uterus. There was no doubt, however, that for the operator it was a difficult, tedious, and even painful operation, and one to which no one could look forward with pleasure.

ASTON MANOR (Population, 63,637).—This district is fortunate in having a very low death-rate, considering the density and the social position of the bulk of its inhabitants. The average for the last seven years is 15.8 per 1,000. There were in 1887, 955 deaths registered, or a rate of 15 per 1,000, which was 2.8 lower than in 1886, but 1.4 per 1,000 above the rate for 1885. Mr. Henry May states that the deaths were increased to a large extent by the injurious effects upon health of the very long and severe winter, the cold weather being prolonged until the end of May, and the temperature in every one of the first five months of the year being considerably below the average. The mortality was also increased by the long, hot summer, which caused a large amount of fatal illness amongst infants. There had been an increase in the deaths from whooping-cough, but no exceptional mortality from any epidemic outbreak. Typhoid fever was less common than usual, only 17 cases coming under notice. Measles and scarlatina, though somewhat prevalent, assumed so mild a form that the mortality was slight. The deaths from diarrhoea were chiefly among infants. Mr. May confesses that the sanitary improvements of late years have failed to diminish the severity of this disease, and offers the explanation "that the infants are born with more inherited debility of constitution than formerly, and fall sooner victims to exhausting disease." He accounts in a similar manner for the increased infant mortality from bronchitis.



Fig. 3.—Hæmorrhage into decidua reflexa, ninth week. A. incision exposing clot; B. amniotic cavity; C. space between the decidua vera and reflexa; D. decidua vera.

A CRITICISM OF THE MIDWIFERY FORCEPS IN GENERAL USE.¹

By WILLIAM STEPHENSON, M.D.,
Professor of Midwifery in the University of Aberdeen.

As a Scotchman, it is with some degree of diffidence that I venture to introduce this subject, seeing that a well-known authority has stated that "it is not to the land of the mountain and flood that we are to look for opportunities of acquiring experience in midwifery of this difficult kind; it must be in great centres of population—London, Manchester, Liverpool, Birmingham, Dublin." However, since both his geographical and historical knowledge are at fault in making such a statement, I may take courage, and introduce a subject which is of interest not only to the obstetricians of the large centres of population, but likewise to every country practitioner.

A medical man cannot, like a dentist, provide and carry about with him a number of forceps ingeniously modified to meet varying conditions. The necessities of practice demand that he should have but *one* pair, suitable for the ordinary and easy cases, but at the same time capable of meeting any contingency; not cumbersome to carry about, and simple in construction, with no weak point, liable to snap when severely tried. It is evident that such an instrument must belong to what we may speak of as the ordinary type of midwifery forceps, and not to the complicated and formidable looking traction forceps of recent years. Most of the forceps in general use are serviceable, but each and all have their weak points or defects; none can be said to combine in themselves the best features which experience has evolved. What is required at the present time is not the invention of novelties, but the judicious combination of such characters in the various instruments that have commended themselves to the profession at large.

It would be a matter of great importance if an Association such as this (by committee or otherwise) would thus arrange an instrument which would be known as the British forceps. They could be altered, as in the course of years new modifications commended themselves to the profession; and the young practitioner, when providing himself with instruments, would be guided by the general opinion of the profession instead of that of a single person. As a contribution to this end, I would submit the following criticism of the forceps in general use.

Amongst the many contributions to obstetrics which the authority above referred to has made, not the least is the introduction of an instrument which has been largely adopted. Barnes's forceps are well-known, but those who are unfamiliar with obstetric history can but faintly realise the good service he has done in England, in combating the dread of a powerful instrument, and exposing the fallacy of there being safety in weakness.

A formidable rival to his instrument is that of the late Sir James Simpson. No single form of forceps has, perhaps, been more generally adopted. Unfortunately, however, they have become stereotyped, and have undergone no modification for more than a quarter of a century. Had he lived it would in all probability have been otherwise. The process of evolution is to be seen in his entirely discarding the short forceps; and, had it not been interrupted, his long forceps would probably have been made slightly longer, and, perhaps, otherwise modified.

These two forceps, Simpson's and Barnes's, may be taken as the types of those in general use; and a comparison of one with the other will be found to cover most of the important points to be considered. The day of short forceps has gone by, and there is a very general consensus of opinion in favour of the pelvic curve, so that the question of "straight *versus* curved" need not be discussed.

1. *The Length.*—As to the length of the instrument, those who have been accustomed to use Simpson's forceps will agree that they meet the requirements of the vast majority of cases, even where the head is at the brim. Dr. Barnes totally misrepresents the capabilities of the instrument when he states in his latest work, "if one be accustomed to use a comparatively short double curved forceps, like Simpson's, which will mostly fail to seize the head at the pelvic brim." In his writings he has several times repeated

this opinion, which is at variance with that of most men who have been in the habit of using Simpson's forceps. I have never failed with them to grasp the head, even when above the brim; still I am at one with him in regarding it as an improvement were Simpson's forceps made of equal length with those of Barnes; it would render more easy their application in the high operation and give increase in power.

2. *The Handles.*—Less attention has been paid to this point than its importance deserves. The value of a pair of forceps lies quite as much in the form of the handles as in that of the blades. To be readily serviceable they should properly balance the blades in the hand; and this principle at once discards both the very short, as seen in Matthews Duncan's forceps, and the unduly long and heavy, as in the French type. The form of the handles determines not so much the amount of force that can be exerted as the conservation of the force. What is of importance is to avoid fatigue to the operator's muscles and the preservation of "the delicacy of diagnostic touch and the exactly balanced control over the movements" which is lost when fatigue is produced. For this end I have no hesitation in discarding all others and giving the preference to the well-marked type of handle found in Simpson's, that properly should be called the German handle. More than any other form it lends itself to comfort in grasping and readiness and variety in the mode of traction. One important characteristic is the hollowed shoulder at the head of each handle. For facilitating traction it far surpasses the device of the ring in the shanks, as in Barnes's and other forceps. Dr. Barnes has admitted that the shoulders answer the purpose better than the ring, yet strangely enough he has not adopted them.

The advisability of curving the handles so as partly to meet the difficulty of exerting traction in the proper direction will be referred to further on.

3. *The Lock.*—The general consensus of opinion is so strong in favour of the Smellie or English lock, that it need not be discussed in comparison with the button and mortice, or the screw. The fancied gain in the Ziegler lock is delusive; if there be a difficulty in locking, the blades are not in a position for traction; if the latter are so placed that traction can be made, there will be no difficulty in locking.

4. *The Parallel Shanks* have now been adopted in all the best forceps. It is here that a slight addition to the length is required in Simpson's forceps, so as to bring the lock more external in the higher operations. If the German handle be adopted, there is no need for the semicircular bow which forms a ring with its fellow when locked.

5. *The Pelvic Curve* has also now been decided, and does not differ in the two types of forceps under discussion.

6. *The Form of the Blades.*—The objection to thin springy blades is now well understood; several specimens of the Barnes's forceps I have seen err in this respect, a fault probably of the instrument maker more than the author. The actual form of the blades is to a large extent dependent upon the fenestræ. One extreme is found in Taylor's narrow forceps, so made for a special purpose; the other extreme is met with in several of the American forceps, as in those of Hodge, Smith, and Wallace. In them the fenestra is wider than in the English types. An intermediate form is preferable. In both Simpson's and Barnes's the fenestræ are too narrow. An increase was first suggested to me by a pair of forceps by the late Dr. Angus Macdonald, and since I have adopted this modification I have been fully conscious of the improved grasp, and greater retentive power of the blades so obtained. Slight as the modification is, I am certain no greater improvement could be made on the present type of forceps.

7. *Axis-traction Rods.*—It is extremely doubtful that the profession will ever lay aside the ordinary forceps, and take to one or other modification of Tarnier's instrument. The latter are essentially so much more complex and cumbersome that it would require a much greater deficiency on the part of ordinary forceps than actually exists to produce the revolution in general practice. Still it must be admitted that a defect in the ordinary curved instrument has been pointed out. This question I have discussed at length in this JOURNAL (August 28th, 1886), and have shown that the defect may be overcome by a much simpler method. Increasing experience in the use of the simple tractor, in the form of a hook, assures me that all the advantages claimed for the complicated apparatus can be obtained by the simple contrivance readily applicable to any forceps. It enables the operator to change the direction of the force in any way required; and gives much greater facility in employing both hands at once; it likewise diminishes the risk of

¹ Read in the Section of Obstetrics at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

fatigue by diminishing the strain upon the hands, and is simplicity itself in construction. The same end cannot be gained by curving the handles, as proposed by Aveling and others. The object is thereby attained in part only, for whilst traction can certainly be made with curved handles more directly in the required axis, yet a change in the direction of the force can only be made by changing the hold upon the head. With the tractor, on the other hand, the direction of traction can be changed at will without changing the grasp of the blades on the head.

The forceps which I now recommend are Simpson's, modified according to the opinions stated above, and embody such changes as we can suppose Sir James Simpson would himself have adopted had he lived. The instrument is lengthened by an inch added to the shanks, and the fenestræ are increased in width on the convex side by a quarter of an inch. The changes appear trifling; but experience has convinced me that they materially enhance the usefulness of the instrument. With them I would couple the simple forceps tractor, and, so armed, I am certain the practitioner will be able to cope with any difficult case where forceps are applicable, whilst at the same time the simplicity of the instrument is retained.

ON THREE CASES ILLUSTRATIVE OF RENAL SURGERY.¹

By KENDAL FRANKS, F.R.C.S.I.,
Surgeon to the Adelaide Hospital, Dublin.

THE surgical treatment of stone in the kidney is of such recent date that I need offer no apology for bringing forward at this meeting of the British Medical Association three cases, the first in Ireland, in which operative measures have been resorted to. Taken together, these cases are very instructive, each of them presenting features, both in regard to their history and the results of operation, which I think are well worthy of consideration. The first case has already been published in the *Annals of Surgery* for January, 1887. It represents a case in which a stone, which when dried weighed 171.3 grains, was readily detected both by the finger and by an exploring needle through an incision in the left loin. The second case was one in which the symptoms were almost conclusive of renal calculus, and yet through a lumbar incision careful manipulation with the fingers and free use of exploratory punctures failed to reveal the presence of a stone. In this case the kidney was not incised. The third case was one in which exploration with the finger and exploring needle also failed to detect a stone, and yet, after a free incision was made into the substance of the organ, a small calculus lying in an abscess cavity was found to exist. These cases, then, are typical cases of the varying conditions which may confront the surgeon in his search after a stone in the kidney; and as they open up several practical fields of thought, I will shortly sketch the history of each.

The first case was that of a man, aged 28, a silk weaver by trade, on whom I operated on May 6th, 1886, for stone in the left kidney. The history of this condition dated back for about six years. He had previously enjoyed good health, but had been a heavy drinker. In the winter of 1879-80, during one of his drinking bouts, he had rigors, followed by a feverish attack, and a fortnight later suppression of urine, which lasted three days. When the urine was again secreted it was passed mixed with blood. Concurrently with the hæmaturia severe and paroxysmal pain came on. It began in the left groin and hip, and sometimes shot down into the left testicle. Though varying in intensity, it was continuous during the six years previous to operation. The hæmaturia did not entirely cease for three months. When admitted to hospital the urine contained pus. I had him under observation for over six months. During this period he never passed blood, but the amount of pus was variable, sometimes amounting to a third. The urine was always acid, though sometimes extremely fetid. The specific gravity was about 1017. The microscope revealed pus cells and crystals of uric acid, but there were no pyriform cells and no tube casts. On examination of the site of pain nothing abnormal could be detected but well-marked tenderness over the left rib and below it, immediately external to the erector spinae, that is, over the region of the left kidney. He could not lie on the left side without increased pain. My colleague, Dr. Wallace Eantty, who examined the case with great care, concurred entirely

in the view I took of it, and accordingly I operated in the usual way, choosing the lumbar incision. When the kidney was reached a hard mass could be felt in the pelvis, and an exploratory puncture with a long needle showed that this was a calculus. It was about two inches in length, and completely filled the pelvis. An incision two inches long was made through the substance of the kidney down to the stone. The hæmorrhage at first was very brisk, but a finger passed through the wound served as a plug, and it quickly became checked. The stone was friable and chalky, but was so firmly embedded in the pelvis that it had to be crushed with a forceps and removed piecemeal. Part was hooked out with the finger and part with the assistance of a lithotomy scoop. The *débris* were washed out by means of irrigation. A drainage-tube was placed external to the kidney and brought out at the lower angle of the wound. The incised parts healed by first intention, excepting along the track of the drainage-tube, which was not finally closed till between the fourth and fifth week. After operation he was able to lie on the right side, and since he left hospital has been able to resume his work, which he had been obliged to give up entirely. He is now in good health, although the urine still contains a small amount of pus.

The second case was that of a farmer, aged 40, on whom I operated on February 24th, 1887. His renal history dated back to an accident he met with in August, 1885. A horse kicked him in the right groin; he fell backwards, striking his left side and back against a heap of stones on the road. He was stunned for a few minutes, but, on recovering, he experienced a sharp pain over the two last ribs on the left side. About a week later he noticed that the act of micturition caused him pain, which was most acute at the glans penis. It was increased in frequency, and was often followed immediately by the passage of a few drops of blood. These symptoms lasted for a fortnight, and then he was more or less free from them till September, 1885, when the hard work of the harvest brought them all back again. They continued without improvement till he came under my care. He then complained of pain over the left kidney, of a dull aching character, and continuous. It was increased by lying on his back or on his left side, or by exertion. It shot down into the left groin and into the penis, especially if he experienced a jolt. There was tenderness on pressure over the region of the left kidney. The urine was pale in colour and cloudy; it contained a small quantity of pus, and occasionally a little blood; it was acid, with a specific gravity of 1020; the microscope showed some renal cells, but no tube casts.

As some of the symptoms pointed to the possibility of a vesical calculus, he was sounded twice for stone, the second time under chloroform, but nothing abnormal could be felt except an increased rugosity of the lining membrane of the bladder. I therefore made an exploratory lumbar incision, and exposed the left kidney. I pressed it carefully all over between my fingers, but beyond an apparently thickened condition of the pelvis, I was unable to detect the presence of any stone. The kidney was then punctured systematically with a long needle, but nothing was found. I accordingly closed the wound, which healed rapidly, union being complete in a week, and he was then allowed to return home. Six weeks later I heard that he had returned to the country in "fairly good spirits and health, and that he had not much urinary trouble." But at the end of this period he got a chill from exposure, with high fever, rapid pulse, and he soon became delirious; but during the attack the urinary symptoms were not aggravated. He died on April 15th, the gentleman who attended him not having been able to arrive at a diagnosis as to the cause of death. It does not however appear to have been in any way connected with the renal trouble or with the exploratory operation. I should add that the pain in the side was materially improved by the operation, no doubt the result of the division of some of the nerves.

Though operation in this case failed to detect the stone, as has happened in many other cases, I have not hesitated to communicate it, as it forms a strong contrast with the third case, in which similar difficulties were encountered. This was the case of a married woman, aged 34, who was admitted to the Adelaide Hospital on February 16th, 1887. In 1869 she suffered for about a year from anæmia, but subsequently she enjoyed good health up to January, 1885. In the meantime she had married and had become the mother of four children. She became pregnant for the fifth and last time in May of that year. In the preceding January (that is, 1885), she began to suffer from a burning pain, not very severe in the region of the right kidney. It was accompanied by

¹ Read in the Section of Surgery at the Annual Meeting of the British Medical Association, held in Dublin, August, 1887.

profuse diarrhoea. At the end of three days she was seized with severe stabbing pain in the same situation, almost causing her to faint. Similar paroxysms occurred subsequently, while in the intervals between these paroxysms the burning pain continued. All these symptoms were aggravated during the months of pregnancy, which terminated prematurely at the eighth month in the birth of a stillborn child. This was in December, 1885. Immediately after this occurrence she experienced a new pain in the right side of the abdomen of a gnawing character. She referred this to a point about midway between the anterior superior iliac spine and the umbilicus of the right side. These symptoms were present when she was admitted to hospital. During her stay in hospital previous to operation she had frequent attacks of the paroxysmal pain, beginning at the back over the right renal region, and shooting through to the front under the right costal arch, as though a needle were being driven through from behind. This pain radiated across the abdomen, and more lately passed down to the hip; sometimes posteriorly, sometimes in front and down to the inside of the thigh. When an attack came on she used to coil herself up in bed and writhe with the pain. It was always accompanied by nausea and by vomiting if she had taken food shortly before. Since her last confinement menstruation had taken place fortnightly, lasting for eight days, and during these periods the pain in the abdomen was aggravated. On examination it was found that tenderness on pressure was marked in the back over the two last ribs and below them, but nowhere else in the neighbourhood. Anteriorly, where she complained of the abdominal pain, a swelling with its long axis vertical could be felt, tender to the touch and scarcely movable. It was difficult to determine what this tumour was; it felt in shape like a kidney, but it felt longer and occupied a distinctly lower position than that of the normal organ. The increased pain during the menstrual periods gave rise to the idea that it might be a diseased ovary.

The urine, which was frequently examined during her stay in hospital, nearly always presented the same characters. It was acid, of normal specific gravity, and contained no albumen, pus, or blood; but after standing a short time a well-marked deposit of oxalate of lime was invariably seen. Under the microscope numberless crystals were found, mostly octahedra, but sometimes ovoids and dumb-bells. Occasionally a deposit of amorphous lithates was thrown down. In addition to these might be seen vaginal epithelium and a few cells resembling pus corpuscles.

Dr. Wallace Beatty, who took a very great interest in the case, and who rendered me much valuable assistance, considered that it was a case in which operative measures should be adopted; and this view was also held by my other colleagues. Accordingly I performed the operation of nephrolithotomy on April 5th, 1887. I used the lumbar incision, about five inches in length. When the muscular layers had been divided, I found the lumbar aponeurosis was adherent to the peri-renal fat, and that it required some trouble and patience to clear the anterior surface of the kidney. The posterior surface was readily freed. The first thing which attracted special notice was a depression about the centre of the convex border of the kidney, which presented the appearance of a stellate cicatrix, but beyond a slight thickening of the renal substance beneath it, nothing could be felt to account for this. The kidney occupied a distinctly lower position than usual, and was decidedly longer than the normal, and I have no doubt but that this was the swelling which was felt through the abdominal wall previous to operation. There was absolutely nothing to be felt of an abnormal kind in the renal pelvis. As I could easily draw each part of the kidney in turns up to the lumbar incision, I carefully passed each portion through my fingers, but I could detect no hardness or inequality to guide me as to the position of a calculus. Exploratory punctures made seriatim in every direction likewise failed to give any clue. Under these circumstances I determined to make the exploration complete by incising into the kidney substance, as otherwise the only alternatives left to us would have been either to leave her unrelieved, or to excise, as Mr. Morris has done, an otherwise healthy organ. I began by making an incision about an inch and a half long, with the cicatricial depression as the central point, along the convex margin. The hemorrhage at first was very brisk, and took some time and pressure to arrest. This incision reached down to the pelvis. With my finger passed into it, I felt about in all directions, but without success. I then got a probe-pointed and grooved director, and passing it into the wound in the kidney, explored in several directions

into what was evidently a small abscess cavity, and some pus came along the groove of the director. A small calculus, about the size of a pea, was distinctly felt lying in the cavity. I now passed a knife along the groove, and by means of an extension of the wound upwards for about an inch, I laid the abscess cavity freely open. The amount of pus contained in it was about half a drachm. The wound now bled freely, and as pressure seemed to have little effect, I irrigated it with weak corrosive sublimate solution, which in a few minutes controlled it to a great extent. Unfortunately, the fluid washed out the stone, and before I could examine the returned fluid it had been thrown out. However, we succeeded in finding two or three very fine spiculae. As the oozing from the kidney substance was still free, I thought it best to plug the renal wound lightly with a piece of antiseptic gauze wrung out in weak carbolic solution, the end of the gauze being brought out at the angle of the skin wound beside the drainage tube. The parts were sutured in successive layers, and the wound dressed with gauze and a turf mould pad. For two days after the operation the patient suffered from incessant vomiting, which nothing seemed to check. She was nourished entirely by nutrient enemata. She had had no return of the spasmodic pain—that is, the renal colic, but the prostration from the vomiting caused me some uneasiness. On the morning of the third day, having tried every medicinal expedient I could devise, it occurred to me that the vomiting might be reflex from the kidney, and might be due to the plug which I had put in to stop the bleeding, much in the same way as nausea is so generally an accompaniment of renal colic. I accordingly at once removed the plug by gentle traction, with the happy result that vomiting only occurred once subsequently. From this time she made rapid progress. The wound remained aseptic throughout, and healed by first intention. The urine continued to flow along the track of the drainage-tube for four weeks, and a fortnight later the patient returned to her home in Holyhead. She completely got rid of the pain in the back and abdomen, and had no return of it when last I heard of her. I believe she is now in perfect health. When she left hospital she had regained flesh and colour, and looked a different woman.

This case is interesting in many ways, and I think it is one also of considerable importance. When Mr. Henry Morris excised an otherwise healthy kidney, and found in it a small calculus hidden away in one of the calices—which on a previous occasion he had been unable to detect, either by digital exploration or by needle puncture through a lumbar incision—he suggested that it might be better practice to open up the kidney and explore the calices rather than to sacrifice a healthy organ. This advice has been unfavourably criticised in some quarters, but I venture to say that this case goes to prove the wisdom of the suggestion. Had not cut into the kidney, I must have resorted to the more dangerous expedient of nephrectomy, or have been satisfied to leave my patient *in statu quo*; and I believe that the exploratory incision is by far the safest alternative. The result in this case makes me regret that I did not resort to it in the second case.

Another point which this case emphasises is that, to arrest the hæmorrhage from the kidney, should it prove difficult of control it would be better to compress the edges of the wound together by plugs applied external to the kidney, rather than by leaving any foreign body in the substance of the kidney itself. Taking these cases together, it will be seen that the only symptoms common to all three are the pain and the localised tenderness. In forming a diagnosis, the condition of the urine may act as a guide, but the absence of blood or pus from it is not to be depended on as indicative of the absence of a stone.

ILLUSTRATIONS OF THE ORTHOPÆDIC APPARATUS; REFERRED TO AT A DEMONSTRATION OF MODERN ORTHOPÆDIC METHODS.¹

By NOBLE SMITH, F.R.C.S. ED.,
Surgeon to All Saints' Children's Hospital, London.

THE points chiefly urged in regard to the use of instruments were as follows:

1. Determination by the surgeon himself as to the kind of instrument to be used, if any.

¹ Read in the Section of Surgery at the Annual Meeting of the British Medical Association held in Dublin, August, 1887.

2. Simplification of the mechanisms (combining lightness with efficiency) and.

3. Construction admitting of easy alteration by the surgeon.

Success in treatment often depends upon the skilful application of these principles.

Knock-knees in children may generally be cured by instruments. In slight or moderately severe cases the following splint, or a modification of it, may be efficient. In this case the leg could be at once drawn into a straight, or nearly straight, position.

Plate at top of straight metal splint coming well up }
thigh, for firm bearing.

Stiff band behind thigh to counteract the tendency of }
the splint to come forward; soft strap in front.

Knee-cap and straps to pull knee outwards

Lower end of splint forming a peg, at right angles, work- }
ing in a round socket in the boot.



Fig. 1.

The splint can be bent by the surgeon with wrenches.

In many cases where both legs are affected it is necessary to connect the tops of the splints by a band across the buttocks, to keep the thighs sufficiently forwards, and the feet from turning in too much.

In more severe cases a rack joint must be placed opposite the knees.



Fig. 2.

It is also necessary to keep the legs always extended.

Many modifications have to be made as a severe case progresses towards recovery.

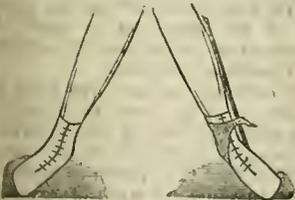


Fig. 3.

Where there is flat foot or a giving way of the ankle inwardly, a T strap can be used.

Bowed legs can generally be straightened by splints in children. The patient can walk about, but it is essential that the splints take a bearing from the ankle, coming down to the ground and from the inner condyle of the femur.

Band of attachment at knee

Band to act upon the curve

Round peg working freely in a socket



Fig. 4.

When the curve is forwards, splints are not of much use, as we lose the points of firm resistance at each end.

If any splint is used it may be made as shown here.

Gutta percha shield to protect anterior sharp edge of tibia.....

Forked end taking a bearing upon each side of the heel.....



Fig. 5.

Here osteotomy is often the only means of correcting the deformity.

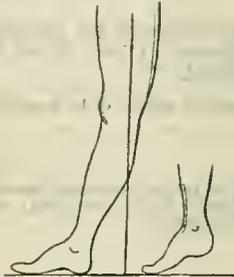


Fig. 6.

Fig. 7.

Fig. 7 is a case of talipes equinus. The patient, in continually attempting to place the sole of the foot flat on the ground, has caused the knee to give way, producing hyper-extension, shown in Fig. 6.

Treatment consisted in division of the tendo Achillis, and rectification of the position of the foot. Then the wearing of the apparatus shown in Fig. 8.

Thigh band at upper end of single lateral bar

Front stop joint at knee preventing hyper-extension, but }
permitting free flexion.

Joint at ankle at first fixed, then either front stop joint to }
protect tendo Achillis from too much strain, or back }
stop joint to prevent recontraction, or limited movement }
both ways according to disposition of case.



Fig. 8.

Fig. 9.—A case of rupture of the internal lateral ligament of the knee-joint. Instrument applied to outer side of peg, with free movement of knee-joint and limited flexion of foot.



Fig. 9.

Without this support the patient could only walk with the aid of crutches, and then with difficulty. With it she could walk well with the aid of one stick, and even the stick was not absolutely necessary. She wore this for a few months; six months after, the knee was quite well and strong.

Fig. 10.—G. C., aged 8. Scrofulous disease of knee-joint; very bad family history. Duration of disease, three years, commencing after an injury. Knee said to be out by celebrated bonesetter; he used forced movements, and abscess came; knee made much worse. There was constant pain and swelling of joint. Applied instrument.

Trough to support thigh attached to each }
lateral metal rod (one on each side) with- }
out movement of knee.

Knee-cap to keep knee towards support.....

Joint at ankle with front stop, so that weight }
of body in walking was transmitted up- }
wards without use of muscles of leg.

Raised sole to compensate for flexion of knee



Fig. 10.

Result.—Rapid improvement and cessation of pain and heat in joint. A year after was walking about comfortably, but owing to very bad family history was directed to continue to wear instrument, which is no trouble.

Fig. 11.—Modified Thomas's splint for acute hip-joint disease. Attached above by shoulder straps, leaving chest perfectly free.

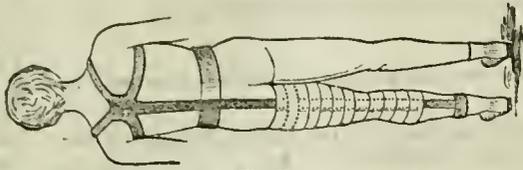


Fig. 11.

Fig. 12.—Dr. Judson's (New York) ischiatic crutch for hip disease, used by him in all stages of the disease. I have found it very useful after the acute stage has subsided.

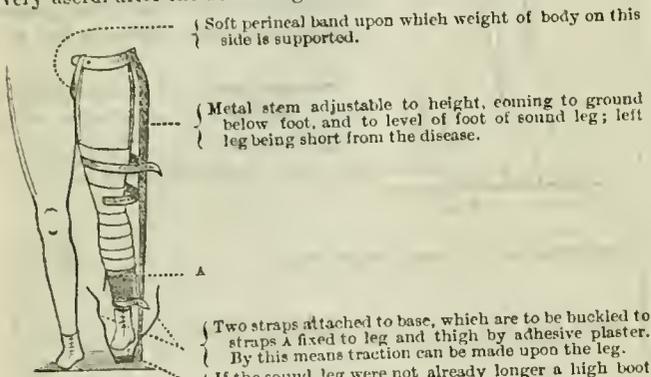


Fig. 12.

This apparatus my friend Dr. Virgil P. Gibney (New York) intended to show at the meeting, but, unfortunately, it did not arrive in time.

Fig. 13.—For curies of the spine. Plaster-of-Paris, leather, or gutta percha back splint moulded to the back while the patient is recumbent in a prone position, with the legs at an angle of 45° with the straight line of the body (so that the lumbar part of the spine does not bend in too much).

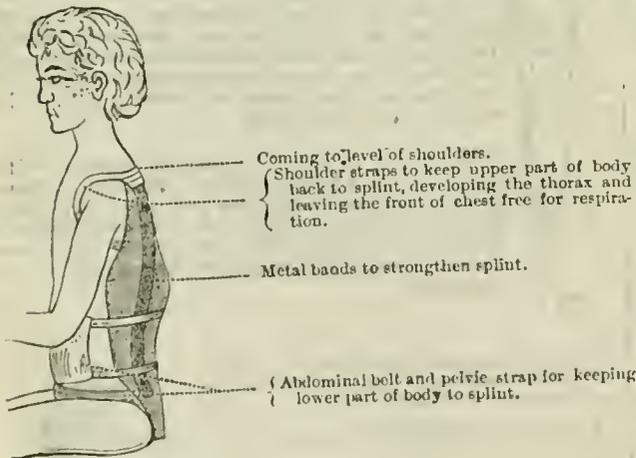


Fig. 13.

This splint is applied upon the principles of Mr. E. J. Chance's instrument. The latter is the more perfect appliance, because it enables the surgeon to regulate more exactly the bearing of its different parts in accordance with the progress of the case; but for general purposes the splint here depicted is applicable, and by it the spine is held firmer than by any jacket.

Fig. 14 represents a plaster-of-Paris spine support for caries leaving the chest perfectly free, strengthened in back by metal bands.



Fig. 14.

THE ETIOLOGY AND CLASSIFICATION OF THE ANÆMIA OF PUBERTY.¹

By E. MACDOWEL COSGRAVE, M.D., F.K.Q.C.P.,

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A LARGE number of girls suffer during puberty from a condition of ill-health characterised by a very constant train of symptoms, and to which the names anæmia and chlorosis are applied. Although the disease is so common, its symptoms so plain, and the treatment, as a rule, so successful, the etiology is by no means well established, various theories being put forth by different writers.

Trousseau² considered it a neurosis, the blood changes being secondary. Niemeyer³ appears to consider it as a result of premature sexual activity. He writes: "According to my observation, obstinate chlorosis attacks all young girls without exception in whom the menses have appeared in the twelfth or thirteenth year, before the development of the breasts and pubes." Mitchell Bruce⁴ says the origin of the disease lies in a peculiar condition of the blood and blood-vessels, which is believed to be congenital and perhaps hereditary. Aitken⁵ considers chlorosis as one of the "functional diseases of the female organs of generation in the unimpregnated state." Sir Andrew Clark⁶ considers "fæculent retention and its consequences" as the cause. Sée⁷ looks upon the inability of the organism to meet the demands made upon it by the simultaneous advent of menstruation and of rapid growth of the tissues as the cause.

A great many predisposing and exciting causes have been described by various authors; most of these seem to be not so much causes as merely coincident with the time of life at which the disease begins, but, generally speaking, all things are causes which lessen metabolism and the power of the system to meet the demands made upon it, such, for instance, as want of exercise, improper food, and vitiated air, and the variety of the disease caused will depend greatly upon the force and direction of these causes.

The distribution of the disease bears this out. It is not confined to any class, but is more often met with in large towns than in the country, and is much more common amongst girls who sit at their work than amongst others. When it does occur amongst servants, defective drainage is often an exciting cause. In Dublin the disease is very common; yet in Huddersfield, where the great

¹ Read before the Medical Section of the Royal Academy of Medicine, Ireland, March 9th, 1888.

² *Clinical Medicine*, vol. v, p. 101, 1872.

³ *Textbook of Practical Medicine*, vol. ii, sec. iii, chap. i.

⁴ *Quain's Dictionary of Medicine*, art. Anæmia.

⁵ Quoted by Sir Andrew Clark in a paper read before the Medical Society of London, November 14th, 1887.

⁶ Medical Society of London, November 14th, 1887.

⁷ Quoted by Sir Andrew Clark.

majority of the girls work from an early age in mills, it does not seem to be common, as, on looking over the notes of more than 600 cases treated there consecutively, I find only three examples of the disease, and one of these girls is specially noted as having a "sitting job" in a mill. The chief differences between the girls in Yorkshire towns and those in Dublin are that the former are better fed and have more exercise, both at their work and after it.

But, although these causes are generally met with, sometimes they are absent, and the disease occurs in girls of good physique, living in country air, warmly clad, and well fed.

In Sir Andrew Clark's paper⁸ the graphic description of the patients only dealt with one variety of the disease—that generally termed chlorosis; but other well-marked varieties of the anæmia of puberty are met with. I would venture to propose the following classification:—

1. Fat anæmia, where there is a well-marked deposit of adipose tissue.
2. Anæmia of overgrowth, where there has been well-marked general increase of growth without much deposit of fat.
3. Anæmia of general malnutrition.

The first and second and the second and third may overlap, but never the first and third. In the first variety the symptoms of anæmia generally follow the deposit of fat in the tissues; in the second they follow the rapid growth; in the third they generally follow the appearance of the menses. The second and third (those in which there is no deposit of fat) are liable to be complicated by tubercular disease.

In spite of the great weight of Sir Andrew Clark's experience I cannot look upon constipation as even an important cause of this anæmia. Constipation and anæmia are often associated, but very often the constipation is not greater than would be expected from the general sluggishness of the functions, and is similar in significance to the copious pale urine, of low specific gravity and deficient in urates, so generally associated with this anæmia. That the constipation is accompanied not only by torpidity, but also by loss of power, is shown by the failure of belladonna and *aux vomica* to relieve it.

Another argument against constipation being the cause of the disease is that cure often follows the use of iron in the form of Griffith's mixture or Bland's pills, without any purgatives being administered.

Habitual constipation is a common complaint, and as long as the bowels are evacuated regularly, uncomfortable symptoms seldom arise, no matter what the interval between the motions. There seems no reason why constipation should at one age and in one sex cause this characteristic train of symptoms, and produce none of these symptoms at other times.

In some curious cases the constipation is persistent through life, but is not accompanied by any definite symptoms except at puberty and the menopause, at both which periods there is palpitation with shortness of breath on exertion. In one case, at present under observation, there has been obstinate constipation, as a rule not more than one motion in nine days; the patient is now 40, and it is only quite lately that the palpitation and shortness of breath have appeared.

With regard to the occurrence of the menses, my experience is very different from that of Niemeyer.⁹ Early development and premature menstruation seems the rule. Often the anæmia sets in without any appearance of the menses, but in many of the cases there has been a slight appearance for from one to three or four months, and then either a total cessation or an occasional light appearance for a month or two, and then several months without any.

Generally speaking, I have found that in the anæmia of general malnutrition the menses may be absent, scanty, or, in rare cases, normal. In the anæmia of overgrowth there is an attempt at establishment of menses without development of the breasts, etc. The beginning of fatty anæmia is coincident with the development of the breasts, etc.

In the fatty anæmia there is certainly an hereditary acquired disposition. It is very common to find several sisters affected. In one family I have noted four, in another three, and in several two or three affected. In these cases I have often found that the mother has been married early in life, and I have learned to look upon this as an important factor. In one family of good means, and living in the country, the mother was eighteen years of age at the birth of

her first child. She has had five sons and three daughters; all the sons have been very strong, but the daughters, although when young, strong, and of healthy colour, have all passed through well-marked fatty anæmia. In another case the mother never suffered from anæmia; her first child, a daughter, was born when she was only seventeen; the child is now rapidly getting stout, has no appearance of the menses, and is, in fact, passing into fatty anæmia.

Another very interesting point in this variety of anæmia is, that if any strong call in a particular direction is made upon the system, it will be able to meet it; thus, there is generally marked shortness of breath and palpitation on going upstairs, and but little whilst walking not too rapidly on level ground, yet domestic servants so anæmic as hardly to be able to walk on level ground, will sometimes be able to carry heavy weights upstairs. This I have never observed in the other forms of anæmia.

A most important contribution to the etiology of the disease has been made by Beneké,¹⁰ who has shown that the annual increase in the heart and blood-vessels in girls up to puberty is 8 per cent., per annum, whilst during the establishment of menstruation it is 80 to 100 per cent., so that if puberty is established in a single year, an extra growth of from 70 to 90 per cent. weight, in addition to ordinary growth, is entailed, and that at the end of puberty the lungs have arrived at the fullest development, and the excretion of carbonic acid gas has reached its highest. There is no such rapid change in the male.

Professor Bowditch¹¹ says that, up to 11 or 12, boys are, on the average, taller and heavier than girls; for the next two or three years girls have the advantage, whilst after 14 or 15 boys again excel in strength and height.

It is probable that the rapid development of the female is to be found in sexual selection. Men generally choose wives younger than themselves, and so women who are early sexually mature are most likely to be married and have offspring. In time this ought to cause a rapid maturity, and the general tendency would be emphasised in the offspring of mothers who were married young.

The parts affected in this rapid development are the various tissues derived from the mesoderm. The white cells and blood corpuscles, the heart and blood-vessels, the reproductive organs, and the supporting and connecting tissues are chiefly affected. During puberty the mesoderm is largely called upon by the rapid growth of the organs concerned in generation. If the system is unable to meet the demands made upon it, anæmia results. If badly under-nourished, the system is almost certain to fail to meet the extra demands, and the anæmia of general malnutrition is established. If, at the time the rapid growth of the organs of circulation and reproduction is set up, there is active growth of the bones, muscles, and other tissues, the system may be overtaxed by the further demand, and the anæmia of overgrowth gradually appear. In a third class of cases the mesodermal energy is misdirected, and instead of the demand being supplied, an excessive amount of reserve tissue (possibly resulting in part from deficient oxidation) is formed, and fat anæmia develops.

That there is not only an accumulation of fat, but deficient growth and a fat substitution, is shown by the aorta of small calibre and the unequal thickness and fatty metamorphosis of the intima, which are so well-marked as to have led to the idea that the cause of the disease is a congenital condition of the blood and blood-vessels.¹¹

With regard to prognosis and treatment, I would add only a few words. In the variety of anæmia associated with deposit of fat there is sufficient, but misapplied, vitality, and cure may be looked for. The treatment is twofold, specific and symptomatic. Iron may fairly be called a specific; introduced in quantities far exceeding the ordinary needs of the system, it does good, and often, without any assistance, cures. Dr. Oswald Schmiedeberg¹² says: "The possibility cannot be denied that under conditions otherwise favourable and necessary to the cure, the formation of red blood corpuscles may be forced, even by an increase of the iron absorbed, which, though in itself minute, is kept up a considerable time, because of a long-continued extra supply of the metal."

It seems probable that the iron acts by modifying the mesodermal growth and checking the excessive formation of a reserve

¹⁰ *Der Ueber das Volumen des Herzens und die Weite der Arterien in den Verschiedenen Lebensalteten*, 1879.

¹¹ *The Growth of Children*, 1877.

¹² *Cf. Dr. Mitchell Bruce, loc. cit.*

¹³ *Elements of Pharmacology*, 1837, p. 132.

⁸ *Loc. cit.*

⁹ *Loc. cit.*

material. Arsenic and the mineral acids also do good, but I believe not so rapidly.

As bearing on the specific action, I may mention that the syrup of the iodide of iron has seemed to me to act much more rapidly and effectively than the syrups of the phosphates and of the hypophosphites.

The form in which the iron is given must vary with the necessities of the case. As a rule I prefer four or five grains of the iron and aloes pill of the *B.P.* each night and morning. In this combination I have never found iron disagree. If there is a catarrhal condition of the mucous membrane of the stomach, I use a mixture containing sulphate of magnesia and sulphuric acid, either adding sulphate of iron to it or ordering the myrrh and iron pill of the *B.P.* In some forms of dyspepsia the sulphate and carbonate of magnesia with aromatic spirits of ammonia in a bitter infusion act well in conjunction with the iron and myrrh pills. Very rapid improvement follows the use of the solution of the perchloride of iron. *B.P.*, but some people cannot take it; I find however that it disagrees with comparatively few since I have prescribed it (on the suggestion of my friend Dr. Cameron, of Huddersfield) with an equal quantity of spirits of nitrous ether.

Hygienic treatment is also important. Fresh air, good food (especially meat), and moderate exercise are useful, but over-exertion is hurtful, and tends to prolong the anæmia, or even to render it permanent.

In the anæmia from overgrowth the prognosis is generally good, but the possibility of tubercular disease must not be overlooked. Fresh air, nourishment (especially milk), and comparative rest are all important. Iron has not seemed to me to be so necessary; when given it is generally best in the form of the syrups of the iodide of iron and of the phosphates. If purgatives are required, I prefer the saline ones and avoid aloes.

In the anæmia of general malnutrition the prognosis is bad; the excessive demand comes upon a system but badly able to fulfil its ordinary duties, and permanent debility generally results. In such cases, country air, perfect rest, and plenty of milk and other easily assimilated food, with cod-liver oil, is what is required, and medicine is of secondary importance. I have found most benefit from the sulphates of iron, quinine, and magnesia, in combination with hydrobromic acid.

ON THE EXCISION AND SCRAPING OF CARBUNCLE.

By RUSHTON PARKER, M.B., B.S., F.R.C.S.,
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THERE are few procedures in practical surgery that better deserve recommendation than the local extirpation of carbuncle, of which the pain and tenderness are thereby ended, and the state of gangrene, always virulent and sometimes inveterately spreading, replaced by simple inflammation in a healing sore.

If the carbuncle be small enough, or seen early enough, an abortive treatment may sometimes be practicable by syringing through it an effective antiseptic liquid; but we seldom get such a good chance of doing this in carbuncle as in boil. In my own case I have several times arrested a boil in its early commencement, when little more than a pustule in a hair follicle, by injecting strong carbolic or sublimate solution a few times, at short intervals, with a hypodermic syringe. But the manipulation necessary for this in even a small carbuncle is at least as painful and prolonged as the excision of the virulent centre (or centres), and not appreciably more saving of tissue. When an anæsthetic is given, the question of pain, as of time, is unimportant; but there are cases of small carbuncle, especially facial, in which excision there and then, without assistance, is very convenient to the surgeon and readily borne by the patient. The disease is almost always acutely tender, if not constantly painful, while constitutional disturbance is sometimes great and increasing. The effect of extirpation is immediate relief to the former ill, and a gradual but sure end to the latter when not too late. I concur with the support given to this important practice by Mr. Herbert Page and Mr. Edmund Owen in the *JOURNAL* of March 24th, and with the tribute there paid to Mr. Teale's excellent paper on "Scraping," adding, in this brief reference to my cases, some details that usefully supplement those accounts. I prefer, however, to consider together erosion and excision, as both may be required in different parts of the

same carbuncle, while other carbuncles require the one or the other according to the softness or hardness of their affected tissues.

CASE I.—A servant girl, aged 19, was sent by Dr. Grimes to the Liverpool Royal Infirmary on the evening of September 4th, 1885, suffering from an acute brawny inflammation on the left side of her chin, of four days' duration. As there was a question of malignant pustule, I was summoned, and went to her at once. Under chloroform an incision was made, and the nodule inspected within. The tissues in the centre were grey and purple, and the thing was decided to be carbuncle. A conical piece was excised, pure carbolic acid put into the wound, with a sublimate dressing laid on. The inflammation melted rapidly away day by day, and the girl was well in a fortnight. There was, I believe, no anxiety about her constitutional state from the first, but I have no note of the details.

Here the best practicable form of immediate local extirpation seemed to be excision with a sharp knife, on account of the density of the tissues. The virulent centre was about the size of a pea, and yet the collateral swelling was as big as half a walnut.

CASE II.—A night-soil carter, aged 23, had a pimple on his neck on May 24th, 1886. This he picked, but was none the worse next day, when, however, he took too much drink, and, the day following, his neck began to swell, and his head to ache intensely. On the 28th he was sent by his medical man to the Liverpool Royal Infirmary, with the left side of his neck in a swollen, red, angry state, very like in appearance to the illustration of malignant pustule given in the *JOURNAL* by Mr. Marrant Baker on June 14th, 1884. His temperature was 104°, and the disease was at first supposed to be a mild form of malignant pustule. Excision of the centre, dirty-grey and purplish, with some surrounding skin, was performed by me without anæsthetic shortly after his admission. Pure carbolic acid was put in, and sublimate dressings applied. His temperature rose to 105° that evening, but fell to 100° during the night. It was taken every two hours for four days, and found to rise after mid-day and fall after midnight. The second day after admission it did not reach higher than 102°, but the day following it again became 104°, after which it kept below 100°, before eventually subsiding to normal. This case was on clinical grounds regarded as a mild form of malignant pustule; the local appearances, absence of pus, and constitutional state favouring the idea. But neither the juice of the excised fragment nor the patient's blood or urine showed bacilli under the microscope, though there were abundant micrococci found in the urine and juice of the wound. The case is therefore considered to be a small carbuncle, or aggravated boil, with unusually severe symptoms, presumed to be due to ptomaine poisoning.

CASE III.—Another carbuncle of the chin, right side, in a woman aged 22, who came to me on January 15th, 1887, eight days after its appearance. In local characters it was like Case I, and getting worse every day. But the temperature was only 99.8°, and the pulse 72, which I thought augured well for the patient. I excised the centre, without anæsthetic or assistance, in my consulting room, applied carbolic acid inside and a sublimate dressing outside, with the same good effect.

A few years ago I read an account by, I think, a Parisian surgeon, of the excision and antiseptic after-treatment of ordinary carbuncle, and determined to adopt it at the first opportunity. This did not occur until April 29th, 1886, when (CASE IV) a man aged 43, came under my care in hospital. He was not ill, and the carbuncle was not severe, though moderately large. But it was, as usual, tender and painful, situated at the back of the neck, and he was likely to be benefited by its removal. I therefore commenced to excise it at once, under chloroform, through a crucial incision, dissecting back such part of the remaining skin as seemed not too far injured. But I soon found that the sharp spoon more easily served the purpose, most of the carbuncular tissue being soft and pulpy. The bleeding was certainly abundant, but was controlled with hot water and the pressure of sponges. The next day he expressed himself very pleased, feeling that "a load had been removed from him," in the loss of all discomfort. Sublimate dressings and eucalyptus ointment were used, and he was well in a fortnight.

CASE V was that of a man, aged 50, who came under my care on January 19th, 1888, with a large carbuncle on the nape of the neck of some ten or twelve days' standing. He was not ill nor in distress, but he readily agreed to its removal. Here I began to erase, but soon found that excision had to be done with knife or scissors in some portions that were hard and brawny, and entirely

influenced by the spoons. The fascia was in places undermined, and these I opened up and scraped well out. The bleeding here, too, was profuse, but kept down with hot water and the pressure of sponges. Dressings as in the previous case were applied, and the patient was well pleased with the effect, and the speedy restoration of suppleness to his neck. He was up and about in a day or two, and well in a fortnight.

I have gone thus far, but I hope not tediously, into these five cases to show that while neither erosion nor excision is by itself panacea for all carbuncles, the two processes combined or selected are applicable to every case, not as a matter of mere novelty or variety, but as the most effectual treatment that we can adopt, if not put off too late. Not that I doubt that any of these carbuncles, all of them, perhaps, were capable of recovery under expectant treatment, which differs little from no treatment. I am perfectly sure that all were exceedingly benefited by local extirpation; and if it be that any of them were likely, if too prolonged, to end in fatal septicæmia or pyæmia, that disaster was undoubtedly averted by the operation performed.

There is no means known to me at present of deciding in the early stages of a carbuncle whether it be likely to end in recovery or death if allowed to run a natural course; but it does seem to me that timely extirpation in some form or another, indiscriminately used, is the most certain means whereby diminished fatality is to be hoped for in the most serious cases, while minimising the discomforts of the slightest. I can look back upon several fatal cases in which I should gladly have known that excision was likely to be curative.

Just a word about potassa fusa, which I personally seldom use, but on which Mr. Page seems rather hard. If for some reason it should not be possible for me to scrape or cut out a carbuncle, I should consider it a very fair substitute to mash up the interior with sticks of potassa fusa. To be sure this would in effect be a more or less thorough erosion; but any of the gangrenous virus removed would have the chance of being permeated by a pretty efficient antidote, that might easily arrest further spread of the disease.

Some persons rub in caustic potash or other powerful chemicals in addition to excision, but their additional necessity is at least doubtful. Of these I consider solid nitrate of silver the best for æmestatic purposes, but it causes great pain. Pure carbolic acid as the advantage of producing local anaesthesia in addition to its antiseptic qualities.

THE GOULSTONIAN LECTURES ON INSANITY IN RELATION TO CARDIAC AND AORTIC DISEASE AND PHTHISIS.

Delivered before the Royal College of Physicians of London.

By WM. JULIUS MICKLE, M.D., F.R.C.P.LOND.,
Medical Superintendent, Grove Hall Asylum.

LECTURE III.—INSANITY IN RELATION TO PHTHISIS. (Concluded from page 689.)

Some, hearing hallucinatory abuse and reviling, fancy that very old scores is raked up against them, and that their delusively imagined misdeeds, known to and unadverted upon by all, occasion the finger of derision or of scorn. A few take delusions about being baffled, annoyed, or us, to malevolent and injurious interference with their mind and its operations. Having links with these, but in themselves mostly of neutral emotional character, are delusions such as that new patients electrify the old, that bells are kept ringing and electrify the air.

Third Sub-group: Morose, Angry Mania, or Cases with Delusions of Injury, Persecution, not or not yet Systematised.—Phases of times of emotional depression, though present in some examples, are far less frequent in this than in the previous sub-group, as also are suicidal tendency, apathy, and indolence. On the other hand, many are irritable, sullen, morose, moody; some obstinate, or are given to refuse food; on the other hand also excitement predominates—excitement, usually angry, but in some temperately angry and gay; indeed at first there may be acute mania. Such patients, too, are usually restless and violent, whether merely destructive, or dangerous, or threatening, or homicidal; usually also are they fidgety, gesticulating, muttering, swearing, denouncing; some are noisy, some mentally confused.

Of many are the utterances at times voluble but incoherent, rambling, confused, irrelevant, peculiar; and their conversation may be with imaginary people. The memory is often impaired, occupation or amusement unsought, the glance furtive, the visage grimacing.

A majority are hallucinated, hallucinations of hearing being the most frequent, and those of sight coming next. A majority, again, are extremely suspicious; a majority are at times either obstinately silent or very taciturn; a few lose sleep.

Delusions.—Injuries to, or maleficent influences affecting, the patient's body are frequent subjects of the delusion; delusions of persecution, of the hostility of others, or of poisoning, are somewhat frequent; those of conspiracy are occasional.

The delusions as to bodily damage or injurious influence are, such as that "the contents of the head are drawn out by the nose," that the sufferer is "interfered with," that "electricity plays on him," and by it he gets hallucinatory messages or "is electrified," is "worked on by spiritualism," is "placed in strange malpositions by the country he is in." Or, that he is "full of another's spittle," "a weight is imposed on the nape, chalk is thrown into his mouth and urine into his body," sees a "blue, gaseous substance inside him." His "frame vibrates" with the persecutors' movements; "the attendants threw wrong things, thus stopping his breath and nearly killing him;" "has been torn from head to foot all his life."

Similarly depressing and expressive of a sense of hostility in the environment are the ideas that voices gibe at and vex him; that the newspapers write against him; that detectives follow him; that he is surrounded by blaspheming infidels, or affected by the operation of "secret telegraphy," that he is "robbed," is about to incur evil and injury from those around; that his wife is unfaithful to him, and he therefore kept in an asylum in furtherance of an immoral object; that whilst in the army he "suffered more than any man in the world."

Nevertheless, expansive ideas may crop up in the more active and gayer mania; rarely, if ever, does this state assume a chronic character. The patient says he is a better doctor than his physician; or that "a saint put a ring on his finger;" or that, having been electrified, he can by a touch tell what others have done all day; or he says he is Christ, or has a saintship from him, or is the Trinity; "has thousands of millions of money, brought the sun back, will live 100 years."

Fourth Sub-group.—These cases are of the monomaniacal type, in some instances abortive or imperfect, in some a rapidly deteriorating psychosis. For the most part of the persecutory querulous types, occasionally they are of the hypochondriacal or of the exalted; the characters, however, are often mingled.

An example mainly taking the persecutory querulous form may be as follows: at first eccentric, silent, restless, he becomes disrespectful, morose, sullen, noisy, angry, threatening, sleepless, mutters curses, and entertains delusions of persecution and of poisoning; later he takes delusions such as that, for love of him, a rich woman had him sent from India under fictitious names, and, he being under a course of opium, she also took the opportunity "to work off his mind and brain, because work is taken off by people who are outside." He sees them, they draw themselves before his eyes, he hears them, and they annoy his mind and brain, and say that they "persecute one man;" he is that man. Day and night, but especially the latter, he hears the men who follow and annoy him, paid to do so by a woman, who also mesmerises him constantly, and keeps him in the asylum. "Opium is put into his food and brain; the time-giving and seeing of opium through the brain is destroying him." Under the delusions of injury he becomes excited.

In some cases many of the delusions are more of a neutral tint. One "has cannon balls in his head; his name is written on his forehead. The chaplain is not ordained, is a debauchee; a nurse causes death of the inmates, so does the baker;" the officials about him are "in false names," and his language is foul and threatening towards them under the delusion that they are receiving bribes from a woman to cut off his head. "Against him bad characters have a spite; day and night people talk about him, and what he has been through."

Occasionally the expansive element is relatively more marked than in the preceding examples. Thus, one "is an heir: his relations were about to shoot or poison him, and day and night they talked of doing this," their object being to give his property to

another heir; therefore he fears being killed. "Has an estate; the asylum premises belong to him," and so do the clothes worn by those in charge of him, and because of this, and of his detention in what he delusively calls his own mansion, he threatens and tries to attack. He asserts that he is "wanted in the city," is to marry a rich lady; has enormous wealth. Later on, he shouts his orders to imaginary persons in an unintelligible jargon. Or, another "sees Christ, or the devil frequently, or whenever he likes; hears God; sees Him in Heaven; needs not to work, inasmuch as God will always provide him with food."

Fifth Sub-group.—In a few cases phthisis appears to widen, deepen, modify the mental defect of a weak-minded person; as it were, to add dementia to a degree of imbecility, and bring the individual affected under notice, and into an asylum, owing to the grave loss of mind, the failing mental capacity, now obvious. Such persons are usually young (18 to 25). Hopeless as this condition may appear to one unacquainted with its true nature, or lacking experience of the kind, it is sometimes the theatre of therapeutic triumph, and under outdoor exercise, a regular life, large diet, cod-liver oil and tonics, the patient may be found to lose the marked signs of phthisis, gain greatly in body weight; and, throwing off all the supervenient dementia, return to the degree of mental capacity normal to him, such as it is. Similarly I have seen, at least temporary, mental recovery in one example presenting relations similar to the weak-minded cases just mentioned, and occurring in a youth, aged 19, the subject of moral disorder, of inveterate kleptomania, impulses to theft, also to strange acts; vertigo; and, somewhat doubtfully, of hallucinations of hearing, at times.

Second Group.—Cases in which the order of incidence of phthisis and insanity was doubtful, that is to say, in which the two apparently came on simultaneously, or so nearly simultaneously that it could not be definitely stated which of them preceded the other.

Of the 106 cases already analysed with regard to the question of insanity supervening on phthisis, the order of incidence, on closer scrutiny, was found to be doubtful in a goodly number, owing to apparent approximate simultaneity. Taking the twenty-four examples most adapted for our present purpose, I have examined my notes and records of them with some interest to ascertain, more precisely than from a general impression, how far these cases, on the whole, resembled those of insanity supervenient on phthisis, and forming our first great group already discussed. In cases of insanity and phthisis coming on about simultaneously, and of doubtful order of incidence, obviously we cannot expect to find, as the initial disorder, those actively quasi-delirious symptoms and hallucinations sometimes coming on in established or advanced phthisis, and forming the clinical aspect of the first sub-group of cases of insanity supervenient on phthisis. But if we find a general likeness to the other sub-groups of cases of insanity supervenient on phthisis, in those where the order of incidence is doubtful, it affords the necessary confirmation to my view that phthisis gives origin to, or assists in the causation of, many examples of insanity like those most apt to begin nearly simultaneously with the invasion of lung tubercle; or, in other words, that actual phthisis produces or precipitates a state of the constitution or of the organism similar to that which, in this second group, leads to the practically simultaneous breakdown manifest in both phthisis and insanity. We find that those under the present head show a general grouping somewhat similar to those under the preceding head; particularly do they repeat the symptoms of the second, third, and fourth sub-groups above, as may be seen in the following general summary.

Summary.—In many there is emotional depression. This may assume the more common aspects of melancholia; fear, weeping, grief for alleged, but imaginary, guiltiness of crimes; or vexation about the "abuse" he receives, and the "evidence" raked up against him; or a suicidal tendency, or attempt, may be observed. But in some the state is apathetic or stuporose; a condition more of less of *melancholia attonita*.

Even still more frequent and striking than phases of emotional depression are the cases with delusions as to bodily injury, damage, torture or detriment of various kinds; those as to persecution of manifold variety, or of plot or conspiracy against the lunatic; those as to being poisoned by food, or deprived of food; those as to hostility, annoyance, as by hallucinatory voices, whether these be reviling or not; those as to interference, threats or designs against him, adverse influences, mysterious agencies.

Usually either not, or imperfectly, systematised, the above de-

lusions of injury or persecution often tend to become fixed and systematised. Yet may expansive delusions occur in some, and when they exist are usually found alternating with depressed or persecutory delusions; as in some forms of monomania.

Sleeplessness is frequent; violent, restless, noisy, destructive states, or foul habits, may be found. Some are scowling, angry, threatening and abusive in language. Some are suspicious, some are apathetic, or confused, incoherent, or unsociable or irritable, or shy in appearance and demeanour, or act with an air of mystery or secrecy, or are discontented, malicious.

The great majority are hallucinated, hallucinations of hearing being the most frequent, those of sight next, those of other special senses sometimes observed. Usually disagreeable, the hallucinations are so, or the reverse, according to the predominant co-existent mental colouring. Visceral illusions are frequent.

Thus we see how closely the above cases, set down as examples of those in which the incidence of phthisis and insanity is nearly simultaneous, and its precise order doubtful, resemble the second, third and fourth sub-groups of those cases of insanity supervenient on phthisis, of which we have already spoken, thus justifying the remarks preceding the particular description of this second great group of cases.

It will scarcely have escaped notice how large a number of the cases collected for our first two groups we eventually excluded from immediate consideration, and in how considerable a share the precise order in which phthisis and insanity came on was obscure and difficult to determine.

Not only are there, in phthisical cases of insanity, the usual difficulties often attending the attempt to attain correct information on the causation and inception of disease, as experienced by all practitioners of our art, but there is the further and unusual difficulty engendered by two factors; the one being that the mental condition of many a one precludes us from obtaining accurate information from the sufferer himself; the other, that in many of the insane the phthisical process is extraordinarily latent, fails to reveal itself in its full symptomatic aspects, and does not occasion some of the usual reactions of the organism, or at least in the customary degree. But the latency of phthisis in some of the phthisical insane forms a separate subdivision of the subject, and one which I had hoped time would permit me to take up in this lecture.

Third Group: Phthisis Supervenient in Insanity.—1. Relations of forms and clinical aspects of insanity to the subsequent occurrence of phthisis. 2. Relations of phthisis to the modification of pre-existent mental symptoms.

1. *Clinical Forms of Insanity in Relation to Supervenient Phthisis.*—Almost any form of mental affection may become complicated by the supervention of phthisis, but some forms are particularly liable thereto. In these latter forms of insanity there are operative, and for a somewhat protracted space of time, not merely such of the general asylum influences as may foster phthisis, but also the chief causes of the mental disease which predispose to phthisis—the special habits, carelessness, neglectfulness, tendency to self-exposure, and disinclination for or refusal of food, which characterise these cases. Nor is this all; there is a still further puissant influence in the diathetic state, in that hereditary degeneration which displays itself in psychical degradation, and in a tendency to pulmonary or other tuberculosis; the diathetic influence promoting the break-down simultaneously, or successively, in different parts and organs.

Depressed or suspicious lunatics often neglect or refuse food, exercise, warmth of body, or the conditions of its maintenance; or are of depraved habits, not merely filthy, self-neglectful ones, but also sexually self-abusive; if present, the habits of night-restlessness and self-denuding, or of food-vomiting, also degrade nutrition; and this degradation of the nutrition is enhanced if refusal of food necessitates artificial feeding for a protracted space of time, especially if with co-existent disorder of the digestive organs, or if the patient is a garbage-eater, and thus dissipates his digestive powers and irritates his digestive organs by that which yields little or no sustenance. The mere disregard of, or disinclination for, food is apt, in spite of care, to lead to defective nutrition. Some of these, or other, patients persistently keep immovable in one position, vegetating there, neglectful of warmth, of comfort, of cleanliness, regardless of draughts of air or other injurious impressions. Many insane persons, also, are in the habit of covering up the head in bed at night, repeatedly rebreathing air impure and carbonised from their own lungs. The crowding or defective ventilation (if any) of asylums, the sense of confine-

ment and of surveillance, add a depressing element. Also the conditions of life in psychically degenerate families, the irregularities, imprudences, hygienic blunders, and social solecisms found in the members of such, under the home-roof, build up an inclination to phthisis, and long before the subjects thereof reach an asylum.

In relation to the present subject, I have taken about twenty cases, as sufficiently illustrative of the forms of insanity in which phthisis is most apt to occur; and of the modification undergone by the preceding mental symptoms under the effects of pulmonary phthisis. Unfortunately, I might illustrate this group by a large number of cases, but as this third and last is the least important of the three great groups—least important, that is, in relation to our present inquiry—I have thought it quite sufficient to analyse a modest number only, although under the present head would come all the cases of phthisis in the insane in more recent years under my care, save and except the 106 already referred to under the first two great groups, and except some occurring in recent months and not enumerated here, and except those with forms of mental disease already specified as being omitted. The age at death, varying from 24 to 52, was, on the average, between 36 and 37. The cases are examples of the sub-groups in which phthisis most frequently occurs; and, as under the other groups, so here, I have purposely excluded phthisical cases of general paralysis, epilepsy, or any gross organic brain disease.

1. *One Sub-group*, with supervenient phthisis, is that consisting of examples of monomania of the mingled persecutory and expansive form, the persecutory element usually predominating. In these cases, hallucinations and illusions are frequent, especially those of hearing and sight, while those of taste and smell may be present. Some of the patients have led a very irregular life, have deserted their duties, wandered hither and thither through their country or the world, come into frequent conflict with social usages, the rights of others, and with the law. The delusions have been those as to persons working adversely to the sufferer, of annoyance, and often by individuals of the other sex; of various kinds of injury; of being poisoned; of being haunted by shadows and voices, or by the devil and his wife; of carrying Mr. Punch on his back; of being transported as a convict, or affected by witchcraft, or of having all his thoughts repeated by others. Hypochondriacal monomania may exist.

2. *Another Sub-group*, with supervenient phthisis, consists of cases with chiefly unsystematised delusions of persecution, ill-treatment, annoyance, injury, medical malpraxis on the sufferers; of damage, hurt, and annoy from electricity brought to bear on them; of conspiracy to annoy or injure them; or delusions leading them to claim what others wear. In some, these delusions, however, tend to become systematised and fixed.

With these are often querulousness and hypochondriacal symptoms. Hallucinations may be frequent and vivid. Occasionally patients of this sub-group may also overflow with the foulest sexual delusions and illusions.

3. *Third Sub-group*.—In some such cases chronic moral and intellectual perversions have followed acute mania, or have supervened in melancholia, now become chronic. The melancholic ideas may be on religious subjects, and such a patient may also delusionally believe himself or herself to be the subject of criminal charges. Hypochondriacal melancholia may be found.

4. *Another Sub-group* consists of stuporose cases, which, whether of the more simple or of the melancholic form, find many phthisical victims; but the stereotyped clinical features of which it is quite unnecessary for me to limn.

Dr. Clouston⁴⁵ long ago described what he termed "phthisical" mania or insanity, and which he regarded as being "a direct result of a strong tubercular diathesis, or tendency which was then being developed, or about to be developed, into direct tuberculosis." At one moment including "only cases which died within five or six years after becoming insane, and in which the development of the two diseases was somewhat contemporaneous," at another this "typical phthisical mania" consists of cases in which symptoms of phthisis came within five years of the commencement of the insanity, and in the majority of them within two years. Thus, in many, the order of incidence of the two was problematical; in many the phthisis came some considerable time after the insanity, which latter, therefore, could not positively be termed "phthisical." If present at all the acute stage was very short, and passed either into a chronic stage nor into deep dementia, but into an excitable, sullen, and suspicious state; a mixture of sub-

acute mania and dementia; with want of periodicity, and of fixity of mental condition, disinclination to exertion of mind or body, and unprovoked short attacks of mild excitement;—suspiciousness the chief and most nearly characteristic symptom.

Whilst many of these cases form an important contingent of those springing, or partly so, from a phthisical or tubercular basis, nevertheless a further sub-division is requisite; and the several distinct clinical sub-groups I have described (under Groups 1 and 2) fell within my experience.

I do not take up the relation of phthisis or tuberculosis to idiocy. From his large experience, Dr. Langdon Down⁴⁶ concluded that tuberculosis is frequently a cause of idiocy, impressing special characters thereon.

2. *The Modifying Effects of Phthisis on the Clinical Aspects of Pre-existent Insanity*.—In the foregoing and similar cases of the third great group, what are the modifications of the mental state wrought by the supervention of phthisis? In about two-thirds we find some change; on the other hand, in about one-third very much the same state before and after the supervention of phthisis.

The cases where change was wrought being of the types already described, I need not state the mental symptoms preceding phthisis and compare them at length with those existent subsequently to the incidence of the phthisis; it will suffice to mention, in several cases, the new symptoms or modifications coming subsequently to phthisis, itself a complication of insanity.

New symptoms after supervention of phthisis, or modifications of previous mental state:—

Many become more quiet during the phthisis, more manageable, less dominated by delusions than previously. One gets more depression, less delusion. One becomes less hypochondriacal and less suicidal, but, on the other hand, apathetic, and makes ridiculous, childish, trivial, inept statements.

As more marked new symptoms following phthisis occurring in chronic insanity, one gets the delusion that his food is bad, that he is ill-treated or improperly dealt with; and has perversions of smell, and taste.

Another takes the new delusion as to poison being in his medicine, and, more frequently than before, has emotional depression and delusion as to hostile and injurious intentions and acts of those about him.

Another, after phthisis, takes delusions that he is annoyed by bad women; that women worry him, take his blood, force him to dirty himself, give him pain in the heart and chest disease, afflict him by the Divine power; also that he will die a martyr to the creed, and is "Israel of God."

In one, whose monomania had been of a mingled expansive and persecutory type, after phthisis the expansive symptoms fell completely into the background. The persecutory delusions and their associated illusions, hallucinations, and other sensory perversions, concerned chiefly the imaginary lizards which were put on him and ate him, and the animals which touched him. Visual, tactile, and visceral hallucinations and illusions existed, and so did the delusions of being "haunted and enchanted."

In a case with the same symptoms as the last before phthisis was marked, the expansive delusions receded entirely from the foreground after the inroads of pulmonary disease, and there were increase and augmented influence on the acts and demeanour of the patient of delusions as to malpraxis and evil workings exerted against him, and increase of the delusions of injurious influences, annoyance, and hostility, which largely replaced the exalted ones.

In another case the new symptoms were that "the angels tried to strangle him at night," thereby causing his cervical strumous adenitis and its swelling, pain, and discomfort; and that prostitutes impertuned him nightly.

Another, for a time sad and free from delusions than before phthisis, then intensely irritable; the old delusions of persecution, the hallucinations related thereto, more active than ever. And now came refusal of food and medicine.

Differently from what had previously been, the delusions of injury, after phthisis had supervened in one case, referred chiefly to ill effects of imaginary applications of electricity to him.

That the other patients are in the asylum because he is here, and that everything he swallows brings fresh patients in, was the chief new feature in one case.

⁴⁵ *London Hospital Reports*, vol. iii; *Lancet*, September 21st, 1887; *Lettsomian Lectures British Medical Journal*, January 23rd, 1887, page 150; *Lancet*, January 23rd, 1887; *Mental Affections of Childhood and Youth*, 1887.

⁴⁶ *Journal of Mental Science*, Nos. 45 and 50.

In two cases I noticed the idea on the part of the patient that he had been an enormous length of time under care and was hundreds of years old.

Of the modification occurring in stuporoso cases this is an example:—The subject of mental stupor, and dying phthisical, begins to speak again. What he says refers to adverse influences operating against him, and he speaks of "twenty evil spirits coming to him in the night," and of the other patients being devils who torture him. He speaks of injury, asks to be put out of his misery, writes that his brother came drunk (not so) to see him, and advises the latter "not to come in a coffin, as these are dangerous places." Finally, he takes the delusions that the attendants punish, persecute, and deprive him of strength; and, though prostrate, wishes to get up and be about.

Time fails me to speak, as I had hoped to do, of acute tuberculosis and of tubercular meningitis occurring in the insane; of the latency of phthisis in many of them; and of the alternations of phthisis and insanity. Nor can I bring before you, as I intended to do, the salient therapeutic points relating to numerous cases of cure and of prolonged arrest and vast improvement of phthisis in the insane; nor the temperature charts in my possession illustrating the effect of antifebrin therein. Nor is there space for a summary of scattered contributions in medical literature bearing on the subjects of these lectures. It remains only that I thank you for your presence here, and the courtesy shown to me.

SURGICAL MEMORANDA.

ON COMFORTABLE ARTIFICIAL LEGS.

I HAVE often during years past intended to send a note to the JOURNAL upon an important detail in the construction and comfort of artificial legs, and my intention was strengthened by the illustration and advocacy by Mr. Barwell of what is called his modified Beaufort leg in the Journal of January 10th, 1885. This leg, and others that I have seen, are secured by straps that tightly encircle the thigh, and quickly cause wasting of the soft parts around the femur, to the great discomfort of the patient.

Some twelve years or more I made use of Thomas's knee-splint, with or without a boot attached to the lower end, as a comfortable, durable, and light form of stiff artificial leg, that can be procured for from ten to twenty shillings. The patient sits upon the perineal edge of the padded ring, and the unconstricted thigh fattens on the amputated side equally with that on the other.

Mr. Joseph Critchley, 83, Upper Pitt Street, Liverpool, has since adapted to his artificial legs, for use after amputation above, through, or below the knee, the padded ring of rod-iron exactly as used for the upper end of Thomas's knee-splints. The advantage of this is incalculable, and many working men have thrown away the artificial leg of ordinary pattern, presented to them by railway companies or by private subscription, in favour of a leg made by Critchley, purchased at the patient's own cost, simply because the constricting thigh attachment of the former caused intolerable discomfort in wasting, that entirely disappeared on wearing the latter.

A glance at the illustration will explain the appearance of this important improvement in the attachment and upper end of the legs, the practical value of which cannot be understood by those familiar with the use of Thomas's splints. Particulars I must refer the reader to Mr. Critchley's lunatic asylums and prospectuses. His cheapest artificial legs are quite so low in price as the one described by Mr. Barwell, and are beyond all comparison superior in practical value. Usually ci



utility, and are more comfortable and durable than many others. They are well known and highly approved by the hospital surgeons of Liverpool, for whose poorer deserving patients the cost is without difficulty raised by private subscription.

Critchley's best artificial legs, with springs and joints for knee and ankle, are superior in my opinion to the most exquisite articles of other make, by reason of their physiological and rational fitness, while far below them in cost.
RUSHTON PARKER,
Professor of Surgery in University College, Liverpool.

TOXICOLOGICAL MEMORANDA.

POISONING BY BELLADONNA AND ACONITE.

At 6.5 P.M. on February 10th, 1888, I was called to a girl, aged 17, who had swallowed liniment instead of her medicine. The liniment was composed of equal parts of aconite and belladonna liniment, of B. P. strength, prepared with methylated spirit. The patient was convalescing from a third attack of rheumatic fever. She had a mitral systolic murmur, with slight accentuation of second sound over the area of the pulmonary valves.

She took two tablespoonfuls of the mixed liniment at 5.45 P.M. on the day in question. On my arrival at 6.15 the patient was delirious, the face and neck were flushed, and there were violent convulsive movements, principally of the muscles of the neck and upper limbs, though the lower limbs did not escape. I was informed that "she had been sensible till within a few minutes of my arrival, and had been putting her fingers down her throat to make herself sick," and that "this had had the desired effect." The vomit smelt strongly of spirit and camphor.

The pupils were widely dilated, and not influenced by light. The pulse was barely perceptible at the wrist. The heart's action was very turbulent and irregular, the beats being, as nearly as could be estimated, 300 per minute. The patient was throwing herself about so much that two people were required to hold her on the bed. The teeth were firmly clenched, and a gag had to be introduced before 30 grains of sulphate of zinc in warm water (a good deal of which was lost) could be poured down her throat. Any stimulus, whether of touch, light, or sound, seemed to aggravate the convulsive movements. The breathing was deep, hurried, and becoming stertorous.

6.45 P.M. The pulse was imperceptible at the wrist. There were short periods of complete intermission of the convulsive movements, and these were accompanied by apnoea. The heart's action was not so turbulent, but still irregular, and the beats 240 per minute; the face and body getting more and more anæmic; the tongue and throat were quite dry and gritty to the feel.

7.25 P.M. Heart suddenly stopped, and respiration continued only a few seconds. Hot fannels to the heart and brandy and ether subcutaneously had been employed. In one attack of apnoea the breathing was set going by artificial respiration, but in the others it began again of its own accord. Artificial respiration and stimulation of the heart after its beats failed to be felt had no effect. The temperature was taken five minutes after death; but the thermometer registered 97° F., the point at which it stood when introduced. Rigor mortis quickly supervened and as rapidly passed off.

St. Albans.

EUSTACE H. LIPSCOMB, L.R.C.P. Lond.

THERAPEUTIC MEMORANDA.

LOCAL APPLICATION OF CALOMEL IN PHAGEDÆNA.

I HAD a case of phagedænic ulceration of the under surface of the glans penis under my charge at the Station Hospital, Brighton, in August last, which defied the recognised treatments of this disease. I applied nitric acid in the most thorough manner on six different occasions during a period of eighteen days without success. I then applied pure carbolic acid, but the disease again returned. Constitutional treatment with opium was adopted throughout. For six days the patient sat in a hot water hip-bath on an average about four hours daily, without any appreciable effect on the course of the disease. The condition of the penis on the twenty-first day was as follows:—

A large ulcer existed, covering the entire under surface of the glans, moulding it like the mouthpiece of a flute, and extending to the reflected foreskin in the vicinity of the ulcer. A third of the glans had been destroyed. The surface of the ulcer was covered with a reddish grey secretion, irregularly disposed, and

ierced here and there by large red granulations. The edges were angry and undermined.

I applied calomel powder on the twenty-first day of the disease, spreading it thickly, and pressing it well into the interstices of the ulcer. The calomel acted like magic; the ulcer began to heal rapidly. Now and then a suspicious spot appeared, but it was at once dissipated by a thorough application of the calomel. The patient made an excellent recovery, and was very pleased at the result, for he believed he was going to lose the whole affair. I could give him very little hope. I had used all the recognised methods of treatment, and the literature of the subject pointed to those slow, creeping ulcerations as almost incurable, except by amputation, and then very often the disease returned in the lump. I was tempted to use calomel, as I have found it very useful in all forms of syphilitic ulceration.

T. J. GALLWEY, M.D., Surgeon-Major M.S.
Newcastle, Jamaica.

IDIOSYNCRASY TO ANTIPYRIN.

SOMEWHAT similar case to that lately recorded by Dr. Sturge recently came under my notice. I administered to a lady on two different occasions 8 grains of antipyrin for attacks of migraine, and on each occasion, very shortly after taking it, a tight feeling and constriction was felt across the chest, with a burning sensation in the pharynx. These symptoms were immediately followed by sneezing, by intense suffusion of the eyes, and by quantities of mucus flowing from the nose, giving her all the appearances of having a severe attack of coryza; there was also great irritation of the larynx, causing severe fits of coughing, but unattended with expectoration. After a quarter of an hour these uncomfortable symptoms gradually subsided. There was no urticaria. I followed it up on each occasion with an equivalent dose of antifebrin (3 grains) which (with one repetition in the course of an hour on the first occasion, but which was not required on the second) completely relieved the severe hemicrania, as it has done in subsequent trials without using antipyrin at all. It appears, therefore, that antifebrin may be used equally with antipyrin in migraine as in febrile conditions, and may replace it with advantage where the latter disagrees.

Orotava, Teneriffe.

H. COUPLAND TAYLOR, M.D.

REPORTS

OF

**HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF
GREAT BRITAIN, IRELAND, AND THE COLONIES.**

WELLINGTON HOSPITAL, NEW ZEALAND.

CASE OF SUPRAPUBIC CYSTOTOMY.

Under the care of G. GORE GILLON, M.B., C.M., Hon. Visiting Surgeon.)

M., male, aged 35, labourer, formerly a seaman in the British navy, was admitted July 26th, 1887, suffering from pain in the penis and frequent micturition. He stated that he had voided a very much the last two years, and had had trouble with his urine for the last seven years.

On examination Dr. Gillon felt a stone at the neck of the bladder, its size being estimated at over an inch and a half in length. Deep suprapubic palpation, under chloroform, discovered a hard substance behind the pubes—this was evidently one end of the stone, and it appeared to be fixed firmly in that position.

On July 30th, 1887, Dr. Hassell, giving chloroform, suprapubic cystotomy (as described by Petersen, of Kiel, and Sir H. Thompson) was performed by Dr. Gillon, in the presence of Drs. Grace, Hance, Hassell, and Robertson; a large oblong stone was extracted by means of the fingers and secoop. The peritoneum was not seen. Ten ounces of Thompson's fluid (hot) were used for the bladder, and ten ounces of hot water for the rectal bag. A medium-sized Barnes's bag was used in the rectum. The stone was partly encysted in a pouch just behind the pubes, with its long axis vertical, and there was a little difficulty in extracting it. It was composed mainly of triple phosphates, and felt very hard; its length being 2½ inches, and breadth 1½ inch. No stitches were placed in the bladder.

Next morning, owing to the tube having become blocked during

the night, it was found that the urine had forced its way round the tube and into the surrounding tissues. All the stitches in the abdominal muscles and skin were immediately removed, and a large drainage-tube inserted. Iodoform was used freely, and charcoal poultices applied. The bladder was washed out with Thompson's fluid, and one grain of opium given every four hours. The temperature was 99.4°. Two incisions were made in the abdominal wall, drainage-tubes were inserted, and brought out at the original wound.

August 12th. The wound looked unhealthy; the patient was turned on his face with pillows to support the chest, pelvis, and thighs, leaving a space underneath the wound for a vessel to catch the discharges in. The wound was syringed out every three hours with carbolic lotion (1 to 30) from below. He felt much easier in the prone position.

August 15th. The prone position was maintained; he slept and ate with comfort. The urine came freely, and also much pus through the tubes.

On August 18th he was turned on to his back again. There was still a copious discharge of pus and urine. The bladder was washed out through the penis with Thompson's fluid, and much flaky pus thus expelled from the bladder wound.

August 25th. The patient had a rigor. Two more incisions were made in the abdominal wall, and the patient again turned on his face.

	Morning.	Evening.
August 2nd	99.2°	99.6°
" 5th	100.4°	101.6°
" 7th	99.4°	100°
" 9th	98.6°	104°
" 12th	—	99.2°
" 15th	99°	99.4°
" 18th	99.8°	100.4°
" 25th	103.8°	101°

On September 2nd urine came through the penis for the first time without the catheter, some still coming through the wound. The patient was turned on his back again.

September 10th. The bladder was still washed out daily. Pus still in the urine. Urine came occasionally through the wound, but generally through the penis. The temperature remained about 100.6°.

On September 19th another rigor occurred, the temperature rising to 103.8°. The patient was again turned with his face downwards; there was increased discharge of pus from the tubes in the left iliac region.

On September 23rd the temperature was normal night and morning, and there was very little discharge from the tubes. On October 4th the bladder-wound was quite healed. He got up on November 9th, and walked about in the ward. The urine was quite clear, and contained no pus and no albumen. He could hold his urine for six hours. A slight discharge from one of the old deep sinuses in the abdomen on the left side continued, but this had healed by November 29th, and he was perfectly well, and gaining flesh rapidly.

REMARKS BY DR. GILLON.—1. There was considerable cystitis present, due, I think, to the raw surface in the front of the bladder where the stone was lodged.

2. The drainage-tube should be constantly seen to be clear the first twenty-four hours, and if blocked, removed, and a larger rigid tube inserted. The stitches should also be all taken out, and, if necessary, the patient kept in the prone position, as recommended by Trendelenburg and Schmitz.

3. The pus seemed to burrow its way beneath the muscular layers—in fact, at one time I could get my finger between the skin and muscular layers, and underneath that I could pass a soft probe, lying deeply on what seemed to be the transversalis fascia, up as far as the spine of the left ilium, and under the conjoined tendon.

DUNDALK DISPENSARY.—A retiring allowance of £100 per annum has been granted to Dr. Brown, who filled the office of medical officer to the Dundalk dispensary district for the long period of forty years.

A LIBRARY FOR THE BLIND.—Sir Charles Lowther, Bart., desirous that the blind population of the East of London should have a library for themselves, has presented the trustees of the People's Palace with a large number of embossed English works (in all 345 volumes) in Dr. Moon's type for the blind, comprising, besides the Holy Scriptures, a large number of religious and secular works.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 27TH, 1888.

Sir E. H. SIEVEKING, M.D., President, in the Chair.

A Case of Extroversion of the Bladder Treated by Preliminary Division of the Sacro-Iliac Synchondroses.—Mr. G. H. MAKINS read a paper on this subject. The patient was a male child, aged 5. An attempt to raise a flap after Thiersch's method had failed three years previously. On the second admission a cicatrix on the left side of the extroverted bladder marked the position of the unsuccessful flap, and prevented any considerable shifting of the skin on that side. On November 29th, 1886, the sacro-iliac synchondroses were divided on each side, with the result of allowing approximation of the anterior superior iliac spines to the extent of one inch, with corresponding diminution of the gap existing in the situation of the symphysis pubis. This gain was maintained by means of continuous extension. On January 22nd, 1887, an attempt was made to unite the opposite boundaries of the bladder, which failed, presumably in great part, in consequence of the tension due to the old cicatrix. The bladder was then covered by means of a single lateral Thiersch's flap at a later date, the exposed surface having been reduced in area from $3\frac{1}{2}$ in. \times $3\frac{1}{2}$ in. to $1\frac{1}{2}$ in. \times $1\frac{1}{2}$ in. by the closure of the symphyseal gap. The special features of the case were discussed, and some of the possible objections to the method were considered, the following advantages being claimed for it:—1. Saving of time. In one of Trendelenberg's cases the whole procedure, excepting the closure of a small fistula, occupied eight weeks only. 2. A perfect mucous lining to the new bladder, interrupted only by a median cicatrix, was attained. 3. Failure of the primary operation in no way prejudiced subsequent measures. 4. Should primary union fail, much smaller flaps were needed than in the usual operations. 5. The superficial area was not merely lessened, but a gradual backward sinking of the bladder-wall accompanied the decrease in diameter. 6. The last two points were of special importance in cases like the one related, where cicatrix interfered with the ready fashioning of flaps. 7. The closure of the symphyseal gap offered a better support for the abdominal viscera.—Mr. THOMAS SMITH had not operated on many cases of this kind, and, though he was glad that the new operation had been tried, was afraid that much good would not come of it.

A Case of Wound of the Femoral Artery and Vein; Traumatic Varicose Aneurysm; Ligature of both Artery and Vein; Recovery; with Remarks on the Treatment of Wounds of the Femoral Artery and Vein.—Mr. W. J. WALSHAM read a paper on this subject. R. H. W., aged 19, a medical student, received a punctured wound in the upper third of the left thigh. The profuse hæmorrhage that resulted was controlled by digital pressure and a firm bandage. On the following afternoon an arterio-venous aneurysm was detected. Three days after, as the tumour was increasing, it was explored. The femoral artery and vein in Hunter's canal were found wounded, and were tied above and below at the injured spot. The patient made an uninterrupted recovery. The question of the treatment of a wounded femoral artery and vein was discussed under the following heads: 1. Immediate simultaneous ligature of the artery and vein. The author gave twelve cases in which immediate ligature was applied. In four, and probably in five, gangrene occurred. It was submitted, however, that, especially as concerned the superficial femoral vessels, the danger of gangrene had been overrated. 2. Continuous pressure without operation. Out of thirty-six cases so treated, thirty-five resulted in arterio-venous aneurysm. The dangers of treating this affection were commented on. The author concluded that pressure alone could not be recommended, and showed that pressure itself involved the danger of sloughing and secondary hæmorrhage. 3. Temporary pressure in order to allow the collateral circulation to become established before resorting to ligature. The danger of gangrene after ligature was reduced to a minimum when the collateral circulation had become established. Grillo, of Naples, tied both vessels in fifteen cases for aneurysm without a single bad result. In twenty cases collected by the author, gangrene occurred in five only, and in four of these five cases the gangrene was due to other causes. 4. Ligature of the artery and application of pressure to the vein. Cases at St. Bartholomew's Hospital were mentioned in which the vein was pricked in tying the artery. No harm followed where the ligature was withdrawn and the artery

tied higher up. But where the artery was tied at the same spot thrombosis and blood-poisoning ensued. In all the hæmorrhage from the vein ceased on tying the artery or on applying pressure to the vein. The author considered that in a wound of the artery and vein there was some risk in tying the artery above and below and leaving the vein untouched, or in trusting to pressure upon it, and that such treatment should only be undertaken when the wound in the vein was very small, and there was a reasonable prospect of the external wound healing by the first intention. 5. The question of the lateral *versus* the circular ligature of veins. In four cases of wounds of large veins observed by the author, its use was successful, as it was also in thirteen cases out of sixteen collected from other sources. The fatal cases occurred before the days of antiseptic surgery. The following conclusions were drawn: 1. That when the femoral artery and vein were involved in a punctured wound of the thigh, the safest course was to apply pressure for a few days in the way described in the above case, in order to allow the collateral circulation to become established, and then to cut down and tie the proximal and distal ends of both the artery and vein. 2. That immediate ligature (that is, before the collateral channels have had time to enlarge) of both the femoral artery and vein, and especially of the common femoral vessels, was liable to be attended with gangrene, although this risk was probably less than had generally been assumed. 3. That ligature of both vessels when, in consequence of pressure, as of a tumour, the collateral circulation had become established, was attended with much less risk of gangrene. 4. That when the femoral artery and vein were wounded, ligature of the artery and pressure on this vein, if the wound of the latter vessel was a mere puncture, was a safe treatment, provided that the nature of the injury allowed of reasonable prospects of the external wound being kept aseptic and uniting by the first intention. 5. That when the wound in the vein was too large to permit of treatment by pressure, the walls might be safely nipped up and a ligature thrown around them without obliterating the calibre of the vessel; but that this procedure should only be resorted to, as in the former case, when there was a reasonable prospect of the wound healing by the first intention. 6. That considering the grave risks of gangrene that attend the sudden obliteration of the common femoral vein, the lateral ligature should in this situation, for all small and moderate-sized wounds that require immediate ligature, be the treatment adopted.—Mr. HULKE congratulated the author on the success of his case, and said that in regard to treatment it was very often difficult when hæmorrhage was great to diagnose whether the vein was injured as well as the artery. He had twice (in cases of cancer) been obliged to ligature both the iliac vessels at the same time, and in both cases the patients had survived a week or ten days, and the ligature had not been followed by gangrene or other bad result. He thought perhaps when both vessels were ligatured the risk of gangrene was less. Every case of arterio-venous aneurysm could not be treated in the same way; much must depend on the nature of the case. A man came to him to be treated for slight eczema of the foot, who for years had been treated with elastic bandage for an aneurysmal varix, and had been able to follow his occupation as a carpenter. The patient complained only of the eczema, and did not mention the varix, which Mr. Hulke discovered accidentally. He thought varix sometimes followed bruises of vessels, as in cases of bullets passing between artery and vein, when there could be no hæmorrhage at the time of accident.—Mr. HARRISON CRIPPS referred also to difficulty of diagnosing when the vein was injured as well as the artery. He thought that pressure ought always to be tried first, and recommended the following method: Limb to be firmly bandaged from bottom to top; wound to be left exposed; then fire-stick to be applied above, and above and below wound, and retained by narrow webbing at each end of stick. Compresses over the stick, and a Liston's splint to leg. Many cases had probably been cured by pressure treatment that had not been recorded.—Mr. THOMAS SMITH related a case of a boy treated by pressure, who had recovered.—Mr. PEARCE GOULD mentioned a case of Mr. Lawson's which had not been improved under pressure treatment. He was operated on, and communication found between artery and vein. The artery was tied, but the vein left alone, and complete recovery followed. He thought that all surgeons who had tried pressure in wounds of the palmar arch were dissatisfied with the treatment, and would always cut down and tie the bleeding points, and that arteries in all parts ought to be treated in the same way. Pressure on vessels was probably as dangerous as ligature. He preferred immediate operation as

gure of bleeding points.—Mr. WALSHAM replied that the pressure in his case was done while Mr. Cripps was looking on. His treatment gave the patient the chance of recovering with pressure only. In one case, supposed to have been cured by pressure, an aneurysm appeared after a sudden strain ten years later.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MARCH 23RD, 1888.

W. H. BROADBENT, M.D., F.R.C.P., President, in the Chair.
Hyperpyrexia in Acute Rheumatism treated by Ice-Pack.—Dr. WILLIAM M. ORD related this case. The patient was a man, aged 2, a heavy beer drinker, who had contracted, three weeks before admission to St. Thomas's Hospital, a sharp attack of acute rheumatism, referred to exposure to cold. On admission he was found to have acute inflammation of many joints, marked signs of pericarditis, and slighter signs of endocarditis, with some leucis. His temperature was 102.4°, the respirations were quickened, the urine contained one-sixth of albumen and very little chloride. He was slightly delirious. Two days later the delirium had increased to such a degree that it was necessary to remove him from the large ward to a single-headed ward. He was very violent, had hallucinations and delusions, and was with difficulty kept in bed. The delirium strongly suggested the existence of hyperpyrexia, but the temperature was only 101.4°. After this the temperature rose steadily, till at 4 A.M. on the morning of the fourth day from admission it reached 108.4°, while the patient had fallen into a state of restless unconsciousness, with tremors. The ice-pack was now applied, and was maintained for four hours, at the end of which the temperature was 100°, the patient had recovered consciousness and spoke sensibly, and the pulse had fallen from 160 to 100. During the next few days the temperature, after first rise to 103.4°, kept between 100° and 101°. The signs of pericarditis disappeared, but those of endocarditis remained. The joint affection had greatly decreased, and the albumen had disappeared from the urine. On the seventh day after admission temperature again began to rise, and at 2 A.M. on the morning of the eighth day was 105.4°, the patient having passed through delirium into restless unconsciousness. The ice-pack was again applied. By 5 A.M. the temperature was 100°, and the patient had recovered consciousness. After this the patient made a steady recovery, and was discharged six weeks after admission in good general health, and without sign of lung or heart disease. The treatment was effectively carried out by Dr. Ord's house-physicians, Dr. Wheaton and Mr. Macevoy. Dr. Ord brought the case before the Clinical Society, not because it presented anything new or original, but with the intention of emphasising the value of cold applications to the surface of the body in hyperpyrexia. He urged that, notwithstanding the acknowledged value of the various antipyretic drugs in pyrexia, their use in hyperpyrexia was comparatively unsafe, large and frequent doses being required, whereby toxic symptoms were often produced. He admitted that the bath treatment was not of universal applicability, but pointed out that it involved no poisoning, and had a remarkable effect, not only in reducing temperature, but in restoring the nervous system to a natural condition. The rapid disappearance of inflammation in the thoracic viscera and joints was also noteworthy.

Two Cases of Hyperpyrexia Successfully Treated by Cold.—Dr. J. ARKLE read notes of these cases. Case I.: A.W.G., aged 27, married, railway clerk, was admitted into University College Hospital, September 21st, 1887, with an ordinary attack of rheumatism. His previous health and habits were good. He had syphilis nine years ago. His mother died after an attack of acute rheumatism. His sister was rheumatic. On admission he was treated with large doses of salicylate of soda. The night after admission he became very delirious, the joint pain disappeared, the skin became hot and burning, and the temperature was up to 110.4°. He was treated with ice-cold bath for forty minutes. The temperature fell to 97°, but ran up four hours later to 107.2°, while he was taking antifebrin. The bath was repeated for twenty-five minutes. The temperature fell again, and showed no further tendency to run up successively. No visceral lesion followed. The patient was ultimately discharged cured.—Case II.: E.C., aged 30, a married woman, had rheumatic fever eighteen years ago, but no complications. There was no family history of rheumatism. Present illness: She had been ailing with joint pain for a week before she had been seen by a medical man. The temperature at midday on October 9th, 1887, was 102.5°; at 10.30 the same night it was 110.4°. The patient was violent and delirious. No bath being available,

she was treated with ice-cold packs. The temperature fell one hour later to 101°, and for the next twenty-four hours averaged 103°. It then fell to normal under salol and salicylate of soda. The patient was discharged well on October 27th, 1887. She had been readmitted with another attack of acute rheumatism and pericarditis, but was now convalescing. Remarks: These cases showed the value of the cold bath or pack as antipyretics. Both belonged to the type in which the temperature, after maintaining for one or two days a moderate level, suddenly rises to an excessive height. In both cases the temperature was very tractable, having a little tendency to run up repeatedly. The cases threw no light on the etiology: one was a male and the other a female; one a first attack and the other a second; both seemed mild uncomplicated attacks. In both there was cessation of sweating, and in one disappearance of articular pain. In both the delirium accompanied the hyperpyrexia, and was of the same violent character. Both patients had marked retraction of the head, and one severe or persistent opisthotonos.—Dr. MACLAGAN thought all the cases formed a valuable addition to the literature of an important and somewhat obscure subject. In the way of criticism he had nothing to say; he would only homologate in its entirety what had been stated by both gentlemen, that the salicyl compounds, all potent in rheumatic pyrexia, were of no use in rheumatic hyperpyrexia. In the treatment of that condition the external application of cold was the only remedy on which one could rely, and it was waste of valuable time to have recourse to any other. He would try to give some indication as to why it was that a remedy which rapidly cured rheumatic pyrexia was of no service in rheumatic hyperpyrexia, and that the one agency on which one depended in rheumatic hyperpyrexia one never thought of applying in rheumatic pyrexia. Rheumatic pyrexia and rheumatic hyperpyrexia were two totally different morbid conditions, essentially distinct in their pathogenesis. It was because of this that their treatment was so essentially different, and that what cured the one was of no avail in the other. Rheumatic pyrexia was of metabolic origin; rheumatic hyperpyrexia of neurotic origin. In the one the fever was due to increased metabolism and consequent increased production of heat; in the other the rise of temperature resulted from paralysis of heat inhibition. As the subject was not before the Society, he did not stay to consider how rheumatic pyrexia was produced, or how the salicyl compounds cured it. Hyperpyrexia was not a disease *per se*, but an incident occurring in the course of various and different ailments. It might occur in any of the specific fevers. How was it induced. The fever in these ailments was of metabolic origin, due to increased production of heat; normally heat production was prevented from passing due bounds by the heat-inhibiting function. Increased production of heat necessarily gave rise to stimulation of this function. Prolonged stimulation (as in the tetanising of a muscle) might lead to exhaustion of function. Stimulation of the inhibitory function might in any fever lead to fatigue, and even paralysis of that function, and consequent rapid rise of temperature. Rheumatic fever was the one in which this was most likely to occur, because in that fever much metabolism, the chief source of heat production, was more increased than in any other; as a result, heat production was greater, heat inhibition more strained, and therefore more likely to be paralysed. But hyperpyrexia did not consist solely in excessive rise of temperature any more than pyrexia consisted in increased body heat. That a very high temperature did not necessarily cause nervous symptoms was evidenced by what one saw in relapsing fever, in which it was not uncommon to have a temperature of 106°, 107°, or even 108° without the patient presenting any other symptom by which his case could be distinguished from that of the man in the next bed, whose temperature might be only 102° or 103°. The condition to which was applied the term hyperpyrexia essentially consisted in paralysis of inhibition of the functions of organic life, heat inhibition being only one of them. How did cold produce its curative action in this condition? Not by lowering the temperature, for to say that would be equivalent to saying that the high temperature was the cause of the disturbance. Moreover, cold actually removed the whole morbid condition and cured the patient. It could not do this simply by a refrigerating action. The physiological effect of long exposure to cold was to produce a sense of drowsiness and a tendency to sleep, which, if not resisted, gradually deepened into fatal coma. Cold was evidently a powerful agency, experiencing a sedative action so great that it might prove fatal by coma; but, like other sedatives, it might

be used in moderation, and have its quieting action turned to good account. He would illustrate what he believed to be its mode of action in hyperpyrexia by a reference to the action of digitalis in heart disease. Stimulation by the cardiac inhibitory nerve, the vagus, slowed the heart's action. When, as often happened in mitral disease, the heart's action was excited and disturbed, one did not try to allay the disturbance by soothing the excitomotor nerve of the heart, but by giving digitalis, and stimulating the inhibitory nerve. To stimulate inhibition was the physiological and scientific way of allaying excessive functional activity. It was thus that cold acted in hyperpyrexia. That condition essentially consisted in paralysis of inhibition. Cold stimulated inhibition and cured the patient. Its mode of application was a matter of detail and convenience. Ice or cold water were the two means of applying it. Care must only be taken that inhibition was not over stimulated, for complete inhibition of organic life meant death. Cold acted in hyperpyrexia not by lowering the temperature, but by causing such peripheral excitation of the cutaneous nerves as resulted in stimulation of the inhibiting centres. It was only by recognising that rheumatic pyrexia and rheumatic hyperpyrexia were different morbid conditions, totally distinct in their pathogenesis, that one could explain why it was that the treatment suitable in the one was inapplicable in the other.—Dr. COUPLAND thought that although Dr. MacLagan had clearly differentiated between pyrexia and hyperpyrexia, they were both equally due to disturbance of the nervous system, and that cold was equally a means of reducing pyrexia as of lowering hyperpyrexia. Dr. MacAlister's argument in his lectures on fever was based on the neurotic origin of fever, of pyrexia as of hyperpyrexia. The cases related were all good examples of the benefit produced by the treatment by cold in hyperpyrexia. Dr. Ord's patient had well-marked nervous disturbance before the hyperpyrexia set in, and this, fortunately, was often the case; so that, by watching the patient in whom these symptoms arose, and taking his temperature, one might anticipate and prevent the hyperpyrexia. A committee appointed by the Society some years since had found that the cases had marked prodromata, the chief of which were in the nervous system. If, when the temperature rose to 105°, the bath was always used, the patient would probably be cured. In Dr. Arkle's patients there were no prodromata mentioned. Dr. H. Thompson had years ago advised to look ahead in these cases, and treat them carefully, so as to avoid the sad fatality which awaited the patients unless treatment was prompt.—The PRESIDENT thought the cases were all of extreme interest, but the fact that in Dr. Ord's case there was cerebral disturbance before the hyperpyrexia was noted was of far-reaching importance. Whatever the explanation, it was clear that the delirium and subsequent coma were not altogether due to the rise of temperature. The nervous element in the case came first; the disturbance was probably of the whole nervous system, not of the inhibitory heat centre. In failure on the part of the nervous system the trouble seemed to commence. In relapsing fever, with a temperature of 107°, the patient was sometimes furiously delirious. In two cases he had seen the peculiar delirium mentioned by Dr. Ord; no high temperature followed in either case; both patients were under the influence of salicylate of soda, and both proved fatal. Possibly the cold treatment might have averted the fatal result. Two factors were at work in the cold treatment; one was the abstraction of heat; the other was that that treatment enabled the nervous system to reassert its control over the body, and thus led to the cure of the patient.—Dr. BASIL MORISON cited the case of an infant, 14 days old, whose pulse, consequent on over-feeding, fell to 30 per minute, the skin becoming cold. A drachm of tincture of belladonna was injected into the rectum, whereupon the pulse rose to 180 and the temperature to 130°. In fact, the child's life appeared to be in danger. Ice was applied, and the temperature cooled down—to such an extent, indeed, that the heart stopped for a few beats. The child, however, recovered with artificial respiration. He thought the case might serve to illustrate the action of cold.—Dr. ANGEL MONEY remarked that in Dr. Arkle's first case, when the man recovered from the coma, his first remark was "Isn't this marvellous?" He thought the use of this expression well illustrated Dr. Hughlings Jackson's theory that the centre in the brain, which was well used (for this was an ordinary expression with that patient) was the first to act.—Dr. BARLOW had treated a case of acute rheumatism in a delicate woman who could not be removed from her bed to a bath when it was neces-

sary to apply the cold. The patient was stripped, except at the waist, and the bed tipped at the head so that cold water which was poured over her ran away at the foot. The water was used several times, and she was rubbed dry after each application. This simple procedure reduced the temperature from 107° to 100°. This was a good substitute for a cold bath where the latter could not be applied. The constant application of cold in slight pyrexia produced depression and rigor, and made a patient look quite blue. It was really a powerful remedy. He cited also the case of a barman, with furious delirium at the beginning of pneumonia, whose temperature was lowered by similar treatment.—Dr. ORD remarked that Dr. MacLagan's theory of hyperpyrexia being due to paralysis of the centres of organic life, of which heat was one, was partly corroborated by Dr. Buzzard's views that rheumatic fever might be due to an affection of the cerebellum, in which the heat-inhibition centre seemed to be situated. He (the speaker) also thought that the effect of cold was not simply mechanical, as was evidenced by some experiments performed upon cadavers. Having heated them to a height in warm baths, he treated them by a cold bath without reducing the temperature in anything like the proportion to which a cold bath reduced the temperature of a hyperpyrexial patient. His patient, who was before delirious became quite clear, and slept; his pleurisy disappeared, and the peri- and endocarditis both thenceforward diminished. Hyperpyrexia was a fever out of proportion to the local symptoms. For its treatment one must look to prevention in cases of rheumatic fever; and if the temperature rose over 105° he had recourse to the cold treatment. It was said that pericarditis was usually accompanied by delirium. This he had not found in his cases; but it was a sign of rising temperature. He thought a graduated bath was preferable to the ice-pack.—Dr. ARKLE said that possibly in his second case prodromal symptoms were present before the hyperpyrexia. In the first case the patient was a little deaf and light-headed—symptoms that frequently occurred when the salicylate treatment was pushed. That man had taken 240 grains in the day preceding his hyperpyrexial symptoms.

Gall-stones exciting Suppuration: Operation: Recovery.—Mr. PEARCE GOULD described this case. The patient was a gentleman, aged 38, who had symptoms of gall-stones two years before he consulted Mr. Gould for an abscess in the abdominal wall at the junction of the epigastrium and right hypochondrium. The abscess was opened, and 140 small biliary calculi were removed, together with pus. The sinus that was left was long in healing. No bile was discharged through it at any time. Many of the calculi showed evidence of spontaneous fracture of a larger calculus. Mr. Gould mentioned that he had found reference to thirty-five other cases of gall-stones making their way through the abdominal wall, but this was the only one in which the diagnosis appeared to have been made prior to the abscess bursting. The abscesses had pointed at various places in the abdominal wall, most often above and to the right of the umbilicus. As a rule no bile had escaped with the stones, and these latter had generally been numerous. There appeared to be lacking any satisfactory explanation of the very different results of biliary calculi in different cases.—Dr. ORD said that the disintegration of urinary calculi had much interested him, but as to that of biliary calculi he knew nothing. The disintegration of urinary calculi might be the result of either of many different causes; the shrinkage of the outer layer, or of the inner portion, in consequence of the different composition of the layers. Biliary calculi were composed of a mixture of cholesterine and biliary pigment, and the bile might act on one or other of these constituents alone.—Dr. MACLAGAN mentioned the case of a woman who died from peritonitis, and in whom *post mortem* 180 small calculi were found in the peritoneum, and of which twenty or thirty were disintegrated. He thought that possibly the squeezing of small calculi against one another by the contraction of the walls of the gall-bladder, when it became distended, might produce disintegration.—The PRESIDENT thought the explanation offered by Dr. Ord seemed very reasonable. Calculi being formed of heterogeneous materials, and then exposed in a medium of a different character from that in which they were originally formed, would be liable to suffer disintegration. He remarked that unless the cystic duct were closed no abscess would form externally.—Mr. GOULD thought it remarkable that, considering the variations to which calculi were exposed in the intestine, more of them were not found broken up. As to Dr. MacLagan's explanation, he thought that, if it were correct, one would expect to find after biliary spasm that the stones voided were broken up by the contracting gall-bladder and ducts, but

uch stones were not found disintegrated. He thought that the sharp angles of these disintegrated calculi might, perhaps, have determined the abscess in his case. The specimens in the various London museums were of faceted stones, quite unlike the fragments he had handed round.

MEDICAL SOCIETY OF LONDON.

MONDAY, MARCH 26TH, 1888.

KNOWSLEY THORNTON, M.B., C.M., Vice-President, in the Chair.
CLINICAL EVENING.

Lupus of the Mouth, Pharynx, and Larynx.—Dr. ORWIN showed a girl, aged 21, who came to him in 1886 with lupus of the nose. There was then no disease of pharynx or larynx, but she returned in March, 1888, with lupus of the gums and soft palate, pharynx, and larynx. In this case the lupus had spread through the nose to the palate by lymphatic channels.—Mr. LENNOX BROWNE said he had recorded eleven cases of lupus of the larynx. He had never seen lupus of the posterior wall of the pharynx, and he did not agree with Dr. Orwin's view as to the path followed by the lupus. A distinguishing point between lupus and tertiary syphilis was that the latter often attacked the palate, both soft and hard, by extension from the nasal mucous membrane, whereas lupus always extended by the buccal mucous membrane.—Dr. ORWIN, in reply, said that there was no history of syphilis.

Injury to Lower Epiphysis of Ulna.—Mr. EDMUND OWEN showed a girl, aged 18, who, sixteen years previously, had been under his care at St. Mary's Hospital for an incised wound of the left wrist. The blade had passed through the ulna, just above its articulation with the lesser sigmoid cavity; that joint was not opened, but the lesser sigmoid cavity was sliced from the radius, and the wrist-joint was laid widely open. The tendon of the flexor carpi ulnaris, the ulnar nerve and artery, and some of the adjacent flexor tendons were cleanly severed; circulation and utaneous sensibility were ultimately restored along the inner side of the hand, and though inflammation attacked the surrounding tissues and an abscess formed on the back of the hand, the power of movement became in due course as free as ever. Indeed, the hand was left-handed; as she grew up she easily used her knife in that hand; ultimately she became a useful domestic servant. But the ulna had ceased to be developed, and bent the growing radius over to its side. In September, 1887, the girl fell upon the inner side of the damaged wrist, and immediately afterwards (according to her account) sensation became diminished along the inner side of the hand, and the member became useless. How far the case might be influenced by hysteria Mr. Owen could not say, but it was evident that the ball of the little finger and the web of the thumb were wasted; probably the nerve was injured. The chief interest consisted in the apparent overgrowth of the radius; actually, however, that bone was half an inch shorter than the opposite one, whilst it was bowed in its lower two-thirds towards the ulna, which latter bone was three inches and a half shorter than its fellow on the right side. The case showed how largely the ulna depended on the integrity of its lower extremity for growth in length. The upper epiphysis was of comparatively little importance in that respect. Reference was briefly made to cases reported by Mr. Augustus Clay and Mr. Walter Brown, of Leeds. In these cases the radius had been injured, but the deformity had not been so great because the radius was less dependent for its growth on the lower epiphysis than was the ulna. He then made some remarks as to the best method of treatment.—Dr. Wm. Rose alluded to the case of a boy with fracture of the tibia above the internal malleolus. The boy subsequently returned to the hospital with marked deformity in consequence of the growth of the fibula and the arrest of growth of the tibia. He removed an inch and a half of the fibula, and thus restored the symmetry of the limb.—Dr. DAVIES-COLLEY spoke of a case of a fractured tibia involving the epiphysis, which gave rise to serious deformity, which he treated in much the same way as Mr. Rose had done.—Mr. WALTER PYE said that he did not think the symptoms were due to damage of the ulnar nerve at the date of accident, as the wasting had been far too rapid.—Mr. KNOWSLEY THORNTON asked whether it was not advisable in such cases to wait the full development of the bones.

Paralysis of the Ocular Muscles.—Dr. S. WEST showed a woman, aged 62, addicted at one time to drinking, who had suffered from headache. This returned about two months before admission, chiefly at night. It rapidly got worse, and was most marked in the left temporal region. On getting up one morning five weeks

ago she saw double, and the eyelid dropped a few days later. No other symptoms were noticed, no vomiting nor giddiness. Eyesight began to fail on March 19th, and she could then hardly see at all. No changes were visible on examination of the disc. She had lost flesh, but had picked up more recently. There was no history of gout, rheumatism, or syphilis. There was complete paralysis of all the recti and the inferior oblique, and ptosis. No other nerves were affected.

Gunshot Injury of Right Knee-Joint.—Mr. Wm. ROSE related a case of gunshot injury of the right knee treated by opening up the joint, and cleansing with solutions of carbolic acid and sublimate. A full report of this case will shortly be published.

Trephining for Middle Meningeal Hæmorrhage.—Mr. DAVIES-COLLEY showed a man who had sustained an injury to the head from a fall. He lost consciousness, and on recovery there was slight paralysis of the left arm, and great bruising over the temporal region on the right side. The paralysis afterwards became complete, and extended to the left side of the face. He passed his urine and motions involuntarily, and his temperature went down to 97°. On the eleventh day Mr. Davies-Colley trephined, and found a clot three inches long by seven-eighths of an inch thick, which he scooped away, washing out the cavity. The patient rapidly and completely recovered. Mr. Davies-Colley observed that very few such cases were on record.

Charcot's Disease of the Shoulder-Joint.—Dr. BREVOR showed a man with symptoms of ataxia who had suddenly developed symptoms of Charcot's disease of the left shoulder-joint. No history of previous injury; no pain.

Obliterative Arteritis from Crutch Pressure.—Mr. WALTER PYE showed a man who had been obliged to use a crutch since the age of 8. A year ago he had noticed some loss of sensation in his fingers, and ultimately the artery from the axilla downwards had solidified. The circulation had since returned to some slight extent.—Mr. HADDEN said that he had seen three cases resembling the above, and thought that there was a class of cases in which plastic effusion into the arteries gave rise to thrombosis.

Thiersch-Gould's Operation for Removal of Penis.—Dr. PURCELL showed a man, aged 45, who had been operated on several times for cancer of penis, the first time in March, 1886, and the last in January last. He had operated according to the method described by Mr. Gould. The testicles were not removed, and the patient had complete control over his bladder. He was now comparatively well. The second case was not well enough to leave the hospital. He was operated upon on February 21st last. He was 68 years of age. Epithelioma of penis began last year, but no glands were enlarged.

Carcinoma en Cuirasse.—Mr. MORGAN showed a woman, aged 52, who presented a typical example of the disease named and described by Velpeau as carcinoma en cuirasse. Last summer induration and swelling of the right mamma began, and was followed very shortly by a similar condition in the opposite breast, and this by hardness of the skin of the chest over the whole surface above and between the mammae. When sent to the hospital in October, there was a hard œdematous condition of the whole of the skin of the chest, which was red and even on the surface, presenting almost perfect symmetry, and so hard as to obscure the exact condition of the mammae. The skin of the axillæ were little if at all enlarged. Since October, little change in this condition had taken place, except some ulceration of the skin around the margin of the right breast. Both nipples were surrounded by thick crusts of pigmented epithelium.

ROYAL ACADEMY OF MEDICINE IN IRELAND

SECTION OF MEDICINE.

FRIDAY, MARCH 9TH, 1888.

JAMES LITTLE, M.D., President, in the Chair.

Case of Pneumothorax.—Dr. WALTER G. SMITH exhibited a patient suffering from pneumothorax.

Etymology and Classification of the Anæmia of Puberty.—Dr. E. MACDOWELL COSGRAVE read a paper, which is published in this day's JOURNAL, p. 688.—Mr. COX said his treatment was, first of all, absolute rest in bed for a fortnight, then purgation by sulphate of magnesium, then iron. He combined the iron with tincture of digitalis or of nux vomica, and sometimes used a combination containing ferrum redactum in 2-grain doses, with $\frac{1}{2}$ -grain of the arseniate of iron.—Dr. C. J. NIXON said he could not understand any distinction between the anæmia of puberty and chlorosis. Why not as well speak of the anæmia of dentition or of diarrhœa?

The object was to determine the origin of anæmia—whether it was essential or symptomatic. The essential forms were of three classes: First, the constitutional, which had its origin from birth; that was a form of which they knew nothing, whether as regards its being due to a deficiency in the manufacture of the elements of blood, or to an increased amount of the destruction of those elements. The second class was the anæmia of puberty, ordinarily spoken of as chlorosis. The third class was the form known under the name of pernicious anæmia, the certainty of the existence of which they only arrived at because the patient died. When the pathological principles as to the basis came to be investigated, they recognised all forms of anæmia as standing on the same level with regard to the condition of the blood-cells, in simple anæmia as in cases of chlorosis, or in the most profound forms of pernicious anæmia. Chlorosis applied not only to the female, when special calls were made on the vascular system in puberty, but to the male also. The reason the female was more subject to the disease was because the red blood-cells were normally fewer in number; and certainly, from the condition of the generative system—ovulation and menstruation—there was more disturbance in the blood-forming process in the female than in the male.—Dr. WRIGHT said the only way to cure the patient was to recommend her, the moment she felt her health fail, to put herself under treatment and commence taking iron. Although Sir Andrew Clark had recently claimed the credit of being the first to indicate fecal accumulations as a cause of the disease, he well remembered that the late Mr. Richardson taught his class years ago that he could cure as many cases by using aloes as by using iron.—Mr. Foy mentioned a case of five daughters and two sons, the offspring of an early marriage, of whom the girls became anæmic; the boys escaped.—Dr. J. W. MOORE said that season exercised an influence on the occurrence of anæmia or chlorosis in young adult life; for instance, there was a greater prevalence of the disease in winter than in summer.—The PRESIDENT thought it would be a very dangerous thing to make a diagnosis of anæmia in any case where there was loss of weight accompanying it. Where he saw a girl who became breathless and had palpitation on exertion and had got white, if she did not increase in weight, he would fear he had to deal with tuberculosis and not with anæmia. There were cases where anæmia had been set going by shock; for instance, that of a young lady who accidentally killed her father by giving him a poisonous liniment. Then there were affairs of the heart and other exciting causes, suggesting that anæmia was due to some influence on the nervous system.—Dr. COSGRAVE replied.

Gastric Epilepsy.—Dr. A. W. FOOT made a communication on gastric epilepsy. A lad aged 17 had a series of epileptic attacks for two years, induced by eating rich and indigestible things, or ordinary food in a rapid manner. His attacks occurred at meals and in the dining-room almost exclusively. He was seen by Dr. Brown-Séguar, and, after persevering in his treatment for five years, the seizures ceased to occur.—Dr. FINNY mentioned the case of a young student who, crossing the Channel, had a supper of beefsteak about 3 o'clock in the morning on board the steamer. After breakfast he became the victim of a very severe attack of epilepsy. The cause proved to be the undigested beefsteak, and there was no return of the disease. He had experience of another case of a young man who had, when a child, suffered from scarlet fever. That youth, whenever the large bowel became loaded with animal food, became liable to epileptic seizures.—Dr. C. J. NIXON said Dr. Foot's case was one of extreme interest, in view of the important fact that an epileptic of five years had got completely well. It was not sufficient to direct attention to the peripheral irritation alone. A healthy person would not get an attack from a mass of undigested food in the bowels. There must be a peculiar condition of the cortex of the brain which, from irritation, set up the epileptic condition; and the special danger was that, once it was developed, it was apt to continue.—Mr. COX made some remarks, and the PRESIDENT said there were two factors at work. Besides the irritation, there was the mobile excitable condition of some portion of the brain, which made it liable to discharge itself on slight provocation. Some twenty years ago he saw a boy, aged 8 or 9, whose case left a great impression on his mind. The boy had had a succession of epileptic seizures. His father and mother were first cousins, and he had five uncles and aunts confirmed epileptics. Still it occurred to him that the boy might have worms. Means were taken that dislodged a vast quantity of round worms. From that time to the present the patient, who was now thirty years of age, had never had

a recurrence of the epileptic seizure. If the worms had been allowed to remain some time longer, until the epileptic habit had been established, he would have been, like his uncles and aunts, a confirmed epileptic.—Dr. FOOT replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MARCH 16TH, 1888.

J. SPOTTISWOODE CAMERON, M.D., Vice-President, in the Chair.

Cystic Kidney.—Dr. CUFF showed a kidney in an advanced state of cystic degeneration; weight, 10 ozs. The other kidney weighed 7½ ozs., being healthy.

Abscess of Brain.—This was shown for Dr. EDDISON. There was a large collection of very foetid pus in the substance of the right hemisphere. There was no bone or tubercular disease discovered.

Specimens.—Mr. JESSOR showed the following. 1. Lipoma nasi. 2. Adenoid tumour of kidney (successful nephrectomy). 3. Sarcoma of femur (amputation). 4. Large, round-celled, alveolar sarcoma, from popliteal space. 5. Hæmatoma of arm.—Dr. ALLAN showed: 1. Primary cancer of bladder. The symptoms had existed for six months. 2. Spleen, greatly enlarged, from case of leucocythæmia. The intestine, also, was shown. The latter showed pearly nodules, and the mesenteric glands were enlarged, but there were no nodules in the spleen. 3. Cancer of stomach and liver. 4. Viscera from a syphilitic infant. 5. A collection of gall-stones. 6. Twin chickens, united by the thorax.

Knee-joint.—Mr. TEALE showed a knee-joint from a man, who on two occasions had received injury by strain or wrench followed by pain and swelling. A loose body could be felt, and the joint was opened for its removal. It was then found that besides partial detachment and great thickening of the synovial fringes, there was destruction of the cartilage on the inner side, and the surface of the bone had been worn into a deep groove, with a sharp edge, as if a piece had been removed by two saw cuts at right angles to each other. Several loose pieces of bone and cartilage were also removed. In a second operation the knee-joint was excised, but the patient died from acute septicæmia. Mr. Teale thought a piece of bone and articular cartilage had been broken off by the injury, which had worn the groove in the opposing surfaces of femur and tibia.—Dr. JACOB, Dr. BARRS, and Mr. LITTLEWOOD made some remarks.

Pelvic Cysts.—Mr. MAYO ROUSON showed a series of preparations illustrating the origin of pelvic cysts. He showed specimens of hydrosalpinx, pyosalpinx, parovarian and broad ligament cysts, dermoid, unilocular, multilocular, and papillomatous ovarian cysts, and fibro-cystic tumour of the uterus, demonstrating by means of diagrams the seat of origin of the various tumours. He remarked on the frequent gonorrhœal origin of tubal disease; and, aftershowing specimens of follicular degeneration of the ovary, said that such disease, though forming no tumour, was frequently a cause of intense pelvic distress, incapable of relief except by removal of the appendages. In all the cases shown the patient had recovered from the operation.

Ankylosis of Atlas and Occiput.—Dr. WARDROP GRIFFITH showed a specimen of ankylosis of atlas and occiput. There was a history of suppuration about the neck in childhood. There was a thickening of the bone at the origin of the trapezius.

Cirrhosis of Liver.—Dr. GRIFFITH also showed a specimen of this condition. There was a very large vein, in the position of the fetal umbilical vein, passing from the portal vein to the umbilicus, providing collateral circulation. This perhaps was the reason that ascites had not recurred after the patient had been tapped.

Liver Disease in Cat.—Dr. GRIFFITH also showed the liver of a cat studded with large nodules, presenting somewhat the appearance of a human syphilitic liver.—Dr. BARRS and Dr. JACOB thought the condition a congenital abnormality, and not pathological.

Papillary Growths.—Dr. JACOB showed on a screen, by means of a Lewis Wright's lantern microscope, a number of preparations illustrating papillary forms of growing epithelium from various inflammatory and neoplastic growths, including papillomata of the tongue, coccidium nodules from rabbit's liver, and adenoid growths from the kidney and prostate.

Miscellaneous Specimens.—Mr. MAYO showed a specimen of Tubercular Arthritis of Knee. Specimens of Abnormalities of Arteries, from the Anatomical Department of the Yorkshire College, mounted by Dr. OLIVER, were shown, as well as a number

of ophthalmic and other preparations recently added to the Yorkshire College Museum.—Mr. LITTLEWOOD showed sections of hard chancre (excised on the sixth day) and pigmented moles. In the former a characteristic induration had appeared at the edges of the wound.—Mr. LITTLEWOOD, for Mr. BROWN, showed Median and Ulnar Nerves, becoming bulbous and adherent to the stump of the forearm.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, MARCH 16TH, 1888.

ALFRED HILL, M.D., President, in the Chair.

Death-Rates as Tests of Healthiness.—Dr. LOUIS PARKES read a paper in which the fallacies arising from a faulty enumeration of the population on which death-rates were founded were pointed out, and it was shown that in the ten years intervening between two censuses, it was in many cases impossible to arrive at even an approximate enumeration by any method at present known. The only effectual remedy would be a quinquennial instead of a decennial census. The author next pointed out the fallacies which might arise from disregard of the different age and sex distributions of different populations, when their death-rates were used for the purposes of comparison and as tests of health and sanitary condition. It was urged that no public statement of death-rates should be made, which had not been corrected for age and sex distribution on the basis of the proportions found to exist in the country generally at the date of the last census. The method employed by the Registrar-General in the case of the twenty-eight large towns of England and Wales was simple and efficient, and with no great labour might be applied to every community of persons throughout the country. The influence of birth-rate upon death-rate was considered, and the late Dr. Letheby's views upon the relations which should subsist between a high birth-rate and a high death-rate were alluded to. The fundamental distinctions between mean age at death and mean duration of life were insisted upon, and it was shown that the mean duration of life was one of the best tests of the healthiness of a population. In conclusion, the author brought under notice the high death-rates which had distinguished for so many years some of the northern manufacturing towns, and urged that this excessive mortality, which was largely confined to the earliest periods of life, was due to causes which could be brought under control, and that an authoritative inquiry into all its aspects was demanded. Such an inquiry would bring public opinion to bear upon a condition of things which should not be allowed to exist any longer.—In the discussion which followed, the PRESIDENT, Drs. BATE, SYKES, SAUNDERS, and SEATON, and Messrs. BUTTERFIELD, BLYTH, NOEL HUMPHREYS, LOVETT and SHIRLEY MURPHY took part, and Dr. PARKES replied.

REVIEWS AND NOTICES.

A TREATISE ON CHEMISTRY. By Sir H. ROSCOE, F.R.S., and C. SCHORLEMMER, F.R.S. Vol. III, Organic Chemistry. Part IV. Messrs. Macmillan and Co.

THE present volume, consisting of 544 pages medium octavo, forms a further instalment of the well-known textbook on chemistry, both inorganic and organic, with which the names of these authors are associated. This part is devoted to a description of the aromatic compounds containing seven atoms of carbon, including the toluene, benzyl, benzoyl, and hydrobenzyl groups, as well as the xylene group of the compounds containing eight atoms of carbon. The volume is a worthy successor to those which have preceded it, and is characterised by the lucid and comprehensive manner in which the extremely unwieldy mass of acts composing modern organic chemistry is presented to the reader. Of particular value are the historical retrospects given in introducing the more important compounds, and which serve to indicate the progress and development of the various branches of organic chemistry. It is these passages which make this something more than a mere work of reference, and render a large part of the volume suitable for continuous reading. As a work of reference, the treatise of the authors cannot, of course, compete with the exhaustive compilation of Beilstein, *Landbuch der Organischen Chemie*, in which the avowed aim of the author has been to refer to every organic substance the composition of which has been determined by analysis. But there can

be no doubt that the work, as far as it has progressed, is not only without a rival as a treatise on organic chemistry, but is also unequalled as a book of reference in the English language. The present part is not one which contains much that is of special interest to medical men generally, although there is a very clear account of the relationship between benzoic and hippuric acids and of the causes to which the appearance of these substances in the urine of man and of the lower animals is due. The description of the preparation and properties of salicylic acid, as well as of some of the products of oxidation of the opium alkaloids belonging to the 8-carbon-atom group will also be read with interest.

THE CURABILITY OF INSANITY. By JOHN S. BUTLER, M.D., Hartford, Connecticut. Messrs. Putnam. 1887.

AT first sight one is prejudiced against this very small work on such a very large subject, and but for personal knowledge we should have supposed that it was the first effort of a young man who was starting on the path of authorship. As it happens it is the summing up of the experience of an old man who has seen much, and probably discovered into how small a space all our real knowledge can be put.

Dr. BUTLER begins by discussing the proportion of patients to medical men in asylums, in the past and in the present. He is a strong advocate for the separation of the curable from the incurably insane, and for the individualised treatment of the former. Why should it be necessary to state this proposition that the insane must be treated as individuals? But so it is and so it will remain as long as medical superintendents are expected to be medical stewards, or are men appointed for social rather than medical fitness. We do not know of a single English asylum or hospital for the insane which is sufficiently officered if there is to be thorough medical supervision of the cases. No general physician, even with a staff of clinical clerks, would pretend to be responsible for the diagnosis and treatment of two or three hundred cases; and yet in the best hospitals for the acutely insane this is what is expected. Skilled and experienced general physicians, with special training, should be at the head of asylums, and they should be free from mere administrative work, and have every assistance in providing suitable companions and attendants.

Dr. Butler points out how many cases of functional mental disorder require special treatment, and nowadays one must admit that in asylums lady nurses and lady companions have replaced the "Mrs. Gamps" of former days, yet here in England there is still much to be desired. The general hospital nursing is in advance of that of our asylums, and even this is much better than the nursing provided for those cases which are treated at home. Individual treatment, such as that recommended in this little book, implies thorough knowledge of the conditions under which the disorder has arisen, and a proper exertion of force to counteract the evils. It is surprising that so little has been written on the functional cure of functional disorders, for there is plenty of room for the exercise of this kind of treatment among the insane.

The majority of medical men seem to have three courses open to them in treating the insane. Either they narcotise them, send them to an asylum, or send them abroad. Any one of these forms of treatment may be abused, but we think that the sending of a person of unsound mind abroad without having fully considered what he is going away for is unreasonable and may be dangerous. The mind is at least as much influenced by rest as the organs of sense, and rushing over the Continent is not rest. Rest in bed and careful watching may be much better than railway or even ocean travel. The advice given by our author is sound, his examples are interesting, and his authorities are the best in lunacy. He exhibits the old man's love of quotation, and his quotations will be found to be correct and apposite.

A TREATISE ON ASTIGMATISM. By SWAN BURNETT, M.D., St. Louis, Missouri: J. H. Chambers and Co.

NOTWITHSTANDING the author's preface, we much doubt the wisdom of writing a book on astigmatism alone. It appears to us to be both theoretically unsound and practically inconvenient to divorce the consideration of one form of ametropia from that of others, and the book before us could have been only complete had it formed part of a larger work.

The theoretical parts are, we think, the best. The nature of a bi-axial and a tri-axial ellipsoid is well explained, and the effect of spherical and ellipsoid surfaces in causing spherical aberration

tion is fully dealt with, and illustrated by an excellent diagram (fig. 7). In astigmatism, as it occurs in the eye, we miss any clear explanation of the fact that an eye with simple astigmatism sees lines best which are at right angles to its emmetropic meridian. It is true that all the data for the explanation are given, but hardly, we think, arranged so that they would be put together by a beginner without assistance. Yet this is the *pons asinorum* of astigmatism.

In speaking of mydriatics, we are surprised to see that the author recommends the use of atropine of the strength of 2-4 per cent. Solutions of this strength are never used in this country, and are quite unnecessary. He also supports the practice—which used to be widely adopted, but which we thought had been abandoned by most—of postponing the ordering of the correcting glasses till the effect of the mydriatic has passed off. We must confess that we could never see the necessity of this; the condition of the accommodation can and ought to be ascertained before a mydriatic is used, and the objection that the dilatation of the pupils affects the result is trivial, since any difference arising from this source can easily be eliminated by means of a diaphragm.

Most of the illustrations are excellent. It is, however, unfortunate that the ellipsoid in fig. 6 does not fulfil the conditions of the definition. We think that the nature of an ellipse would have been rendered much more obvious to the notice if the old school-boy trick of drawing it had been given, namely, by fixing a slack string between the two foci, and running a pencil-point round within the string. We must object more forcibly to fig. 30, which is a blemish to the book. It is supposed to represent the mode in which the inverted image is formed in the indirect method. It is inaccurately drawn, and has not even the merit of being clear as a diagram. Rays from two widely separated points on the fundus are depicted as emerging in a single pencil, which could not possibly come from either.

The apparent increase in the size of the image in emmetropia is mentioned and explained, an obvious omission from most of our textbooks. The explanation of the changes in the shape and size of the image of the disc on withdrawing the lens in the various forms of astigmatism might be given more fully in a special treatise. The author does not appear to have seen M. Patent's excellent paper on this subject (*Rec. d'Ophthalm.* 1881).

The description of the ophthalmometer of Javal and Schiötz is the best we have seen in English, and the author pays a high tribute to its scientific value; its practical use is much limited by its cost. It is not the author's fault that he has nothing new to say as to the practical testing of astigmatism.

On the whole, we doubt whether the book will be of much use to the ordinary student, since it contains hardly enough elementary matter. For the specialist it contains much that is of interest.

NOTES ON BOOKS.

Notes on Dental Surgery, Intended for Students of Medicine and Medical Practitioners. By J. SMITH, M.D., LL.D., F.R.C.S.E. (Edinburgh: Maclachlan and Stewart).—This is a small foolscap 8vo. pamphlet of 70 pages, of which about thirty are occupied with such subjects as dental anatomy, dentition, and anaesthesia. This leaves altogether inadequate space for a sufficiently clear description of dental diseases and their treatment, and it is not, therefore, wonderful the author has failed to produce a really useful work. It, however, contains plain directions for extracting teeth. It is a pity the author has not instead brought out a new addition of his *Handbook*, now out of print. That *Handbook*, revised and amplified, might perhaps have successfully competed with well known manuals of a similar kind; but this meagre pamphlet is not likely to do so.

The Etiology and Pathology of Hydræmia, with its Relation to certain Fœtal Deformities. By JOHN PHILLIPS, B.A., M.B. Cantab., M.R.C.P., Physician to the British Lying-in Hospital. Pp. 17. (Edinburgh: Oliver and Boyd. 1887).—This is a reprint from the *Edinburgh Medical Journal*. The subject is discussed under two heads (a) the etiology and pathology of the disorder, (b) the relation of the excessive secretion to certain fœtal deformities. The article appears to be a summary of the works of such men as Gussow, Bar, Ahlfield and others who have laboured in this field,

while the conclusions arrived at are similar to those now generally accepted.

The Refraction of the Eye. By G. HARTRIDGE, F.R.C.S. Third Edition. (Messrs. J. and A. Churchill. 1888).—When a book has shown itself to be sufficiently popular to require a third edition, there can be no occasion to cavil much at its contents. We are glad to see that several slips that occurred in the earlier editions have been corrected, notably Figs. 63 and 43, though it is not clear why Fig. 54 remains unaltered. It is most difficult in a small work on a large subject to know what matters to treat of and what to omit, but we think those which are mentioned should be treated with some approach to completeness, and that when an explanation of facts cannot be given, the reader should, at any rate, be put on the right track for finding an explanation for himself. The statement on page 29 as to the mode in which distance is estimated is so incomplete that it would be better omitted, while the statement attributed to Landolt, but without a reference, that when the correcting lens is placed 13 millimètres in front of an ametropic eye, the retinal image is of the same size as in emmetropia, would have been of value had it been pointed out that this is because that point is the anterior focus of the eye. The statement in this latter form occurs indeed in Landolt's work on *Refraction*, but it is no more his than is the multiplication table. Mr. Hartridge is, we think, rather hard on Donders. It is true that he stated that hypermetropia did not pass into myopia, but that was twenty years ago, when anyone else would have said the same. We thought that he had confessed and received absolution long ago. There are several alterations in the chapter on the shadow test, and it has on the whole been improved. We dissent, however, entirely from the statement that the obliquity of the edge of the shadow in astigmatism with oblique meridians is due to the shape of the image. It is due solely to the fact that only that part of the edge which coincides in direction with one of the principal meridians is seen sharply defined by the observer. Fig. 88, illustrating the measurement of a squint with the prismeter, is inaccurate, since the patient is fixing a near instead of a distant object, so that about ten degrees of the squint is really normal convergence. Notwithstanding these slight defects, we believe that the book is nearly as complete as it could be made within its present limits.

Pathology and Treatment of Abortion. By LESLIE PHILLIPS, M.D. Pp. 110. (Birmingham; Cornish Brothers. 1887).—This small pamphlet of 110 pages, dealing with the pathology and treatment of abortion, contains nothing original or new. The subject is dealt with in the usual manner, the terminology being that used in most of our textbooks. The part played by the mother, father, or fœtus with its membranes in the production of abortion is shortly described, the references to the Lumenian Lectures being numerous. Part II includes the treatment of abortion, which is thoroughly practical and sound, though we can hardly agree with the author in recommending Tai's uterine dilators in incomplete or concealed abortion. Dr. Phillips has, however, found these instruments "reliable and certain in action," and his preference for them is perhaps natural. The essay does not pretend to originality, but is intended to supply a want frequently felt by the busy practitioner, whose time is too much occupied to read the literature on the subject published in journals, pamphlets, and other periodicals.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

LIQ. PODOPHYLLIN ET BELLADONNÆ C. STRYCHNIA (HOCKIN).

THIS is another of Messrs. Hockin, Wilson and Co.'s convenient fluid preparations. It is perfectly miscible with water, and each fluid drachm contains $\frac{1}{4}$ grain of resin of podophyllum, $\frac{1}{8}$ grain of alcoholic extract of belladonna root, and $\frac{1}{16}$ grain of strychnine. This combination is recommended in cases of habitual constipation in which peristaltic action of the intestines is deficient, and the liver is "torpid." It has been highly praised by Professor Quinlan, who advises in suitable cases one fluid drachm to be taken three times a day in combination with a tonic.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MARCH 31st, 1888.

THE BUDGET.

MR. GOSCHEN'S annual financial statement was this year complicated by the necessity for providing an income for the new county authorities proposed to be established under Mr. Ritchie's Local Government Bill. The very satisfactory surplus of Imperial income over expenditure in the year 1887-8 will be practically swallowed up by the claims of the county authorities, and Mr. Goschen, casting about for some means of popularising his Budget, has imposed a number of petty taxes in order to satisfy the income-tax payers. We have little concern with bonds to bearer, and contract notes, and bottles of champagnes, and need not therefore discuss whether increased duties upon them are or are not statesmanlike and wise.

Besides the local budget, to which we shall presently refer, the only point in the Budget which particularly affects the medical profession is the continuance of the tax on carriages, and the new tax of £1 on pleasure horses. Apparently a country doctor will in the future have to pay for the privilege of getting about the country £1 for his horse, 5s. for a two-wheeled trap, or £1 1s. for a four-wheeled vehicle drawn by one horse. The happy possessor of a one-horse rougham—provided it has not pair-horse fittings—has to thank the Chancellor, therefore, for a net saving per annum of 1s., as under existing arrangements he has had to pay £2 2s. for his carriage.

The tax on horses will bear with especial severity upon practitioners in country districts, who, by the very nature of their practice, are compelled to traverse great distances; and it is only by a very severe straining of the definition that such a man may be held to keep a horse for "pleasure." The pecuniary demands of country doctors are already so inadequate that an impost upon what is in effect a part of the apparatus of his profession cannot be permitted to pass without protest.

As letters published elsewhere show the profession is becoming alive to the injustice which is threatened, and we trust, therefore, that Mr. Goschen will see the desirability of inserting in a special Bill which he proposes to introduce a clause giving the same exemption to the nag of the hard-worked country doctor as to the farmer's cob.

We have now to consider broadly the local budget introduced by Mr. Goschen. The Government propose to cancel all the grants in aid that have been thrown as sops to local authorities by weak governments in the past, as some particular want made itself articulate. These amounted for 1886-7 to £2,582,000, the chief items being for roads £237,000, poor-law medical officers £147,000, sanitary officers £72,000, pauper lunatics £480,000, police £1,412,000, and grants to public vaccinators £19,000. To make good these grants the Imperial Government will hand over to the County Councils various licence duties, amounting in all, with the new proposals for taxation, to £3,800,000, the largest proportion of which is from liquor licences. In addition, the Government will give to the counties half the receipts from the probate duties, estimated to amount to £1,800,000. This will give the County Councils an income of £5,600,000, against which they will have to make good the grants now received from the Treasury to defray the cost of maintenance of distumpiked and main roads, estimated at £1,040,000, and to pay 4d. per head per day for indoor paupers, estimated at about £1,200,000. This will make the total expenditure £4,600,000, thus leaving an annual income of about £1,000,000 for defraying the cost of the new duties imposed upon the county authorities by the Local Government Bill. To give time for the new authorities to get fairly started, it is proposed this year to make certain temporary arrangements, which need not, however, concern us here.

The transference of the licence receipts from the Treasury to the county exchequers will no doubt meet with universal approval. Licences are in reality local imposts, and belong strictly to the district. In the same manner the horse tax is *par excellence* a local affair, and we regret that the Chancellor did not recommend that the receipts from this source should be handed over to the counties instead of meddling with the probate duty, which stands on a different footing altogether.

Until the terms of Mr. Ritchie's Bill are generally available (for, although the measure is technically "published," copies are not, at the time of writing, procurable), it is impossible to say how far Mr. Goschen's gifts to local finances will suffice for the purpose. But anything which will help ratepayers to see exactly the financial position of the district in which their lot is cast deserves encouragement and support, and Mr. Goschen's proposals, if they do nothing else, will certainly help to a clearer understanding, both of our national and local balance-sheets.

THE POSITION OF MEDICAL OFFICERS OF HEALTH.

WHILST the general public are wading through the intricacies of the Local Government Bill, and are discussing the constitution of County and District Councils from the political and financial standpoints, and whilst fierce fights are brewing over this and that particular proposal of the Ministry, we fear that one of the most important matters in local administration, from a public health point of view, runs great risk of being overlooked, or, at all events, of not being treated with the serious consideration it

deserves. It is notorious among all who are conversant with the management of local affairs that the position of medical officers of health has long been one of a very unsatisfactory character, and has been gradually going from bad to worse. And yet we cannot discern any proposal in the Bill designed to secure an improvement of the present system, or which in practice under the new state of things would effect the much-needed reform.

In a few of the larger boroughs, where a health officer with special qualifications in preventive medicine has been appointed and has been assigned a proper position as medical adviser to the sanitary authority, where the officer's whole time has been secured by a reasonably sufficient salary and where his tenure of office has been fixed on a tolerably secure footing, the duties of the office have been efficiently performed. Benefit has accrued to the public health and to sanitary knowledge, and credit to the medical profession. In some of the smaller towns also many an energetic health officer has faithfully discharged his duties for a mere nominal salary, and, in spite of many discouragements, carried them on concurrently with his private practice. But, in a much larger number of insignificant urban districts and in the majority of the existing rural districts the omission of the sanitary authorities to make proper arrangements, and the obstacles thrown in the way of energetic officers anxious to fulfil their duties have been fatal to adequate sanitary progress.

To many boards of guardians the transaction of their sanitary functions as rural sanitary authorities has been distasteful. They have habitually treated those functions as subsidiary to the poor-law administration, and at their meetings they have frequently deferred the sanitary business to the end, with the consequent result of shelving it altogether or postponing action indefinitely. In many districts nothing short of an outbreak of actual disease has been sufficient to goad the authority into action and to secure the remedy of glaring sanitary defects. When the medical officer of health is appointed at a merely nominal salary of a few pounds a year, when he is not debarred from private practice, and, having regard to the salary, is unable to give enough of his time to his sanitary duties or to the examination of the unwholesome conditions prevailing in his district, or when he hesitates to report to his authority some unpleasant truths, lest he thereby endanger his chances of re-appointment at the end of his year of office, or estrange some of his best private clients—when conditions of this kind surround the health officer's appointment, as they do too frequently at the present time, it is not surprising to find sanitary work neglected and sanitary officers dissatisfied and discouraged.

Apart from the representations that have from time to time been made to ourselves, a cursory glance at the reports of the recent sanitary survey made by the Medical Department of the Local Government Board discloses numberless examples of such cases. In one instance "the office of medical officer of health has been allowed practically to be a sinecure, the medical officer being also district medical officer;" in another the "medical officer of health does his best in advising under much discouragement;" "medical officer of health zealous, but working under

great difficulties;" "medical officer of health fair, but advice not attended to by sanitary authority;" "originally an energetic officer, who has come to acquiesce in an incompetent administration of affairs;" "work efficient, but salary only £3 per annum;" "unsatisfactory, poorly paid for work requisite;" "medical officers of health (who are also district medical officers) admit wretched condition of their districts, but do little or no work because of their dissatisfaction with scale of payment"—and so on. These examples afford ample indication of a faulty system.

Under the new arrangements it is proposed to constitute a popularly-elected "County Council" for each shire, to take over the general administration of the county and many other powers, and also to substitute popularly-elected "District Councils" for the existing urban and rural sanitary authorities, to take over the existing powers of those authorities and certain additional powers. Existing officers are to be transferred to the new authorities or compensated. Certain of the powers of the Local Government Board under Sections 189 and 191 of the Public Health Act, 1875, as to the appointment of medical officers of health, the prescribing of duties, the amalgamation of districts for the appointment of medical officer of health, etc., are transferred to the County Councils. But the Local Government Board still retain some control in the matter, Section 23 (b) of the new Bill proposing that the county authorities shall pay out of the County Fund and charge to the new Exchequer Contribution Account

"To every local authority by whom a medical officer of health or inspector of nuisances is paid, one-half of the salary of such officer, where his qualification, appointment, salary, and tenure of office are in accordance with the regulations made by order under Section 191 of the Public Health Act, 1875, as amended by this Act; but if the Local Government Board certify to the Council that such medical officer has failed to send to the Local Government Board such report and returns as are for the time being required by the regulations respecting the duties of such officer, made by order of the Board under the said section, a sum equal to such half of the salary shall be forfeited to the Crown, and the Council shall pay the same into Her Majesty's Exchequer."

This is practically a proposal to continue the present system and all its anomalies.

It appears to us that each county authority should have a superintending medical officer of health, who should be specially qualified in hygiene and its many branches, should be debarred from private practice, should assume many duties—such as those of county analyst, the making of *post-mortem* examinations for coroners' inquests, etc., which at present are not performed according to any recognised plan—should hold his office during "good behaviour," and should be assigned such a salary as would secure the services of the ablest men. The division of the county into districts for the appointment of the subordinate health officers should also be adjusted according to the same considerations. The necessity for some such plan is seen when it is remembered that the powers at present vested in the Local Government Board under Section 299 of the Public Health Act 1875, for compelling negligent authorities to perform their duties are transferred to the new County Councils. Who is to advise the

County Council in such cases if they have not a recognised medical adviser independent both of private practice and of local authorities?

The burden of responsibility in advising on sanitary operations should rest with the medical officer of health, and it is of the first importance that he should have a special training for his duties. In order to secure this, the sanitary service of the country should be so reorganised as to afford inducements to the best and ablest men in the medical profession to join its ranks. Now is the opportunity to effect such a thorough reorganisation, and it is to be hoped that it will not be lost.

THE ELECTION OF PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS.

THE movement which is now on foot to remove the disabilities under which students educated at the medical schools of London at present labour, and the part which the College of Physicians of London has taken in that movement, invested the election of a President this year with an interest which could not have belonged to it in the days, not so very long distant, when the College was little more than a learned and highly exclusive club. By undertaking to grant licences to practise medicine to the rank and file of the profession, the College stepped out of the narrow groove along which it had travelled for centuries; and by doing it not only increased its influence within the profession, but largely added to its responsibilities. So complete has been the success of this experiment, which met at the time with much opposition from the more conservative elements within the College, that it must have been a surprise to many of the younger generation of Fellows, who had grown up to a belief that the existence of the great order of Licentiates was a part of the established order of Nature, to find that one of those whose names were most upon the lips of the quidnuncs who during the last month have been speculating on the probable result of last Monday's election, had taken a large share in carrying the reform.

The interest taken in the election by the Fellows was shown by the unprecedentedly large attendance. The retiring President, Sir William Jenner, delivered a long and interesting address, and immediately afterwards the business of the election was proceeded with. The method of procedure is peculiar and susceptible of improvement. The voting is by secret ballot, and each Fellow when he enters the College buildings is supposed to be completely unacquainted with the names of the Fellows who are likely to command the largest number of suffrages.

As will be seen by a letter published in another column, the etiquette which forbids canvassing has been on the present occasion broken through, in the presumed interests of a party within the College. No fewer than ten names issued from the urn at the first ballot, the list being headed by Dr. Richard Main, who had obtained a clear majority. It is, however, necessary, in order that the election shall be completed at one

ballot, that one Fellow should receive the suffrages of two-thirds of the Fellows voting.

A second ballot became necessary. The contest was now seen to lie between Dr. Quain and Sir Andrew Clark, and, amid a scene of unwonted excitement, the voting papers of the second ballot were drawn from the urn, and it then appeared that there was a slight preponderance in favour of the younger Fellow, who was therefore declared elected.

While Dr. Quain would have brought to the duties of President remarkable business capacity and an unrivalled acquaintance with the affairs of the College and with the history of medical policy in this country, Sir Andrew Clark has already given evidence of sterling qualities, which the responsibilities of office may be expected to develop. He has assumed these responsibilities at a moment in the history of the College when it is within its power to render great services to the cause of medical education. Sir William Jenner threw himself into the movement for the extension of university facilities with an admirable energy, and thanks to his vigorous leading and strength of character, he leaves the College pledged to do its utmost to remedy the injustice now suffered by metropolitan medical students.

The scheme propounded by the delegates of the Conjoint Board was drafted upon too narrow a basis; conscious of the integrity of their own motives, its framers proposed to perpetuate the worst traditions of the College of Surgeons, and failed to perceive that no scheme could be really acceptable to the great body of the diplomates of the two Colleges which did not recognise their right to have a voice in their own affairs. So little was this understood by some that there were petulant whispers of an intention to abandon the whole if every detail was not accepted with unquestioning gratitude. The Royal Commission will afford time and opportunity for wiser counsels to prevail, and we may venture to express the confident hope that the new President will use the influence which his official position will give him not in the interest of any party or clique, but with a broad-minded appreciation of the many sides of a complicated question which cries aloud for solution.

MR. JUSTICE GRANTHAM ON THE SANITATION OF PRISONS.

THE great work of prison reform, begun by Howard and continued by Neild, has apparently in the eyes of some of our judges gone too far. Our gaols are in too sanitary a condition; our prisoners are too comfortable. A residence in prison is, according to Mr. Justice Grantham, rather a pleasure than a punishment, and, although he does not actually say so in as many words, this judge seems to intimate that he would regard a higher prison death-rate with a certain degree of complacency. In his charge to the Grand Jury at Lancaster during the recent assizes, he said: "There was another aspect of the case that he thought it desirable to call their attention [to, as a way of accounting for the circumstance of these habitual criminals coming back time after time as they did, and that was the ab-

solate comfort and perfect sanitation in our prisons at the present time, as compared with the homes of many of these people, and especially compared with the workhouses. He found that, taking last year as an example, the death-rate of the prison population was only 8 per 1,000, and when they remembered the class of persons they had before them in the dock—the worst class very often, the most ill-fed, and the most acquainted with insanitary conditions—it was startling to find that prison life was a curative for these people. Taking the population of the towns round about, they found that the Liverpool death-rate was 24 per 1,000, Manchester 28, Preston 27. He commented on the contrast Prisoners were placed in much more favourable relations than most of the working population. They were well housed, in a sanitary sense, and were supplied, night and day, with pure air. They were not exposed to one of the chief causes of the high rate of mortality. Could the same thing be said of all their workhouses, or some of their barracks? They did not make such reports as that of the medical inspectors of gaols. It was for that reason he thought it very desirable that the people who were so fond of going back to prison time after time should be taught that the prison was not merely a comfortable home." By these arguments he excuses himself apparently for inflicting the brutalising punishment of the "cat" so often as he has lately done.

Of course Mr. Justice Grantham's figures are entirely fallacious. It is impossible to compare the death-rate of adults, taken under most peculiar conditions, with that of the whole population. We believe that, excluding reformatories, the general age of prisoners would not range either much under or much over that of soldiers, namely, 20 to 45, and we find that the death-rate for adults of the general population in England between these ages is about 10 per 1,000 per annum, making a difference of only 2 per 1,000 in favour of the prison-rate, instead of from 16 to 20, as Mr. Justice Grantham seemed to intimate. The other conditions of prison life, the numerous persons suffering only short terms of imprisonment, mixed up for statistical purposes with those undergoing long terms of penal servitude, lower the prison death-rate again, and make the comparison still more untrustworthy.

But although judges may be pardoned if they are neither sanitarians nor statisticians, they cannot be excused for returning on the strength of false deductions to brutalising and degrading punishments. A distinct blow has been struck at prison reform, when a judge authoritatively declares from the bench that imprisonment as at present conducted is no punishment at all, and that the only way to improve criminals is to give them as short a stay in our prisons as possible, and rather to send them back to the world in a few weeks, with their backs marked and scarred with the lashes of the cat.

The only logical deduction from such remarks is that we must either recur to the methods of the preceding centuries—the cart tail, the pillory, the gallows—or must make residence in our gaols less sanitary, our prison death-rate somewhat higher. There could be no doubt of the punitive effects of a

committal to Newgate, for instance, during the period 1755-65, when no less a number of prisoners than 132 died of gaol fever. A residence in the Leopoldstadt Prison of Vienna from 1834 to 1847 also had some claim to the term "physical punishment," since out of 4,280 prisoners there, 378 died, a death-rate of 86 per 1,000 of whom 51.4 per 1,000 died of phthisis produced by insufficient ventilation.

Perhaps, however, our judges themselves are not altogether the losers by the better sanitation of prisons, since we find that the fevers endemic in these foul dens previous to the present century did not confine their attention to insanitary gaols or overcrowded prisoners. According to Wood, in 1521 a contagious fever broke out at the Cambridge Assizes, and the "justices, gentlemen, bailiffs, and others resorting thither took such an infection that many of them died, and almost all that were present fell desperately sick and narrowly escaped with their lives." At the "Black Assizes" at Oxford in 1577, the Lord Chief Baron (Bell), the Sheriff, and 300 other persons present died. In 1730, at the Taunton Assizes, the Lord Chief Baron (Pengelly), Sir James Shepherd, Sergeant; John Pigott, Esq., Sheriff, and some hundreds besides died of the gaol distemper. In 1750, at the May Sessions at the Old Bailey, Sir Samuel Pennant; the Lord Mayor (Sir Thomas Abney); and Baron Clark, the judges present, together with Sir Daniel Lambert, Alderman, were seized with the distemper and speedily succumbed, while, according to Lord Campbell, the Lord Chief Justice (Lee) was attacked the same year by gaol fever, but recovered. In 1752 another Lord Mayor (Winterbottom) fell a victim to the disease. Well might Lord Bacon, in writing on the subject say: "The smell of the gaol is the most pernicious infection, next to the plague. When prisoners have been long and close and nastily kept, whereof we have had in our time experience twice or thrice, both judges that sat upon the trial, and numbers of those that attended the business or were present sickened upon it or died."

If it be a fact that our gaols are better sanitized than either workhouses or the dwellings of the poor, all honour to those to whose wise labours the better condition of the former is due—all shame to our local authorities who permit crime to be better housed and treated than poverty and misfortune. But it is the workhouses and the homes which must advance to perfection, not our prisons which must recede from it. Whatever be the disciplinary or reformatory measures introduced into these latter, one thing must be secured—that the punishment ceases when the prisoner is liberated; that he does not pass back to the world with health injured or wrecked by the treatment he has received in prison. Above all that the punishment inflicted should mean no more than the sentence conveys, and that that which was on the face of it only a temporary deprivation of liberty, should not be converted by insanitary surroundings into a capital punishment of the most lingering and cruel description, or convey a permanent injury which shall remain throughout the rest of life.

That public opinion, supported by wise experience, will not permit a return to the degrading physical punishments of past

yes is certain. It is owing to the replacement of these by more humane methods that criminals are decreasing in numbers daily; hence the classes from which criminals are recruited—themselves better educated and more enlightened—see that they are no longer treated as wild beasts, against whom every man can raise his hand, and, therefore, are not driven by desperation to war against society. But still less will England allow any tampering with the health or life of prisoners. A wise philanthropy sees in these unfortunates, not lazy and irreclaimable villains returning to prison as to a comfortable home, but brothers, driven by hereditary instinct and injurious environments to crime, and reclaimable, not through greater physical sufferings, but by wise and judicious influences, acting not only on the mind, but on the body, through improved sanitation, using the word in its widest and noblest sense. That profession which numbered John Ruskin, the friend of Neill, among its members, will not permit the degradation of those of its body who practise in Her Majesty's gaols into the registrars of the capacity of weak humanity to bear torture. Our duty is to alleviate sufferings and relieve pain. Our highest privilege is to extend our ministrations to the mind as well as to the body, to offer to erring brothers the hand of help, to bring back to honesty and wisdom those who through misfortune and weakness have fallen far away from both.

HABITUAL DRUNKARDS ACT.

CAMERON, owing to unforeseen parliamentary complications, has postponed the second reading of the Habitual Drunkards Act Amendment Bill till April 9th. The Chairman of the Committee for Legislative Restraint for Habitual Drunkards, Dr. Norman Kerr, has received a communication from the Home Secretary promising assent to the second reading, with a reservation as to certain clauses. The main object of the Bill is the enactment of a permanent measure which, it is hoped, will be secured during the current session of Parliament; but the business of the House of Commons is so uncertain, that no effort should be spared to bring strong pressure to bear upon as many members as possible, each of our readers will write to his parliamentary representative, that permanent legislation may be accomplished this year, leaving the future free for further and much needed amendment.

IMPURE ANTIPYRIN.

An extraordinary demand for antipyrin is very much in excess of the supply, and great pressure is put upon the manufacturers to increase the amount of the manufactured article in the market. In consequence has been that due care has not been shown in the purification of the drug, a certain proportion of benzene being detected in samples submitted to analysis, according to Dr. Dujardin-Beaumont. This impurity may account for some of the toxic symptoms which have been reported, such as cutaneous eruptions, gastric troubles, and even grave cerebral symptoms, more particularly in the aged.

THE PROGRESS OF CREMATION IN ITALY.

CREMATION in Italy, says a correspondent of the *Times*, has not in the last two years or so made so much headway as at first, for example of Milan in 1876 soon found many imitators, especially in the northern and central provinces of Italy, and there are now something like thirty-two societies and committees for promoting cremation, though they have not all got crematoriums of their own yet. The number of persons burnt last year was only

165, as against 181 in 1886. The Pisa Society, however, has not yet opened in its statistics for last year, and crematoriums will be opened in the course of the present year at Turin, San Remo, Verona, Bologna, Pavia, and one or two other towns. Of the total number of 952 cremations that have occurred in 17 cities in Italy, since 1876, as many as 518 have taken place in Milan, and 155 in Rome. The new crematorium at Milan is situated at the extreme end of the Campo Santo, just outside the walls of the city. The temple, as it is called, is a building in the Doric style, constructed of stone, and having an open façade supported by columns, from behind which rises a tower which, as seen from the outside, looks as if it formed part of the temple, although in reality it stands quite by itself, and is the chimney. The inside of the building is divided into several rooms, in the first of which the religious rites are performed; its walls are lined with funeral urns containing the ashes of many of those who have been cremated at Milan. There is a separate room in which the bodies are placed pending cremation, and a third in which the relatives and friends spend the two hours occupied by the cremation itself. There are two furnaces—one being for general use, and the other for the bodies of persons who have died of contagious diseases and are not natives of Milan. The body is not visible to the on-lookers when being put into the furnaces, nor are the ashes afterwards.

BEATING AN EPILEPTIC GIRL.

A HOSPITAL physician has drawn our attention to the case of a child under his care. The mother brought the girl, aged 11, to the hospital on account of her becoming liable to "attacks" in which she either "turns foolish" or drops down. The case proved to be one of minor epilepsy (*petit mal*). On a recent occasion, while getting coals for her mother from the cellar, she was seen to fill her shovel, then walk to the end of the street, holding the coals before her till she came to herself. Last week, when her father was having his dinner, she combed her hair and put the combings on his plate. The mother says that she often "loses herself," and stands looking vacantly before her; in such conditions she does not answer a question, or move when touched. The child looked fairly nourished, but was rather anæmic; she answered questions well, and complained of headache. This girl attends school and is in the third standard; it appears that, on more than one occasion, when in the foolish, vacant state, the teacher has struck the child, doubtless in ignorance of the cause of her apparent stupidity; happily, however, the child has not yet been removed from school. It is not upon the individual teacher that we would cast a word of blame, still we cannot but think that a system in training and supervising teachers which allows of such mistakes ought to be reformed. The introduction of two or three medical advisers amongst Her Majesty's school inspectors would form an authority capable of following up and explaining such cases to teachers, preventing repetition of direct, though unintentional, cruelty. Occasional visits to certain schools by a medical inspector, with power to report, would do much to increase the care taken of feeble-brained children; it would lessen the responsibility of teachers in making exemptions, and they would be grateful for the assistance. As to this individual child, it is well that it should be educated and cared for; if left uneducated mental degeneration will follow. Should the child be so fortunate as to be removed to an asylum, she would probably be placed in a well ordered class in the asylum school. Why should not suitable classes for such feeble children be provided for day scholars?

ENLARGEMENT OF THE WORCESTER INFIRMARY.

DR. STRANGE writes: The Worcester County Infirmary has just been enlarged by the addition of thirty beds. This building

which has an unrivalled position overlooking the valley of the Severn, and open on all sides, has been for a long time much overcrowded, more than 1,200 patients passing through its wards annually, giving the large number of twelve patients per bed, the average of other county infirmaries being about eight or nine. The medical staff have found it impossible in this state of things adequately to treat many prolonged cases of disease, such as empyema with drainage, diseases of the spine, bones, and joints. At the annual meeting held on March 19th, the enlarged wards were thrown open to the inspection of the governors. The enlargement has been effected by bringing forward the south wing 30 feet, giving ten additional beds to each of the three wards in this wing. These wards have now twenty-six beds in each, with superficial area and air space about equal to those of the new central portion of the Great Northern Hospital mentioned in the JOURNAL a few weeks ago. The cost was under £3,000; £500 of which was contributed by one donor. The appearance of the building, formerly so symmetrical, is now somewhat lopsided, and presents a standing invitation to the next generation to restore its symmetry by a similar addition to the north wing. When this is done the Worcester Infirmary will be second to no county hospital in healthiness and situation, in the arrangement of the wards, and in its complete administrative department.

AN ENGLISH SANATORIUM IN THE HIGHLANDS OF BRAZIL.

AMONG the health-resorts beyond Europe where invalids and tourists may find sunshine and warmth, and a dry bracing climate, along with home comforts, San Paulo, in Brazil, has already attracted attention. From Rio de Janeiro to San Paulo is a railway journey of thirteen hours, but from the port of Santos it is only a three hours' run. The voyage from Southampton to Santos, in the steamers of the Royal Mail Steam Packet Company, occupies only twenty-three days, and from New York (by the Brazilian Mail Steamship Company) twenty-eight days. Owing to its natural and commercial advantages, San Paulo is destined to become the third great city in South America. As yet it has only between forty and fifty thousand inhabitants, among whom are Brazilians, Portuguese, Germans, Italians, French, English, and Americans. In its immediate vicinity are charming country walks and scrambles amongst a rich and almost tropical vegetation, with fishing, boating, and shooting for those who love sport. The climate during both winter and summer is delightful, and has been recommended by Dr. Walshe (*Diseases of Lungs*, 4th Edition, p. 649) for pulmonary invalids. The atmosphere is dry and exhilarating, and the barometric range so remarkably limited that it does not exceed three-quarters of an inch throughout the year. The average maximum temperature in the hottest month, January, is 80° in the shade; in the coldest month, July, 72°. The average minimum night temperature in January is 64°; in July, 49°. The number of days on which there is brilliant sunshine for the whole or the greater part of the day averages 235 per annum, and such days are pretty equally distributed throughout the year. Unlike the Mediterranean winter resorts, San Paulo has no unhealthy season of the year. Invalids are recommended to spend both seasons there, and it is a disputed point which is the more beneficial; but those who like sea-bathing, and want a change, can go to Santos for sea-bathing in June or July. Two miles from the city, a sanatorium has recently been built by an English gentleman, on a hill commanding a splendid view. It is well-drained and supplied with excellent water. It has reception rooms, billiard and bath rooms, and every modern convenience. Dr. William Ellis, an English physician resident in San Paulo, is an able guide-adviser to those who go there in search of health. The enterprise of visitors and residents has supplied a Roman Catholic chapel, and Church of England, Presbyterian, and

Wesleyan services; concerts, operas, musical societies, public gardens and bands, and riding clubs are to be found, as in other pleasure loving and prosperous cities. Where a sea-voyage is ordered for invalids, a sojourn in San Paulo may prove in some cases an additional recommendation.

PHYSICAL TRAINING OF THE GREEKS AND ROMANS.

MR. A. S. MURRAY, Keeper of Greek and Roman Antiquities British Museum, delivered an interesting lecture at the Parkes Museum on Thursday, March 22nd, on the "Physical Training of the Greeks and Romans." He observed that it had been said in ancient times that the two things which the Greeks desired most were to be healthy and to be beautiful. Beauty in their eyes was attainable largely by a careful system of physical training. We see, he observes, their idea of physical beauty nowhere better than on the sculptured frieze of the Parthenon at Athens, now in the British Museum, for the greater part of it is a simple glorification of the beauty of youth as developed by physical training on horseback and in chariot racing. There was no more marked difference between the Greeks and the semi-barbarous races that surrounded them than in this matter of physical training. In one of his dialogues Lucian introduces the Scythian Prince, Anacharsis, who visited Athens in the sixth century B.C., and in the course of his visit went to the Palaistra. He was much surprised at the various exercises of the youth, thinking them ridiculous. He asked Solon, the legislator, how he could defend such folly. Solon explained that the exercises of the youth might seem absurd to an onlooker, but that they were meant to train up a race of men who, largely by this training, should become valuable citizens, capable of taking their part in war through the skill of body they had thus acquired, and capable of taking a share in the administration of public affairs through the clearness of head and ready judgment which the habitual training of the Palaistra fostered in them. The lecturer then proceeded to describe the ordinary exercises of boys previous to their reaching the age of joining the Palaistra; and, secondly, the series of athletic contests which they practised in the Palaistra, giving instances of the skill attained in the various contests of leaping, running, wrestling, boxing, throwing the disc and the spear. Lastly, he noticed the physical training of girls, to whom running was the only form of public contest allowed, and that only in a very restricted degree. He concluded with a brief sketch of a limited range of physical exercises, as practised by the Romans.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASE.

THE Local Government Board at the end of last year addressed a series of questions to sanitary authorities of districts in which there is a system of compulsory notification of infectious disease, with a view to obtaining information which may be useful to the Board in considering the extension of this method. The Salford Town Council have since published a report by their medical officer of health, Dr. John Tatham, which gives a useful account of the results obtained in that borough. Dr. Tatham says that, on receipt of notification, the house is at once visited by himself or the sanitary inspector, and particulars obtained as to the cause of illness, the opportunity for isolation, and other points of importance. More than half the cases visited are removed to hospital, disinfection carefully performed, and, in case of small-pox the inmates revaccinated. Where patients remain in their own homes, care is taken to limit the extension of the disease, and school authorities are informed when school children are found resident in a house with a case of infectious disease. In Salford there is very little concealment of such disease, and medical men loyally support the health department in their duties under the Notification Act. The result has been exceedingly satisfactory.

as regards small-pox and typhus, importations of disease never giving rise to extension of a serious kind. In the case of scarlet fever, a sufficient time has not yet elapsed for the formulation of trustworthy evidence based on reported cases of sickness, but the death-rate from this disease since the Notification Act came into force has been lower than during the immediately preceding quinquennium by not less than 33 per cent. Dr. Tatham points out the effect of a district where there is no notification upon those where it exists, and shows the necessity for the extension of the system throughout the whole country, and he urges the need for the central registration of all cases of this class of malady, in order that a district may learn what is taking place in others from which it may receive infection. The report is an excellent piece of work, and shows how valuable are the services an able health officer can render to a community.

COCAINE AND ITS SALTS.

SINCE cocaine gained for itself a reputation as a local anæsthetic, attention has been directed to the fact that the cocaine salts supplied for medical use are far from being constant or uniform in their purity and general characters. The subject was thoroughly discussed at a recent meeting (March 14th) of the Pharmaceutical Society, in a paper by Dr. B. H. Paul, from which some very useful conclusions may be drawn. Samples of the hydrochlorate of cocaine may be classed as crystalline and amorphous, and it is well to note that the author of the paper doubted whether the salt in a pure state ever assumed the amorphous condition. In fact, salts which are crystallisable with difficulty are in all cases mixtures, in various proportions, of cocaine salts with other salts of a different nature. The test of purity, based on the more ready solubility of the non-crystallisable portion of the salt in chloroform, is not altogether reliable, and the weight of the crystals obtainable on the neutralisation of an aqueous solution by ammonia is stated to be preferable. Some investigators professed to have identified an impurity, which they called "hygrin," the presence of which accounted for the difficulty with which certain specimens are crystallised. This substance, however, Dr. Paul considers to be apocryphal, although it is evident that a product known as "amorphous cocaine" is not infrequently present, and admits of identification. Its hydrochloride is the usual impurity. It is of a pale yellow colour, a bitter taste, and of feeble anæsthetic properties. It has an alkaline reaction, and is sparingly soluble in water, though freely in alcohol and ether, differing in this respect from the pure salt. A dilute solution becomes milky on the addition of ammonia, and remains so. The aqueous solution of this neutral hydrochloride becomes acid on boiling, and this accounts for the tendency of solutions of cocaine to become acid. Cocaine itself readily undergoes decomposition with benzoyl ecgonine, on being heated with alcohol or water, and this constitutes another source of impurity in the course of preparation. To obtain a pure product, the alkaloid itself should be dealt with and not the hydrochloride, which is wasteful because of its extreme solubility. It would appear from these results that the quality of cocaine hydrochloride varies very much. In fact, as Dr. Paul observed, the salt is sold at a price far too low to ensure its purity. The makers who produce a good salt are heavily handicapped in the competition with others who supply an inferior article at a low price.

ENGLISH AND FOREIGN HEALTH RESORTS.

"HARROGATE as a Winter Health Resort" was the subject of an interesting paper read by Dr. T. Britton, the president of the Yorkshire Association of Medical Officers of Health, at a recent meeting of that society. In favour of Harrogate as a winter health resort, Dr. Britton pointed to its elevated position—400 feet

above the sea—the sheltered position of Low Harrogate, its dry and bracing air, its low death-rate—13.7 per mille. The mean average temperature during the winter months was 39.3, and the rainfall compared favourably with other British watering places. The drainage and water supply were all that could be desired, and the sanitary condition of the place excellent. There are, he says, a large number of first class hotels and lodging houses where the comfort of visitors is carefully studied. In the winter months the charges for rooms are extremely small. For those who like them there are high-class hydropathic establishments, under experienced medical supervision, and there are also several good boarding houses. The country around is singularly beautiful, and abounds in places of historical interest. The roads are good, and of easy gradient. The town is partly surrounded by a belt of grass—"The Stray"—of 200 acres in extent, the remaining part being open fields and country. "But," he adds, "it is somewhat wanting in light amusements. Concerts and lectures are good and plentiful, but there is nothing during the day." This he hopes the energy of its inhabitants will soon supply, as nothing tends more to aid the system in throwing off illness than rational amusements. The *Harrogate Advertiser* in giving a report of Dr. Britton's paper, quotes *in extenso* from the *JOURNAL*, the advice and information as to the means of extending the resources and pleasures and usefulness of health resorts given by Mr. Ernest Hart in his recently published letters from Carlsbad. These letters and the information therein given have, we notice, been largely quoted by the provincial press; and it is to be hoped that now that the attention of the local authorities of our British health resorts has been called to this need, the matter will not be allowed to end merely in words, but that steps will be taken by some of our leading health resorts to bring into play the same intelligence and public spirit which have enabled small German watering places by imposing a reasonable "cure tax" on the guests, to derive resources which have been wholly devoted to public purposes. The lessons derivable from the study of the administration of Carlsbad by Mr. Ernest Hart have evidently been taken to heart in many places; but practical steps might well be taken in this direction in such places as Buxton, Bath, Harrogate, Droitwich, and Cheltenham, all of which, by somewhat similar means to those employed by German health resorts might be made centres of continuous attraction and delightful resorts for English visitors. In the end such a policy would quickly repay any outlay involved, while it would quickly become, as at Carlsbad, more than self-supporting, and a source of great profit to landowners and residents.

FOREIGN MEAT.

It would be very desirable that Ministers of Her Majesty's Government, before replying to questions put to them in Parliament, should consult with practical men as well as with their legal advisers. On Tuesday, March 20th, Sir M. Hicks-Beach, in reply to a question put by Captain Cotton on the sale of foreign meat as English produce, said that he believed, although he could not give an authoritative opinion, that the sale of foreign imported meat as English meat when English meat is demanded was an offence under Section 6 of the Sale of Food and Drugs Act, 1875, and that, therefore, he did not see that any further legislation was required. Section 6 provides that "no person shall sell, to the prejudice of the purchaser any article of food or any drug which is not of the nature, substance, and quality of the article demanded;" and undoubtedly, if English meat is demanded, the seller offends against the Act if he supplies foreign meat. Action cannot, however, be taken except upon the certificate of the public analyst duly appointed. Considering that analysis is incapable of distinguishing between beef, mutton, or veal,

it is rather too much to expect of the public analyst to discriminate analytically between English and foreign meat of similar descriptions. There is not, at present, the faintest probability that such differences as would enable the most skilful analyst to give a certificate upon which a prosecution might be based will be discovered, and the Sale of Food and Drugs Act is, therefore, likely to remain a dead letter on the subject of meat, eggs, and kindred articles of food. Sir Michael Hicks-Beach's answer to Captain Cotton is, therefore, although theoretically correct, no answer at all. It should be known, however, that there are other means of punishing vendors who sell articles not of the nature, substance, and quality demanded besides the Sale of Food and Drugs Act. Only quite recently a vendor of butter, which proved to be margarine, was sentenced to six months' imprisonment at the Essex Assizes, the prosecutor having elected to proceed against him for having obtained money under false pretences. In such a case the certificate of a public analyst would not be absolutely requisite, other evidence, such as might be furnished by the police or the shippers of the meat, being available. It is not a little remarkable that whilst it was felt desirable to pass an entirely new Act against the sale of foreign fat under the name of butter, although the matter has always, and could well have been further dealt with, under the Sale of Food and Drugs Act, the Government now refuse to consider the far more important subject of meat, which is not amenable to the Food Act, and attempt to make believe that that Act is all that is needed. We can only strongly advise Sir Michael Hicks-Beach to place himself in communication with the Society of Public Analysts.

HOW TO CURE GOITRE.

FRENCH army surgeons have been profitably employed in drawing up medico-geographical reports of the French Departments. Surgeon-Major Aubert has already reported to the Académie de Médecine on Calvados, Loire-Inférieure, and La Vendée. On February 14th, his report on the Medical Geography of the Ain was read. In reference to ninety-three men with goitre from the mountainous districts of that department, who were exempted from military service from 1872 to 1886, Dr. Aubert makes a most reasonable suggestion. As most cases of goitre between the ages of 18 and 20 are curable, a great service would be done to them by enrolling, instead of rejecting them, and placing them in the territorial army in healthier parts of France, particularly in coast stations. By sending these men far from their mountains to naval arsenals they might be permanently cured, and at least could not fail to derive great benefit from the change.

THE EMPEROR OF GERMANY.

It is stated on what appears to be good authority that formal application has been made by the Empress Victoria of Germany to the Queen, her mother, requesting her to permit Sir Morell Mackenzie and Mr. Howell to wear the orders which the Emperor intends to bestow upon them. The former will probably receive the Grand Cross and Star of the Order of the House of Hohenzollern, and the latter the same order of a lower class. With regard to the health of His Imperial Majesty, we think it well to point out that, as the medical attendants are still forbidden to furnish any information beyond that contained in the official bulletins, little or no reliance is to be placed on the statements which appear from day to day in the political papers, though professedly made "on the highest authority." These are nothing more than rumours, which are in every case unwarranted, and in many glaringly absurd. As medical men know, it is absolutely immaterial to the real issue that the Emperor is still able to go about indoors, to transact business, give audiences, and even to speak. A man may do all this, and may have the outward appearance of health, and yet be suffering from advanced cancer of the

larynx. When it begins in this region, the disease, as a rule, does not spread beyond it, and is slower in its course than in many other parts of the body. Under favourable circumstances life may be prolonged for three or four years, or even more, and during the greater part of that time the general health may scarcely be affected to any degree appreciable by an ordinary observer. With regard to the nature of the disease, although the result of Professor Waldeyer's examination has not been made public, the general drift of his report has been communicated to us by a well-known pathologist, whose authority as to the facts may be implicitly relied on. Professor Waldeyer found the microscopic appearances of the fragments of expectorated tissue which were submitted to him precisely as Professor Virchow had described them. He did not discover any trace of alveolar structure, although there were a good many particles of relatively considerable size in the sloughy material which he examined. Professor Waldeyer, however, came to the conclusion that the disease was epithelioma, his decision being based on the great number, and variety in form, of the cell-nests. In spite of this, however, the present aspect of the case, together with its clinical history from the beginning up to the present time, still give grounds, in the opinion of those who have most closely watched its progress, for a less unfavourable interpretation. We understand that, a few days ago, Sir Morell Mackenzie removed through the opening in the windpipe a large flat piece of cartilage which had apparently been thrown off from the cricoid or thyroid. We are not disposed to attach so much importance to this occurrence as has been done in some quarters, for unfortunately there is ample evidence to show that perichondritis and malignant disease are not mutually exclusive. Exfoliation of cartilage is certainly not a common feature in laryngeal cancer; but it is by no means an unknown, although a rare, phenomenon of that disease. Though it may sound like a paradox, we are convinced that much of the obscurity of the present case is due to the extraordinarily close and unremitting attention that has been bestowed upon it. Probably no case in the history of medicine has ever been watched through all its varying phases with such anxious vigilance, and it is possible that what seem to us, with such knowledge as has hitherto been available, puzzling and anomalous elements in the case, may be nothing more than the ordinary course of things when the natural evolution of the disease is fully seen.

EARLY RISING AND LONGEVITY.

PROFESSOR HUMPHRY'S recent Collective Investigation Report on Aged Persons, published in the JOURNAL, contains some very positive evidence on a matter which has already engaged the attention of moralists as well as physicians. "The opportunity for nutrition to do its restorative work was in nearly all provided by the faculty of 'good sleeping,' to which was commonly added its appropriate attendant, the habit of 'early rising.'" Thus there is a relation between early rising and longevity. No doubt many people will hastily seize upon the sentence just quoted, and employ it in edifying lectures or essays for the perusal of youth, or embody it in popular medical works. Important qualifications follow in Dr. Humphry's Report, but they are likely to be overlooked. Doubtless the habit of early rising is, in itself, healthy; most of all, it is a good sign of health when it evidently signifies rapid recovery from fatigue. Again, it usually denotes a strong will, the gift as a rule of a good physical constitution, or at least the safeguard of average bodily strength. Late risers are generally either invalids or persons of bad habits, idlers who are never free from other vices besides idleness. The nervous exhaustion which keeps a man wakeful throughout the small hours produces sleep late in the morning. This exhaustion is invariably due to one of several life-shortening influences, especially anxiety or indiscretion in diet or drink. Early rising

is thus rather one effect of certain favourable influences, another result of which is longevity, than a cause of longevity. To turn a weakly man out of bed every morning at 7 o'clock will not prolong his life. It will be noted that by "good sleeping" Professor Humphry signifies quick sleeping, "that is, the reparative work which has to be done in sleep is done briskly and well." Here, again, we have an effect of a cause; but preventing a weakly subject from sleeping more than four or five hours nightly would not cause him to live long, but would rather tend to shorten his life. Equally important are Professor Humphry's observations which show that by "early" he does not entirely mean the time by the clock. The word "has a relative significance with reference to the time of going to bed. A person who retires to rest four hours after midnight and gets up at 10 A.M. may be strictly regarded as an 'early riser.'" Thus early rising is synonymous, in long life histories, with short sleeping, which means rapid recovery from fatigue, a sign of bodily strength. These scientific facts in no wise contradict the alleged value of early rising as a practice to be cultivated by all persons in good health. It is excellent as moral discipline, and eminently healthy as a matter of fact. Most persons will eat three meals daily. When a man gets up late those meals will probably follow each other at too short intervals to be wholesome. When he is an early riser it will probably be otherwise. He can enjoy a good breakfast, and by the time for his lunch or mid-day dinner he will have an honest appetite again.

SLUMS IN LAMBETH.

An inquest was held before Mr. William Carter on Monday, March 26th, on the body of a child aged 10 weeks, who was found dead in a dwelling, 19, Opal Street, Upper Kennington Lane, where the sanitary conditions were incredibly bad. The father of the child, a labourer, possessed only one bedstead, at the top of which slept the mother, father, and two children, while at the bottom slept two other children. Dr. Farr said that on entering the passage he found the boards in a rotten condition, and the plaster falling off the walls. In the front room a shocking scene presented itself. The parents, with four children, were in bed. In a cupboard where the food was kept he found the dead body of the deceased. He had no doubt that death was due to suffocation. He found the ceiling of the particular room all down, and the rain was rushing in. The jury returned a verdict of accidental death from suffocation, at the same time stating that they were of opinion that the sanitary authorities should be at once communicated with. Dr. Farr informed the Court that the houses were totally unfit for habitation. The coroner promised to report the matter to the proper authorities.

CÆSAREAN SECTION—UNUSUAL COMPLICATIONS.

On December 16th, 1887, Dr. Norment, of Hampden, Maryland, was called in to a single woman, aged 26, who was eight months pregnant. She was forty-nine inches high, and very thin. There was marked kyphosis, involving the entire dorsal region. The lower ribs were in the upper pelvis. The uterus hung pendulous over the pubes, the symphysis lay a little posterior to the umbilicus when the patient stood on her feet. The vulvar orifice was directed slightly backwards. There was marked contraction at the perineum, the distance between the coccyx and pubes being about 10 inches, but Dr. Norment failed to discover any contraction in the vaginal inlet. The ensiform cartilage was approximated to the pubes. The lower extremities were œdematous, the urine was highly albuminous, and contained abundance of hyaline and fatty casts. There were two old suppurating sinusses tracking from the iliac region downwards, one opening below the anterior superior spine of the left ilium, the other opening on the right thigh. The patient had a hacking cough and

bad headache. Dr. Norment did not consider craniotomy or cephalotripsy to be safe in this case. He notes that Charpentier speaks of 37 maternal deaths in 119 cephalotripsies (minimum conjugate 2.7 inches) as "fairly satisfactory," and most probably his case was in an unfavourable condition as the worst of Charpentier's 37 who died. He also dreaded the prospect of being compelled to perform Cæsarean section after the failure of one of the destructive operations. There was little prospect of saving the mother by Cæsarean section, but a good chance of rescuing the child. In order to give the best chance to the mother, Dr. Norment operated on January 13th, almost directly labour pains began. He described the operation in the *Philadelphia Medical News*, February 11th. The lumbar sinusses were washed out with a 1 in 2,000 sublimate solution, the vagina with a 2 per cent. solution of carbolic acid. The operation was performed on Sanger's principles. The uterus, by its own weight, protruded through the abdominal incision, and lay on a disinfected towel between the patient's thighs. The membranes could not be conveniently ruptured from the vagina, so they were left intact to the last moment. The situation of the placenta could not be determined. Dr. Norment took care to incise the anterior wall of the uterus, but in so doing cut through the placenta. The membranes were ruptured after the placenta had been separated from the left side of the incision, and the child seized by the feet. It was asphyxiated, but recovered, and was well and alive early in February. A row of fourteen carbolised silk sutures were passed through the muscular wall of the uterus; on each side of the incision a continuous suture of the same material was made to unite the cut edges of the serous coat. The wound was closed after the uterus had been cleared of its contents, and made to contract firmly by "massage." The patient, however, suffered much from shock, and uræmic symptoms set in. She died sixty-two hours after the operation.

MENSTRUAL BLEEDING FROM A LAPAROTOMY SCAR.

At a recent meeting of the Kiev-Obstetrical and Gynæcological Society, Professor Georg E. Rein showed (*Writch*, No. 7, 1888, p. 136) a menstruating woman from whom he had about three years before removed a cyst of the right ovary weighing 37 pounds, fixing the pedicle in the abdominal wound. The patient soon recovered, and the wound healed, but at one part of the scar there remained a diminutive slough, which fell off just before the beginning of menstruation, its separation being followed by a constant flow of blood from the denuded surface during the whole catamenial period. The phenomenon had regularly recurred monthly ever since. As a rule, the scar begins to bleed somewhat earlier than the uterine flow makes its appearance. The menstrual blood from the cicatrix has a characteristic odour. It is difficult to explain such an occurrence. Possibly, a Fallopian tube or one of the uterine cornua had been stitched together with the pedicle into the abdominal wound. However, Professor Rein hopes soon to ascertain the nature of this interesting and rare case, since the patient must undergo a second laparotomy for disease of the left ovary.

THE NEW EDITIONS OF THE "MEDICAL," "DENTISTS'," AND "MEDICAL STUDENTS' REGISTERS."

The *Medical Register*, the *Medical Students' Register*, and the *Dentists' Register* were published on March 21st, and copies may now be had from Messrs. Spottiswoode and Co., the publishers to the Medical Council. The publication of these volumes is always awaited with much interest, and this year it will be found that under the able superintendence of the Council's indefatigable Registrar, Mr. W. J. C. Miller, B.A., statistics and tables of great value have been prefixed to the *Medical Register*, from which it appears that whereas the number added to the *Register* in 1877

was only 940, the number registered last year was 1,531, an increase of 591. In 1876, the first year in which such data as are now presented were ascertained, the total number on the *Register* was 22,200, while this year it amounts to 27,246, an increase of 5,046. About 66 per cent. of this number registered in London, 19 per cent. in Scotland, and 16 per cent. in Dublin. The increase in the number of registered medical practitioners may also be gauged by comparing the number of pages in the successive volumes; the number of printed pages in the *Register* for 1859 was 335, in 1870 it was 548, in 1876 it was 598, and this year it is 1172, an increase quite out of proportion to the contemporaneous increment of population. The population of the United Kingdom at the present time, including persons serving in the army and at sea, cannot exceed forty millions, so that it would appear that on an average there is one registered medical practitioner to every 1,480 persons. Among the statistics prefixed to the *Medical Students' Register* will be found tables showing the numbers registered in 1887 in each division of the United Kingdom as having passed the several recognised examinations, and the numbers registered at each place of medical study. The *Dentists' Register* has been very thoroughly and carefully revised, a process involving much unnecessary labour, owing to the extraordinary carelessness of many registered dentists. This peculiar weakness appears to have been anticipated by the framers of the Dentists' Act, which (Section 12, § 3) provides that the Registrar may send a notice to any registered dentist inquiring whether or not he has ceased to practise, that if no reply is received within three months, a registered letter is to be sent making the same inquiry, and that if the Registrar gets the letter back through the dead letter office, or after another interval of three months, receives no reply, the dentist is to be deemed to have ceased to practise, and his name shall be erased from the *Register*. Soon after last Midsummer letters of inquiry were sent to all persons on the *Dentists' Register*; three months later a thousand registered letters had to be sent out to those who had not answered the first inquiry. By this means it has been possible to correct an unprecedented number of errors. From the tables and statistics prefixed to the *Register* it appears that the unqualified dentists were, in 1879, 4,806, or 91 per cent. of the whole, while the dental licentiates were 483; but in the present *Register* the licentiates have increased to 977, and the unqualified persons have diminished to 3,889, or 79 per cent. of the total, thus showing clearly a decrease of 12 per cent.

SCOTLAND.

EXAMINER IN MEDICINE AND CLINICAL MEDICINE, GLASGOW UNIVERSITY.

THE University Court at their last meeting elected Mr. Gulland, M.B.Édin., to be Examiner in Medicine and Clinical Medicine for the ensuing year. Mr. Gulland only graduated in medicine in August, 1886.

PHILOSOPHICAL SOCIETY, GLASGOW.

At a large meeting of this society, Mr. Maylard gave a most interesting demonstration on bacteriology. He showed the processes and media adopted for the cultivation of bacteria, and amply illustrated the value of the study in its connection with the etiology of diseases.

MEDICO-CHIRURGICAL SOCIETY, GLASGOW.

DR. JAS. FINLAYSON reported a most interesting and rare case of recovery after embolism of the superior mesenteric artery in a woman, aged 45. The patient had heart disease, and more

than a year before had had an apoplectic seizure. Dr. R. S. Thomson reported some observations on the treatment of whooping-cough in Belvedere Fever Hospital, with special reference to the influence on the disease of nitric acid, ergot, and chloral. After a long series of careful observations he concluded that none of these drugs exerted the slightest specific influence on the disease, but that chloral diminished the frequency and severity of paroxysms.

SOUTHERN MEDICAL SOCIETY, GLASGOW.

DR. FLEMING read a paper on some notable surgical cases recently under his care. He reported five cases of intestinal obstruction, in one of which the patient recovered after inflation. He also reported a complete cure of traumatic epilepsy of eighteen months' duration by trephining, and successful cases of suprapubic lithotomy and nephro-lithotomy.

DISTAL LIGATURE FOR INNOMINATE ANEURYSM.

SOME weeks ago, at the Glasgow Royal Infirmary, Professor Dunlop ligatured the common carotid and subclavian arteries for innominate aneurysm. We are glad to learn that the patient is doing well.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE quarterly meeting of the Scottish Branch of this Association was held in the Hall of the Faculty of Physicians and Surgeons in Glasgow on March 8th. Dr. Watson was called to the chair. Dr. Yellowlees narrated his experiences in visiting a number of American asylums. Various other members who had been in America joined in the subsequent discussion. Dr. Turnbull then read notes of a case of exophthalmic goitre with insanity. Dr. Ireland read a paper giving an account of a recent visit to the Institution for Idiots at Bergen. Drs. Clouston, Howden, Urquhart, and Yellowlees were appointed a committee to make arrangements for the annual meeting of the Association in August next, which this year is to be held in Edinburgh.

THE UNIVERSITIES (SCOTLAND) BILL.

THE Government have at last taken the reform of the Scottish universities seriously in hand, and by the introduction of this Bill so early in the session show a disposition to settle this long-vexed question. This Bill, as introduced, is drafted on broad and liberal lines, and promises to effect what may be described as a revolution both in the administration and teaching of the universities. The greatest changes are made in the constitution and powers of the Court. The present Court, with its limited powers, is to be swept away, and to be replaced by a large representative body with complete and sole control over the entire administration of the university, both financial and otherwise. This Court is to consist of the Rector, Principal, head of any affiliated college, Lord Provost of the city, Chancellor's Assessor, Rector's Assessor, four Assessors elected by the General Council, four Assessors elected by the Senate, two Assessors nominated by the Crown, and such number of the governing body of any affiliated college as the Commissioners may determine. The Senate is to be restricted to the work of teaching and the maintenance of discipline. The Council is to have power of more frequent meeting and of adjourning discussions. The special commissioners appointed under the Bill are to possess executive powers, to make new ordinances for the better regulation of the universities, to modify the composition and increase the number of the various faculties and to create new faculties, to appoint new professors and intra- or extra-mural lecturers, to affiliate colleges, and to make a complete medical school at Dundee. They are also to regulate the admission of students to the universities by examination or otherwise, to

arrange their courses of study, the manner in which they shall be taught and examined, and by whom. The appropriation of the students' fees and the other emoluments of the universities, and the whole question of the salaries of the professors, are also left to their decision. Other sections of the Bill deal with questions of property and the amount of money to be advanced by the Treasury. The Bill will no doubt evoke abundant criticism, but it will be readily acknowledged that it is by far the most comprehensive scheme of reform yet brought forward; in many respects it is the most rational attempt yet made to bring the work of the Scottish universities into harmony with present requirements.

THE TECHNICAL COLLEGE, GLASGOW.

At a recent meeting of the Governors of the Technical College, the chairman stated that the Senate of the University had made a favourable reply to the application for recognition of attendance at the Technical College as qualifying in part for the degree of B.Sc., and were prepared to bring the application under the notice of the expected Universities Commission. He also stated that the Senate, as custodians of the Hunterian Museum, had agreed to accept the gift of the zoological and ethnological collections, at present in Anderson's College Museum. In regard to this gift, the Governors of Anderson's College and the medical professors sent a strong remonstrance against alienating such valuable specimens from the College, depriving their professors of much useful teaching material, and the people of the east end of the city of a museum that was once a popular holiday resort. It came out in the discussion that followed that the museum had been practically closed to the public for some years, that it had never been properly looked after, and that only one professor had used the specimens to illustrate a popular course of lectures now given up. And, further, that the governors of the Technical College, to whom the museum now belongs, having no interest in any form of instruction except what is mechanical and technical, found an anatomical collection useless and an encumbrance, and were glad to get rid of it. It may seem hard that the professors of Anderson's College should be deprived of these valuable collections, but it was much too late for them to remonstrate after the gift to the University had been made and accepted. There is, moreover, much to be said in favour of Professor Young's contention that a large well-equipped museum like the Hunterian is the most fitting resting-place for such specimens, as they can there be properly displayed and in such order as to make them more generally instructive.

TUBERCULOSIS IN CATTLE.

The local authorities of Paisley and Glasgow have had an interview with Lords Cranbrook and Lothian to call attention to the prevalence of tuberculosis in dairy stock and the danger thereby caused to the community through milk supply and otherwise. Principal McCall, of the Glasgow Veterinary College, has also addressed a long and alarming letter on the same subject to the local authority of Glasgow, in which he states that there are few towns in the three kingdoms, if any, where there are so many tuberculous and emaciated animals sold in the open market as in Glasgow. He thinks the reasons for this are that the persons who traffic in them are not sufficiently punished by confiscation of carcasses, and that it pays them to feed the inhabitants of Glasgow and the West of Scotland on the abominable carrion. He is so fully of opinion that the only remedy for this state of matters is that tuberculosis should be included among the scheduled diseases and so stamped out, compensation being given to owners as in pleuro-pneumonia, and he seeks to impress on all local authorities that it is their duty to do all in their power to induce the Government to act promptly in the matter.

IRELAND.

DR. EAGLETON, of Carrahoe, Galway, died last week from fever contracted in the discharge of his professional duties. The deceased gentleman was only twenty-six years of age, and his untimely death is much regretted.

DR. ROBERT TRAVERS, Professor of Medical Jurisprudence in the University of Dublin, died on Tuesday, March 27th. He graduated in medicine in 1835, and was appointed to his professorship in 1864.

THE LATE DR. JOHN MEENAN.

An oil-painting of this lamented physician has been presented to the Mater Infirmorum Hospital, Belfast, with which he was for some time connected. Dr. Meenan had attained much popularity alike with the public and his professional brethren, and his untimely decease is deeply regretted.

THE INSPECTORSHIP, LOCAL GOVERNMENT BOARD.

THE report that Dr. Edward Thompson, of Omagh, has been appointed to the office of Medical Inspector under the Local Government Board, vacant by the promotion of Dr. O'Farrell as yet lacks confirmation. Dr. Thompson is surgeon to the County Tyrone Infirmary, and visiting physician to the district lunatic asylum. If the rumour should turn out to be true, this appointment also will have been given outside the service, and many very well-known and competent candidates trained as dispensary officers been disappointed.

SIR PATRICK DUN'S HOSPITAL.

THE Governors of Sir Patrick Dun's Hospital have unfortunately incurred the displeasure of the Dublin Corporation in regard to the building of a new fever wing. A newspaper writer directed notice to the fact that fever wards were being built close to several dwellings, and urged that a distinct element of danger would be introduced in that special locality. It was asked why the Corporation had permitted the building, but it has turned out that the contractor sent the plans to the wrong place, and that the wards were erected without the knowledge of the borough engineer, and, therefore, contrary to the law on such matters. It is not unlikely that the Corporation will require such modifications in the building as will meet the popular objections.

BELFAST ROYAL HOSPITAL.

AN election was held on March 26th, to fill the post of house-physician, vacant by the resignation of Dr. S. H. Dunlop, who retires after two years' service. There were three candidates, Dr. H. L. Mackisack, Dr. W. B. McQuitty, and Dr. John Campbell, and much interest was taken in the election, the attendance of voters being one of the largest on record. The result of the polling showed a decisive majority for Dr. Mackisack.

BELFAST DISPENSARY DISTRICT.

WITH reference to a paragraph published on March 17th, we regret to find that we were misinformed in stating that Dr. Spedding had been dismissed by the Belfast Dispensary Committee. Dr. Spedding tendered his resignation to the committee at its meeting on March 5th, and it was accepted by the Local Government Board in a letter dated March 22nd. Dr. Biggar has been transferred to the district formerly held by Dr. Spedding, and to fill the vacancy thus created an election was held upon March 26th. There were six applications, but the contest lay virtually between Dr. Osborne, who has been acting as *locum tenens* for some time, and Dr. J. C. Ferguson, of the Belfast Union Hospital. The former was successful at the final ballot, and was declared duly elected.

MEMORANDUM FOR THE INFORMATION OF MEDICAL PRACTITIONERS IN REGARD TO THE EMPLOYMENT OF UN- QUALIFIED ASSISTANTS.

A.—On April 21st, 1883, the General Medical Council passed the following resolution:

"That the Council records on its minutes, for the information of those whom it may concern, that charges of gross misconduct in the employment of unqualified assistants, and charges of dishonest collusion with unqualified practitioners in respect of the signing of medical certificates required for the purposes of any law or lawful contract, are, if brought before the Council, regarded by the Council as charges of infamous conduct under the Medical Act."

B.—On November 20th, 1886, the attention of the Council having been directed to this resolution, it was determined that steps be taken with a view of making it public; accordingly, on July 25th, 1887, the Executive Council resolved that it should be inserted twice, at an interval of a month apart, as an advertisement in the following medical journals: *Lancet*, *BRITISH MEDICAL JOURNAL*, *Medical Press and Circular*, *Provincial Medical Journal*, *Edinburgh Medical Journal*, *Glasgow Medical Journal*, *Dublin Medical Journal*.

C.—On November 22nd, 1887, a report was adopted by the General Council stating that, as a consequence of the publication of the foregoing advertisements, a number of letters chiefly marked "Private" on the subject of the employment of unqualified assistants had been received by the Registrar. The report proceeds as follows:

"From these communications, from notices in the newspapers, and also from common report, it is evident that magistrates, coroners, county court judges, and other representatives of the public sense of justice, as well as medical men themselves, are becoming alive to the professional misconduct of registered practitioners who place patients under the sole charge of unqualified assistants.

"The administrators of the law regard as implicit fraud any claim of payment for the service of such substitute assistants, when it is represented as 'medical attendance.'

"This fact is encouraging, for when it is found that the owner of a 'branch practice' cannot get a claim allowed for the services of his unregistered substitute, and, moreover, that the protection of a 'cover' does not enable the unregistered practitioner to recover charges, these two kinds of irregular practice will probably not long continue to exist in this country."

D.—Since the date of the foregoing report, a case of the mis-employment of an unqualified assistant has been brought before the notice of the Council and adjudicated upon; and the registered practitioner concerned, having been informed of the grave disapprobation with which the Council regarded his conduct, promised at once to discontinue the practice condemned. Other cases have also been brought under the notice of the Executive Committee.

E.—In the prosecution of their desire to put a stop to this wrongful practice, the following resolution was passed by the General Council on November 26th, 1887:

"That it be referred to the Executive Committee to consider under what circumstances a registered medical practitioner would render himself liable to the censure of the Council in reference to the employment of unqualified assistants."

F.—On February 27th, 1888, the Executive Committee, without attempting to make a formal definition of the misconduct in question, reported to the General Council that, in its opinion,

"A registered medical practitioner would render himself liable to the censure of the Medical Council in case of the employment of an unqualified assistant in the practice of medicine, surgery, or midwifery on behalf and for the benefit of such registered practitioner, either in complete substitution for his own services, or under circumstances in which due personal supervision and control are not, or cannot be, exercised by the said registered practitioner."

The Executive Committee also stated, in reference to the procedure known as "covering," that in its view a registered practitioner covers an unregistered person, when he does, or assists in doing, or is party to, any act which enables such unqualified person to practise as if he were fully qualified.

The Executive Committee furthermore called attention to a re-

solution passed by the General Council on April 21st, 1883 (vol. xx, p. 91), which implies that, in the Council's opinion, "any registered practitioner practising for gain, who knowingly and wilfully deposes a person not registered or qualified to be registered under the Medical Act to professionally treat on his behalf, in any matter requiring professional discretion or skill, any sick or injured person 'should' be subject to the same legal liabilities as a person who falsely represents himself to be a legally qualified medical practitioner; but with special proviso that such enactment 'should' not hinder any duly regulated training of pupils in medical schools or otherwise by legally qualified practitioners, nor the use of trained pupils in partially treating the sick or injured under the direction, supervision, and responsibility of such practitioners, nor any legitimate employment of nurses, midwives, or dispensers."

JOHN MARSHALL, President.

March 1st, 1888.

ROYAL COLLEGE OF PHYSICIANS.

ON Monday, March 26th, the day after Palm Sunday, as required by statute, an extraordinary comitia was held for the election of a President. There was a very large attendance of Fellows, and the chair was taken by Sir William Jenner, Bart., M.D., K.C.B., who has been President of the College for seven years. Before resigning the chair, Sir William Jenner delivered his annual address, narrating the history of the College during the past twelve months, and concluding with an account of the lives and labours of the Fellows deceased in the same period, of whom the most distinguished were Dr. Wilson Fox and Sir George Burrows, Bart.

The by-law regulating the proceedings for the election of a President having been read by Sir Henry Pitman, a ballot was taken, with the following result: Dr. Quain, 46 votes; Sir Andrew Clark, Bart., 42 votes; Dr. Wilks, 25 votes; Dr. George Johnson, 17 votes; Sir E. Sieveking, 12 votes; Dr. Andrew, 4 votes; and 1 vote each for Sir H. Pitman, Sir W. Gull, Bart., Dr. Bristowe, and Dr. Charles West.

No Fellow having obtained two-thirds of the votes, a second ballot was taken for the two highest, Dr. Quain and Sir Andrew Clark. The result was: For Sir Andrew Clark, Bart., 79 votes; for Dr. Quain, 71 votes.

Sir Andrew Clark, Bart., was thus elected President, and was duly admitted to that office by the Senior Censor. In a few fitting words he acknowledged the honour conferred upon him, and promised to maintain the honour and dignity of the College.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary*.

March 15th, 1888.

NOTICE OF QUARTERLY MEETINGS, FOR 1888. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, March 28th, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTemperance, which was presented to the Section of Medicine

in the Annual Meeting of 1887 will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHtheria, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN and MODE of PROPAGATION OF EPIDEMICS of DIPHtheria has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The spring meeting of this Branch will be held at Pontypridd about the second or third week in April. Members wishing to read papers, etc., are requested to send titles to either of the Honorary Secretaries by the end of March, in order that they may be inserted in the circulars.—ALFRED SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held on Thursday, April 19th, at the Hackney Town Hall, at 8.30 P.M. The chair will be taken by F. M. CORNER, Esq. A paper on the Surgery of Abscess will be read by HOWARD MARSH, Esq. Visitors will be welcome.—J. W. HUNT, 101, Queen's Road, Dalston, Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting will be held at the Railway Hotel, Taunton, on Thursday, April 12th, at 5 P.M. Dinner at 5.30 P.M. The subject settled by the Council to be discussed after dinner is Bone Setting. Mr. W. J. PENNY, Assistant-Surgeon to the Bristol General Hospital, and Demonstrator of Anatomy to the Bristol Medical School, has kindly promised to come and open the discussion. The election of representative of the Branch on the Council of the Association for the ensuing year will take place at this meeting.—W. M. KELLY, M.D., Taunton, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place on Friday, April 27th, at the Hospital, Gravesend, R. J. BRYDEN, Esq., in the chair. Gentlemen desirous of reading papers or exhibiting specimens are requested to inform the Honorary Secretary of the District not later than April 8th. Further particulars will be duly announced.—A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Infirmary, Sunderland, on Wednesday, April 25th, at 3 P.M. Members intending to read papers or show specimens are requested to communicate at once with the secretary. The dinner after the meeting will take place at the Queen's Hotel, at 5 o'clock. The following papers are already promised.—Dr. HUME: A Case of Congenital Fistula of the Stomach, Cured by Operation. Dr. COLEY: On the Treatment of Effusion into the Pleura in Children. Dr. MURPHY: A Man 229 Days after Gastrostomy. Dr. OLIVER: Notes on an Unusual Case of Hæmaturia.—G. E. WILLIAMSON, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne, Honorary Secretary.

NORTH OF IRELAND BRANCH.—A general meeting of this Branch will be held in the Royal Hospital, Belfast, on Thursday, April 19th, at 11 A.M. Gentlemen who wish to bring any business before the meeting will kindly communicate as early as convenient with JOHN W. BYERS, M.D., Lower Crescent, Belfast, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary, Oxford, on Friday, April 27th, at 3 P.M. Notice of papers to be read must be sent to W. LEWIS MORGAN, 42, Broad Street, Oxford, on or before April 18th. A dinner will be provided for those members who signify their intention to dine to the Secretary two days before the meeting.—S. D. DARBISHIRE and W. LEWIS MORGAN, Honorary Secretaries.

SOUTHERN BRANCH: SOUTHAMPTON DISTRICT.—The next meeting of this District will be held on Tuesday, April 10th, 1888, at the residence of Dr. Maclean, C.B., 24, Carlton Crescent, at 8 P.M. Business: Election of officers. Passing of accounts. At the same time, a joint meeting with the Southampton Medical Society will take place, when a paper will be read by Brigade-Surgeon Godwin, M.S., on the Treatment of Wounds of the Abdominal Viscera. Dr. L. M. BUCKELL will bring under notice a case, with specimen, of Monster Birth. Association and Branch subscriptions for current year, amounting to £1 3s. 4d., became due on January 1st, and may be paid in the Honorary Secretary as soon as convenient.—THEOPH. W. TREND, M.D., Honorary Secretary, 6, Anglesea Place, Southampton.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—Ordinary meeting at the Grosvenor Hotel, Queen's Gate, Southsea, on Thursday, April 11th, 1888. The chair will be taken by the President, Dr. James Watson, at 4.15 P.M. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications are requested to signify their intention at once to the Honorary Secretary. Dinner will be provided at 6.30 P.M.; charge, 5s., exclusive of wine, etc.—J. WARD COUSINS, Honorary Secretary.

NORTH WALES BRANCH.

The intermediate meeting was held on Tuesday, March 20th, at the Pwllcrochan Hotel, Colwyn Bay, under the presidency of CHARLES WILLIAMS, Esq.

New Members.—Mr. J. Owen Jones, Flint Dispensary, Holywell, was elected a member of the Association and Branch; and Messrs. E. Parry Edwards and Alfred W. Hughes, Flint, of the Branch.

Treasurer's Report.—The accounts of the Branch for the year 1887, showing a balance of nearly £4 in hand, were read and confirmed.

Architects, Surveyors, and Engineers' Compulsory Registration Bill.—It was resolved that the members should petition in its favour.

Payment of Fees to Medical Witnesses in Civil and Criminal Cases.—After a discussion initiated by Mr. RICHARD WILLIAMS, and taken part in by Drs. IMLACH and GRIFFITH, and Messrs. BICKERTON, JONES-MORRIS, and the PRESIDENT, it was unanimously resolved: "That the members of the North Wales Branch, having had under consideration the question of fees for attendance in courts of law, beg to declare their opinion (1) that in civil cases the law should be so altered as to place services rendered in the witness box on the same footing as any other professional services; (2) that the present scale of remuneration for attendance in criminal cases is wholly inadequate."

Vote of Thanks to President.—On the motion of Dr. ROBERTS, Menai Bridge, seconded by Dr. GRIFFITH, Portmadoc, a vote of thanks was passed to the President for his address at the annual meeting.

Papers.—Mr. BICKERTON related the history of two cases in which he had removed a piece of glass which had lain in the eye for seven and ten years respectively with complete success, showing the foreign bodies, and illustrating by diagrams the line of incision in each case and the condition of the eye at the time of operation;—Mr. L. F. COX related the history of two cases of Climacteric Insanity.—Dr. IMLACH read the report of a case of Hystero-epilepsy of twenty years' duration cured by removal of the Uterine Appendages.—Mr. ROBERT JONES read a paper on the Causes of Non-union in Cases of Fracture, and remarks were made by Dr. GRIFFITH and Mr. T. L. JONES.—Dr. JOHN ROBERTS showed some Pneumococci from a Case of so-called "Creeping Pneumonia," and gave the history of the case, and made some remarks on its pathology.

Consultation with Homœopaths.—Dr. E. J. LLOYD introduced a discussion on this subject, which was taken part in by the majority of the members present. No resolution was passed, the evident sense of the meeting being that it was not well to alter the present rule of the profession.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above Districts was held at Brighton, on March 22nd. Dr. MOORE (in the unavoidable absence of Mr. Salzmann) took the chair.

Next Meeting.—Resolved: "That the next meeting be held at Hastings in May."

Representative of Branch on Council.—Mr. G. F. HODGSON, of Brighton, was nominated as a representative for Sussex on the Council of the Association.

Communications.—The following papers were read: Dr. STARLING: A Case of Fibroid Induration of the Stomach.—Mr. HOWARD MARSH: Recovery after Laparotomy for Intestinal Obstruction.—Dr. MACKAY showed cases of Lupus Erythematosus, Lupus Non Exedens, and Seborrhœa.—Mr. VERRALL: A case of Lupus Exedens.—Dr. MACKAY read Notes of Treatment; all the lupus cases, including Mr. Verrall's, being treated locally with resorcin ointment.—Mr. VERRALL: A Case of Nephrotomy for Renal Calculus.

SMALL-POX IN NOTTINGHAM.—A report on the recent outbreak of small-pox in Nottingham issued by the medical officer of the borough states that thirty-six patients from Nottingham have been admitted to the Bagthorpe Hospital from December 27th to the present time, and seven of these cases have ended fatally. So far no revaccinated person has taken small-pox. Twenty-three out of the thirty-six had been vaccinated in infancy, but not since, and of these three died. The remaining thirteen were unvaccinated at the time of infection, but six were vaccinated subsequently, and five out of these six escaped with a mild attack. Of the seven persons who were never vaccinated, four died and a fifth had a very dangerous (confluent) attack.

MEDICAL MAGISTRATE.—Mr. William Neale, L.R.C.S.L., of Drogheda, has been appointed a justice of the peace for Queen's County.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Hæmoglobinuria in Rheumatism.—Arsenical Rhinitis.—Paris Water-Supply.

At a recent meeting of the Société Médicale des Hôpitaux, M. Hayem made a communication on hæmoglobinuria in rheumatism. The patient, a woman, aged 37, was attacked with rheumatism in 1886, and again in 1887. She was then suckling her sixth child. Six days after the second attack came on she entered the hospital. The urine was completely red; there was pain, adynamia, rheumatic œdema in the arms and hands, copious perspiration, rheumatic pneumonia of the right lung, followed by symptoms of pericarditis. The urine, which was scanty at first, became abundant, and the patient recovered. She did not lose her milk, and began to suckle her child again. The urine presented the characteristics of hæmoglobinuria; it contained no red corpuscles, but a large proportion of albumen and white corpuscles. The blood was normal. This case shows that hæmoglobinuria may appear during an attack of acute rheumatism. It differs from hæmaturia in that the urine contains neither red corpuscles nor stroma. Rheumatic nephritis evidently existed in the case described by M. Hayem. The serum of the blood was not modified during the attack of hæmoglobinuria, and the red corpuscles were not dissolved by the urine. M. Hayem ascribes the hæmoglobinuria to the existence of renal mischief. M. Bucquoy cited a case which he had observed twenty years before of paroxysmal hæmoglobinuria *a frigore*. The patient passed black urine when he was out of doors. The urine became normal when he was indoors. The patient was rheumatic but not albuminuric. At the time paroxysmal hæmoglobinuria *a frigore* was not properly known. M. Hayem observed that such patients must be regarded as suffering from the effects of cold. The renal lesion, which undoubtedly exists, is not persistent; it is only during the attacks of hæmoglobinuria that albumen is observed in the urine. M. Albert Robin cited two cases of hæmoglobinuria. In the first the patient had a genuine attack of acute rheumatism. The urine became red; there were no traces of red corpuscles; there was considerable albuminuria. Symptoms of inflammatory nephritis soon showed themselves. In the second case hæmoglobinuria appeared before rheumatism. In both cases there were unmistakable signs of severe inflammatory nephritis.

Dr. A. Cartaz made, some little time ago, an interesting communication to the Société Clinique of Paris on a case of arsenical rhinitis. Workmen handling arsenical products are often subject to accidents of this nature which, commencing with coryza, lead to deep ulcerations, and ultimately to destruction of the mucous membrane and perforation of the septum. The affection is identical with that observed in workmen employed in manipulating chromic salts, only in the latter case the course of the disease is generally more rapid. Notwithstanding the extensive ulceration and profuse sanious discharge, there is scarcely any œzema. It would seem as though the deleterious substances acted as parasitocides, and prevented the putrefaction of the eliminated products. This opinion has been already expressed by J. N. Mackenzie with regard to the accidents caused by chromic salts. The sense of smell is not generally much affected. The case under consideration was that of a man, aged 48, employed in a manufactory of arsenical colours, Mittis green, and Schweinfurt green. He first came to the hospital in 1835. His general health had always been good. He commenced handling arsenical products at the age of 17, and continued that trade without interruption until he was 30 years old. He had only now and then slight ulcerations on the arms, thighs, penis, and scrotum; these ulcerations had disappeared under treatment by baths and sulphate of iron lotions. He had had on two or three occasions deep ulcerations of the fingers. At the age of 25 he contracted simultaneously gonorrhœa and chancre, as to the nature of which he could give no information. Up to this time he had never been occupied in pounding or sifting arsenical products. From 30 to 38 he was employed on other work. At 38 he resumed his first trade, but this time was much employed in sifting. At the age of 43 he had facial paralysis *a frigore*. He remained a fortnight in hospital, but was subjected to no internal treatment, the only trace left of the paralysis being a slight deviation of the right commissure of

the lips. He then returned to his work, and from that moment crusts began to form in his nose. Soon afterwards he noticed a swelling of the right side of the root of the nose, and considerable suppuration ensued. On examination perforation of the septum was discovered. Syphilis being suspected he underwent a severe specific treatment, followed by a month of mixed iodide-mercurial treatment, without any effect. At this period Dr. Cartaz took charge of the case. The patient had then discontinued his work for a month, and there were no ulcerations on the fingers or other parts of the body; the nose, however, appeared much damaged. It was flattened, deviated to the right, and very red; the point was swollen, the skin tense, and erysipelatous-looking. On the left side there was some bony overgrowth affecting the bones of the nose and the nasal process of the superior maxillary. This tumefaction filled up, as it were, the internal angle of the eye. Rhinoscopic examination showed that the cartilaginous septum had completely disappeared, while the turbinate bones on the left side presented extensive though superficial ulcerations covered with brown crusts. The mucous membrane was everywhere else greyish red, and slightly swollen. The edges of the vomer were eroded in places by superficial necrosis, and at several points higher up the probe touched bare bone. A small sequestrum was detached. The left middle and lower turbinate bones were destroyed. There was not much discharge, and but little smell. The pharynx was of a deep red colour but without ulceration. Washing out with disinfectants was employed, and the patient was discharged a month after entering hospital, but was instructed to continue treatment, consisting of sulphur baths, nasal irrigations of chloride solution of tar water, insufflations of subnitrate of bismuth and iodoform, with iron and quinine internally. Some time afterwards he returned to his previous work, but after two months the symptoms came on again as severely as before. He then definitively gave up his old occupation, and his condition gradually improved.

At a meeting of the Société de Médecine Publique et d'Hygiène Professionnelle, M. Bechmann, chief manager of the water supply of Paris, announced that in 1884 some beautiful springs of pure fresh water had been purchased by the city of Paris. Until now these springs have not been utilised, and at certain times water which is known to contain typhoid germs is distributed to the inhabitants of the city. M. Bechmann has tried to prove that the assertion made by Dr. Bronardel and other medical men that the Seine water contains poisonous principles is unfounded. He admits that this water is not altogether harmless, but gives statistics to show that during the distribution of Seine water last summer the rate of mortality from typhoid fever was lower in the arrondissements to which it was distributed than in those which were supplied with water from the Vanne and Dhuys springs. M. Bechmann quite passed over the fact that in a convent inhabited by 300 persons in the nineteenth arrondissement an epidemic of typhoid fever was produced by the use of Seine water. Within ten days 132 of the inmates were attacked with toxic, septic, and typhoid symptoms. M. Mosny's report on the use of pure drinking water at Vienna and the consequent diminution of typhoid fever in that city, furnishes the strongest evidence of the influence of water in propagating this and other affections. Since the town was supplied with new water-pipes no case of cholera has been recorded in Vienna. Dysentery, which killed about seventy persons every year, has disappeared since Vienna was furnished with a supply of pure spring water in 1874. In 1877 this water was temporarily replaced by Danube water in certain quarters of the town. A terrible epidemic of typhoid fever was the consequence. Since Vienna has been exclusively supplied with spring water, typhoid fever has almost disappeared, and a case of typhoid fever in the hospitals is a rare occurrence. M. Mosny is perfectly convinced that water is the principal agent in transmitting typhoid fever, and that the only means of suppressing this affection in a town is by supplying the inhabitants with large quantities of absolutely pure water. In replying to M. Bechmann's statements as to the rate of mortality from typhoid fever in Paris during the time that Seine water was distributed, M. Bronardel and M. Chantemesse observed that it was only twelve or fourteen days after this water was supplied that its effects could be demonstrated, and that death from typhoid fever usually occurs four or five weeks after the appearance of the affection. M. Bechmann's table of statistics records six deaths from typhoid fever during the fourth week after the Seine water was supplied, fourteen deaths during the fifth and sixth week, twenty-nine during the seventh week,

thirty-six during the eighth, and forty-four during the thirteenth. The mortality did not diminish so rapidly as might have been expected when spring water was substituted for Seine water; but this M. Brouardel attributes to the microbes deposited in the water-pipes by the Seine water. He considers it most essential that the Government authorities should immediately take the necessary measures to utilise the springs that were purchased four years ago, and considers that the immunity of the inhabitants of Paris from typhoid fever is more necessary than the establishment of a metropolitan railway, which the Government is bent upon carrying out before adopting any other measure.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

WE are living under the sign of Cancer. Cancer is the subject of discussion in all medical assemblies, from the cancer-bacillus of Dr. Scheuerlen to the operative removal of carcinomata in the different organs. Cancer forms the subject of private conversation among medical men, and also among the laity. "What do you think of the illness of the Crown Prince?" the principal question till lately, has now been altered to: "What do you think about the illness of the Emperor?" Our Emperor Frederick enjoys an extraordinary popularity, and the whole interest of Germany is concentrated on the great question: "How long?" In these questions the position of Sir Morell Mackenzie is very much discussed. There is a large party of laymen and, unfortunately, also of medical men who hate him. The former do so from Chauvinism because they are foolish enough to believe that the honour of German science is wounded by an Englishman being the first physician of the German Emperor. His professional detractors accuse him of having, by his optimism, prevented a radical operation being undertaken whilst there was yet time. However, happily, there is a much larger number who are thankful to him for having prolonged for some time so precious a life; and he enjoys in full measure the confidence of His Majesty the Emperor himself, and of his illustrious consort. It is just announced that Dr. Herman Krause has been named Professor.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

The "Bund" on English Practitioners in Switzerland; Memorandum of the Schweizerische Aerzte-Commission; Memorandum of the Société Vaudoise de Médecine.

AN excellent paragraph on the recent decision of the Bundesrath see the JOURNAL, March 3rd, 1888, p. 422) has just appeared in the *Bund* (March 19th, 1888). According to the correspondent (a Mr. "S." of Geneva—probably a Swiss medical man), the decision of the Federal Council "affords a striking proof that the questions relative to medical practice are still settled on the ground of a narrow-hearted protective-duties theory (*Schutzalltheorie*), which might be logical enough with regard to commercial articles, but most assuredly appear quite absurd when applied to medical aid to sick and suffering fellow men..... The very fact that a medical man holding a British diploma can be prohibited from practising amidst his countrymen abroad is nothing but an obvious and untenable anachronism, though it might answer to the spirit of our (Swiss) medical laws. Or possibly the Swiss practitioner stands in sad need of legal protection in his business from foreign competition? Now, if there is anything on which competition and even over-supply might be useful to the community, it is just in medical help to the sick. As a matter of fact, however, there is no fear of competition or of over-supply of the sick market with skilled medical help from granting facilities to English practitioners to settle in the Swiss health-resorts, for the wish expressed by the Engadine colonies (*vide* the JOURNAL, February 8th, p. 334) is an outcome of a real necessity, and is most intimately connected with the foreign industry (*Fremdenindustrie*), that is, with a prosperous development of our foreigners' stations (*Fremdenstationen*). Foreign practitioners generally attract to us their countrymen, and give the widest possible publicity to the climatic advantages of our country, as well as to our health-resorts and hotels. Because a Swiss physician practises in London without an English qualification, scores of our health-resorts, hotels, summer stations, etc., are to suffer heavily by losing the largest element of their prosperity! It is simply absurd. Have Germany and Italy prohibited Sir Morell Mackenzie, and Italy Professor Bergmann from practising in Berlin and San Remo, though

without local diplomas? Supposing that Her Majesty the Queen had come to Switzerland; would her medical attendant be prohibited from practising medicine? Or, given a British subject who did not happen to speak German or French; is he bound in duty to consult a Swiss practitioner, notwithstanding the fact that the patient cannot possibly understand the doctor, nor the doctor the patient? After alluding to other absurdities of the same kind, the correspondent of the *Bund* lays down a principle which will certainly find acceptance among enlightened members of the medical profession all over the world. "Science," he says, "is cosmopolitan, and the practice of any scientific calling must be founded on the most liberal basis, absolutely free from any degrading spirit of a caste or a trade corporation." A different spirit is shown in the two official documents which have been published here, one from the Swiss Medical Committee (*Schweizerische Aerzte-Commission*), the other from a Special Committee of the *Société Vaudoise de Médecine*. Both of them are addressed to the Swiss Ministry of Interior, which is urged absolutely to refuse the "reciprocity" between Great Britain and Switzerland as regards medical practice, which was a couple of months ago proposed to the Federal Council by the British ambassador at Berne. Both documents lay stress on the general inferiority of English medical men as regards scientific training and professional ability to Swiss practitioners, and argue that the proposed bargain would be altogether in favour of the former, whilst the latter would receive nothing like an equivalent in exchange. This attitude is, no doubt, admirably logical, but it is, perhaps, another mark of our inferior intellectual training that it strikes us as extremely unwise, from a practical point of view. Granting that English doctors are, on the whole, poor creatures, it is nevertheless true that their sick countrymen prefer them to the superior beings radiant with the culture of Berne, Zurich, and Geneva, who wish to supplant them. This is national prejudice, perhaps, but it is none the less a hard fact against which the most faultless logic is of no avail. Whatever may be thought of British qualifications, there can be but one opinion as to the effect of English visitors on the prosperity of Switzerland, and the Federal Government may be trusted not to drive away such useful guests, merely to gratify the jealousy of a few native doctors.

CORRESPONDENCE.

THE ELECTION OF PRESIDENT OF THE COLLEGE OF PHYSICIANS.

SIR,—The result of the election of President of the Royal College of Physicians has given satisfaction to many; but a protest must be made against the means by which this result has been attained; to some extent they involve a departure from precedent. Canvassing was had recourse to, if not in favour of one candidate, yet against another. It is now known that a portion of what is called "the Collega party," supported by the popularity of the Registrar of the College, used its influence in a certain direction. It would, in my opinion, be more becoming if the officials of the College in future were to abstain from such interference, and to leave the Fellows entirely free in choosing their President.—I am, etc.,
ONE OF THE FELLOWS.

THE BUDGET.

SIR.—I think a strong, unanimous, and active opposition should be started at once against the proposal of the Chancellor of the Exchequer to tax doctors' horses. If great efforts are not made during the Easter recess, the intolerable injustice will be completed. I at present pay £1 10s. tax for a groom and trap. Under this iniquitous scheme, my taxes will be raised to £3 10s. for the one item of conveyance alone. Beside the monstrous income-tax, with trade as depressed as it has been, such a burden will be of serious import to many country doctors.—I am, etc.,
MEXBOROUGH, near Rotherham. W. SYKES.

SIR.—The new budget of Mr. Goschen seems about to place another burden on our already overweighted profession. I see that it is proposed to exact a fresh tax of £1 for every pleasure horse, and doubtless, unless some steps are promptly taken, the absolutely necessary horses of struggling medical practitioners will be reckoned under this category. Surely something might be done, through our representatives in Parliament, to have it

definitely settled that our horses shall be regarded as being kept for purely business purposes, as much so as in the case of any tradesman, for it could never be asserted in the case of the latter that his horses are not at times used for other purposes.—I am, etc.,
 MAJOR GREENWOOD, JUN., M.D.
 18, Queen's Road, Dalston, E., March 27th.

CONSULTATION WITH HOMŒOPATHS.

SIR,—As a member of the British Medical Association and one of the oldest practitioners in Cheltenham, I protest, in common with Dr. Needham, against the recent vote of the Gloucestershire Branch of the Association being regarded as any fair criterion of the feelings of the profession generally in Gloucestershire as regards meeting homœopaths in consultation.

Let the homœopaths drop their distinctive appellation and cease to delude the public with the idea that they possess a new and improved *methodus medendi*, and professional fellowship will be conceded as a matter of course. Until they do this no *rapprochement* is possible or desirable. I am, etc.,
 W. PHILSON, M.D.
 Cheltenham.

LIGHTING BY GAS.

SIR,—The examination of the various methods of lighting by gas has been an interest to me for some time. I hope the following notes may be of use to those who, like your correspondent "F.R.C.S. Eng.," wish to know how to obtain light in the least objectionable manner.

So long as gas, as supplied by the companies, contains the usual excessive sulphur impurity, and the gas is burnt in the usual wasteful fashion, and ordinary sitting-rooms remain unventilated, so long will gas prove more or less objectionable. As a rule, with the usual fittings which the plumber supplies, about twice as much gas is burnt and paid for as is really required.

Gasburners of the better class may be divided into:

1. Regulated flat flames, such as the automatic governor burners of Sugg, Peebles, and others, varying in price from one to six shillings. These obtain the full parliamentary standard of sixteen candles, and sometimes slightly more.

2. Regenerative burners. These are mostly of the Argand type, large, costly, and, in the cheaper forms, somewhat unsightly. They require, moreover, rather careful looking after, and are apt to get choked with soot. They are, on the other hand, very economical in working, giving about 50 per cent. more light than the simple burners; and the light is extremely pure, white, and steady. Of this type are the Weymouth and Cromarty lamps. Quite recently some new forms have been brought out by F. Siemens, of which one, a simple Argand selling for a few shillings, gives a most brilliant light, and, if fitted with a regulator, ought to be very useful when a strong light is required for professional purposes, such as the examination of the larynx, etc. It is far superior to all other non-regenerative Argands in the market.

There remains another class—namely, the incandescent lights—of which the "Auer-Welsbach" is best known. This gives an extremely brilliant light at a most economical rate if the pressure be high—say two inches of water. At a pressure below an inch and a half it is not worth having. It is simple in construction, but the "mantle" which is rendered incandescent by a Bunsen flame, is very fragile, and, if not accidentally broken, requires occasional renewal. In some parts of America, where "water gas" of low illuminating quality is supplied at high pressure, this method of lighting is found to answer very well. The price, however, of the burner is very high, and at the present rates some ten or twelve shillings a year would probably be expended in mantles.

Of the large number of carburetters which have been introduced, the "albo-carbon," in which ordinary gas is enriched with the vapour of naphthaline, is the only one which survives. The light is brilliant, steady, and very economical of gas. It has, however, the disadvantages of requiring attention to the supply of "albo-carbon," of not giving its full light till some time after it is lighted, while at times, if not properly attended to, it gives off a disagreeable odour. It will be seen that a light varying from about two candles and a half to about eight candles per foot of gas consumed can be obtained, according as a common burner, or a more artificially-constructed one is used.

Every room which is lighted by gas should have an outlet, near the ceiling, either a chimney-breast ventilator or a tube opening from the centre of the ceiling into the chimney. If a reg-

tive lamp be placed under this opening, no inconvenience will be felt from the gas.—I am, etc.,
 ERNEST H. JACOB, M.D.
 Leeds, March, 1888.

THE CAUSATION OF HAMMER TOES.

SIR,—I was much struck by the remarkable unanimity of opinion that existed as to the causation of hammer toes between the reader of a paper upon the treatment of that deformity at a recent meeting of the Medical Society and the majority of those who took part in the discussion upon it. I have dissected a very large number of feet affected with hammer toes, abducted toes, and those of two female subjects affected with marked flexion of the metatarsophalangeal joint of the great toe, and in not one of them was it necessary to explain the change in the normal position as being dependent upon what appears to me to be so obviously the effect of the displacement, namely, the altered condition of the ligaments. Why should we not explain simple abduction of the great toe as being produced by primary shortening of a ligament? The reason is that the cause is so obvious, but if the condition is a more complex one, and when the pressure very frequently acts indirectly and not distally, the deformity called hammer toes, like many other acquired deformities of the human body, is attributed to a change which is an effect and not a cause.

I have discussed the question very fully in a paper on the Causation of Deformities in the last number of the *Guy's Hospital Reports*, so I will not do more than refer to it here.—I am, etc.,
 W. ARBUTHNOT LANE.
 14, St. Thomas's Street, S.E.

LOOSE BODIES IN THE KNEE-JOINT.

SIR,—In replying to the remarks of Professor Humphry at the Medical Society of London on February 27th, I endeavoured to make it clear that I did not attribute the presence of the "loose cartilages" in the knee-joint of the patient exhibited to fracture of portions of normal cartilage, but rather alluded to the possibility of the breaking off of portions of cartilage altered in marginal contour, especially having in mind those outgrowths from the edges of articular cartilages which are found in chronically diseased articulations, and notably in joints the subject of chronic rheumatic change. The man had long suffered from chronic joint affection, and in violently using his knee, which he was accustomed to do at his trade despite the pain, such outgrowths might have been broken off. The idea of these bodies originating from violence has survived in the writings and teachings of a succession of surgical authorities.

Brodie upheld this doctrine, and the most recent work on diseases of the joints in this country seems to take the same view. Brodurst, writing in vol. ii of the *St. George's Hospital Reports*, alludes to the case of a clergyman who sustained a violent wrench to his knee at football. This was followed by pain and swelling, which lasted for six weeks. Then a loose cartilage was found on the inner side of the joint, and extracted by incision. "It proved to be the anterior portion of the internal semilunar fibro-cartilage." An inspection of this specimen will inevitably suggest to an unprejudicial observer that the above description is true, and that the cartilage has been separated by fracture. Simm, writing in vol. xv of the *Pathological Society's Transactions*, relates a case of loose cartilage occurring soon after injury, and describes it as "a broken off bit of the articular end of the femur covered on one side with its natural cartilage." It is important to observe that these were the cases of healthy and vigorous young men, not likely to have had calcareous arthritic formations of antecedent date. It is surely possible for a portion of bone and cartilage to be fractured and still retain its place by untern fragments, so that union may again take place. Hence, in "extraordinary and violent" accidents which do occur to the larger joints, such lesion may be overlooked in the subsequent ankylosis, or spoiling of function of the injured articulation. Should the patient die, the joint is not often so closely examined as to detect, for instance, a detached portion of cartilage.

The report of Goodhart in Bryant's *Surgery* refers to the possibility of fracture of articular cartilage and bone, so that we may fairly doubt whether the explanation offered by Professor Humphry will apply to all cases.

There seems no more reason that a portion of the articular end of a bone, with its encrusting cartilage, should not quietly exfoliate after severe bruising, than that it should be impossible for a similar process to occur on the superficial aspect of any bone. Paget, writing in *St. Bartholomew's Hospital Reports* for 1870,

most strongly upholds this view. Furthermore, he examined the specimen microscopically. Teale's well known case seems equally conclusive. There are obvious reasons why I should be anything but desirous of entering into controversy with so accurate an observer and reasoner as Professor Humphry. From old associations it may be considered an act of heresy on my part to attempt to differ from him. I confess, on looking into the matter, that the cases seem rarer than I previously imagined, or than is usually taught and believed. Doubtless many specimens of this kind have really the origin that the Professor so ingeniously suggests.—I am, etc.,

A. MARMADUKE SHEILD.

20, Stratford Place, W.

SIR.—In reference to Professor Humphry's remarks on the above subject, I venture to draw his attention to a specimen which was exhibited by me at the Pathological Society some twelve or more years ago, and was reported on by a committee of the Society. It was removed by me from the knee-joint of a young man, who had received a severe injury to the joint some time previously. It had all the appearance of structure of a piece of articular cartilage which had been detached by violence, and was thought to be so at the time.

I regret that the specimen was accidentally thrown away, and I have not by me the report of the Committee, which is printed in the *Transactions of the Society*.

There was no suspicion of the man having suffered from rheumatoid arthritis, and as he is still alive I have not been able to verify its origin.—I am, etc.,

J. WALTERS, M.B.

Reigate, March 26th, 1888.

SIR.—In the *JOURNAL* of March 17th, Professor Humphry asserts "his scepticism with regard to the possibility of the formation of these bodies by the detachment of portions of articular cartilage."

I hope shortly to bring before your notice two, if not three, cases which will, I think, induce Professor Humphry to reconsider his opinion.—I am, etc.,

T. PRIDGIN TEALE.

Leeds.

RESECTION OF THE PYLORUS FOR CANCER.

SIR.—In the very instructive account of "A Case of Cancer of the Pylorus in which Pylorotomy was performed," in the *JOURNAL* of March 24th (page 633), Professor George Buchanan has paid me the compliment of quoting my opinion on the subject (*Operative Surgery of Malignant Disease*, 1887). And immediately beneath the quotation, he has published a short note from Professor Billroth's assistant, Dr. Salzer, in which an opinion almost diametrically opposite to my own is expressed. Professor Buchanan says that the important question "Is pylorotomy justifiable or not?" may be disposed of by quoting these two opinions.

Even had the two opinions been precisely similar, or to the same effect, I doubt whether the question would have been so readily disposed of. But I am afraid they are likely to raise fresh controversy rather than to prevent it.

Before entering on the question of the prospects of operative surgery for the radical cure of cancer of the pylorus, I must first point out that the opinions expressed by Professor Billroth and myself are not answers to the same question. His opinion is, on the face of it, a reply to the question of the justifiability of pylorotomy for all and every cause; my opinion refers solely to pylorotomy for the removal of cancer.

In my book I do not say that the operation is unjustifiable, but that I am led to doubt (from the evidence which has been laid before the profession) "whether the operation of resection of the pylorus for cancer is ever a justifiable operation." And the evidence was to this effect: Of 55 patients on whom the resection was performed for cancer, 41 died of the results of the operation, 13 recovered, and the result was not mentioned in the remaining case. Ten of the patients who survived the operation were followed up. In every one recurrence took place, and I think I am within the truth when I say that there was not one of them who was quite well a year after the operation, while several died of recurrence in the course of a few months. With a mortality of over 70 per cent. on the one hand, and such a failure as the results show on the other hand, I think my doubt of the justifiability of the operation for cancer will scarcely be deemed unreasonable.

Professor Buchanan pleads, in favour of continued experiment,

the marvellous improvement which has taken place in the statistics of ovariectomy, and seems to think it possible that practice in the operation of pylorotomy may secure for it some such improved measure of success. Pylorotomy is never likely, for obvious reasons, to be as safely performed as ovariectomy. And, in any case, when the operation is performed for the relief of cancer, if a comparison is made, it must be between pylorotomy for cancer and ovariectomy for cancer. My book shows (page 347) that, of 99 patients who were operated on for either sarcoma or carcinoma of the ovary by several operators, 33 died of causes directly connected with the operation. Nor is the mortality likely to be diminished by practice, for the operators were all men singularly skilled and successful in the ordinary operation of ovariectomy. The mortality is so much larger than that due to ovariectomy for non-malignant diseases, and the recurrence and dissemination was so rapid in some of the patients, that one of the operators, Mr. Knowsley Thornton, has openly expressed a doubt "whether it is not a positive injustice and cruelty to the patient to operate at all." Yet the results in some of the cases in which the patient survived the operation were brilliant compared with those in which the patients recovered from the operation of pylorotomy.

In the introduction to my book I have dealt much more fully than I can do here with the comparison between operations on the same part of the body for innocent and malignant disease, and have pointed out that when great benefit may be derived from an operation, a greater risk to life may reasonably be incurred; but when the benefit is small and of short duration, the risk of the operation ought also to be small in proportion. Operations for malignant disease ought, therefore, not to rank among the most fatal. I go even further than this, and maintain that, as a general rule, the least severe and fatal operations for malignant disease are the most successful in their final results.

It is difficult to judge of the relative malignancy of cancer of the pylorus as compared with cancer of other parts of the body; but I cannot but believe that its malignancy is above rather than below the average, and that it tends to involve the surrounding structures and to affect the lymphatic glands at an early period of its existence. Professor Buchanan's case is in point, for, although the symptoms had only been noticed between four and five months, there was already a cancerous gland in the lesser omentum.

One of the objects which I had in writing *The Operative Surgery of Malignant Disease* was "to discourage the repetition of useless and dangerous operations" by showing the large mortality by which they have been attended and the low measure of success which has resulted from them. In attaining this object, I have been very careful to err rather on the side of leniency than harshness in judgment, and have been at great pains not to wound the feelings of individual operators. I would not on any account venture to criticise my friend Professor Buchanan, for whose surgical ability I have a great respect. I can only say that the case appears to have been as well suited as any for resection of the pylorus, and that the operation appears to have been as well designed and executed as one could reasonably wish.

But the whole question is one of grave importance (which must be my excuse for the great length of my letter), and the position of operative surgery may be seriously affected by it. The brilliancy of the Vienna school of surgery, from which most of these questionable operations for malignant disease have emanated, has naturally produced an influence on operative surgery in all countries, and has led surgeons to push surgery to its limits. It would not be reasonable to expect that British surgeons should have wholly escaped this influence. But an examination of the reports of some of these operations shows how small is the influence which has been exercised on British surgery by the Vienna school, and during the last two or three years it has been a source of great pleasure to me to see that very few of these modern operations for cancer have been practised in this country.—I am, etc.,

HENRY T. BUTLIN.

82, Harley Street, W., March 26th.

THE CLIFTON LUNACY CASE.

SIR.—In your editorial remarks on "The Clifton Lunacy Case," you refer to the "annoyance and loss of time," as also to the "heavy costs irrecoverable from an impecunious plaintiff," incurred by medical men who sign lunacy certificates, no matter how carefully and properly they may act in the matter. This is

exceptionally true in this case. Dr. Shaw and I gave our professional services gratuitously. The patient was suffering from an attack of acute mania, with suicidal symptoms. She required detention in different asylums for about two years and a half, and a year later we were served with a writ, and called upon to answer charges of having falsely, maliciously, negligently, without reasonable or probable cause, well knowing the same to be untrue, in collusion with each other, given insufficient certificates. The charges of conspiracy, malice, and wilful and criminal falsehood were not withdrawn till after the case had opened, after an appeal from the judge (Mr. Justice Field), but without any apology that such grave accusations should have been made regardless of truth and unsupported by a particle of evidence. The learned counsel for the plaintiff (Sir Walter Phillimore), contrary to the better traditions of the bar, conducted the cross-examinations in a spirit that called forth frequent censures from the Bench, and was in marked contrast with the conduct of the defence, as we, on our part, avoided bringing forward much evidence of a painful nature, and imputed no intentional untruthfulness to the plaintiff.

The expense of a trial occupying the court for four entire days must necessarily be very great, and the burden is not lightened by "costs" being granted against an impecunious plaintiff, but I ask your permission to state that these expenses are, at all events, considerably lessened by the generous support we have received from those of our professional brethren who aided us both before and during the trial by advice and by their evidence in the witness box, and who have in no case accepted any professional fees. I do not know if the medical witnesses for the plaintiff were equally disinterested, but I feel that my thanks are due to them also for the aid they rendered us. The one, Dr. Tibbits, by showing the kind of expert (?) evidence the prosecution had to rely upon, and which, I may add, was accepted precisely at its just value. The other, Dr. Lyttleton Forbes Winslow, who, on account of the notoriety he has obtained in connection with breaches of the lunacy laws, might possibly have been regarded as an authority on the subject, expressed (so far as it was possible to gather) an opinion favourable to the certificates.

Allow me, in conclusion, to express my sincere and appreciative thanks to the large number of my professional brethren who have offered me their sympathy, together with their congratulations, on the verdict of the jury.—I am, etc.,

HENRY MARSHALL.

28, Caledonian Place, Clifton, Bristol, March 24th.

SIR,—Will you allow me to correct an error which appears in your issue of March 24th, in your comments on the late lunacy action at Bristol?

You say: "The other medical man declined to go so far as to say that rambling, incoherent conversations, refusal to answer questions, and vague statements of ill-usage were sufficient to justify the certificates." The actual words were as follows:—Sir W. Phillimore: "Are there any facts in the certificates indicative of insanity?" to which I answered that "I did not understand the question as put." Sir W. Phillimore, continuing: "Do you consider rambling, incoherent conversation, refusal to answer questions, and vague statements of ill-usage are sufficient to justify the certificates?" my reply to this question being, "Rambling, incoherent conversation are certainly signs of insanity." In response to the learned judge, to give an answer to the whole question, I said: "Then I cannot answer the question;" to which his lordship replied, "I did not think the doctor could when he understood it." That there was a distinct action to be tried against the convent for false imprisonment previous to obtaining the lunacy certificates was the opinion I entertained previous to the action coming into court, and was substantiated by Mr. Justice Field during the hearing of the case, who said, referring to the locking up of the plaintiff in her room: "This was undoubtedly interference with the plaintiff's liberty, and he would tell the jury that this entitled her to a verdict *unless circumstances justified it.*"

A medical expert is called in to advise on *ex-parte* statements, not on evidence which he is unaware of at the time and only comes to light subsequently during a trial. It is sufficient, however, for my purpose to show that the learned judge entertained and expressed the same as that originally done by me.—I am, etc.,

L. FORBES WINSLOW, M.B., LL.M. Camb., D.C.L. Oxon.

70, Wimpole Street, W., March 26th, 1888.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES FOR ATTENDING INQUESTS.

By Section 25 of the Coroners Act 1887, 50 and 51 Vic. c. 71, the local authority for a county or borough is empowered "from time to time to make a schedule of fees, allowances, and disbursements which, on holding an inquest, may lawfully be paid by the coroner holding such inquest. We do not know whether this power has as yet been generally acted on; but we see from a report that in Norfolk the local authority have adopted a scale which is far from liberal, allowing nothing to jurymen, very little to witnesses, and only 5s. for a medical witness. As regards jurymen and witnesses in general, the local authority were apparently acting within their powers in framing the schedule as they did; and if the scale of fees is inadequate, the only thing to do is to bring pressure on the framers to revise their work, and allow proper remuneration to those who attend.

As regards medical witnesses, however, their general power of disallowing fees is fortunately limited by the Act. By Section 22 "a legally qualified medical practitioner who has attended at a coroner's inquest in obedience to a summons of the coroner" is entitled to receive, by way of remuneration for attending to give evidence, the sum of one guinea, and more if he makes a *post-mortem* examination. The schedule which only allows 5s. is, therefore, in that respect wrongly framed by the local authority, and *ultra vires*. No doubt the error will be corrected as soon as pointed out, and any medical practitioners who have been refused their guinea will get the difference paid over on pointing out their rights under the Act. In case similar deprivations have been attempted elsewhere, we think it well to point out what has been done in Norfolk, and what the rights of members of the profession are under the new Act.

ELECTION OF CORONERS.

WHILE Lord Halsbury proposes to vest the appointment of coroners in the Lord Chancellor, the object of Mr. Wootton Isaacs's Bill is to leave the election in the hands of the freeholders who are voters for the county or the part of a county, the election being by ballot, and in all other respects like parliamentary elections. The maximum amount permitted to be spent by a candidate, other than personal expenses and returning officer's charges, would be limited to £400 where the freeholders on the register do not exceed 2,000, and £430 where they do exceed that number; and an additional £50 would be allowed for every complete 1,000 electors above 2,000. A petition against the return of a candidate would be tried by a commissioner appointed by the election judges.

CERTIFICATES OF DEATH.

RESTICUS asks: Is it legal for a registrar of births and deaths to register the deaths of patients who have only been seen by an unqualified man, and on his certificate, he openly stating to the registrar that he is unqualified, and that he is not a medical man?

"* A registrar of deaths must register the deaths of all persons, whether attended by qualified or unqualified practitioners. Whenever a certificate, or any written statement of the cause of death, signed by an unregistered practitioner is produced, such certificate or statement is regarded by the registrar merely as part of the information tendered by the legal informant of the death. In such cases, only the cause of death is inserted in the register, and the name of the person signing such document is not recorded therein.

A DISPUTED FEE.

PRACTITIONER.—Under the Coroners Act, 1887, 50 and 51 Vic. c. 71, s. 22, a legally qualified medical practitioner, who has attended at a coroner's inquest in obedience to a summons, is entitled to a fee of one guinea. The Act says nothing as to the allowances to be made to medical witnesses who attend voluntarily, but we think that a witness who attended in obedience to a message specially sent by the coroner ought to be held to have attended in obedience to a summons, and, consequently, to be entitled to his fee. The matter is not free from doubt, but a claim brought in the county court, if properly conducted, ought to succeed. The action should be for a mandamus directing the coroner to pay.

UNREASONABLE REFUSAL TO CONSULT.

THAT "A. B.," an M.D., C.M. Abern., M.R.C.S. Eng., and L.S.A., should have declined to meet in consultation "F. H. V.," an L.R.C.P., L.R.C.S., and L.M. Edin., L.F.P.S. and L.M. Glas., and L.S.A. Lond. (such being the several degrees and diplomas of the respective practitioners recorded in the *Medical Directory*) on the absurd plea that "he considered his degrees superior" to those of the latter, would be incredible were it not that Dr. "A. B." himself so averred in his discourteous written response to "F. H. V.," polite request for an explanation. It may therefore be well to intimate to such general practitioners who, on the strength of being graduates, may perchance feel disposed to decline to meet a physician practising generally in like circumstances, that the possession of a degree, in contradistinction to a diploma

in medicine is not to be regarded as conferring or implying superior practical professional knowledge or position, but rather, though not necessarily so, as a mark of simple academical culture. Under all the circumstances, although ever desirous to promote professional concord and unity, we could not blame "F. H. V." if, from a feeling of self-respect, he abstained from intimate association with "A. B." his colleague, at the local dispensary.

FEE FOR POST-MORTEM EXAMINATIONS IN HOSPITALS.

Dr. PETER YATES (Infirmary and Dispensary, Bolton) asks whether he is entitled legally to claim a fee for performing a *post-mortem* examination on, and attending the inquest of, one of the in-patients of the hospital. The *post-mortem* examination was ordered to be made by the coroner of the borough, and Dr. Yates was also ordered to attend the inquest.

* * No claim can be legally made.

NAVAL AND MILITARY MEDICAL SERVICES.

CANCELLING CLAUSES OF THE ROYAL WARRANT OF 1879.

WE have received several letters protesting against foreshadowed tampering with the best clauses of the above Warrant, especially with the valuable right of retirement on pension after twenty years' full pay service. We do not question the right of the authorities to cancel or amend Royal Warrants, but such documents should be considered very sacred. In common fairness however, alterations cannot justly be made to the detriment of officers who have entered, or are serving under clear conditions of contract; in other words, changes should not have retrospective effect. We will not assume the Secretary of State will so act, and await the statement of his specific intentions.

ARE BATTALION SURGEONS NON-COMMISSIONED OFFICERS?

A VOLUNTEER SURGEON writes: After a company drill, at which I was present in plain clothes, the adjutant said he wished to address a few words to the non-commissioned officers in an adjoining room, and, turning to me, said, "You're one of them; you'd better come in." Now, sir, is this one of the effects of the relative rank question? If so, the sooner surgeons and acting-surgeons make an effort to resist similar snubbing the better. Surgeons and acting-surgeons are not commissioned, therefore I suppose we are non-commissioned officers. But it sounds very odd, and I feel I should like some opinion or explanation of it.

* * Such conduct ought to have been at once brought to the notice of his superior officer by our correspondent.

ARMY SURGEONS AND FOREIGN SERVICE.

A CORRESPONDENT asks the Parliamentary Bills Committee of the British Medical Association to obtain returns from the Secretary of State for War as follows: Average proportion of home and foreign service of each of the following classes of officers: 1, Cavalry of the Line (on the relief roster); 2, Royal Artillery; 3, Royal Engineers; 4, Infantry of the Line; 5, Chaplain's Department; 6, Commissariat Staff; 7, Medical Staff; 8, Ordnance Store Staff; 9, Pay Department; 10, Veterinary Staff. If it should appear that the Medical Staff have more than the average share of service in tropical and unhealthy climates, then in justice they are entitled to higher rates of pay and better conditions of retirement.

* * Such a return would probably work out to show that the medical have a larger proportion of foreign service than other officers; but the comparison, we fear, would not be satisfactory or conclusive, because it could be urged the conditions are dissimilar. Regimental conditions of service could hardly be well contrasted with departmental, and even the latter materially differ from each other. The Chaplain's, Commissariat, and Ordnance Departments of the home army do not, for instance, serve in India; service in the cavalry abroad is, on the other hand, almost confined to India. The wear and tear of hard foreign service is unquestionably one of the causes of the greater sickness and mortality among medical officers than others; it is one reason why they should receive good pay and pensions, but we would remind our correspondent that medical officers command higher salaries because they are professional men, taking with them into the public service special knowledge, privately-acquired. Every turn of the screw brought to bear on medical officers will inevitably bring on the authorities the old Nemesis of failure in the supply when medical candidates are wanted for the Army.

VOLUNTEER MEDICAL ASSOCIATION.

THE following resolutions were passed at a meeting of the Council of this Association held on Friday, March 16th, at 24, King William Street, Strand.

On the motion of the Treasurer, seconded by Surgeon-Major Baines, it was unanimously resolved: "That having considered the terms of the Royal Warrant for creating an Army Medical Reserve, this Council recommends that no action be taken by the Association in reference thereto; thus leaving the question of joining the Medical Reserve entirely open for the individual members to act as they think fit."

It was further proposed by the Treasurer, seconded by Surgeon-Major W. G. Shephard, and unanimously carried: "That this Council, recognising the fact that in the recent Royal Warrant not any of the suggestions emanating from this Association for the better organisation of the Volunteer Medical Service being conceded, and further noting that the promises of the Secretary of State for War relative thereto, which were made in the House of Commons on August 16th last, have not received effect, a deputation be appointed to wait upon the War Secretary with the view of urging the adoption of the same."

ARMY MEDICAL RESERVE WARRANT.

BRIGADE-SURGEON (Retired List) writes: It is matter for satisfaction to see you appear to quite grasp the scope and drift of the Army Medical Reserve Warrant. As one who, having retired from active service, can afford to discuss the scheme "without fear, favour, or affection," there appears only too much reason to suspect that its "plan of campaign" may be intended to give "a lever" to the War Office luminaries to stir up the full pay Medical Staff with a long pole when it suits them to do so. Should the plan succeed we may expect soon to hear that "full pay" medical officers have to spend nearly all their services abroad, that an endeavour will be made to prevent them going on to the pension list till "quite worn out," and unfit to enjoy the hard earned pension, which, to a great extent, induced many good men to enter the service. You also justly say it is strange that the "retired regular medical officers" are not mentioned, and it is often a wonder to me that those willing to accept temporary employment are not called upon now and then to keep their hand in. It would also be interesting to know if those joining will have to provide themselves with uniform, or if they will be expected to do so, "without compensation," although liable to be relegated again at short notice to the "unemployed lists" when it suits the convenience of the War Office to do so. I am quite at one with your remarks also that whilst the profession wish to do all in their power to "support the regular medical service in case of national emergency," yet all concerned ought to "look well before they leap" in aiding the military authorities, who have so often shown such regrettable "animus" against the profession, to put themselves in a better position to be able to "sit on" the much abused army surgeon more than ever. In any case, it seems certain that unless the profession unite as a corporate body, putting personal wishes on one side, we must fully expect to find the "military caste" continue their scarcely veiled endeavours to "play off the doctors one against the other."

MEDICAL OFFICERS IN THE GERMAN ARMY.

A CORRESPONDENT, who signs himself "Observer," writes: The treatment of medical officers in the mighty German army, and of the medical profession at large in that great and enlightened empire, is in marked contrast to that afforded to medicine in this country. Witness the account of the *Daily News*, how, at the funeral of the late emperor, his personal physicians, as well as the chief physicians of the army, were accorded most honourable positions in the procession; they immediately preceded the Emperor's personal chamberlains, walking close to the coffin; also that they wore "brilliant uniforms," which, at all events, the "model army" of the world consider suitable for them. What, he asks, would be the positions accorded to our chief army surgeons or court physicians in such a State pageant? They would in all probability, be conspicuous by their absence. Medicine and science are held in small honour in this country compared with Continental nations. Especially do poor social jealousies and narrow caste prejudices, retreating before the advancing wave of democracy, seek a refuge in our army. This is as apparent in every-day military life as in State ceremonial.

RED CROSS ASSOCIATION.

WE are asked by a correspondent writing from Karachi, India, to state when and where the competition is to take place for the prize offered by the Empress Augusta of Germany, of which a notice appeared under the heading of "Red Cross Association," at p. 271 of the JOURNAL of February 4th last. Our correspondent will obtain full information on the matter he inquires about, as well as all essential particulars regarding the terms of the competition, in the JOURNAL of February 25th, pp. 442-3.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Thursday, March 22nd.

Poor-law Guardians.—On the motion of the Earl of KIMBERLEY the following peers were appointed as a Committee to inquire as to the various powers now in possession of the poor-law guardians, and their adequacy to cope with distress that may from time to time exist in the metropolis and other populous places; and also as to the expediency of concerted action between the poor-law authorities and voluntary agencies for the relief of distress: the Lord Archbishop of Canterbury, Earl Spencer, Earl of Milford, Earl of Onslow, Earl of Strafford, Earl of Kimberley, Earl of Aberdeen, Lord Balfour, Earl of Hopetoun, and Lord Thring.

Friday, March 23rd.

Lunacy Acts Amendment Bill.—On the motion for the third reading of this Bill, Earl SPENCER said he believed it was now perceived that the Bill did not meet a case which he adduced when the Bill was in Committee. He was not now prepared with a clause, but he trusted that, if it were found practicable to frame a clause, the object he had in view would be attained when the Bill was in Committee in the other House.—The LORD CHANCELLOR was inclined to think the noble earl was right, and, if it turned out to be so, he should have no objection to the necessary amendment of the Bill.—Lord BALFOUR said the communications that had taken place had reduced the matter at issue to a small point, which should be fully considered before the Bill reached the stage of Committee in the other House.—The Bill was then read a third time, and, after an amendment had been made, was passed.

The Sale of Foreign Meat.—Lord LAMINGTON asked Her Majesty's Government whether they could not introduce some measure to prevent the fraudulent practice of selling foreign imported meat as home produce. The remedy he suggested for this state of things was the insertion of two clauses into the Adulteration Act of 1875, one clause providing that every person selling foreign meat should take out a licence, and the second clause

should impose severe penalties on any person who sold foreign meat without having over his shop a board stating that the shopkeeper was licensed to sell foreign meat. This would have the effect of putting purchasers on their guard against having foreign meat palmed off upon them as home meat and at the high price of home meat.—Lord TRURO thought some sort of personal disgrace ought to be inflicted on those who habitually indulged in fraudulent practices. In France they entailed sentences of imprisonment varying from fifteen days to three months.—Lord WANTAGE said the foreign meat was sometimes better than English.—The Earl of ONSLOW remarked that, if the practice of selling foreign meat was fraudulent, there must be some law which made it so. There was the Sale of Food and Drugs Act, 1875, and other Acts for the protection of the public. Until it had been proved that the law was not sufficient to meet the case, the Government could not bring in a Bill on the subject. There were also Acts of Parliament to provide punishment for obtaining money under false pretences. He could not undertake to substitute imprisonment for fines in cases of adulteration, for some of the practices were laudable, as, for instance, when publicans sold water for gin.

HOUSE OF COMMONS.—Thursday, March 22nd.

The Children's Dangerous Performances Act, 1879.—Mr. H. VINCENT asked the Home Secretary, having regard to the public exhibitions of young children in acrobatic and other performances apparently dangerous to the life and limbs of children now taking place in the metropolis, whether it was the duty of the Metropolitan Police, or of the Metropolitan Board of Works, or of what other public authority, to take action where necessary under the provisions of the Children's Dangerous Performances Act, 1879.—Mr. MATTHEWS replied that the statute referred to did not give the power or impose the duty of taking action upon the police, or the Metropolitan Board of Works, or any public authority. The Act left it open to any person or society to initiate a prosecution in a proper case. He understood that there was a society which had occasionally taken proceedings under this Act.

Friday, March 23rd.

Length of Foreign Service for Army Medical Officers.—Dr. TANNER asked the Secretary of State for War whether it was the intention of the War Office to prolong the period of foreign service for officers of the Army Medical Staff; and whether, in the event of such an event taking place, any compensation would be given for the increased risk.—Mr. E. STANHOPE said the length of foreign service would be extended by one year in all departments in the interests of economy, and for the purpose of lengthening the period of service at home. As the service of an officer was available wherever Her Majesty might require it, no case for compensation arose.

Adulteration of Lard.—Sir M. HICKS-BEACH, in reply to Dr. CLARK, stated that the Board of Trade were aware that cottonseed oil was extensively used in the United States in the manufacture of lard. He thought that the selling of the adulterated lard in this country would bring the seller within the Adulteration Act.

Small-pox.—Mr. PICTON gave notice that on that day four weeks he would move the appointment of a Select Committee to inquire into the circumstances attending the epidemic of small-pox in Sheffield and the surrounding district, and especially to ascertain whether its origin could be traced to defective vaccination, to insufficient sanitary precautions, or to any other causes.

Monday, March 26th.

Re-employment of Retired Army Medical Officers.—Dr. TANNER asked the Secretary of State for War whether army medical officers of the retired list re-employed would receive the same pay, allowances, and military status as other officers of their rank; and whether their additional service would count for increased pension when compulsorily retired by age; and, if not, what advantages they would derive.—Mr. BROADBRICK said, as regards pay and allowances, the regulations limited the payment to a retired medical officer to £150 in addition to his retired pay. As regards military status, such officers were entitled, under certain restrictions, to the rank and position which they held in the Army Medical Department before their retirement. They did not count service subsequent to retirement towards increase of pension.

St. John's Hospital for Diseases of the Skin.—Mr. LAWSON asked the Secretary for the Home Department whether his attention had been called to the constant charges in the public press,

of the wilful misappropriation of the funds of St. John's Hospital for Diseases of the Skin; whether he was aware that no legal action had been taken against any of the members and late members of the Board of Management making such charges; and whether at the present time an appeal for funds was being made and their receipt publicly acknowledged on behalf of the hospital; if so, whether he would instruct the Public Prosecutor to take action in the matter, with a view to protect the public from possible fraud.—Mr. MATTHEWS said he had received a letter from the authorities of the hospital, who informed him that an action for libel was now pending, at their instance, against a weekly journal with reference to the charges in question. It was true that subscriptions were now being received and publicly acknowledged. On January 18th the subscribers, at a special general meeting, passed by an overwhelming majority a vote of confidence in the Board of Management. He could discover no reason which would justify interference on his part.

Fires in Theatres.—Mr. DIXON-HARTLAND asked the Home Secretary whether, having regard to the destruction of another theatre by fire at Oporto, where a great number of lives had been lost, he could state when it was the intention of Her Majesty's Government to introduce their Theatres Bill to diminish as much as possible the risk of such accidents in England.—Mr. MATTHEWS said the Government had decided not to introduce a Bill on the subject.—Mr. DIXON-HARTLAND inquired whether, that being so, the Government would no longer continue to block his Bill.—Mr. MATTHEWS would give no undertaking of the kind.

Sanitary Condition of Bethnal Green.—Mr. RITCHIE, in answer to Mr. HOWELL, said that the report of the Commission which held an inquiry into the sanitary condition of Bethnal Green had been received, and would be laid before Parliament at once.

HOSPITAL AND DISPENSARY MANAGEMENT.

CORK FEVER HOSPITAL.

DURING the past year 199 cases were under treatment in this hospital, of which 58 were typhus patients and 71 typhoid. On examining the number of admissions for the past eight years, it is at once evident that a steady decrease has taken place in infectious diseases; and when, in the course of time, the clearances of the overcrowded areas condemned by the corporation are effected, and proper sanitary dwellings substituted, it is hoped that the public health of the city of Cork will materially improve. Typhoid fever prevailed during the entire year, principally in highly-situated localities, probably owing to the want of proper ventilation of the sewers of the city. As regards typhus fever, it has been gradually decreasing for some years, in numbers as well as in the severity of its type. The Cork Fever Hospital affords accommodation for many of the poor who are of a better class than the very poor, who are obliged to go into the workhouse hospital, and prevents to a great extent the spread of infectious disease.

PROPOSED REBUILDING OF THE ROYAL LONDON OPHTHALMIC HOSPITAL.

THE Committee of Management of the Royal London Ophthalmic Hospital have recommended the erection of a larger building, either on the present or an adjacent site. The Corporation of London have been communicated with, and negotiations are proceeding. The cost of the new building is estimated at £30,000.

OBITUARY.

FELIX KERANS, M.R.C.S. ENG.

WE have to announce the death, after a lengthened illness, of Mr. Felix Kerans, at the early age of 29, from phthisis. The deceased was educated at the University College, Liverpool, where he succeeded in carrying off silver medals for materia medica and medical jurisprudence, together with four honorary certificates. After qualifying, he held appointments as house-surgeon to the South Dispensary, and at Toxteth Workhouse Hospital.

MEDICAL MAGISTRATE.—The Chancellor of the Duchy of Lancaster has appointed Mr. Thomas Munns Wills, F.R.C.S.I., etc., a Justice of the Peace for the Borough of Bootle-cum-Linacre.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE PROCEDURE IN PLACING PAUPER LUNATICS UNDER CARE AND CONTROL.

An inquest was recently held on a pauper patient who died of pneumonia a few hours after being admitted into the Lancashire County Lunatic Asylum. The deceased appears to have been a cab-driver of intemperate habits, and to have been under the influence of drink at about the time he fell ill with pneumonia. Delirium appears to have supervened, and the union medical officer recommended the removal of the deceased to the workhouse. Whilst being taken there the deceased rambled a good deal in mind, but a conflict of evidence sprang up as to what happened on his arrival at the workhouse in charge of his wife and of others, the porter there alleging that his wife reported the deceased as being out of his mind; whilst she, on the contrary, declared that she had not done so, and that she was unaware of what passed on the arrival of the deceased at the workhouse gates. But be this as it may, the next step was that the deceased was driven to the house of the relieving officer, to whom the workhouse porter, who accompanied the party, is said to have reported that they had brought the relieving officer a lunatic. The relieving officer decided that the deceased must be sent to the county asylum; or, at all events, that he must be examined with a view to that being done if he was found to be of unsound mind. The deceased, therefore, was next driven to the medical officer of the union workhouse, who, as reported, stated in his evidence that the wife of the deceased told him the latter was insane, and that the deceased, after answering several questions lucidly, suddenly drew attention to a horse and a drove of pigs, which he imagined were flying down the street. Witness diagnosed the case as one of mania from drinking, complicated with a low type of pneumonia, and signed the necessary certificate for admission of the deceased into the asylum. A magistrate's order had still to be obtained, and after considerable delay this was accomplished, and the deceased was eventually taken in the evening to the asylum, having been left at the workhouse by his wife, who understood he was to be sent to the asylum, and who in fact is reported to have stated in evidence that although told by the union medical officer to take her husband to the workhouse, "she thought he might mean the asylum, as her husband was rambling."

A case of this kind, it is clear, would have been better met by prompt admission to the workhouse; and the facts relating to it afford confirmation to the view taken by our Parliamentary Bills Committee, that in any coming lunacy legislation the already too secure provisions concerning the reception of pauper lunatics into asylums should not be further relaxed; the relaxation of one of these provisions in the Lunacy Bill now before the Legislature being incongruous with the increased stringency in relation to lunatics of the private class.

IMPORTANT DECISION UNDER THE PUBLIC HEALTH ACT.
The Doncaster county magistrates had before them a case on Saturday last where a Mrs. Staniforth, of Sheffield, was charged under the 126th section of the Public Health Act of 1875 with being in charge of a person suffering from a dangerous infectious disorder, and exposing such sufferer in a public conveyance.

It appeared that the servant of Mrs. Staniforth became ill, and then developed a general rash, which turned out to be small-pox. Mrs. Staniforth at once said that the girl must leave and go to her home at Mexborough immediately. Mrs. Staniforth ordered her to get a cab, herself helped to lift the luggage on the vehicle, and directed her to return to Mexborough by a certain train. The fence set up was threefold. First, as a matter of fact, that Mrs. Staniforth did not know that the disease was small-pox. The magistrates held, however, that since small-pox was at the time prevalent in Sheffield, that since the girl twice suggested to the mistress that her disease was small-pox, that since (on the girl saying, "What shall I do if they stop me in the street and say I've small-pox?") Mrs. Staniforth lent her two veils and a pair of gloves with which to cover her hands and face, there could be reasonable doubt that the mistress was cognisant of the nature of the complaint.

The other two points raised were questions of law. First, that if Mrs. Staniforth did expose the girl in a public convey-

ance within the meaning of the Act, the offence began and ended in the borough of Sheffield, and that, therefore, the West Riding magistrates at Doncaster had no jurisdiction, for that the only exposure of the girl which took place in their jurisdiction was the act of travelling in a third class carriage at Mexborough, which was the girl's own offence and not Mrs. Staniforth's.

Here the magistrates held that the whole journey was undertaken consequent on the acts and orders of Mrs. Staniforth; that while the exposure began in the Sheffield cab, it continued in the train and in the Mexborough streets, and that, therefore, they had jurisdiction.

The last point was that a mistress was not "in charge" of her servant within the meaning of the section. This objection the magistrates also overruled, and fined Mrs. Staniforth £2, the presiding magistrate, Lord Auckland, stating that he considered the case a very bad one, and but for the very heavy costs (£5 6s.), the magistrates would have inflicted the full penalty allowed, namely, £5. Mr. Binney, of Sheffield, the solicitor for the defence, at once gave notice of an appeal on the two points of law raised, which the magistrates granted. The Mexborough Local Board was the prosecuting authority.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight largest English towns, including London, which have an estimated population of 9,398,273 persons, 5,903 births and 3,792 deaths were registered during the week ending Saturday, March 24th. The annual rate of mortality per 1,000 persons living in these towns, which had been 23.3 and 20.3 in the two preceding weeks, rose again last week to 21.1. The rates in the several towns ranged from 14.8 in Huddersfield, 15.4 in Cardiff, and 16.3 in Halifax to 26.3 in Preston, 28.1 in Blackburn, 30.4 in Manchester, and 37.6 in Plymouth. In the twenty-seven provincial towns the mean death-rate was 21.8 per 1,000, and exceeded by 1.6 the rate recorded in London, which was only 20.2 per 1,000. The 3,792 deaths registered during the week under notice included 118 which were referred to whooping-cough, 50 to measles, 43 to scarlet fever, 30 to diphtheria, 27 to "fever" (principally enteric), 26 to diarrhoea, and 25 to small-pox; in all, 319 deaths resulted from these principal zymotic diseases, against 442 and 363 in the two preceding weeks. These 319 deaths were equal to an annual rate of 1.8 per 1,000; in London, the zymotic death-rate was 1.9, while it averaged 1.7 in the twenty-seven provincial towns, and ranged from 0.0 in Portsmouth, Preston, Halifax, and Newcastle-upon-Tyne to 2.6 in Wolverhampton and in Blackburn, 3.9 in Sheffield, and 6.7 in Plymouth. Measles caused the highest proportional fatality in Bradford and Plymouth; scarlet fever in Oldham and Huddersfield; whooping-cough in London and Wolverhampton; and "fever" in Nottingham and Leicester. Of the 30 deaths from diphtheria recorded last week in the twenty-eight towns, 17 occurred in London, 2 in Norwich, 2 in Birmingham, and 2 in Oldham. The 25 fatal cases of small-pox included 17 in Sheffield, 2 in Blackburn, 2 in Hull, and 1 each in Bristol, Nottingham, Manchester, and Sunderland. The number of small-pox patients in the Metropolitan Asylums Hospitals on Saturday, March 24th, was 15, of whom 1 had been admitted during the week. These hospitals also contained 1,107 scarlet fever patients on the same date, which showed a further decline from the numbers in recent weeks; 77 cases were admitted during the week, against 100 and 94 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 5.6 per 1,000, and was considerably below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, March 24th, 870 births and 562 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had been 24.2 and 21.0 per 1,000 in the two preceding weeks, rose again to 22.2 during the week under notice, and exceeded by 1.1 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the lowest rates were recorded in Perth and Leith, and the highest in Paisley and Glasgow. The 562 deaths in these towns during the week under notice included 56 which were referred to the principal zymotic diseases, equal to an annual rate of 2.2 per 1,000, which slightly exceeded the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Edinburgh and Glasgow. The largest proportional fatality of whooping-cough occurred in Glasgow and Edinburgh, and of measles and scarlet fever in

Glasgow. Two deaths from diphtheria were recorded in Dundee. The mortality from diseases of the respiratory organs in these Scotch towns during the week was equal to 5.6 per 1,000, and corresponded with the rate from the same diseases in London.

HEALTH OF DUBLIN.—The 201 deaths registered in Dublin during the week ending Saturday, March 24th, were equal to an annual rate of 29.7 per 1,000 (against rates declining from 34.0 to 29.0 in the three preceding weeks), the rate for the same period being only 20.2 in London and 20.4 in Edinburgh. The 201 deaths included 20 which resulted from the principal zymotic diseases (equal to an annual rate of 3.0 per 1,000), of which 5 were referred to measles, 4 to scarlet fever, 4 to whooping-cough, 4 to "fever," and 3 to diarrhoea, and not one either to small-pox or diphtheria.

TEXTBOOKS ON HYGIENE.

M. E. T. asks what are the best books to read for the examinations for the diploma in Public Health.

* * Parkes's *Practical Hygiene* and Wilson's *Handbook of Hygiene*. A useful elementary book is *Principles of Hygiene*, by Dr. E. F. Willoughby.

R. asks to be recommended a work to read in preparing a course of lectures on hygiene to be given in a normal school to young adults.

* * R. cannot do better than read *Principles of Hygiene*, by Dr. E. F. Willoughby.

HOSPITALS FOR INFECTIOUS DISEASE.

DR. C. G. HAVELL (Felixstowe) writes: Your note on "Infectious Hospital Provision at the Seaside" in the JOURNAL of March 10th induces me to ask you for reference to any practical, working articles treating on hospitals suitable to small communities, say 2,000 or 3,000 inhabitants. I am very anxious to provide such accommodation here, but there are so many pressing claims that expense is a great object. There is obvious difficulty in finding an existing building suitable; to erect a special one would be costly. Have you any opinion of the extent to which a portable building, such as the "Dacker," would meet the requirements?

* * The supplement to the Tenth Annual Report of the Local Government Board contains the report and papers on the use and influences of hospitals for infectious diseases. Temporary hospitals are not to be encouraged.

WHO IS TO PAY?

IN DOUBT writes: As a poor-law medical officer I have had the following exceptional case to deal with.

A small farmer's family of eight individuals were afflicted with disease, one after the other being struck down until six were prostrated. They were under the care of a medical practitioner from a neighbouring town as his private patients. The medical attendant failed to give any notification to the medical officer of health, and evaded the inquiries of the neighbours as to what was the matter. The two yet remaining well, a boy and a girl, were totally incompetent to nurse the six patients, and they could get no outside assistance, as people were afraid to go near the family through fear of infection. As a consequence, the house, its inhabitants, and the premises around, got into a state of filth and uncleanness better imagined than described, and the neighbours thought it time to complain to the parish authorities. They did so, and I received an order from the assistant overseer to visit the family, and find out the state of affairs. On calling I found the cases to be enteric fever. The girl before-mentioned was also feverish, and should have been in bed; so that at this time there was only the boy to do everything for the seven sick ones. There were no disinfectants to be seen, and the father and mother both told me that they were still under the care of Dr. —, and that he was coming to see them again. I reported these facts to the assistant overseer, and said in my note that I did not think it my duty to call at the house again, as there was a medical man already in attendance. However, the sanitary authorities took the matter up, and caused a communication to be sent to the family medical attendant, asking him not to visit these patients again. The assistant overseer was then instructed to request me to take charge of the cases, which I did. The sanitary authorities supplied me with a trained nurse and a woman scrubber, workmen were sent to clean up the drains and put the premises generally in better order. All necessaries ordered by me for the patients, and all wants for domestic purposes, even to coals and a fine toothcomb, were generously supplied out of the sanitary funds. For full three months I had the care and treatment of the eight patients (for the boy took the fever also), and they have all recovered, thanks to the excellent nursing and the generous assistance rendered just at the right moment. Every expense seems to have been met out of the sanitary funds except that for medical attendance and medicine, and as the farmer and family were not paupers, it appears hard on me as the parish doctor to be called upon to attend them as such, and, at the same time, to see everybody else paid fairly well.

I put the particulars thus fully before you, and shall be glad if you will kindly inform me if I have any prospect of extra remuneration from the guardians, or ought I to make a claim on the funds of the sanitary board.

* * "In Doubt" must certainly make his claim on the funds of the sanitary board.

FACTORY INSPECTORS.

W. J. S.—Factory inspectors are appointed by the Secretary of State for the Home Department to whom applications for this office should be addressed. The report of the Chief Inspector of Factories gives the best idea of the duties.

THE whole of the Shildon Lodge Colliery ambulance class (instructed by Dr. Fielden) have received certificates of proficiency.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following Vacancies are announced:

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road.—House-Surgeon. Applications by April 10th to the Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park.—Resident Clinical Assistant. Applications by April 12th to the Secretary, 24, Finsbury Circus, E.C.

DERBY BOROUGH ASYLUM.—Medical Superintendent. Salary, £350, with furnished house, etc. Applications by April 13th, to be addressed to the Derby Borough Asylum Committee, under cover to the Town Clerk, and endorsed "Medical Superintendent."

ESSEX LUNATIC ASYLUM, Brentwood.—Temporary Assistant Medical Officer for three months. Salary, £30 for the term, with board, lodging, and washing. Applications to the Medical Superintendent.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Resident Clinical Assistants. Applications by April 7th, to the Secretary.

HULL BOROUGH ASYLUM, Willerby.—Assistant Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications by April 2nd, to the Medical Superintendent.

INFIRMARY FOR CHILDREN, Myrtle Street, Liverpool.—House-Surgeon. Salary, £85, with board and lodging. Applications by April 9th, to C. W. Carver, Esq., Honorary Secretary.

LIDDELL PROVIDENT DISPENSARY, Jarrow-on-Tyne.—Medical Officer. Salary, £200. Applications to John Christie, Esq., 28, Cobden Street, Jarrow.

ROYAL ALBERT HOSPITAL, Devonport.—Honorary Ophthalmic Surgeon. Applications by April 9th to the Chairman of the Selection Committee at the Hospital.

WESTPORT UNION, Achill and Ballycroy Dispensary.—Medical Officer. Salary, £117 per annum and fees. Applications to Mr. John Corrigan, Honorary Secretary. Election on April 9th.

MEDICAL APPOINTMENTS.

FRASER, David, M.B., C.M. Edin., appointed Medical Officer for the Collieries of Cardenden, Deuch, and Dundonald, Fife.

LAWSON, Mr., appointed Resident Medical Officer to the parish of Resolis, Rosshire, vice J. Gunn, L.F.P.S. Glas., resigned.

MOULD, W. T., L.R.C.P., M.R.C.S., appointed House-Physician to the London Hospital, vice C. G. May, B.A., M.B.

PHILLIPS, J. R., L.K.Q.C.P.I., appointed Medical Officer to the Aghnacloy Dispensary, Clogher-Union, Co. Tyrone, vice L. M. Corder, L.K.Q.C.P.I., resigned.

POPE, P., M.R.C.S.E., L.R.C.P. Edin., appointed Clinical Assistant to the Borough Asylum, Birningham.

POTT, F. H., L.R.C.P., M.R.C.S., appointed Assistant Medical Officer to the Cotton Hill Lunatic Hospital, vice S. E. Holder, M.B. Lond., resigned.

SPICER, Scares, M.D., appointed Physician to the Department for Diseases of the Throat, St. Mary's Hospital, London.

MEDICO-LEGAL SOCIETY OF NEW YORK.—The following are the officers of this Society elected for the present year:—*President*: Clark Bell, Esq. *First Vice-President*: W. G. Stevenson, M.D. *Second Vice-President*: Ira Russell, M.D. *Secretary*: Albert Bach, Esq. *Assistant Secretary*: Clark B. Augustine, Esq. *Corresponding Secretary*: Morris Ellinger, Esq. *Treasurer*: E. W. Chamberlain, Esq. *Assistant Librarian*: Benno Loewy, Esq. *Curator and Pathologist*: T. H. Kellogg, M.D. *Chemist*: C. A. Doremus, M.D. *Trustees*: Charles Milne, M.D.; Richard B. Kimball, Esq.; M. J. B. Messemmer, M.D.; Fred C. Valentine, M.D.; Simon Sterne, Esq.; William G. Davies. *Permanent Commission*: Clark Bell, Esq.; R. O. Doremus, M.D.; Judge John R. Dillon; Stephen Smith, M.D.; Hon. David Dudley Field; R. S. Parsons, M.D.

THE MEDICAL JURISPRUDENCE OF INEBRIETY.—The November meeting of the Medico-Legal Society of New York will be devoted to the discussion of this subject. Short papers have been promised by Dr. Joseph Parrish, of New Jersey; Dr. T. D. Crothers, of Connecticut; Dr. Norman Kerr, of London; Dr. E. C. Mann, of Brooklyn; Dr. Wright, of Bellefontaine, Ohio; and others have been invited and are expected to read short papers on the medical side, while prominent members of the legal side will also take part in the discussion.

MORPHINE AND CHLORAL POISONING.—An inquest was held recently by Dr. Danford Thomas on the body of a man aged 65, who had long suffered from neuralgia, to relieve the pain of which he had been in the habit for a long time past of taking chloral and morphine by injection and otherwise. He was found nearly unconscious, and breathed with difficulty. In a moment of consciousness he said, "I have taken too much, I am suffocating." He had two convulsions of epileptic form, and died shortly afterwards. A verdict of death from misadventure was returned.

THE Manchester magistrates were engaged during two days recently in investigating charges against five men named Buchanan, Wilson, Nelson, Shires, and Thomas, who had, it was alleged, under various aliases, practised as "medical specialists," and defrauded a great number of people of large sums of money. Some remarkable evidence was given as to the profits of the imposture. The prisoners have been committed for trial at the sessions.

AMBULANCE CLASSES FOR RAILWAY MEN.—Thirty-two of the London and North Western Railway employes belonging to the Birmingham Branch of the St. John Ambulance Association, were examined by Surgeon-Major Hutton, of Leamington, on March 26th, and so satisfied the examiner as to receive high commendation.

DR. FERREIRA DOS SANTOS, who was sent to Paris by the Brazilian Government to study the experiments of M. Pasteur's laboratory has, we learn, been instrumental, in conjunction with Baron de Cotegipe, in promoting the establishment of a Pasteur Institute at Rio de Janeiro.

SIR LYON PLAYFAIR has been elected Chairman of the Committee on the City of London Fire Inquest Bill, which would enact that inquests shall be held in all cases where fires of suspicious origin have led to fatal results.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Colman: Intestines in Diphtheria; Dr. N. Moore: Some Anatomical Relations of Chronic Joint Disease. Dr. Hadden: Cyst in the Heart. Dr. Semon and Mr. Shattock: (1) Subglottic Alveolar Sarcoma in a Patient Aged 81; (2) Epithelioma of Right Half of Larynx, with Epitheliomatous Insula on Left Vocal Cord. (3) Intra-tracheal Carcinoma, continuous with Carcinoma of the Thyroid. Dr. Handford: New Growth of Lung Perforating Oesophagus, and Invading Pericardium. Dr. H. G. Mackenzie: Cystic Kidney with Calculi in Cysts. Mr. Silcock: Cystic Disease of Testis. Card Specimens—Mr. Ewe: Cyst of Spermatic Cord. Mr. F. J. Smith: Aortic Stenosis. Dr. Handford: (1) Single Hypertrophied Kidney; (2) Multiple Tubercular Strictures of Intestine. Mr. Fenwick: (1) Vesical Carcinoma. (2) Prostatic Carcinoma. Dr. Drewitt (for Dr. H. P. Cholmely): Lung from Case of Hamoptysis in an Infant. Mr. Shattock: Recurrent Sarcoma of Thyroid, associated with Hypertrophy of Accessory Thyroid.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown. Adjourned discussion on Dr. Boxall's papers on Scarlatina During Pregnancy and the Puerperal State. Dr. Champneys: Description of the New Operation for Vesico-Uterine Fistula. Dr. Cullingworth: Cyst connected with the Uterus, and Simulating Enlargement of that Organ. Mr. Bland Sutton: The Glands of the Fallopian Tubes and their Function.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, 8.30 P.M.—Dr. John Phillips: On the Management of Pregnancy Complicated with Fibroids. Dr. Robbison: Alopecia Areata.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, 8 P.M.—Second clinical evening. Mr. Rothe Lynch: Case of Cancer of the Vertebrae; adjourned discussion. The President (Mr. Keetley): (1) Case of Exophthalmic Goitre; (2) Case of Large Wen in Neck Treated by a New Method. Mr. Swinford Edwards: Case of Inguinal Colotomy. Dr. Percy Potter: Case of Rare Congenital Deformity of the Hands. Mr. Prior Mallam: Case of Dermoid Cyst of the Ovary Expelled During Labour. Mr. Percy Dunn: Case of Perforation of an Eyeball by the Knot of a Whip. Dr. Alderson: Case of Calculus in a Tonsil.

BIRTHS, MARRIAGES, AND DEATHS.

The charges for inserting announcements of Births, Marriages, and Deaths is 5s. Gd., which should be forwarded in stamps with the announcement.

BIRTH.

STEWART.—At Glenaber, Mapperley Road, Nottingham, on March 24th, the wife of Donald Stewart, M.D., of a daughter.

MARRIAGES.

KEMBLE—BALDOCK.—On March 20th, at St. Nicholas's, Lincoln, by the Rev. F. H. Blenkin, Vicar of the parish, Arthur Charles Kemble, L.R.C.P., L.R.C.S.Ed., Worthen, Salop, youngest son of the late Rev. W. Kemble, Rector of West Hammingfield, Essex, to Mary Elizabeth, second daughter of the late Rev. R. Baldock, Vicar of Carlton-le-Moorland, Lincolnshire.

ROBERTS—MARSDEN.—On March 8th, at St. Mary's, Scarborough, by the Rev. Arthur Bolland, George A. E. Roberts, M.R.C.S., L.S.A., Twyford, to Laura E., elder daughter of George Marsden, Esq., solicitor, Hensworth, Yorks.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED to the OFFICE of THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

L.R.C.S., L.R.C.P.Ed. asks for details respecting the examination for the Fellowship of the Royal College of Surgeons of Edinburgh, and also of that for the M.D. of Brussels, whether they are of a very searching nature, and what books are recommended for study by a busy country practitioner desirous of obtaining both qualifications.

PRACTICE IN AMERICA.

STARS AND STRIPES asks in which of the American and Canadian States it is not necessary to pass a qualifying examination? Can a surgeon and physician (British) practise in America without registering his degrees there? In those States where a qualifying examination is necessary, is the ordeal a trying one? What is the cost of registering in America when the individual is already fully qualified and registered in England?

SURGEONCY TO COOLIE SHIPS.

W. L. C. asks to whom he should apply for appointment as surgeon on certain coolie emigrant ships (government) running between Calcutta and the West Indies? He also asks for particulars of the service as regards pay, etc.

ANSWERS.

SNOW AND RAIN.

OLOGY asks what quantity of snow is the equivalent of an inch of rain. Opinions appear to differ. Symons (*Modern Meteorology*, p. 139) says one foot; a local genius says ten inches. Which is correct?

* The depth of snow corresponding to an inch of water must vary with the density of the snow. According to Mr. Symons (our best authority on the subject) as a rough average 12 inches of snow in England will correspond to an inch of water. A table of figures given in Symons's monthly *Meteorological Magazine* for 1886 (p. 174) showed the proportion to vary in different instances from 5.7 inches to 11 inches of snow for 1 inch water.

QUININE IN PREGNANCY.

DR. T. O. PARTRIDGE (Cachar, India) writes: I have prescribed quinine for malarial affections in more than one case of pregnancy, and should not hesitate to do so again, and, with care, I cannot see the harm of it.

THE ENTOMOSTRACA.

D. H. G. writes: Can you kindly tell me the best recent work on the British entomostroaca since the one published by the Ray Society in 1850?

* There is no book since Baird's *British Entomostroaca*, published by the Ray Society (an octavo). It is very serviceable, but a good deal out of date. The best way for anyone working at this most interesting subject is to take either Claus's *Zoologie* (the French or German large edition), or the "Crustaceae" of Brown's *Thierreich*, and look up all the different references there given to recent original papers, many by Claus, others by Weissman on the Daphniidae, others by Lilljeborg. Miss Beck's, we believe, completing a work on the British Freshwater Daphniidae. There are many interesting forms in the English lakes which were not known to Baird.

TREATMENT OF HEARTBURN.

DR. JAMES McNAUGHT (Newchurch) writes: In reply to a member, in the JOURNAL of March 24th re persistent heartburn, it would seem almost certain, from the fact that it persists during the night, that he has to deal with a case of continuous secretion of a hyperacid gastric juice. For temporary relief alkalies in large doses must be given: a combination of half a drachm of magnes. carb. pond. and sodii bicarb. acts very well. The condition of excessive irritability of the gastric mucous membrane, which leads to the pouring out of large quantities of acid, may be more permanently dealt with by small doses of morphine, by the prescription of light, easily digestible food, and especially the avoidance of fats. Washing out the stomach with the tube at bedtime, so as to remove all remains of food, and the administration then of an alkali combined with a little opium will, in the course of a short time, remedy both the symptoms and the condition which underlies it.

NOTES, LETTERS, ETC.

METROPOLITAN PROVIDENT DISPENSARIES.

MR. M. G. BRIGGS (101, Northcote Road) writes: Will you kindly allow me to say a few words in favour of the provident dispensary scheme which Dr.

THE LUMLEIAN LECTURES

ON THE TONGUE AS AN INDICATION OF DISEASE.

Delivered at the Royal College of Physicians, March, 1888.

By W. HOWSHIP DICKINSON, M.D., F.R.C.P.,

Honorary Fellow of Caius College, Cambridge; Senior Physician to St. George's Hospital; Consulting Physician to the Hospital for Sick Children.

LECTURE III.

Dryness.

I now come to the consideration of dryness of the tongue and its causes. A glance at the annexed table will suffice to show how largely this depends on constitutional and how little on local circumstances.

Concomitants of Dryness of the Tongue.

	Cases.
Tongue dry, irrespective of other qualities...	113
Pyrexia (temperature 102° or over) ...	37
Temperature not above normal ...	39
Discharge by simple diarrhoea or dysentery ...	6
Discharge, diarrhoeal or other, connected with lardaceous disease ...	2
Diarrhoea in connection with other forms of organic disease—phthisis, cirrhosis, etc....	9
Chyluria ...	1
Discharge by suppuration ...	8
Serous discharge by frequent tapping of pleura ...	1
Diabetes (including 3 of diabetic coma) ...	8
Dry diet... ..	6
Coma or unconsciousness, with general openness of mouth ...	14
Openness of mouth from obstruction of nose, tonsillitis, or other causes unconnected with coma ...	6 (?)
Great prostration or exhaustion ...	51
Cases ending fatally ...	56

The old physicians recognised dryness of the tongue as of evil omen. Hippocrates, who very seldom takes notice of the tongue, refers more than once to dryness of it as a bad sign. The great Willis speaks of the dry tongue in certain cases of fever, and refers it to constitutional causes as expressed in the fanciful language of his time. "The nervous juice," he says, "is thoroughly roasted by a long concoction, and so becomes almost like glue, thick; wherefore, not being able to be dispersed neither by spittle nor by insensible transpiration, nor to be separated by the urinary passages, at length leisurely runs out by the passages of the spittle, and forthwith by reason of its thickness grows into that glueiness." I think most physicians at the present time regard the dry tongue as a constitutional symptom, and as a bad one, notwithstanding that there are some who have sought to refer it rather to local conditions than to the system at large. My cases, collected without special selection, show with the dry tongue, be its origin what it may, a startling mortality—one of almost exactly 50 per cent.; of 113 patients with dry tongues, 56 died.

I will now come to the causes in detail. The immediate causes are two: increased evaporation from the mouth; diminished secretion into it.

1. Increased evaporation may be due to exposure of the mouth by persistent openness: as when the nose is obstructed, and when coma exists; or to increased heat of body, and as a consequence of expired air. Further, there is a double relation between dryness and bareness; dryness has been seen to cause bareness; but must not bareness at least help to cause dryness? Epithelium is conservative of moisture, as may be witnessed in any dissecting-room; wherever the surface of the skin has been rubbed off the deeper part dries and cornifies. Thus, if by chance the upper epithelium of the tongue should be lost, the deeper investments must be more amenable to evaporation and desiccation.

2. Diminished secretion may be either of the salivary or the

mucous glands; but the moisture of the tongue depends more upon the salivary secretion, which is abundant and watery, than upon the mucus, which is scanty and thick.

From the immediate conditions which determine dryness of the tongue I now approach the more complicated morbid circumstances which lie behind them. First, I will take conditions which entail persistent openness of the mouth, and so increased evaporation. Secondly, states of pyrexia, of which the bearing is more complex, but which involve increased evaporation from the tongue by reason of the heat of the expired air, and also general dehydration and consequent diminution of saliva from the generally increased evaporation which the heat of the whole body entails. Thirdly, profuse discharges which consist largely of water, by which the body is dehydrated and the salivary glands in particular stunted of their proper material. Fourthly, conditions of prostration or exhaustion, which states are adequate in themselves to suppress the saliva and dry the tongue, though often they are assisted by other causes, more especially discharges and pyrexia.

Habitual Openness of the Mouth.—Much importance—I think I can show too much—has been attached to this either as occurring during sleep, or from obstruction of the nasal passages, or from coma. If the tongue be persistently and generally dry, I believe that other causes are always at work. I have known the tongue to remain perfectly moist while the nostrils were, and had been for some days, plugged for epistaxis. On the other hand, it is common to find a path of dryness down the centre of the tongue, corresponding to the exposure to breath in tonsillitis and other throat affections. With regard to the chronic enlarged tonsils of childhood, when the child sleeps with the mouth open, I am assured by my colleague Mr. Bennett, who has removed many of these, and always does it early in the morning, that on waking the tongue is usually dry, but afterwards soon becomes moist; certainly such tongues are usually moist when they come under my notice. If the tongue is persistently dry from enlarged tonsils, I think the affection is usually inflammatory, so that causes other than exposure assist. In the earlier part of this inquiry it was my rule to examine into the course of the breath whenever I found the tongue to be dry; but the conviction was forced upon me that the state was generally due to other than mechanical causes, and I ceased to look for this with the attention I had before given to it. My figures are therefore less reliable than the general impression which I record. In the great proportion of cases where the mouth is habitually open, it is either from coma or some illness which interferes with full and alert consciousness; the relaxed jaw and gaping mouth are but signs of ebbing vitality, of which the failure of secretion is also a part. I have sometimes ascertained by catheterisation, what was obvious without, that the tongue in such cases is dry, not because normally abundant saliva has dried upon it, but because the secretion has been wanting. In cases where the tongue is dry and the mouth open; other circumstances generally concur in causing the condition: as in a case of tonsillitis with a temperature of 103°; one of acute rheumatism with a temperature of 101.5°; one of suppression of urine with profuse diarrhoea; and I might add others. But I need not dwell further upon a cause of dryness which, though it has a place, has not an important one; nor does it obscure to any considerable extent the great constitutional significance of the sign in question.

Pyrexia.—To take this next, dryness of the tongue is so frequent with it that the two must be connected; at the same time, the occurrence of the dryness with little or no pyrexia shows that other causes may produce it. As the temperature of the body rises the moisture of the tongue diminishes; on the other hand, it by no means follows that if the tongue be dry the temperature is, or has recently been, raised. Many causes intervene which complicate the relation between heat of body and dryness of tongue. With typhoid or acute rheumatism the tongue is apt to be dry at a temperature under which, with pneumonia, it would probably not be so. Something is due to time; the more chronic disease is the more drying. A temperature of 102° has little effect in drying the tongue. Even much higher temperatures are reached without the tongue becoming dry, though its moisture is lessened. I have noted many instances of acute disease where the plastered tongue has retained enough moisture to forbid its being called dry under temperatures of from 103° to 104°. It would appear that over 104° dryness is general; over 105° nearly constant. The extent to which other causes intervene is shown

by the annexed statement, showing the maximum temperatures in 103 cases of dry tongue.

Temperatures subnormal in ...	16
" ranging up to normal in...	19
" " " 100° " ...	16
" " " 102° " ...	28
" " " 103° " ...	15
" " " 104° " ...	5
" " " 105° " ...	3
" " " over 105° " ...	1

Total ... 103

In a third of the number the temperature was not over normal; in half it was not over 100°. There is no variety of dry tongue which gives so high a mean temperature as the moist plastered tongue of acute disease. It is clear, then, that though pyrexia is a drying agent, yet there are others which are important.

General Dehydration.—Next, as a cause of dryness of the tongue, I come to general dehydration of the body, whether by deprivation of drink or excessive aqueous discharges. Apart from complications, we presumably have to do not with increased evaporation from the mouth, but with diminution of the saliva, often as a simple and direct result.

First, as to deprivation of water. I have never seen this carried to extremity, nor can I adopt as my own the experience of "The Ancient Mariner":

And every tongue through utter drought
Was withered at the root;
We could not speak no more than if
We had been choked with soot.

But of lesser degrees of deprivation, mostly in the treatment of aneurysm and some forms of dropsy, I have recorded eleven instances, in six of which the tongue became dry; I need say no more of these cases now than that they show the results of dehydration in its simplest form; diminution of saliva and dryness of the tongue, with sometimes furring, sometimes more or less denudation.

As a mode of dehydration less simple but more definitely morbid, I may next refer to diarrhoea. Of the 113 cases of dryness this flux, simple or complicated, was present in seventeen. Here exclude typhoid. Six were cases of simple or dysenteric diarrhoea; the rest were associated with phthisis, cirrhosis of the liver, lardaceous or other organic diseases, which it would serve no purpose to recapitulate. In six the temperature was 102° or over, in five not above normal. In the larger number the complications were such that it was impossible to assign the state of tongue to the diarrhoea only; but there were three which served to exemplify the dryness as a direct result of diarrhoea, without either organic disease or marked pyrexia; in one of these the temperature was subnormal. More often when this appearance presents itself under the flux some other condition is present, often organic disease, the fatal end of which is not far off.

The maintenance of the moisture of the tongue under diarrhoea, profuse even to death, is a matter of common experience in Asiatic cholera. The tongue here remains moist, creamy, and noticeably cold during the whole of the purging or algid stage. When the discharges have ceased and reaction and fever set in, then as the pulse rises the tongue begins to dry and becomes quite dry and brown, as often in typhoid, the edges and the tip being red. Probably the persistent moisture of the algid tongue is in some measure due to the watery vomit which so abundantly flows over it, but something must also be attributed to its low temperature. It is a matter of experience that a tongue which is in itself dry is not easily kept otherwise by external wetting. The patient may drink often to this end, but only with a superficial and evanescent effect.

Excessive discharges of urine may be next considered. Diabetes mellitus is a cause of extreme dryness of the tongue; of the 113 cases where this state of tongue was recorded, 8 were of this disease. When the tongue has been dry under a mixed diet it will often become moist under a restricted one. By restriction both the sugar and the water of the urine are lessened; the formation of sugar is checked, and with this the discharge of water. Whether the presence of sugar in the blood or the discharge of water takes the chief part in drying the tongue may be ascertained by a comparison with diabetes insipidus, where the loss of

water occurs without the production of sugar. I have notes of eight cases of this kind, in most of which the discharge of water was greater than with diabetes mellitus. The tongue was recorded as moist, generally slightly coated, in six; in one as "cleaning;" in another as "dryish, pale, and flabby." The desiccation was therefore decidedly less with diabetes insipidus than with diabetes mellitus, and in the latter disorder must therefore be attributed to some other cause than the simple loss of water by the kidneys. I may mention a case which bears on this point. A woman had profuse diabetes insipidus, passing on an average a pint of urine an hour for the twenty-four hours, and drinking to almost exactly the same amount. The tongue remained moist, slightly coated, scarcely unnatural, except that it displayed a syphilitic scar. Three years afterwards I saw the patient again, having lost sight of her in the interval. A very unusual change had taken place; the diabetes had altered from *insipidus* to *mellitus*; the urine was now loaded with sugar, and in exactly half the quantity, the amount of drink having fallen in the same proportion. The tongue was now dryish, reddish, and a little brown. The temperature of the body was subnormal. The patient was on the verge of diabetic coma, in which she shortly died. The access of dryness of the tongue with glycosuria, though the diuresis was diminished and the temperature not increased, was instructive. The osmotic action of the sugar in the blood is probably the chief cause of the dryness of the tongue in the circumstances, as it has been shown to be of the dehydration of the lens and consequent cataract. The proximate cause of the dryness of the tongue is absence of saliva; as is evident by the state of the mouth and of the parotid.

Prostration.—In speaking of the several varieties of dry tongue, I have shown how much fatal disease they present—altogether about 50 per cent. A dry tongue, more than any other, foretells the ending of mortality. The kinds of disease which it accompanies are chronic more than acute; if febrile, usually continued. Putting aside designed restriction in drink, and also diabetes, where the dryness is due to special circumstances, one is at once struck with the gravity of the cases and the large proportion of those which end fatally. The conditions are most various; it is not easy to see what they have in common, except it be something which may be indicated by such terms as "prostration" and "exhaustion." Exhaustion by suppuration of many sources, advanced phthisis and tuberculosis of other kinds are frequent when the tongue is dry and smooth. When it is dry and rough, the tables show concluding brain disease, concluding cirrhosis, advanced cancer, advanced pyæmia, and severe pneumonia. Of twelve cases of pneumonia in which the tongue was dry, seven ended fatally; of twenty-seven in which the tongue was moist, only five ended fatally. A dry tongue in rheumatic fever is commonly recognised as an unfavourable omen, though not necessarily a fatal one. In typhoid the converse may be stated—a persistently moist tongue is indicative of a mild attack.

I have used the term "prostration" as a somewhat inclusive one—one which can be better understood than defined—representing great failure of strength and nutrition, however brought about. With the 113 cases of dry tongue, this condition was noted in fifty-one; in 222 cases where the tongue was moist, it was noted in but twenty-four. We cannot but conclude that prostration or failure of vital force is the most important factor of the dry tongue; pyrexia takes the second place. Clinical experience warrants the assertion that, though dryness of the tongue may occur without great prostration, great prostration is never long continued without dryness of the tongue. Great prostration occurs with little alteration of the tongue in connection with abdominal collapse, as in acute obstruction and perforation, but the condition has not been of long continuance.

Besides prostration—or, be it rather said, together with it—coma presents itself in connection with lingual dryness; this is not wholly due in the circumstances to the open mouth, as I have already shown, but to deficient secretion of saliva. It is to this that the dryness of the tongue is usually due, and it is because the dryness is an index of this deficiency that it has the clinical importance which, I think I have shown, must be attributed to it.

On the Influence of Food upon the Tongue.

In considering the causes of the several states of tongue, more particularly of dryness, I have said much which I need not repeat as to various influences which bear upon it; but there are still one or two which demand separate consideration, however brief.

¹ In this description of the tongue in cholera I have been enabled to supplement my own recollections by the more extensive experience of Surgeon-General Cornish.

First comes the question of food. The act of eating undoubtedly has an effect in cleaning the tongue, which is mechanical; and coating has been thought to depend, more largely than upon any other circumstance, upon the absence of the attrition which this process entails. It has been shown that the tongue is commonly more coated before food than after, that it is apt to be coated on the side of a tender tooth where mastication is limited, while it remains clean on the sound side, where it is not; and much of the effect of acute disease in coating the tongue has been ascribed to the attendant loss of appetite and limitation of diet. But I have already shown that coating is a matter not only of want of wear, but in part of overgrowth; and that other causes (notably pyrexia), are directly concerned. As regards the influence of food, I have sought instruction in cases where there was absence or limitation of it, apart from pyrexia or other causes which act upon the tongue. I have watched the state of this organ in many cases of stricture of the œsophagus where solid food has been entirely disused, and have before me the notes of five such, and I might add as a sixth a case in which the patient refused food in consequence of cancer of the larynx. The back of the tongue here was covered with long shaggy fur, like coarse hair. There was another instance in which the tongue was furred, but it did not become so, notwithstanding long total absence of solids, until it became dry under extreme prostration and absolute pulselessness. Among the other cases there was no instance (though, in some, solids by the mouth were impracticable, and feeding conducted chiefly by the bowel) in which the higher degrees of coat existed. In two the tongue was coated but not plastered; in one it was partly stippled or dotted, being coated only in the back and central parts; in one it was dotted only. In the last case, slight as the covering was, the difficulty of taking food was such as to call for gastrostomy. This case declared in a manner to which accident gave effect how slight is the coating produced by absence of food as compared with that due to acute febrile disease, for it chanced that I had at the same time in near proximity some typical cases of the plastered tongue of pneumonia and pyæmia. The difference was graphically displayed; among other points the general spread of the acute coat over the dorsum was contrasted with the tendency of the other to collect at the back and in the median line, leaving much of the tongue nearly free.

Cases of restriction to liquid diet, not as a mechanical but a physiological necessity, are seen daily. The physician knows that no other will "agree with" the patient; he is guided chiefly by the presence of pyrexia and the state of the tongue; the more coated the tongue the more liquid the diet; if the tongue be dry, the diet is wholly liquid, and alcohol part of it. Here the tongue determines the diet, not the diet the tongue; but not without instruction is the issue. As the acute disease abates the tongue cleans, notwithstanding the limitation; as it cleans, and because it cleans, solids are added and may help the process, but the cleaning comes first. In my table of normal tongues are seven which were so under a strictly liquid diet; on every ground, therefore, it appears clear that, though some influence must be ascribed to food and mastication in cleaning the tongue, yet these are of secondary importance.

I need not revert to the effects of dry diet which have been discussed in relation to dryness of the tongue; these are briefly want of saliva, and in some cases furring, in others denudation.

On Conditions of the Alimentary Canal in Relation to the Tongue.

It is a common belief that the tongue is directly indicative of many disturbances of the stomach, bowels, and organs directly connected with digestion; some appear even to be possessed with the fancy that the tongue is but an exposed sample of the alimentary canal, and declares by its changes the existence of similar changes in the hidden parts. With those who do not go thus far the white tongue is taken as a sign of constipation, or that the stomach or the liver is out of order, and that alteratives, especially of the mercurial kind, are needed. It is not easy to disentangle the complications which involve this subject; in the endeavour to do so I must appeal to a wider experience than I have been able to tabulate.

First as to the stomach. I have examined this organ after death with the naked eye and with the microscope where the tongue has been thickly coated or furred. Examination of the stomach is unsatisfactory, partly from the *post-mortem* influence of its contents; but it may be safely said that this organ presents no changes which are obviously analogous to those of the tongue, and the

same statement may be extended to the rest of the alimentary canal.

I have not been able to discern any state of tongue especially connected with dyspepsia or ulcer of the stomach. When dyspepsia is associated with stomatitis the tongue is sometimes thickly coated, probably as a local result. In simple dyspepsia and ulcer the lower degrees of coating are usually present, possibly in connection with the loss of appetite and the limitation of food. In one case of ulcer I noted the tongue as clean but flabby.

Next as to the bowels. Some forms of constipation or diseases associated with it are undoubtedly connected with changes in the tongue; but that the arrest is not necessarily connected with any such change is evident. I have seen the tongue perfectly clean and normal after three weeks of nearly total constipation in a hysterical woman, and equally so after twenty-eight days of nearly total constipation in a woman who was next day made the subject of colotomy for stricture of the sigmoid flexure; and it would not be difficult to cite other cases where the tongue has remained natural under long constipation, either functional or connected with chronic obstruction. On the other hand, where the obstruction is acute, the tongue, early becomes stippled, or coated and dry. I think the difference between the tongue of acute and of chronic obstruction, and between one case of chronic obstruction and another, is in the presence or absence of constitutional disturbance. The early dryness of acute obstruction is not, as a rule, associated with pyrexia, but depends on salivary deficiency associated with the constitutional state. The dryness determines the state of tongue. Unless there be constitutional disturbance, which with simple constipation or chronic obstruction there often is not, the tongue may remain natural. I have more than once noticed an old block in the rectum to be attended with thick coating, which has disappeared or lessened on the removal of the accumulation. It may be inferred that in such cases there is general disturbance and probably pyrexia connected with morbid absorption, as the factor of the accumulation cannot fail to suggest.

Passing from constipation to the opposite condition, diarrhoea is early and powerfully productive of lingual changes. The tabulated cases speak for themselves, and I might largely add to the evidence they present. Looking through my notes not included in the tables, I find the tongue of diarrhoea described as "thickly coated and dry," "thickly coated, mouth dry, saliva scanty," "foul and coated," "brown, dry, and furred," "coated with brownish fur," "very dry, brown in centre, coated," "dry, brown, and cracked." There is scarcely any condition in which the tongue becomes more rapidly dry, coated, furred, and encrusted than severe diarrhoea. The absence of saliva is self-evident: direct dehydration helps to cause this; and pyrexia, which is often present, helps the desiccation.

I have already referred to the red and bare tongue which is sometimes associated with dysentery, together with abscess of the liver. Here we have fever of the hectic type together with the purging.

Opium.

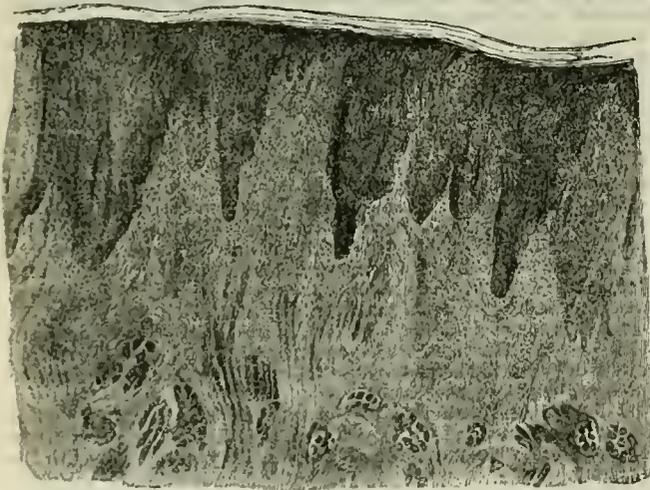
It is no part of my design to describe the action of drugs upon the tongue, but I will nevertheless insert a word as to opium. It is well known that opium makes the mouth dry. I have frequently given it experimentally to persons whose tongues have been clean, or nearly so, and moist. The effect has always been to coat the tongue, impair the appetite, and diminish the saliva. In one case the temperature rose from normal to 100°. Some of the coating may be due to the loss of appetite and of friction, but the diminution of saliva must also have importance attached to it, and falls in with what has been already said with regard to the relation of this secretion to the coat.

On the Influence of the Nervous System upon the Tongue.

This is not to be ignored, though I think more has been attributed to it than can be demonstrated. The late Mr. Hilton showed that coating of the tongue was often confined to the side of painful teeth, and referred this to reflex nervous irritation. I have already adverted to such cases in the view that the effect was due to want of wear on the tender side. It is a matter of common observation that in hemiplegia the tongue is not unilaterally affected as if from the local change, but bilaterally as if from the constitutional results of it. On the other hand, I have already cited an instance in which there was reason to believe that unilateral dryness and coating of the tongue depended on an injury

to the chorda tympani on the affected side. Here we have the intervention of saliva, and may with probability ascribe the coating to the want of this secretion rather than to the direct effect of the nervous lesion. It has already been shown how largely deficiency of saliva affects the tongue, and it is a matter of ancient as well as modern experience that this secretion is much under the influence of the nervous system. I do not now refer to physiological experiments, but to conditions of wider range. The mind affects the saliva, and may, or even must, by its means, or by means of its absence, affect the tongue. The dryness of agitation is well known; the tongue "cleaves to the roof of the mouth." The Eastern ordeal by rice, which can be swallowed by the innocent, not by the guilty, will occur to everyone. I have often noticed the tongue to be white and sodden-looking after an exacerbation of nervousness, associated in particular with phosphatic urine, and thought the first change to be a want of saliva, the coating secondary. I was told by Mr. Charles Hawkins that a certain practitioner, who saw many men of business after their business hours, could always tell how things were in the City by the tongues of his patients.

I need not here discuss in relation to the tongue the general conditions of dehydration, pyrexia, and prostration, since to do so would be but to repeat what I have said in connection with coating and dryness. Neither need I delay, or only for a moment, to point out that if one were to seek to connect the states of the tongue, as a general rule, with individual diseases, so various and apparently so contradictory would be the results that nothing but confusion could result. What can be said towards this end may be briefly put. There is a tongue of heart disease of which the



Denuded tongue covered with straight membrane like the roadway of a bridge.

cyanotic character is evident to the naked eye, and a somewhat similar condition which is apt to accompany chronic albuminuria, which needs the microscope for its detection. The tongue of diabetes mellitus has a special tendency to dryness, as has been sufficiently explained; but this does not prevent its being sometimes normally moist or even normal in all respects. Among the febrile diseases it would commonly be said that the tongue of scarlatina and that of typhoid are characteristic. The well-known strawberry tongue of scarlatina approaches nearly to the pathognomonic, for the eruption helps to make it so; but even here other febrile disorders, like pneumonia, in which the face and mouth are apt to be injected, produce an excellent counterfeit, besides which the strawberry character in scarlatina is soon replaced by other phases of coating and by denudation. The tongue of typhoid presents many varieties, according to the stage of the disease and other circumstances. In eighteen cases it was stippled and coated, coated, plastered, strawberry, furred, encrusted, and denuded. Only two presented the dry, furred or encrusted state, which is commonly regarded as typical. The dry, bare condition was not absent. The tongue of pyæmia more often shows the ideal typhoid state than does that of typhoid itself. I say nothing of the tongue of typhus, of which of late years I have seen but little. In the only case I have recently

seen it was dry and black, as it is known often to be. Lobar pneumonia presents a range of tongue which runs through the whole gamut, the plastered type preponderating, as it does with typhoid and most other acute febrile states. In bronchitis the lower degrees of coating are generally presented, but if the disease be considerably febrile the tongue is apt to be plastered, which may be accepted as a sign of severity. With regard to acute rheumatism the variety is considerable, the lower degrees of coating being more often seen than with diseases which present a higher temperature and more depression. Nevertheless, the dry, furred, and encrusted tongues, with their significations, are not absent from the series. It would serve no purpose, and would involve repetition, were I to dwell further upon the relations of the tongue to individual disease; the tables speak in this sense, though the experience therein recorded is but a fragment small indeed compared to what must be in the minds of many who honour me with their presence to-day.

I have not dealt with local affections of the tongue, nor have I had much experience of them. That local irritation increases the coat may readily be believed. The coated or thickly stippled tongue of the smoker is well known; this may even assume (though, I trust, but rarely) the startling form of leucoplakia, an exaggeration, I presume, of the epithelial growth, though here I speak without *post-mortem* observation. I present a drawing from a patient with regard to whom I had the advantage of the opinion of Mr. Jonathan Hutehinson. I will dwell no further on this part of the subject, save to repeat what I hope has been made evident, that general influences tell more widely upon the tongue than local ones.

It only remains that I should sum up briefly the conclusions which have been arrived at.

The tongue is an index of constitutional states, seldom of individual diseases. An ancient theologian described the face of a wicked man as a map of the empire of sin. It has been fancied that the tongue presents a map of the empire of disease; and a writer, though one of no great note, has gone so far as to divide the lingual surface into a number of rectangular regions as numerous as the United States of America, which he places under the rule of separate organs; the larynx, the bronchi, the lungs, the pleura, the large intestine, the small intestine, the kidneys, and the brain each possessing a distinct territory. The heart, says this writer very wisely, has a common control over all. But in truth the tongue has no such local signification; it seldom points to solitary organs or isolated disorders, but is rather a gauge of the effects of disease upon the system than an indication as to the locality of it. It is often a guide in treatment, so far as treatment is general, not local; and it is an important help in prognosis. It may, indeed, be doubted whether any means of observation open to the physician, including the pulse and the thermometer, give him more insight into constitutional states than he can derive from the tongue. Clinically it always speaks the truth, and in a language which is not foreign to the experienced physician. And how much truth, or rather how many truths, are to be read on how small a page! Conditions of fever and of feeding; states of the nervous system; the maintenance or abeyance of vital secretions; failure of vitality, though we may not be able to find out why; in one case that the disease is getting the better of the patient, in another that the patient is getting the better of the disease—all these are discernible to the educated eye. The clinical value of the tongue largely depends on the number of interests it represents; these are more or less mingled in its indications, and the impression they convey is a combined one, but it is none the less valuable because comprehensive; it gives to a glance what otherwise could only be learned by detailed inquiry.

It has been shown that the white coat of the tongue essentially consists of horny epithelium, and that the various grades of coating are mainly due to its increase. I have not dwelt upon the parasites which are apt to gather upon the coat; these are only of secondary interest; they do not determine the character of the coat or of the tongue, and they have been subjected to an exhaustive examination by Mr. Batlin, with results in negation of their practical importance. It has been shown that the several degrees of coat are mainly due to overgrowth of epithelium, though in a smaller measure to its want of removal, and that there is a remarkable correspondence between the heat of the body and the coating of the tongue. If the tongue be coated, the indication is usually of febrile disturbance without especial reference to the stomach or liver, and points more to the general system than the alimentary. Though something is to be ascribed

to disuse, yet I think I have shown that too much has been; and that more than one modern observer, like an uncharitable pedagogue, has attributed to idleness what is directly due to illness.

Superadded to the *forcing process*, if I may so speak, of fever, we have step by step other changes, dryness, furring, and incrustation, which are essentially connected with want of saliva. I have endeavoured to show that this diminution or arrest is declared by the state of the tongue almost as certainly by observations on the ducts, and is the chief cause of the furring and incrustation which accompanies it. It is true that in the crust are parasites, but these are secondary; the primary fact is the want of saliva, a clinical indication always of importance, though the process by which it is brought about is not always the same. I have shown the effect of dehydration in diabetes and by diarrhoea; but it has, I think, been made clear that the most frequent and important concomitant of the dryness is a certain failure of bodily force and function which I have not assumed to describe with physiological exactness, but have expressed by such terms as weakness, prostration, and exhaustion. I do not ignore the effects of deprivation of water, of alcohol, and of opium; but, nevertheless, the relation to which I have drawn attention, so far as it concerns such dryness as to cause incrustation, has a general hold. It is difficult not to infer that with the salivary are other glandular failures, more especially such as concern the digestive system. Good digestion waits on appetite. Putting aside diabetes, where there are special circumstances, it may be said with general truth that with the dry encrusted tongue appetite is *nil*, and solid food impossible, not merely from the local difficulty caused by the dryness of the mouth, but from inability more profoundly seated. It may be inferred without rashness that the loss of power to take food is connected with a loss of power to assimilate it; and if the digestive function is in abeyance it is not likely that the digestive fluids are abundant. Hence it presents itself as what may be called a working probability that a want of the more vital juices concerned in nutrition may be indicated by the want of saliva which is sometimes so conspicuously displayed. Physicians acknowledge in their practice some such guidance; the dry and encrusted tongue is seldom disregarded as a call for animal liquids, which require little digestion, and alcohol, which requires none. To translate theory into practice is not only dangerous because the theory may be wrong, but the means may be ill-adapted, though the theory be sound. I have often taken the dry tongue as an indication for peptonised food, and thought it beneficial, but have not as yet had enough experience to speak confidently.

Proceeding from the varieties of clothing which dryness produces, we come to the opposite, but sometimes succeeding, condition—that of nakedness. This is often connected, like the previous, as has been shown, with want of saliva, of which it is usually a latter concomitant. It may be simply due to this cause, but other circumstances are so often present that it is difficult not to assign to them some share in the loss of integument, and attribute this, in part at least, to the failure of nutrition which belongs to hectic fever and suppurative waste. When the tongue becomes dry and bare it is ill with the patient. He is not sure to die, but likely to. If, as has been said, the tongues of dying men enforce attention, it must be often directed to this. The indication of the red, smooth tongue, is for what failing nutrition calls for—tonics, stimulants, and food, probably liquid, but nourishing. The failing pulse does not more surely tell of asthenic tendencies than, as a rule, does the red, dry, and polished tongue.

The tongue, indeed, has a whole book of prognostics written upon its surface. When the tongue is approaching the condition of health, so, as a rule, is the patient, as is seen whenever the red, dry, and bare tongue acquires moisture and clothing. There is no better sign in diabetes than the resumption of the natural moisture by the tongue which has been dry. Something may be judged by the way an encrusted tongue cleans; if gradually and from the edges, well; less so when in scales, especially when the surface exposed is red and dry. One glance at the coated or plastered tongue may give an assurance, which perhaps could not be otherwise obtained, that the disease is on the wane. If the thick coat in the centre steeply shelves towards the sides and front, revealing a normal, moist, not over-injected surface, the tongue is in process of cleaning; the natural friction is overcoming the coating process, and tongue and patient are on the mend. A tongue acquires coat more evenly and generally than it parts with it; we can thus tell whether the coating is on the advance or decline, and apply this rule to the disease.

There remains to me only the pleasant duty of mentioning those to whom I have not yet referred to whom I have been indebted. No one who has worked at the tongue can fail to have profited by the labours of Mr. Jonathan Hutchinson, to whom, indeed, I have been under special obligation, though as surgeon and physician our points of view have not been the same. I must next record my debt to Mr. Sweeting and Mr. Armstrong, of the Western Fever Hospital, and Dr. Collie, of the Eastern Fever Hospital, for kindly providing me with scarlatinal tongues. Clinically, I have to acknowledge the services of a series of excellent clerks—Mr. Brushfield, Mr. Le Cronier, Mr. Sortain, Mr. Ogle, Mr. Drabble, and Mr. Barlow. And I have, finally, to thank the Fellows of the College and all who have formed my audience for the attention they have bestowed upon what I fear must too often have been tedious.

ABSTRACT OF LECTURES

ON THE

DEVELOPMENT OF THE ORGANS OF CIRCULATION AND RESPIRATION,

INCLUDING THE

PERICARDIUM, DIAPHRAGM, AND GREAT VEINS.

Delivered at the Royal College of Surgeons, March, 1888.

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Surgeon to the Great Northern Central Hospital; and Demonstrator of
Anatomy and Operative Surgery in St. Bartholomew's Hospital.

LECTURE I.

THE lecturer began by saying that he did not think he could show his appreciation of the honour conferred upon him by his re-election to the post of Hunterian Professor better than by lecturing upon a subject which was especially in need of elucidation. Others might be mentioned of more immediate professional interest, but none of greater scientific importance. The development of the pericardium and diaphragm was involved in much obscurity and surrounded by many difficulties, more especially as English authors had not, so far, treated it systematically. In endeavouring to repair this the synthetic method had been adopted, and the various phases of development followed step by step, beginning with the simplest and gradually proceeding to the complicated. It had, however, been found impracticable to obtain human embryos to show the earliest stages, and these, therefore, had been studied in rabbits' embryos ranging from the eighth to the seventeenth day of intra-uterine life. The results of these investigations had already been communicated to the Royal Society, and in these lectures they would be described chiefly with a view of explaining and illustrating their applicability to human embryology. Ultimately it would be seen that, whilst bearing more directly upon the development of the vascular and respiratory systems, they threw light upon the origin of the fetal membranes, the placenta, and other problems.

Beginning, therefore, at the eighth day of intra-uterine life, it will be found that the uterus of a rabbit which has reached that stage has along each of its tubes three or four vesicular dilatations which almost double its calibre. If one of these vesicles be opened in warm saline solution at the side furthest from the mesometrium and uterine vessels, after a little clear albuminous fluid has escaped, a delicate film (the blastodermic membrane) is to be seen spread out upon the surface of the interior of the uterus which faces the opening. The shadowy outline of the embryo occupies the central part of the film, and is of an oblong form, and slightly constricted at its middle. At the head end of the oblong the fore-brain projects very slightly, and behind it, on either side, and a little way apart, are two small fusiform swellings, which indicate the commencement of the heart in two separate halves. Section through the embryo, and through the part of the uterus with which it is in contact, shows that it lies with its dorsal surface, covered with epiblast, next to the uterus, and with its ventral aspect, lined with hypoblast, towards the interior of the blastodermic vesicle. In some types this arrangement is reversed in an extraordinary manner, and the lecturer argued that that

circumstance suggested that applications of developmental data from types which were known to those which were not, ought to be received with great caution. Proceeding, it was said that between the epiblast and hypoblast lay the mesoblast, which at the eighth day had divided into somatopleure and splanchnopleure. The cleft between these two layers is usually called the cœlom, and it extends from behind the fore-brain far towards, and beyond, the tail end of the embryo. The somatopleure, covered with epiblast, lies upon the wall of the uterus, and has no feature of particular import, but the splanchnopleure on either side has about its midst a slight thickening, which is bent with its concavity ventralwards, that is to say towards the hypoblast, and its convexity towards the cœlom. These bilateral symmetrical thickenings are the beginning of the heart, and it is to be noted that (A), they are of purely splanchnic origin, and (B), that they project into the fore part of the cœlom. As the embryo grows, these cardiac splanchnic loops become more complete, and horseshoe-shaped (Fig. 1), and, simultaneously, owing to the bending inwards of

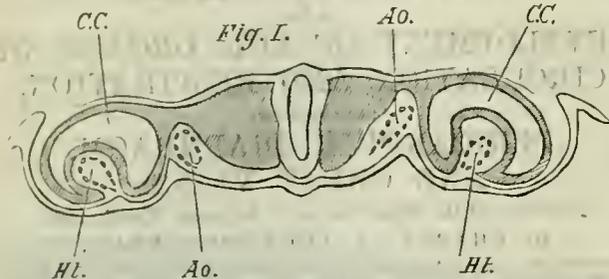


Fig. 1.—Rabbit's embryo of eight days and four hours, showing the splanchnic cardiac loops. C.C., cardiac portion of the cœlom; Ht., heart; Ao., aorta.

the splanchnopleure to form the pharynx, they gradually approximate and finally coalesce. Whilst these events are in progress, there is no change in the relation of the heart to the cœlom, and it continues to project into the foremost part of that cavity. By the beginning of the ninth day, the rabbit's heart is a slightly bent tube attached to the pharynx by the supracardiac splanchnopleure, which has become the mesocardium posterius, and to the ventral wall of the cœlom by the infracardiac splanchnopleure, which has become the mesocardium anterius. Moreover, the hinder end of the heart now receives two large veins which, originating in the blastoderm, run inwards at right angles to the axis of the embryo along the splanchnopleure and, consequently, along the ventral wall of the cœlom.

These vessels, therefore, may be said to divide the cœlom into two portions, namely, a cardiac and a pleuro-peritoneal, and are the first factors concerned in separating the one part from the other. This is effected as follows: the venous end of the heart and the cardiac ends of the omphalo-mesenteric veins are fixed to the ventral wall of the pharynx by the mesocardium posterius, and in addition, after the early part of the ninth day, the veins become fastened by an adhesion, the mesocardium laterale, to the somatopleure, at a point which is almost at the same level as their entry into the heart, but some distance nearer the lateral limits of the embryo. Thus a portion of the cœlom is converted into a passage which has the following boundaries: in front, the cardiac end of the omphalo-mesenteric vein; behind, the body wall; externally, the mesocardium laterale; and internally, the mesocardium posterius and pharynx. As this passage owns its formation to one vein and its subsequent closure to another, it may be called the "iter venosum;" and it is unnecessary to repeat that it leads from the cardiac into the pleuro-peritoneal portion of the cœlom (Fig. 2). The mesocardium laterale is a union of splanchnic with somatic structures, and is the route by which the somatic veins (that is, those developed in the body wall) find ingress into the splanchnic (that is, those developed in the splanchnopleure). So far the portions of the vascular system which have been mentioned, namely, the heart and omphalo-mesenteric veins, are purely splanchnic in their origin, but coincident with the establishment of the mesocardium laterale, a large vein makes its appearance on either side in the substance of the body wall, and after coursing in the body wall the whole length of the pleuro-peritoneal portion of the cœlom, passes through the mesocardium laterale into the omphalo-mesenteric veins. These newly-formed vessels are the umbilical veins, and

the manner of their commencement is particularly interesting, because it has to do with the formation of the placenta. The hinder part of the somatopleure, in the region where the umbilical veins begin, maintains its original proximity to the uterine wall. As development proceeds this relation to the uterine wall persists, and the somatopleure, in the region of the commencement of the umbilical veins, becomes much thicker than elsewhere, and broken by venous spaces, and to all appearances forms the main part of the placenta.

The lecturer then discussed the development of the allantois, and was of opinion that observers had been misled in assuming that in the rabbit, and probably in the human embryo, there was a balloon-shaped allantois, similar in development to that of the chick. On the contrary, he believed that in the rabbit and in man somatic structures took a much greater share in the development of the placenta than had yet been assigned to them; and, moreover, he endeavoured to show that the allantoic vesicle of the rabbit originated in a different manner to that of the chick.

LECTURE II.

Returning to the great organ of circulation, it will be found that, after the beginning of the ninth day, the heart grows rapidly, and bulges the wall of the cardiac portion of the cœlom

Fig. 2

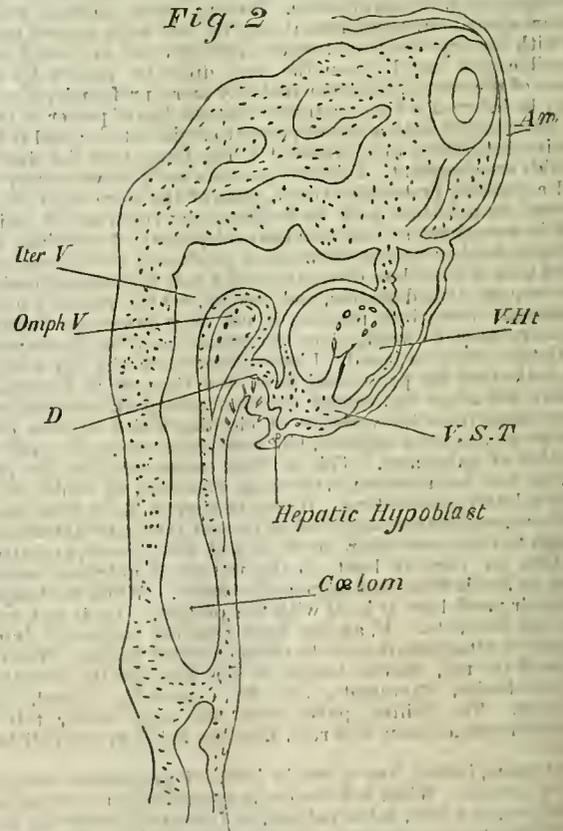


Fig. 2.—Rabbit's embryo of nine days and four hours, to show the cardiac portion of the cœlom continuous behind the omphalo-mesenteric vein with the hinder or pleuro-peritoneal portion. Iter V., iter venosum; Omph V., omphalo-mesenteric vein; Am., amnion; V. Ht., venous end of the heart; V.S.T., ventral portion of the septum transversum.

ventralwards (Fig. 2). But, near the hinder end of the heart, this displacement is prevented by the omphalo-mesenteric veins, which, as was said before, are themselves fixed dorsalwards by the mesocardium posterius and the mesocardium laterale. In consequence of this fixation, when the heart expands and the cranial flexure is formed, the ventral wall of the cœlom is retro-flected opposite to the omphalo-mesenteric veins, and becomes a transverse fold, the septum transversum, which stretches behind the heart from one mesocardium laterale to the other. The origin of the liver was then discussed, and that organ was

considered to originate in the hyboplast which clothed the hinder surface of the septum transversum, so that that structure formed a partition between the heart and the liver, and was, in fact, the commencement of the diaphragm.

Towards the end of the ninth day the rabbit's embryo has assumed many of its later and more familiar characters (Fig. 3).

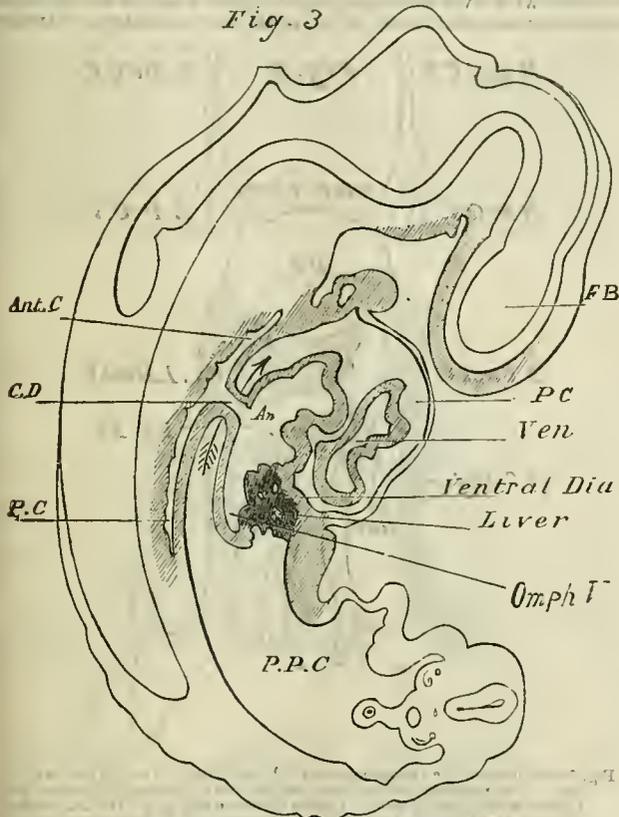


Fig. 3.—Semidiagrammatic figure of rabbit's embryo of latter part of ninth day. An arrow has been drawn in the iter venosum. Ant. C., anterior cardinal vein; P.C., posterior cardinal vein; C.D., Cuvierian duct; An., auricle; Ven., ventricle; Ventral Dia., ventral diaphragm; Liver; Omph. V., omphalo-mesenteric vein; P.P.C., pleuro-peritoneal cavity; F.B., fore-brain.

There is still a wide communication between the cardiac and pleuro-peritoneal portions of the cœlom, but the former has a much greater resemblance to the pericardium. Moreover, an important addition has been made to the venous system. The anterior cardinal, or jugular, veins appear during the earlier part of the ninth day, and, being somatic in their development, run tailwards in the body wall, and empty into the umbilical veins, just before the latter open into the omphalo-mesenteric.

About the middle of the ninth day, the posterior cardinals originate also in the body wall, and empty into the anterior cardinals, a little distance from their termination. The portion of the vein which conveys the blood of the anterior and posterior cardinal veins towards the heart is the Cuvierian duct, and it has considerable influence upon the development of the pericardium. It owes this importance, as we shall presently see, to its relation to the iter venosum, for, as both transverse and longitudinal sections show, it runs towards the heart in the part of the body wall which forms the outer boundary of that passage (Fig. 3).

By this time, the latter part of the ninth day, the iter venosum has for its inner boundary the wall of the pharynx, which, in common with the rest of the embryo, has grown considerably. Moreover, the lungs have begun to project on each side from the sides of the alimentary canal, in the shape of small buds, situated a little farther back than the Cuvierian ducts, and close to the dorsum of the septum transversum and liver.

In the next stage of development the heart and venous system undergo a modification which greatly alters their anatomy. So far the heart has been said to receive two venous tributaries,

namely, the right and left omphalo-mesenteric veins. But towards the end of the tenth or the beginning of the eleventh day the venous heart expands, and engulfs the whole of the cardiac ends of the omphalo-mesenteric veins and the terminations of the umbilical veins. In consequence, the omphalo-mesenteric veins are no longer the ventral boundary of the venosum, for they have been converted into the venous end of the heart, which takes their place. Owing to this expansion the other veins acquire separate and independent openings into the heart, which now receives on either side the Cuvierian duct, the umbilical vein, and the omphalo-mesenteric vein (see Fig. 4). The liver has also grown, an

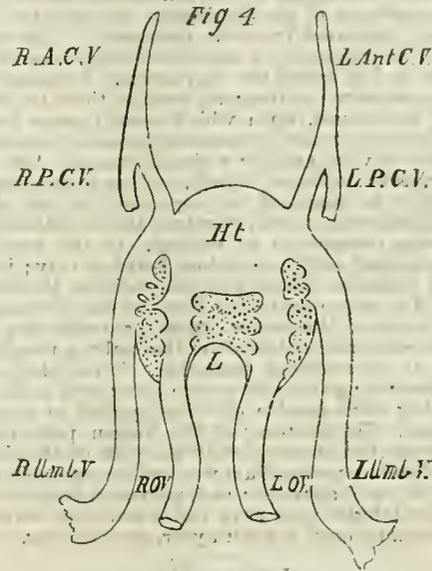


Fig. 4.—Scheme of the venous system of the rabbit's embryo at the end of the ninth day (nine days and sixteen hours). R. and L. Ant. C. V., right and left anterior cardinal veins; R. and L. P. C. V., right and left posterior cardinal veins; R. and L. Umb. V., right and left umbilical veins; Ht., heart; L., liver; R. O. V. and L. O. V., right and left omphalo-mesenteric veins.

surrounds the part of the omphalo-mesenteric vein which is nearest the heart, and the substance of the organ is penetrated by venous channels, which open into the omphalo-mesenteric veins, and through them find a passage to the heart. The venous system remains but a little while in this condition, and about the beginning of the eleventh day the umbilical veins upon each side acquire communications with the venous spaces of the liver, and can, therefore, send their blood to the heart by two routes; the first being, of course, by their original cardiac openings; the second by the omphalo-mesenteric veins, through their communications with the hepatic venous spaces. The eleventh day also witnesses the commencement of a dorsal pericardium, which is a mesoblastic septum uniting the venous end of the heart and the omphalo-mesenteric veins to the body wall, and continuous with the dorsal part of the septum transversum. This structure seems to be formed partially, perhaps, from the mesocardium laterale, but mainly by elongation of the septum transversum. From its earliest formation it constitutes a partition betwixt the cardiac portion of the cœlom and the foremost part of the pleuro-peritoneal cavity, that is, the part in which the lungs lie. Moreover, the characters of the dorsal pericardium are such that a part of each omphalo-mesenteric vein, immediately before entering the heart, is between its layers and, as will be seen presently, the right omphalo-mesenteric vein becomes the mouth of the inferior vena cava, and permanently retains this relation. It is convenient, therefore, to divide the course of the omphalo-mesenteric veins into three parts—a septal, a hepatic, and a mesenteric; the latter being the part before their entrance into the liver; further, it is to be noted that the foremost part of the dorsal pericardium is continuous with the Cuvierian ducts. Whilst the cardiac and pleuro-peritoneal portions of the cœlom have been expanding, the iter venosum has remained stationary, and, in comparison with its surroundings, looks like a narrow passage leading behind the venous end of the heart, from the

pleuro-peritoneal into the cardiac cœlom, and is the same as a passage found in that position in the skate and dog-fish. But before the iter actually closes, changes are effected in the venous system which determine the permanent characters of these channels. First, the hepatic portion of the left omphalo-mesenteric vein becomes occluded with liver substance (Fig. 4). This early closure of the left omphalo-mesenteric vein is associated with an inequality of the right and left halves of the liver, the left side being, after the occlusion of the vein, rather smaller than the right.

The lecturer argued that this left a larger area of pleuro-peritoneal cavity to be bridged over upon the left side of the body when the completion of the diaphragm was effected, and the pleural cavity separated from the peritoneal. This would explain the greater frequency of congenital deficiencies of the posterior part of the left half of the diaphragm. Variations of such important organs were not frequent, because their incidence was governed by two causes, upon which enough stress had hardly been laid. In the first place, structures essential to existence had little tendency to vary, and for a simple reason. Any variation of a great organ or important muscle, such as a crico-arytenoidens posticus, might be supposed to jeopardise the life of the individual afflicted with it, and, therefore, the variation had little chance of being transmitted by descent. In the second place, structures developed early are seldom found to vary; indeed, the frequency of variation seems in inverse ratio to the time of development. The reason for this is likewise simple—namely, that a variation in one of the earlier organs produces such an effect upon its after-comers that the life of the embryo is again jeopardised, and it is rendered incapable of reaching maturity. Examples illustrating these laws were given, and it seemed probable that they were capable of being applied to neoplasms as well as organs. The anatomy of the human pericardium and diaphragm were then discussed with the view of showing that in early life the fibrous pericardium was easily separable from, and independent of, the diaphragm: and, moreover, that the thoracic portion of the inferior vena cava had a complete investment of fibrous pericardium until the third year, or even later.

LECTURE III.

The next step in the development of the great veins is the obliteration of the cardiac openings of both umbilical veins. This is followed, subsequently, by the entire disappearance of the right, and by the diversion of the left into right omphalo-mesenteric vein (see Fig. 5). The manner in which the umbilical veins lose their cardiac openings is far from clear, but the event seems to be associated with an elongation of the cardio-thoracic portion of the embryo. The left umbilical vein acquires its channel into the right omphalo-mesenteric by taking advantage of its alternative route through the liver substance, the venous spaces of which seem merely to dilate. The passage caused by this alteration is called the ductus venosus Arantii. Moreover, the septal portion of the left omphalo-mesenteric vein disappears, so that, upon the left side, the dorsal pericardium, between whose layers it lay, becomes a simple membranous septum between the auricle and pulmonary portion of the pleuro-peritoneal sac. The septal portion of the right omphalo-mesenteric vein, on the other hand, now carries to the heart its own blood, and that of the liver and of the ductus venosus. In addition, the right omphalo-mesenteric vein, before its entrance into the liver, receives a number of veins from the alimentary canal, and is in process of conversion into the portal vein. Most of these events take place during the twelfth day, and by the time they are completed the iter venosum has almost closed. The Cuvierian ducts are the chief cause of that event.

At the end of the twelfth day the fore limbs have developed, and empty their blood into the Cuvierian ducts, which become larger and are in process of conversion into the superior vena cava; just as in the earlier stages of development (Fig. 3) the Cuvierian ducts run round the outer wall of the iter to gain the heart, but, owing in a measure to their expansion, they are approximated to the wall of the trachea and œsophagus, whilst simultaneously the tissues which surround these canals become more bulky and assist the process. By the thirteenth day there is no trace of any communication between the pericardium and the pleuro-peritoneal sac. The thirteenth day also witnesses the formation of the inferior vena cava. This vessel originates either a little sooner than or simultaneously with the permanent kidneys, from which at first it derives most of its blood.

As a preliminary to the appearance of the vein in the urogenital

ridge, the dorsal lobe of the liver forms a junction—caval junction—with the tissues near the base of the mesentery. The cava enters the liver by this union, and runs through the tissues of the organ into the right omphalo-mesenteric vein, close to its junction with the ductus venosus (Fig. 5). When, at a later period, the hinder hepatic portion of the right omphalo-mesenteric vein becomes occluded with liver substance, the familiar features of the fetal circulation are established. Thus, in the rabbit's embryo of twelve



Fig. 5.—Scheme of the venous system of the rabbit at the end of the twelfth day. The portions of the veins which have become obliterated are shaded with diagonal lines. Letters the same as Fig. 4. D.V.A., ductus venosus Arantii; V.C. Inf., vena cava inferior; M.V., mesenteric veins.

and a half days of intra-uterine life, the heart is contained in a closed sac, and the lungs lie in the pleuro-peritoneal cavity, just behind the superior vena cava (that is, nearer the tail end of the embryo), and in contact with the dorsal pericardium and dorsal surface of the liver.

The next stage is the formation of a partition or dorsal diaphragm between the pulmonary portion of the pleuro-peritoneal sac and the hinder or peritoneal part. This is accomplished by a crescentic fold, which, during the latter part of the twelfth day, grows inwards from the side body wall towards the mesentery (Fig. 6). At first this growth is incomplete, and consists of indifferently mesoblastic tissue; but by the fourteenth day it has grown inwards as far as the mesentery, and, near the body wall, contains muscular fibres. Moreover, as the dorsal diaphragm grows inwards from the body wall, it becomes joined to the foremost end of the urogenital ridge. There is reason to believe that the foremost end of the urogenital ridge develops into the suprarenal body, whose connections with the diaphragm are more intimate in early embryos than at later periods.

The lecturer showed two human embryos, one of the seventh week, in which the suprarenal body contained glomeruli, and was continuous with the Wolffian body, and another of the tenth week, in which the connection had almost disappeared. He was inclined to think that the suprarenal bodies assumed their diaphragmatic relations very early in intra-uterine life.

The development of the sides and crura of the diaphragm, and the manner in which the pericardium and diaphragm assume their permanent characters, was then traced both in rabbits and in human embryos.

Before concluding an attempt was made to ascertain how far the data derived from the rabbit were applicable to the human embryo. Evidence was adduced to show that the human embryo

was developed with its dorsum to the uterine wall, and that it afterwards, like the rabbit, underwent rotation; so that, in the placental region, its venter was turned towards the uterine wall. It seemed uncertain in which direction this rotation occurred, whether to the right or left.

With regard to the question whether the cavity in which the heart lies ever, in human embryos, communicates with the pleuro-peritoneal cavity, the lecturer showed sections of a human embryo in which the passage could still be seen, lying between the Cuvierian duct and the wall of the trachea and oesophagus. The same specimen also indicated that the closure of the passage was the same in man as in the rabbit, namely, by the approximation of the Cuvierian ducts to the wall of the alimentary and respiratory canals. Traces of the passage (the iter venosum) had been looked for at later periods, but without success until lately, when traces of its persistence seemed to be seen in an exceedingly abnormal fœtus dissected by Mr. D'Arcy Power, who very kindly allowed it to be shown. On theoretical grounds it might be expected that before long the persistence of the iter venosum would be definitely

Fig. 6.

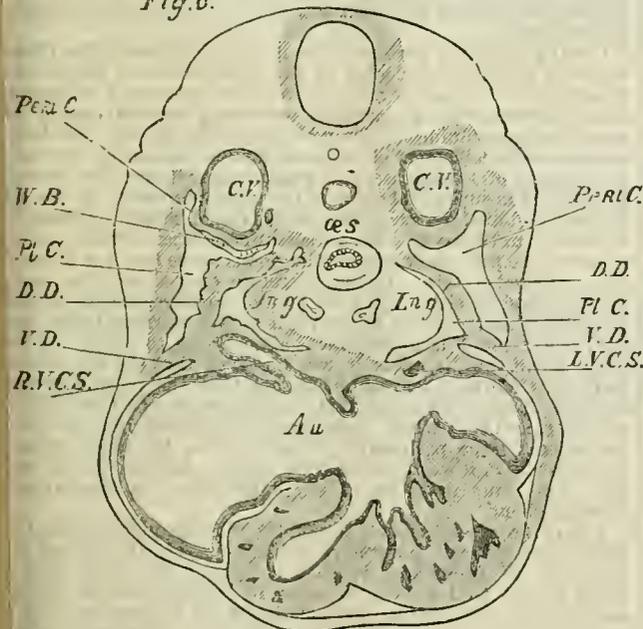


Fig. 6.—Transverse section through the thoracic portion of a human embryo to show the dorsal diaphragm. D.D., dorsal diaphragm; V.D., ventral diaphragm; C.V., cardinal veins; Au., auricle; R. and L.V.C.S., right and left superior vena cava; Peri. C., peritoneal cavity; Pl. C., pleural cavity; Ings., lung; Œs., oesophagus.

established. Human embryos young enough to display the commencements of the umbilical veins and their relation to an allantoic outgrowth had not been obtained, but specimens were at hand which showed that those vessels were closely related to the body wall and most probably began in a modified portion of that structure. There was no evidence to show that the umbilical veins of the human embryo opened directly into the heart, although the researches of His made them empty into the sinus reuniens—a chamber singularly like the cardiac ends of the omphalo-mesenteric veins of the rabbit; the difference seemed rather one of detail than of principle. Specimens of human embryos were shown which seemed to indicate that in other respects the evolution of the great veins was the same in man as in the rabbit. The dorsal diaphragm of the human embryo was developed in exactly the same way as in the rabbit, and consisted of a crescentic process, which grew inwards from the foremost part of the side body wall towards the mesentery (see Fig. 6). Owing to the expansion of the lungs, the pericardium and dorsal and ventral diaphragm underwent considerable modification.

The lecturer concluded by describing the development of the pulmonary veins and the formation of the hepatic ligaments.

ABSTRACT OF A CLINICAL LECTURE ON PERICARDIAL EFFUSION WITH PULSUS PARADOXICUS.

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GENTLEMEN,—Many of you have recently seen in my wards a case of pericarditis with large effusion, accompanied by symptoms of such a nature as to baffle for a time the efforts that were made to interpret their significance and arrive at a satisfactory diagnosis. The patient was a man aged 45, a stone-cutter by trade, and his history briefly is as follows. He had enjoyed uninterrupted good health up to eighteen months ago, when, after exposure, he began to suffer from cough and expectoration. His illness persisted for nearly a year; it then subsided, and he described his recovery as complete. About five months ago, however, his cough returned. Hæmoptysis occurred on one occasion, and a gradually increasing breathlessness, with debility, induced him to seek advice at the Aberdeen Royal Infirmary, where he was admitted on August 10th. As regards his family history, there was no mention of rheumatism or phthisis, but he told us that his father died from bronchitis. When he came under observation his appearance was indicative of dyspnoea; he spoke in short sentences, frequently stopping from want of breath, and using energetically the forced muscles of respiration to enable him to get air into his lungs. There was slight cough, with scanty muco-purulent expectoration. The temperature was 102°. Examination of the lungs anteriorly revealed signs of consolidation at both apices, most marked on the left side, where they were accompanied by small moist râles. The apex beat of the heart could neither be seen nor felt; the sounds were feeble and rapid, and accompanied by a peculiar murmur, systolic in rhythm, best heard during inspiration, fainter during expiration, and almost inaudible during the respiratory pause. The bruit was loudest about the lower end of the sternum, but was quite distinct in the left infra-axillary region. The cardiac dullness was manifestly increased in area and in intensity; it extended from the second space to the sixth rib in the mammillary line, and from the left edge of the sternum to a little beyond the nipple. Over the whole of this area the respiratory murmur was feeble or absent, and vocal resonance and fremitus were reduced to a minimum. The lungs posteriorly gave a dull percussion note in the suprascapular regions, while over the lower half of the left side there were present bronchial breathing and signs of some consolidation. Nowhere was there any evidence of venous engorgement, arterial pulsation, or glandular enlargement; and there was neither aphonia nor dysphagia. The liver and spleen were of normal size; the urine acid and free from albumen and sugar.

Three days after admission it was noted that the patient presented a well-marked pulsus paradoxicus—that is, a pulse whose beat became enfeebled or absent on every inspiration, returning at the commencement of expiration; and that the right radial artery pulsated with greater force than the left. About the same time, also, it was observed that the left pupil was distinctly larger than the right. From this date until the termination of the case the difference between the two pulses and the inequality of the pupils were frequently observed, but on some days careful examination failed to discover any abnormality in these respects. The pulsus paradoxicus, however, persisted up to about ten days before death, when it became gradually less marked, and finally subsided into a feeble and rapid but otherwise normal pulse.

Without following minutely the gradual changes that took place in the physical signs, I may mention that the peculiar cardiac sound heard on admission slowly disappeared, apparently resolving itself into a pericardial friction murmur heard upon one or two occasions at the site of the normal apex beat; and that the cardiac dullness slowly extended downwards and laterally until, becoming triangular in shape, it crossed the lower end of the sternum and caused a dull percussion note between the cartilages of the fifth and sixth right ribs. Symptoms of pleurisy with effusion soon appeared on the left side, and a few days before death the right side became similarly affected. The superficial thoracic veins, especially in the left infra-axillary region, showed signs of engorgement; dyspnoea increased, compelling left decubitus; inspiration became more laboured, and was accom-

panied by distinct epigastric recession; and œdema of the feet was not long in making its significant appearance. Gastric troubles added to the patient's miserable condition; the intellect became impaired; and finally an attack of dyspnoea occurred on September 24th, which was of such severity as to cause death next day.

Throughout the progress of the case the pulse beat on an average 120, and the respirations numbered 36, per minute; and the temperature, which was at first decidedly febrile, became normal after a short time, remaining so during the last fortnight of the patient's existence. The state of the urine is worthy of notice. Acid at first, it soon became alkaline, and so alkaline that the addition of nitric acid caused effervescence to such a degree as instantly to overflow the test tube. It was highly pigmented, giving a well-marked reaction from the presence of indican, and deposited a very large amount, sometimes as much as a fifth of its bulk, of sediment, consisting of crystals of ammonium urate, of triple phosphate, and amorphous phosphate of lime.

The treatment of the case consisted in the employment of cardiac tonics, and remedies to relieve the distressing breathlessness and gastric troubles. The operation of paracentesis pericardii was at one time contemplated, but its performance was rejected mainly owing to the pulmonary complications.

At the *post-mortem* examination, the right pleural cavity was found to contain 70 ounces and the left 10 ounces of greenish-coloured serum. Both lungs were marked by several depressed cicatrices, which at the apices had resulted in considerable deformity, and in those situations the lungs and costal pleuræ were firmly adherent by fibrous bands, a state of matters which was especially noticeable at the extreme left apex. Scattered over the pulmonary surface and throughout its substance were numbers of hard nodules, all about the size of a mustard seed. At first sight they resembled tubercles; but, taking into account the other features of the case, they were probably due to the inhalation of stone dust. The bronchial glands were all considerably enlarged, and of a universal deep slate colour. The pericardial sac contained 43 ounces of deeply-stained serum. The surfaces were free from adhesions, and were covered with a thick, firmly-adherent coating of lymph, which throughout had a characteristic honeycomb appearance. The mucous membrane of the stomach seemed in a state of catarrhal inflammation, and its condition afforded a ready explanation of the gastric troubles complained of by the patient. Nothing unusual was observed about the other organs.

The case which I have above briefly narrated affords a good example of the difficulty which sometimes attends the early diagnosis of pericardial effusion, and illustrates the importance of carefully observing the symptoms as they arise, and of weighing the evidence that they supply.

When I first examined the patient, I thought his case might be one of thoracic aneurysm, a suspicion which was strengthened by the unequal pupils and the disparity in the radial pulses; but the unsteadiness of these conditions, the absence of other signs of aneurysm, and the occurrence, *inter alia*, of the pulsus paradoxicus, soon caused the rejection of that theory. Led away by the presence of this peculiar form of pulse, I next entertained the theory of its commonest cause, namely, indurative mediastino-pericarditis, a disease in which inflammation of the pericardium and anterior mediastinum results in the formation of fibrous bands connecting the posterior surface of the sternum with the prolongations of the pericardium along the great vessels. Such a state of matters would readily explain the paradoxical condition of the pulse; for you can easily understand that the act of inspiration, by elevating the chest, would tighten the bands of induration, compress the aorta and other great vessels, and bring about not only weakening or obliteration of the pulse on inspiration, with its revival on expiration (when the bands would become relaxed), but also inspiratory venous engorgement in the veins tributary to the superior vena cava. Such a condition of the upper venous system, however, did not exist, nor would an increasing area of cardiac dullness result from the form of pericardial and mediastinal inflammation to which I have just alluded. This theory, then, also fell to the ground.

Was a tumour occupying the anterior mediastinum the cause of the symptoms? Such a tumour might undoubtedly produce dullness on percussion; but there were none of those signs of pressure which an unyielding body growing within the thorax is bound to exercise on contiguous structures. He had no tracheal stridor nor dysphagia, and no localised dropsy, and in addition the normal

state of the supra-clavicular and axillary glands gave no support to this diagnosis.

So far having failed to find a satisfactory explanation of the chief symptoms in this case, there remained but two other diseases which might reasonably be suspected of being the main cause of the dyspnoea and the physical signs referable to the heart. I allude to extensive cardiac dilatation and to pericarditis with large effusion. And first as to the dilatation: In this complaint we get the physical signs of enlargement of the heart; but the dullness does not extend beyond the apex beat, and its outline is pretty much that of the heart itself. Generally some impulse is to be felt, and the cardiac sounds, though weak, are never inaudible. Pericardial friction is, of course, absent. Dropsy is very frequently present; and if the dilatation affect mainly the right side of the heart, we have in addition urgent dyspnoea, venous engorgement, and epigastric pulsation.

Well, then, cardiac dilatation, though it explains the breathlessness, yet leaves untouched the main symptoms of the case. It does not account for the triangular-shaped area of cardiac dullness nor the absent heart sounds; it is quite unfit to produce friction, and it has not been observed to accompany the pulsus paradoxicus.

Coming lastly to pericarditis with large effusion, the disease which I ultimately selected as the chief source of the patient's troubles, let us see what symptoms it presents: distressing breathlessness, with a gradually increasing area of cardiac dullness, finally assuming a triangular shape having the base below the apex beat, and absence or enfeeblement of the heart sounds, pericardial friction, some period of the disease, and pressure symptoms—for example, fullness of the superficial veins of the thorax or neck. In the case before us all of these symptoms were present sooner or later, but it was not until the area of cardiac dullness became triangular and involved the fifth right intercartilaginous space that the diagnosis was rendered certain. Do not, therefore, omit to note the importance of this physical sign—when the area of cardiac dullness becomes triangular, and extends to the right of the sternum below, pericardial effusion of large amount is almost sure to exist. As confirmatory of the diagnosis, it was observed that the epigastric pulsation sank a little inward on inspiration, and that the pulse was paradoxical. You are all aware that the diaphragm is a muscle of inspiration, and that when it contracts the epigastrum protrudes; but when a large pericardial effusion exists, the long-continued pressure which it exercises on that muscle induces partial paralysis, and thus recession of the epigastrum on inspiration is brought about.

I have already mentioned to you the most frequent cause of the pulsus paradoxicus, indurative mediastino-pericarditis, and have explained its production in that complaint, but this form of pulse is also well known to occur in large pericardial effusion and in a few other diseases interfering with respiration, such as stenosis of the trachea. When it results from effusion, it is supposed to be due to pressure on the vena cava, especially during expiration (when the intra-thoracic pressure is augmented), that the heart contains less blood at the beginning of inspiration than at the commencement of expiration. This condition is well illustrated by the accompanying sphygmogram.



taken soon after the patient's admission into hospital, but when the pulse ceased to be paradoxical, while its reputed cause, pericardial effusion, was about its maximum, I am unable to explain. It may have been that the physical changes in the right pleural cavity (you will remember that it contained much fluid towards the end of the patient's illness) so altered the conditions essential for the production of this form of pulse as to cause its peculiarity to disappear. At all events, the two occurrences coincided in point of time. The extremely alkaline condition of the urine latterly, with its large deposit and peculiar reaction, can be for comment, but I regret to say that I am unable to account satisfactorily for either the one or the other, nor am I aware of a similar state having been observed in any analogous case.

Lastly, although the presence of pericardial and pleural effusions proved to be the correct diagnosis, how is it possible, you may ask, that they should have brought about the dilated left pupil, and the small left radial pulse? I believe that the real cause of these symptoms lay in the extreme fibrosis of the apex of the left lung, which excited pressure on the sympathetic nerve and on the subclavian artery, and that the intermittence of these symptoms is to be explained by the alterations in the intra-thoracic pressure, due to a varying amount of pericardial and pleural effusion.

I have said little with regard to the pulmonary signs noted during life, and their explanation as witnessed in the *post-mortem* room. I expected to find signs of consolidation at both apices, with evidence of double pleurisy, and I was not disappointed; the large effusion on the right side was clearly of recent occurrence, and its rapid accumulation proved fatal to the patient. Although the pulmonary signs there were comparatively easy to understand, yet I believe that read in the light of the *post-mortem* examination, they had an important bearing on the patient's illness. Apparently the inhalation of granite dust induced fibrosis of the lungs, which, slumbering for awhile, broke out anew, and resulted in the pericardial and pleuritic effusions which gave rise to the peculiar symptoms that I have endeavoured to interpret to-day.

METHOD OF PREPARATION OF LARGE SECTIONS OF THE LUNG.¹

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ONCE Professor Hamilton had introduced his most valuable process of making large sections of the whole brain, the application of his method to other organs became merely a matter of time, necessity, and opportunity. Whilst working at the subject of phthisis I saw how invaluable such a method would be for demonstrating the localisation of tubercular and other lesions in such an organ as the lung, and during the period that I was working with Professor Greenfield a number of the lung sections to be demonstrated were so prepared. Since that time I have, in connection with my work as Research Scholar of the Grocers' Company, prepared a very large number of sections of various forms of diseased lungs.

The *modus operandi* is as follows: After the first incision through the lung—which should be made in the direction in which you wish to have your sections, usually from apex to base and from the antero-external angle of the lung down to the root, so as to obtain as large a section as possible—a second incision is made parallel to the first, so that a thin slice, not more than half an inch in thickness, is obtained. This slice is carefully hardened in Müller's fluid for five or six weeks. The hardening must be as perfect as possible, if even moderate success is to be attained. I find that the best way to accomplish this is to lay the section out flat in a dish on a layer of lint, then to cover with several layers of lint, and immerse the whole in Müller's fluid, a plate of glass or weighted wood being used to keep it down. Spirit also hardens the sections well, and in some cases this reagent may be used, but it must be remembered that it is somewhat difficult to get rid of the whole of the spirit without softening the textures too much; especially is this the case in warm weather; but it may be done by running a continuous stream of water over the section for about thirty-six hours before further preparation. The specimens hardened in Müller's fluid need not be washed with water for more than twenty-four hours. The slice of tissue is then placed in a mixture of five parts of mucilage (*B.P.*) and four parts of a syrup made by boiling 20 ounces of sugar in a pint of water. The proportion may be varied a little in winter by using only three parts of the syrup. Two to the ounce drops of carbolic acid may be added to prevent the formation of fungi; the tissue should be soaked in this for forty-eight hours at least, but it may be left for a fortnight or even a month without injury.

The microtome used is one modified by Dr. Alexander Bruce, in which are combined the best features of both the Hamilton and Williams microtomes. It consists of a large square tub in which are fixed nine brass pillars; to the top of these is screwed a large

zinc plate. To the tub are fixed a couple of rails similar to those on the bed of a metal planing machine, and on these rails runs a heavy plane, to which is attached a knife blade fixed at an angle of 45°. This knife is moved upwards and downwards by means of a fine screw, which is so adjusted that sections of very great delicacy may be cut (if the knife is sufficiently well sharpened). The best and cheapest knives are those made for paper cutters' guillotine machines. To this microtome I have added for the sake of convenience and rapidity of working, first, a second metal plate which may be screwed to the fixed plate, so that after a few sections have been obtained, the plate with the piece of tissue may be removed and put aside until again required; and, second, a tin box about 4 inches deep with a bottom an inch from the lower part of the sides, which fits over the second plate. It is provided with a lid, has the bottom sloping to one end, and has an outlet pipe to which a piece of india-rubber tubing may be attached.² Tub and tin box are both filled with ice and salt. The section is taken from the gum and syrup, carefully dried with a soft clean cloth, and then placed in *B.P.* mucilage until the surface is thoroughly saturated (ten minutes is quite sufficient for this), after which it is transferred to the freezing plate, on which a very thin layer of gum has been laid. The section becomes fixed immediately. It must then from time to time be carefully banked up with gum, the tin freezing box being placed over it during the intervals. When nearly frozen, take a long thin knife and pare the tissue down to the level of the rails. Now prepare a large clean white flat dish, fill with slightly warm distilled water, to which a little syrup may be added (especially if the tissue is at all brittle), and place it in front of the tub, about an inch below the level of the sections, so as just to clear the plane. In this lay the sheet of glass which is to serve as the cover glass. This should be considerably larger than the section. The glass I find best suited for the purpose is thin rolled plate, which is to be obtained only from Messrs. Chance, of Birmingham. Bring the knife down to the level of the tissue by means of the screw, and cut away all fragments till a complete section is obtained. The first complete section, if thin enough, is spread out with the aid of a camel hair pencil on the glass, on which it is carefully removed from the water and transferred to a second vessel containing distilled water, where it is allowed to stand for a few hours in order that all the mucilage and sugar may be thoroughly washed out.

The sections may be mounted either as they are, unstained, or they may be stained with alum-carmin, picro-carmin, or ordinary ammonia-carmin; but I find that the two former are the most satisfactory reagents. In staining with picro-carmin, a rapid staining on the slide, with no after-washing except around the section, is best. For the alum-carmin staining the best method is to transfer the cover glass with its section to the staining fluid, where it may be left for a night. It is then put back into distilled water, and is there thoroughly washed in order that all alum crystals may be removed. In order to clear up some of the unstained sections, Hamilton's liquor potassæ method may be used. After the sections have been thoroughly washed, he pours over the surface with a pipette a strong solution of liquor potassæ and water. Strength of 1 to 4 gives the best results. When thoroughly cleared up the section may be mounted.

To imbed and mount these sections, take a quantity of gelatine (Nelson's, or Cox's and Coignet's), wash well and cover with a saturated and filtered solution of salicylic acid; allow to soak all night, so that a considerable quantity of water may be absorbed. Pour off superfluous water and heat over a water bath until the whole is thoroughly melted; add one part by measure of this to two parts of glycerine, heat over a water bath, stirring regularly until the whole is thoroughly mixed; strain through a piece of close clean flannel into a flask, in which it may be reheated over the water bath as required. When not in use the flask should be kept corked.

Having allowed most of the water to drain away from the section by tilting it against some object, with the glass protecting the section from dust (it must not be allowed to dry, or air-bubbles will be enclosed in the section and it will be spoiled) it is placed, section upwards, on a level stand (a screw tripod serves the purpose admirably), and a thin layer of the warm glycerine jelly is run gently over the surface of the section by means of a pipette. Great care must be taken not to allow the jelly to run too rapidly, or the margins or even the whole section may be displaced. It is then set aside to cool, after which, if kept away from dust

¹ A description of a demonstration in the Section of Pathology at the Annual Meeting of the British Medical Association in Dublin.

² This microtome is made by Mr. Alexander Fraser, Lothian Street, Edinburgh.

and heat, it may be left for a week or two until time and opportunity be found to finish it off.

This finishing-off process requires a little practice, but is not difficult. The slide on which the section is to be mounted is placed on three or four pieces of cork over a water bath until it is warmed through. This is to prevent the too rapid setting of the jelly. It is then transferred to the tripod, and a quantity of jelly is poured on to the centre and gradually on to the end nearer the manipulator; the cover glass is then taken and gently lowered, the near end first and so gradually down on to the slide. The jelly on the cover keeps the section in position sufficiently long to allow of the cover glass coming into its place. The slide usually retains sufficient heat to melt away all superfluous jelly. Should this not be the case, the whole slide may be again heated over the water bath, and by the application of gentle pressure the extra mounting medium is squeezed out. If this extra medium be left at the margin of the cover, the slide may be left for some time without further treatment. To preserve the section remove the extra jelly with a spatula, wipe carefully with a moist cloth and then with a dry one. After this the margin of the cover glass and the slide should be carefully painted over with benzole balsam, layer after layer being applied at intervals of two or three days, until there is a good firm coating. Unless this be done at once after clearing off the extra jelly, the jelly at the margin under the cover dries rapidly, air bubbles make their way in, and once there, will eventually spoil the section. At one time I afterwards pasted first a layer of calico and then a strip of black glazed paper over the edges of the slide. I have found, however, that it is better to mount them in common wooden frames like slate frames, so that the cement may be examined from time to time, and if necessary repaired. The sections are now ready for examination.

List of specimens exhibited by means of limelight lantern with 9-inch condenser, kindly lent by Dr. Alexander Bruce, of Edinburgh: Specimens of normal lung (1) uninjected, and (2) injected with carmine gelatine; (3) sections of emphysematous lung uninjected; and (4) injected with Prussian blue to show the normal structure and arrangement of the blood vessels, alveoli, and air passages, and the altered conditions in emphysema.

5. Lung of child in which lower part of upper lobe had been invaded by tubercle. The gland at the root apparently corresponding to this area is much enlarged, and evidently caseous; radiating from this to the surface are masses of tubercle, some small and not caseous, others larger, apparently formed of several smaller nodules fused and now become caseous. Here septa are slightly thickened, and the tubercle nodules are apparently commencing in the small lymphatic nodes.

6. Tubercular catarrhal pneumonia in the lung of a child. The lobular distribution is very distinctly marked, small areas of healthy tissue appearing here and there. Away from the large consolidated patches are small tubercle nodules, evidently growing in the inter-alveolar or small interlobular septa. Here also the glands are enlarged, caseous, and tubercular.

7 and 8. Other sections in which the patches of catarrhal pneumonic consolidation are not quite so typical, and in which there is more marked interstitial tubercle.

9. Miliary tuberculosis in child. Section injected with Prussian blue and stained with picro-carmin. In this the tuberculosis appears to have spread by the lymphatics, but catarrhal changes have quickly supervened. An examination points, however, to the fact that the tubercle is primarily strictly confined to the interlobular septa. The glands at the root are enlarged and caseous. The non-vascular condition of the tubercle nodules is well seen in this specimen.

10. Section of acute miliary tuberculosis. Here the nodules are very small, and are quite distinct in appearance from anything we have yet seen. They are found commencing in the interlobular septa, and have evidently arisen in connection with infection by the lymph channels or blood vessels. Around some of these points catarrhal changes may be observed, but they are comparatively little marked. The patches are very different from those that are due to infection by the air passages.

11. Lung with well marked catarrhal pneumonia in lower lobe. In the upper lobe is a large gangrenous cavity, opening directly into the large bronchus. In the walls of this cavity we have a slight development of granulation tissue in which is a considerable quantity of altered blood pigment.

12. Section of lung from a case of chronic fibroid phthisis with emphysema. At the apex are small cavities filled with partly caseous, partly calcareous, material. The walls are composed of

deeply pigmented fibrous tissue, which, by its contraction, has caused a puckering of the thickened pleura at the surface. The pleura is thickened over the whole lung, and the two lobes are firmly bound together. A few firm fibroid nodules are to be seen scattered throughout both lobes.

13. Typical case of phthisis. Chronic fibroid phthisis at the apex; thickened pleura and septa. Small cavities with fibroid, deeply pigmented walls, little normal tissue left; base consolidated, catarrhal and caseating pneumonia well marked; a few masses of racemose tubercle throughout the lobe. There is evidently considerable congestion in the lower portion of the lung.

14, 15, and 16. Similar specimens from other cases.

17. Stonemasons' phthisis. Lung much consolidated; pleura enormously thickened; lobes adherent; several cavities with thickened fibrous and pigmented walls; nodules of chronic fibroid thickening, firm at the margin, frequently deeply pigmented, and in some cases caseating in the centre; septa thickened. The glands at the root are enlarged, dense, and fibrous; medullary portion deeply pigmented; cortex free from pigment.

18. Section of coal miner's lung with thickened pleura. Small, deeply pigmented, fibrous nodules, paler in the centre, darker at the periphery; no cavities. The distribution of the pigment in the deep layer of the pleura, the interlobular septa, and the lymphatics around the vessels and bronchi is here well seen.

Other specimens of pulmonary infarction, tubercle of the liver (acute miliary in the tissue of the portal spaces, and caseating tubercle affecting the bile ducts), waxy sago spleen, showing localisation of the disease in the Malpighian bodies, old infarction of the spleen, in which a fibrous and contracting capsule around the caseating or softening central mass is well seen; waxy kidney (large and small forms), granular contracted kidney, waxy liver, cancer of the lung, etc., were exhibited.

A METHOD OF EXAMINING AND REMOVING THE SPINAL CORD FROM THE FRONT.

By THOMAS HARRIS, M.D.LOND., M.R.C.P.,

Pathological Registrar to the Manchester Royal Infirmary; Assistant Lecturer and Demonstrator of Pathology in the Owens College; and Assistant Physician to the Manchester Hospital for Consumption and Diseases of the Throat.

THE method of examining and removing the spinal cord which is adopted in the majority of the pathological departments of the hospitals of the United Kingdom is by means of a median incision along the posterior aspect of the body, the laminae of the vertebrae from the cervical to the lumbar region being subsequently removed with the aid of a saw, or of a saw assisted afterwards by a strong pair of bone forceps. In the majority also of the German universities a similar method is employed. However, as far back as 1863, Professor Brunetti, of Padua, published an account of a method which he had introduced for removing the cord from the anterior aspect of the body by means of specially constructed chisels, with the aid of which he removed the bodies of the vertebrae, and so exposed the interior of the vertebral canal. This method has been employed in the Pathological Institute at Vienna for the past fifteen or twenty years, and having heard very favourable accounts as to the advantages of the method, I took an opportunity last autumn of visiting Vienna, chiefly with the object of becoming practically acquainted with the details of the process. Since that time, I have adopted it in the *post-mortem* department of the Manchester Infirmary, and finding it most expeditious and in many ways convenient, a short account of the method may not be unacceptable to those who have many *post-mortem* examinations to make, and who have not yet tried it. A brief notice, by Dr. Cayley, of the method will also be found in Quain's *Dictionary of Medicine*.²

The organs in the neck, thorax, and abdomen are first examined, by means of the usual median, incision from the chin to the symphysis pubis, and are all removed from the body, so that the anterior and lateral aspects of the bodies of the vertebrae are exposed along the whole length of the spine. After the exposed parts of the vertebrae have been examined, a wedge-shaped wooden block³ is placed under the body

¹ *Gazzetta Medica Italiana Provincie Venete*, Anno vi, Nos. 17, 18, 19, 20.

² *A Dictionary of Medicine*, edited by Richard Quain, M.D., F.R.S., 1st Edition, page 1020.

³ A convenient block for this purpose is one 12 inches long, 6 inches high, and 6 inches broad at the base.

in the lumbar region, so as to make that portion of the spine arch well forwards. By means of a strong knife the intervertebral cartilage between the fourth and fifth lumbar vertebrae and that between the fifth lumbar vertebra and the sacrum, are divided. For the subsequent procedure we require a moderately heavy wooden mallet, a strong pair of forceps (Fig. 3), and two chisels. The chisels are of peculiar shape, as will be understood from studying the accompanying illustrations (Figs. 1 and 2), it will, however, be unnecessary to enter into a detailed description of them. Each chisel is 14 inches long, and has a cutting edge $1\frac{1}{2}$ inch broad; adjoining the cutting edge is a small blunt projection $\frac{1}{2}$ inch long, which being introduced into the vertebral canal, acts as a guide. One chisel is used for dividing the pedicles of the vertebrae on one side of the body, the other for the pedicles on the opposite side. The only difference in the chisels is that

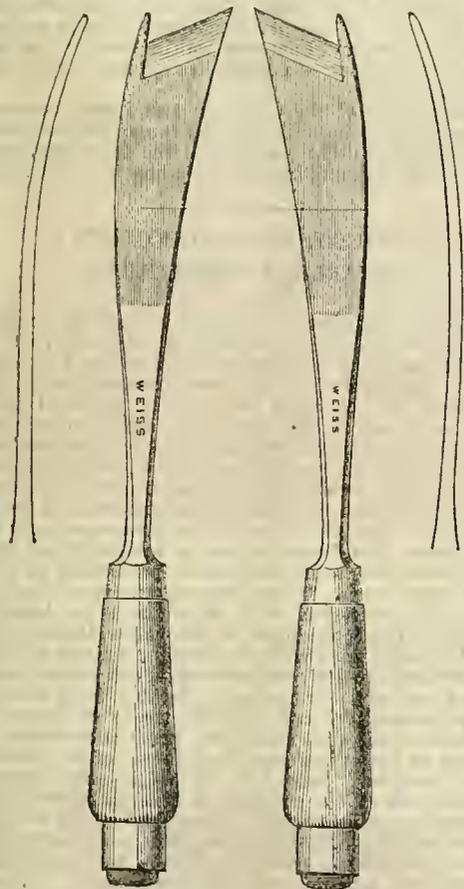


Fig. 1.—Chisel for dividing the pedicles on the left side of the spine. (Surface and side view.)

Fig. 2.—Chisel for dividing the pedicles on the right side of the spine. (Surface and side view.)

which is necessary for their employment on one or other side of the spine.

After the intervertebral cartilage above and that below the fifth lumbar vertebra have been divided, the intervening vertebral body removed by chiselling through, with the aid of the chisels and mallet, the pedicles of that vertebra, one chisel (Fig. 2) being used for the right pedicle, the other (Fig. 1) for the left pedicle. After the pedicles have been divided, the body of the fifth lumbar vertebra is very easily removed by seizing it with the forceps (Fig. 3), and using a knife to free it from any surrounding soft structures.

The dura mater covering the corda equina is thus exposed for a short distance, and the whole of the vertebral canal may now be opened by chiselling through the pedicles of the vertebrae, or, where that is not readily accomplished, as in the dorsal region,

through the posterior part of the bodies of the vertebrae. It is, however, impossible to divide these parts from the lumbar to the upper cervical region, firstly all along one side and then all along the other: it is necessary to divide the pedicles of only four or five vertebrae on the right side with one chisel, and then the pedicles of the left side of the same vertebrae with the other chisel, after which the intervertebral cartilage above the body of the vertebrae (the pedicles of which were last cut through) is divided, and the bodies of the separated vertebrae being seized with the forceps are removed. The wedge-shaped block of wood is now moved a few inches higher, until it is placed beneath the vertebrae of the lower part of the dorsal region, so as to make those project well forwards. The pedicles of four or five more vertebrae are then divided by means of the chisels and mallet, and after the intervertebral cartilage above them has been divided, the bodies of those vertebrae are removed. Then the block is again moved upwards a few inches, and four or five more vertebral bodies removed in a similar manner, and so on until the base of the skull is reached. By this means the dura mater is exposed from the occipital foramen to the lowermost part of the lumbar region, and if the operation has been done carefully, both it and the enclosed cord are uninjured. In using the chisels it will be found necessary to keep the cutting edge nearly horizontal when working with them in the lumbar and dorsal regions, but in the cervical part it should be held obliquely or nearly vertically. Although not absolutely necessary, an assistant will be found very useful in seizing the vertebrae with the forceps and pulling them forwards away from the vertebral canal, when the operator is using either of the chisels.

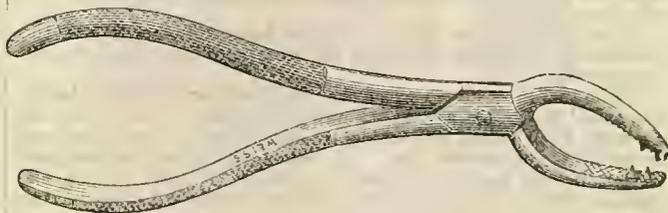


Fig. 3.—Forceps for removing the bodies of the vertebrae after the pedicles have been divided.

After the vertebral canal has been exposed, the external aspect of the dura mater and its surrounding structures are examined. That membrane and the nerves of the corda equina are next divided at the lowermost part exposed, and, together with the spinal cord, removed by dissecting from below upwards from the vertebral canal. The dura mater is then laid open by means of scissors, and the spinal cord examined in the usual way.

There are several advantages in this method of removing the spinal cord. We avoid all necessity for an incision along the back; the only incision into the skin of the trunk is the usual median one along the anterior aspect of the body. The corpse is consequently not so much disfigured, and we avoid the labour of extra stitching. The method is more expeditious, and involves less labour when the operator has had a little experience of its details. This, however, is not the case at first. The majority of beginners will probably find it hard work, and I must confess that my first two or three attempts caused me some little disappointment, as I found the chiselling really hard labour. When, however, one has done the operation a few times, it is easily and quickly accomplished. That it is much more rapidly carried out than the method of opening the canal from the dorsal aspect is sufficiently testified to by the fact that it is the only method employed in the Pathological Institute of Vienna, where they have so many *post-mortem* examinations to make that an expeditious method is indispensable. In Vienna it is carried out by the *post-mortem* room porters, who accomplish the task in a wonderfully short time. By this method also we obtain a much better view of the spinal cord and spinal nerves, and can more readily localise any lesion in the cord, so as to state exactly the relation of the lesion to any particular part of the vertebral column.

As will be surmised, the removal of the bodies of the vertebrae renders the corpse very limp, much more so than when the spinal cord has been removed from the dorsal aspect. This, however, is but a very slight drawback to the method, since it requires but the exertion of a small amount of ingenuity to render the body

rigid by means of a broom-handle or piece of iron tubing. Even that, however, is unnecessary, as with care the body can be placed at once without difficulty into the coffin.

The method is one which I believe will be much more frequently employed in the United Kingdom when it becomes more fully known than is the case at present.

The chisels and forceps are now made by Messrs. Weiss and Sons, Oxford Street, London, to whom I am indebted for the accompanying illustrations.

A CASE OF HYSTERO-EPILEPSY OF TWENTY YEARS' DURATION, TREATED BY REMOVAL OF THE UTERINE APPENDAGES.¹

By FRANCIS IMLACH, M.D.

OF the treatment of various neurotic pathological conditions by removal of the uterine appendages I have little knowledge and less belief. By a curious coincidence, two entirely different motives appear to have suggested this much discussed surgical procedure almost simultaneously to men of different bent of mind. One motive may be termed transcendental, hypothetical, doubtful; it is determined by the belief that certain untoward neurotic manifestations depend upon morbid ovarian activity, and may be cured, and can only be cured, by removal of the ovaries. The other motive is commonplace, obvious, sure; namely, that disturbing, disabling and often more dangerous and even fatal conditions, due to acute or chronic inflammatory diseases of the uterine appendages can only be relieved, and ought to be relieved, by removal of the diseased parts.

It is by the latter motive I have been influenced, and the greater my experience becomes, the more convinced I grow of its soundness.

While in Tenby, however, at the new year, Mr. Beamish Hamilton asked me to see a hystero-epileptic patient, who might, he thought, be benefited by surgical treatment, and whose record may be useful at the present time. She was aged 40, and had been bed-ridden for the past nine years. At 20 or 21 years of age she became subject, she said, to epileptic fits, which had continued to the time I saw her. Indeed she appeared to have become bed-ridden almost as much from the increasing severity and frequency of the fits as from pain; her fits generally recurred three or four times in the day, and it was rare to pass a week with so few as four or five fits. She was always unconscious for ten or twenty minutes during a fit, but did not sleep heavily after it. Having been in five different hospitals, special and general, for periods varying from six weeks to four months, without relief, she had given up expectation of cure, and Mr. Hamilton informed me that bromides and other nervines appeared entirely useless.

It was plain, upon examination, that the Fallopian tubes were greatly distended, and I therefore advised their removal. Menstruation was very profuse, and there was great pain; my opinion was formed regardless of the neurotic condition which now, however, induces me to record the case in detail. At 28 years of age she married, and had a child, which died two years later. I have no record of the condition of the uterine appendages previous to this.

As I was unable to remain at Tenby, she was brought to Liverpool, entered my private hospital on January 10th, and four days later I removed her uterine appendages. It was a case of double hydrosalpinx, with extremely cirrhotic and shrunken ovaries. The right tube contained half a pint of serous, shreddy fluid, and the left about half an ounce. The left ovary was no larger than a dried split pea, and the right ovary about double that size (specimens shown). While being anaesthetised she had a prolonged and rather alarming fit; she became suddenly unconscious, her lips turned blue, respiration was arrested, and her back became strongly arched. An hour after the operation, which lasted only a few minutes, she had a similar attack, and, to our disappointment, a week later she had another, but no more.

On February 15th, being able to walk alone, she returned to Tenby, and the following letter was received on March 18th from her medical attendant, Mr. Hamilton:

"Tenby, March 17th, 1888. Dear Dr. Imlach.—In reply to your letter of queries about Mrs. B., she has been practically bed-

ridden for the past twelve years, since her 29th year, and has passed through the hands and treatment of many medical men, without getting the smallest benefit. Eight years ago she was kept upon her back for three months in the — Infirmiry, and treated with pessaries, etc.; twelve months ago she was treated in the — Hospital with stem pessaries, etc., but without relief. For the past twenty-one years she has suffered from epileptoid seizures, accompanied with marked arching of the spine at the commencement of the attack, insensible for periods varying from ten to twenty-five minutes, for which she came under my treatment about eight months back; but nothing I could do seemed to mitigate them, and they were increasing in frequency and duration, when she had the good fortune to fall into your hands. Since her return home there have been only two fits of any severity, and they seem now to be amenable to bromides. Seven weeks from the day of operation she had a spurious menstrual flow, which lasted for five days. This made her nervous, and I think was the cause of the fits mentioned. She is eating well, her back-pain is gone, and I am only waiting for the fine weather to send her out of doors.—In great haste, yours very faithfully, BEAMISH HAMILTON."

As a primary result of the operation this is very encouraging. Had this treatment been carried out years ago, the patient would probably have been a useful housewife, free from pain, and a fit companion to her husband, in place of a hopeless and expensive invalid.

PRACTICAL ANTHROPOMETRY.

By CHARLES ROBERTS, F.R.C.S.

I HOPE that the suggestion thrown out by Dr. Stone in his Harvardian Oration that "medical physics" shall form part of the science to be taught in the proposed laboratory for "scientific purposes" to be attached to the new Examination Hall of the Royal Colleges, will be acted on, and that practical anthropometry will form part of that important branch of the medical man's education. Anthropometry, or "man-measurement," strictly speaking, is a branch of human anatomy, and deals with the body as a living organism, while the anatomy taught in our medical schools deals only with the structural arrangement of its several parts; and it is obvious that if our students were properly taught, their first lesson should be to acquire a knowledge of the physical characters of the whole body before proceeding to study its elementary constituents. It is necessary, moreover, that, in order to practise his profession with satisfaction to himself, his patients, and, in public medicine, to the public, that the medical man should be acquainted with the normal condition of the body, and the variations in its conformation which result from race, sex, age, and sanitary surroundings. Besides being a branch of anatomy, anthropometry is a valuable means of diagnosis, not only for defining diseased conditions, but the influence of external agents on the growth and development of the whole body, or some of its organs. Indeed, in its widest sense diagnosis is anthropometry, for all our attempts at differentiation of diseases are measurements of either time or space, and all our instruments, whether for pathological or physiological investigation, are anthropometric instruments when applied to the investigation of the anatomy and functions of the human body. "The indispensable part of the experimental observation of physical facts is the measurement of quantities," says M. Henri Martin in his *Physiques*. "All physical objects are extended, and consequently measurable, though they may not always be measurable by the methods and instruments we possess; and all physical phenomena take place in periods of time susceptible of measurement, although some of the measurements are imperceptible by our senses. The right method as regards all these phenomena," he goes on to say, "is that taught by Galileo, to measure all that is measurable, and to endeavour to render measurable all that is not directly so." But while claiming for anthropometry this relation to medical physics, and thereby securing its recognition as an essential element of that much neglected branch of medical study it is desirable in these days of the division of labour to confine the sphere of anthropometry to the study of the physical characters or qualities of the body, and to leave the subjects which have hitherto been included in the provinces of physiology and pathology, such as the functions of the senses and other obscure physico-psychological phenomena, which, though measurable by suitable instruments, can only be properly studied by persons

¹ Communicated to the North Wales Branch, March 20th, 1888.



Fig. 1. 100x

COATED.—Excess of horny epithelium on papillæ with epithelial and other matters in intervals.



Fig. 2. 100x

PLASTERED.—Elongated papillæ surmounted by epithelial and accidental matters.



Fig. 3. 100x

ENCRUSTED.—Heterogeneous crust on and between papillæ.

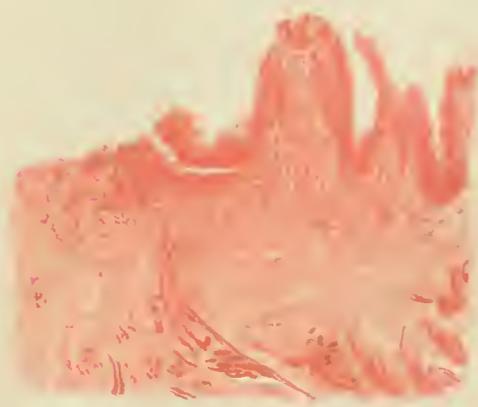


Fig. 4. 100x

BECOMING DENUDED.—Malpighian layer, and in places corium exposed.

TO ILLUSTRATE

DR. W. HOWSHIP DICKINSON'S LUMLEIAN LECTURES ON THE TONGUE AS AN INDICATION OF DISEASE.

who are acquainted with the minute anatomy of the body and of the various imperfectly, as yet, understood functions of the nervous system.

I mention this here because I fear that practical anthropometry, generally understood on the Continent and America, as well as in this country, is likely to suffer from a series of ingenious inventions manufactured and sold by the Cambridge Scientific Instrument Company, and advertised in the columns of the JOURNAL as anthropometric apparatus. Now the instruments required for recording the purely physical qualities of the body, that is to say, the stature, the length, breadth, circumference, and thickness of different parts of the trunk and limbs; the weight, strength, and breathing capacity; and of the complexion, as distinguished by the colour of the hair, eyes, and skin, are few in number and inexpensive, and consist of a pair of ordinary callipers, two or three light modifications of the shoemaker's rule, a measuring rod and scale, a weighing machine, one or two dynamometers, and a spirometer. Not only does the catalogue of the Cambridge Company contain instruments of this description, but many others for testing the keenness of eyesight and appreciation of colour (not the means as have been perfected by ophthalmic practitioners); keenness of hearing, and appreciation of musical pitch; and the numerous qualities of the senses and the mind which are largely, not entirely, the result of education and individual experience. Such as "judgment of the eye [mind?] as regards squareness and angular division; judgment of the eye [mind?] in estimating the vision of a line; reaction time to sound and sight; appreciation of slight differences of weight." These are doubtless interesting objects of inquiry, but they are not anthropometric inquiries in the sense in which the word is generally understood, and to which I think it is desirable to restrict it.

I am inclined to think, moreover, that Mr. F. Galton, who has designed these instruments, does not see what complicated problems he is asking us to investigate under such an apparently simple question, as, for instance, "the judgment of the eye as regards squareness." An instrument for this purpose might serve a rough way to distinguish between an artist and a barrister, an artisan and an agricultural labourer; but between two persons of equal training and experience the test would be one of the different amount of astigmatism in the two persons under examination. Similar objections occur to me with regard to some of the other instruments in the catalogue; but my object is not to criticise them, but rather to point out to the members of my profession the proper sphere and the practical utility of anthropometry as generally understood and as was understood by Quételet, who invented the word to cover the series of inquiries which he carried out on the human body, and which are recorded in his work entitled *Anthropométrie ou Mesure des Différentes Cultés de l'Homme* (1870).

When I published my *Manual of Anthropometry*, in 1879, I was soundly rated by the *Lancet* for making such free use of Quételet's observations, but it would be just as reasonable to rate Bain and Gray for appropriating the labours of previous anatomists. Although anthropometry has existed in a slipshod manner for many centuries among artists and sculptors, it was Quételet who first reduced it to a scientific form and applied it to scientific uses; and it is desirable, if any progress is to be made in the same as in other sciences—and especially in those which, like anthropometry, so largely depend on collective investigation—that changes in its methods of procedure should not be made without very grave reasons.

Unfortunately for the stability of the science of anthropometry, Quételet was a mathematician and an artist, and not an anatomist, and he gives us in his book only the results of his anthropometric observations, and not the method by which he obtained them. He dealt with the subject as if he had exhausted it, as indeed, for scientific purposes, he very nearly has done so. It is when we come to try to apply his method to the distinctions of the races of man, to medical, sanitary, and other scientific uses, that it fails us, simply because he has not defined the conditions under which his observations (mostly made by his medical friends) were made, and was for the purpose of defining these conditions that my essay was published, and this only after a translation of Quételet's work, with the necessary notes, was refused by the Sydenham Society. I mention all this because I wish to impress on everyone who takes the subject of anthropometry that it is better to get some results by methods which have been found to work fairly well, than to be constantly tinkering the methods and obtaining no results but disheartening others of a less critical turn of mind. *Ars longa,*

vita brevis is a motto especially applicable to this subject. While we are inventing instruments and illustrating mathematical problems by our miserably small collection of anthropometric observations, the French are applying the science in its simplicity to the identification of criminals, the Germans to the differentiation of races, and the Americans to the results of gymnastic and athletic exercises, and to all of them anthropometry has become serious everyday duty and study—as serious, to compare large things with small ones, as the study of micro-organisms is with ourselves. Sufficient work has, however, been done in this country to form a basis for more and better work in future, and sufficient has been done, especially in differentiating sanitary conditions such as the influence of occupations, food, social status, etc., and of the racial elements of the population, to promise great results if the methods of anthropometry we already possess were recognised, and their practice properly encouraged by the Colleges of Physicians and Surgeons and the medical schools.

Simple and easy as anthropometry is in practice, its application to the solution of racial, physiological, and sanitary questions is so wide and comprehensive, that it is hardly within the power of individuals to carry it out. Quételet first described the method but he shrank from the labour it involved, and instead of measuring men, women, and children by thousands he measured them by tens, and so missed seeing some important facts in relation to sexual and racial differences which have since been discovered. Dr. Beddoe has spent a lifetime in collecting anthropometric data for differentiating the racial elements of our British population. Professor Bowditch has with much labour discovered by anthropometric observation the difference in the rate of growth of the two sexes.

Mr. F. Galton has illustrated in a similar way some important facts relating to the hereditary transmission of physical characters, and I have endeavoured to establish standards for comparison, and to define some of the results of the "conditions of life" on the development of the body, while in another field Hutchinson's investigations have become classical.

But not only does all this work want revising and extending, we want also a profession which can understand and appreciate its value, which we have not got at present, and which, I fear, we never shall have till the heads of the profession, as represented by the colleges and schools, recognises its importance as equal at least to those of comparative anatomy, chemistry, and botany, and, indeed, as superior to them in its educational value, the mathematical and statistical accuracy which anthropometry demands being of supreme importance as a check on the imagination of the student, and a suitable training for other investigations necessary to the progress of medicine and surgery in our day.

HOW TO REFORM THE DENTAL DEPARTMENTS OF OUR HOSPITALS.

By F. NEWLAND PEDLEY, F.R.C.S. AND L.D.S.,

Dental Surgeon and Lecturer on Dental Surgery to Guy's Hospital.

THIS is a problem I took in hand at Guy's Hospital, and now that the experiment has resulted well and nearly two years have been allowed to lapse as a time-test, I bring the matter forward in the hope of inducing other hospitals and other dentists to adopt necessary changes.

I do not advocate that each medical school should be a school for dental students; at present this is impossible. Let dental students seek special training at special hospitals, but those who hold the dental surgeoncies to hospitals should show their operations and the scope of their subject as the other specialists do. The status of dental surgery, though improved, is far from what we would see it, and from what we think it deserves. What can be more damaging to our profession, which, above all, rightly claims to be a branch of surgery, than the lamentable fact that medical men so frequently feel obliged to admit utter ignorance of the subject? Hence it becomes a frequent source of complaint amongst dentists that the importance and value of their work is inadequately appreciated, and the medical fraternity is blamed for possessing little or no knowledge about teeth. The work done at the dental hospitals is admirable, but busy medical students cannot give the time to attend there, and they go into practice with the idea that the extraction of teeth and their replacement artificially form the limit of our practice and science.

The fault lies with those dentists connected with hospitals who

do not take practical means to dissipate this illusion. The position of ophthalmic surgery would not be what it is if the eye-surgeons treated every hospital case by excision of the eyelid. The schools would condemn such teaching and practice as a barbarous exhibition of bad science.

If each hospital dentist devoted one sitting a week to extractions, and one sitting to the other operations of dental surgery, the difficulty would be overcome. No one is called upon to treat all the diseased teeth of his district, but it does not follow that nothing whatever should be done or taught. I do not consider two sittings a week too large a demand upon the time of those who occupy the responsible position of connecting link between dentistry and surgery.

I will now briefly run over the arrangements made at Guy's Hospital. There are two dental surgeons' dressers; they hold office for two months. A fresh dresser is appointed each month, who becomes "senior" during his second month of office. The dressers attend daily at 12.30 to see out-patients. In very urgent cases they are at liberty to give "gas," but of course the administrator must be a qualified man. General practitioners are very frequently asked to give "gas" for dentists, and it is to be regretted that they so often find themselves lacking in practical knowledge upon this subject.

At first I had to do nearly all the extra work of the new department myself, owing to the absence of my then senior colleague, Mr. Moon, but of late I have had the assistance of a present student, Mr. Wynne Rouw, an ex-house-surgeon at the Dental Hospital of London. He attends on Tuesdays at 1.30, and I on Thursdays at the same hour for out-patients, and these are our afternoons for gas extractions and surgical cases. Nitrous oxide gas should be given as a matter of routine in our severer operations, and in the numerous cases where the health of patients renders them physically incapable of enduring pain without severe suffering. An anæsthetic so safe should always be at hand, and I am more suitable for many patients in the wards of the hospital than ether or chloroform when a tooth has to be removed. On Friday afternoons at 1.30 we both work, doing anything except extractions. It is on this afternoon that we see patients under treatment for fracture of jaw and children wearing regulating plates, and we frequently have cases where plates are required to restore parts removed by operation for surgical diseases. All such patients are supplied with mechanical appliances and plates, for which the hospital pays the senior dental surgeon £40 a year. I am informed that this sum represents an equivalent fixed by Mr. Salter. The rest of our time on Friday is devoted to "stopping," including gold.

It is a mistake to suppose that medical students are not interested in even tedious operations. I have had abundant proof of how keen an interest they take in our work, and have been astonished at what good men apply for dental surgeon's dresserships. At one time I had an ex-house-surgeon as senior and a F.R.C.S. as junior dresser. Advanced students do not require much teaching, and I am not sure to what extent their services might not be available in filling simple cavities with "plastic" stoppings. That aspect of the subject I will pass over as "not proven." Suffice it to show what work can be done by two dental surgeons, and how. The time may come when we may be able to cope with all the decayed teeth that require attention, and I will admit that the question is one of national importance, which may some day affect the supremacy of the Anglo-Saxon race, and I quite sympathise with those who would demand State aid for dental hospitals, and that in the army and navy, and wherever medical supervision is provided, salaried dental appointments should be invariably added. But at the present time these considerations must be deferred, and what dentists have first to do is to educate the medical profession, and through them the laity, in the merits and bearing of their science.

Those who are opposed to those suggested changes in our hospital practice plead that they could not devote the time to the increased work. In the first place, I only suggest two attendances a week for each dental surgeon, and one cannot say that is an excessive claim on their time, or that it reaches the average period spent in the hospital by the dentist's colleagues. Granted, metropolitan schools are undermanned as regards dentists. Such important hospitals as London, St. George's, University, King's, and Charing Cross, have only one dental surgeon each. If these need aid they can ask that assistant dental surgeons be appointed. There are young men available for future appointments ready to devote part of their time to a hospital, and to rise thereby in a

way usual amongst members of a staff. If possible, the "assistants" should hold independent appointments, as at Guy's. The *Medical Directory* shows that there are in London 86 "hospitals" and 67 "dispensaries." Some of the latter are very large, and one shows an annual attendance of 24,000 patients. We know it is the exception for a London hospital or large dispensary to be without an appointed dentist. This gives an idea of what could be done if each dentist attended twice a week, and reserved part of his allotted time to operations other than the extraction of teeth. It is a noteworthy fact that some dentists hold two appointments, and I may be permitted to add that I resigned my post on two hospitals in order to devote adequate attention to one.

The matter of necessary funds should be considered, although, to avoid probable delay and obstacles in what had something of the nature of an experiment, I made the additional expenses at Guy's a personal affair. Accepting £40 a year as the equivalent of the "artificial work" done, I should estimate the cost of "gas" for the past year at £50, and the instruments, stoppings, etc., about £30. Thus I judge the expenses of the department are at present about £120 per annum. With the result of my experiment I am satisfied, and do not desire any alteration of existing conditions as affects myself; but I am of opinion that, when new dental appointments are made by hospitals requiring efficient dental departments, the cost of the instruments, materials, etc., should be defrayed by the institutions benefited. If the dental surgeons were to express willingness to do the better work, and the hospitals were to decline to provide the expenses, the onus of bad dental departments would be entirely thrown upon the authorities. But there is now a great competition amongst the hospitals, each vying with the other as to which shall have the most complete administration and the best teaching, and as they undoubtedly wish to improve their dental departments, I have yet to learn that they will demur to furnishing the means. At St. Bartholomew's all the working expenses are supplied at the cost of the hospital, and an annual sum of £250 is divided amongst the four dental surgeons appointed, made up thus: the Treasurer pays £50 a year to each senior, and £25 to each junior; and the school pays an additional £25 a year to each of the four. On the one weekly occasion when each senior attends he is assisted by his corresponding junior, and between them they see twenty or thirty patients, and they do what they can to preserve some of the teeth at this sitting by stopping. Having so many patients to see, many of whom require gas, it is obvious that little can be done in the way of stopping. I recently made a formal visit to St. Bartholomew's the day when my friends Mr. Paterson and his junior, Mr. Ackery, were sitting. They did not profess that their stoppings done under such conditions were up to the standard of their work in private practice, and no gold fillings were attempted. Each assistant also attends three times a week for extractions. The assistant dental surgeoncies are dependent appointments.

There is, of course, an advantage in numerical strength, though it leaves them still hopelessly unable to cope with even a small percentage of their cases. And there is this drawback: such a corps could not expect to be placed on the staff of the hospital, and, in fact, no dentist at St. Bartholomew's has a seat on the staff committee. The number seems to me more than sufficient for the requirements of a general hospital and school for medical students, yet insufficient for a dental hospital and school for dental students. Such a staff of dentists could well afford to keep their extraction cases separate from their other operations and could then do their best work. They are, however, utterly unable to give dental students the practice and teaching offered by the dental hospitals, as a cursory visit to one of those institutions will show. Yet, London, St. Bartholomew's, and some other hospitals have the right to sign-up dental students for the dental practice required by the College of Surgeons. This privilege, never exercised, imposes a grave responsibility on the dental department of such a hospital. London Hospital, in its Calendar, says: "The attention of dental students is particularly directed to the fact that the Council of the College of Surgeons recognises the dental department of the London Hospital as a school at which may be obtained the dental practice necessary to qualify a student for the examination for the dental diploma."

In the foregoing sketch I have tried to show how a creditable dental department can be carried on by two dental surgeons, and at very moderate cost. Doubtless other hospitals will take the matter up, and will see that dental surgery is duly represented amongst the special branches of surgery.

SURGICAL MEMORANDA.

COCAINE IN TRACHEOTOMY.

SINCE the introduction of cocaine, neither I nor my colleagues at the Central London Throat and Ear Hospital have employed chloroform when performing tracheotomy, but have in substitution injected five minims of a ten per cent. solution of cocaine on each side of the immediate region at which the trachea is to be opened. Ten to twelve minutes have been allowed to elapse before commencing an operation, and in the majority of instances pain has not been felt even from the first incision through the skin. Local anæsthesia has been maintained sufficiently long to allow of a careful and leisurely performance of the operation, without, however, encouraging that undue tediousness against which Mr. Christopher Heath has recently spoken so opportunely, as a besetting fault of modern surgeons who operate under chloroform.

My experience with cocaine in tracheotomy would be represented by about forty cases; we have had twenty in the hospital and in my private practice during the last year. I have witnessed its good effect especially in the last fortnight, during which time I have had occasion to perform the operation four times, all the cases being on account of cancer, and occurring in patients aged 75, 58, 77, and 54 respectively.

Beyond the advantages of cocaine as a local anæsthetic, this remedy so applied has the effect of depriving the part of blood, and thereby diminishing hæmorrhage during the operation, whereas with chloroform and ether the contrary effect is often produced. It also quiets the breathing and steadies the larynx in cases in which respiration is seriously hurried. In only one case have I seen any toxic action, and that was at once remedied, when the trachea was opened and a full flow of air admitted into the lungs.

LENNOX BROWN, F.R.C.S.Ed.

Weymouth Street, Portland Place.

TREATMENT OF CARBUNCLE.

THE treatment of carbuncle by erosion, as now advocated, is no doubt speedy and effective, but seems severe for ordinary cases. I have been for some years in the habit of treating carbuncle by injecting three or four times a day a solution of a drachm and a half of carbolic acid in eight ounces of water, by means of a small glass syringe. This can be done as soon as an opening, however small, appears. If there is more than one opening, the fluid injected will pass out through all the other apertures. After syringing I apply a small fold of rag soaked in the carbolic lotion, and over this a warm linseed poultice.

I advise a good diet, stimulants in strict moderation, and sometimes a course of the sulphide of calcium. Under this treatment the slough at once ceases to extend, and is soon washed away in shreds by the injections, and the swelling and hardness rapidly disappear.

I have hitherto had no case that has not yielded rapidly to this simple and rational mode of treatment, which I have no doubt has often, with whatever modifications, been adopted by many others.

HENRY LOWNDES, M.K.Q.C.P.I.,

Consulting Surgeon Northern Hospital.

Liverpool.

THERAPEUTIC MEMORANDA.

ACETIC ACID AND ERGOT.

SINCE Dr. Grigg called attention to the value of vinegar as an æbolic, I have frequently used it for that purpose. And I have also found that four drops of the strong acetic acid (representing nearly half a drachm of vinegar) combined with strychnine has been successful in bringing about contractions of the uterus after ergot had failed. In one noteworthy case where in a very weak and anæmic woman the pains, after continuing feebly for a day or two, seemed to be leaving her, and ergot had been exhibited (the waters having broken), I found acetic acid and strychnine produce sharp and effectual pains.

The same thought, therefore, occurred to me as to Dr. Francis, of the possibly good results of combining it with ergot, and, in addition, observing that acetic acid could extract the active principle from colchicum and ipecacuanha, I asked Messrs. Corbyn to make a preparation of ergot, using acetic acid as a menstruum, with a standard surplus of free acid. In a short time I received

from them two samples, one of ergot extracted by acetic acid, of which a fluid drachm represented sixty grains of ergot with ten minims of free acid; the other an alcoholic extract of ergot, which also represented sixty grains of ergot and ten minims of free acid in each drachm.

Both preparations had the colour of the ordinary extracts, but the acetic acid frothed when shaken, which, of course, the alcoholic extract did not do. The acetic acid process should be more economical than the spirit method.

In a case where there was retained discharge after labour I gave some of this extract, and when the medicine was exhausted wrote a prescription for a similar dose of *B.P.* extract, to which I also added some bromide of potash, which is stated to aid the involution of the womb. The case was still unrelieved on my next visit, the uterus being obviously distended, so, after syringing out the cavity, I told them to have the medicine made up again, when the patient said, "Oh, sir, the medicine you gave me at first brought away something every time, but this medicine has done no good." This seems like a comparative test in favour of the acetic extract.

In a case of flooding, due to a large fibroid, I found that twenty minims injected deeply into the buttock gave rise to no local irritation, and there was no bleeding the night following, but there needs further experience before attributing this result to the drug. Ergotine discs did not always control it.

Bournemouth.

G. S. MAHOMED, M.R.C.S.

CARBOLIC ACID IN PERTUSSIS.

THE results of the following four cases of whooping-cough treated by glycerine of carbolic acid of the *B.P.* may be of interest. I give them in the order in which I find them in my casebook, without comment.

1. G. W., male, aged 7 years, suffering from whooping-cough, with roughened breathing over right apex, but otherwise healthy, had a week before I saw him; given 2-minim doses of glycerine of carbolic acid in simple syrup every third hour: distinct improvement on third day; cured in two weeks from beginning of treatment. Carbolic acid given only every fourth or fifth hour on second week; no other treatment; no complications.

2. F. W., female, aged 2 years, similarly affected, had six days before treatment was adopted; given 1 minim of glycerine of carbolic acid in tr. gent. co. No improvement till fourth day, when patient retained nourishment on the stomach, which she had not been able to do for some days previously owing to the severity of paroxysms. The cough gradually disappeared, and the little sufferer was all right in seventeen days.

3. C. W., female, aged 4 years, got $1\frac{1}{2}$ minim of glycerine of carbolic acid every third hour; progressed favourably till twelfth day, when she had a rigor. On examination of chest next day, there were well-marked evidences of croupous pneumonia over right lung. Continued glycerine of carbolic acid every second hour. Worse next day. Vin. ipecac. and spt. am. arom. added. Complained of pain in stomach and soreness of throat on following day; carbolic acid stopped. On seventeenth day seemed better, but left lung affected similarly to right. Died on sixth week from onset of double pneumonia.

4. J. B., female, aged 14 months, also suffering from capillary bronchitis; fifteen days bad before seen; $\frac{1}{2}$ minim of glycerine of carbolic acid administered every third hour, in combination with tr. senegæ. All right in three weeks; no other treatment adopted.

G. E. J. GREENE, L.K.Q.C.P. and S.I.,

Medical Officer, Forns District.

SALIX NIGRA.

DR. J. HUTCHISON, Glasgow, in the *JOURNAL* of February 13th, draws attention to the adulteration of salix nigra by elm bark, but a more probable and less easily recognised form of adulteration is that by salix phylicifolia L. (the ten-leaved willow). To discriminate between the two in the dried state is simply impossible; only a very experienced botanist can say which is *S. nigra*, and that only by examining the fruit or drying the leaves, those of nigra always turning dark. For this reason, I doubt if ever there has been a pound of genuine *S. nigra* bark in the market, the common *S. phylicifolia* being usually so named.

The trees under consideration differ so slightly from one another that most botanists consider "nigra" but a form of the other. There is, on that account, probably but little difference in their medicinal virtues if they possess any special virtues at all. In the

fresh state "nigra" possesses more tannin, and the leaves and shoots possess some form of albuminous matter, only present in the very young leaves.

I trust some of your readers will be able to throw more light on the doubt here raised.
ANSTRUTHER DAVIDSON, M.D.
Sanquhar, N.B.

CARBOLIC ACID IN NASAL CATARRH.

LAST summer I prescribed, for a gentleman, the mouth lotion as follows: B Acidi carbolici. ℥iv; spt. chloroform. ℥iij; tr. myrrh. ℥ij; eau de Cologne ad. ℥vj. This of course to be used with water.

Suffering severely from nasal catarrh, he consulted an eminent throat specialist, who ordered some powder to be sniffed through the nostrils. This treatment he continued for the prescribed time without benefit; so he tried my mouth lotion, and putting a few drops of that into about an ounce of water, sniffed it up instead of the powder; this immediately and completely relieved every symptom of the troublesome complaint. The watery discharge and the constant sneezing ceased, so also did the distressing pain in the frontal sinuses and nasal passages.

I suppose that in this case the disease is due to the development of germs, which are completely destroyed by the carbolic acid. It would be interesting to find out whether some severe cases of hay fever would be cured by similar treatment; but, instead of using the somewhat clumsy contrivance of a tube, I would suggest a spray apparatus.

Wimpole Street. NATHANIEL STEVENSON, M.R.C.S., L.D.S.

PHENACETINE.

WILL you permit me to call the attention of the profession to a new antipyretic and antineuralgic agent, called "phenacetine," though, correctly speaking, it bears the chemical name of paracetphenetidin, the formula of which is $C_9H_9 \begin{cases} O.C_6H_5 \\ NH(CO-CH_3) \end{cases}$.

It can be given with perfect safety in doses of from eight to twelve grains every four hours. Phenacetine is a febrifuge which compares favourably with any of the modern antipyretics in the certainty of its effects and freedom from evil consequences. In fevers its administration is followed by relief of the symptoms; and in sciatica, in which I have employed it very frequently, its utility cannot be overrated.

Phenacetine is a white, crystalline powder, soluble with difficulty in water, but easily so in hot alcohol.
ROBERT BELL, M.D.
Glasgow.

PATHOLOGICAL MEMORANDA.

CONGENITAL UMBILICAL HERNIA.

MRS. S., aged 32, primipara, was delivered at term, after normal labour, of a male child, which presented the following condition of parts:—On a level with and a little to the right of the umbilicus was an opening about two inches in diameter, through which protruded the caecum, ascending and greater part of transverse colon, much distended with flatus and meconium, and which had evidently severely suffered from uterine pressure, as it was bruised and extravasation had taken place from a few small ruptures. The whole of this hernia lay loose on the child's body, reaching down to the upper part of the thigh. It could not be replaced, nor more bowel withdrawn. The child lived for twenty-four hours. No history of "maternal impression" was forthcoming.
L. EASTWOOD, L.R.C.P. and S.Ed.

Darlington.

A CASE OF CEREBRAL ABSCESS.

Mr. HORSLEY concludes the narrative of a successful case of trephining for cerebral abscess with a brief reference to fœter of the pus as indicating its connection with otitis media. In this regard it may be interesting to record the fact that only a few days ago I had occasion to make a *post-mortem* examination of a case of cerebral abscess, in which there was most marked fœter of the pus therein contained, although a minute examination of both petrous bones and the cranial wall generally failed to reveal any evidence pointing to the secondary origin of the cerebral

A short note on this drug will be found in the Retrospect for 1887, Art Pharmacology and Therapeutics, p. 1429.

lesion. The abscess was situated in the white substance of the right hemisphere, immediately beneath the "motor area," and extending down to, but not through, the roof of the lateral ventricle.

I may mention that the only other lesions found in the body at all explanatory of the condition were caseation and suppuration of the left bronchial glands, and an acute miliary tuberculosis of the kidneys. By these evidences I was led, though with much hesitation, to conclude that the cerebral abscess had originated in some acute suppurative change in a solitary caseous mass in the right hemisphere.
ALFRED G. BARRS, M.D.,
Assistant Physician to the General Infirmary at Leeds.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES

ST. BARTHOLOMEW'S HOSPITAL.

EXCISION OF THE KNEE-JOINT FOR OLD DISEASE: ENDS OF THE BONES FIXED TOGETHER BY STEEL PINS.

[Under the care of Mr. MORRANT BAKER.]

(For the notes of the case we are indebted to Mr. RICHARD J. REECE, late Senior House Surgeon.)

THE following case is a good sample of the benefit derived from fixing the bones after the operation of excision of the knee-joint. The method adopted was that to which Mr. Morrants Baker drew attention in a paper published in the JOURNAL of February 12th, 1887.

J. H., aged 32, housewife, was admitted into "Sitwell" ward on March 12th, 1887, suffering from old disease of the right knee-joint. She states that eighteen years ago she knelt on a rusty pin, which penetrated the joint just below, and to the inner side of, the right patella. She pulled out the pin and continued her usual work, although in severe pain. At the end of a week the leg and thigh became swollen and inflamed; there was pain on pressure and insomnia, and on applying to the hospital she was admitted to "Stanley" ward. Shortly after admission the knee-joint was opened on the inner side by an incision an inch and a half long, and some incisions made in the neighbourhood to relieve pain. About a month later the joint was again opened, under chloroform, on the outer side, and still later reopened from the inner side. Patient remained in the hospital six months, and when discharged had no pain, and the limb was nearly straight and she could walk on it.

Until three months ago she had no trouble with the knee, but from that time until the present it has been gradually getting worse, more painful and more flexed, and walking has been only accomplished with great difficulty. The patient was quite willing to undergo amputation if no other means of relief could be afforded.

Family History.—Father and mother died of phthisis. Two brothers healthy.

Present Condition.—The knee-joint is enlarged, misshapen; the leg flexed to an angle of 65° with the long axis of the femur, and rotated outwards. The tibia is displaced backwards on the condyles of the femur. There are three scars, one on the inner side of the leg, 3 inches long by 1½ inch wide; another opposite the centre and lower part of the joint, 2½ inches by 1½ inch, and the third on the outer side of the lower part of the thigh, 3 inches by 1 inch. There are also other small scars scattered about the neighbourhood of the joint. On examining the knee-joint, very slight movement can be detected. The patella situated on the outer side of the external condyle of the femur, and firmly ankylosed—the place where it ought to be feels soft and grooved. Down the inner margin of the tibia for about an inch or two, a nodular condition of the bone is felt, and on examining the site of the large scar on the inner side of the knee, a small nodule can be detected which is very painful on pressure. The knee-joint measures 14 inches in its largest circumference.

Operation.—March 23rd. Ether was administered to the patient and Mr. Morrants Baker performed excision of the knee-joint. An incision was made across the front of the joint commencing on the inner side, and the skin reflected upwards over the patella.

The position of the joint could not be distinguished; what was taken to be the inner tuberosity of the tibia was then sawn off and an attempt made to bring the limb into a straight position; this failing, a portion of the bone from the proximal side was removed with a saw, the section passing through the centre of the patella. A further piece of bone was sawn off the distal end, and removed with the lower part of the patella. The first piece of bone removed was then found to be the inner condyle of the femur. The remaining half of the patella was then separated from the outer condyle of the femur and removed. The limb was brought straight and put up on a back-splint with a foot-piece. There was some bleeding stopped by ligature. The contiguous surfaces of the bones were kept in apposition by two steel pins, inserted into the bones from below, passing through the skin, one on the outer, and the other on the inner side. The skin flaps were sutured by horsehair, and a piece of gutta-percha tissue inserted on each side for drainage. The wound was dressed with "Sanitas" oiled lint, covered by a thick layer of absorbent cotton wool.

March 24th. During the night some pain in knee and heel.

March 25th. Pain relieved by altering position of foot.

March 30th. Urine, drawn off by catheter, contained a trace of albumen.

April 3rd. Can move leg in splint without pain.

April 5th. Wound dressed. The wound has healed by first intention, except for an inch and a half at inner side, and for about half an inch at outer extremity, where tissue has been introduced. All the sutures except three at the inner extremity of the wound, and both pieces of tissue, removed. No swelling, pain, or tenderness around the wound. Wound dressed as before. General condition good; takes food well; sleeps well.

April 6th. Has had difficulty in retaining her urine during sleep, and pain before the act of micturition. Thick sediment of pus in urine.

April 13th. Patient has recovered power over her bladder since the 10th.

April 15th. Wound dressed again to-day. No pain or tenderness in limb, which is in good position.

April 21st. Wound dressed again; looks healthy. Patient can now raise the limb several inches off the bed unaided, and can also rotate the limb without any pain.

April 27th. Mr. Baker removed the back splint and the steel pins. Limb put up on a straight back-splint. Patient feels comfortable. Urine, acid, 1020; no albumen or sugar.

April 29th. Experiences no pain when the sole of the foot is struck with the palm of the hand.

May 3rd. Can raise the limb considerably on the back-splint without any pain.

March 10th. Patient gets about the ward on crutches, not venturing to bear weight on the limb.

March 16th. Leather splint for thigh and leg.

June 1st. Patient went to the Hospital Convalescent Home at Swanley.

On the evening of March 30th the temperature rose above normal for the first time, reaching 99.6°, falling to subnormal next morning, and continuing subnormal until patient left the hospital.

August. Patient has been seen lately, and can walk well with a thick sole to her boot. She is to wear a leather splint round the thigh and leg for some time.

BRISTOL ROYAL INFIRMARY.

A CASE OF INTUBATION OF THE LARYNX IN THE ADULT.

(Under the care of Dr. WALDO.)

[For the report of the case we are indebted to Mr. P. WATSON WILLIAMS, M.B.Lond., House Physician.]

H. S., a married woman, aged 42, was admitted on October 5th, 1887, for syphilitic ulceration of the larynx and bronchitis. She had been ill, losing flesh and getting thinner for the previous twelve months, and had the characteristic raucous voice of tertiary syphilis; the expectoration was mucous; the pulse was 96, and the respirations 22 per minute; the temperature was 101.6° F. Examination of the throat showed scars of old ulcers on the fauces and soft palate, and an old perforation of the velum, all these parts being red and injected. The epiglottis had almost entirely ulcerated away. The ary-epiglottidean folds were red and somewhat thickened, preventing the anterior commissure of

the glottis being seen. Both vocal cords had ulcers on their free margins about a line from the posterior commissure.

The patient did well till October 7th, when she complained of difficulty in breathing and a feeling of obstruction in the chest, not in the throat. Respiration was a little croupy. In the evening Mr. Watson Williams was called in great haste, and found the patient propped up in bed, livid, struggling for breath, covered with clammy perspiration, with a rapid, feeble pulse, and only half conscious. A few whiffs of chloroform were administered, but so little air entered the chest that no more time was wasted in giving an anæsthetic, and the largest-sized O'Dwyer's tube was placed in the larynx forthwith, the silk thread being left attached to the tube. The intense dyspnoea was immediately relieved, and the patient recovered consciousness completely after a short interval of delirium. She was put into a steam bed. The tube was coughed out four hours later, but she asked that it might be replaced; and, as respiration soon became embarrassed, it was reinserted with ease, but was again coughed out in the night. No operative interference was called for after this till October 11th, when dyspnoea once more became marked, and, at the patient's request, she was intubated, but after the tube came out in the course of the day it was not required again. The patient left the infirmary on November 11th, having been perfectly free from respiratory embarrassment for three weeks.

REMARKS BY MR. WATSON WILLIAMS.—One cannot of course argue at length on the merits of intubation in the adult on the strength of a single case, but it is certainly of great moment to adopt such simple measures for the relief of dyspnoea due to temporary obstruction of the glottis, instead of resorting to tracheotomy with its additional dangers and obvious disadvantages, being in itself a painful operation requiring an anæsthetic, and often involving difficulties in leaving off the tube after the obstruction in the glottis has disappeared. So simple is the process of intubation that this patient could bear it apparently without discomfort after the cocaine spray, and declared that she "did not mind it much." The largest-sized O'Dwyer's tube being intended for a child 12 years of age was, of course, too small for the patient, and was too readily coughed out, for which reason the silk thread attached to the tube on insertion was not removed, as it is always well to do when intubating children. Had it been of a suitable size for an adult larynx, it would have remained *in situ* and been readily borne, if necessary, for several days consecutively. The patient in this case had some slight difficulty in swallowing fluids, which always set up coughing, but, considering how little epiglottis she had left to cover the tube, she managed very much better than one would have expected. I would therefore strongly recommend intubation in œdema of the glottis as being more effectual and easier of accomplishment than scarification of the larynx, and just as effectual but less dangerous and objectionable than tracheotomy. At any rate, I venture to think that it should always, if possible, be given a trial before proceeding to tracheotomy, which, I am well aware, has been very successful in these cases.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 3RD, 1888.

Sir JAMES PAGET, Bart., F.R.C.S., F.R.S., President, in the Chair.

Intestines in Diphtheria.—Specimens of intestines from three cases of diphtheria were exhibited by Mr. COLMAN. Diphtheritic lesions were present in the pharynx and larynx. The spleen was not enlarged in any of the cases, and the œsophagus and stomach were healthy. Peyer's patches and the solitary glands in all three cases were enlarged, and all the lymphoid structures were injected, and the mesenteric glands were enlarged. A similar acute swelling of Peyer's patches had been observed by Dr. John Harley in scarlet fever.—Dr. WILKS thought that the cases illustrated how much there was in common in the various specific fevers. In cholera the great enlargement of the solitary and agminated glands was remarkable. Dr. Vandyke Carter had described changes of the same nature in malarial fevers. The condition of the intestinal glands in diphtheria closely resembled that seen in typhoid fever. If these glands were so commonly affected in other specific diseases, it would tend to negative the theory that in typhoid fever the virus first established itself in them, and from thence infected the whole organism.—Dr. COUPLAND, though he

had seen the enlargement of the glands, had never observed the ulceration which was so characteristic of typhoid. Dr. Vandyke Carter had observed such ulceration, and that observation tended to break down the sharp distinction which had been drawn between the morbid process seen in the intestines in typhoid and in other specific fevers.—Dr. NORMAN MOORE referred to the existence of so-called typho-malarial fever. If it could be shown that ulceration of the intestines was an occasional incident in such cases, but characteristic of typhoid, it would explain the occurrence of such cases.—Mr. COLMAN, in reply, said that there was no ulceration in the cases he had observed, but quoted Dr. Barlow, who had stated that he had in one case of uncomplicated diphtheria seen ulceration of the intestine.

Articular Lesions in Gout and Cirrhosis.—Dr. NORMAN MOORE: 1. Knee-joint from a case of gout, a man aged 40, showing a deposit of urate of soda in part of the synovial fringe. Deposit in this situation was rare, the commonest regions for a deposit being the articular surface of the patella, and the intercondyloid groove of the femur next the condyles, then the semilunar cartilages, and last the surface of the tibia. The patient had granular kidneys and a hypertrophied left ventricle and well-marked emphysema of the lungs. In the synovial fluid of both knees and both ankles there was a floating deposit of urate of soda, and the fluid itself was thicker than natural. Besides the knees and ankles, several joints of the foot showed deposits of urate of soda, but there were none in the hands or shoulders, and none in the hip. 2. Knee-joints from two cases of cirrhosis of the liver, showing degeneration of cartilage, erosion, eburnation and lipping, from a male patient aged 67, and a female aged 61. This condition in a greater or less degree was the common one in the joints of patients with cirrhosis of the liver. Out of twenty-four cases of cirrhosis of the liver, urate of soda was found in only three, while twelve showed these degenerative changes.—Dr. W. B. HADDEN said that it was rare to find uric acid deposits in the joints in cases of cirrhosis of the liver. As cirrhosis was undoubtedly due to alcohol, the fact threw some doubt on the supposed relation between alcohol and gout.—Dr. WILKS said that the kidneys and liver were not commonly affected together by alcohol; in the majority of the cases of cirrhosis of the liver the kidneys were not affected, whereas they were commonly diseased in gout.—Dr. COUPLAND questioned whether it was safe to associate the erosion of cartilage with the visceral lesion, and referred to Mr. Arbuthnot Lane's views as to the influence of long continued pressure due to special occupations.—Dr. NORMAN MOORE said that in large pale kidneys, commonly attributed to beer drinking, it was very rare to find urate of soda deposited. He thought it desirable that careful observations should be made on the influence of various alcoholic beverages on the anatomy.—The PRESIDENT referred to the report on alcohols recently presented to the Académie des Sciences, which showed that alcoholic beverages contained many and various secondary products due to the mode of manufacture which might have very varying effects on the economy.

Cardiac Cyst.—Dr. HADDEN brought forward a specimen of cyst in the heart. The patient was a woman, aged 66, who died from cirrhosis of the liver. There were no symptoms pointing definitely to the condition of the heart, and nothing in the history to explain the origin of the cyst. It was $1\frac{1}{2}$ inch in diameter, globular, thin walled, and situated in the inter-auricular septum. The contents were pink and microscopically were found to consist of finely granular fatty material. The walls of the cyst were of loose fibrous tissue. There was no evidence that the cyst was hydatid, dermoid, or serous. Its nature and origin were obscure.—Dr. G. N. PITT showed a small closed cyst projecting on the ventricular surface of the mitral valve; it had contained a puriform fluid which, however, was found to consist entirely of cholesterine and debris without any pus. As the arteries were atheromatous, he thought that the cyst was also of that nature.

Malignant Disease of the Air-Passages.—Three cases of malignant disease of the air-passages were brought forward by Dr. FELIX SEMON and Mr. SAMUEL G. SHATTOCK. The first was one of alveolar sarcoma of the larynx in a patient, aged 81. Hoarseness, gradual loss of voice without pain, and dysphagia, were the chief symptoms, together with abundant expectoration of frothy, sometimes sanguinolent, sputum. Dr. Semon was consulted on account of considerable aggravation of the dyspnoea. A fortnight previously the diagnosis of bilateral paralysis of the glottis-openers had been made. The patient would not permit a laryngoscopic examination. The larynx was slightly tender on pressure, and on the right half of the cricoid there was a hard swelling,

apparently intimately connected with the cartilage, and of the size of a hazel nut. There was complete aphonia, and respiration was stridulous, but not sonorous in character, expiration, as well as inspiration, being affected. Dr. Semon arrived, by exclusion of other possibilities, at the probable diagnosis of malignant disease of the larynx, the nature of the dyspnoea and the aphonia rendering bilateral abductor paralysis highly improbable. The patient would not submit to tracheotomy, which was advised. Two days afterwards death took place from asphyxia. Examination of the parts showed an extensive, though nowhere very prominent, swelling, extending over the greater part of the laryngeal cavity, below the cords, which were involved in the disease, and lay almost in apposition. The growth extended through the cricothyroid space, and appeared externally in front of the larynx. The mucous membrane over a large area of the growth was villous. This condition was quite independent of any ulceration, and was one that might in certain cases be of much clinical importance. Microscopic examination showed the growth to be an alveolar sarcoma. The total number of cases of sarcoma of the larynx hitherto recorded did not exceed 50, and in none had the age of the patient been so advanced as in the present case. In the second case there was epithelioma of the right half of the larynx, with an epitheliomatous insula on the left vocal cord. The patient, a gentleman, aged 57, was seen by Dr. Semon on October 12th, 1887, on account of hoarseness without pain or dysphagia. Laryngoscopic examination showed a widespread, red infiltrating mass, involving the whole of the right half of the larynx, except the epiglottis. There was no history of syphilis, and the other organs were healthy. On October 21st Mr. Butlin saw the patient, and shared Dr. Semon's views as to the malignant nature of the disease. Extirpation of the right half of the larynx was performed by Sir William MacCormac on November 1st, 1887. The patient died from pneumonia on the third day after the operation. The presence of a small isolated growth on the lower surface of the left vocal cord was only ascertained at the time of operation by means of an electric lamp introduced into the larynx. It was excised by a circular incision in the healthy parts around it. Microscopic examination showed the growths on both sides of the larynx to be similar and epitheliomatous in kind. The case illustrated the necessity of arriving at a diagnosis of malignant disease of the larynx in certain cases by clinical symptoms only, without the aid of the microscope; since the infiltrating nature of the growth would have rendered the intralaryngeal removal of fragments for microscopic examination impossible. The presence of the isolated growth on the left cord was one of the class of facts that might be interpreted as evidence of a direct cancerous inoculation, although, in the absence of direct experiment, it might always be held in argument that the spot opposed to the primary tumour was, by the advent of an inflammatory process, only prepared to become cancerous for the same general reason which lay at the bottom of the original disease. At any rate, facts of this character were exceedingly rare, and no case of laryngeal carcinoma similar to the one now recorded had, so far as Dr. Semon and Mr. Shattock knew, been reported. Professor von Bergmann had recently shown to the Berlin Medical Society a case of carcinoma of exactly opposite spots of the upper and lower lips. The third case was an example of intratracheal carcinoma continuous with carcinoma of the thyroid. The patient was a man, aged 39, under the care of Dr. Ord and afterwards of Dr. Sharkey in St. Thomas's Hospital. The chief symptoms were hæmoptysis of some standing, emaciation, cough, and night sweats. There was paralysis of the right vocal cord and rather indistinct pulmonary symptoms. As regards local signs, there was some thickening external to the trachea low down, and laryngoscopic examination revealed what appeared to be tracheal ulceration just at the lower border of the field of vision. All symptoms present in the case appeared compatible with the diagnosis of tubercular disease of the lung and trachea, but no bacilli were found in the sputum, and towards the end of the patient's life Dr. Sharkey, who watched the last stages, entertained a strong suspicion of malignant disease of the trachea. Death ensued from increasing hæmoptysis. At the *post-mortem* examination double pneumonia affecting the lower lobes was found, and a smooth ovoid growth projected into the trachea from the anterior aspect about 1.5 centimetre below the lower border of the cricoid. Sections showed an extensive submucous infiltration, the tumour substance spreading between the tracheal cartilages to the thyroid gland and to the exterior of the trachea below the latter. The right recurrent laryngeal nerve was found to enter

the mass of malignant disease which lay around the trachea. The histology of the growth was that of cylinder-celled carcinoma; the investing epithelium of the trachea was not involved. As the tumour was traced outwards its thyroidal nature became plain. The cell columns had everywhere a lumen, and were formed by a single cell layer. This form of thyroidal carcinoma was very rare. Wölfler had recited seven cases collected from different authors, and figured a specimen very like the present. It was also remarkable that the extension into the trachea took place in the form of a well-defined, comparatively large tumour, and not, as usual, by mere infiltration of the tracheal walls.—Mr. GODLEE referred to two cases of thyroid tumour, in which the secondary tumours were situated in bone.—Dr. PITT, in connection with the theory of the transmission of malignant diseases by contact, referred to the frequency with which growths secondary to malignant disease of abdominal viscera occurred in Douglas's pouch.

Mediastinal Tumour involving the Heart.—Dr. HANDFORD showed a specimen of mediastinal tumour taken from a man aged 45, who had complained of cough for six months and a half. His chief trouble was dysphagia, which eventuated in complete inability to take food by the mouth. He died from slow hæmoptysis. A mediastinal carcinoma was found after death, which involved the lower lobe of the left lung. The left auricle was also implicated, and communicated by a small opening, which was probably the source of the hæmorrhage, with the pericardial sac, which contained blood-clot, and also an irregular sloughy cavity between the roots of the lungs. With this cavity the trachea and bronchi, the walls of which were extensively destroyed, freely communicated. The œsophagus was not involved in the growth, and was not strictured, but communicated with the same cavity by three openings, one of which was more than an inch long. There were numerous secondary growths in the liver, which, on microscopic examination, presented typical alveolar stroma of scirrhus. In a very similar case mentioned by Dr. Spacciati (*Lo Sperimentale*, January, 1888) the left auricle was involved, but not perforated. The œsophagus presented two small perforations, and death occurred from inanition from difficulty of swallowing. A third case was described, where death had been due to pulmonary hæmorrhage. There was a carcinoma of the root of the lung, spreading along the bronchi and blood-vessels into the lung, and secondary growths in the humerus, muscles, and kidneys.

Cystic Kidney.—Dr. H. W. G. MACKENZIE showed a kidney with cysts containing calculi. The patient, a woman aged 69, died of cerebral hæmorrhage; and the arteries were atheromatous and the left ventricle hypertrophied. Both kidneys were cystic, but in the right only calculi existed. The largest of the calculi was about the size of a small bean, the others, about thirty in number, were about the size of coriander seeds. They were highly polished, very hard, consisted of oxalate of lime, and weighed together 13½ grains. The kidney was not enlarged, and contained, besides numerous small cysts, two large ones an inch in diameter in the cortex. The largest calculus was contained in the largest cyst, a number of others were contained in the second cyst, and the remainder were in the small cysts. There was no calculus in the bladder, ureter, or pelvis. No communication existed between the cysts and the pelvis. No such case had previously been brought before the Society, but Dr. Dickison referred in his work on *Diseases of the Kidneys* to a somewhat similar specimen in the Guy's Hospital Museum. Assuming that the cysts were the result of obstruction of tubules, either the obstruction must have been incomplete or the cysts must have communicated with non-obstructed tubules so as to permit some flow of urine through the cysts. The cysts were not due to the calculi, as the presence of cysts in the other kidney without calculi showed. He thought that it was not improbable that the cysts were due to obstruction by small concretions.

Card Specimens.—Mr. EVE: Cyst of Spermatic Cord, originating in the Organ of Giraldo's.—Dr. F. J. SMITH: Aortic Stenosis.—Dr. HANDFORD: 1. Simple Hypertrophy of Kidney. 2. Multiple Tubercular Strictures of Intestine.—Mr. FENWICK: 1. Vesical Carcinoma. 2. Prostatic Carcinoma.—Dr. DREWITT (for Dr. CHOLMELEY): Lung from Case of Hæmoptysis in an Infant.—Mr. SEATTOCK: Recurrent Sarcoma of Thyroid associated with Hypertrophy of Accessory Thyroid.—Dr. HADDEN: Intestinal Concretions.—Dr. MORISON: Valvular Disease of Heart in an Infant.—Dr. PITT: 1. Caseous Gland Ulcerating into œsophagus and Stomach by Numerous Openings. 2. Hypertrophy of œsophagus associated with Hypertrophied Heart.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, MARCH 21st, 1888.

JOHN SMITH, M.D., LL.D., President, in the Chair.

Nephrotomy.—Mr. A. G. MILLER presented a report of three cases of nephrotomy. The general conclusion suggested by the results obtained was that nephrotomy for pyo-nephrosis and similar conditions was not a favourable method of treatment. The immediate result was often good, but, more especially in the young subject, the ultimate issue was bad. The tendency to sinus formation was very great. Such sinus was exceedingly intractable, particularly in the young, and in a large proportion of cases led to the supervation of amyloid disease. When surgical interference was necessary, Mr. Miller believed that nephrectomy was a better operation.

Respiratory Neuroses.—Dr. ANDREW SMART described some forms of respiratory neuroses which had come under his attention in the out-patient department and in the special ward for alcoholic patients. Charts were exhibited illustrative of various rhythmic alterations in the respiratory tracing, to which Dr. Smart believed attention had not yet been drawn. Ingenious theories were elaborated in explanation of the phenomena.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SURGICAL SECTION.

FRIDAY, MARCH 9th, 1888.

A. H. CORLEY, M.D., Pres. R.C.S.I., in the Chair.

Subcranial Hæmorrhage treated by Secondary Trephining.—Mr. THOENLEY STOKER said this case was that of a man, aged 50, who was received into the Richmond Hospital four days after he had fallen from a cart and sustained such injury that he became insensible. At the time he came under observation he was in a state of stupor, with left brachial motor-monoplegia and a very partial paralysis of the facial nerve on the same side. The left leg showed a barely detectible motor insufficiency. There was no sensory paralysis, and the pupils were responsive and symmetrical. A bruise simulating depressed fracture existed in the scalp over the upper part of the right fissure of Rolando. No accurate history could be obtained, and it was not possible to say whether his symptoms were of apoplectic origin or due to pressure on the surface of the brain, the result of laceration of a meningeal artery. This uncertainty as to the nature of the case caused delay in operating. On the ninth day of the case the man had become worse, and was evidently dying. He was completely hemiplegic on the left side, profoundly comatose, could swallow in the most imperfect manner, and breathed with stertor only twelve or fourteen times in the minute. The conclusion came to was that the symptoms were probably due to hæmorrhage between the bone and dura mater, dependent on a laceration, with or without fracture, of the middle meningeal artery. Although there had been, so far as could be ascertained, no complete recovery between the injury and the advent of the later symptoms of pressure, and therefore an absence of that interval so characteristic of subcranial pressure, yet, on the other hand, there had not been that even level of ills, or that uniformly downward path of symptoms, indicative of laceration or apoplectic pressure. The reading of the case, as expressed at the time, and fully borne out by its subsequent history, was this: 1. Hæmorrhage over the right motor area, between the bone and dura mater, probably due to laceration of the middle meningeal artery or one of its branches, most likely associated with fracture, and producing the partial left paralysis which at first existed. 2. Subsequent increase of the hemiplegia, either due to renewed hæmorrhage or to that sudden yielding of brain function which was repeatedly seen both in hæmorrhages or serous effusions which had existed for some time, even though no additional mechanical pressure was called into play. The existence of the scalp injury over the upper and back part of the motor area was of less value in indicating the seat of pressure than the opposite paralyses, which pointed clearly to the engagement of the greater portion of the right motor area, including the extensive surface occupied by the cortical centres for the various parts of the upper extremity, the face and tongue, and lower extremity, the interference with them being in the sequence in which they are written. As to the assumption that the pressure was cortical, and not apoplectic, it was founded on his belief in the absence of any sensory paralysis, and the teaching on that point, so well expressed by Ferrier,

who says that "strictly cortical lesions of the motor area do not cause anaesthesia in any form, and it may be laid down as a rule, to which there are no exceptions, that if anaesthesia is found along with motor paralysis, the lesion is not limited to the motor zone, but implicates also, organically or functionally, the sensory tracts of the internal capsule or the centres to which they are distributed." The cortical nature of the pressure was further supported by the existence in the early stage of the case of a pronounced brachial monoplegia, as it is well established that monoplegia is a condition due to interference with the cortex, and not usually found in more deeply situated lesions. Considering the whole story of the case, and in view of the inevitable death of the patient if not relieved by treatment, it was determined to trephine him. This was done on June 21st, the day on which he exhibited the pronounced conditions just described, and the ninth after his accident. The patient was completely comatose, and no anaesthetic was used. The injury over the fissure of Rolando was taken as the point indicated for operation, because, although not in the centre of the engaged portion of the motor area, a possible fracture existed there. A trephine with a diameter of 26 millimètres was applied, and, on the disc of bone being removed, the antero-inferior edge of the opening disclosed the edge of a well-formed blood clot. A second trephine opening was made immediately below and in front of the first, and an oval opening, measuring 52 millimètres, rendered available for removing the clot. At its centre the clot was so thick that the dura mater was distant from the cranium about 40 millimètres. Before the patient was taken off the operating table he moved his left arm and leg with tolerable freedom, asked for a drink of water, which he readily swallowed. An uninterrupted good recovery was made. The evening of the day of operation the paralysis and brain symptoms had all but disappeared, and he could pass water voluntarily. A day later he was in a perfectly normal condition as regards any brain symptoms. He was kept under observation until September 29th, when he left hospital. If another case resembling this offers itself for treatment, he would consider the propriety of making drainage as efficient as possible by forming a small trephine opening at the nearest accessible point to the lower edge of the line of separation between the cranium and dura mater. He was able to arrive at a conclusion justifying a useful operation by two circumstances—first, that he could, independent of any knowledge of a fracture enabling him to localise the hæmorrhage, put his finger over the motor area and say with sufficient accuracy, "There is pressure here over the cortical centres for the upper extremity; it extended downwards and forwards to those for the face; it afterwards reached upwards to those for the lower extremity." The sequence is anatomically perfect. First, a brachial monoplegia; then, as the blood or pressure effect extends, a facio-lingual; and, finally, a crural paralysis. Independently of these points, the case—as one in which no defined bone lesion served to localise the hæmorrhage—belonged to a class sufficiently rare to deserve notice. If he required any other apology for presenting it at such length, he would have it in the words of so eminent a surgeon as Mr. Hutchinson, who says, speaking of instances of effusion of blood between the bone and dura mater, "These are especially important, because generally supposed to be capable of relief by treatment. Yet it is a remarkable fact that the modern annals of surgery do not, so far as I am aware, contain any cases in which life has been saved by trephining for this state of things." On a careful study of the light which modern investigation had thrown on the localisation of intracranial pressure, and the security which modern surgical methods had given to the operation of opening the cranium, and bearing his clinical observation of deaths from doubtful intracranial accidents in mind, he had come to this conclusion for future guidance, that if he were in doubt he would operate.

Traumatic Subdural Abscess of the Brain and its Treatment by Trephining and Aspiration.—Sir WILLIAM STOKES referred to the statistical records of Abercrombie, Gull, and Sutton, which show that of cerebral abscesses the traumatic subdural forms are those which occur with least frequency. He also pointed out how, until comparatively recently, cerebral abscesses were considered as a rule a necessarily fatal condition, and that the reason they are no longer considered as such is due to the knowledge we have acquired of the localisation of cerebral function, injury, and disease, and also to our improved knowledge of the principles and practice of antisepticism. The author was of opinion that the advantages to be derived from trephining in such cases are more likely to be observed in these cases than in other conditions causing pressure, and alluded to eleven recorded cases operated on,

in five of which the recovery was complete. He then gave the details of two cases in which he had performed trephining in the Richmond Hospital, both of which were illustrative of the pathological fact noted by Dease, as to the late appearance of cerebral trouble after cranial traumatism. In the first of these cases he did not succeed in reaching the abscess, and the patient died; in the second, however, he did, and the recovery was complete. In this the matter was not reached until the needle of a hypodermic syringe was introduced to its full length. The relief was immediate. About an ounce and a half of pus was removed, and the abscess cavity then washed out with a 1 per cent. solution of carbolic acid. The author then mentioned the principal details of the cases that were operated on by Dupuytren, Roux, Fenger, and Lee, Rentz, Macewen, Hulke, Sir J. Paget, and Marshall, and from these as well as his own cases he considered the following propositions might be stated: 1. That after the primary symptoms of cerebral traumatism had subsided, there was frequently a latent period of varying length, during which there were no distinct brain symptoms connected with abscess formation whatever. 2. That their appearance was, as a rule, sudden, and, if uninterfered with, ran a rapidly fatal course. 3. That the occurrence of pus production resulting from cerebral traumatism was not incompatible with a perfectly afebrile condition. 4. That this latter fact would probably aid in differentiating traumatic cerebral abscess from meningeal or encephalic inflammation. 5. That both as regard colour and consistence there was great variety in the contents of cerebral abscess cavities, and that, as shown in Wilm's case, published by Rose, of Berlin, they might be transparent. 6. That antisepticism had largely diminished the risks of the operation of trephining. 7. That having regard to the great mortality of cases of cerebral abscess when uninterfered with, namely, from 90 to 100 per cent., the operation was indicated even when the patient was *in extremis*. 8. That in the case where the trephine opening did not correspond to the situation of the abscess, exploratory puncture and aspirations might be employed. 9. That by the adoption of this measure the necessity for multiple trephine openings could be largely obviated. 10. That the employment of a blunt-pointed aspirating needle, as suggested by Rentz, was probably the safest mode of exploration and excavation. 11. That drainage was desirable in the after-treatment of such cases. 12. That both during and subsequent to operation interference in these cases a rigid antisepticism was imperatively required.

Case of Traumatic Aphasia Successfully Treated by Trephining, and Removal of a Blood Clot from the Interior of the Cerebrum.—Mr. C. B. BALL read notes of the following case. F. B., aged 26, admitted September 1st, 1887. He stated that he had been struck on the head with a penknife ten days before coming under observation. He presented himself at another hospital immediately after the accident, but his case was not considered sufficiently urgent for him to be detained as an in-patient. Since the accident he had found difficulty in using the right word, as, for instance, he said he had a "man" in the side of his head when he meant "pain." He stated that the difficulty of speaking and pain in his head had increased considerably during the last few days. Upon examination a small scab was found adherent to the scalp, over the squamous portion of the left temporal bone; this, when detached, showed a cicatrix apparently extending deeply through the temporal muscle, but the wound was quite healed. Classifying the symptoms presented by this patient during his stay in hospital, it was found that his motor aphasia was to the extent of being unable to name articles which were shown to him, correctly, while in speaking he constantly used wrong words or parts of words. Although he was able to write his name correctly, and with rapidity, and copy writing, he was unable to write from dictation, or to write sentences which he originated himself; his attempts to do so did not show a single properly formed character. (Word blindness).—When given a book to read he said the words ran into one another, and then he could not make them out. (Word deafness).—When asked questions his answers were sometimes so irrelevant as to suggest that he had not appreciated the meaning of the query correctly; and when told to put out his tongue he opened his mouth only, but when he was set an example he at once protruded the tongue. This was frequently tried with the same result. There was no paralysis whatsoever to be detected of any of the voluntary muscles when he came under his observation; and, judging from the fact that immediately after the accident his case was not considered sufficiently grave for admission into another hospital, there could not have been at that time any overt paralysis. Five days after

his admission his symptoms had so much increased that it was determined to operate. A flap was turned down, including portion of the temporal muscle, and containing in its centre the cicatrix; this disclosed a wound of the squamous portion of the temporal bone, of a size and shape likely to be produced by the small blade of an ordinary penknife, held horizontally, with the back of the knife towards the patient's back, and the edge looking directly forwards. A medium-sized trephine was now applied, and a circle cut out, containing in its centre the cut in the bone; this was attended with some difficulty, as the lower part of the circumference was exceedingly thin, while the upper portion was tolerably thick; the piece was removed without injury to the dura mater by the trephine. It was found that the knife had perforated the dura mater and brain. The wound in the dura mater was enlarged, in doing which the large posterior branch of the middle meningeal artery was divided, and gave some little difficulty to control; this vessel had very narrowly escaped injury by the penetrating knife. A sinus forceps was gently passed along the brain wound, and the blades separated, when a dark-coloured blood presented, and was gradually extended by the internal brain pressure. Some more fragments of clot were removed by the sinus forceps, and by a stream of weak perchloride of mercury solution from a syringe. A drainage-tube having been introduced, the flap was replaced and held in position by deep sutures, including the temporal muscle. On the evening of the same day the patient was much more rational, and carried on a long conversation, with very few mistakes in his selection of words. Next morning he was again more aphasic, and it was found that the drain had become blocked. Upon freeing it a considerable quantity of fluid, containing broken-down blood clot, was removed, and his power of speech improved. He made an uninterrupted recovery, and regained completely his power of writing, reading, and speaking. In this case he believed the knife penetrated the superior temporo-sphenoidal convolution, traversed the fissure of Sylvius, and probably injured Broca's convolution, and that his symptoms were due to a blood clot in the fissure of Sylvius, which was breaking down, and which was evacuated by timely surgical operation.—The discussion was postponed to the next meeting.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, MARCH 15TH, 1888.

M. M. DE BARTOLOME, M.D., President, in the Chair.

Specimens.—Dr. HUNT exhibited (1) Large Indurated Glands removed from a Child's Neck; (2) Appliances for receiving the discharges during operations, and securing cleanliness and comfort; they were in use in the Boston (U.S.A.) General Hospital.

Plumbism.—Mr. PRIESTLEY introduced a case of plumbism, a patient of Dr. Dyson's, the only assignable cause being the impregnation of the drinking water by lead.

Exophthalmic Goitre.—Mr. BALDWIN related particulars of the termination of a case of exophthalmic goitre shown to the Society some time since.

Hæmophilia.—Mr. PYE-SMITH related brief notes of a case which ended fatally in a man aged 47. He was admitted into the Public Hospital for a wound in the left hand. The hæmorrhage was with difficulty stopped by styptics and pressure, but a fortnight later blood began to be passed by the rectum, and, after losing a good deal for two days, the patient suddenly became faint and died with symptoms of internal hæmorrhage. At the *post-mortem* examination the stomach was found to be full of soft-clotted blood. The small intestines and the rectum were empty, but covered with blood-stained mucus and small ecchymoses. The male children of the patient's mother's sister were also bleeders.

Etiology of Chorea.—Dr. PORTER gave a series of cases which had come under his personal notice. In 49 there were 37 females and 12 males, the usual proportion of 3 to 1, which was a singularly constant one. He found that in 44 cases some member of the family had suffered from acute or subacute rheumatism alone in 13, and in 2 more there was a history of both rheumatism and chorea; of chorea alone there were 3 cases, and of other nervous affections (epilepsy, insanity, etc.) there were 3 more. There was a rheumatic history, either family or personal or both, in 22 out of 46 cases, and nervous predisposition or antecedent chorea alone in 18. He held that chorea alone could produce endocarditis and organic valvular diseases. In 8 out of 39 there was in his cases an organic murmur, and in 3 only was there a rheumatic history. He alluded, among exciting causes of chorea, to educational pres-

sure. The pathology of rheumatism was doubtful; some had claimed for it a nervous basis, and it was possible that there might yet be found some antecedent condition common to it and chorea; whether the two affections occurred vicariously was the question.—Remarks were made by Dr. DYSON, the PRESIDENT, Mr. PRIESTLEY, and Dr. S. ROBERTS.

SUNDERLAND AND NORTH DURHAM MEDICAL SOCIETY.

THURSDAY, MARCH 15TH, 1888.

G. B. MORGAN, L.R.C.S.I., President, in the Chair.

Tracheotomy.—Mr. MACKAY sent a woman on whom this operation had been performed eleven years before. Since the operation she had borne five children, but she had never been able to do without a tube.

Excision of Shoulder-joint.—Mr. HOPGOOD showed a boy in whom acute periostitis of the upper end of the right humerus had followed a blow on the shoulder.

Specimens.—Mr. E. A. MALING: Large Vesical Calculus.—Mr. HOPGOOD: (1) Ovarian Cyst. (2) Caries of Femur.—Dr. GRAY: Excessive Hypertrophy of Toe-nail.—Mr. WHITEHOUSE: Reduction *en Bloc*.

Post-aural Branchial Fistula.—Mr. WHITEHOUSE read notes of a case which had been under his care. The patient, a strong man, aged 30, complained of repeated formation of abscesses in front of his right ear. For the last two years one had formed about every two months. A small depression was found leading to a passage large enough to admit a bristle. Before the abscesses had fully formed he always noticed a slight discharge of creamy fluid from the sinus. The seat of the abscesses was about three-quarters of an inch in front of the depression, which was on the upper part of the helix. His hearing was perfect, and no branchial fistulae existed in the neck. The tract was laid open and scraped, and the temporal artery tied, and so far there had been no return of the abscesses.—Mr. SEVILLE made some remarks.

The Treatment of Stricture of the Urethra.—Mr. WHITEHOUSE read a paper on this subject advocating the operation of internal urethrotomy whenever the circumstances of the case demanded it.—The PRESIDENT, Mr. HOPGOOD, and Dr. GRAY made remarks.

REVIEWS AND NOTICES.

THE CHILDREN OF SILENCE: OR THE STORY OF THE DEAF.

By JOSEPH A. SEISS, D.D., LL.D. Philadelphia. Porter and Coates. 1887.

THE author of this commendable little work tells us modestly in his preface that it "has grown out of some special studies, intended for his own information, the more intelligently to discharge his duties as a director of an institution for the deaf and dumb." It would be well if other directors of such institutions considered and acted upon their obligations in the same spirit and with the same ability.

The volume before us is for the most part accurate, as far as it goes, and impartial; the compiler has evidently had access to the valuable library on matters connected with deaf-mute education, which was in the possession of the late Charles Baker, head of the Yorkshire Institution for Deaf-Mutes, and, unfortunately for us, curiously transferred to the United States of America some years ago. The *American Annals of the Deaf and Dumb* during its "thirty or more years" of existence is an evidence of this. The author concludes his preface by hoping that the present volume will be influential in demonstrating the sources of the sad misfortune of deafness. We are very sorry that he did not add "and more especially dumbness."

To diminish the sources of deafness is a labour truly Herculean. As regards dumbness arising from the source of deafness, there seems to be little, if any, difficulty in dealing with this condition in most countries, the exception being the United States of America, Canada, and Great Britain.

Dr. SEISS treats of the classification of deaf-mutes, that is, those who are, and who are not, to be considered as such. This is most important when the question of their education comes under review. Many a child with only a moderate degree of deafness has been sent to these special schools and has become dumb in consequence of the peculiar form of teaching employed. It is needless to say that in such institutions the total deaf always remain dumb; further, which seems saddest of all, children becoming deaf

after having acquired spoken language in the usual way, have lost it under the sign system of instruction.

The question of the number of deaf and "dumb" is, of course, also interesting, but most difficult to arrive at for many obvious reasons. The author of the *Children of Silence* has revived an amusing incident which occurred in the Irish census years ago, when a quite unusual number of children were returned as "dumb, but not deaf or otherwise defective." Upon inquiry these were found to be infants under 12 months; that collector was evidently not a father.

Dr. Seiss (pp. 17 and 18) curiously observes in a like manner: "All children are born mute," although in another paragraph he is quite careful to show how rare muteness is. So long as any misunderstanding continues as regards the term "articulate language and voice," so long will the deaf child be considered to be dumb or mute in the popular mind. When the two words "deaf and dumb" are divorced, a distinct advance will have been made towards a proper appreciation of the true condition of these afflicted children.

The writer says that the "deaf are not always nor necessarily dumb," and that 20 per cent. are capable of being taught to speak, whilst other authorities assert that 80 per cent. or more can be successfully taught. It is a pity that he does not mention those largely diverging authorities. The smaller percentage will be found in the American and English estimates, and the larger in those of the Continental.

The causes of deafness are naturally most interesting just as they are perplexing in so many cases. Dividing the causes as usual into ante- and post-natal, Dr. Seiss writes soundly on Intermarriage of Blood Relations, Hereditary Transmission, and Constitutional Taint, quoting well-known authorities on these points, and proceeds to consider under the heading of "Impressions on Mothers," the vexed question of maternal emotions affecting intra-uterine life to subsequent permanent injury to the offspring. A considerable number of cases are quoted to support the opinion that this is so. It is impossible to prove a negative, and it would, therefore, be useless to quote the innumerable cases where frights and impressions during the period of gestation did not have a baneful effect upon the offspring. We are assured by one who has had considerable experience amongst the deaf, and has made particular inquiries upon this point, that he has never heard of any case of a hearing female connected with an institution for deaf-mutes having borne a deaf child owing to her association with the deaf and dumb.

Physiologically considered, suppose a nervous woman in a state of pregnancy to receive a shock, which affects her offspring in a characteristic way—namely, deafness, some part of the organ of hearing is presumed to be undeveloped, owing to the supposed shock and subsequent maternal impressions. But what caused the shock? Not the condition of deafness in another individual. One may pass a hundred deaf persons in the course of a short period without being at all aware of their condition, how then can a shock be received even to the most delicate organisation? The usual account is not that the mother was frightened by a "silence," but by an unnatural and unpleasant noise; if then her offspring were found reproducing this noise, we might admit the theory of "maternal impressions," but why a child should be born deaf because the mother was disturbed by a disagreeable sound is, to say the least, somewhat perplexing.

A typical instance of the sound, not the silence, being supposed to cause deafness will be found on page 74 of Dr. Seiss's book. It is possible to entertain the theory of a morbid hypersensitive imagination incessantly dwelling upon the condition of deafness and its terrible consequences influencing injuriously in some way the offspring of a mother of weak constitution, but authenticated evidence on this point is very difficult to obtain. In fact, few parents will even admit deafness in their own child to be congenital.

In comparing the terrible misfortunes of congenital blindness and deafness, Dr. Seiss is probably right in his view that the latter is by far the more deplorable.

The historical portion of the book is useful and fairly full and accurate; the usual drawback to this part being that the writer confines himself far too much to the consideration of one county and one system. But we cannot dismiss this matter without defending one of the early English teachers, who has been assailed more than once by American writers, respecting the Rev. J. Gallaudet's visit to London in 1815 to gather information and experiences in deaf-mute education. Dr. Seiss says: "That the

extravagant demands of time and money made on him in England to secure the object of his mission became the occasion of his going to Paris, when he brought back with him the sign system and an educated deaf-mute to assist him in teaching it." As a matter of fact, he accepted from the Paris Institution almost identical terms which he refused from the London Asylum. A Birmingham daily paper recently, in describing a visit of Mr. Chamberlain to the National Deaf-Mute College at Washington, U.S.A., writes as follows: "The President of the College, Dr. E. Gallaudet, came over to England in 1886 to give evidence before the Royal Commission, etc., in spite of the fact that England refused information to his father seventy years ago." This same Dr. E. M. Gallaudet was sent to Europe some twenty years ago to study the system of education for the deaf pursued in Europe, and after an inspection of schools reported most unfavourably on the speech system; and at the Milan Congress, referred to by Dr. Seiss in 1880, again opposed most vigorously, as the writer says, the same method, he forming one of the minority of 4 in a majority of 160. We cannot for a moment accept Dr. E. M. Gallaudet either as friendly to or an authority on the pure oral system. He has certainly advocated what he calls the "aural system;" this seems to be a method of teaching children who can hear in schools for the deaf—a somewhat unusual proceeding one would think.

The least satisfactory part of Dr. Seiss's compilation is, in our opinion, that devoted to statistics, which will be found at the end of the volume. These figures are by no means brought down to date, in fact, we may roughly say are quite antiquated, because they do not deal with the extraordinary revolution in teaching which has been effected since the year 1880 in Europe and elsewhere.

In looking through these statistics, we find, for instance, the London Asylum in the Old Kent Road (we believe the oldest and most richly endowed institution for the deaf and dumb in the United Kingdom) is credited with teaching 158 pupils on the oral system; this in the year 1879! The year following the responsible head teacher of that institution, in company with Dr. E. M. Gallaudet already referred to, "most vigorously" opposed the speech system. Then, again, mention is made of a school at Castle Bar Hill, Ealing, W., founded in 1878, returned as having six pupils and one teacher, the system employed being described as the "oral." The methods of education employed in these two schools, we venture to say, have nothing in common one with the other; in fact, the term "oral," as applied to deaf-mute education, is most misleading. The Ealing School, whatever its merits or demerits may be, has a peculiar history and interest. It was founded by a society formed in 1877 due to the personal exertions of a gentleman, the father of a deaf daughter, who wished to save her from dumbness. The reasons given for the formation of the society were:—1. That a great number of children were allowed to grow up without any education whatever. 2. That nearly all the schools in the kingdom used the French, or silent, method, namely, teaching by signs and the manual alphabet.

No teachers of the pure oral system were at this time obtainable in England outside their engagements, and the few who were employed (at most 5) were imported foreigners, notwithstanding that at that time a society for the training of teachers, started under most influential patronage, had been at work some years. The chief object of the Ealing Society was announced to be to train teachers of the deaf on the German system, and so to diffuse this mode of instruction. The figures, so far as England is concerned, connected with deaf-mute education may be approximately quoted as follows:

Year.	No. of Teachers.	No. of Pupils.
1866	4	34
1876	15	117
1886	136	1,120

The marked increase both in teachers and pupils after the establishment of the school at Ealing (which figures so insignificantly in Dr. Seiss's statistics) will be noted; further, that directly and indirectly due to its training and teaching we find Ealing (eight years established) has trained, down to the end of the year 1886, 62 students, and been the means of teaching 437 pupils. The most marked change of all, however, has occurred in France, the birthplace of the sign system, and where, up to the year 1880, when the International Congress of Teachers of Deaf-Mutes was held at Milan, the method generally employed, was the sign or silent one. Now, out of over 60 institutions, we under-

stand that not more than 2 refuse the use of speech to their pupils.

There are many other points in Dr. Seiss's volume we should wish to dilate upon had we space. One thing may be said in conclusion with respect to the merits of the speech and the silent systems (the combined, being illusory, we may disregard), namely, that if a deaf child can be taught to use spoken language and saved from dumbness, it ought, without any question, to be taught, and that it can we have the fullest evidence throughout the length and breadth of Europe. Let America and England follow this good work as speedily as possible.

THE TRANSACTIONS OF THE EDINBURGH OBSTETRICAL SOCIETY.

Vol. xii. Session 1886-87. Edinburgh: Oliver and Boyd.

The work contains a record of the proceedings of the Edinburgh Obstetrical Society for the year 1886-87. Though it may seem invidious to mention one article rather than another where all are so good, we cannot omit to praise especially the papers brought before the Society by Dr. Berry Hart, Dr. Freeland Barbour, and Dr. Halliday Croom.

Dr. Berry Hart contributes extremely important papers on "The Anatomy of the Post-partum Uterus, with Special Reference to Placenta Previa;" and a "Note on the Mechanism of the Separation of the Placenta during the Third Stage of Labour." Taken in conjunction with Dr. Champneys's series of papers on "The Mechanism of the Third Stage of Labour," they form an important contribution to this subject. Another article by the same author, entitled "A Contribution to the Sectional Anatomy of Advanced Extra-uterine Gestation," is also of the utmost importance, and the subject could not have been undertaken by a more competent or painstaking observer. It is here conclusively shown, what has long been disputed by many, though contended for by Tait, that an ectopic gestation may be entirely extra-peritoneal. For this condition he author suggests the term "subperitoneo-abdominal."

Dr. Freeland Barbour contributes an article on "The Sectional Anatomy of Labour," a contribution showing much study and original work. The diagrams illustrating the subject are remarkably good and clear.

The President, Dr. Halliday Croom, in a paper of great practical value, treats exhaustively of "The Indications for, and the Methods of, Washing Out the Puerperal Uterus." The value of corrosive sublimate as an intra-uterine injection in puerperal cases and the dangers attending its indiscriminate use are laid before the society, while the indications and contra-indications for the intra-uterine douche are clearly pointed out.

Another paper of interest on "A Case of Myxomatous Degeneration of the Chorion; Profuse Hemorrhage; Transfusion; Recovery," by the President, is also worthy of note.

The volume, which is elegantly bound and clearly printed, contains numerous beautiful lithographs. A complete index and a list of the Fellows, with the office-bearers for the year 1886-87 are included. The Transactions are valuable and important, and we wish the Society as great an amount of success in the future as it has obtained in the past.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS,

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE TELEPHONIC BULLET-PROBE.

At a recent meeting of the New York Academy of Medicine, Dr. John Harvey Girdner exhibited a telephonic bullet-probe, which is illustrated by the accompanying engravings. Fig. 1 represents a telephonic receiver (R), to which two terminal wires (A and B) are attached; the framework of the receiver is of hard rubber; G is a central bar of soft iron, round which is coiled an insulated wire (I); the two ends of the wire are connected with the terminals; a metal diaphragm (1) is suspended close in front of the central bar (G). If a current of electricity passes through the coiled wire, the central bar (G) is rendered a magnet, and will attract the diaphragm (1), causing it to vibrate, so that each time the current is made and broken a clicking or rasping sound is heard when the receiver is held to the ear. In practice it is found convenient to connect the two receivers, one for each ear; a steel band (depicted in

Fig. 2) connects the two receivers and keeps them closely applied to the ear; in this way extraneous sounds are excluded, and both hands of the operator are left free; when the double instrument is used the two receivers are connected by the short wire to be seen in Fig. 2.

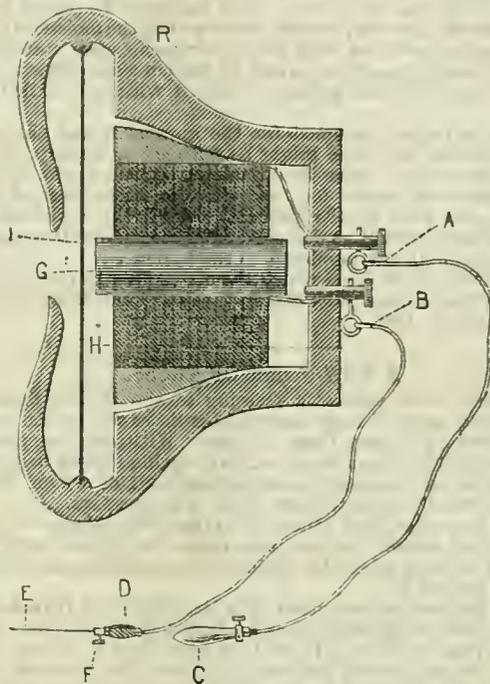


Fig. 1;

The instrument is thus used: the operator having adjusted the telephones, the patient takes the steel bulb (Fig. 1 C, and Fig. 2)

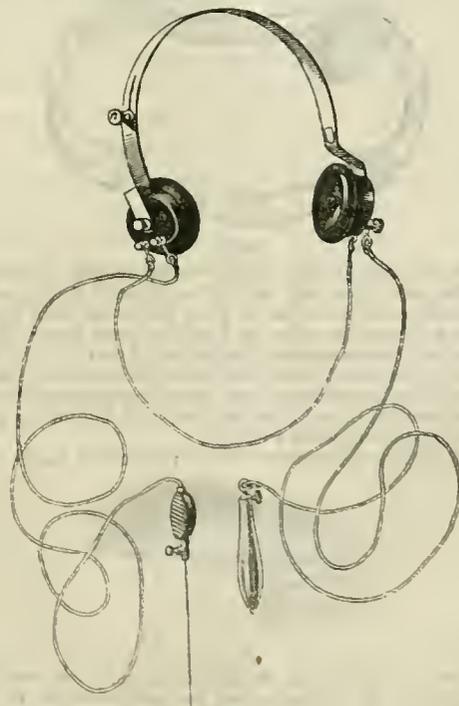


Fig. 2.

in his mouth, and the surgeon introduces the thin probe (Fig. 1, E, and Fig. 2), which is fixed in the holder (D) by the screw (F) into the

sinus which is to be searched for a bullet; bone and other tissues can be felt by the hand using the probe, but no sound is heard in the telephone until metal is touched, when immediately a rasping sound is perceived in the telephones. The patient's body, under the circumstances stated, furnishes a sufficient current of electricity to work the telephones. The bulb may be placed in any other cavity of the body, or may be grasped by the moistened hand. The indications obtained with this instrument were stated to be far more reliable than those given by the porcelain-tipped probe, which, if the bullet was greasy or coated with salts, failed to be marked.

Another advantage claimed for the apparatus was that when no sinus existed the probe might be replaced by a sharp, slender, steel needle, which, having been rendered aseptic, might be thrust into the tissues to search for the bullet or other piece of metal without much pain to the patient. When the metal has been struck the needle could be detached from the handle (D) and would serve as a guide in cutting down on the bullet.

Dr. Girdner's paper, from which the above description and drawings are extracted, was published in the *New York Medical Record* on February 4th, 1888.

A NEW FORM OF TRUSS.

In December of last year, at a meeting of the Medical Society, I showed some cases of large inguinal hernia in which the rupture was retained by a new form of truss. With one exception, in which no truss had been worn, ordinary spring trusses had proved inefficient or inconvenient to the patients, all of whom were at that time satisfied with the new pattern in question.

I have since that time followed up these and other cases, and I have satisfied myself that the truss is an efficient and useful one, especially in cases where the abdomen is pendulous, and the buttocks are rolls of fat.

It is, I believe, the invention of a Mr. Fry, of 18, Ivydale Road, Nunhead, and its appearance and construction are shown in the accompanying woodcut. It will be seen that it differs widely from the better known patterns; it resembles, however, rather closely in principle a truss described by Mr. Rushton Parker in the *JOURNAL* of February 25th of this year.

The truss (Fig. 1) consists of a bar of gun metal sufficiently

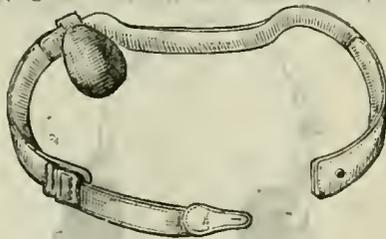


Fig. 1.

flexible to be bent by the hands to the general contour of the front of the pelvis, but stiff enough to retain that shape. It is of such a length and shape that it runs across in from just below one anterior iliac spine to below the other, and has a dip in the middle, where it rests against the pubes. From the ilia the curve of the bar is continued round the buttocks on either side by two strips of stiff leather (which were in the earlier patterns made of stout malleable metal), and these are fastened behind by a piece of soft elastic webbing with a buckle.

The pad (Fig. 2) by means of which pressure is made upon the

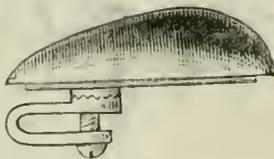


Fig. 2.

hernia aperture, is of wood or vulcanite, and is so arranged that it can be slid along the gun metal bar and clamped in its right position; it can also be adjusted to the right angle by means of a binding screw. It is obvious that in this truss, as in Mr. Parker's, there can be no constant pressure inwards against the

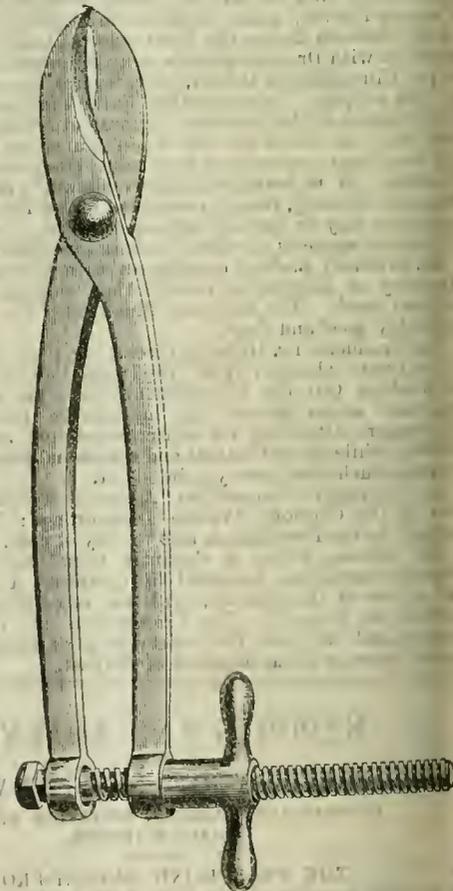
presumably constant outward pressure of the rupture, save only the very slight action which the elastic spring behind may exercise. The door is closed by something heavy placed against it rather than by a continuous push, and I can see no reason to suppose that it can be in any way curative, or applicable to ruptures in which a cure may be looked for. But it is strong, light, and inexpensive; it can hardly ever wear out, and does in practice afford very efficient relief in cases in which that relief can only be given by a spring truss at the expense of a great deal of especially troublesome fitting.

WALTER PYE, F.R.C.S., Surgeon to St. Mary's Hospital.

A NEW FORM OF SEQUESTROTOME.

THE accompanying engraving represents a form of sequestrotome shown to the Nottingham Medico-Chirurgical Society in connection with two successful operations for total diaphyseal necrosis.

The entire length of the instrument is thirteen inches. The engraving shows the shape and proportion of its various parts. The mechanical points on which it varies from the bone-forceps in use are these:—



(a) It is forged from the finest steel at cherry heat, and tempered between a pale straw and bat's wing.

(b) The cutting edges are of a less acute single bevel than is usual.

(c) The edges are not opposed, but move on contiguous parallel planes. This greatly increases the breaking power, but offers the mechanical disadvantage that it tends to separate the blade laterally with divergence of planes.

(d) The latter is remedied by the forceps having a very large accurately fitting pivot, of the same steel as the instrument, with large steel counters, so that it is impossible for movement to take place unless the material or workmanship is inferior.

RUPERT C. CHICKEN, F.R.C.S.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

Subscriptions to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 7TH, 1888.

LOCAL GOVERNMENT BILL: SANITARY ADMINISTRATION.

MR. RITCHIE'S Local Government Bill bears examination satisfactorily, and although since the publication of the full text it has been subjected to searching criticism and is likely to undergo some important modifications, nevertheless, the general feeling of the country is, we believe, in favour of its main provisions. We have already pointed out what we consider to be some of its defects, which are chiefly faults of omission. We notice that the most competent authorities, such as Mr. Stansfeld, regret in the expression of regret to which we gave utterance, that the Government have not seen their way to go further than the Bill provides, and to unify all the local authorities which now exist, so that there might be one local authority, and one exercising jurisdiction over a particular area. Mr. Ritchie's proposal to leave the poor-law unions and the poor-law guardians absolutely untouched is, in Mr. Stansfeld's view, as in our opinion, an obvious defect, which, if it cannot be supplied now, will have to be remedied at no distant date. The continuance of the divorce of the administration of relief of the poor from other branches of local administration is a great blot, and we are still of opinion that by grasping the question in a more comprehensive spirit, it would have been possible to have avoided a repetition of the constant tinkering at reform which have been the bane of the local administration of the country for the last generation, and which must still continue unless the Bill be amended in the direction we suggest. It will, however, at the present time be useful to many of our readers briefly to analyse the features of the Bill as it is at present drafted.

The Bill is mainly one of decentralisation and readjustment, by which powers and duties already exercised by a variety of authorities, and even by Parliament itself, will be transferred to particular representative local bodies. New powers and duties are proposed to any very great extent proposed to be created. At the outset a broad line is drawn between the judicial and administrative functions of the existing county authorities, i.e., the Courts of Quarter Sessions. The former are to remain vested in the magistrates, as at present, whilst the latter, including the administration of county rates and financial business,

county buildings, county bridges, the provision and management of the county lunatic asylums, the establishment and maintenance of reformatories, etc., the granting of licences for music, dancing, and the sale of intoxicating liquors, the execution of the Acts relating to the contagious diseases of animals, the adulteration of food and drugs, weights and measures, and certain duties as to main roads, are to be transferred to the new "County Councils" which it is proposed to constitute. These County Councils are also to undertake all the powers at present exercised by the Board of Trade with respect to the making of provisional orders under the Pier and Harbour Acts, the Tramways Act, the Electric Lighting Act, and the Gas and Waterworks Facilities Acts as regards companies, and the powers of the Local Government Board as regards the making of provisional orders as to schemes of local authorities under the Gas and Waterworks Facilities Acts, the sanctioning market tolls, fixing the scale of charges in respect of water supply, the investment of a rural authority with the powers of an urban sanitary authority, the settlement of disputes as to boundaries and other matters under the Public Health Act, the Public Health (Water) Act, the Artizans' Dwellings Acts, the Valuation (Metropolis) Act, the Sale of Food and Drugs Acts, etc. Certain borrowing powers are also to be given to them, and they are to be empowered to aid emigration amongst non-paupers. They are further to have certain powers for securing the efficient administration of the Rivers Pollution Prevention Act, 1876, and they are to share with the justices the control of the police force.

In deference mainly to the sentimental objection which is widely raised to any material alteration of the ancient landmarks of the country, the jurisdiction of the new County Council is at first to coincide with the geographical area of the county, but it will be competent to the new authorities, when constituted, to obtain a revision of boundaries. London (as defined by the Metropolis Local Management Act), and ten of the largest boroughs—Liverpool, Birmingham, Manchester, Leeds, Sheffield, Bristol, Bradford, Nottingham, Hull, Newcastle—are to be constituted separate counties in themselves, whilst in the remaining sanitary districts—Urban and Rural, Local Board and Improvement Act—"District Councils" are to be elected to supersede the existing authorities, and to exercise powers as to the Petroleum Acts, Dogs Acts, Infant Life Protection Act, the licensing of slaughterhouses, game dealers, pawnbrokers, fairs, etc. As regards the mode of election of those Councils, the Municipal Corporations Act is to be extended to the whole country, thus giving a qualification to all ratepayers. Three-fourths of the new County Council are to be directly elected by the ratepayers, and the remaining fourth are to be "selected" by the councillors, either from within or from without their own body. The District Councils are to be elected on the same franchise. Thus the complete organisation of the county will be—for the judicial work, the magistrates; for the administrative work, the County Council; all internal areas to conduct the municipal government of their areas; and all elected upon the same franchise. The poor-law guardians will continue to exercise their functions with

reference to the administration of the poor-law within the areas which exist at present. No alteration whatever in regard to the election of guardians or their poor-law powers is proposed.

As regards finance, the relations between Imperial and local taxation will be materially affected. Certain Parliamentary grants in aid, amounting to £2,600,000, are to be withdrawn, and instead a sum of £5,600,000 is to be allocated to the new authorities, in relief of local burdens.

The existing chaos of areas and overlapping jurisdictions has been so detrimental to sanitary progress that, from a public health point of view, any reasonable scheme for the simplification of local administration is welcome. It is also well that at last the poor-law and the sanitary administrations should be separated. One of the greatest obstacles to the proper execution of the Public Health Act in rural districts has resulted from the assignment of sanitary functions to boards of guardians. Apart from the fact that the poor-law unions were not designed to meet the requirements of sanitary operations, and are not, except by accident in some cases, suitable units for sanitary administration, such administration has often, if not as a rule, been distasteful to boards of guardians, and has invariably been subordinated to the poor-law business. Nor is the supersession of the small local boards a matter for regret. In the large compact boroughs health matters have in most cases been honestly and energetically dealt with during recent years, and reduced sickness and increased prosperity have resulted amongst the inhabitants. But there are, scattered over the country, scores of small urban districts where sanitary affairs have been grossly neglected. It is to be hoped that in the new subdivision of the counties due regard will be had to the configuration of the localities for sanitary administration, and to the exigencies of water supply, drainage, and such like.

The assignment to the new county authorities of certain powers under the Sale of Food and Drugs Acts and the Rivers Pollution Prevention Act, 1876, inspires a hope that these important enactments may be more thoroughly enforced in future than they have been in the past. The Adulteration Acts are practically a dead letter in many counties and boroughs, whilst many rivers continue to be polluted because the sanitary authorities who are responsible for enforcing the Act are themselves the chief offenders. The Aire and Calder, which are as filthy rivers to-day as they were when the Commission of 1868 reported on their condition, are glaring examples of this unsatisfactory state of things.

Vaccination was only incidentally referred to by Mr. Ritchie when he announced that the Parliamentary grant in aid of public vaccination would be withdrawn, but that part of the larger grant to be made to the county authorities would be devoted to the same object. Whether this means that vaccination, which is a distinctly sanitary operation, is to be detached from the control of the poor-law authorities remains to be seen.

As regards the position of medical officers of health under the new scheme, Mr. Ritchie's statement contains no information.

The question must not, however, be regarded as one of mere detail; it is of vital importance if the full benefits derivable from the reform of sanitary government are to be obtained. At present the system of appointment of health officers is, as has been so often pointed out in these columns, very unsatisfactory, not only from the point of view of the interests of the medical profession, but from that of individual efficiency and local usefulness. There should be sufficient inducements for able men with special scientific qualifications to enter the ranks of the sanitary service of the country, and the constitution of county authorities affords an admirable opportunity for securing this result. The larger area would enable a salary to be paid which would secure the whole of the officer's time. But the appointment should be during "good behaviour," and not from year to year, as is the general rule at present. There would also be public advantage in assigning to the medical officer of health the duties—such as those of county analyst, the making of *post-mortem* examinations for coroners' inquests, etc.—which at present are not performed on any recognised plan.

It was wisely said by John Stuart Mill that "power may be localised, but knowledge to be most useful must be centralised." We hope that the new system will result in a closer local enforcement of proper hygienic principles, and the extension of the local study of preventive medicine in the manner that it is already practised with good results in many of the larger municipalities. Concurrently with this local impetus to sanitary science we should be glad to see an extension of the valuable scientific work of the Medical Department of the Local Government Board, whereby the observations of local observers would be checked by the light of wider experiences, and problems locally propounded might be satisfactorily pursued to a useful conclusion.

THE UNIVERSITIES (SCOTLAND) BILL.

THE introduction into the House of Lords of a fresh Universities (Scotland) Bill has excited great interest in the university centres of Scotland. The publication of the text at the end of last week has called forth an endless variety of criticism. The Bill proposes to hand over the administration and management of all the revenues and properties of the university to the University Court, to which it would give the powers of enacting regulations for graduation and conditions for the tenure of Fellowships, etc., and of affiliating to the university, with the consent of the Chancellor and the approval of Her Majesty in Council, new colleges, duly incorporated and endowed, under conditions to be laid down by the Commissioners to be appointed under the Act. For these purposes the Court will be enlarged and made more representative. It will include the Principal, Rector, and head of any affiliated college, an assessor nominated by the Chancellor, and one nominated by the Rector. The Senate and General Council will each be represented by four assessors. The university town is to be represented by its Lord Provost for the time being, in the case of Glasgow, Edinburgh, and Aberdeen, while the Edinburgh Town Council re-

ceives the privilege of nominating an assessor. In the case of each university the Bill provides that the assessors are nominated by the Crown, while in the event of colleges being affiliated provision is made for a representation of their governing body in the Court. The Rector may take the assistance of the students, as represented by their Representative Council, in the choice of his assessor. The powers of the Senate are, under the Bill, reduced to educational matters and the discipline of the university. Provision is made for a Committee of the Privy Council, to be called the Scottish Universities Committee. The Commissioners, under the Bill, are given powers to transfer the patronage of professorships vested in individuals to the Court, to regulate foundations, etc., to regulate the powers and privileges of chancellors, professors, and other university officers, to alter the constitution of faculties and create new ones, to regulate fees, courses of study, degrees, and examinations, to enable the universities to be opened to women, to regulate salaries of professors, to found new chairs or lectureships, and to affiliate colleges. The application of the College of Dundee to the University of St. Andrews is specially mentioned in the Bill. The noticeable point in the financial proposals of the Bill are that the finality clause is omitted, and Glasgow University receives, in addition to its proper average, an annual sum of £500 for maintenance of buildings.

The essential features of the proposed measure are, it will be seen, the transference of the financial administration of the universities to the University Courts, the increase of function delegated to the Courts, and the reconstitution of the Courts in such manner as will allow of a fuller representation of university graduates and of the public generally. The Bill ought to give satisfaction to the reform party. The enlarged and representative character of the new Court, the transference of the management of the university to it from the Senate, and the powers of affiliation are among the chief demands of that party, and are very fairly met in the Bill.

Since the suggested alterations are of so sweeping a character, the Bill, as might be expected, cannot be said to meet the wishes of those members of the professoriate who find it possible to combine the immediate duties of their chairs with close attention to the large and varying problems which the administration of so important an institution implies. On the other hand, a growing section looks with favour on a measure which appears to promise them relief from burdens, which are, in no sense, essential appanages of their office. To the wide circle of university graduates the Bill has evidently commended itself. At a meeting of the Committee of the Association of the General Council of the University of Edinburgh, resolutions were passed expressing full satisfaction with the proposed measure, and praying that it might speedily become law.

SIR JAMES PAORT will preside at the dinner of the Royal Literary Fund on May 2nd. Many of the leading members of the medical profession have signified their intention of being present.

SIR JOHN SIMON, K.C.B., F.R.S., and Dr. C. J. B. Williams, F.R.S., have been proposed by the Council of the Pathological Society for election as Honorary Members of that body. Dr. Williams was the first President, and Sir John Simon is a past President.

By the resignation of Mr. Watson Cheyne, a Research Scholarship of the British Medical Association becomes vacant. The scholarship is of the annual value of £150. Applications should be forwarded at once to the Secretary at the offices of the British Medical Association, 429, Strand.

SIR PRESCOTT HEWETT, Bart., Consulting Surgeon to St. George's Hospital, and Sir Thomas Longmore, Professor of Military Surgery at the Army Medical School, were elected *Associés Etrangers* at the meeting of the Academy of Medicine, Paris, on March 27th. Both gentlemen have been corresponding members of the Academy for several years past.

MR. R. BANNISTER, F.I.C., F.C.S., is announced to give the Cantor Lectures at the Society of Arts; he will take as his subject Milk Supply and Butter and Cheese Making. The first lecture will take place on Monday, April 9th, and will be continued on the two subsequent Mondays.

MR. BENJAMIN WAINEWRIGHT was elected, on Wednesday last, April 4th, Assistant-Surgeon to Charing Cross Hospital. Mr. Wainewright received his professional education at the University of Edinburgh, and is Assistant-Surgeon to the West London Hospital.

THE new laboratory at the College of Surgeons is now in working order. It can be reached by a lift, a great advantage, as it is built very high above the level of the roof of the Museum. The rooms set apart for the preparation of specimens appear to be well adapted to the purpose for which they were constructed. The windows admit plenty of light, and there is no want of the necessary appliances for dissection.

THE INDEX MEDICUS.

WE regret to learn from the publisher, Mr. George S. Davis, Detroit, Michigan, U.S.A., that the *Index Medicus*, a publication which we have more than once noticed with approval, is still languishing for want of support. As a key to the books and articles on medical subjects published in the year, this publication seems to us to fill a useful purpose, and as such we should be sorry to hear that it had come to an untimely end.

SMALL-POX IN ABYSSINIA.

THE following information as to the prevalence of small-pox in Abyssinia has been received by the Exchange Telegraph Company. At Shea the annual epidemic of small-pox is said to be raging with great severity. The heir to the throne, Ras Mulcheha, aged 25 years, is dead, also three other members of the Royal family. At Massowah the heat is said to be intense—47° C. in the shade. The sanitary condition is deplorable. Typhus is prevalent among the men and the cattle. Water is scarce, and it will be necessary for the greater portion of the Italian expedition to re-embark for Europe.

A MEDICAL HERO.

AT the annual meeting of the Bristol Royal Infirmary, the President stated that a memorial window had just been completed for the chapel in commemoration of the heroic deed of a young surgeon, Mr. W. Courser Lysaght, who lost his life in endeavouring to save a poor patient who had undergone the operation of trache-

otomy while suffering from diphtheria. The window is in three panels, representing incidents from the parable of the Good Samaritan, and it will be inscribed "To the glory of God, and in affectionate remembrance of William Conner Lysaght, who was born May 7th, 1851, and died July 24th, 1887." Acts of medical heroism are not rare, and unhappily, a fatal issue in such cases as these has been repeatedly recorded.

LESSONS FROM CARLSBAD FOR ENGLISH HEALTH RESORTS.

DR. YATES BAINBRIDGE in the *Droitwich Guardian* reprints the third of the series of letters called "Spray from the Carlsbad Sprudel," by Mr. Ernest Hart, which was published in the *JOURNAL* of January 17th. He takes as his heading "How Carlsbad ensures Success: a Lesson for Droitwich;" and, in reprinting the whole letter, he adds a series of observations in support of it, and asks the Droitwich citizens whether they should, from sheer apathy and neglect, encourage sufferers from gout, rheumatism and kindred complaints to seek relief abroad while they have at their own door, at less expense, trouble, and worry, waters superior in every respect to foreign waters, and which (as was the case with Droitwich) performed cures which foreign waters had failed to do, at great expense and loss of time to the patients themselves. In calling the attention of the people of Droitwich to the suggestions in Mr. Ernest Hart's letter "for dispelling the cloud of dulness which darkens the future of this as of so many other of our health resorts," he expresses the conviction that the suggestions of Mr. Hart, if acted upon even in a modified sense, would greatly increase the number of visitors and ameliorate the lot of those who now from necessity visit Droitwich, besides bringing in a rich harvest to the town directly or indirectly, in place of the poverty now existing there.

TANNIN IN THE TREATMENT OF TUBERCULAR DISEASE.

At the fifth meeting of the Società Italiana di Chirurgia, recently held at Naples, Professor Andrea Ceccherelli, of Parma, drew attention to the value of tannin in the treatment of local affections of tubercular origin. From experiments which he had made on animals, and from clinical experience, he believed it to be a powerful antiseptic, with a specific power of destroying the tubercular virus. He found that the addition of tannin prevented the putrefaction of animal tissues and fluids, and that decomposition was very considerably delayed in the bodies of animals which, while alive, had undergone a course of treatment with tannin. He had also found that whilst he could produce tubercles in certain animals by the injection of phthisical sputa, or of tubercle bacilli, the injections produced no bad effect when tannin was injected simultaneously, or was given internally every day for some time. He had treated twenty patients suffering from tubercular diseases with tannin, both externally and internally, with very satisfactory results. He therefore looks upon tannin as an excellent remedy in tubercular affections of the bones and joints; under its influence ulcers heal kindly, any tubercular formations that may already exist are destroyed, and generalisation of the disease is prevented. Dr. Ceccherelli considers that tannin is much superior to iodoform in the treatment of tubercular disease, besides having the further advantage of being perfectly harmless.

THE HEALTH OF THE GERMAN EMPEROR.

It is with the greatest pleasure that we learn by special telegram from Charlottenburg that the Emperor of Germany is going on most satisfactorily. The disease appears for the moment almost quiescent; there is no sign of its spreading, and the glands are not in the least involved. His Majesty's general health is excellent, and his appearance shows no trace of illness or suffering, except

that his hair has become very grey. The position which Sir More Mackenzie took up from the first, and which he has steadfastly maintained ever since, that no radical surgical measures were advisable in the case, appears now to find more favour among the medical profession in Germany than has been the case till quite lately. The disastrous results of several cases in which similar operations have recently been performed seem to have opened men's eyes to the magnitude of the risk to which the Imperial patient would have been exposed but for the intervention of the English physician, in whom he not unnaturally places such confidence. Our Berlin correspondent, who is in a position to know the facts, informs us that Herr Kayser, a prominent member of the Social Democratic party in the German Reichstag, died a few days ago, immediately after half of his larynx had been cut out by Professor von Bergmann for cancer. We are also informed that of the eleven other patients on whom that distinguished surgeon has performed this severe operation have since died. Dr. Eugen Hahn, who has hitherto been the most successful operator in that line, has been equally unfortunate in his last two cases. Only the other day an operation of the same kind, performed by a leading London surgeon, resulted in the death of the patient on the third day. In private one hears mention of similar cases which have not yet come publicly before the profession. These facts, in our opinion, quite independently of any other reasons peculiar to the case, go far to justify the course which has been adopted with regard to His Imperial Majesty. Sir More Mackenzie was to have returned to London on Tuesday next April 10th, but we understand that in compliance with the urgent request of the Emperor he has agreed to postpone his departure from Berlin for a short time. Dr. Norris Wolfenden, who attends the Emperor professionally for some weeks during his stay in England last summer, has gone to Berlin at the invitation of His Imperial Majesty.

ABDOMINO-VAGINAL COMPLETE HYSTERECTOMY FOR UTERINE FIBROIDS.

PRIOR to operation on a case of fibroids of the uterus recently at the Hospital for Women, Mr. Reeves, in his remarks, stated to the students and visitors present that he intended to adopt a new plan which had occurred to him, provided that the relations of the growth permitted it. If, on opening the abdomen, the tumour proved to be an ordinary form of fibroid involving the fundus of the body, and did not extend too far laterally into the broad ligaments, he intended to tie these on either side in two interlocking ligatures, including the upper two-thirds of these structures, and after applying pressure-forceps to their uterine side, to divide between. Then the peritoneal folds attaching the growth to the bladder and rectum would be divided well up on the tumour, as to form flaps in the pelvic floor when the growth was removed. The ureters, bladder, and rectum would then be cleared from the cervix until the vaginal mucous membrane was nearly reached when the vaginal part of the operation would begin. This consists in separating the mucous membrane, as in vaginal hysterectomy. The uterine arteries would be compressed with forceps to be left on or tied according to circumstances, and the uterus removed entire. The pelvis would be cleansed, the serous flap placed in apposition, or stitched together if thought desirable, and a drainage-tube inserted *per vaginam*. The subsequent treatment would be as for vaginal hysterectomy. Mr. Reeves explains that his object in combining these plans was to do away with the uterine stump and its disadvantages, such as secondary hæmorrhage, septicæmia, dragging on the bladder and rectum, and occasionally the risk of its slipping into the abdomen and causing peritonitis. The combined operation should occupy less time than supravaginal hysterectomy with external treatment of the stump, as much time is taken up with trimming this at

suturing the peritoneum over it. Seeing that the best results in the supra-vaginal operation have been obtained by extra-peritoneal treatment of the stump, and that the mortality is still a high one, any practical plan which will reduce the causes of death should be acceptable. The chief of these are now-a-days hæmorrhage, septicæmia, and peritonitis, and it is believed that the proposed plan will banish all but a possible traumatic peritonitis; and as in vaginal hysterectomy for cancer this has been practically abolished, there is no reason—except, perhaps, the greater size of the growth removed—why the same favourable result should not follow the proposed operation. Complete removal of the fibroid uterus by Freund's method has been done, but the results of his mode of operating have been far from encouraging. The combined plan suggested allows of free drainage and syringing of the pelvic cavity, and offers every element of operative success, while doing away with many drawbacks. The case mentioned proved to be one of pedunculated fibroids, the larger of which was impacted in the pelvis, and the specimens will be shown at an ensuing meeting of the British Gynæcological Society.

THE ROYAL SOCIETY.

THE list of candidates for election into the Royal Society this year has just been issued to the Fellows. It contains sixty-one names. The candidates belonging to the medical profession are: Dr. Thomas Buzzard; Sir Charles Cameron, of Dublin; Professor W. H. Corfield; Dr. D. J. Cunningham, Professor of Anatomy, Dublin; Dr. Douglas Cunningham, Professor of Physiology, Calcutta; Dr. W. H. Dickinson; Dr. W. D. Halliburton, Assistant Professor of Physiology in University College; Dr. C. McMunn, of Wolverhampton; Dr. W. M. Ord; Dr. W. O. Priestley; Mr. Alfred Sanders, F.L.S.; Dr. David Sharp, President of the Entomological Society; Dr. Thomas Stevenson; Sir William Stokes; Mr. T. Pridgin Teale; Dr. R. Thorne Thorne; Professor C. M. Tidy; and Dr. Henry Trimen, Director of the Royal Botanic Gardens, Ceylon.

STROPHANTHUS AS AN ANTIPYRETIC.

DR. A. ROVIGHI, of Bologna, in experimenting on the effect of tincture of strophanthus (prepared according to Professor Fraser's directions) in cases of cardiac disease, came to the conclusion that it was much inferior to digitalis and caffeine in its power of regulating disordered action of the heart, relieving dyspnoea, and increasing the excretion of urine. He was, however, struck by the way in which it seemed to lower the temperature, and he therefore tried it in various febrile affections with very satisfactory results. Thus in four cases of pulmonary phthisis in which for months there had been considerable pyrexia, and in which other antipyretic remedies were useless or were badly borne by the patient, tincture of strophanthus in doses of from four to six minims every six hours reduced the temperature by two or three degrees. In a lad suffering from tubercular disease of the intestine with peritonitis, with a temperature of from 40° to 40.5° C., three minims of the strophanthus tincture every six hours brought the temperature down to 37.5° in the course of twelve hours, and as long as the remedy was continued, the temperature never rose beyond 37.8° C. In a patient with tubercular disease of the left hip, a pyrexial temperature of 39.7° C. fell to 37.2° after the administration of fifteen minims (five every six hours) of tincture of strophanthus. In a case of typhoid fever in the second week four to six drops every six hours lowered the temperature by two degrees. In all these cases the drug eased headache, lessened the quickness of the pulse, and produced a feeling of comfort in the patient, and did not in any instance give rise to symptoms of collapse, nor to disturbance of the gastro-intestinal canal, nor profuse sweating. Dr. Rovighi states that these clinical observations were confirmed by experiments on rabbits, in which

tincture of strophanthus in doses of ten or twelve minims lowered both the general and the local temperature to a very marked degree. On the other hand, Dr. V. Martini, of the University of Siena, has (*Sul Valore Antipiretico dello Strofantho*, Siena, 1888), tested the alleged antipyretic properties of strophanthus with absolutely negative results. He used a tincture prepared by Merck, of Darmstadt, of the same degree of concentration as Fraser's, and also one made by Messrs. Burroughs, Wellcome, and Co. according to Professor Fraser's latest formula. He tried it in cases of phthisis, tubercular peritonitis, broncho-pneumonia, acute rheumatism, erysipelas of the face, acute purulent cystitis, and hysterical pyrexia. From ten to fifty drops were given daily in three, four, or more doses at regular intervals. The thermometric readings were carefully noted every three hours for three or four days before and after each experiment, as well as during the course of it; in some cases the temperature was taken every hour whilst the drug was being administered. In the majority of cases no effect whatever on the temperature was observed; in a very few instances there was a slight fall, extending only to some fractions of a degree, which was followed almost immediately by a return to the former level. Dr. Martini concludes that strophanthus has not the slightest value as an antipyretic.

FEVER AND SANITARY DEFECTS AT BUCKINGHAM.

THE sanitary authority of the little town of Buckingham has just been awakened by an outbreak of typhoid fever to the conclusion that the general sanitary condition of the locality is not so satisfactory as it should be. For some years past Mr. De'Ath, the medical officer of health, has drawn the attention of the authority time after time to the need for improvement in the sanitary arrangements, but, as a member remarked at a recent meeting, his reports have been ignored. He has pointed out that the drainage is in many respects defective; that, although the water supply is good at its source, he could not feel certain that in the course of its distribution it might not become fouled by the leakage of some faulty drains; that in many cases the closet accommodation is not what it ought to be, that the scavenging needs to be better done so that the accumulations of filth at present to be found round about dwellings might disappear. In fact, the town needs a general cleaning up and putting in order, and afterwards a careful supervision, in order to secure a wholesome state of things. The Local Government Board have been appealed to for an immediate inspection, but surely in these days of local self-government that is a sign of weakness and unnecessary panic. The facts are admitted by the Mayor and other members of the Town Council, who have verified them by personal inspection. They have been reported many times by the responsible health officer. What advice can the central authority give in such a case except to clean up the district, put the drainage in proper order, protect the water supply, and establish a system of frequent and periodical removal of filth and refuse? It is strange that the outbreak of disease, with its attendant misery and expense, should so frequently be required to secure improvement of defective local hygienic arrangements.

COCAINE POISONING.

IN the *Vratch*, No. 4, 1888, p. 64, Dr. Nikolai M. Unkovsky, of Moscow, relates the case of a strong man, aged 56, suffering from hydrocele, in whom the hypodermic injection of two Pravaz syringe-fuls of a 4 per cent. solution of hydrochlorate of cocaine was followed in a few minutes by intense excitement, agonising pain along the spine (especially in the lumbar region), giddiness, blanching of the skin and mucous membranes, dryness of the mouth and throat, weakness of the pulse and voice, paroxysmal dyspnoea, failure of sight, prostration, and complete inability to move the limbs. The patient's state rapidly growing worse, Dr. Unkovsky resorted to free inhalations of amyl nitrite (recom-

mended as the best antidote to cocaine by Professor W. F. Grube, of Kharkov, and Dr. Schilling—see JOURNAL, vol. i, 1887, (pp. 695 and 1401) and subcutaneous injections of ether. The symptoms gradually disappeared in about an hour and a half. The total quantity of amyl nitrite inhaled (from a piece of cotton wool) in the course of an hour amounted to nearly one gramme while three syringefuls of ether were injected. The operation for hydrocele (injections of a 4 per cent. carbolic solution, etc.) was absolutely painless. Dr. Unkovsky also saw a case in which mental disturbance occurred an hour after the injection of half a syringeful of a 20 per cent. solution of the alkaloid into the gum. In another patient, an injection of a syringeful of a 4 per cent. cocaine solution under the skin of the leg gave rise in about six hours to giddiness, suffocation, slowness of the pulse, pallor, and faintness.

INHALATIONS OF HYDROFLUORIC ACID IN PHTHISIS.

SEVERAL French physicians have been trying the effects of inhalations of hydrofluoric acid gas in the treatment of pulmonary tuberculosis. Several methods of administering the gas have been suggested: probably the simplest form is that brought before the Therapeutical Society of Paris by M. Constantin Paul. M. Paul uses an ordinary wine bottle, containing a solution of fluoride of ammonium of the strength of two parts to a thousand. The bottle is closed by an india-rubber stopper with two holes, through which pass two glass tubes, one of them passing nearly to the bottom. The patient is directed to take from fifteen to twenty deep inspirations, and the acid smell of the acid is distinctly perceptible in the expired air. In this way the patient not only derives benefit from the powerful antiseptic qualities of the vapours, but he exercises the lungs. M. Paul is unable to explain how the gas comes into contact with surfaces which are protected by mucus, but he claims to have met with considerable success in several severe cases of pulmonary excavation and bronchiectasis. Under this treatment patients regain flesh and strength, and the malady appears to be arrested for a time in its course.

MULTIPLE ABSCESSSES IN SUCKLINGS.

SEVERAL authorities have noted the frequency of abscess in infant life. Hensch has shown that suppuration of the connective tissue is especially marked during the first years of infancy. He refers to the multiple abscesses which appear simultaneously and successively in many parts of the body without appreciable cause. The younger the child the more frequent are the abscesses. He believes that there must be a distinct suppurative diathesis. Dr. Bouchut attributes this frequent suppuration of the subcutaneous tissue to three diatheses: first, the puerperal diathesis; secondly, struma; and thirdly, syphilis. The latter two conditions are well known; the former is seen when a mother has continued to suckle her child after the appearance of symptoms of puerperal fever. In a case of this kind the child was seized with erysipelas a week after weaning, it having been weaned when eight days old. After the subsidence of the erysipelas, abscesses developed in the arm, abdomen, elbow, knee, breast, foot, etc.; they were opened, but more appeared, and the child was not well till the third month. Dr. Roulland, of Niort, has recently written on this subject in the *Annales de Gynécologie*. He observes that Hensch and Bouchut alone have considered the question in a scientific manner. He concludes that subcutaneous multiple abscesses are seen in sucklings, and appear to be traceable to several causes. Hereditary taints, syphilis, and acrofula especially, are decided sources of the affection. There remains a more important and essential form, Bouchut's puerperal diathesis. Dr. Roulland believes that he has proved auto-infection in a case of green diarrhoea at least. The child, aged six weeks, was closely

watched and kept scrupulously clean; the mother was in robust health, and continued to suckle her child, but, the milk diminishing, the child was allowed too frequent use of the bottle; this had set up diarrhoea. Dr. Roulland succeeded in curing that dangerous complication, and persisted in seeing that the child was kept clean. However, abscesses freely formed. Three months after recovery the child was again seized with diarrhoea, though it had been carefully brought up. During convalescence, fresh abscesses formed. The infant ultimately recovered. Dr. Roulland believes that this patient must have been infected by the absorption of noxious alkaloids formed in the intestines. True infection from without may follow the ingestion of milk from a mother stricken with puerperal fever, or may result from erysipelas, or suppuration of the stump of the cord. Dr. Roulland also quotes the important researches of Dr. Escherich (*Centralblatt für Kinderheilkunde*, No. 2, 1887), who declares that in all children at the breast, whether they be well or ill, the staphylococcus albus and the staphylococcus aureus are constantly to be found in the liver and in the more superficial layers of the epidermis. These pyogenic germs can enter the sebaceous and sudoriparous glands, and set up inflammation. Of course they more usually enter through a breach of surface, which is so common in the tender integuments of an infant. Throughout his memoir Dr. Roulland uses the term "*nourisson*" indiscriminately for all infants at the breast, whether suckled by their own mothers or by wet nurses. Some of the worst cases which he describes were nursed by their mothers, who were in many cases quite healthy. From the case above quoted every practitioner will draw the natural conclusion that in many other instances the bottle, and not the breast nor the binder, is to blame.

SCOTLAND.

PRESENTATION TO PROFESSOR CLELAND OF GLASGOW.

IMMEDIATELY after the close of the winter session of the medical classes at the University, the students assembled in the Anatomical Theatre and presented Professor Cleland with several very handsome pieces of silver plate on the occasion of his approaching marriage.

PRELIMINARY EXAMINATIONS.

THE half-yearly preliminary examinations in general education for degrees in medicine and science in the University of Glasgow were held last week, simultaneously in the examination hall of the University and in the University College of North Wales Bangor. There were in all 482 candidates, being the largest number ever entered for these examinations. At the medical preliminary examination held by the Faculty of Physicians and Surgeons there were seventy-five candidates.

ANDERSON'S COLLEGE DISPENSARY, GLASGOW.

At the annual meeting the directors reported that during the past year 3,149 visits, comprising 1,291 new cases, had been made to the sick poor, and that 12,106 new cases had attended the dispensary. In addition, the dispensary has undertaken the visitation of the pensioners on the outdoor fund of the Association for the Relief of Incurables. These, during the past year, numbered about 150, and were attended by the students of the College under proper supervision.

DR. THOMAS KEITH'S REMOVAL TO LONDON.

It is announced that Dr. Thomas Keith has made arrangements for removing to London shortly. Though it has often been rumoured that the distinguished surgeon meditated such a change, little attention has hitherto been paid to the statement. But now the announcement comes with startling unexpectedness.

It seems but yesterday since the fact was formally published that Dr. Keith had obtained funds which enabled him to institute an Edinburgh Hospital for Women, to be practically under his own management. Apparently this project has been abandoned. By the removal of Dr. Thomas Keith, the Edinburgh school loses one of its most striking figures, and the Royal Infirmary one of the most distinguished members of its staff. The position Dr. Keith has for many years occupied in the public mind, as well as among his professional brethren, is so completely unique that the blank will not easily be filled. No one is more generally respected, and no one is more devotedly revered by the few who have been permitted to know him well. It is with much reluctance that Edinburgh releases another of her favourite sons for further triumphs in the wider field of the metropolis.

MEDICO-CHIRURGICAL SOCIETY, GLASGOW.

At a meeting of the surgical section, Dr. Knox showed a patient on whom he had successfully performed the old operation for ruptured femoral aneurysm. Drs. Knox and Beatson showed a patient who had suffered from double popliteal aneurysm, the larger having been cured by compression of the common femoral by Dr. Knox, the other at a later date by ligature of the superficial femoral by Dr. Beatson. Dr. Beatson also showed a patient suffering from femoral arterio-venous aneurysm and two card specimens, a large parovarian cyst, and an old intracapsular fracture of the neck of the femur.

TUBERCULOSIS IN RELATION TO FOOD SUPPLIES.

THE Medico-Chirurgical Society of Edinburgh, at its last meeting, agreed to memorialise the Privy Council on the subject of tuberculosis in relation to the supply of meat and milk, with the prayer that the matter may receive early and full consideration, and such measures be adopted as the grave issues demand. The Society has also under consideration the advisability of addressing the local authorities on the subject of the better inspection and ventilation of cow-houses and dairies. An evident difficulty in connection with this latter move is the necessity that such a system, to be effective, must be more general than can be ensured by the city authorities.

CLINICAL EXAMINATIONS AT EDINBURGH UNIVERSITY.

THE Board of Examiners of Edinburgh University has adopted certain suggestions for the conduct of the final examination for the M.B. degree which will be received with much satisfaction by candidates. The new arrangements are of the most common-sense description. In place of the clinical examination in medicine dragging its weary length through six weeks it will be completed in a fortnight. The system of examination will be no less thorough than formerly, but students will not have their mental powers kept in the state of very uncertain equilibrium through six long weary weeks. The regular summer clinical instruction also will be less disturbed. It is to be hoped that similar arrangements will be made for the surgical side of the examination, which, it is announced, will be made more stringent.

ST. MUNGO'S COLLEGE BILL.

THE managers of the Glasgow Royal Infirmary have issued a statement in favour of this Bill. They dwell on the size and importance of the infirmary, and briefly but pointedly state its history. Contrasting the large numbers of students that used to be trained within its walls and the small numbers that now attend, they attribute the decline to the removal of the university westwards, the opening of the Western Infirmary close to the new university, the impossibility of a student now obtaining a degree at St. Andrews as could be done before 1862, and the facilities

for obtaining degrees in England by the affiliation of the Newcastle School to Durham University, and by the colleges of the Victoria University. The statement emphasises the value to a hospital of the attendance of students in numbers, and points to the overcrowding at the Western Infirmary. It expresses the willingness of the managers to grant to the proposed college the use of the buildings at present occupied by their medical school, and of the furniture contained in them, so that, without further endowment, the new college might start fully equipped.

ABERCROMBY STREET INDUSTRIAL SCHOOL, GLASGOW.

A FURTHER report has been made by Dr. J. B. Russell on the extraordinary epidemic among the boys in this school, from which we learn that up to this date there have been 4 deaths in the institution, 27 boys and 2 girls have been removed to Belvedere, and 31 boys are more or less ill, being a total of 64 attacked. The occurrence of the two cases among the girls gave rise to great anxiety, because both were employed in the kitchen, and one had a brother who was one of the first attacked among the boys, and the mother had more than once gone from visiting her son to see her daughter. These circumstances were strongly suggestive of infection, but the girls were promptly removed, and there has been no more illness among them. As regards the nature of the disease, the opinions of those who have observed it are still at variance. Of hitherto defined diseases "influenza" of a malignant type, and "infectious pneumonia" are the only choice. Something may be said both for and against each, but whether this outbreak falls under either denomination, or arises from some new septic poison, or from some other known septic poison acting under circumstances of special local aggravation, cannot be discussed till all the lines of inquiry are completed. Whatever may be the ultimate diagnosis, we are driven back upon the local insanitary condition. There is a blood-poison of some sort which is either created or intensified by these conditions. Much public attention has been directed to the graveyard beside the institution, especially on account of the cholera pits of 1848 therein. But the graveyard is only one item—a serious item, no doubt—in the aggregate of insanitary circumstances. It has been found that tobacco chewing was much practised by the boys, and, while such a practice could not cause a febrile disease, it may be added to the other causes of depressed vitality which render these boys ready victims to disease. Dr. Russell further refers to similar outbreaks that have occurred from time to time in similar institutions. Ten years ago there was an outbreak in Werthorn Roman Catholic Reformatory for Boys, in which two boys died rapidly. In January, 1887, there was an outbreak at Birkdale Roman Catholic Reformatory for Boys, in which twenty-three were affected and three died. Dr. Seaton, of the Local Government Board, has also described a febrile epidemic disease that broke out in a Roman Catholic school for boys near London, and caused 157 illnesses and 7 deaths, some as rapidly as in the present instance, and with almost identical symptoms. In all these cases doubts as to the nature of the disease did not prevent the inference that obvious local insanitary circumstances were the cause.

PIT BURIAL AT DALBETH, NEAR GLASGOW.

THE Barony Parochial Board, as local authority, have been investigating the mode of interment, called "pit burial," at Dalbeth Cemetery, of which Dr. James A. Adams has complained as a nuisance and dangerous to the health of the inmates of the neighbouring Roman Catholic convent. Dr. Christie, the medical officer of the board, has visited the cemetery, and condemns the system most strongly. He says that the burial pits at present in use are 12 feet deep, 7½ feet long, and 6 feet wide. The pit is dug into from 4 to 6 feet of the original stiff clay soil, the upper portion being made-up soil. A layer of coffins is placed on the bottom, and sprinkled

over with a little earth, then another layer of coffins, and so on, until the pit is filled to about 3 feet from the surface, when it is covered over with stiff clay. Each pit, when full, will contain about 36 adult bodies, and about the same number of children, making about 70 in all. The pit inspected had been but recently opened, and in the space of half an hour Dr. Christie witnessed 5 interments therein. The pit system has been in vogue since 1863, when the cemetery was opened, but at first and for several years the pits were much smaller than those now in use. No offensive odour could be detected on going round the pits and over the ground, but the weather was cold and unfavourable to decomposition, and it is hardly possible to conceive that these pits during the hot dry weather of summer could be inodorous. Dr. Christie further investigated the causes of deaths that have taken place in the neighbourhood of the cemetery since 1881, but he has failed to connect any of them with the insanitary state of the cemetery. The question of deaths in the neighbourhood, however, is comparatively immaterial; for those who attend the funerals are most exposed to the danger, and there may be cases of severe illness without death. According to the Public Health (Scotland) Act, 1867, "any churchyard, cemetery, or place of sepulture, so situated or so crowded with bodies or otherwise so conducted as to be offensive or injurious to health, may be treated as a nuisance, and shut up or regulated on sufficient proof being laid before the sheriff by the local authority of the place in which the graveyard is situated." According to the Burials Act, it is in the power of the local authority to shut up or regulate all graveyards which are "conducted in such a manner as to be dangerous to health, or offensive, or contrary to decency." Seventy coffins disposed of within the space mentioned, and covered with three feet of clay, is a nuisance within the meaning of these Acts, and such a nuisance exists at Dalbeth.

IRELAND.

THE LABOURERS ACT: CELBRIDGE UNION.

LAST week Dr. Hayes made an application to the board of guardians for a remuneration of ten shillings a house for each house inspected by him under the Labourers Act. The guardians, however, considered this too much, and unanimously passed a resolution awarding him half-a-crown a house, which Dr. Hayes indignantly refused, and the matter has been referred to the arbitration of the Local Government Board.

TRINITY COLLEGE: LECTURESHIP ON MEDICAL JURISPRUDENCE.

ON Saturday (to-day) the Board of Trinity College will proceed to the election of a successor to the late Dr. Travers, Lecturer on Medical Jurisprudence. Among the candidates mentioned are Dr. Quinlan, Dr. E. MacDowel Cosgrave, Dr. Pratt, Dr. Bewley, and Dr. Auchinleck.

THE LOCAL GOVERNMENT BOARD INSPECTORSHIP.

AS yet there is no official confirmation of the statement that Dr. Edward Thompson, of Omagh, has been appointed inspector under the Local Government Board. It is, however, generally believed that he has been selected, and already numerous candidates are in the field for the various offices held by him.

BELFAST WATER SUPPLY.

THE controversy which has been waged during the past winter regarding the quality of the water supplied to the inhabitants of Belfast may be regarded as finally set at rest by the reports recently presented to the Belfast Water Board by Dr. Tidy and Dr. Davis, of Netley. When public attention was first drawn to the alleged impurities of the Belfast water, the Water Commissioners

obtained the services of Dr. Tidy, who came over and personally inspected the water sources, the reservoirs, the public fountains, and the supply to private houses. He brought away samples of water for examination, and the results of his analysis are now presented to the public. He states that, while the quantity of organic matters in the Belfast waters is rather high, "he has no hesitation in advising the Commissioners that this organic matter is of vegetable and not of animal origin, and that it is of a perfectly harmless and innocuous nature. The dissolved organic matter is less than is often to be found in the much-lauded Loch Katrine water, and, all told, amounts to less than one grain per gallon." He also reports favourably regarding the state of the water sources, and believes that the Commissioners have not been guilty of any negligence in the past in their choice of feeders for the reservoirs. He advises that the water should be filtered, rather to improve its colour and appearance than to avert any positive danger. The report of Dr. Davis is similar in tone. These reports from such competent authorities will finally reassure the public mind, which had naturally been disturbed by the very alarmist statements made both in the press and in the Belfast Town Council. These statements were believed more readily than would otherwise have happened, owing to the fact that the death-rate of Belfast has been abnormally high during the past winter, and the blame was not unnaturally cast upon the alleged defects in the water supply.

METHODS OF EXECUTING CRIMINALS.—The committee of the Medico-Legal Society of New York, to whom the subject of the best method of executing the death penalty was referred for consideration and report, has had under its consideration some important papers dealing with this subject, by medical men and others who have given special study to it. The suggestions made by the committee in their report, which have been approved and adopted by the Medico-Legal Society, include the following:—That hanging should be abolished as cruel, and contrary to the public sense of our civilisation. That as a substitute for the present death penalty they recommend—Death by the electric current; or, death by hypodermatic, or other injection of poison; or, death by carbonic oxide gas injected into a small room in each gaol, as recommended by Prof. John H. Packard (*Med.-Leg. Papers*, vol 3, p. 521), giving preference to the first, or death by electric current. In their judgment executions should be private, and not public, for if it was possible to prevent the publication of details of executions in the public press, it would be a public good. A further suggestion is that the bodies of criminals should be delivered to the medical schools after execution for dissection. No opinion is expressed by the committee as to the propriety of inflicting capital punishment by the State, as to which there is a strong opinion of the popular mind. This report bears the signatures of the following members of the committee: R. Ogden Doremus, Clark Bell, J. Mount Bleyer, M.D., Chas. F. Stillman, M.D., Frank H. Ingram, M.D.

DOMESTIC HYGIENE.—An interesting course of lectures has just been given at the Parkes Museum by Dr. Schofield on Domestic Hygiene. The lectures were addressed especially to ladies, and the good attendance and great attention showed that the lectures met a want that had been much felt. After the lecture on March 16th on "Boys and Girls," some specimens of reasonable or, as it is called, rational dress combined with beauty were shown, and a capital demonstration of the value of improved physical culture was given by Miss Chreiman, and, after the fifth lecture on "Home Nursing," an illustration of the mode of handling a patient in bed under various circumstances was given by two trained hospital nurses. The lectures will be followed by an examination in the subjects dealt with, and H. R. H. the Duchess of Albany, Patroness of the museum, has consented to distribute the certificates to the successful candidates on May 5th.

REGISTRATION AND EXAMINATION OF PLUMBERS.—The Registration Committee of the Worshipful Company of Plumbers received at the Guildhall on Wednesday the first nominations for the registration of Plumbers in Edinburgh and the East of Scotland. They were forwarded by the Council recently formed in Edinburgh, under the presidency of Sir Douglas Maclagan, M.D., to extend the registration system in that district of Scotland.

PETITION TO THE HOUSE OF COMMONS AGAINST THE TAXATION OF HORSES OF MEDICAL PRACTITIONERS.

It is suggested that the following, or some similar, petition be addressed by every medical practitioner who desires to oppose the imposition of the tax, to the member of Parliament for his district, with a request that he will present it and support its prayer. It should be written on one sheet of paper, and on one side of the paper only. If addressed to an M.P. at the House of Commons, and the wrapper marked Petition, it does not need to be stamped.

ERNEST HART,
Chairman of the Parliamentary Bills Committee,
British Medical Association.

TO THE HONOURABLE THE HOUSE OF COMMONS IN PARLIAMENT ASSEMBLED.

The petition of your petitioners humbly sheweth—

That in view of the proposal in the forthcoming Budget to impose a horse tax and increase in the carriage tax, a grievous burden will be inflicted upon members of the medical profession, who have often, in discharge of their duties both in the public service and in private practice, to travel long distances—such as, in many instances of very unremunerative work, necessitate the use of a horse and vehicle.

That as such horses and vehicles are used for the exclusive purpose of the performance of such duties, or other purposes in connection with the conduct of medical practice. We humbly pray your Honourable House to amend or rescind this clause, as introduced by the Chancellor of the Exchequer, which will have an oppressive effect on the performance of the duties of the medical practitioner, and tend to injure the interests of the health of the community.

And your petitioners will ever pray.

RECURRENCE OF MALIGNANT GROWTHS AFTER REMOVAL.

At the recent meeting of the French Surgical Congress perhaps the most important question discussed was the recurrence of malignant growths after extirpation. M. Cazin, of Bercy-sur-Mer, introduced the subject by giving a summary of the results of operations which he had performed from 1862 to 1886. During these twenty-four years he had removed no less than 564 tumours, including myxomata, chondromata, and sarcomata, besides true cancerous growths. In 102 cases of scirrhus of the breast there was secondary glandular affection in 60; of these 7 were permanently cured, in 48 recurrence took place, 3 died, and in 2 the result was unknown. Among the remaining 42 cases, in which the glands were unaffected, there were 8 cures, 28 recurrences, 2 deaths, and 5 were lost sight of. In 120 cases of encephaloid, the glands were involved in 80; of these 5 were cured, the disease returned in 67, 4 died, and 4 could not be traced. Thus in a total of 222 cases there were 28, or 12.6 per cent., permanent cures. Taking the scirrhus cases separately, we find that the total number of cures was 15, or 14.7 per cent.; but of those in which the glands were affected, only 7 out of 60, or 11.66 per cent., were cured, while of the others, in which the disease was limited to the breast, permanent cure was obtained in 8 out of 42, or a fraction over 19 per cent. Among the 120 cases of encephaloid, 13, or 10.8 per cent., were cured; but of the 80 in which the glands were involved, the proportion of cures was only 5, or 6.25 per cent., whilst of the 40 in which there was no glandular enlargement, no fewer than 8, or 20 per cent., were cured. In the cases in which recurrence took place, the disease returned from three months to seven years after the operation; this statement, it is to be presumed, applies to the whole mass of cases taken together, and not to the cancer group alone. M. Cazin is right, we think, in looking upon these results as fairly satisfactory in the present state of surgical science, and he attributes his success to the freedom with which he removes apparently healthy tissues surrounding the growth, and to the care with which he seeks for and removes, not only diseased glands, but the lymphatics between them and the tumour. He is not content with exploring the axilla, but makes minute search

in the subclavicular region, behind the clavicle, and in the supraclavicular fossa.

M. Verneuil, whilst laying stress on thorough-going methods of operating, drew attention to a point which he considered of the utmost importance in the prevention of recurrence after extirpation. He said that when a cancerous tumour was removed, some seeds of the disease were, in the vast majority of cases, left behind, which sooner or later developed into a fresh growth. This, however, did not as a rule take place for some time after the operation, and during that period the morbid process was in abeyance. That was the time, in his opinion, when the morbid elements being in an inactive state, there might be some chance of destroying them or eliminating them from the system by internal medication. Thus a prolonged course of alkaline treatment (Vichy water, magnesia, etc.), together with arsenic, should be tried after operation, with the view of neutralising the gouty diathesis, which M. Verneuil believed to be the predisposing cause of cancer. Again, as it had been shown by M. Reclus that cancer was all but unknown among persons whose food was exclusively vegetable, this fact might afford a useful hint as to diet in the prevention of recurrence. M. Verneuil, alluding to the increased prevalence of cancer at the present time, said that when he was Lisfranc's house-surgeon, in 1844, that enthusiastic operator had only two or three cases of cancer of the anus or rectum in the course of the year; to-day, M. Verneuil, at the same hospital and with the same number of patients, had on an average fifteen such cases come under his hand annually. The same might be said with regard to the breast, the lip, and the tongue; in fact, there were three or four times as many cases of cancer now as there were forty years ago. He believed that this was largely due to the carnivorous habits of diet of the present generation. Whilst speaking of the length of time that cancer might remain latent in the system, M. Verneuil mentioned the case of a lady from whom, thirty-four years previously, he had removed a tumour which was examined after the operation and pronounced to be cancerous. Thirty years afterwards the disease recurred in the scar, and was again extirpated; the microscopic examination completely confirmed the former diagnosis.

M. Labbé agreed with M. Verneuil as to the probable advantage of post-operative treatment with arsenic and alkalies; he was also disposed from his experience, extending over many years, to place some reliance on tincture of condurango as a preventive of recurrence.

M. Galezowski confirmed M. Verneuil's statement as to the increased frequency of the occurrence of cancer from the field of ophthalmic practice. He had, during the six years that he was assistant to Desmares, seen only one or two cases of melanocarcinoma of the eye; he now saw on an average six every year.

M. Mollière, of Lyons, said that the great point to attend to in estimating the probability of recurrence was the patient's age. If he were young, the disease was so certain to return, that he doubted whether it was worth while to operate; after 50 there was a fair chance that recurrence might not take place, after 70 it was almost certain that the patient would remain free from the disease.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of April next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

March 15th, 1888.

NOTICE OF QUARTERLY MEETINGS FOR 1888. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the

General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE REPORT UPON THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887 will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHThERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on THE ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHThERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held on Thursday, April 19th, at the Hackney Town Hall, at 8.30 P.M. The chair will be taken by F. M. CORNER, Esq. A paper on the Surgery of Abscess will be read by HOWARD MARSH, Esq. Visitors will be welcome.—J. W. HUNT, 101, Queen's Road, Dalston, Honorary Secretary.

WEST SOMERSET BRANCH.—The spring meeting will be held at the Railway Hotel, Taunton, on Thursday, April 12th, at 5 P.M. Dinner at 5.30 P.M. The subject settled by the Council to be discussed after dinner is Bone Setting. Mr. W. J. PENNY, Assistant-Surgeon to the Bristol General Hospital, and Demonstrator of Anatomy to the Bristol Medical School, has kindly promised to come and open the discussion. The election of representative of the Branch on the Council of the Association for the ensuing year will take place at this meeting.—W. M. KELLY, M.D., Taunton, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will take place on Friday, April 27th, at the Hospital, Gravesend, R. J. BRYDEN, Esq., in the chair. Gentlemen desirous of reading papers or exhibiting specimens are requested to inform the Honorary Secretary of the District not later than April 8th. Further particulars will be duly announced.—A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Infirmary, Sunderland, on Wednesday, April 25th, at 3 P.M. Members intending to read papers or show specimens are requested to communicate at once with the secretary. The dinner after the meeting will take place at the Queen's Hotel, at 5 o'clock. The following papers are already promised:—Dr. HUME: A Case of Congenital Fistula of the Stomach, Cured by Operation. Dr. COLEY: On the Treatment of Effusion into the Pleura in Children. Dr. MURPHY: A Man 229 Days after Gastrostomy. Dr. OLIVER: Notes on an Unusual Case of Hematuria.—G. E. WILLIAMSON, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne, Honorary Secretary.

NORTH OF IRELAND BRANCH.—A general meeting of this Branch will be held in the Royal Hospital, Belfast, on Thursday, April 19th, at 11 A.M. Dr. JOHN STRAHAN will read a paper on Turpentine in Whooping-Cough and some other affections. Dr. O'NEILL will show two patients on whom he operated for Congenital Inguino-Scrotal Hernia (Radical cure), and read notes of the cases. Professor SINCLAIR will report upon a Successful Jejunal Enterectomy performed on the day of the last Branch meeting, and exhibit the segment of intestine excised. Dr. BURDEN will show a series of Microscopic Preparations of Tumours. Dr. BYERS will show an Ovarian Tumour which he successfully removed.—JOHN W. BYERS, M.D., Lower Crescent, Belfast, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary, Oxford, on Friday, April 27th, at 3 P.M. Notice of papers to be read must be sent to W. LEWIS MORGAN, 42, Broad Street, Oxford, on or before April 18th. A dinner will be provided for those members who signify their intention to dine to the Secretary two days before the meeting.—S. D. DARRISLIRE and W. LEWIS MORGAN, Honorary Secretaries.

SOUTHERN BRANCH: SOUTHAMPTON DISTRICT.—The next meeting of this District will be held on Tuesday, April 10th, 1888, at the residence of Dr. Maclean, C.B., 23, Carlton Crescent, at 8 P.M. Business: Election of officers. Passing of accounts. At the same time, a joint meeting with the Southampton Medical Society will take place, when a paper will be read by Brigade-Surgeon Godwin, M.S., on the Treatment of Wounds of the Abdominal Viscera. Dr. L.

M. Buckell will bring under notice a case, with specimen, of Monstee Birth. Association and Branch subscriptions for current year, amounting to £1 3s. 6d., became due on January 1st, and may be paid to the Honorary Secretary as soon as convenient.—THEOPH. W. TREND, M.D., Honorary Secretary, 6, Anglesea Place, Southampton.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—Ordinary meeting at the Grosvenor Hotel, Queen's Gate, Southsea, on Thursday, April 11th, 1888. The chair will be taken by the President, Dr. James Watson, at 4.15 P.M. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications are requested to signify their intention at once to the Honorary Secretary. Dinner will be provided at 6.30 P.M.; charge, 5s., exclusive of wine, etc.—J. WARD COUSINS, Honorary Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The spring meeting of this Branch will be held at Pontypridd, on Friday, April 13th, at 12.30. Papers promised:—J. P. FRY: A Case of Excision of the Thyroid. J. ARNALL JONES: A Case of Oedema of Hand, with Specimen. J. TAHAM THOMPSON: On Detachment of the Retina.—ALFRED SHEEN, M.D., Cardiff; D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A MEETING of this Branch was held at 193, Union Street, Aberdeen, on Wednesday, March 21st, at 1 P.M. Dr. URQUHART, Vice-president, in the chair.

Minutes and Nomination of New Members.—The minutes of last meeting being read and approved, Dr. James Cravie, Newburgh, was nominated for ballot at next meeting.

Admission of New Members.—The following gentlemen were balloted for and admitted as members of the Branch, namely:—Dr. John Anderson, Elmhill House, Aberdeen; Professor Cash, Dee Street; Dr. John W. Hutcheon, Alford; Dr. George Mair, 21, Crown Street, Aberdeen; Dr. Robert Morrison, Rosieburn, Methlie; Dr. Stephen, Belhelvie; Dr. Whitton, Aberchirder, Banffshire.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

A MEETING of this District was held on Wednesday evening, March 28th, 1888, at the North-West London Hospital, Kentish Town Road, N.W., A. E. DURHAM, Esq., President of the Branch in the chair.

Cases.—Several interesting cases from the wards of the hospital and out-patients' department were exhibited.—Dr. HOOD: Case of Marked Lineæ Albicantes after Dropsy.—Mr. F. DURHAM's cases: Fissured Fracture of Skull; Trephining; Recovery. Tumour of Neck, pushing Trachea and Larynx to opposite side. Osteotomy of Femur. Pathological Specimens: Cancer of Breast; Sarcoma of Sole of Foot; Melon Seed Bodies from Compound Palmar Ganglion; Two Breasts with Scirrhus.—Dr. COLLINS's cases were Paralysis of Fifth Nerve; Opacity in Vitreous.—Dr. CAMPBELL's cases: Early Puberty in Boy of 7 years. Coloboma.—Mr. BLACK: Ulceration of Tongue; Epithelioma.

Communications.—Dr. HOOD read a paper on Empyema following Pneumonia.

Vote of Thanks.—Votes of thanks to the President, Dr. Hood, and the gentlemen who had shown cases, as well as to the Committee of the hospital, were given.

SHROPSHIRE AND MID-WALES BRANCH.

A HALF-YEARLY meeting of the Branch was held at the Salop Infirmary on Tuesday, March 27th, at 3 P.M.; the President, W. EDDOWES, Esq., occupied the chair.

New Members.—The following gentlemen were elected members of the Branch: E. L. BIRD, Shrewsbury; R. T. CESAR, Wellington; C. I. GIBSON, Shifnal; F. K. PIGOT, Shrewsbury; S. H. PUEKLE, Bishop's Castle; A. F. WHITWELL, Shrewsbury; G. F. JOHNSTON, Wellington.

Communications.—Mr. J. T. MEEK read notes of a case of Intestinal Obstruction, and on a case of Cirrhosis of the Liver, with nervous symptoms.—Mr. J. F. HARRIES gave a demonstration of the latest Antiseptic Dressings.—Mr. J. L. WEBB read notes on three cases of Carcinoma of the Breast, and asked for answers from members of the Branch to the following questions: 1. The average duration of life, after operation for cancer of the breast, in old and young cases? 2. Is eczema of the nipple a common precursor of cancer? 3. Whether it is common to find tumours of the scalp in recurrent cases? Mr. Webb also showed microscopic sections of the growth.

Electric Cystoscopy.—Mr. ASHTON SALT, of Birmingham, attended the meeting, and exhibited and practically demonstrated some new and interesting inventions for examinations by Electric

Light of the Bladder and its entrances, also various appliances for cauterisation.

The PRESIDENT subsequently entertained the members in a most hospitable manner.

EAST ANGLIAN BRANCH: ESSEX DISTRICT.

AN ordinary meeting of this District was held at the Saracen's Head Hotel, Dunmow, on March 23rd, 1888, R. B. MARRIOTT, Esq., President, in the chair. There were also present ten members and visitors.

Election of Honorary Secretary.—Mr. C. E. ABBOTT, Braintree, was re-elected Honorary Secretary for the ensuing year.

Next Meeting.—It was decided that the next meeting be held at Clacton-on-Sea in September.

Communication from the Lancashire and Cheshire Branch.—Dr. W. A. ELLISTON, Ipswich, proposed the following resolution: "That this meeting expresses its approval of the memorial of the Lancashire and Cheshire Branch respecting the inadequate fees paid to medical witnesses at assizes and county sessions, and requests the Council of the Association to petition the Home Secretary to revise the fees which are at present paid to medical witnesses."—This was seconded by Dr. S. R. ALEXANDER, and carried unanimously.

New Members.—The following members were elected: H. Stear, Esq., Saffron Walden; E. W. Holland, Esq., Chelmsford.

The late Mr. W. T. Jackman.—Dr. HOLDEN, Sudbury, proposed in appropriate terms that a letter of condolence be sent to the relatives of the late Mr. W. T. Jackman, Brixton, S.W., who was mainly instrumental in the formation of the District in 1885, and filled the post of Honorary Secretary for two years, and whose untimely death, at the age of 34, occurred on November 2nd, 1887.—This was seconded by the PRESIDENT, and carried unanimously.

Communications.—R. B. MARRIOTT, Esq. (President): Short Notes on a few Cases of Stone in the Bladder.—Dr. F. DE HAVILLAND HALL, London: Remarks on certain Remedies employed for the Relief of Pain and Spasm.—Dr. DOWNES, Chelmsford: Remarks on Epidemic Diphtheria in Rural Districts.

Cases.—Mr. C. HARTLEY, Dunmow, exhibited several interesting surgical cases.

The members afterwards sat down to a "high tea" at the hotel.

GLOUCESTERSHIRE BRANCH.

AN ordinary meeting was held on Tuesday, March 20th, at 7.30 P.M., at the General Hospital, Cheltenham, under the presidency of Dr. CURRIE.

Minutes of Last Meeting.—The minutes of the last meeting were read. It was proposed by Dr. NEEDHAM and seconded by Dr. SOUTAR that the last paragraph be omitted. Carried.

Paper.—Mr. MASON (General Hospital, Cheltenham) read a paper on seventy cases of typhoid fever which had been admitted into the hospital during the last six months. A discussion followed.

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Nephrectomy.—Melanosarcosis.—Phlegmonous Pharyngitis.

At a recent meeting of the Imperial Royal Society of Physicians of Vienna, Professor Weinechner showed a woman, aged 51, on whom he had performed nephrectomy for pyonephrosis. The patient had suffered for ten years from pains in the right part of the abdomen, and a tumour, the size of which was constantly varying, developed beneath the right costal arch. At different periods the patient was attacked with fever, and suffered from pains in the swelling, the urine being clear, and the tumour increasing in size on each of these occasions; in the apyretic periods the urine was found to contain pus, the swelling diminished, and the patient felt well. These alternating periods were, during the first five years, observed only once every twelve months, but during the last few years they had become much more frequent, so that the patient was never quite free from pain. On admission a tumour, which extended almost to the symphysis, was detected; it was tender on pressure, and presented a distinct fluctuation; the urine was clear. Professor Weinechner performed nephrectomy by the extraperitoneal method. An incision

was made at the outer margin of the sacro-lumbalis muscle, the kidney was laid bare, and about half a litre of pus was discharged from it by puncture. After the upper and lower ends of the organ had been detached and the pedicle ligatured, the kidney was removed. Healing took place without any trouble; the quantity of the urine increased from 600 to 900 grammes, and on the twentieth day after operation it amounted to 1,300 grammes.

Docens Dr. Zemann, assistant to Professor Kundrat in the chair of pathological anatomy, brought before the same Society, specimens of two cases of melanosarcoma with secondary formations. The first case was that of a patient, aged 35, who had been treated in the clinic of Professor Billroth, and who was, at the beginning of his disease, affected with a small *nevus pigmentosus* on the back. Melanosarcomata of a colossal size developed later on in the axillary glands, a certain number of which were removed by operation. Innumerable small melanotic tumours also formed in the skin over the whole body. The *post-mortem* examination, which was made by Dr. Zemann, showed that there were a great number of secondary formations in most of the internal organs. What was of a special interest in this case, was the uniform dark brown colour of some organs, such as the liver and the spleen. The cancellous tissue of the bones, especially of the vertebrae, was also intensely dark in colour. Some nodules could also be detected in the pleura, the pericardium, the œsophagus, and the pharynx. In the second case, that of a man aged 70, a melanosarcoma of the left eyeball was the primary affection. Enucleation was performed, but the patient died some time afterwards. The number of secondary formations was still greater in this case, some melanosarcomatous patches having been found even in the large veins, and on the internal surface of the dura mater.

Dr. Zemann also showed a specimen of "pharyngitis submucosa phlegmonosa" from a man aged 60. This case was of special interest from the fact that Senator, who had recently described this affection in the *Berliner Klinische Wochenschrift*, stated that the disease was previously quite unknown. According to Dr. Zemann, however, pathologists, if not clinicians, had long been well acquainted with the affection, and the disease was not so very rare, as four or five examples of it were generally observed each year in the *post-mortem* rooms of the Vienna General Hospital. The disease was characterised by phlegmonous inflammation of the submucous cellular tissue of the pharynx and the larynx, running a very acute course; this was why the diagnosis could be made only with great difficulty in the living subject. The patient from whom Dr. Zemann's specimen was taken had been admitted into the General Hospital on March 8th, with symptoms of emphysema, severe bronchitis, and slight dyspnoea. His condition improved during the night, but on the morning of the 9th the dyspnoea increased, and death supervened before an exact examination of the case had been made. In the pharynx, extensive infiltration of the submucous layer with cloudy serous fluid was found. There was, moreover, enormous swelling of the right ary-epiglottic fold from infiltration with pus, and there were superficial ulcerations of the pharyngeal mucous membrane. The swelling and infiltration also affected the right wall of the larynx, and extended as far as the ventricular bands. Besides emphysema and bronchitis, parenchymatous degeneration of the cardiac muscle, the liver, and the kidneys, and acute swelling of the spleen were observed. Dr. Zemann remarked that the disease was to be looked upon as a most dangerous infectious malady, with an exceedingly rapid course; its origin was still unknown. Persons attacked died either from parenchymatous degeneration of the heart or from asphyxia caused by narrowing of the air-passages. Another case which had been recently observed was that of a young girl with cardiac failure. Owing to sudden dyspnoea, tracheotomy was resorted to, but without success, and death immediately supervened. The *post-mortem* examination showed that death was due to acute phlegmonous pharyngitis. In conclusion, Dr. Zemann urged clinicians to study more closely at the bedside this disease, which was well known in the deadhouse.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

The Health of the Emperor.—Fatality of Laryngectomy.

I AM in a position to give you authentic information as to the present condition of the Emperor. The growth is absolutely localised and limited, the neighbouring glands are not in any way affected, and even where the disease is worst it makes little or

no progress. His Imperial Majesty's general health is excellent; he has become very grey, but still retains his elastic step and soldierlike bearing. He takes daily walks in the sunny gardens of Charlottenburg Schloss. Yesterday, March 30th, he visited his capital for the first time since his accession, and was received with the utmost enthusiasm by the Berlin people.

Some days ago Herr Kayser, member of the Social Democratic section of the Reichstag, died, immediately after a partial extirpation of the larynx for cancer, which was performed by Professor von Bergmann, our leading surgeon. A like result followed the last two operations of the same kind done by Dr. E. Hahn, who is well known in England for having operated on Mr. Montagu Williams. It is also said, but I cannot vouch for the truth of the statement, that all the eleven other patients on whom Professor von Bergmann has performed laryngectomy, have died. The fatal results of these operations go far to justify those who refused to expose the precious life of the heir to the throne to so formidable a risk. Public opinion is beginning to veer round to that view of the case. A brighter view of the situation is now generally taken, and at any rate it appears certain that no immediate danger is to be apprehended.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

A Curious Case.—Iodism.—Vitality of Rabie Virus.

M. PETER has recently had under his care at the Hôpital Necker a curious case of hysteria, presenting the phenomena of sensibility of the integuments to gold, and susceptibility to the influence of medicinal substances at a distance. The patient was a man, who applied on account of contracture of the entire right side, principally in the leg. He is a well known hysterical subject, and it was on him that the theory of telepathic medicine, broached not long ago by two surgeons of Rochefort, was chiefly based. It was noticed that his skin was extremely sensitive to the contact of certain metals; but Dr. Peter, who is very cautious in accepting such facts, seeing that the patient was an inveterate liar, took every precaution to ensure absolute accuracy in the experiments he undertook. Dr. Peter, as if by accident, touched the back of the man's hand with a gold ring which he was wearing. The patient complained of a sensation of pain, and the next morning there was a small blister, as of a burn of the second degree, on the spot touched by the ring. The same day the head-nurse, while helping the patient, accidentally touched one of his fingers with her gold chain, and the same result was produced. To prove that there was no trickery, and that the man had not purposely burnt himself with a match, Dr. Peter's assistant, Dr. Caron, percussed the man's back, particularly where his hand could not reach, even with a lighted match, and wherever Dr. Caron's gold ring had touched the skin there was a blister as in the first case. Other metals similarly applied did not give the same result. Following up these experiments with regard to the influence of medicaments at a distance, the following curious effect was observed. Without the patient being aware of it, a small tube wrapped up in paper, the contents of which were unknown to Dr. Peter himself and to his assistants, was held within about four inches of the back of the patient's neck. In less than ten minutes his face became covered with profuse perspiration, he was seized with nausea, and soon vomited some liquid. On tearing off the paper cover from the tube, it was seen to contain ipecacuanha. Similar experiments with alcohol and opium gave no results whatever.

According to M. Duret, poisoning by iodine shows itself in three distinct forms—the eruptive, the cerebral or delirious, and the syncopal or hypothermic. The eruptive form is the most frequent. It is characterised by a rubeolar eruption appearing on the different parts of the body, and far removed from the point of application. The poisonous and iodised principles are absorbed by the body, and this eruption is probably caused by the eliminative process carried on through the glands of the skin. The second form is characterised by epileptic symptoms, or by fits of sleeplessness accompanied with delirium. The third form is more serious. The absorption of the iodine is followed by a great increase or decrease in the temperature, which sometimes falls as low as 34.6° C. These symptoms cease as soon as the iodine is no longer given. Thus, if iodine is valuable on account of its antiseptic properties, yet it must be employed with caution, as in some cases it gives rise to lymphangitis with diffuse suppurative

cellulitis. M. Duret has twice seen inflammation produced by its use in wounds on the hands and fingers. The inflammation ceased when the iodine was discontinued.

The virus of rabies is so active in buried corpses, that when subsequent doubts arise as to the nature of the disease which proved mortal, inoculation with the exhumed medulla oblongata will settle the question. M. Galtier has observed that the medulla of a dog dead from rabies, removed seventeen days after death, then buried in the earth for fifteen days longer, preserved all its virulence. Inoculations from it caused rabies in twelve days.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Glasgow Faculty of Physicians and Surgeons.—Glasgow University.—Glasgow Philosophical Society.—Small-pox on Board an Atlantic Liner.—Prosecution under the Margarine Act.—Measles Epidemic in Port Glasgow.

At the meeting on April 2nd, the election of a representative to the General Medical Council took place. Dr. D. C. McVail has represented the Faculty recently, having been elected to complete the term for which the late Dr. Scott Orr was appointed. It was decided that the new election should be for five years; and, thereafter, Dr. Alexander Robertson, seconded by Dr. James Dunlop, nominated Dr. McVail for re-election. Dr. James Finlayson nominated Dr. Hector Cameron, and was seconded by Dr. Donald Fraser, of Paisley. The vote was by ballot, and 54 voted for Dr. Cameron, 50 for Dr. McVail, 2 declining to vote. Dr. Cameron was, accordingly, declared elected. Unusual interest has been manifested in the election, the meeting being the largest ever held, and many Fellows coming considerable distances to take part in the business.

The number of candidates for the medical preliminary examination at this University has been steadily increasing at each half-yearly examination. At this term the very large number of 482 has been reached. The winter session of the medical classes closed last week. The examinations for degrees in medicine and science begin to-day (Friday). For the degrees in medicine, first, second, and third examinations, there are 86, 50, and 68 candidates respectively, a total of 204; while 60 candidates apply for the examinations for B.Sc. The Board, recently appointed in connection with Glasgow University, for the extension of university teaching by local lectures and classes, has issued an account of the scheme and the mode of working it, in which, after the results of the scheme, as carried on by the Universities of Oxford and Cambridge, have been described, the various tentative efforts made in the same direction in Scotland are alluded to. The pamphlet follows with a careful explanation of the purpose and method of the scheme, and the proper manner of working it, ending with detailed information for the benefit of local committees, of the means they should adopt for making the scheme effective, and of the cost of so doing. With the issue of this pamphlet there ends the preliminary stage of this movement. The fruits of the scheme cannot begin to appear till next autumn and winter, but the account has been published in good time to give those directly interested in the movement the opportunity of considering whether they will take advantage of it. The pamphlet can be obtained from the University publishers, Messrs. Maclehoose and Sons, Glasgow.

At the last two meetings of the Glasgow Philosophical Society very interesting communications have been made in reference to atmospheric particles and micro-organisms in air, water, etc. On March 8th, Mr. John Aitken, F.R.S.E., showed a most ingenious method of counting the number of dust particles in the atmosphere. The essence of the method consists in producing a fog, by supersaturating the air whose dust particles one wishes to count with water in a glass receiver. Each fog particle has a dust particle as a nucleus, and by a simple method of magnifying and illumination, the particles are seen falling on a small silver mirror with a ruled surface. The details of the method were published in *Nature* of March 1st. By his method Mr. Aitken calculated the number of particles in the outside atmosphere, when rain was falling, to be 521,000 per cubic inch, and 2,119,000 when it was fair. In the atmosphere of a room the number was 30,318,000, and in the air near the ceiling 88,346,000, all per cubic inch. In a Bunsen flame he calculated the number to be 489,000,000. Mr. Aitken adds: "It does seem strange that there may be as many dust particles in one cubic

inch of the air of a room at night when the gas is burning as there are inhabitants in Great Britain, and that in three cubic inches of the gases from a Bunsen flame there are as many particles as there are inhabitants in the world." At the meeting of March 21st, Mr. Ernest Maylard, M.B., gave a most interesting demonstration of bacteriological methods adopted for the detection and cultivation of micro-organisms in air, water, and soil. He also demonstrated some of the pathogenic organisms. Referring to the recent report regarding the pollution of Loch Long, Mr. Maylard gave results of some observations he had recently made by bacteriological methods, which showed that, from this point of view, while Loch Goil was nearly as pure as Loch Katrine, Loch Long was little better than the Clyde itself. Mr. Maylard's demonstration brought together a very large meeting.

The Anchor Line steamer *Circassia* arrived in the Clyde from New York on March 22nd, with five cases of small-pox on board. The first case was reported four days after the vessel left New York, and the other cases occurred at intervals of one and two days. Immediately on the arrival of the ship opposite Greenock, the men were removed to the Greenock small-pox hospital. Half of the crew had been revaccinated on the voyage, and Dr. Wallace, of Greenock, revaccinated the remainder, together with all the passengers. All of the men affected belonged to the crew. After thorough disinfection, the vessel was allowed to proceed to Glasgow. No other cases have yet been reported.

The first case of prosecution in Glasgow under the Margarine Act was brought up on March 23rd, when the accused was fined a modified penalty of £2, for failing to mark clearly the margarine he had exposed for sale in his shop.

The School Board of Port Glasgow have found it necessary to close one of their schools in the east end of the town, because of the prevalence of measles among the scholars. Towards the close of last week, 150 were reported absent from this cause, and by March 26th the absentees had increased to 227. Very few cases have been fatal, but the epidemic has spread with very great rapidity.

CORRESPONDENCE.

MR. STANHOPE AND THE RANK OF ARMY MEDICAL OFFICERS.

SIR,—I was much disappointed with the tone of Mr. Stanhope's reply to my question on March 13th. His courtesy in all matters connected with the department had been so great last year, and the reception given by him to the Parliamentary Bills Committee deputation was so cordial and friendly, that I was quite unprepared for the cavalier way in which he has now flung down the gauntlet of defiance to the civil profession.

No doubt, according to the strict letter of hard and fast military law, the collection of the opinions of medical officers by a "civilian association" may be in "contravention of discipline," for we know that combination is specially abhorrent to the official mind. But whether it is judicious, in the interest of a service which depends for its very existence on the estimation in which it is held by medical schools and by medical practitioners outside, to take this line is a question which I must leave every unprejudiced reader to settle for himself.

In my judgment, nothing can be gained but everything may be lost by an ostentatious indifference to the views of army doctors, however expressed, at a time when great changes are impending, and when it will become the duty of the advisers of our medical students seriously to consider whether they can continue to recommend military medical service under the altered conditions of the future.

Mr. Stanhope airily informs us that "the status of medical officers is just what it was before." This may be his opinion; but as he does not himself wear the shoe, he cannot tell where it pinches, and nearly 1,000 experienced surgeons on active service, whose views you have so ably analysed, in addition to many who have favoured me with private letters, have stated most emphatically that they have lost much, both in prestige and position, by the abolition of relative rank. We are further told by the Secretary of State for War that a "proper channel" is open to anyone for the discharge of his grievances; and by

this is no doubt meant a personal interview with the Director-General at Whitehall Yard. No one can hold Sir T. Crawford in higher respect than I do. He is courteous and able, and as little formidable as possible under the circumstances; but surely it would be an act of some personal heroism for any individual officer (junior, perhaps, in rank) to enter the dread sanctum for the purpose of arguing out the terms of a Royal Warrant; and, of course, anyone on foreign service can only make his views known through the medium of his principal medical officer, and the fatal defect of this mode of action is that it is scattered and intermittent, and devoid of that cohesive and collective force which a large body of united opinion must possess. You have given the department the opportunity of expressing this with no uncertain sound, and whatever the reception of your communication may be to-day, it must have its due weight in the future, and its influence may make itself felt in quarters the most inconvenient to those who have been induced by their military advisers to brush it contemptuously on one side.

Unfortunately, there does not seem to be any immediate prospect of discussing Vote 4 in the House. The preliminary stage of the army estimates on the motion that the Speaker do now leave the chair is usually devoted to the consideration of every variety of grievance, but this time it was entirely taken up by Sir W. Barttelot's motion for a Royal Commission, and when I rose to address the House on medical questions I was ruled out of order by the Chair. Mr. Stanhope has since declined to give me a pledge that the vote will be taken at a time and hour when full discussion is possible. Last year it came on in August, towards the small hours, and great uncertainty necessarily attends its appearance now; so we must only watch and wait, and make the best use of opportunities as they arise.—I am, etc.,

House of Commons, March 27th.

R. FARQUHARSON.

P.S.—Will you allow me to take this opportunity of gratefully acknowledging the communications I have received in answer to my appeal for definite details regarding the abolition of relative rank? Medical officers have written to me from all parts of the world, and have not only expressed their opinions with fulness and ability, but have told me how they have actually lost prestige and position by what outsiders consider a very trifling change. Armed with this brief, I hope to render some service to the cause when the discussion on the vote comes on.

THE ELECTION OF PRESIDENT OF THE COLLEGE OF PHYSICIANS.

SIR,—As one of your correspondents last week observed, the result of the election of President of the Royal College of Physicians will have given satisfaction to many, but the mode in which it was attained has given dissatisfaction to a large number of Fellows. It is quite true that a form of canvassing, *sub silentio*, was had recourse to, but this was not the only unusual phenomenon which marked the election. A report of a meeting of the Committee of the College of Physicians, published in the *JOURNAL* of February 4th, p. 253, contains a resolution to the effect that it was undesirable for Fellows, Members, or Licentiates to write on professional subjects in journals supplying medical knowledge to the general public. Though etiquette forbade you to reveal the tenour of the animated discussion which took place on this resolution, there was a very strong feeling against it, which found formal expression in an adverse amendment, lost only by a small majority. Many Fellows who were aggrieved at the action of the Censors' Board took advantage of the presidential election to make a protest by voting at the second ballot in favour of that Fellow owing to whose action more especially the resolution of February 2nd had originated.—I am, etc.,

ANOTHER FELLOW.

THE BUDGET.

SIR,—From Mr. Goschen's speech he appears inclined to include the medical man's horse amongst those kept for pleasure, and therefore to be taxed; whereas, as you well know, a horse is just as much a necessary adjunct to a country or town practice as a butcher's or a baker's cart is to his business—the baker's cart carrying bread, and the doctor's brains. Instead of our getting up any memorial on this question, I would ask every medical man in England to write to his member of Parliament, putting the facts before him.—I am, etc.,

JOHN WOODMAN, M.D., President-Elect, South-Western Branch, British Medical Association.

SIR,—Your leading article in the JOURNAL of March 31st appears to assume that doctors' horses will become liable to the new tax. I venture to think the presumption is the other way, and I wrote a letter to the *Times*, which appeared in that journal of April 2nd, pointing out that recent judicial rulings to the effect that the business of general practitioners is "a trade," would appear to strengthen this presumption.

I suppose that in filling up the form for the payment of stamp duty we should be at liberty to declare how many of our horses (if any) were kept for pleasure purposes, and to be liable for the tax only so far as they were concerned. Where a country practitioner carries on an extensive country practice, he not infrequently requires to keep from four to six horses, and it would be monstrously unjust if he were obliged to pay the new impost upon them all.

Perhaps the Parliamentary Bills Committee of our Association will make inquiry on the subject.—I am, etc., J. HOLMES JOY.
Manor House, Tamworth, April 2nd.

SIR,—I do not think we will be dealt so hardly with as you imagine. At present the income-tax people allow us to deduct £30 for each horse from total income, on the ground that the horses are used for professional purposes. I hope, under the new scheme, we will be allowed to pay the "wheel tax" instead of the carriage tax. I for one will make a try to do so. When we are allowed to deduct the keep of the horse as a necessity in the practice, surely we cannot be taxed as if he, she, or it was kept for pleasure. If the horse, then the carriage. If this contention is correct, we shall save by the new Budget.—I am, etc.,

Wilmot House, Erdington, WILLIAM DONOVAN, L.R.C.P.Ed.
Birmingham, March 31st.

SIR,—By the new Budget just before the public we shall have to pay £1 on each horse we use, which is very hard on us country practitioners. The Chancellor of the Exchequer admits in his speech that it will be a great hardship on "doctors and clergymen." If the medical profession, through your valuable Association, were to forcibly urge this injustice upon him, he might be induced to exempt us from this further tax; also the wheel tax as well, if we are to pay this. A petition should be signed and sent in at once, which would materially strengthen your arguments.—I am, etc.,
GENERAL PRACTITIONER.

SIR,—Can nothing be done to prevent so great an injustice to the medical profession as this new horse tax? Surely the Chancellor of the Exchequer, by however great a stretch of the imagination, cannot think a medical man drives about in all weathers and both day and night for pleasure. The medical profession is taxed up to its neck already, without this additional burden, and with the wheel tax in addition it will indeed be a severe burden on many a poor doctor. Perhaps if every member of the profession interested in the matter wrote to the Member of Parliament for the division in which he lives and put the subject clearly before him, it might have some good effect.—I am, etc.,
F. L. NICHOLLS.

April 1st.

** We recommend that course to be adopted without delay. Meantime, the Parliamentary Bills Committee will also no doubt take action; but each medical man should individually and promptly act for himself through his own member, so as to support the proceedings of the Committee.

THE POSITION OF MEDICAL OFFICERS OF HEALTH UNDER THE PROPOSED COUNTY COUNCILS.

SIR,—There is every prospect, as you have justly indicated in your leader on the above subject, that unless some effort be made to supplement an obvious deficiency in the County Government Bill, a great opportunity of improving sanitary administration, especially in rural districts, will be lost. It is remarkable that while the Bill provides the new authorities with advice in the legal and constructive aspects of sanitary matters, it leaves them entirely without any in regard to medical ones. This is the more astonishing considering that every District Council will have such an adviser in the person of its medical officer of health, for it is scarcely to be supposed that if these minor authorities require such advice, the central body, which is to be invested with their control, can do its work efficiently without such help.

No one who knows anything of the practical requirements of our sanitary organisation can have any doubt that the County

Councils have a most important work before them in the direction of organising, consolidating, and unifying sanitary administration, if they are only properly equipped for such functions, and if they understand, on their creation, that such work is expected of them. I have no hesitation in saying, with some experience in the matter, that the efficiency of sanitary work in rural and the smaller urban districts might be enormously increased by the influence which a competent central health officer, backed up by such a strong body as we may hope the County Councils will become, could exercise. In co-ordinating the statistics of infectious disease alone, he would have, under the uniform enforcement of notification, which cannot be far distant now, an opportunity, such as does not now exist, of preparing the authorities in his district to resist its attacks. And, indeed, it is so obvious as not to require arguing, that if such an officer is necessary in order to stimulate, advise, and generally direct the work of sanitary administration in a small area, he must *a fortiori* be the more so in an organisation which is formed by grouping such small areas together, and the professed object of which is to regulate their administration.

There is, perhaps, room for doubt whether the provisions of the Bill as at present drawn would place any insuperable obstacle in the way of a County Council availing itself of the advice of any medical officer of health in its district, if it desired to do so; but the possibility of such an arrangement is questionable, and it is much better, in view of the importance of the matter, that it should not be simply optional, but as imperative on a County Council to provide itself with such an official as it is at present for a local sanitary authority to do so. Such a requirement should be accompanied with the power of so ordering the relations of the poor-law medical officers to the central officer and to the local authorities as to allow of the whole machinery of public medical administration being used in the most advantageous and economic manner practicable for the public sanitary interests.

And here I venture to differ with you in regard to two of the duties which you suggest might be imposed on such an official, namely, the making of *post-mortem* examinations for coroners' inquests and the work of a county analyst. I feel sure that a central health officer would find quite enough to occupy him in most counties in the way of handling statistics of various kinds, correspondence, attendance at meetings of local authorities, as well as on those of the County Council, to make it very difficult for him to be available at short notice, as is often necessary, in any part of the county, to make a *post-mortem* examination, still less to give the continuous attention which is requisite for food analyses, which are now very well provided for in the hands of men with whose daily occupation such work is much more cognate. It should, however, certainly be the duty of the county medical officer to act as medical assessor to the coroner when the latter was not a medical man, and to make inquiries of first instance, for example, in cases of uncertified deaths, with the view of ascertaining whether there were any *prima facie* grounds for holding an inquest. And in this capacity there would be no difficulty in entrusting him with the general supervision of *post-mortem* examinations.

There is one most important department of sanitary work which should certainly come under the observation of such an officer, and that is vaccination. It is simply absurd that whilst the medical officer of health is required to deal with measures for arresting the spread of small-pox, he has no official cognisance of vaccination. In those counties in which the experiment of combining a number of sanitary districts under a single medical officer of health has been in operation for the last fifteen years, the transition to attaching this official to the County Council would probably in most cases be made without difficulty, but where no such combination has been hitherto effected, it might not be easy at once to create the office without either sacrificing vested interests or entailing a charge for a new salary which might create much opposition. Whilst imposing upon the County Council the absolute duty of appointing a sanitary adviser it is, I think, desirable to give them a certain amount of latitude in determining how they can best make such an appointment with a due regard to economy and to antecedent conditions. We may be quite sure that if the lines of duty are clearly laid down for such an official, the Council may be as safely trusted to do their best to meet this requirement, as the corporations of the large towns, which are now to be created counties of themselves, have shown themselves to be in making similar appointments. It is very inexpedient that the ratepayer should be led to look on the new machinery as likely to

be more expensive than is absolutely necessary. What is wanted is reorganisation as opportunity offers, rather than any sudden upsetting of existing organisation, however imperfect it may be.

I trust, therefore, an effort will be at once made to direct the attention both of the Government and of Parliament to the serious defect which the County Government Bill exhibits in this respect, and there is no body by which such effort could be so appropriately initiated as by the Parliamentary Bills Committee of the British Medical Association.—I am, etc.,
CUIVIS.

NOTIFICATION OF INFECTIOUS DISEASES.

SIR,—I send you herewith a report of proceedings taken against Dr. Dalton, of South Norwood, by the Corporation of Croydon. Dr. Dalton is an M.D. of the University of London, a practitioner of twenty years' standing, and holds a high place in the estimation of his neighbours.

The object of notification of infectious diseases is not for the purpose disclosed in these proceedings. The information being given to the authority, it is immaterial as regards repression by whom the information is given, provided they get it as soon as its nature is established. The Act says that it shall, in some parts of the kingdom, be given by the householder or person in charge of the patient, and also by the medical attendant. In this case, Dr. Dalton had instructed the householder to give notice to the authority; the authority had actually acted upon the notice, and had disinfected the house. The dignity of the authority is, however, damaged, for the notice is not given by the medical attendant. This result is brought to the knowledge of the town clerk, who revenges it by putting the doctor into the dock. This, Sir, may be law, but it is neither justice nor satisfactory to the true promoters of disease repression. It opens the road to private malice, and to conflicts between members of the medical profession, in which it is possible for a superior in social and professional life to be treated with indignity by one of a lower standing, for no true reason whatever, and for no good purpose, as in this case there is nothing to be gained but revenge.

As I have often said before, and the medical profession by the British Medical Association at its annual meeting has endorsed that view, the object of the Act is to procure the repression of disease, and I am doing as much as anybody to promote repression. That repression can only be obtained by information from the source, and the proper person to give that information is, in the opinion of the medical profession, the householder. The law should and, in some cases, does allow the householder to employ the medical attendant as his agent, and, when so acting, the medical attendant should be entitled to a fee, but it should be the householder who ought to be summoned, if the Act is not complied with. The medical attendant could then be called as a witness in the case. In Dr. Dalton's case there was no damage to anyone, except the dignity of somebody, for the spirit of the Act was complied with. I will not insult Dr. Philpot by suggesting for one moment that he has been the instigator of these proceedings, but I am really sorry that he has been compelled to be a party to them. It may be, and it doubtless is, convenient to the medical officer of health to get the information direct from the medical attendant; but how about cases where there is none? I am aware of the existence of such in this borough; in which there has been no medical attendant on cases of infectious disease for reasons best known to the householder, and the action taken by the corporation is more likely to increase the number of cases than to discover them, to the serious detriment of true sanitary work and the continued spread of infectious disease among us. There is a curious idea upon this point which is prevalent among the people, and among lawyers especially, that the doctor should be held liable to a criminal procedure if he does not disclose facts which only come to his notice by reason of his professional employment.

1. It makes the doctor a *particeps criminis* if the disease is not disclosed, and the evidence forthcoming against the householder cannot be satisfactory as to diagnosis, without his aid.

2. It tends to prevent the very people who are most likely to spread the disease, such as lodging-house keepers, hotel keepers, and shopkeepers, employing a medical man at all in such cases, and encourages them to send for an acknowledged quack, or so-called "botanist," two or three of whom are actually practising in Croydon and its neighbourhood.

3. It places two medical men in antagonism to each other, to the detriment of good feeling, and damage to the estimation in which our profession ought to be held by the public, and especially by lawyers, who like to pit one doctor against another.

I think, sir, that the whole medical profession will object to the extension of the law upon the basis on which it stands in this borough, and will call for a law applicable to the whole kingdom, that the householder shall alone be liable to prosecution unless the doctor is acting in an official capacity as the medical officer to a public authority, or a benefit society, etc., the law also enacting that the medical attendant shall act as the agent of the householder when required to do so by him, and that when so acting he shall be entitled to a proper fee to be paid by the local authority.

It could never be intended by the Legislature that a new series of crimes should be put upon the statute book; namely, that doctors must be common informers, and that the dignity of the local authority is lessened, unless the information comes by the medical instead of by another source. The knowledge was actually obtained, in this case, and the measures for the prevention of the spread of disease were actually taken primarily by the act of Dr. Dalton, yet he is prosecuted, and the justices were foolish enough to put a fine upon his conduct, instead of doing him the justice which was really due to him in the matter; namely, inflicting a nominal penalty only.—I am, etc.,

Croydon, April 2nd.

ALFRED CARPENTER.

THE CLIFTON LUNACY CASE.

SIR,—I am sorry that Dr. Marshall should have thought proper to have made what I must pronounce as being an offensive and unwarrantable attack upon me, and made personal because I have dared to differ from him in opinion. I have been strongly urged to take other measures than I now do, but I give him an opportunity of retracting his remarks after he has perused this. The facts are shortly as follows.

I was consulted about the case of Miss Mason in the month of January of this year. I examined her on two occasions, and heard her account of the incarceration in three lunatic asylums. I advised, both in writing and verbally, that Dr. Marshall's action should be dropped altogether; but that there was a strong case against the convent for locking Miss Mason up in her room and depriving her of liberty previous to obtaining the lunacy certificates I felt positive of, and I do so now.

I was examined, on entering the witness-box, on the very certificate of Dr. Marshall on which I had stated that the case ought to have been dropped. I, therefore, declined to answer the question relative to his certificate. One of the witnesses for the defence said to me on leaving the witness-box, "Dr. Winslow, by your answer you have upheld the honour of the profession."

In my last letter, which appears under that of Dr. Marshall, I showed clearly that the course advised by me and the answers given by me met with the approval of the learned judge who tried the case. I cannot but think that had Dr. Marshall considered well before writing as he has done, without the facts before him, it would have been a wiser step to have adopted. I never put up with an insult from anyone, and as I have been grossly insulted by Dr. Marshall, I demand through your columns an apology from him with regard to his statements. I challenge him to substantiate the truth of any one of them, and caution him as to his reply.—I am, etc.,

L. FORBES WINSLOW, M.B., LL.M.Camb., D.C.L.Oxon.

70, Wimpole Street, April 3rd.

THE EDUCATION OF FEEBLE-MINDED CHILDREN.

SIR,—In the JOURNAL of March 31st, I notice under the heading, "Beating an Epileptic Girl," you say, "Why should not suitable classes for such feeble children be provided for day scholars?" There is no reason why classes should not be provided, and some years ago I wrote to Sir E. Currie, who was then on the School Board, urging that classes for feeble-minded children should be formed. I went into details, and showed that the scheme could be easily carried out. Sir E. Currie said, at the time I wrote to him, that the School Board was busy on other matters, but the scheme should be attended to. Nothing however came of it. I am of opinion that feeble-minded children have as much right to be educated by the School Board as the blind and deaf and dumb, who for some time past have received instruction. Schools for the feeble-minded have been in operation in Germany and Norway for some years, and those who are interested in the subject will find an instructive article by Dr. Shuttleworth in the April number of the *Journal of Mental Science*.

There is also no doubt that schools should be visited occasionally by a medical man, who should have power to report to the

authorities. The teachers would be glad of the assistance, and feeble-minded children would benefit. I was sent, some years ago, by Sir E. Currie to report on the case of a child, whose father wished that she should attend the Board School, but the teacher refused to receive her, as she upset the school and could not be instructed. The child was an undoubted imbecile, and about a year ago was admitted into the Darent Asylum.—I am, etc.,
April 4th. FLETCHER BEACH.

"CONSULTATIONS WITH HOMEOPATHS."

SIR.—As three letters have appeared in the JOURNAL, referring to the last paragraphs of the report of the meeting of the Gloucestershire Branch, held on February 21st at Gloucester, I think it only right that I should draw your attention to the report of the meeting held on March 20th, at Cheltenham, when it was resolved that the paragraph in question be erased from the minutes.—I am, etc.,
Cheltenham. G. ARTHUR CARDEW, Honorary Secretary
Gloucestershire Branch.

THE ALLEGED ARREST OF SYPHILIS IN ITS PRIMARY STAGE.

SIR.—Whilst entirely concurring in the view of Mr. Jonathan Hutchinson that syphilis is caused by the presence of a microbe—as yet unknown to the microscope—I have not been able to corroborate his experience that this microbe may be destroyed in its early phase of existence, or when the initial lesion of syphilis alone is present, by means of small doses of mercury. For many years I tried, by giving small doses, first, of green iodide, and then small doses of mercury with chalk, to prevent the occurrence of roseola in my hospital patients, who were all very young women, at the Rescue Society's Lock Hospital; but in all cases I found that when there was a well-marked syphilitic sore, some symptom, such as roseola or mucous tubercles, followed, although often the symptoms were very slight indeed.—I am, etc.,
CHARLES R. DRYSDALE,
Late Physician to the Rescue Society of London.

A NEW INCANDESCENT LAMP CYSTOSCOPE.

SIR.—It may perhaps be of interest to those who contemplate providing themselves with a cystoscope similar to the one so cleverly described by Mr. E. Hurry Fenwick, in the JOURNAL of February 4th, to know that through the agency of Mr. K. Shall, of Wigmore Street, Leiter (of Vienna) has made for me a cystoscope, which, although identical in principle, is of much larger size, and, in my opinion, of much greater practical utility than the one originally introduced.

The diameter of Leiter's first instrument is No. 22, French gauge, that of mine No. 40. The advantages of the increased size are that the larger instrument obviously affords a wider field of vision and the employment of a larger incandescent lamp with corresponding increased brilliancy of light. The window of observation in the new instrument is at least twice the area of that in the old one, and the lamp is double the size.

As there are few urethras with a capacity of 40 French gauge, I propose using, as I have already done, the cystoscope through a median incision in the membranous urethra upon those patients whose urethras will not admit the instrument in the ordinary manner. The objections to the perineal incision have very little foundation in actual practice and are insignificant in comparison to the advantages to be gained by a correct diagnosis—a diagnosis which can frequently only be obtained by a visual and tactile examination of the interior of the bladder, a means for which the perineal incision provides the most direct, the safest, and the most convenient facilities. Recently I explored the bladder of a man with the new cystoscope, and I was able to demonstrate that the illumination and field of vision left nothing to be desired. The following day the patient passed the whole of his urine the natural way.

Lleiter has written to say that he was very much impressed with the suggestion, and that he had tried the cystoscope on a dilated female bladder with the greatest success.—I am, etc.,
Manchester, April 2nd. WALTER WHITEHEAD.

¹ See page 763.

The Local Government Board have sanctioned the appointment of Dr. T. McCorbett as medical officer of the Clonslee Dispensary District.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL SCHOOL.

The summer session of the Army Medical School at Netley commenced on Monday, the 2nd inst., the opening lecture being given by Professor Sir Wm. Aitken, M.D., F.R.S. Twenty-four surgeons of the Army Medical Staff, and fourteen candidates for commissions in H.M.'s Indian Medical Service, have joined to go through the courses of instruction at the school.

EXTENSION OF FOREIGN SERVICE.

In answer to a "Member B.M.A.," we gather from Mr. Stanhope's reply to Dr. Tanner's question in the House that the extension of foreign service will apply to officers of all the departments of the army; this, he said, would be done in the interests of economy, and with the effect of lengthening the period of home service. We have as yet no information as to the "reasonable period" which must be served before claiming pension in any rank; this must be made known very soon now.

MR. STANHOPE'S MEMORANDUM.

FOREIGN SERVICE writes that the reorganisation of the Medical Staff foreshadowed in Mr. Stanhope's memorandum will inflict injustice on officers serving abroad by exacting additional foreign service without any equivalent money compensation; he also complains that the question of rank and status seems ignored in the memorandum, and says it is quite impossible for a civilian to understand the military position of a medical officer from existing titles.

THE ARMY MEDICAL RESERVE.

A MILITIAMAN writes: As a militia medical officer entitled to selection for employment already, the only advantage offered by the new Warrant, why should I subject myself to the chance of being found unfit, and, as you suggest, removed from the department altogether? Besides, as medical officers of militia not belonging to the department get double pay when attending other men than their own, it is much more advantageous not to belong to a department (see Med. Reg., page 167, paragraph 968, Part 5, Section 1). For instance, I was placed in charge of 1,200 men in addition to my own at the training; as a departmental man I received nothing extra; if I had been strictly regimental, I should have got £40 in addition.

Members of the Reserve are to have precedence over civilian practitioners. Does that mean they will not be reckoned as civilians themselves?

THE NAVY.

STAFF-SURGEON WILLIAM EVANS, retired, died in London on March 20th, at the age of 83. His commission as Surgeon bore date September 1st, 1846, and as Staff-Surgeon February 17th, 1858.

Surgeon H. J. M'C. TOBN has been appointed to the *Alexandra*.
Staff-Surgeon A. R. R. PRESTON, M.D., retired, died at Port Alfred, South Africa on February 13th. He entered the service September 1st, 1846, and was made Staff-Surgeon May 1st, 1857.

THE MEDICAL STAFF.

SURGEON-MAJOR R. TURNER, of the 3rd Brigade Cinque Ports Division Royal Artillery (otherwise the Royal Sussex Artillery Militia), has resigned his commission, which was dated March 1st, 1873; he is permitted to retain his rank and uniform.

Brigade-Surgeon J. INKSON, M.D., on arrival from England, is posted to do general duty in the Bangalore District, Belgaum and Ceded Districts, Madras command.

Surgeon R. E. KELLY, M.D., on arrival from England, is posted to do general duty in the Burmah Division, Madras command.

Brigade-Surgeon R. J. W. ORTON died at Newcastle, Staffordshire, on March 20th, aged 56. He entered the service as Assistant-Surgeon May 25th, 1853; became Surgeon March 1st, 1873; and Surgeon-Major April 1st, 1873; he was placed on retired pay with the honorary rank of Brigade-Surgeon June 27th, 1881. Brigade-Surgeon Horton served on the Medical Staff in the Crimea from February 23rd to September 12th, 1855 (medal with clasp from Sebastopol, and Turkish medal), and with the 4th Regiment during the campaign in the North of China in 1868 (medal and clasp for Talien).

Surgeon-Major R. H. GARDNER, M.D., died at Cheltenham on March 19th, at the early age of 36. His Surgeon's commission was dated September 30th, 1873, and that of Surgeon-Major September 20th, 1886. He was engaged in the war in Zululand in 1879, and had received the South African medal and clasp.

Surgeon-Major L. CORBAN, M.D., is promoted to be Brigade-Surgeon (ranking as Lieutenant-Colonel), *vice* John MacKenzie, M.D., retired. Dr. Corban entered the service as Assistant-Surgeon September 30th, 1864; became Surgeon March 1st, 1873; and Surgeon-Major September 30th, 1876. He was (*says Hart's Army List*) specially thanked by Lord Napier of Magdala, Commander-in-Chief in India, in General Orders for services during an epidemic of cholera in Oude in 1872. He served in the Egyptian war of 1882 in medical charge of the 2nd Battalion Duke of Cornwall's Light Infantry, and was present in the engagements at El Maghar and Tel-el-Mahuta, in the two actions at Kassassin, and at the battle of Tel-el-Kebir (mentioned in despatches, promoted Surgeon-Major, with relative rank of Lieutenant-Colonel, medal with clasp, and Khe-rove's Star). He served also with the Nile Expedition in 1884-85 as Senior Medical Officer to the Camel Corps, Medical Field Inspector on the Lines of Communication, and Senior Medical Officer at Abn Fatmah (clasp).

Surgeon-Major R. F. BUCHANAN is granted retired pay. His commissions are dated:—Assistant-Surgeon, March 31st, 1866; Surgeon, March 1st, 1873; and Surgeon-Major, March 31st, 1878. He served during the Afghan war in 1878-79 with the Kuram Field Force, and received the medal for the campaign.

Surgeon W. R. SMITH, M.D., of the 3rd Volunteer Battalion West Kent Regiment (late the 4th Kent), is appointed Surgeon-Major (ranking as Major) in the new Army Medical Reserve.

THE INDIAN MEDICAL SERVICE.

The retirement of Surgeon-General W. J. MOORE, C.I.E., of the Bombay Establishment, and of Deputy Surgeon-General R. F. HUTCHINSON, M.D., of the Bengal Establishment, announced some time since in the JOURNAL, has received the approval of Her Majesty. Dr. Hutchinson is granted the honorary rank of Surgeon-General, his retirement dating from December 9th, 1887.

Surgeon-Major W. F. KNAPP, of the Bombay Establishment, has been transferred to the retired list from the half-pay list, on which he was placed March 18th, 1884.

The services of Surgeon-Major J. WILSON, M.D., Bengal Establishment, are temporarily placed at the disposal of the Government of Bengal.

The services of Surgeon A. O. EVANS, Madras Establishment, are temporarily placed at the disposal of the Government of India in the Home Department for employment in Lower Burma.

Surgeon H. P. DIMMOCK, Bombay Establishment, is appointed to act as Professor of Pathology, Grant Medical College, during the absence of Surgeon R. Manser.

The services of Surgeon J. MACGREGOR, M.D., Bombay Establishment, are temporarily placed at the disposal of the Government of India.

Surgeon W. H. QUICKE, Bombay Establishment, is posted to general duty in the Mhow Division.

Surgeon M. A. T. COLLIE, Bombay Establishment, is appointed Secretary to the Surgeon-General with the Government of Bombay, vice Surgeon-Major D. A. Patterson, transferred to other duty.

Brigade-Surgeon H. COOK, M.D., Bombay Establishment, Civil Surgeon at Poona, is allowed leave of absence to Europe for twelve months on private affairs, with the necessary subsidiary leave.

Surgeon-Major JAMES PETERLIN, late of the Madras Establishment, died at Kew on March 18th, aged 70.

Surgeon-Major E. SANDERS, Bengal Establishment, is appointed Honorary Surgeon to the Central Bengal Light Horse, vice Brigade-Surgeon S. M. Shircore, resigned.

Surgeon F. D. C. HAWKINS, Bengal Establishment, Civil Surgeon 2nd class, is transferred from Sultanpore to Mintoorie.

Surgeon-Major D. P. MACDONALD, M.D., Bengal Establishment, of the 1st Battalion 2nd Goorkhas, has leave of absence for one year on private affairs; and Surgeon D. ELCUM, of the Madras Establishment, Zillah Surgeon at Berhampore, has leave to Europe for eighteen months.

Surgeon-Major T. C. H. SPENCER, of the Madras Establishment, having returned from furlough, is posted to do general duty in the Eastern District.

Surgeon W. H. BURKE, M.B., Bombay Establishment, is directed to act as Civil Surgeon, Rutnagherry.

Surgeon-Major A. BARRY, M.D., Bombay Establishment, is promoted to be Brigade-Surgeon. He entered the service March 31st, 1865, and became Surgeon-Major twelve years thereafter. He was in the Abyssinian war in 1867-68, and in the Afghan war in 1880, and took part in the march to Candahar with the force under Major-General Phayre; he has the Abyssinian and Afghan medals.

THE VOLUNTEERS.

The undermentioned gentlemen have been appointed Acting-Surgeons to the corps specified:—A. W. KNOX, M.B., 1st Volunteer (Norfolk) Brigade Eastern Division Royal Artillery (late the 1st Norfolk Artillery); G. A. GLOAG, 2nd Gloucestershire (the Bristol), Fortress and Railway Forces, Royal Engineers (that is, Engineer Volunteers); F. J. KNOWLES, 2nd Volunteer Battalion South Lancashire Regiment (formerly the 21st Lancashire); SIMON LINTON, M.B., 1st Fifehire Artillery; J. F. TABB, 2nd Kent; G. D. TODD, 1st Volunteer Battalion, West Yorkshire Regiment (late the 1st West Riding).

Acting-Surgeon TALFOURD JONES, M.B., of the 1st (Brecknockshire) Volunteer Battalion South Wales Borderers (late the 1st Brecknockshire), has resigned his commission (dated February 26th, 1876), with permission to retain his rank and uniform.

Surgeon J. L. W. WARD, of the 3rd Volunteer Battalion Welsh Regiment (late the 2nd Glamorgan Volunteers), has been granted the honorary rank of Surgeon-Major.

Acting-Surgeon W. L. BRADDOX, M.B., of the 2nd Volunteer Battalion Worcester Regiment (late the 2nd Worcester), has resigned his appointment dating from September 10th last.

Mr. A. C. TAYLOR, M.D., is appointed Surgeon to the South Nottinghamshire Yeomanry.

Surgeon H. P. SYMONDS, from the 1st (Oxford University) Volunteer Battalion Oxford Light Infantry (otherwise the 1st Oxford), is appointed Surgeon to the Queen's Own Oxford Yeomanry Hussars.

Acting-Surgeon G. BOLTON is transferred from the 1st Northumberland and Sunderland Artillery, on its division into two corps, to the 5th Durham Artillery as Acting-Surgeon, the date of his commission remaining unaltered.

Acting-Surgeon F. E. STREETEN, of the 1st North Riding of Yorkshire, has resigned his appointment, which bore date February 19th, 1887.

Acting-Surgeons A. F. TURNER and B. F. ELLIOT are transferred from the 1st Volunteer (Hampshire) Brigade, Southern Division Royal Artillery, on its division into two corps, to the 3rd Volunteer Brigade of the same Division, the dates of their commissions remaining unchanged.

Surgeon and Honorary Surgeon-Major A. T. NORTON is appointed Surgeon Commandant to the London Division of the Volunteer Medical Staff Corps, vice J. Cantlie, M.B., resigned. Surgeon-Major Norton joined the corps on June 11th, 1885.

2. "I agree, if appointed by the Directors, to accept the office of medical referee for the National Medical Aid Company, Limited, at —, upon the following terms: A remuneration of 2s. 6d. per annum for each member placed on my books by the Company."

The above are extracts from two forms given to me by an individual who represented himself as agent for, and wanted me to become medical referee to, the two above societies.

I took No. 2 first, and asked, "Who is the club intended for?" His answer was: "The middle classes." I told him I should never dream of attending "middle-class" patients at 2s. 6d. per head per annum. "Then what would you take?" he asked. I mentioned a sum considerably larger. "Oh! I can write to the managers and get you that I think, or at any rate 80 per cent. on the gross collections," was his reply.

I said no more, but wondered where the extra money was to come from, and how an "agent" could promise me such exceptional consideration. I might add that the rate of payment of members is 1d. per week adults, 3d. per week under 14 years of age.

Now for No. 1. I thought what examination for life insurance means. Details of personal history, details of family history, examination (by percussion, auscultation, etc.) of thoracic viscera; examination of abdominal viscera, examination and testing of urine, and various other details required. Then I thought of the time it all took; then I thought of the fee, 1s.

I soon made up my mind, and told the agent, "I would rather not accept the office for either." In which conclusion I sincerely trust all other professional brethren will heartily concur.

Surely the profession has not become so regardless of our "status" as to allow such societies "to cram down our throats" any patients they may think fit for us to attend at fees according to their appointing. Let us stand together as a body, unanimous on every point, and refuse to have to do with such affairs, or make them come to consult us first as to our charges and class of patients whom we consider should be admitted into such societies for attendance.

Let us think of our "social" position as a body, and each and everyone of us, by refusing to have to do with such as the above, protect not only our own personal interests, but that of every professional brother; in doing which we should also increase that one end which should always be our aim: "Unanimity in our brotherhood."

IMPERFECT PROTECTION.

MR. BUCHANAN.—Unless the person complained of, by fraudulently adopting a registrable title, has exposed himself to a prosecution under the 40th Section of the Medical Act, we know of no steps that can be taken.

The surgical nature of the case would debar the Society of Apothecaries from taking proceedings; and, as we understand, an indictment for false pretences has already been brought against him, and thrown out.

NATIONAL MEDICAL AID COMPANY.

A COUNTRY MEMBER writes to us with reference to the action of the National Medical Aid Company, in his neighbourhood. We have several times lately expressed our opinion as to the conditions offered by this Company, and we cordially agree with our correspondent that "it is not creditable to our profession that men should be found willing to undertake work on such conditions."

HOSPITAL AND DISPENSARY MANAGEMENT.

MERCER'S HOSPITAL, DUBLIN.

The annual report for the year ending December 31st, 1887, shows that the expenditure was £2,360 12s. 4d.; the income, £1,741 13s. 3d., showing an excess of expenditure of £618 19s. 1d. A serious deficit would have occurred but for some large legacies. The decrease in income, however, occurs almost entirely under the heads of interest and dividends. The governors complain of the resolution of the Dublin Hospital Sunday Fund Committee striking them off the list of those entitled to a share of the annual collections. They state that they have begun the construction of new buildings.

CORK DISTRICT LUNATIC ASYLUM.

DURING the past year 278 patients were admitted into the asylum, while the discharges numbered 151. The deaths amounted to 94. The admissions show an increase of 38, the recoveries an increase of 40, and the deaths a decrease of 6, as compared with 1886. A gratifying feature in last year's report is that the recovery rate was higher than for any of the past five years. On the last day of the past year there were 958 patients in the asylum. The question of increasing the accommodation at the female side of the house, in order to relieve the congestion that has existed for some time, is one that the resident medical superintendent recommends to the consideration of the board of governors. The average allowance of cubic space in Irish asylums appears to be 600 cubic feet per patient. At this rate the accommodation in the asylum, including hospitals, is for 902; excluding hospital beds, which may at any time be necessary, there is only accommodation for 802. The Cork District Lunatic Asylum at present contains 151 pauper lunatics from the Cork Union, and from the entire county 226 workhouse patients. The Cork guardians formerly paid the governors for these patients, but latterly have dis-

MEDICO-LEGAL AND MEDICO-ETHICAL.

A LIBERAL FRIENDLY SOCIETY.

A HORRIFIED CORRESPONDENT writes:—1. "I agree if appointed by the Committee of Management, to accept the office of medical referee for the Liverpool Victoria Friendly Society, at —, upon the following terms: For examination of assurers for amounts above £12 and up to and including £25, not more than 1s. in each case; for assurers above £25 and under £50, not more than 4s. in each case; for assurers above £50 and under £100, not more than 5s. in each case, and for assurers for £100 and upwards, not more than 7s. 6d. in each case."

continued it. The governors, however, insist upon payment, and a meeting of a committee from the governors and guardians has been agreed to in order to consider the question of payment. Dr. Nugent, an Inspector of Lunatic Asylums in Ireland, has expressed his approval of enlarging the accommodation in the workhouse lunatic wards, which has been done very successfully in Belfast, but he does not approve of the lunatic asylum being made subsidiary to the workhouse with reference to the admission of dangerous lunatics.

BELFAST OPHTHALMIC HOSPITAL.

The annual meeting of the supporters of this institution was held on March 29th, under the presidency of Mr. F. D. Ward, J.P., and was largely attended. The medical report showed that 76 cases had been received into the hospital for treatment or operation. At the dispensary attached to the hospital 956 eye cases, 290 ear cases, and 160 throat affections had been treated, making a total of 1,482 cases. Dr. Walton Browne reported that among the operation cases were 25 cases of cataract, which had been operated on without the loss of a single eye. By a recent resolution the certificates of the hospital had been recognised by the Royal University.

The Bishop of Winchester (Dr. Harold Browne) will open the new wards of the Royal Portsmouth and Gosport Hospital on the afternoon of Wednesday, May 30th.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, March 31st, 5,564 births and 3,882 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 living in these towns, which had been 20.3 and 21.1 in the two preceding weeks, further rose to 21.6 during the week under notice. The rates in the several towns ranged from 15.1 in Birkenhead, 17.8 in Hull, and 18.3 in Cardiff to 26.4 in Manchester, 31.3 in Bolton, 33.3 in Blackburn, and 33.4 in Preston. The mean death-rate in the twenty-seven provincial towns was 22.6 per 1,000, and exceeded by 2.3 the rate recorded in London, which was 20.3 per 1,000. The 3,882 deaths registered during the week under notice in the twenty-eight towns included 388 which were referred to the principal zymotic diseases, against 363 and 319 in the two preceding weeks. Of these, 166 resulted from whooping-cough, 63 from scarlet fever, 42 from measles, 35 from "fever" (principally enteric), 31 from diarrhoea, 27 from small-pox, and 24 from diphtheria. These 388 deaths were equal to an annual rate of 2.2 per 1,000; in London the zymotic death-rate was 2.4, while in the twenty-seven provincial towns it averaged 2.0 per 1,000, and ranged from 0.0 in Preston and 0.7 in Portsmouth and in Halifax to 3.4 in Nottingham, 4.5 in Sheffield, and 6.1 in Blackburn. Measles caused the highest proportional fatality in Plymouth, Bradford, and Nottingham; scarlet fever in Blackburn; whooping-cough in Leeds, Brighton, Bolton, Salford, Derby, and Blackburn; and "fever" in Derby. The 24 deaths from diphtheria in the twenty-eight towns included 15 in London, 3 in Norwich, and 2 in Sunderland. Of the 27 fatal cases of small-pox recorded during the week under notice, 19 occurred in Sheffield, 3 in Blackburn, 2 in Nottingham, 1 in Bristol, 1 in Manchester, and 1 in Hull. The Metropolitan Asylums Hospitals contained 9 small-pox patients on Saturday, March 31st, of whom 1 had been admitted during the week. These hospitals also contained 1,087 scarlet fever patients on the same date, which showed a further decline from the numbers in recent weeks; there were 70 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 5.6 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 816 births and 590 deaths were registered during the week ending Saturday, March 31st. The annual rate of mortality, which

had been 21.0 and 22.2 per 1,000 in the two preceding weeks, further rose to 23.7 during the week under notice, and exceeded by 2.1 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns, the lowest rates were recorded in Perth and Aberdeen, and the highest in Paisley and Glasgow. The 590 deaths in these towns during the week under notice included 45 which were referred to the principal zymotic diseases, equal to an annual rate of 1.8 per 1,000, which was 0.4 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Edinburgh, Aberdeen, and Glasgow. The largest proportional fatality of whooping-cough occurred in Aberdeen and Glasgow, and of diphtheria in Edinburgh. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 6.1 per 1,000, against 5.6 in London.

HEALTH OF DUBLIN.—The 211 deaths registered in Dublin during the week ending Saturday, March 31st, were equal to an annual rate of 31.2 per 1,000 (against 20.0 and 29.7 in the two preceding weeks), the rate for the same period being only 20.3 in London and 22.8 in Edinburgh. The 211 deaths included 15 from the principal zymotic diseases (equal to an annual rate of 2.2 per 1,000), of which 8 were referred to whooping-cough, 3 to measles, 2 to scarlet fever, 1 to diphtheria, and 1 to "fever."

GUARDIANS AND MEDICAL OFFICERS.

A MEETING of medical men of Croydon and the neighbourhood was held at the Croydon General Hospital on Wednesday, March 28th, to meet Mr. E. Marshall, of Mitcham, and hear his statement of the difficulty between the Holborn Board of Guardians and himself.

Although convened at short notice, the meeting was largely attended, and the subjoined resolutions unanimously agreed to.

Dr. ALFRED CARPENTER, Vice-President of the British Medical Association, was appointed Chairman. Dr. Duncan, the Honorary Secretary to the East Surrey District, South-Eastern Branch of the British Medical Association, through whom the arrangements for the meeting were made, acted as Honorary Secretary.

After Mr. MARSHALL had made a statement from which it appeared that he had been medical officer to the Mitcham schools belonging to the Holborn Guardians or their predecessors for thirty-two years, and after he had satisfactorily answered the numerous questions which were put to him by the assembled gentlemen, among whom were Dr. W. F. Coles, Croydon; Dr. Wilton, Sutton; Mr. Kelsey, Redhill; Dr. P. T. Duncan, Croydon; Dr. Alfred Carpenter, Croydon; Dr. McNeice, Carshalton; Dr. Hearnden, Sutton; Dr. Moger, Carshalton; Dr. W. Smith, Croydon; Dr. Parsons-Smith, Addiscombe; Dr. Barnes, Croydon; Dr. A. B. Carpenter, Croydon; Mr. T. A. Richardson, Croydon; Dr. Nicholls, Croydon; Dr. Philpot, Croydon; Dr. Adams, Croydon; Mr. George Wray, Mr. A. Matthey, and others:

It was moved by Dr. COLES, and seconded by Dr. HEARDEN: "That having heard the statement made by Mr. Edward Marshall, and the correspondence which has passed between him and the Holborn Board of Guardians having been read, this meeting is of opinion that the action of the Holborn Board is unjust to an old and well-tried officer; that the circumstances in no way warrant the action which that Board proposes to take; and that the President of the Local Government Board be requested to refuse his consent to the proposed removal of Mr. Marshall from his office."

Moved by Dr. PARSONS-SMITH, seconded by Dr. WILTON: "That it is only a matter of justice to the medical profession that medical and sanitary officers, who have fulfilled their duty to the satisfaction of a local authority, should be entitled to some superannuation, according to their length of service and the character of duties performed."

Moved by Mr. A. KELSEY, seconded by Dr. MOGER: "That this meeting is of opinion that no sanitary or medical officer holding office under any public authority should be removable except for grave neglect of duty or for some other cause which has rendered him incompetent to perform the duties of his office."

Moved by Dr. P. T. DUNCAN, seconded by Dr. McNEICE: "That the above resolutions be published in the BRITISH MEDICAL JOURNAL, and forwarded to Mr. Ritchie, the President of the Local Government Board, and to the Chairman of the Parliamentary Bills Committee of the British Medical Association."

OBITUARY.

PROFESSOR FEDELE FEDELI, M.D.

THIS eminent Italian physician died on March 6th, at the age of 76. He was born at Campiglia Marittima in 1812, and spent his life in the teaching and practice of his profession. He occupied the chair of Clinical Medicine in the University of Pisa with great credit to himself and benefit to several generations of students. He was also medical inspector of the hot springs of Montecatini, the virtues of which he set forth in a variety of publications, both in French and Italian. He wrote also on several other medical subjects, his last work being the *Clinica Medica della R. Università di Pisa*. In 1876 he was named a Senator of the kingdom of Italy,

but he took little share in the work of the Senate. He was buried at Pisa, the funeral being attended by the municipal authorities and a vast concourse of students and citizens.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

NOTICES OF MOTION.

NOTICES have been given of the following questions:

DR. TANNER: To ask the Secretary of State for War whether the Royal Warrant of November, 1879, which gave officers of the Army Medical Staff the right to retire after twenty years' service, is about to be interfered with or set aside. Whether the condition of retirement was intended as an inducement to medical men to enter the service. And whether this provision under the said Warrant, if interfered with, will affect the retirement of those medical officers who entered the service since the Warrant was issued.

DR. TANNER: To ask the Secretary of State for War if it is a fact that a General Order has recently been issued to officers of the Army Medical Staff Corps restricting the height of recruits for the corps to the minimum of 5 feet 3 inches. Whether an important portion of the duty allocated to the men of the said corps is to act as litter bearers for the purpose of carrying the wounded men out of action. And what was the previous minimum standard of height for recruits.

UNIVERSITY INTELLIGENCE.

VICTORIA UNIVERSITY.

EXAMINATION LISTS.

(Candidates' names are in alphabetical order throughout.)

FACULTY OF MEDICINE.

Intermediate Examination.

First Division.	Second Division.
Ash, A. E., Owens College	Beaver, H. A., University College
Balmers, A. J., University College	Griffith, A., Owens College
Edwards, G. F., Owens College	Robinson, F., " "
Horrocks, H., " "	Wilson, A. C., University College
Worley, P., " "	

Distinguished in Anatomy.

Ash, A. E., Owens College.

Horrocks, H., " "

Worley, P., " "

Distinguished in Physiology.

Edwards, G. F., Owens College.

Horrocks, H., " "

Worley, P., " "

Final Examination.—Part I.

Alecock, R., Owens College.
Buchanan, R. J. M., University College.
Fearnhead, T., Owens College.
Keltnack, T. N., " "
Stansfield, F. W., " "
Thresh, J. C., " "
Watson, A. B., " "
Wood, F. L., " "

Final Examination.—Part II.

Pomfret, H. W., Owens College.

Distinguished in Pathology.

Thresh, J. C., Owens College.

MEDICAL NEWS.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Second Examination in Anatomy and Physiology at a meeting of the Board of Examiners on April 2nd, namely:—

J. Stalker, T. G. Ouston, A. B. Sturges, and C. Benson, of Leeds School of Medicine; J. E. Gosdon, A. W. McMichael, S. H. Perry, L. P. Gamgee, C. A. Green, and A. J. Green, of Birmingham; H. S. Jackson, L. W. Dryland, S. H. Lucy, and F. R. Scrase, of Bristol School of Medicine; D. L. Davies, J. H. Dow, J. L. Fletcher, R. M. Littler, and J. S. Whitaker, of Owens College, Manchester; H. Hopkins and R. H. W. Dunderdale, of Liverpool Infirmary School of Medicine.

Passed in Anatomy only.

H. Cross, of Sheffield, and W. Pearson, of Owens College, Manchester.

Passed in Physiology only.

W. S. Finch, of Liverpool; A. W. Senior, of Manchester; and C. Wintle, of Bristol.

Passed in Anatomy only on April 3rd.

B. R. Sawhny, of Newcastle-on-Tyne; B. G. Neale and J. S. Griffith, of Bristol School of Medicine; F. C. Bottom and A. H. Beardmore, of Sheffield; J. T. Barrow, of Charing Cross Hospital; J. S. Sewall, of Liverpool; W. A. Stott and J. Fearnley, of Leeds School of Medicine; J. S. Pickford, D. Headridge, and G. W. Holton, of Owens College, Manchester; G.

Kendrick, of Birmingham; D. N. Morgan and R. R. H. Wonnacott, of London Hospital; C. W. Emyln, of St. Bartholomew's Hospital; and O. E. Keller, of Leipzig.

Passed in Physiology only.

C. F. Sutton, A. H. Aldridge, and R. Smith, of Owens College, Manchester; W. B. Pollitt, O. F. Rowley, H. Tempest, E. B. Collings, and A. H. Reinhardt, of Leeds; E. P. H. Lulham and A. H. Meadows, of Guy's Hospital; G. M. Arkle, E. C. Wimberly, and S. Greenwood, of Birmingham; W. Hutchinson, of Haward University; W. B. de Mille, of Halifax.

Passed in Anatomy and Physiology on April 4th.

B. G. M. Baskett, of Bristol School of Medicine; C. H. Preston, of Owens College, Manchester; R. H. Shaw, of Leeds; B. L. Robinson, of St. Mary's Hospital; T. L. Paget, M. L. Hepburn, R. G. Hogarth, E. Turner, and C. Addison, of St. Bartholomew's Hospital; F. R. Riley, E. Chichester, A. H. Smith, C. S. Walfridsson, and W. H. Sturge, of London Hospital; R. M. H. Walford, of St. George's Hospital; C. de Silva, of Ceylon Medical College; C. Ellerman, of Heidelberg and Mr. Cooke's School of Anatomy; H. C. Harper, of Westminster Hospital; T. G. Stevens and W. Winslow, of Guy's Hospital; D. F. Shearer and W. P. Umney, of St. Thomas's Hospital; T. H. Ionides, of University College; N. J. Vaishnav, of Grant Medical College.

Passed in Anatomy only.

A. W. German, of Liverpool; G. Martyn, of King's College; A. A. Fennings, of St. Mary's Hospital; and J. W. Graham, of St. Bartholomew's Hospital.

Passed in Physiology only.

S. F. Wright, of St. Thomas's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen having passed the Qualifying Examination in Medicine, Surgery, and Midwifery have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society.

Abbott, Frederic William, Redrath, Cornwall.
Barratt, John Ogleshorpe Wakelin, 46, Holloway Head, Birmingham.
Clarke, Thomas Henry, Montague Place, Poplar, E.
Cleveland, Henry Francis, 26, Kidbrooke Grove, Blackheath, S.E.
Coryn, Herbert Alfred William, 153, Aere Lane, Brixton, S.W.
Evans, Evan, King Street, Trinity Square, E.C.
Griffiths, John, The Grove, Ruyton XI Towns, Salop.
Metcalfe, William, Field House, Ingletton.
Read, Arnold Edward, St. Paul's Vicarage, Devonport.
Samman, Charles Thomas, Deddington, Oxfordshire.
Sbirthliff, Edward Dickinson, Elmside, Kingston-on-Thames.
Watkins, William James, 19, Rivers Street, Bath.
Williams, Frederic Newton, 131, High Street, Brentford.

The following gentleman passed the Medical portion of the examination.

H. T. S. Aveline, of the Bristol School of Medicine; E. Baly, of the London Hospital; A. E. Howse, of King's College Hospital; H. H. B. Macleod, of King's College Hospital.

The following gentlemen passed the Surgical portion of the examination.

B. H. Andrew, of King's College Hospital; W. J. Best, of the London Hospital; M. P. Cooke, of the Middlesex Hospital; C. H. Cosens, of St. Bartholomew's Hospital; E. V. Pegge, of King's College Hospital; C. J. Stanley, of King's College Hospital; H. B. Trist, of St. Bartholomew's Hospital.

MEDICAL VACANCIES.

The following Vacancies are announced:

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £50, board, etc., and extras. Applications by April 16th to the Chairman of the Weekly Board.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150, and £30 extra for cab hire. Applications by May 10th to A. Forrest, Esq., Secretary.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road.—House-Surgeon. Applications by April 10th to the Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park.—Resident Clinical Assistant. Applications by April 12th to the Secretary, 24, Finsbury Circus, E.C.

DERBY BOROUGH ASYLUM.—Medical Superintendent. Salary, £250, with furnished house, etc. Applications by April 13th, to be addressed to the Derby Borough Asylum Committee, under cover to the Town Clerk, and endorsed "Medical Superintendent."

DURHAM UNION WORKHOUSE.—Medical Officer. Salary, £50, and extras. Applications by April 20th to William Lisle, Esq., Clerk to the Guardians, 38, Sadler Street, Durham.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Resident Clinical Assistants. Applications by April 7th, to the Secretary.

INFIRMARY FOR CHILDREN, Myrtle Street, Liverpool.—House-Surgeon. Salary, £85, with board and lodging. Applications by April 9th, to C. W. Carver, Esq., Honorary Secretary.

LIDDELL PROVIDENT DISPENSARY, Jarrow-on-Tyne.—Medical Officer. Salary, £200. Applications to John Christie, Esq., 28, Cobden Street, Jarrow.

OUGHTERARD UNION, Cloonbar No. 2 Dispensary.—Medical Officer. Salary, £102 per annum and fees. Applications to Mr. James Higgins, Honorary Secretary. Election on April 17th.

OUGHTERARD UNION, Lettermore Dispensary.—Medical Officer. Salary, £132 per annum and fees. Applications to Mr. John Wallace, Honorary Secretary, Tully, Inveran. Election on April 17th.

PARISH OF TARBAT EUSTER, Ross-shire, N.B.—Medical Officer. Salary, £115. Applications to Finlay Munro, Rockfield-by-Fearn, Ross-shire, N.B.
 ROYAL ALBERT HOSPITAL, Devonport.—Honorary Ophthalmic Surgeon. Applications by April 9th to the Chairman of the Selection Committee at the Hospital.
 ST. LUKE'S HOSPITAL.—Resident Clinical Assistant. Board and lodging. Applications by April 26th to the Secretary.

MEDICAL APPOINTMENTS.

BLACKETT, W.C., M.R.C.S., L.S.A., reappointed Medical Officer of Health to the Durham Union.
 BOND, O. K., M.R.C.S., L.R.O.P., appointed Clinical Assistant to the Central London Throat, Ear, and Nose Hospital, Gray's Inn Road, W.C.
 BROOKS, J. Pratt, M.R.C.S., appointed Clinical Assistant to the Central London Throat, Ear, and Nose Hospital, Gray's Inn Road, W.C.
 BROOKS, R. P., M.R.C.S. Eng., L.R.C.P., appointed Second House-Surgeon to the Tottenham Training Hospital, Tottenham.
 BROWN, M. L., M.D. Ed., appointed Surgeon Administrator of Anesthetics to the Dental Hospital, Exeter, vice A. C. Roper, M.R.C.S., resigned.
 CLARKE, J. St. Leger, M.R.C.S., L.K.Q.C.P., has been appointed Senior House-Surgeon to Jervis Street Hospital, Dublin, vice G. Stoker, L.R.C.S.I., L.K.Q.C.P., resigned.
 DAVEY, W. H. C., appointed House-Surgeon to the Charing Cross Hospital.
 DUNLOP, T. Cameron, M.D., appointed Medical Officer to Glasgow Iron Works, St. Rollox, vice Dr. Walker, deceased.
 FIELD, A. Theodore, M.R.C.S. Eng., L.S.A., appointed Medical Officer and Public Vaccinator of the 4th District of the Hillingbourne Union.
 GODFREY, A. E., M.B. Lond., L.R.C.P., M.R.C.S., appointed House-Surgeon to the General Infirmary, Northampton, vice W. E. Audland, L.R.O.P., M.R.C.S., resigned.
 GRAYLING, Arthur, M.R.C.S., appointed Medical Officer to the Forest Hill Provident Dispensary, vice G. C. Parnell, M.R.C.S., resigned.
 GUNN, Christopher, M.D., M.Ch., appointed Surgeon to the Dublin United Tramways Company, vice E. A. White, deceased.
 JAMES, J. T., M.B., appointed Assistant-Surgeon to the Central London Ophthalmic Hospital, Gray's Inn Road.
 MITCHELL, W. G., M.B., M.A., appointed Medical Officer to the Glenmuick Parochial Board, vice H. Haldane, L.F.P.L.S., deceased.
 PECK, Herbert, L.R.C.P. Ed., appointed Resident Assistant Medical Officer to the Workhouse, Walton-on-Hill, vice Henry T. Groom, M.R.C.S. Eng., resigned.
 PROWSE, Arthur B., M.D. Lond., F.R.C.S. Eng., appointed Physician to the Bristol Royal Infirmary, and Dean of the Faculty, Bristol Royal Infirmary.
 SINCLAIR, W. J., M.D., M.A., appointed Professor of Obstetrics to the Owens College, Manchester, vice Professor C. J. Cullingworth, M.D., resigned.
 WEATHERBY, A. J., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to the General Infirmary, Northampton.
 WELLS, A. P. L., M.B., C.M., appointed Assistant-Surgeon to the Central London Ophthalmic Hospital, Gray's Inn Road.
 WILLS, W. A., M.B. Lond., M.R.C.S., appointed Medical Registrar to the Westminster Hospital, vice H. W. Syers, M.D., resigned.
 WOOD, T. Outterson, M.D., F.R.C.P., F.R.C.S. Edin., M.R.C.S. Eng., appointed Physician to the St. George's and St. James's Dispensary, vice F. H. Hawkins, M.D., resigned.

THE REFORM OF LUNACY PROCEDURE.—The annual reports of Garlands Asylum, Carlisle, always contain some interesting information either on the treatment of insanity or the management of asylums. The report for last year is no exception to this rule, and, in addition to the usual information, has some valuable remarks bearing on lunacy legislation which ought to be of service to our legislators at a time when the Lunacy Acts Amendment Bill is before the House of Commons. It is gratifying to observe that Dr. Campbell's Committee are fully alive to the importance of the subject, and have forwarded a copy of Dr. Campbell's remarks to the Lord Chancellor.

A WELL-KNOWN resident of Calcutta has offered 10,000 rupees towards the building or purchase of suitable accommodation for the Lady Dufferin Zenana Hospital for Women and Children, provided the Bengal Branch of the National Association can find 15,000 rupees for the same object. It is stated that without special help the Bengal Branch will not be able to find so large a sum, its small capital being barely sufficient to raise an income for the maintenance of the present establishment and scholarships.

ILLUSTRATIONS OF NERVOUS DISEASE.—A new journal devoted to nervous diseases has appeared in France, with the title *Nouvelle Iconographie de la Salpêtrière*. It is edited by MM. Paul Richer, Gilles de la Tourette, and A. Londe, under the general supervision of M. Charcot. It will be published twice a month, and will be profusely illustrated. The publisher is M. Lecrosnier.

The publication of a new journal for nurses is announced by Messrs. Sampson Low and Co., bearing the title of the *Nursing Record*. It will be published weekly, price twopence.

MACROOM UNION.—The report of Colonel Spaight, Local Government Board Inspector, for the past six months is of a satisfactory nature as regards the general management and condition of the workhouse. He, however, states that the drainage of the infirmary and separation wards is not in a proper condition, and he recommends that the guardians should consult a competent authority as to the best means of remedying this defect.

THE PEAK HYDROPATHIC AND THERMAL ESTABLISHMENT AT BUXTON.—This establishment, which has been considerably enlarged and remodelled throughout, was opened on Monday, when a dinner, concert, and dance were given by Dr. and Mrs. Hyde.

ADULTERATION OF MILK.—A few such fines as that inflicted recently on a Govan milk-seller should have a considerable effect in reducing milk adulteration. The offender in this case was fined £8 for selling milk adulterated with 10 per cent. of water.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Ord: A case of Ulcerative Endocarditis. Mr. Astley Bloxam: On the Treatment of Syphilis by Intramuscular Injection of Mercury.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 P.M.—Dr. Stretch Dowse: On some Practical Points in Relation to the Physiology and Pathology of the Fifth Pair of Nerves. Dr. George Cunningham: A Statistical Inquiry as to the Results of the Immediate Treatment of Pulpless and Abscessed Teeth. Dr. Campbell: Casual Communication.

SOCIETY OF ARTS, 8 P.M.—Mr. Richard Bannister, F.I.C., F.C.S.: The Cattle Lectures on Milk Supply and Butter and Cheese Making. Lecture I.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Mr. Herbert W. Page: A case of Double Nephro-Lithotomy in which Lateral and Median Lithotomy had been previously performed, with Remarks on Sympathy between the Kidneys. Sir T. Spence Wells, Bart.: Remarks on Splenectomy, with a Report of a Successful Case.

WEDNESDAY.

BRITISH GYNECOLOGICAL SOCIETY, 8.30 P.M.—Dr. Robert Bell: On Intra-uterine Medication. Dr. Richard T. Smith: Cystic Disease of the Cervix and Endometrium. Specimens will be exhibited.

HUNTERIAN SOCIETY, 8 P.M.—Dr. Dundas Grant: On Tinnitus Aurium. Mr. De Berdt Hovell: Therapeutic Reminiscences. Dr. A. Davies: A Case of Paralysis.

ROYAL MICROSCOPICAL SOCIETY, 8 P.M.—Dr. R. H. Ward: Fasad's Test Plate. EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 P.M.—Mr. John Spear: The Danger of Specific Contamination of Water during its Distribution, illustrated by a recent Epidemic of Enteric Fever, with certain other points in the Etiology of that Disease.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 8 P.M.—Mr. R. J. Godlee: Case of Acromegaly. Dr. Hadden and Mr. Ballance: Case of Acromegaly. Dr. West: Cases of Acute Periosteal Swellings in several Young Infants belonging to the same Family, perhaps Ricketts nature. Mr. Wainwright: Case Illustrating the Advantage of Early Incision and Drainage as opposed to Excision of Joint. Dr. Hale White: Case of Perihepatitis.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d. which should be forwarded in stamps with the announcement.

BIRTH.

FENOULHET.—February 13th, the wife of J. Peter Fenoulhet, Esq., Horley Surrey, of a daughter.

MARRIAGES.

JONES—WILLIAMS.—At Llanberis Church, by the Rev. D. Jones, Rector, on 28th March ult., Dr. Richard Jones, M.B., C.M., Blaenau Ffestiniog, to Miss Mary Walsh Williams, Erw-Fair, Llanberis.

MACKENZIE—HAMILTON.—On April 4th, at St. Mary Abbot's, Kensington, Rev. E. Kevill-Davies, Lewis Mackenzie, to Augusta Catherine Hamilton.

THORBURN—MELLAND.—On Wednesday, March 28th, at the Congregation Church, Withington, by the Rev. Principal Scott, LL.B., William Thorburn, M.D., F.R.C.S., of Manchester, to Augusta, daughter of W. Melland, Esq., of Moorfield, Withington, near Manchester.

TREVOR—MORPHEW.—On 28th February, at Christ's Church, Rawal Pindi, Punjab, India, by the Rev. Gerald Nichols, Henry Octavius Trevor, Army Medical Staff, son of James Trevor, of Nether Stowey, Somerset, to Alice Marion, second daughter of Augustus Morpew, Army Medical Staff.

DEATHS.

LOOLE.—On April 6th, 1886, suddenly, Cosmo Gordon Logie, M.D., F.R.S., F.S.A., Surgeon-Major Royal Horse Guards (Blue). In memoriam.

PROCTOR.—On the 27th March, at Tunstall, Staffordshire, James Procter, M.R.C.S., of angina pectoris, aged 57 years.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department); 10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M. St. Bartholomew's, St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p., Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

TO CORRESPONDENTS.

OUR correspondents are reminded that prolixity is a great bar to publication, and, with the constant pressure upon every department of the JOURNAL, brevity of style and conciseness of statement greatly facilitate early insertion. We are compelled to return and hold over a great number of communications chiefly by reason of their unnecessary length.

QUERIES.

MR. RICHARD RICE (Harwen, Stevenon, Berks) asks where a woman who is slightly deaf could receive a course of training qualifying her for monthly nursing.

POST-PARTUM HÆMORRHAGE.

FELIX has to attend a lady who in her three previous confinements has suffered from severe flooding following the expulsion of the placenta. The labours have been otherwise in every respect natural, and most favourable in character. All goes well until the conclusion of the process, when complete atony of the uterus seems to take place; and it has been with the greatest difficulty that any of the usual means aroused the apparently exhausted organ to sufficient action to control the continual oozing or gushes of blood. It proved immaterial whether delivery was hastened or retarded, whether the placenta was removed by hand, or left to Nature. Flooding followed, no matter what was done. Hot water injections seemed to do some good on the last occasion.

With respect to ergotine, will some member give his experience, and state the best preparation for hypodermic use? As to Schieffelin's pills of ergotin, can anyone give experience, and state how long they take, after administration, to produce contraction? Would the administration of iron, etc., for some weeks previous to confinement, be of any probable advantage in combating the tendency to hæmorrhage?

ANSWERS.

R.M.B.—We do not recommend individual practitioners.

TREATMENT OF HEARTBURN.

DR. E. H. WARNER (Barton Hill House, Bristol) writes: I gather from "A Member's" query in the JOURNAL of March 24th that his case is one of chronic gastric catarrh, with dilated stomach, the contents of which, being never thoroughly evacuated downwards into the intestines, are retained, and undergo acid fermentation. I would, therefore, recommend him first of all to ensure a daily evacuation of the contents of the stomach by means of a warm solution of Glauber's or Carlsbad salts, given in the morning before any food is taken. In combination with this treatment, in order to check fermentation, and give tone to the coats of the stomach, he will probably find the following formula useful, namely: R Acidi carbonici (liquid) miv; tinct. iodi mxvi; tr. nucis vom. ʒi; aquæ menth. pip. ad ʒiv. M. Sig. ʒss every two hours. If "A Member" has the opportunity of reading the German Clinical Lectures published by the New Sydenham Society, he will find some valuable practical hints as to the treatment of gastric disorders.

F.R.C.S. writes: In reply to "A Member," who asks for "suggestions for the treatment of obstinate heartburn," let his patient try a tumblerful of milk.

SEA-SICKNESS.

DR. J. R. STOCKER (Board of Trade Office, Glasgow) writes: The observations recorded by Drs. Leiser, Stockman, and Prentice (JOURNAL, March 24th), as to the relief afforded in sea-sickness by forced inspiration, are by no means new. In a paper published in the Lancet, December 17th, 1881, when I was medical officer to the royal mail steamship Servia, I referred to this in support of my views upon the etiology of the sickness.

VITAL STATISTICS OF CONVICT PRISONS.

MR. R. POWER (Portsea) writes: Medical statistics of convict prisons are printed in the annual Blue Books, published by Eyre and Spottiswoode, and can be ordered of any bookseller.

PRACTICE IN AMERICA.

DR. JAMES J. O'BRYEN (Lower Sydenham) writes, in answer to "Stars and Stripes": 1. American States: Arizona, Arkansas, California, Colorado, Columbia, Connecticut, Dakota, Idaho, Illinois, Indiana, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Hampshire, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Washington, West Virginia, and Wisconsin. Canadian States: British Columbia, Manitoba, New Brunswick, Nova Scotia, Newfoundland, and Quebec. 2. No. 3. Yes. 4. The cost varies from five to ten dollars, according to the State registered in.

M.D. (U.S.A.) writes: In answer to the four questions asked by "Stars and Stripes" in the JOURNAL of March 31st: I would say, in answer to the first, legally speaking, none. 2. The laws of many States require all medical practitioners (American or British) to register their diplomas before they can legally practise medicine. In other States no registration is required, but the person (American or British) practising medicine must be duly qualified and hold a diploma, otherwise the authorities would soon be on his track, and provide a comfortable (?) home for him for a period of from two to seven years, according to the requirements of the case. 3. All persons graduating at any American Medical College must satisfy the professors of same that they have a sufficient knowledge of medicine, surgery, and obstetrics to successfully practise the same, otherwise they do not receive a diploma; therefore, should the person not have the knowledge, the "ordeal" would be trying. 4. The cost of registering in the States is the same to both British and American physicians, varying in amount according to the laws of the State where the physician desires to reside—say from four to eight shillings. I would here mention that, as regards the State of New York, all persons who have graduated outside that State must, before they are allowed the privilege of registering their diplomas, get the same endorsed by one of the medical colleges of that State; the fee for which is 24. Also, in case any medical college has reason to think that the person presenting the diploma to be endorsed is not qualified, they have the power to examine him, and, if found incompetent, to reject him, but it is very rarely done. Lastly, for the edification of any of your readers, I would say that all British registered medical practitioners

tioners are allowed the same privileges of registration and the rights to practise medicine in America on an equality with American physicians; and it is to be sincerely hoped that Her Majesty's Privy Council will, in accordance with the provisions mentioned in the Medical Act, 1858, extend similar privileges to any duly qualified American physician who may be desirous of practising medicine in Great Britain.

INDUCTION OF PREMATURE LABOUR.

PERPLEXED asks for advice in the following case. A lady, whose last confinement was attended by very great peril, has applied to him under these circumstances. She is pregnant some five or six weeks, and at a consultation of four medical men in the last confinement, it was advised that the future fetus should not be allowed to come to maturity. Would it be safer to cause expulsion of the early fetus, or allow the case to go on to the seventh month, or when? It is preferable to have recourse to the former for various reasons.

On adequate medical grounds it is acknowledged that the course of pregnancy may be interrupted under skilled advice. The determination as to whether, in any particular case, this course is called for, can only be settled on formal consultation.

NOTES, LETTERS, ETC.

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Further donations in aid of the special objects in view will be gratefully received by Dr. G. C. Jonson, 16, South Eaton Place, S.W., or by Dr. John M. Bright, Park Hill, Forest Hill, S.E.

We are asked to state that the gentleman who so generously offers to purchase immediate presentation to the St. Anne's Schools for one of the children, provided that £20 be subscribed before May 31st, is a member of the medical profession.

THE TREATMENT OF SNAKE-BITE.

DR. C. R. ILLINGWORTH writes with reference to a paragraph published on March 10th, p. 549: The symptoms of poisoning by the snake-bite were salivation, bronchorrhœa, and cyanosis. These symptoms, in my opinion, contra-indicate the administration of ammonia. I should think that full and frequently repeated doses of the perchloride of iron would answer well, because of the very evident diminution of the fibrin-forming power of the blood in such cases. In any case it might be tested by experiment upon the lower animals.

FURROWS ON FINGER-NAILS.

DR. J. B. DICKINSON (Stalybridge) writes: Respecting the above subject, mentioned in the JOURNAL of March 21th, I beg to state that thirteen years ago, after suffering from rheumatic fever, I found all my finger-nails furrowed transversely, at the lunula; the furrows gradually grew to the end of the nails, and disappeared after about six months' duration. About a year and a half after, I had a horse which suffered from rheumatic fever; he had also his hoofs distinctly furrowed, the furrows growing further and further down, until ultimately they were set away by the blacksmith, and thus disappeared. Since that time I have seen several cases of furrowed finger-nails following rheumatic fever. Other diseases may produce the same phenomena, but my observations have been confined to rheumatic fever cases.

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BOOKS, ETC. RECEIVED.

The Medical Register (1888), the Medical Students' Register (1888), and the Dentists' Register (1888). London: Spottiswoode and Co.
 Shelley and Co.'s Complete Press Directory for 1888: a full and impartial Guide to the Press of the United Kingdom. Price, 1s., cloth. London: Shelley and Co.
 On Gonorrhœal Infection in Women. By William Japp Sinclair, M.D., M.A. London: H. K. Lewis, 1888.
 Surgical and Applied Anatomy. By Frederick Treves, F.R.C.S. Illustrated with sixty-one engravings. Third edition. London: Cassell and Co.
 Watt's Dictionary of Chemistry. Revised and entirely rewritten. H. Poster Morley, M.A., D.Sc., and M. W. Pattison Muir, M.A. In four vols. (Vol. 1.) London: Longmans, Green and Co.

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CLINICAL LECTURE

ON

LEITER'S ENDOSCOPE IN THE TREATMENT OF VESICAL DISEASE.

Delivered at University College Hospital, March 25th, 1888.

By SIR HENRY THOMPSON, F.R.C.S.,

Surgeon-Extraordinary to H.M. the King of the Belgians; Consulting Surgeon and Emeritus Professor of Clinical Surgery to the Hospital.

GENTLEMEN,—Some important improvements have been recently made in endoscopic apparatus for examining the various cavities of the body. During the thirty years that I have been connected with the hospital, I have from time to time demonstrated here the various contrivances which have been adopted for this purpose. They have long been used for the more accessible cavities, notoriously for the throat, ear, and vagina; but they have been also used for cavities which are more difficult to enter, such as the bladder, and more recently the stomach. The first instrument that I brought here, some twenty-five years ago, was the well-known endoscope of Desormeaux, of Paris, and it was employed in the wards under my care. It was used not only for the bladder and the urethra, but occasionally for the rectum. I cannot say that I think it was of much service; but it was, of course, desirable and necessary that in a great medical school men should see such inventions tested. Then Dr. Cruise, of Dublin, improved the illuminating power of the instrument, and we found it better than the other. We had also a small endoscope designed by Mr. Warwick, which was much less costly than the others, and answered nearly every purpose. After this no great change took place in endoscopic appliances until 1879, when it was reported that Mr. Leiter, of Vienna, the well-known and skilful instrument maker there, had devised a very remarkable apparatus for examining the bladder and stomach. I made it my business that autumn to visit Vienna, and had the advantage of using Leiter's instrument in the Allgemeine Krankenhaus, with my friend Professor Dittel, the distinguished surgeon there. I found it difficult to use successfully, although far more efficient than its predecessors. I therefore ordered one, and exhibited it for the first time in the theatre here in April, 1880, on living patients. It was a large and cumbersome machine, but by means of it an incandescent wire heated by electricity was introduced into the interior of the bladder. In all preceding instruments the source of light had been outside, and a ray was thrown by a mirror or a prism into the bladder, the observation being made only by transmitted light. But Leiter, with whom was associated Dr. Nitze, succeeded in illuminating the bladder by direct rays. The heat, however, arising from the incandescent wire rendered it necessary to provide a current of cold water constantly flowing in a minute channel round the instrument, from the outside to the extreme end of the sound, and returning to make an exit through the handle, otherwise the bladder would have been injured. This involved a very costly and complicated apparatus. Moreover, it was too unwieldy to be carried about in a carriage, a condition which limited its usefulness considerably. But more recently Leiter has succeeded in simplifying the process and the machine, and now without difficulty a tiny Swan lamp, sufficiently small to lie within the apex of a hollow sound not more than No. 22 or 23 in size (of the French scale), can be introduced into the bladder. Moreover, no constant supply of water is now required to reduce the temperature; but it is still necessary to follow certain rules in order to ensure safety and to obtain good results.

In the apparatus now before you the electric current is supplied by a battery of four or six cells (a bichromate is employed), besides which there are the connecting wires with two sounds, one supplied with an opening to show the anterior wall, sides, and floor of the bladder, and one to show the posterior wall.

The first step is to move the handle of the battery, which sinks the elements of each cell into the exciting fluid and furnishes the current. The rheostat must then be adjusted so as to produce the

maximum of resistance, that is, to diminish the current as much as possible before making contact with the little electric lamp, which would be destroyed by too large a charge. The amount of light displayed will show you whether you require more, and if so you will move the slide until sufficient brilliancy is attained. The apparatus is now ready for action.

But certain rules must be followed in order to employ the apparatus safely and efficiently.

First, it is necessary that the bladder should contain fluid; the light cannot be employed in an empty bladder, as a considerable degree of heat is produced; a quantity not less than six ounces is desirable, eight or ten may sometimes be better.

Secondly, the fluid must be transparent; it is desirable to remove all cloudy urine, and, more especially if any source of hæmorrhage exists there, to wash out the bladder so gently as not to excite, if this be possible, any fresh flow of blood. Since the examination is, as we shall presently see, chiefly useful for the discovery of papillomatous growths, or for ascertaining the fact of their absence, the greatest care and gentleness must be employed in every step of the process.

Thirdly, this having been done, the sound No. 1 must be carefully passed into the bladder before the circuit is completed and the light produced; otherwise injury might be inflicted on the urethra by passing the lighted sound along the canal. For the same reason the light must be extinguished before the sound is withdrawn from the bladder. The best way is to pass the sound before attaching to it the connecting wires, and to do this latter only when it has been placed in proper position.

Fourthly, when the beak of the sound is felt free within the partially distended bladder, it should be pressed in nearly as far as it will go, and then the wires attached connecting it with the current; after this the little handle is moved which completes the circuit, and then if all is right, the light instantly appears. If the fluid is clear, the observer will, on looking through the external end of the sound which contains a small telescope, obtain a distinct view of the anterior part of the vesical wall. This view is obtained by means of a small prism situated at the angle between the shaft and beak, so that the rays of light are transmitted from the surface to the observer's eye. By gentle movements, which must be learned by practice, and cannot be verbally taught or described, different portions of each lateral wall and of the floor can be observed at pleasure. But the posterior third of the cavity is outside the sphere of vision through sound No. 1. No. 2 must be introduced, and be managed in the same manner as the former, if it is required, employing for it the little telescope removed from the first instrument for the purpose. Mind also that you do not forget when the lighted sound is within the bladder, that the beak should not be permitted to rest at any spot for more than a few seconds in close contact with the wall of the cavity, lest it should be slightly injured thereby; it is wise to keep the beak gently moving. And when the sound is removed from the bladder, should it be relighted, the beak must be placed in a vessel of water, otherwise the Swan lamp or the crystal covering it, may suffer from undue heat. The light should never burn above one minute in air. If it is not wanted for a minute or two, turn off the current or put the light under water.

[A male patient, about 60 years of age, was now brought in under ether, whose case was a suitable one for exploration. Eight ounces of warm water were introduced into the bladder after withdrawing the urine. Seated between the patient's lower extremities, which hung over the end of the operating table, the lecturer introduced the sound and, having lighted it, was able after a minute or two to say that the fluid was clear, no trace of blood having appeared, that the mucous membrane presented a healthy tint of pale pinkish yellow, but that there was an unusual amount of fasciculation of the muscular fibres in every direction, probably caused by some obstruction of the prostate to the natural outflow. This, indeed, was very well marked; no other morbid condition was present. This description was verified by a number of persons present who in turn examined the organ through the endoscope. This done, the lecturer proceeded.]

You will naturally ask, In what cases is it likely that the instrument will be chiefly useful? Certainly before all others in the case of those small bleeding tumours, respecting the presence of which, but more especially the extent of their development, it is often difficult to arrive at an accurate conclusion. I refer especially to the papillomatous tumours, the distinguishing character of which is their history of

repeated attacks of hæmaturia during a considerable period of time. They may develop slowly for two, three, or four years before the loss of blood becomes considerable. They are often for a long time unaccompanied by pain or by frequency of passing water. The way by which you generally arrive at a positive knowledge that the bladder contains such a tumour is not by sounding as for stone, because the sound is not capable of appreciating a small soft tumour. The mode of determining the fact is to search for a tiny shred of the growth expelled with the urine, and it is very strange indeed if you do not find one after the expenditure of a little time and patience, and are able to identify the structure of papilloma, which is quite characteristic. When you have found this you may be certain that there is more or less of the morbid product there. But you cannot tell whether you have to deal with one growth or two, or more, or whether it is large or small, because neither the sound in the bladder nor the examination by the rectum will afford you any information whatever on these points. In such cases it has been sometimes necessary to make an incision into the urethra by the perineum in order to obtain these data, and I think this will still be necessary in some examples; but in others, perhaps in most, we may now be able to ascertain the facts by means of this instrument. Still when, as not infrequently happens, the tumour is so vascular that the introduction of the instrument produces a considerable outflow of blood, it is useless to pretend that the endoscope will enable us to realise the number or size of the growths in the cavity. If, on the other hand, we succeed by very gentle manipulation in washing out the bladder, clearing it of all opaque matters, and introduce six or eight ounces of fairly clear water, then I think the instrument will enable us to obtain the information required.

One word more in relation to tumours. So far as cancerous vesical growths are concerned—those tumours which you can feel the presence of from the rectum and elsewhere—little or no occasion exists to use an endoscope; and it would mostly be the means of inflicting suffering without adequate advantage to the patient to examine the cavity. Thus, I do not say that it might not be of use sometimes, but, as a rule, that is a condition in which the proceeding might well be spared.

[The second patient brought in was one from whom a considerable portion of the prostate had been excised by suprapubic operation about a fortnight before, by Mr. Christopher Heath, who was present and joined in the examination of both patients. The external wound had nearly healed; nothing, however, could be seen, from the patient's inability to retain more than four ounces, and owing to the presence of blood oozing from the prostate, although the sound passed without any difficulty.]

Here, then, you see an example of the effect of blood to interfere with visual examination, just referred to; and it is a condition commonly met with in cases of papillomatous tumours.

There is another class of cases for which the apparatus may possibly offer on rare occasions some service. We now and then meet with foreign bodies introduced into the bladder, of which, for some reason or other, a clear history is not always obtained. I have met with several instances of foreign bodies, in my time, most of them broken catheters, and have rarely had any difficulty in removing them; in one only was it serious; it occurred in this hospital more than twenty years ago. A hairpin lay right across the bladder, so that I could not move it when seized by the lithotrite. I then did the high operation, and removed the hairpin with some difficulty. I found it lying transversely right and left, with its pointed ends embedded in the mucous membrane, so that it was impossible to remove it by the natural passage. Sometimes, as I have said, only a doubtful history is furnished; there is some reason for reticence, both in regard to the body supposed to be in the bladder and the method by which it arrived there. I remember a case in the country in which a boy had introduced an ear of oats or rye, the spikes of which lying in the right direction ensured its rapid progress to the cavity. In another case in this hospital I cut out a piece of sealing-wax. The history of this was not clear, and we did not quite believe the story given, but sounding revealed the presence of a hard mass. I performed median lithotomy, removing a phosphatic calculus, with an inch of sealing-wax for its nucleus. I may say that I have twice removed sealing-wax thus, and also twice removed a hairpin. In cases of this kind, when you are uncertain as to the fact and desire further information, you may ascertain the nature of the foreign body by this instrument.

Then occasionally there may be a suspicion of impacted calculus. This is a very rare condition, and should not be too

readily suspected to be present. Yet here, too, the endoscope may sometimes throw valuable light—literally—on the situation.

How much it may be necessary to use the instrument for the urethra is a matter of individual opinion. I should say that it is very easy to use it unnecessarily. If, however, you propose to employ it in any given case, it will be generally desirable first to apply a solution of cocaine, of 4 or 5 per cent., for some eight or ten minutes, in order to prevent pain. The urethra is a very delicate tube, and only now and then wants inspection. I do not think you ought to require the instrument for stricture, unless in cases of exceptional difficulty; for all ordinary cases are managed with the least amount of irritation to the passage when treated with simple instruments by a sensitive and intelligent hand. I have never yet, throughout my experience of urethral stricture, met with a case in which I have derived the slightest advantage by inspection. This, of course, refers to the old endoscopic appliances, and I will not say that the present may not be superior in this respect. But I know the urethra well enough to be aware that the introduction of a tube disturbs the relations of the minute orifice, and is by no means so advantageous in practice as by theory it appears to be. The kind of handling which I have found invariably successful for the narrowest and most difficult stricture cannot be adopted when the canal is occupied by a metal tube. But there are other conditions besides stricture for which the endoscope may render some service. The passage is sometimes the subject of little papillomatous growths and congested conditions, which may be removed by an application, say, of some caustic, and you may ascertain the particular spot with ease, and touch it at the same time, by means of this instrument.

In conclusion, I think you will have already arrived at the conviction that it will not be necessary very frequently to employ the apparatus I have shown you in the diagnosis of vesical disease. For the fact is not to be altogether overlooked that its employment taxes the urethra and bladder more severely, for example, than the ordinary operation of sounding for stone, and should, therefore, not be resorted to without adequate necessity. In relation to the presence of papilloma and some other obscure conditions, it may sometimes render essential service; but do not regard it as an instrument that is in any case to be used for diagnosis, except as a special resource when other and ordinary resources have failed. Do not give up in any respect the simple means of prosecuting diagnostic research hitherto employed; but by all means keep it in reserve for certain exceptional cases when other usual methods have been tried and have proved unsuccessful. You may then occasionally find it a valuable ally.

CORK (Population, 81,200). *Decreasing Prevalence of Typhus.*—Dr. Donovan states that the mortality returns for 1886 are very satisfactory, and bear favourable comparison with those of other towns. There was a marked improvement in the death-rate of the city compared with other years. The annual death-rate from all causes was 20.8, the infantile death-rate 2.4, and the zymotic death-rate 0.9. Typhus fever, which has always been very prevalent in Cork, only caused 5 deaths during the year, 83 cases being the total number reported. In 1881, 1,261 cases of this disease had come under notice. Dr. Donovan attributes the decline of this fever to the reduction which has taken place in the overcrowding of congested districts, the improved condition of tenement houses, and the system of regular inspection to which these houses are subjected. Typhoid fever was unusually prevalent, and caused 17 deaths. The precautions taken proved effectual in preventing the spread of the disease, which at one time showed signs of becoming epidemic. Scarlatina was much less fatal than in 1885, the deaths being nearly 50 per cent. less than in that year. Many instances were met with during the year where patients suffering from scarlatina were lying a few feet from pans of milk exposed for sale; and in one case the manager of a large dairy in the city was removed to the hospital suffering from the disease. In all these cases the sale of milk was immediately stopped. Dr. Donovan has devoted a considerable portion of his report to the question of domestic scavenging. If his efforts are successful in securing the removal of the offensive privies and middens, and the general substitution of water-closets, the health of the city will undoubtedly be benefited.

NOTES

ON
A CASE OF CEREBRAL SUPPURATION
DUE TO OTITIS MEDIA
DIAGNOSED AND SUCCESSFULLY
TREATED BY TREPHINING
AND DRAINAGE.

By ARTHUR E. BARKER, F.R.C.S.,

Surgeon to University College Hospital, and Teacher of Practical Surgery at
University College.

If any example were required to illustrate the perils of inflammation of the middle ear, and the need of the most careful study of them by physicians and surgeons, the following case would furnish it. It supplies, on the other hand, fresh evidence of the advance of operative surgery to the rescue of cases hitherto considered altogether hopeless, and suggests the possibility of still further progress. Apart from its intrinsic interest, this case is of importance from the contrast it offers as to pathology and symptoms with a case of abscess in the temporo-sphenoidal lobe published by myself in conjunction with Dr. Gowers in the *Journal* of December 11th, 1886, in which trephining and drainage were also followed by complete recovery. If the present case was, as I believe, primarily one of fairly localised meningitis, the difference of its symptoms from those of the first case are easily explained.

A. G., aged 33, an engineer, was admitted into University College Hospital on January 21st, 1888, under the care of Mr. Heath, who, knowing my interest in such cases, kindly transferred him to my care.

The patient's family history was excellent. When 7 years old he had scarlatinal otitis media, which soon healed, but the right ear has discharged more than once since, and before the last attack. Up to the age of 21 he enjoyed good health. At that time he suffered from some epileptiform seizures, and was treated for them for a few days in University College Hospital. At 24 he states that he was under treatment for gastric ulcer in an infirmary. At 29 he had a bad fall, and injured his spine, after which his right arm and leg were more or less paralysed for eighteen months, with partial anaesthesia. For this he was treated by Dr. Beevor at the Queen Square Hospital, and recovered completely. In May, 1886, he contracted gonorrhoea, and was an in-patient at University College Hospital for prostatic abscess. At this time he began to complain of weakness, and a sensation of coldness in the right leg, which he dragged in walking. The left leg was strong; ankle-clonus was well marked on the right and absent on the left. Knee-jerk was exaggerated on the right and well marked on the left. There was some localised anaesthesia on the dorsum of the right foot; *tâche cérébrale* was well marked.

On August 25th, 1886, the patient came under the care of Dr. Gowers, whose notes record exaggerated knee-jerk on both sides, with ankle-clonus on the right but not on the left; also tremors in the right upper limb on movement, but only slight in the left. Slight nystagmus on movement was doubtful. The pupils were dilated, and reacted sluggishly to light, but well to accommodation. There was tenderness from the fifth to the eighth dorsal spines, but no prominence. Dr. Gowers's diagnosis was lateral sclerosis, and under his treatment for this the various nervous symptoms mentioned disappeared one by one; but, on December 4th, 1886, neuralgic attacks in the right side of the face were noted.

After March, 1887, he ceased attendance, and appeared, from his own account, to have been quite well until the present illness. The latter began on December 5th, 1887, with a purulent discharge from the right ear, for which he became an out-patient under Mr. Bilton Pollard. The right membrana tympani showed a large perforation an eighth of an inch across in the anterior segment, and from this the discharge escaped freely. The treatment consisted in thoroughly mopping out the latter, and dressing the inflamed surfaces lightly with iodoform powder.

On December 28th great pain set in over the whole of the right side of the head. At this time I was asked to see the case, and found the ear as just described, and that there was no evidence of caries of any kind, or of pent-up matter in the middle ear. With Mr. Pollard's concurrence I passed a stream of quinine solution through the middle ear and down the Eustachian tube into the throat, showing that there was a free passage for discharge in two directions, inwards or outwards. There was no trace of redness or swelling over the mastoid, or other evidence of mischief in this process at this date or up to the present moment. The pain was neuralgic in character, and felt most severely over the branches of the trifacial nerve. The optic discs were quite normal, and the pupils equal and normal in reaction to light and accommodation. The temperature was 101°.

Viewing the case as a whole, we both agreed that it was more like one of neuralgia, such as is not infrequent in the course of acute inflammatory ear disease than anything else. From this time the pain continued to increase, and was worse at night, reaching its maximum towards the morning, and preventing sleep.

On January 18th a carious tooth was extracted, but without relief. On the night of the 20th the patient vomited twice, and on the 21st he was admitted into hospital. The condition of the right ear was as before; the left membrana tympani was also perforated, but the middle ear was not inflamed. In addition to the symptoms already enumerated, there was great superficial tenderness on tapping over the right side of the skull; this was most severe just behind the mastoid process and over the right lobe of the cerebellum. There was no trace of redness or swelling anywhere in these regions, or over any part of the scalp. The patient wore a dazed look at this time, apparently from intense pain, and was difficult to deal with in the matter of obtaining accurate information from him, though, as since proved, a very intelligent man. He says now that his sight was at no time in any way affected; but I am sorry to say he was not specially examined for hemianopia at the time.

His temperature on admission was 100°. Until the evening of the 23rd the most marked symptom was intense pain in the head, the temperature varying between 99° and 100°. At 6 P.M. on this day the patient had two epileptiform fits within an hour, preceded by vomiting, during which he ground his teeth, and the right side of his body was very much convulsed. The last fit began as described by the sister of the ward, by his fidgetting about with his right hand, and breaking therewith two ward basins, then extending to the whole side. The latter part of this fit was seen by Mr. Herring, the house-surgeon, who also noticed that the right side was chiefly affected. At the same time the breathing was stertorous and the pupils widely dilated. The eyes were turned first to the right, and then upwards and backwards to the left. After this he slept fairly well, the temperature rising to 100.2° at 7 A.M. next morning.

When I saw him at 2 P.M. on the 25th, the symptoms were as before. His pulse was increased in frequency, and he was groaning with pain in the head. On rising to walk into the next ward, for ophthalmoscopic examination, he was rather unsteady in his gait, inclining to stagger to the left. The optic discs were normal. The pupil on the right was now smaller than on the left. The patient's general aspect and demeanour at this time gave the impression that he was highly neurotic and inclined to magnify his troubles, a fact suspicious in itself, as I have known this condition present in similar cases of grave intracranial mischief, ultimately running a fatal course. On this day, in order to make sure that there was no pus confined in the middle ear, and to cleanse the latter thoroughly I trephined the mastoid in the usual way. Little or nothing was found, but the tympanum was thoroughly washed out through the opening. The wound was dressed with boracic acid fomentations. The next day, the 26th, the condition was unchanged, except that the temperature had fallen to 99° in the morning; it was 100.4° in the evening, and his breath was noticed as very foul. On the 27th there was a rise from 100.2° in the morning to 101.2° in the evening. On the 28th he was sick all night, and more drowsy, and much less observant; temperature 100.2° in the morning, to 100.6° in the evening. For the next few days I did not see the patient, being myself confined to the house. During this time his condition was practically unchanged, except that the temperature was generally a little lower, from 100° to 98.8°. But on seeing him again on February 1st, I noticed great wasting of the whole body, and that the skin was of a dirty yellowish, earthy colour. Mr.

¹ Read at a meeting of the West Surrey Branch on March 29th, 1888.

Herring also recorded a slight loss of power in the left facial muscles. The patient had also begun to pass his motions and urine involuntarily in the bed. Still he could be roused to speak rationally, but quickly lapsed into a stupid heavy state, and was constantly groaning and complaining of intense pain over the right side of the scalp, which was also acutely tender. On the 2nd he was noted as very dull and sleepy, not taking notice of anything around him, but he could still answer questions when roused. His eyes were kept constantly closed tightly, the pupils dilating widely when the lids were raised. The right pupil was now larger than the left. There was greatly increased knee-jerk and ankle-clonus on both sides, and very little plantar reflex on the left. During the preceding night he was first noticed to have lost power in the left arm, and later it was found that the latter was almost powerless, and rather rigid. There were also occasional twitchings about the wrist and fingers. The paresis was most marked in the extensors, the "drop wrist" being very plain. The facial palsy was also more marked than before; temperature 98.8°; pulse 64. In the evening I endeavoured to examine the optic discs, but found it impossible to get the patient to fix the eyes for more than an instant. He would do so when shouted at, but almost immediately the eyes would roll upwards, and remain so till shouted at again, in a way that looked like perversity. When held open with the finger they still turned upwards, but whether unconsciously, or wilfully to avoid the light I cannot say. When remonstrated with, he replied in a dreamy way that he could not help it, that he would do anything to obtain relief from his torturing pain. His breath had at this time the most intensely sickening odour, and his body was extremely emaciated. The paresis of the left arm and face was more marked; micturition and defecation were quite involuntary.

It now appeared to me that a point had been reached in the case at which there were definite symptoms of local cerebral inflammatory effusion for which I had been on the look out, and that its locality was fairly indicated. I also thought that the six other serious conditions which I always teach may likewise arise from otitis media (vide *Lancet*, 1887) might now be excluded as complications in this case, though this could not be done earlier. Putting the matter shortly: (1) Mastoid cell abscess had already been excluded by the operation of January 25th, and the subsequent persistence and aggravation of the symptoms; (2) plastic phlebitis of the lateral sinus, with thrombosis, appeared also to be negated by the course of the temperature, the absence of rigor, and of any swelling in the course of the deep jugular vein and side of the face. The temperature, raised before the opening of the cells, and thorough cleansing of the tympanic ramifications, had shown a general inclination to fall slightly but steadily; (3) pyæmia was negated much in the same way, also by the absence of secondary deposits, as well as by the general aspect of the patient; (4) subdural abscess, besides being less likely to form in an adult, and especially in one who had no evidence of definite caries in the ear, would probably have led by this time to oedema of the overlying skin, which was conspicuously absent, and would probably have been ushered in by a rigor, and have kept the temperature steadily higher than was the case; (5) cerebellar abscess, besides its relative rarity, seemed improbable from the history of the case, that is, the character of the ear mischief and the absence of caries of the tym-

panum; and although it was suggested that the right-sided fits at the commencement of the intracranial complications might be explained by cerebellar disease, the gradual onset of facial and arm paralysis, with twitchings of the wrist, appeared to me to give a clear indication of the situation and nature of the lesion as near the motor areas of the cerebrum; (6) abscess in the temporo-sphenoidal lobe again seemed alone to be insufficient to account for all the symptoms present now. In another case, alluded to above, in which I operated for the latter lesion with the best results, the most noticeable feature was an almost complete absence of special nerve symptoms, although they were carefully watched for, and in the present case these were abundantly present. In the former case, too, the temperature had been usually subnormal after the first onset of the acute attack in the middle ear, though there had been a second sudden elevation, with rigor just before the operation on the brain. The pulse, too, had been constantly slow (*circa* 52), unlike the present case in its earlier stages, although here, also, it gradually slowed down at the last to 64, with the onset of pressure symptoms. With the purely temporo-sphenoidal abscess there was for a time a dull aching in the temporal region, which ultimately passed off. In this present case there was from the first violent, deep-seated headache in the temporal region, with extreme hyperæsthesia all over the right side of the head. This was followed by vomiting, then convulsions with transient coma, followed by intensification of the pain. Later on there was partial left hemiplegia, with twitching of the left wrist, and some rigidity of the arm, together with exaggerated tendon reflexes, and ankle-clonus symptoms entirely absent in the first case, except one attack of vomiting just before the operation.

A consideration of all these facts seemed to me to point to the presence more or less of localised meningitis rather than any of the other six conditions mentioned. Further, it seemed that the locality of the inflammatory effusion was sufficiently clearly indicated for a working hypothesis. The paresis had started in the left side of the face, and had spread to the left arm, and there were twitchings in the left wrist; the leg was unaffected, except

as regards the reflexes. This ought to indicate a lesion in and about the junction of the middle and lower third of the right ascending frontal and parietal convolutions, a lesion which apparently commenced with inflammatory irritation, and had gone on to inhibition, probably from pressure. In one or two cases dying of meningitis due to ear disease I have observed *post mortem* that the inflammation has appeared to concentrate itself about the bifurcation of the Sylvian fissure, and to have spread by preference from this up along the fissure of Rolando. On these grounds, therefore, I decided to trephine over the arm and face centres on the right, and hoped thus to evacuate the materials of a localised meningitis pressing upon them. This operation was accordingly done the next morning, Friday, February 3rd, at 10.30, after I had briefly, in a few remarks to the class present, given some of my reasons for arriving at the conclusions just indicated. Immediately before operation defecation had taken place involuntarily.

Operation.—After the usual shaving and cleansing of the head, the main fissures were marked out on the scalp with an aniline pencil, Reid's method of measurement being adopted. A semilunar flap, including scalp and periosteum, the base about 3½ inches long and parallel with the "base line," was then raised from over

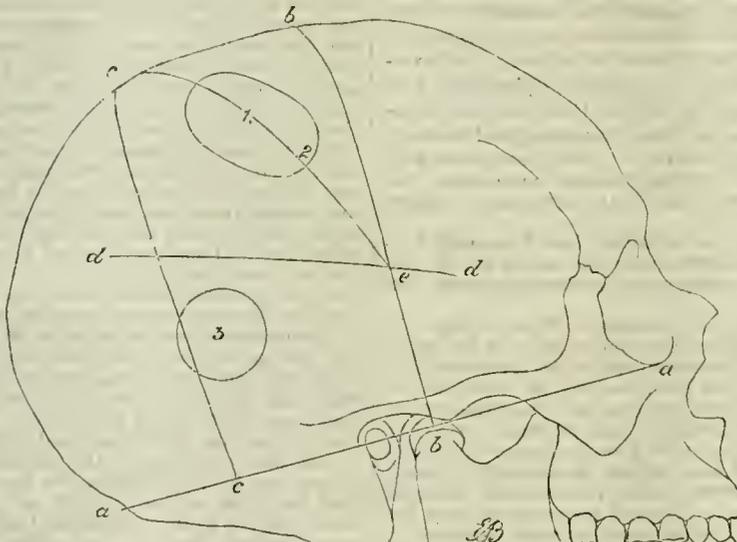


Fig. 1.—From a photograph by Mr. Marriott of a skull, with the markings on it given in the text, and the trephine openings made exactly as in the operation. Exactly one-half the natural size. *aa* Reid's "base line;" *bb* vertical line from latter in front of the tragus, or from tubercle of superior maxilla; *cc* second vertical line from posterior border of mastoid process to sagittal suture; *dd* line marking Sylvian fissure; *ee* line indicating Rolando's fissure; 1 and 2 first trephine opening over motor centres for head and face (the figures indicate the points of puncture in their order); 3 second trephine opening over first temporal convolution, 1½ inch above "base line," 1 inch behind centre of long meatus of ear. The figure 3 indicates the point of the third puncture and drainage opening.

the middle of the motor area, its upper tangent being 2 inches from the middle line of the vertex or sagittal suture. The pin of an inch trephine was then placed over Rolando's fissure (Fig. 1) $1\frac{1}{2}$ inch above the Sylvian fissure, and a disc of bone was removed. The dura mater was at once noticed to bulge markedly outwards. A second disc was then removed above and just touching the first on the same line. Here, too, the dura mater bulged, but not so much. The angles of bone between the two rings were then cut away, and the dura mater was slit up in the middle line of the resulting oval opening of the bone. The surface of the exposed convolutions was now seen to be apparently healthy, but there was considerable bulging and a distinct sense of deep fluctuation under them. I therefore punctured the brain with a large hollow needle in the middle of the oval opening (Figs. 1, II, and IV, 1), and at right angles to the surface, but though the needle entered an inch deep no fluid escaped. The needle was then again entered at the lower border of the opening (Figs. 1, II, and IV, 2), and thrust downwards and inwards into the exposed convolution. When it had penetrated to the extent of $1\frac{1}{4}$ inch, thick, turbid, yellow serum began to flow out, and was received into a test tube to the amount of nearly two drachms.

A third trephine opening was now made, the centre of which was $1\frac{1}{2}$ inch above the base line and $1\frac{1}{4}$ inch behind the centre of the bony meatus of the ear. Through the middle of this third opening (Figs. I, II, and III, 3) the needle was pushed inwards and forwards for $1\frac{1}{2}$ inch from the surface of the bone towards the point at which fluid was struck in the last puncture. On reaching this spot a quantity of thin, white, odourless pus flowed away and was received in a glass to the extent of nearly half an ounce. The dura mater at either side of the puncture was now split up, and a sinus forceps was thrust into the latter as the needle was withdrawn. When the blades of this instrument were slightly separated more pus came away; then a rubber drain-tube was thrust into the open track for an inch and a half from the surface of the bone, through which more pus flowed off freely, especially when the patient struggled, which he did once or twice at this moment, being but lightly anaesthetised. The flow was also observed to increase when Mr. Herring pressed with a sponge on the convolutions under the upper opening. Altogether half an ounce of pus was actually collected in a glass, and quite as much escaped through the drain-tube, so that not less than one ounce was evacuated. On its escape the convolutions under the upper opening were observed to sink down considerably over the area which had before bulged.

The bleeding from the scalp was now finally arrested, and a small vein in the diploë was closed with a Paquelin's cauterizer; then the edges of the incision in the dura mater were united with five fine silk sutures after the opening had been lightly dusted with iodoform in fine powder. The flap was finally dried, similarly dusted, laid down, and stitched all round with eight silk sutures without drainage. Before this was done, however, a small portion of the whole thickness of the scalp was cut away over the lower and posterior trephine opening to admit of free drainage through the rubber tube lying in the brain, which was brought out of this opening. A sal-alembroth gauze dressing laid over the whole scalp after dusting with iodoform completed the operation, which had lasted an hour and a quarter. The ear-bolic spray and all other conceivable precautions were taken to ensure asepsis.

Throughout the whole procedure the respiration, face, and pupils were specially watched by our Resident Medical Officer, Dr. Arkle, and the pulse and left arm by Mr. Jecks, to whom I am indebted for the following notes:—

"Chloroform was administered at first on the corner of a towel, later by means of a Junker's inhaler through the nostril. The condition of the patient was most critical. At the moment of administering the anaesthetic the pulse was only 36 per minute, of only moderate strength, and compressible. It was irregular in force and rhythm, with pauses of three and even four seconds between successive beats. In about ten minutes the pulse rose to 44 and 48 per minute, improving a little in character, and remained like this during the first part of the operation. The respirations were slow and shallow, about 18 per minute. The patient took the chloroform well, and only struggled a little, both sides of the body moving, but the right more freely than the left. While struggling he could not raise the left arm higher than the manubrium sterni. On exposure of the dura mater by the removal of the first disc with the trephine the respiration altered, becoming deeper and more frequent. There was no sudden appreciable alteration at this time in the pulse; but, on the opening up of the dura mater, it was noted as 60 per minute.

"Shortly after the punctures through the motor areas there was some clonic spasm in the left arm and hand, none in the face, leg, or foot. This was repeated several times when the sponge was pressed on the convolutions, but not constantly. Immediately after the pus was struck the pulse became very weak, rapidly reaching 100, and, a little later, 120. It was small, regular, and very compressible. An enema of brandy was given but was not retained long. Before the operation was over the condition of the patient appeared to be most alarming. The breathing again became very shallow, and the pulse was 160 and running; the face was pale and sweating, and the lips a little blue. Fifteen minims of ether were injected under the skin of the præcordium with manifest advantage. The patient was only kept lightly under the anaesthetic during the whole operation, and very little chloroform was used."

When I next saw the patient, three hours later, he was already better,

and stretched out his right hand and shook mine warmly, speaking quite rationally. His pulse was still very rapid, and he had just been sick, but at 9 P.M. I thought him in a very critical condition. His pulse was very weak and variable—140 to 160, temperature 100° ; he had been constantly sick. The dressings, which were slightly soaked with blood and serum, were now changed, but the drainage-tube was not disturbed.

The next morning, February 4th, he was decidedly better. The sickness had ceased, the pulse was 120, the temperature 97.8° . The facial paresis had improved, but there was still great weakness in the left arm. Faeces and urine were still passed involuntarily.

February 5th.—Better in every way. Pulse 112, temperature 97.8° . Takes food fairly well. Second dressing as before, at which a silver drainage-tube, made from a No. 12 English catheter, was substituted for the rubber one. It was pushed in along the track of the latter for one inch and three quarters from the surface of the skin, and in a direction inwards and forwards from the opening. It had a slight curve upwards and forwards. The urine and motions were passed voluntarily from this day onwards. The facial palsy was nearly gone, and the arm much improved. There was no optic neuritis. The pains in the head, though better, were

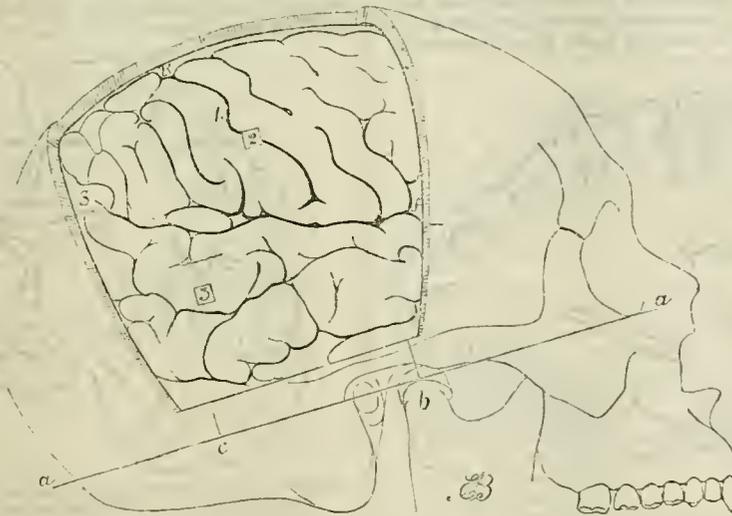


Fig. II.—From a photograph by Mr. Marriott of the same skull with the brain exposed, showing the position of the punctures, which had been previously made with small wooden rods without opening up the dura mater. One-half natural size. *a a* base line; *R* fissure of Rolando; *S* Sylvian fissure; 1 indicates the spot at which the first puncture was made for an inch, from which nothing came; 2 first wooden peg, lying exactly in the fissure of Rolando, passes downwards and inwards, and indicates where the second puncture reached turbid fluid; 3 second peg passes through the first temporal convolution inwards and forwards to meet the first, and indicates the spot at which the drain-tube was inserted.

still severe, but the patient's general aspect had much improved. Pulse 82, temperature 98.6°.

February 6th.—Has slept fairly well. Pain in the head much better. Pulse 82, temperature 98.6°. Three grains of calomel were ordered. The track of the tube was washed out with a warm saturated solution of boric acid; this did not produce any nerve symptoms. The silver tube, dusted with iodoform, was replaced, and the wound was dressed as before.

From this time there is little to note except uninterrupted recovery. The facial and arm paresis disappeared in a few days completely. The breath became less offensive, and the appetite normal. The bowels required to be opened occasionally with a few grains of calomel; there was still an occasional slight tremor or twitch in the left wrist for some days, but this, too, disappeared soon.

On February 9th, he drew attention to a feeling of "pins and needles" in the fingers of the left hand, and slightly in the left leg, and a sensation as though a string were tied tightly round his tongue. On the 10th, the pain in the head was gone. On the 11th, the "pins and needles" were gone, but he noticed that his tongue was still sore.

On the 12th, a shorter and smaller drainage-tube was used, as there was very little discharge from the brain. Two days later a still shorter one was inserted. Humming tinnitus was noticed. Pupils equal. Great tenderness all over the left side of the body was complained of on this day, but especially over the thorax. The dynamometer registers 45 with the right hand, 40 with the left.

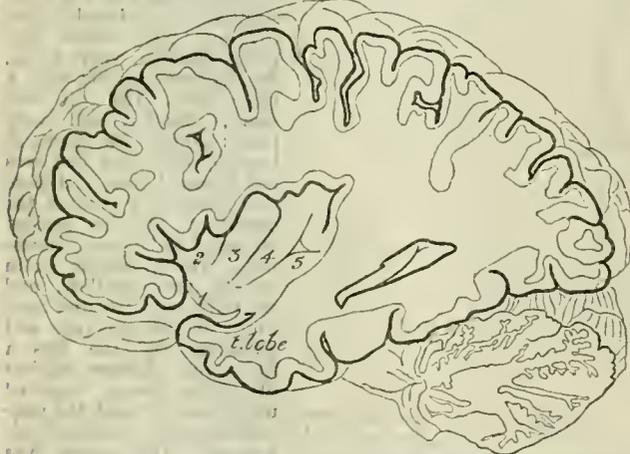


Fig. III.—From one of Dalton's photographs of an imbedded brain, reduced to exactly half size. The section is vertical and longitudinal to expose the space in which the island of Reil lies. 1 2 3 4 5 the convolutions of the island of Reil; the position of the figures 4 and 5 would indicate as nearly as possible the spots reached by my two punctures in the operation; t. lobe temporo-sphenoidal lobe; only the inner part remains.

On February 15th the patient was practically convalescent. His bowels were regular, appetite good, and he was cheerful and intelligent. There was not much pain in the head, and the colour of the skin was much better; the drain-tube was finally dispensed with. The scalp wound healed everywhere by first intention, except at one angle, where slight moisture escaped up to February 20th. On the 21st all the stitches were removed. The patient was out of bed on and after the sixteenth day after the operation, and was very cheerful and bright in spite of occasional neuralgic pains over the branches of the trifacial nerve, probably aggravated by the very severe weather. The knee-jerk on both sides remained, though less than before, and ankle-clonus was still present, though diminished. G. left the hospital on March 8th for the Convalescent Home, where he still is.

It would be interesting did space permit to discuss the pathology of this affection, and to analyse the symptoms present at greater length, as well as to deal more fully with the purely surgical features of the case. But the mere record of the essential and salient facts of the case has carried me already too far, and these questions must be left for future consideration. This record, however, would not be complete if I did not state my belief as to the exact nature of the inflammatory collection, and the position it occupied in the brain.

Reasons alluded to above were briefly given before the opera-

tion for my belief that this was a case of more or less localised meningitis in and about the middle of the Sylvian fissure, and extending up over the motor centres of the face and arm on the right side. But on trephining over the latter, the arachnoid was seen to be healthy, though the cortex fluctuated. The introduction of the hollow needle, however, downwards and inwards (Fig. IV, 2), evacuated thick, turbid, odourless serum. This experience shook my faith for the moment in the correctness of my diagnosis; but the result of the next puncture (Fig. IV, 3) through the posterior and lower trephine opening, in which the needle should have nearly met its fellow at about $1\frac{1}{2}$ inch from the surface of the skin, brought me back to my original conviction, that this was a case of localised meningitis, which I now hold with a very slight modification. It is quite clear that the collection of inflammatory fluid tapped did actually lie in the Sylvian fissure, and was not a temporo-sphenoidal abscess. But instead of extending up over the external surface of the brain, as I at first thought, it accumulated, I believe, among the convolutions in the deeper part of the fissure between the island of Reil (Fig. III, 1, 2, 3, 4, 5) and the overhanging motor convolutions, and pressed the latter outwards against the skull (Fig. IV). This explains the fluctuations of the motor gyri under the first trephine holes, and also their collapsing on the evacuation of the fluid through the third trephine opening below. If the abscess had been seated actually in the white substance under the motor centres, the arm and face would hardly have recovered so rapidly as was the case here; whereas if a collection of

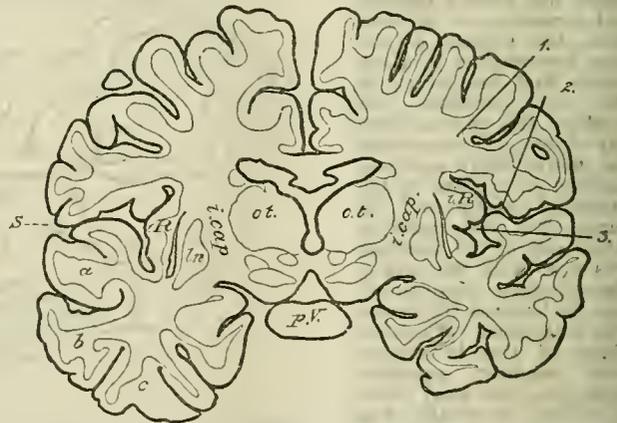


Fig. IV.—From one of Dalton's photographs of an imbedded brain, reduced exactly to half size. The section is vertical and transverse, in the region of the punctures made in the operation. The right half of the brain is apparently a little shrunken. S Sylvian fissure; a b c first, second, and third temporal convolutions; p pons varolii; i cap internal capsule; o t optic tract; l n lenticular nucleus; i l island of Reil; 1 first puncture, directly vertical to surface of brain, which gave no result; 2 second puncture, downwards and inwards, which reached turbid fluid; 3 third puncture, inwards and forwards, through the first temporal convolution, into which a drain-tube was inserted; drained the same space as that reached by No. 2 puncture.

fluid lay in the deeper parts of the fissure of Sylvius around the island of Reil, it could act doubly upon the motor centres, on the one hand by forcing the overhanging convolutions outwards against the skull, and on the other by pressing directly through the island upon the motor fibres of the internal capsule (Fig. IV, i. cap.) lying underneath, and after its evacuation the functions of the parts around would quickly be resumed. But the matter is put beyond question by the performance on the dead body of exactly the same operation, taking every possible precaution as to accuracy of measurement.

In doing this, I selected an adult skull of the same dimensions, within a small fraction, as the patient's. In this skull the dura mater was exposed with the trephine, exactly at the same point (Fig. I, 2) as in G.'s case. I then took a slender lucifer match, pointed it and cut it to the length of $1\frac{1}{2}$ inch. This was then thrust through a puncture in the dura mater, and into the brain, at exactly the same spot, and in precisely the same direction downwards and inwards, as was the needle which struck the first turbid fluid. A second similar match, $1\frac{1}{2}$ inch long, was then pushed through a puncture in the dura mater under the lower trephine hole (Fig. I, 3), in a direction inwards and forwards, as in the case of the needle at the operation. The outer ends of both these rods were now flush with the cortex and concealed by the

dura mater. The skull was then photographed by my friend Mr. Marriott (Fig. 1), after which the right side of the calvarium was removed. On cutting open the dura mater, the outer end of the first rod was seen, exactly in the fissure of Rolando (Fig. 11, 2), that of the second rod in the superior temporo-sphenoidal convolution (Fig. 11, 3), as seen in a second photograph. A vertical section of the hemisphere exposing the whole length of the first match was now made, and then a horizontal, exposing the track of the second. When the posterior half of the hemisphere was now lifted off, the points of the two rods of wood were seen to be almost in contact in the space overlying the island of Reil, and touching the latter (Fig. 1V, 2 and 3). The first had passed between the ascending frontal and ascending parietal convolutions (2), the second through the superior temporal convolution (3). Had the collection of fluid been a temporo-sphenoidal abscess, it is quite obvious that it would not have been reached by the first puncture, which evacuated fluid $1\frac{1}{2}$ inch from the surface of the cortex, at the junction of the middle and lower third of the fissure of Rolando. Nor would it probably, unless very large and high, have been reached by the second puncture, which met the first and travelled quite above the body of the lobe. It must be remembered, further, that one ounce of fluid among the convolutions over the island of Reil would press the former asunder more or less, and would produce a larger space than that represented in the drawing, so that without actually touching each other, the two needles might easily empty it. I am careful to clear up this point, less as a mere operative question (because of course one would evacuate the pus wherever the needle reached it), but rather as bearing upon the wider question of treatment of septic meningitis by operation, which for some time past I have looked forward to as possible. It would of course be unwise to dogmatise as to the exact limits occupied by the pus in this case, and as to whether it was produced primarily by a leptomeningitis or encephalitis, or, possibly, by the giving way of an abscess. The patient is now alive, and we cannot settle the matter by dissecting his brain; and although I have approached as nearly as possible to proving, by operation on the dead body, what actually was the locality involved, still I wish to put forward the above view only as the most reasonable hypothesis deducible from a careful and anxious clinical study of this and several allied cases for which I have had exceptional opportunities now for many years, and also from numerous pathological data accumulated in the *post-mortem* room.

All those who have given close attention to this whole subject will feel that, in the matter of operative treatment of non-traumatic intracranial suppurations, we are but on the threshold of a new region common to medicine and surgery, and most will be unable to divest themselves of a feeling of dismay at its complexity. It is comforting to us all, however, physicians and surgeons alike, to reflect that already this region has shown itself fruitful, and that one more group of fatal diseases has been brought within the reach of surgical operation.

Note.—I have thought it better to give reduced copies of Dalton's beautiful photographs of sections through an imbedded brain in Figs. III and IV, rather than drawings of my own dissections. Without a large material and special apparatus for embedding and section, it is difficult to make an accurate representation of the relation of parts of the brain, which soon sinks down when the skull is opened and it is cut. I have therefore transferred to Dalton's sections the lines of puncture observed in my own dissections; this leaves as little room for error as possible.

March 30th. The patient returned from the country on the 28th. He still complains of pain in the head, but looks well and eats, I am told, remarkably well. I shall continue to observe him, and report later if anything further of interest should be noted.

THE 105th annual report of the Hull Royal Infirmary shows the number of in-patients for the year to have been 1873, the number of out-patients 10,772—the largest number that has ever passed through the hospital in any one year. The average cost of each in-patient for treatment, nursing, and maintenance was £2 19s. 10d. The estimated cost of each out-patient was nearly 1s. 8½d. The alterations and improvements in the main building have been satisfactorily completed, and it was hoped the south-east block would shortly be available for patients. With a view of providing better accommodation for the nursing staff, it was decided to proceed at once with the conversion of the Watts Wards into a home, and by this means provide the nurses the comfort due to their position and the exhausting nature of their duties.

ON SOME HITHERTO UNDESCRIBED SYMPTOMS IN THE EARLY HISTORY OF OSTEO- ARTHRITIS.

(THE SO-CALLED RHEUMATOID ARTHRITIS.)¹

By JOHN KENT SPENDER, M.D. LOND.,

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Few things are so apt to cause a feeling of drowsy despair at a medical meeting as the prospect of an academic discussion on the etiology of osteo-arthritis. The fields seem barren; the harvest is small, even after every scrap has been gleaned; one master says one thing, and another master says another; so that the self-styled practical man cries out in his confusion, How have all these speculations helped me? Two wants, he exclaims, I ask to have supplied: such sure notes of a disease that I may, if possible, know it at once when I see it, and trustworthy landmarks to its treatment at a time when treatment is available. The practical man has some ground for his dolorous plaint. It is certain that if scientific questionings about the nature of a disease do not help us to do people good somewhere or somewhere, those questionings will soon lack interest and be forgotten. Three common but wholly distinct maladies affect the same structures; the patient cannot distinguish his malady, and naturally requests his medical adviser to do so; but he is prone to lose himself in vague generalities, and probably falls back on that old-fashioned, ghostly, thing called "suppressed gout." Now, is it not an enormous gain if we can at the earliest moment give a verifiable diagnosis—not merely a fancy or an opinion? When so much depends upon the issue, time is everything. Such is the plea for my paper to-night. It is my aim to strengthen those landmarks which tell of early danger, because they proclaim with unerring precision what the disease is. To be able to identify osteo-arthritis in its very cradle, and to sharpen the lines of boundary between it and all other things which resemble it, is surely worth a little time and trouble.

Bath has been called a museum of living osteo-arthritis; but this conveys no adequate idea of the wealth of our clinical material, which I believe to be without a parallel in its kind. In our Mineral Water Hospital, nearly half the cases belong to the osteo-arthritis group; and a crowd of so-called rheumatoid people flock to our spa from all parts of the country. Among our residential population there is no osteo-arthritis worth speaking of; nor are any of the influences present which would favour its development. But this procession of suffering pilgrims—what a challenge to our therapeutic skill! In the presence of an overwhelming quantity of the same sort of trouble, the tendency of the mind is towards apathy and almost weariness. A ceaseless iteration of the same phenomena dulls the faculties and dims the senses. We see, and yet we do not see; curiosity is dead, for there is nothing to be curious about; what happened yesterday happens again to-day, and (for aught we know) will happen again tomorrow. All interest perishes in the everlasting sameness. In this shroud of mental torpor no man ever discovers anything, because there is no enthusiasm and no inward light.

It has been said by a writer of distinction that there is nothing which may not be found if we start on an inquiry with the intention of finding it. It is sound advice to inquire without expecting, and without even the desire of finding; and it is plain truth when I say that some "hitherto undescribed symptoms" of early osteo-arthritis were so little expected that even when found, after a careful induction of nearly a thousand cases, the feeling of wholesome scepticism was long in clearing away. "Was it not a mere coincidence?" asked the casuist; and his logical appetite suggested that there were a hundred little pitfalls scattered here and there. So it required some hardihood of mind to think at last that certain signs, when present, connote osteo-arthritis in its earliest phase, and demonstrate beyond doubt that the disease cannot be anything else.

1. Dividing roughly all cases of osteo-arthritis into slow and quick forms—the first sometimes occupying decades of years in its chronic ruin, the other maiming and crippling in forced marches—we find that a great number of the latter class are characterised almost from the beginning by an increased velocity and tension of the heart's action. Quoting from cases the history of which was traced from an early date, the pulse may go up at once to between 80 and 90, and remain so for years. But we

seldom see at Bath these twilight beginnings of the disease; people come or are sent when it is developed, and we are startled by counting a steady pulse of much tension, varying from 90 to 110. Beyond this point are the rare cases to which I request special attention. The pulse quickens synchronously with the earliest objective signs of osteo-arthritis; it increases in frequency until 110, 115, or 120 are reached; any variations lie within quite a narrow range. There is no hæmic murmur, and no sign of the heart being in any way affected. In one instance, unique in my experience, a young lady was entrusted to my care (last July) whose pulse was uniformly above 140, and as incompressible as it was rapid. The body is absolutely non-pyrexial, and the icy purple coldness of the hands is often a striking fact. This is not the place to speculate on the cause of this remarkable symptom, nor have I time for doing so. Easy it is to discourse eruditely on the withdrawal of the inhibitory influence of the pneumogastric nerve; but I do not see how this lands us nearer any satisfactory theory of what osteo-arthritis is, or how its complex neural relations are thereby unfolded. And it is strange that the cardiac tumult often does not subside even in these many cases in which the osteo-arthritic phenomena become, so to speak, "tamed down."

2. The next point of mark is the disturbance in the chromatogeneous function of the skin. This symptom has been of unfailing interest to me for the last three or four years, nor do I understand why it seems to have escaped the attention of so many keen observers. Concentrated in the form of patches more or less large, the pigmentation assumes many hues, and affects many parts of the body. Across the forehead it often runs as a light-bronze smear, always more pronounced over the temporal fossæ; thence it extends under the lower eyelids, deepening the pigmentation of an already pigmented area, and generally shading off into the natural colour on the cheeks and the sides of the face. Sometimes the predominating tint on the face is lemon or orange, and sometimes there are fawn-coloured patches on the cheeks. The yellow tinge is nearly always discernible on the backs of the hands, as yellow circles around the finger-joints, and especially around the matrix of the finger-nail. In people of dark complexion the discolourment of the face and neck may be so swarthy as to call up recollections of supranasal melasma; and the white luminosity of the eyes stands out in brilliant contrast. But I desire to lay special stress on the occasional deep pigmentation of far advanced osteo-arthritis, representing what has been termed multiple xanthoma. In this extreme form large, dirty-brown blotches appear between the knee and the ankle, connected by longitudinal streaks, which are intensified in colour by paroxysmal pain. Tropic changes in the texture of the skin occur on the soles of the feet and the palms of the hands, which become rough and horny, and bright with the hue of marigolds. Finally, the nails of fingers and toes separate from their respective phalanges, and are torn and twisted from the matrix by an accumulation of dry chalky material. In this condition of things a patient dies sooner or later from some intercurrent malady, probably an extension of the already grave neurosis. I have now drawn the outlines of an actual patient, entrusted to me in 1884 by Dr. Morton, of Guildford, and who was my constant care until her death more than two years afterwards.²

That form of disseminated pigmentation which goes by the common name of "freckles" is a very frequent accompaniment of early osteo-arthritis. A multitude of little yellow specks may now and then be discerned on the foreheads of many light-haired women and not a few men, appearing at the commencement of what they call their "rheumatic gout;" bigger specks come faster and faster, until the whole face may be covered with spots of every size, which extend to the neck and ears, and are often of a blackish-yellow colour. Now look at the hands. Not only on the backs of the hands do the freckles cluster near the knuckles, but they extend far up the arms, along divers nerve-lines; and even to the elbows, if these joints chance to be involved. Patients are much puzzled by these freckles appearing on parts not exposed (as they say) to sun or artificial heat; and why do they come? is a question which I am often asked, but find it difficult to answer.

3. The next noteworthy symptom is the vasomotor disturbance, which causes local perspiration. Taking the hand of a hospital patient, a middle-aged woman, extremely rheumatoidal, I found it so wet that I said, "You have just put your hand into water." "No, sir;

my hands are nearly always like that." There are many degrees of this morbid sudoræa. It may be a mere dampness, scarcely more than that which exists in many chlorotic people whose circulation is feeble, and who always have chilblains during the winter; or the sweating may be only on the palms of the hands, the natural furrows being so many rivulets which drain the parts around. The sweating process is generally intermittent, and there is most moisture when and where there is most pain. A lady sent to me in the autumn of 1886 suffered thus: every morning, at about 2 o'clock, a severe neuralgic attack came on in both lower limbs, and, at the same time, there was such excessive perspiration that the whole bed felt wet, and a thick layer of flannel was put under the thighs and legs to absorb the fluid which streamed from them. Other upsetting of vasomotor proprieties is shown in erysipeloid swelling of the hands; in transitory feelings of great heat, as if the hands were "parboiled," said one patient, or being "stung all over with nettles," said another; and a very common sensation in both hands and feet is that of being "scalded," as if the textures all through were submitted to a fiery ordeal.

4. There yet remains the large and subjective phenomenon of pain, which follows the course of certain nerves in such a manner as to deserve the title of essential neuralgia. In the early synovial stage of osteo-arthritis there is pain more or less localised in the affected joints; but the warnings and foreshadowings of which I now speak are altogether different, and are due to a perverted innervation of a large nerve-plexus, or of a large area of nerve-supply. The earliest prophetic note of the coming storm is pain in the muscles of the ball of the thumb, with sharp pangs on the inner side of the wrist, which I venture to call the "ulnar area" of this specific neuralgia. Later on the pain is massive and diffused, and not always to be identified with the chief nerves of a limb. Thus a middle-aged lady had a painful condition of the whole right arm, acute and paroxysmal. Pressure along the course of the ulnar nerve and over the brachial plexus was badly borne. Now what was the meaning of all this neural disturbance? It was a beacon warning of coming evil. Already there were the pathognomonic signs of enlargement of the first and second metacarpophalangeal articulations, and a trivial disclerment of the skin; and it was clear that if our whole therapeutic thought had been addressed to the neuralgia as such, we should have missed the very point of the case. What we imagine to be sciatica pure and simple is now and then a note of osteo-arthritic disease having begun in the tarsal articulations, or perhaps in the knee. But the specific neuralgia of the lower limb which I am now describing is, so to speak, pain in bulk; the sufferer clasps the thigh with a fervid grip, and says that the pain is all round, engaging the anterior crural and obturator nerves, no less than the sciatic. An exhaustive surgical examination of the hip-joint may discover that an osteo-arthritic lesion has already begun in it, justifying the old name of "hip-ache," often applied when it was doubtful whether the joint or the nerve were the mere affected. We profess to have more perfect instruments of diagnosis than our forefathers; but it is certain that while we are meditating how to treat a supposed exclusive pain-storm, another and deeper pathological mischief may be creeping on unperceived.³

There are many collateral facts which show how far-reaching are the disturbances which may be roused by that profound nerve-quake (if I may so term it) which is at the root of the true neural arthritis. I have seen two cases (both middle-aged women) in whom the phenomena of the so-called gastric crises, precisely as in locomotor ataxy, were the earliest signs of rheumatoidal disease.

In another case the battle began with symptoms of asthma; and a long dreary prelude of migraine-headache is very common indeed.

Dr. Johnson, of Tunbridge Wells, sent me, three months ago, a patient who exemplified in a striking form the waves of cerebral sympathy which may be stirred by a progressive osteo-arthritis. A lady, aged 75, has the usual nodular joints in the fingers and knuckles; she has an orange tint on her forehead and face, with red cheeks; the fifth nerve expresses its partnership in sorrow by intense supra-maxillary pain; the equilibrium of the glosso-pharyngeal nerve is upset, and queer tastes are frequently perceived; there is intense deafness, and now and then visual ver-

² A full account of this case was published in the JOURNAL of March 7th, 1885.

³ I am indebted to my friend Mr. C. T. Griffiths, resident medical officer at our Mineral Water Hospital, for much help in the collection of data for the purposes of this paper. I owe a great deal also to medical men in London and various parts of the country for sending me cases of interest for private treatment.

tigo. And just now another patient, a lady of middle age, having an intensely pigmented face, suffers from inco-ordination of the pharyngeal muscles to such an extent as to suggest to her medical attendant the possibility of glosso-labial paralysis, so great was the difficulty of swallowing.

There are links which bind together osteo-arthritis, tabetic arthropathy, and the arthropathy of hemiplegic limbs. I venture to put forward the theory that the term "osteo-arthritis" will be found to include several kinds of joint lesion. There is what is commonly called the acute type, and there is the chronic type, and in both the anatomical changes are the beginning and end of the whole thing. But I contend that there is a large and hitherto undescribed group in which the pathology of joints is merely one sign of a profound nerve disorder. We call it conventionally an arthritis; but really the arthritis is only one neural symptom among many others, and possibly not the most important. Synthetically we do not build osteo-arthritis out of pulse, pigment, perspiration, or pain; the special morbid anatomy must be there; but one or more of these symptoms may eclipse the arthritis so far as to make it insignificant in any given case. A new name seems to be wanted for a complex state in which the neural and trophic phenomena of the body are so curiously upset and confused; but I do not venture beyond my allotted province of merely recording what I have seen and heard.

To sum up. A patient (male or female) walks into our consulting room with a slightly forward attitude, spare habit of body, and very likely a halting walk from something wrong in the lower limbs. We note the ovoid face, the melasmic tinge around the eyes, or the shining yellow pigment on the forehead; we feel the cold wet hands, and glance at the nodular fingers; and our diagnosis is made—made, I affirm, beyond the possibility of doubt or failure; and if there be besides the hard quick pulse, one more element is added to the diagnosis already assured. Our ancient friend, the practical man, is now certain to be pleased; he can begin his treatment without hesitation and without fear; he knows, or ought to know, that time lost in applying his remedies is time which cannot be recalled.

I have refrained from touching many minor points, and from travelling along some interesting by-paths, because I desire the main outlines of my theme to be vivid and unblurred. Fallacies of observation and induction beset all human inquiries; and with every caution and reserve I offer for the judgment of this veteran Society some material for the elucidation of an obscure and almost malign disease.

ON SOME POINTS CONNECTED WITH CONCOMITANT CONVERGENT SQUINT.¹

By W. ADAMS FROST, F.R.C.S.,

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In man, and probably also in other animals whose eyes command a common visual field, the two eyes are intimately associated in the act of vision; not merely in the sense of doubling the intensity of a visual impression, but, the two retinæ transmitting to the sensorium impressions which differ from each other much as the two sides of a stereoscopic slide, the mind is enabled to fuse these into a single mental picture, from which impressions of solidity, depth, and distance are obtained with much greater certainty than could be obtained from a single retinal image. Perhaps the simplest way of demonstrating the advantage of stereoscopic, or, as I shall hereafter call it, "binocular" vision, is by means of Hering's test. A horizontal string is held at the level of the eyes at a distance of about two feet, and small bodies such as beans are dropped from a height of a few inches either on the proximal or distal side of the string, and close to it. With both eyes open there is not the slightest difficulty in seeing on which side of the string the object falls, but with one eye alone it will be found impossible, even with the closest attention, to be certain.

Binocular vision cannot, however, be obtained of all points in the visual field simultaneously, but only of such as fall upon certain parts of the two retinæ, which are for that reason said to be "corresponding areas." The yellow spots correspond, and if the retinæ be divided into quarters by lines meeting at this point, the right upper, left upper, right lower and left lower sections in

one eye would correspond with those of the same name in the other. The result of this is that when the visual axes are directed to any point (so that its image falls on the fovea in each eye), images of other objects in the same vertical transverse plane as the object fall on corresponding areas, while those which are at a greater or less distance have their images on non-corresponding areas. In the latter case double vision, or "diplopia" results if the mind takes cognisance of both images. The impressions, however, produced by retinal images at a distance from the fovea do not force themselves on the consciousness; and although, by a little practice, most people can convince themselves that this diplopia really exists, we are as a rule as unconscious of it as of the existence of the blind spot. If, on the contrary, the object to which the attention is directed has its image on the fovea in one eye and on some other part of the retina in the other, then diplopia is produced.

The whole function of the ocular muscles is to direct the visual axes to the object on which our attention is fixed. Partly, no doubt, from the anatomical fact that the centres which govern accommodation and convergence are in close connection, and partly from the physiological fact that the accommodation and convergence have from the first dawn of vision been associated in action in order to obtain binocular vision, both in the individual and through an innumerable succession of generations, it comes to pass that on accommodating for a given distance, the visual axes are converged to meet at that distance, instinctively and without conscious effort. But the power of adaptation to environment is a characteristic of organised beings, and if from any cause the conditions are so altered that binocular vision can only be maintained by an alteration in the normal relation between convergence and accommodation, that alteration may be made unconsciously if it does not exceed certain limits. This may be illustrated by placing prisms or lenses before the eyes.

Within certain limits, then, the desire for binocular vision will lead to binocular fixation. It remains for us to consider under what conditions continuous binocular fixation either demands a conscious effort or becomes impossible.

Now, in the first place, having regard to the variations in the conformation of the face, in the shape and size of the orbits, and the degree of prominence of the eyeballs, it is not to be expected that the range of the ocular movements should be the same in all cases. The admirable investigations of Motais have shown that the limitation of movement of the eyes depends on the parts of Tenon's capsule which form the check ligaments, and that these are called into play not merely when the limit of movement is reached, but that they exert a continuous and increasing control during the whole range of movement. It would seem probable, therefore, that the variations in the power of moving the globes depend less upon actual differences in the power of the muscles than upon the anatomical connection of the ligamentous processes, although, of course, when there is feeble muscular tone, an impediment would be noticed which might otherwise be unimportant.

For much of our knowledge of the variations that exist in the relative amount of convergence and divergence we are indebted to Landolt. Adopting the metrical notation, and taking parallelism as zero, we may say that the normal condition is a power of divergence (negative convergence) which would cause the visual axes to meet at a point one metre behind the base-line connecting the centres of rotation (that is, one metrical angle — 1 M a); and of convergence (positive) to a point distant one-ninth of a metre (+ 9 M a), the range of convergence being thus ten metrical angles. Now it is evident that this may vary in many ways. The range may remain unaltered, but it may be displaced towards the positive or negative side, or it may be shortened at the expense of either positive or negative end, or of both. A consideration of these varieties would be beyond our present purpose, and I must refer those of you who are interested in it to Professor Landolt's paper, of which an excellent translation by our late clinical assistant, Dr. Law, appeared in the *Ophthalmological Review*, July and August, 1886.

It is evident that any great departure from the normal condition will render binocular fixation difficult or impossible, according to its degree. In the former, the use of the eyes upon near objects for long periods will cause the symptoms classed under the term "asthenopia" with which you are familiar in hypermetropia, a symptom which has been well defined as "a strike for less work or better tools." In the higher degrees of abnormality binocular fixation may be impossible, and then we get a squint

¹ An abstract of two lectures delivered February 14th and 21st at the Royal Westminster Ophthalmic Hospital.

developed. When binocular fixation is only performed under protest, as it were, and in order to avoid diplopia, a squint may be said to be latent, and it will become manifest if anything happens to prevent binocular vision, or to impair its value. A latent squint may therefore artificially be rendered manifest by covering one eye, or by causing vertical displacement of one retinal image with a prism, for, since the eyes can only be moved together in the vertical meridian, fusion of the two images then becomes impossible. The best test object for this latter examination is the well-known one of Graefe, a vertical line with a dot in the centre. When binocular fixation occurs for the distance of the object the lines are fused; in other conditions two complete lines are seen, too great convergence being shown by divergence of the images, too little by their crossing.

A latent squint may also be rendered manifest by impairment of the vision of one eye. So far we have considered the interference with the normal relation between convergence and accommodation from the side of the former function, but it may of course depend on defects in the latter. Myopia acts thus by requiring less accommodation, and hypermetropia by requiring more; the tendency in both cases is to equalise the use of the two functions, and therefore of myopia to cause either spasm of the accommodation or defective convergence, and of hypermetropia to cause either defective accommodation or excessive convergence.

Lack of time prevents me from saying much as to the treatment of these conditions of disturbed relation between convergence and accommodation without actual squint. If the amount of positive convergence is defective, the symptoms can be relieved by the following methods: 1, the use of prisms with their bases inwards; 2, tenotomy of one or both external recti; 3, advancement of one or both internal recti; 4, a combination of several of these. Prisms alleviate the symptoms without removing the condition to which they are due; the weight of the stronger prisms and the chromatic aberration that they cause limit their usefulness. The choice between 2 and 3 will depend upon the relative amount of negative and positive convergence; 2 diminishes the former, while 3 increases the latter.

We will now pass from latent to actual squint, still confining our attention to cases in which there is no paralysis, and which are called "concomitant" because the eyes, although always too convergent or divergent, accompany each other in all their movements in the normal manner.

Concomitant convergent squint is most commonly caused by hypermetropia. The mode of causation is probably well known to all of you. The hypermetrope has to use an excessive amount of accommodation in order to see; he has, therefore, three courses open to him: 1. He may dissociate his convergence and accommodation, and use the necessary accommodation with only the normal amount of convergence; he would, *a priori*, seem more likely to do this if his hypermetropia were of low degree. 2. He may not use the necessary accommodation, and be content to have defective near vision; it was formerly assumed that this actually occurred in the higher degrees of hypermetropia, although this is theoretically possible, but I think that it is much more probable that a hypermetrope who may be unable to neutralise his defect always endeavours to do so. 3. He may facilitate the use of accommodation by employing his convergence at the same time. We are now concerned only with this last.

To Donders we owe the discovery of the connection between hypermetropia and strabismus, and his theory has been universally accepted till recently. Lately, however, two objections which have been urged against it seem to have shaken the faith of some. One is that, according to it all hypermetropes should squint; the second is the alleged immunity of the higher degree of hypermetropia from squint. The first I believe to be unreasonable and the second untrue.

Why do not all hypermetropes squint? Is there any opposing influence? Surely the desire for binocular vision in this case, as in those we have already considered, will tend to prevent the development of a squint. If binocular vision exists, the immediate effect of loss of binocular fixation will be diplopia, and the choice has to be made between the inconvenience of diplopia and that of dissociating accommodation and convergence. It is true that most children who squint have no diplopia, but then we seldom see them until the habit of squinting is well established, and children learn very early to disregard or "suppress" one of the retinal images. I do not think it surprising

that children do not oftener mention the diplopia; they are generally very young when they commence to squint, and are not accustomed to mention subjective sensations unless they are painful; but I have met with many instances in which it has been complained of, and in some of these I have had an opportunity later of finding that it had entirely disappeared. Given the tendency to squint, it is evident that anything that lowers the value of binocular vision will remove an obstacle to that tendency. Squint will, therefore, be the more likely to occur if the vision of one eye is defective; the same effect will be produced if one eye has a higher degree of hypermetropia than the other, for since the accommodation can only be used equally in the two eyes, the more ametropic must have blurred images when the hypermetropia of its fellow is neutralised. Now, as a matter of fact, we do find in the majority of cases of squint that the squinting eye has either a higher degree of ametropia, an inferior visual acuity, or both. It used to be supposed that the impairment of the vision was the result of the squint, and was due to the constant suppression of impressions received from it. I cannot now examine the evidence bearing on this; my own belief is that there is, in such cases, an original inferiority of one eye, but that this is largely increased by the habit of voluntary suppression. Eyes which present this amblyopia in a high degree, often possess a very fair amount of indirect vision, but the vision of the central portion of the retina does not show that marked superiority over the peripheral, which is the normal condition, and is often obviously inferior to it. There is a class of cases in which the two eyes are equal, and in which it seems to be a matter of utter indifference to the patient which eye he squints with. In these cases of "alternating" squint also diplopia is absent when the squint is fully developed. It is not unlikely that in such cases there is an original preponderance of the internal recti.

It remains for us to consider the alleged immunity, comparative or absolute, of the higher grades of hypermetropia from squint. The explanation usually given that those affected with extreme hypermetropia, being unable to neutralise it, give up the attempt, always seemed to be *a priori* improbable, and has no foundation in fact. It is strange that this statement has been generally accepted without question of its accuracy. When some learned philosophers disputed as to the reason why a dead cod-fish weighed more than a live one, it occurred to someone to test the fact, with the well-known result. Low hypermetropia is exceedingly common, while high degrees (over 6D) are comparatively rare; therefore among cases of squint we cannot expect to find a preponderance of high over low hypermetropia, but I believe that it will be found that the proportion of the former is much greater than among the non-squinters. Last year I went over my notes, in order to ascertain whether this was so or not. I found a record of 123 cases in which the refraction had been tested. The following table shows the relative proportion of the different degrees of hypermetropia (when the eyes differed the refraction of the working eye is given).

	Under 1 D	8.13 per cent.
From 1 to 2 D	16.03	" "
" 2 " 3 D	18.5	" "
" 3 " 4 D	17.5	" "
" 4 " 5 D	15.3	" "
" 5 " 6 D	12.7	" "
Over 6 D	11.9	" "

I suppose no one will contend that 11.9 per cent. is the proportion in which H. of over 6D occurs in comparison with other degrees, but this is not all; squint is a prominent symptom, and a large proportion of the cases are brought for advice, H. without squint in the child often produces few symptoms, and therefore only a minority of the cases are brought. These facts are quite consistent with the view that the liability to squint is proportionate to the amount of hypermetropia.

If defective vision of one eye, or preponderance of the internal recti, is present in most cases, you may ask why should not they alone be held responsible for the squint? For the simple reason that the very large majority of cases of squint in the early stage can be cured by correcting the hypermetropia with convex glasses. At first, and sometimes for months, the squint will return the moment the glasses are removed, but eventually a permanent cure will result in most instances. The best test of the curability of a squint with glasses is the effect of atropine; if there is no squint when the accommodation is rendered impossible, there will usually be none when it is rendered unnecessary. It is not always so, for habits that have been acquired may persist after

the original cause has been removed. I know that some authorities are sceptical as to the cure of squint with glasses, but positive evidence must be allowed to outweigh negative, and those of you who have followed the practice of this hospital can have no doubt on the subject. I would go still further, and say that in many cases the glasses may subsequently be laid aside, if binocular vision exists, without the squint relapsing.

Of the operative treatment of squint I will not here speak, but I wish to direct your attention to a method of producing or restoring binocular vision when binocular fixation has been obtained. This in this country has been much neglected; we are too apt to think that, when we have cured the squint, we have done our work, while in reality we have but scamped it. It is true that a deformity has been remedied, but the correction of the squint in the majority of cases does nothing towards restoring binocular vision. Of this you can easily convince yourself by means of Snellen's coloured letters.² You will find that the patient can, if each eye has good vision, see after a little practice either set of letters at will, but seldom both at once. He is not, therefore, really cured, for he does not see as in the normal condition. We owe much to Landolt in the matter of the treatment of affections of the muscles, but in my opinion his greatest achievement is that he has taught us how binocular vision may be restored in a large number of cases of squint. For this purpose a modification of the stereoscope is most useful. In the ordinary instrument the picture before each eye is, by means of a prism with the base outwards, projected to the same point on the middle line and a little further from the observer than the actual picture, so that a slight amount of convergence is used. For our purpose it is necessary that we should be able to regulate the amount of convergence required in order that such pictures may lie on the foveæ centrales. Accordingly the prisms must be capable of rotation, by which means their effect on convergence can be gradually altered. There must also be an arrangement by which either the distance of the object or the strength of the lenses can be altered, in order that the amount of accommodation can be regulated. The objects before the two eyes should be dissimilar, but capable of being fused into a single picture. A bird on one side and a cage on the other make a very serviceable slide.

If the vision of one eye is defective, it must be improved as much as possible by practice, and a more conspicuous object chosen for that eye. In most cases, it is at first necessary to attract the child's attention to the picture before the eye that squinted by covering the other. Even when both images are seen simultaneously, it is seldom that they are fused, usually at first there is homonymous displacement, which must be overcome by rotating the prisms, and, if necessary, by adding others.

When once the patient has succeeded in fusing the images, and understands what is required of him, he should be encouraged to practise with other slides, and to amuse himself daily with it. From time to time Hering's test should be used to see whether any progress has been made towards habitual binocular vision. This mode of treatment has been little practised hitherto owing to the difficulty of procuring a stereoscope which would be within the means of hospital patients. Messrs. Pickard and Curry have, however, now manufactured an instrument after Dr. Landolt's model which will, I believe, obviate this difficulty; and it is not unlikely that by this means many more squints will be cured without tenotomy than has hitherto been possible.

² Transparent letters of complementary colours, arranged alternately, and viewed through similar glasses—one before each eye. Since each glass quenches the light which has passed through the letter of its complementary colour, each eye can only see the alternate letters.

SATISFACTORY information as to the decrease of small-pox at Sheffield continues to be received. The malady is said to be decreasing both in the number of cases and in the malignancy of the disease.

It is suggested by President Cleveland that the United States Government should prohibit the importation of swine or porcine products from France and Germany, owing to the information received that disease exists among swine in those countries.

STEPS have been taken by the friends of the late Dr. Adey to connect his name inseparably with the Hastings, St. Leonard's, and East Sussex Hospital. A meeting with this object was held at the hospital on Thursday, March 29th, to consider the question of raising some permanent memorial to this physician, whose name is deservedly held in high esteem by the inhabitants of the district.

THE VALUE OF ELECTRIC ILLUMINATION OF THE URINARY BLADDER (THE NITZE METHOD) IN THE DIAGNOSIS OF OBSCURE VESICAL DISEASE.

By E. HURRY FENWICK, F.R.C.S.,

Assistant Surgeon to the London Hospital; Out-patient Surgeon to St. Peter's Hospital for Urinary Diseases.

THE new incandescent-lamp cystoscope has been before the profession for more than a year,² and sufficient knowledge has been acquired of the capabilities of this instrument, and of its predecessor, the Nitze-Leiter cystoscope of 1879, to warrant the discussion of certain important questions bearing upon the subject of vesical endoscopy. There can be no dispute as to the immense advantage which would be gained by a visual examination of the interior of the bladder in certain cases of obscure uro-vesical disease—cases in which neither the sound nor the microscope nor a careful estimation of the symptoms afford any clue to the nature and site of the disorder. Nor can there be, as far as the mere examination of the bladder is concerned, any difference of opinion, as to the superiority of a successful cystoscopy over a digital exploration by the *boutonnaire* operation. The questions which merit our consideration relate to the means at our command of obtaining a successful inspection of the interior of the bladder without a cutting operation. They may be thus formulated: Is the electric cystoscope of practical value? What rank will the instrument acquire as a diagnostic agent?

The former question can be readily answered by a reference to the work already done. Obscure vesical symptoms, in which an efficient cystoscope would prove of practical utility, may be elicited by foreign bodies (other than stones), latent and accumulated calculi, various forms of ulceration and vesical growth which cannot be diagnosed bimanually or otherwise. It is in the inferior zone of the bladder that these conditions are mostly to be met with. Given an incandescent-lamp cystoscope in good working order and well lodged in the bladder, a clear medium, a practised eye and hand, and it can be affirmed beyond dispute that the entire inferior zone can be thoroughly searched without a cutting operation by means of electric light. The following briefly described cases from the literature and my own notebook will serve as illustrations.

Foreign Bodies.—No case could be more conclusive as to the practical value of the cystoscope than the following, which came under the care of Dr. Nitze, the able introducer of this brilliant innovation. F. S., aged 35, had left-sided ovariectomy performed by Martin; the pedicle being secured by several stout silk ligatures. Two years after the operation the patient was suddenly seized with acute cystitis. A calculus was discovered and partially crushed, a silk ligature being subsequently passed along with calculous debris. The patient then came under Dr. Nitze, who performed litholapaxy. In attempting to remove the lithotrite, it was felt to be firmly held by something in the bladder. It was withdrawn with an effort, and a silk ligature was found entangled in the jaws of the instrument. All the stone was removed. The electric cystoscope was introduced, and the ends of a thick glistening white ligature were seen projecting from a deeply congested pit in the mucous membrane of the left wall of

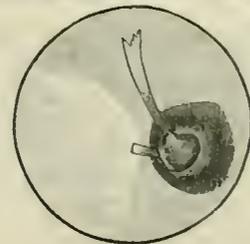


Fig. 1.

the bladder (Fig. 1). The lithotrite was introduced and the liga-

¹ Abstract of clinical lectures upon Electric Cystoscopy delivered in the out-patient department of the London Hospital, January 27th, 1888; and at St. Peter's Hospital, February 15th, 1888.

² Nitze, *Illustrirte Monatschrift der ärztlichen Polytechnik*, March, 1887; *Leiter, König. Gesellschaft der Aerzte zu Wien*, March, 1887; *JOURNAL*, February 4th, 1888.

ture cleverly caught and dragged out. This and the other ligatures had evidently ulcerated their way through, producing the cystitis and consequent calculous formation.³ Nicoladoni⁴ was able to demonstrate a needle sticking in the right half of the anterior wall of the bladder to a large class of students.

Calculus.—Dittel, finding a difficulty in removing a stone by the lateral incision, introduced the cystoscope, and found that the calculus was projecting from the mouth of a diverticulum. Although the cystoscope will never supersede the sound, yet stones are very easily found by means of the light, and that without much manipulation. They form beautiful objects. I tried the instrument in two cases lately before using the sound, and in both the stone was immediately recognised.

Case 1.—H. H., sent by Mr. Molson, of Plaistow. The patient had had frequency and straining for four years; no hæmaturia; no characteristic pain; residual urine eight ounces. The cystoscope revealed a large irregular brownish coloured calculus, with a flocculent surface lying on the right side of the base of the bladder. Subsequently verified by the lithotrite.

Case 2.—M. C., aged 66, sent by Mr. Hichens with the diagnosis of calculus. The patient had suffered characteristic pain and profuse hæmaturia; a large intravesical collarette of prostatic growth was present. Cystoscope showed the calculus as a brilliant white object, lying in a clot of blood behind the prostatic outgrowths. It was removed suprapubically.

Vesical Growths.—**Case 1.**—N. C., male, aged 70, under the care of Mr. Eve. Patient had been a heavy drinker. Sixteen months before death a profuse hæmaturia appeared, which never subsequently left him, though it was kept under control by hæmostatics. He suffered no pain, nor was he troubled with frequency until the disease was considerably advanced. No growth or stone could be discovered. Microscopical examination of the urine revealed nothing. I was asked to examine him with the cystoscope. The instrument was introduced and turned on to its side, and a sessile lobulated tumour was immediately discovered on the right side of the trigone. The lobes were large and deeply injected. Fig. 2 represents the sketch taken. It was decided to leave it

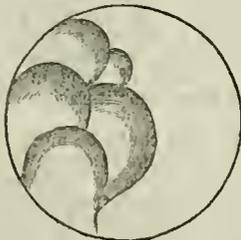


Fig. 2.

alone. Perineal cystotomy was performed a month after drainage, and the growth was then verified by digital exploration. On *post-mortem* examination secondary deposits were found in the liver.

Case 2.—M. B., female, aged 55, under the care of Mr. Heycock. Patient had suffered from intermittent hæmaturia for three years. Usually pain on passing clots. On introducing the cystoscope I detected a walnut-sized tumour on the left side of the base. It was a remarkable object (Fig. 3). Its surface was slightly nodular,

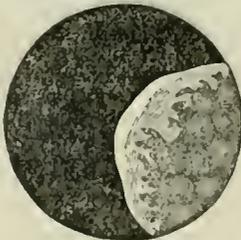


Fig. 3. (The mucous film has been omitted.)

but the cracks and crannies were filled with a glistening white layer of phosphatic deposit. Floating away from, but partially

³ Compare results of Maksimow and Znamensky in the use of ligatures in resection of the bladder. *Langenbeck's Archiv*, 31.

⁴ Nicoladoni, "Stecknadel in der männlichen Harnblase." *Wiener Med. Wochenschrift*, 1856. Nos. 7, 8.

attached to the summit was a cloak of clear mucus, which wavered and trembled at every current set up by the movements of the instrument. The urethra was dilated, and the position and size of the growth verified by digital examination; an *éraseur* loop was slipped over it, and its thick stout pedicle slowly cut through. It proved to be a fibro-papilloma. The patient made an excellent recovery.

Seventeen other vesical tumours are to be found in the literature, from which I have selected two (figs. 4 and 5) from Dr. Nitze's

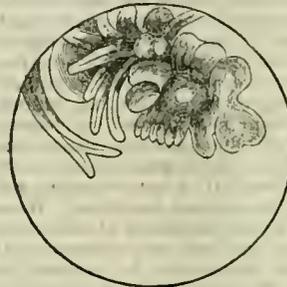


Fig. 4.

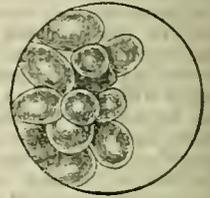


Fig. 5.

work.⁵ Fig. 4 represents a pedunculated villous tumour which Dr. Nitze found hanging over the urethral orifice of the bladder of a man aged 50, a patient of Professor Küster's; it was removed suprapubically. Fig. 5 represents a carcinomatous infiltration very similar to Case 2. It was found on the right side of the urethral orifice by Dr. Nitze in a patient of Dr. Israel's.

What rank will the electric cystoscope assume as a diagnostic agent? It is as yet difficult to estimate its future position, for the instrument has become very popular, and improvements are already on foot. It will never bear comparison in general utility with its kindred, the ophthalmoscope, laryngoscope, or otoscope; for even the slight difficulty attendant on its management and the necessity for a battery will debar it from the wide popularity of those easily-managed instruments for the eye, throat, and ear. It will doubtless become an important atom in the molecule of vesical diagnosis, and in some very rare instances that molecule itself. Without, therefore, weakening the analytical judgment of the symptoms of the case, it will probably be turned to when other forms of investigation have failed. Of its future importance in the differential diagnosis of the site of symptomless hæmaturia and pyuria, I have but little doubt. The ureters can generally be discovered and examined as to the nature of their efflux. I have seen in one case of renal hæmaturia a jet of bloody urine issue from the right ureteral orifice into the artificially cleared medium in the bladder, just as a miniature cuttlefish would squirt out its coloured fluid into the water around. The source of the hæmorrhage was thus at once indicated. In the estimation of the advisability of suprapubic removal of prostatic intravesical outgrowth (MacGill's operation) it may prove of use. I have latterly made a point of examining the prostate by its means. Increased visual knowledge of the living bladder may cause the cystoscope to assume an important prognostic position (as may be judged from Figs. 2 and 5), indicating those growths which are removable, and those which it is the wisest policy to leave undisturbed. Lastly, it will be the arbitrator between the *boutonnaire* and the suprapubic operation for vesical growths; for those which are single, lightly pedicled, and situated close to the urethral orifice may well be treated by the perineal incision, whilst those which are shown to be multiple, sessile, or springing from dimples in the mucous membrane certainly require the wider access afforded by a *sectio alta*.

⁵ Dr. Nitze, "Beiträge zur Endoskopie der männlichen Harnblase," *Langenbeck's Archiv*, 36.

THE DOSE OF DIGITALIN AND ACONITIN.—The French Pharmaceutical Society have decided not to dispense granules containing more than one-tenth of a milligramme of digitalin or aconitin. Hitherto it has been usual to prepare them with a quarter of a milligramme of one or other of these alkaloids, but owing to the greater activity of the modern crystallised alkaloids, several serious accidents have happened from doses of a quarter of a milligramme, fatal effects in one case having followed the ingestion of this quantity of aconitin.

ON THE ORIGIN AND STRUCTURE OF CERTAIN LOOSE BODIES IN THE KNEE-JOINT.

By HOWARD MARSH, F.R.C.S.,

Assistant Surgeon to St. Bartholomew's Hospital; Surgeon to the Hospital for Sick Children, Great Ormond Street,

In a letter from Professor Humphry in the JOURNAL of March 17th (at page 613), on "Loose Bodies in the Knee-Joint," the following sentences occur: "I am correctly stated to have expressed my scepticism in regard to the possibility of the formation of these loose bodies by the detachment of portions of the articular cartilages." "It must be a very extraordinary and violent accident that would break off into the joint a piece of the articular cartilage, with or without bone, of the femur or the tibia. One can scarcely imagine the occurrence of such an accident, or conceive how it could take place." "We have a ready and sufficient explanation of the formation of loose bodies in the growth.....of tufts or processes of synovial membrane, which.....naturally containing cartilage cells, may become the seat of cartilage-growth and ossification, and by rupture of the pedicle become loose in the joint.....We need not therefore search for other and highly improbable modes of origin." "I can scarcely suppose that anyone really believes that a portion of bone detached by the process of necrosis can be converted into one of these bodies, though such a suggestion is actually made in a recent and important work on surgery."

But for the adjective "important," I should conclude that the work alluded to is one for which I am responsible (*Diseases of the Joints*, Cassell and Co. 1886), for I have stated, at page 181, (1) that "pieces of cartilage, with or without portions of the underlying bone may, after injury, as pointed out by Teale, Sir James Paget, and others, exfoliate and drop loose into the joint, without the symptoms of inflammation usually observed in cases that end in necrosis; or (2) a piece of cartilage, or of cartilage and some of the adjacent bone may be chipped off and fall into the joint." Thus—though perhaps Professor Humphry refers to some other work—I have certainly written in a manual intended for students, as well as surgeons in practice, that which Professor Humphry "can scarcely suppose that anyone really believes." I shall therefore be glad, if space can be afforded me, to say what grounds there are for stating that which Professor Humphry regards as so extremely improbable.

I. As to the formation of a loose body by the breaking off into the knee-joint of a piece of the articular cartilage, with or without bone, of the femur or tibia.

In the museum of St. Thomas's Hospital, Specimen D. 110^t is thus described in the Catalogue (vol. 1, page 140): "Loose body from the knee-joint, removed by Mr. Simon, in 1864. It is a fragment of articular cartilage and bone, apparently clipped off from one of the condyles of the femur." The specimen was shown by Mr. Simon, at the Pathological Society on May 17th, 1864, and is described by him in the following terms (*Pathological Society's Transactions*, vol. xv, page 206).

"Broken-off bit of Condyle loose in the Knee-joint.—A young man who, in falling, had wrenched his knee, came into St. Thomas's Hospital to be treated for some inconsiderable synovitis which followed the accident, and, while under treatment, was found to have a loose body in the joint. As soon as all acute symptoms had subsided (about three weeks after the injury), Mr. Simon operated for the removal of this loose body, and, having removed it, found that it was a broken-off bit of the articular end of the femur, covered on one side with its natural cartilage, and being about the size of a bean. The patient recovered without interruption."

I am indebted to Mr. Shattock, whose opinion on such a question few, I think, will dispute, for the following report:

"The cartilage in Mr. Simon's specimen has every character of healthy articular cartilage, in arrangement of cell-groups and homogeneity of the matrix. There can be no doubt whatever that the loose body is a portion detached from an articular surface."

Fig. 1 represents this body enlarged, for the sake of clearness, to about five times its real size. The bone and the cartilage can be plainly seen. Considering the very definite history which we have direct from Mr. Simon himself, and considering Mr. Shattock's report, I think there can be no reasonable doubt that, in

this instance, a piece of the articular cartilage, with some adjacent bone, was broken off into the joint.

A noteworthy point in this case, in reference to Professor Humphry's opinion, that it must be a very extraordinary and violent accident that could break off a piece of articular cartilage, with or without bone (see above), is that, according to so cautious an observer as Mr. Simon, this injury was produced by a mere wrench of the knee occurring during a fall, and that it was followed only by "some inconsiderable synovitis."

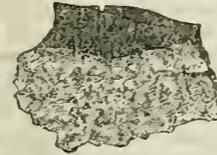


Fig. 1.

2. As to the question whether "a portion of bone, detached by the process of necrosis, can be converted into one of these bodies."

In the museum of St. Bartholomew's Hospital (Cat., vol. i, No. 721) are "two portions of cartilage removed from the knee-joint of a lad, aged 18. They are almost exactly alike in form and size, each resembling such a piece of cartilage as might be obtained by removing that which covers the posterior surface of one of the condyles of a femur, and each, as such a piece would be, is smooth and polished on its convex and rough on its concave sur-



Fig 2

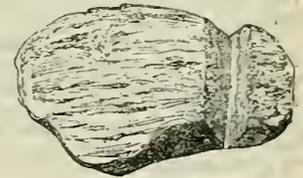


Fig. 3.

face (Figs. 2 and 3). There was an interval of about a year between the operations by which these bodies were removed." In a report on this specimen in the *St. Bartholomew's Hospital Reports*, vol. iv, 1868, p. 257, I said, "On close examination both these cartilages are found to have a thin layer of bone on their concave surface; this presents, under the microscope, the characters of true bone, and is covered with a scanty layer of irregularly disposed fibrous tissue. The arrangement of the cells in the cartilage of both specimens is precisely similar to that of articular cartilage."

The next specimen (722) in the same museum I have described in the Reports (vol. iv, p. 256) as follows:—"It consists of a layer of cartilage and a layer of bone intimately connected with each other. The cartilage is smooth and glistening on its free surface, like ordinary articular cartilage (Fig. 4). In profile it is seen to have the thickness of the layer that encrusts the condyle of the femur in a healthy adult. Its margins are irregular, as if defined by fracture, and recede towards the bony layer. This latter is of less superficial extent than the cartilage, which exceeds it in every direction. At its central, which is also its thickest, part, it measures about two lines. Its surface is irregular and cancellous (Fig. 5). Examined with a microscope the carti-



Fig. 4.



Fig. 5.

lage is found precisely like articular cartilage. In its deeper layer the cells lie with their long axis at right angles to the subjacent bone, while, towards the free surface, they are small, numerous, elongated, and with their long axes parallel with the surface. The bone presents the characters of true osseous tissue."

Dr. Vincent Harris, Demonstrator of Physiology at St. Bartholomew's Hospital, in the course of last week kindly examined these specimens (Nos. 721, 722). He writes: "I have no hesitation in

saying that they consist of spongy bone covered with articular cartilage, and have also submitted them to another competent authority who confirms my opinion."

In the *St. Bartholomew's Hospital Reports* (vol. vi, 1870, p. 1) Sir James Paget, after referring to a paper on "Quiet Necrosis" which he had contributed to the *Clinical Society's Transactions* (vol. iii, p. 183), writes:—"Not long after this case, I had occasion to remove a loose cartilage from a knee-joint. The patient was 16, active, athletic, and, except at his knee, thoroughly healthy. At Harrow he had had many blows and strains of the knee, but he could not refer to any one of them as a cause of special injury. He had had for nearly a year all the usual signs of a loose body in the right knee."

After removal "this body looked exactly like a piece of the articular cartilage of one of the condyles of the femur. It was irregularly oval in outline, about an inch long, half-an-inch wide, and a line in thickness. On one surface it was convex and smooth, on the other concave and rough; and on this surface was a small prominent piece of bone, as if, with the cartilage, a piece of the articular surface of the femur had separated. The borders of the loose body were smoothly rounded off. In agreement with this general likeness to a piece of articular cartilage from a condyle was the microscopic structure of this loose body. In sections through its thickness was found a nearly homogeneous basis-substance, with cartilage-corpuscles, which, in arrangement and all their other characters, were exactly like those of articular cartilage. Thus no character was wanting to make it certain that this loose body was a piece of the cartilage, together with a very small portion of the bone, of one of the condyles of the femur."

"I believe that the explanation of the formation (of such bodies) is to be found in the case of quiet necrosis referred to at the beginning of this paper. These loose bodies are sequestra, exfoliated after necrosis of injured portions of cartilage, exfoliated without acute inflammation, just as the piece of bone was, or as a tooth after a blow may be slowly detached from its alveolus and cast out....."

"The view that certain loose bodies in joints are pieces of articular cartilage, exfoliated after necrosis due to violence, is supported by the fact that they are frequently consequent on injury in perfectly healthy young persons, and that, when a particular injury can be assigned, it is always at some weeks previous to the first finding of the loose body."

When these descriptions were given, neither Sir James Paget nor myself knew of Mr. Teale's paper (*Medico-Chirurgical Transactions*, vol. xxix, 1885, p. 31) in which he describes a "case of detached piece of articular cartilage existing as a loose substance in the knee-joint." In this case a brewer, aged 37, had, a year before, accidentally let a cask fall against his right knee. "Severe pain followed, and he was unable to work for three weeks, after which he followed his employment as usual for nearly twelve months until a few days ago, when he became suddenly lame, and was unable to bear his weight upon the leg. He then for the first time felt a flat substance moving about in his knee-joint." Mr. Teale removed the body, and, unfortunately, the patient, who had been a free drinker, died. "The substance, on being examined, was found to be flattened, circular in form, and irregular or ragged at its border. One of its surfaces had the appearance of cartilage, and was smooth, and slightly convex; the other was concave and rough, from a layer of bone." On opening the joint, "at the under surface of the inner condyle the articular cartilage showed a circular depression, about the eighth of an inch in depth, having a rough surface of bone at its base. On comparing this breach in the articular cartilage with the substance which had been removed, they were found to correspond accurately with each other, and, on placing the detached substance in the cavity in the condyle, the continuity of the articular surface was perfectly restored. It is, therefore, evident that the loose body was a portion of the articular cartilage along with a thin layer of bony substance." Mr. Teale believed that the injured piece of cartilage was cast off into the joint "by a slow process of exfoliation extending through a period of about twelve months" (Figs. 6 and 7).

Here, then, are six loose bodies from knee-joints. One, we are told by Mr. Simon, is "a broken-off bit of condyle," and Mr. Shattock has no doubt that it consists of a piece detached from an articular surface. A second was found by Mr. Teale to exactly fit into and make good a breach in the inner condyle of a femur. A third is minutely described by Sir James Paget, who states:

"Thus no character was wanting to make it certain, that this loose body was a piece of cartilage, with a very small portion of bone of one of the condyles of a femur." The remaining three are in the St. Bartholomew's Hospital Museum, and are pronounced by Dr. Vincent Harris to have the structure of true bone and articular cartilage. All but the first are, I believe, sequestra detached by the process which Sir James Paget has termed "quiet necrosis."

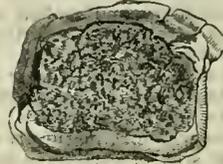


Fig. 6.

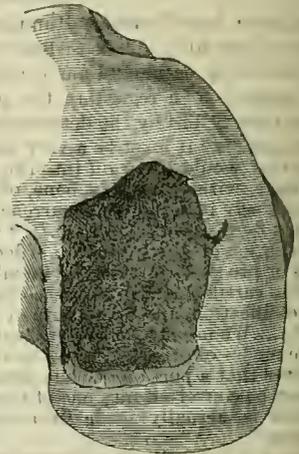


Fig. 7.

In this communication I have kept exclusively to the two chief points raised by Professor Humphry, though there are many others connected with the interesting subject referred to in his letter that would well bear discussion. I will only add that I entirely agree with his view, which no one, so far as I know, would question, that the great majority of "loose bodies" in joints are derived from the synovial membrane in the manner which he has described.

Since the above was written Sir James Paget has directed my attention to No. 647 in the College museum, which is thus described (Catalogue, p. 35): "A large piece of cartilage and bone, of the shape and about half the average size of a patella, removed from a knee-joint. It may be regarded as a portion of one of the condyles of the femur, which, probably after injury, was separated by a process similar to necrosis, but without acute inflammation. The articular cartilage is thinly extended over the edge of the bone. Presented by Sir Everard Home." Mr. F. S. Eve, Pathological Curator of the College, who has kindly examined the specimen microscopically, states: "I believe that in No. 647 the loose body was derived from the articular cartilage."

ON THE RELATION OF SCROFULOUS GLAND DISEASE TO OTHER FORMS OF TUBERCULOSIS: AN EXPERIMENTAL INQUIRY.¹

By FREDERIC S. EVE, F.R.C.S.,

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SOME two years ago, while writing a brief article on scrofula and tuberculosis for a student's Manual of Surgery,² my attention was drawn to the difference of opinion existing on the precise relation of scrofulous gland disease and affections described as tuberculous. I found that some clinical teachers with large experience in diseases of childhood still maintained that the two affections were practically distinct, while among pathologists some taught that scrofula and tuberculosis were synonyms for the same disease; others that in scrofula the tuberculous virus was so profoundly modified as to constitute a special variety. The latter view was strongly supported by some experiments of M. S. Arloing,³ which appeared to prove that inoculation with material from scrofulous

¹ Read before the Pathological Society of London, November, 1887.

² *Treves's Manual of Surgery*, vol. i, p. 216.

³ *Comptes Rendus*, tome xcix, 1884, p. 651.

glands was innocuous to rabbits, while it produced general tuberculosis in guinea-pigs.

The significance of this assertion, if well established, is clear, when it is stated that material from true tuberculous diseases produces visceral tuberculosis in both animals. The results of these experiments seemed of so much importance that I was desirous of testing the matter for myself, more especially as Arloing, in his first two groups of experiments, had only used glands taken from one patient. Further, I had observed such remarkable differences in the naked-eye appearances of strumous glands that it would have been no matter for surprise to have found that two or more diseases had been grouped under a single heading. This could only be tested by making experiments with a series of cases. Structures microscopically characteristic of tubercle and bacilli had been found in some glands; but in many others the histological appearances were indistinguishable from those of simple chronic inflammation, and might even simulate those produced by syphilis in other organs. For example, J. Arnold, who examined ninety cases, found giant cells very rare.

M. Arloing's experiments were, shortly, as follows: A juice was prepared from a single scrofulous gland, caseous in the centre, which was taken from a boy aged 14. This was injected beneath the skin of ten rabbits and ten guinea-pigs. Visceral tuberculosis developed in all the guinea-pigs, but the rabbits remained healthy, except that two showed yellow and caseous granulations at the seat of inoculation.

A second series of experiments were made with a gland subsequently removed from the same boy. The juice was injected into the peritoneal cavity of six rabbits and six guinea-pigs. As before, the guinea-pigs all presented tubercular lesions; the rabbits, on being killed, were found to be perfectly healthy. In two instances, pus from strumous abscesses gave similar results.

Some glands excised from the neck of a young woman produced tuberculosis both in rabbits and in guinea-pigs, but the patient died three weeks after the operation from miliary tuberculosis. Arloing appears to consider this case as outside the general category of strumous glands.

From these experiments he inferred that either scrofula and tuberculosis were nearly allied affections, but caused by different agents, or they were derived from a single virus, of which the activity was modified in the scrofulous form.

In my experiments I used small fragments of the glands prepared with sterilised instruments, and the possibility of infection of the animals with true tuberculosis was negated by the precautions taken. My experiments on rabbits are briefly as follows:—

EXPERIMENT I.—Rabbit inoculated beneath the skin of both ears. Cold abscesses formed at the seat of each inoculation, and remained stationary; but the animal continued well until the expiration of nine months, when, judging it to have escaped, it was re-inoculated in the peritoneal cavity.

EXPERIMENT II.—Rabbit inoculated in anterior chamber of eye with portions of a non-suppurating gland. A large mass of caseous material formed and ultimately projected from the eye (drawing shown). Animal killed three months after inoculation. Tuberculosis of lungs and liver. Brain healthy.

EXPERIMENT III.—Rabbit inoculated in anterior chamber with portions of caseous material and adjoining gland tissue from a strumous gland. No growth formed in the eye. Animal killed in two months and a half. No disease anywhere. Sections were made of these glands, and, after careful staining, no bacilli could be demonstrated. The gland substance had become in great measure transformed into fibrous tissue.

EXPERIMENT IV.—Rabbit, previously inoculated beneath the skin (see Experiment 1), again inoculated in abdomen. Killed after lapse of eleven weeks. Three large caseous glands were found beneath and below liver, and in the latter were yellow threads and stripes, found, on microscopic examination, to be tuberculous. Lungs and other organs healthy. Pus containing many bacilli still existed in the abscesses of the ears, but the visceral tuberculosis may probably be ascribed to the last inoculation.

EXPERIMENT V.—Rabbit inoculated in abdomen. Killed after lapse of four months. Tuberculosis of lungs; other viscera healthy. An enlarged lumbar gland.

Glands from four other patients were also used for inoculation of guinea-pigs, and each time with positive results. Altogether, glands from ten different cases, taken at hazard, were used; but in one (not cited above), in which a rabbit was inoculated in the eye, the animal died in twelve days, and only minute yellow

nodules were found in the liver. The nature of these nodules could not be absolutely determined. Eight of the remaining nine cases were all proved to be tubercular.

As regards the results of the experiments on rabbits with glands from five different subjects, the material from three cases produced visceral tuberculosis; from one case, cold abscesses; and in one instance (Experiment III), in which a rabbit was inoculated in the anterior chamber, it escaped infection altogether; no bacilli could be discovered in this gland. The animal in which cold abscesses occurred was inoculated beneath the skin.

I need hardly call attention to the marked manner in which these results differ from those of Arloing above described. While my experiments were in progress Arloing was pushing his somewhat further in the direction indicated by his first experiments.⁴ Believing that scrofulous glands never produced visceral lesions in rabbits, and that in struma the activity of the virus was attenuated, he sought to find if this could be increased by passing it twice through guinea-pigs. His experiments showed that the passage of glandular scrofula through the guinea-pig in two successive generations did not augment its virulence as regards rabbits. He also found that local tuberculosis of joints and bones only produced cold abscesses in rabbits, but, on passing the virus through a guinea-pig; tuberculosis of the lungs developed in rabbits. "This fact merits," he says, "to be taken into serious consideration at a time when there is a tendency to confound tubercle and scrofula as a single affection. It justifies once more the difference that we have established between the two morbid states. If it is not yet proved that they are the work of a distinct virus, it will be granted that true gland scrofula is yet more removed from the primitive virulence than local tuberculosis. Perhaps it is sufficiently removed to constitute a *fixed variety* analogous to those micro-organisms which, after having lived for many generations in a certain species of animal, have become incapable in consequence (in spite of all known means) of killing the species which had furnished them and among which they made numerous victims."

These later observations I have also repeated, with equally dissimilar results.

EXPERIMENT I.—Two rabbits were inoculated respectively in the abdomen and anterior chamber of the eye with organs from a guinea-pig rendered tuberculous by strumous glands. The rabbit inoculated in the abdomen was killed two months after, and showed tubercles in the peritoneum covering the cæcum (opposite the abdominal wound), caseous lumbar glands, and tuberculosis of the lungs. The other rabbit died after the lapse of five weeks. The portion of tissue placed in the anterior chamber had increased, but there was no visceral tuberculosis.

EXPERIMENT II.—A rabbit was inoculated with portions of the lung of a guinea-pig rendered tuberculous with strumous glands. It died without apparent cause in eleven days; but a caseous abscess and some tubercular material had already formed in the groin, and there were numerous yellowish-white points in the liver.

EXPERIMENT III.—Two rabbits were inoculated in the abdomen with tuberculosis of a guinea-pig excited by strumous glands. One died in seven weeks and the other was killed. Both showed general tubercular peritonitis and general visceral tuberculosis.

In the first and third of these experiments, the virus was certainly intensified by passing it through the guinea-pig, for these are the most acute cases of tuberculosis I have been able to induce by strumous gland disease in rabbits, the tubercles being disseminated over the peritoneum (specimen shown).

Here are the intestines of a rabbit inoculated in the peritoneal cavity with miliary tuberculosis which had been passed through a guinea-pig, and it may be seen that there is very little difference in the result in each case (specimen shown).

It is difficult to reconcile the discrepancies between M. Arloing's results and my own. As in his first series he used glands from only one case, the virus may have been of an exceptionally mild type; or the failure of rabbits to take tuberculosis when the material was injected in solution into the peritoneum may, perhaps, be explained by the virus being absorbed immediately and destroyed by leucocytes. When introduced by small fragments of glands, as in my experiments, a certain amount of inflammation may be excited, and a more favourable nidus obtained for the growth of organisms. This was evident in cases of tubercular peritonitis, for in these a mass of gelatinous granulations on the

⁴ See *Comptes Rendus*, September 27th, 1886, p. 559.

inner surface of the wound in the abdominal wall formed the focus of infection, as shown by the distribution of the tubercles on the peritoneum.

The similarity in point of histological appearances between scrofulous and tuberculous lesions has formed the subject of several excellent memoirs. I have examined sections from most of the animals experimented on, and find no essential differences between them and the same lesions produced by the inoculation of miliary tuberculosis, only slight alterations in accordance with the acuteness or duration of the disease.

Like other observers, I have found tubercle bacilli, although in very small numbers, in strumous glands; but in abundance in those organs which I have examined from the rabbits and guinea-pigs inoculated experimentally. The bacilli in the visceral tuberculosis were generally uniformly stained with even outlines; but in the strumous abscess in a rabbit which had existed for eight months they were nearly all "beaded" or uniformly stained, and often collected in groups not unlike clumps of micrococci. These changes in the form of the bacilli in acute and chronic cases of tuberculosis have been noted by MM. Raymond and Arthaud.⁵

In investigating the relation of strumous disease to other forms of tuberculosis, it was necessary to consider the possibility of its belonging to the form of tuberculosis described as *tuberculose zoogléique* by Malassez and Vignal,⁶ and which has also been observed by Eberth. This disease in its coarse anatomical characters cannot be distinguished from tuberculosis; but, on investigating the lesions microscopically with appropriate reagents, the bacilli of Koch are not to be found, while at the periphery of the caseous centres of the nodules are dense masses of micrococci, usually distributed in zooglæa, but in part in chaplets. The precise relation of this disease to bacillary tuberculosis has not yet been determined. Malassez and Vignal discovered it in guinea-pigs which had been inoculated with a tuberculosis of the skin; and recently Chantemesse⁷ obtained the same disease by inoculating guinea-pigs with portions of sterilised cotton-wool, through which the air of waiting rooms used by phthisical patients had been passed. Malassez and Vignal incline to the opinion that zooglæic tuberculosis may coexist with the ordinary bacillary form. In their experiments bacilli appeared in animals inoculated with a third series of cultures of micrococci, of which each generation had been passed through a guinea-pig. It is even possible that the micrococci may be simply contaminations of bacillary tuberculosis. The subject, therefore, requires further investigation, especially in tuberculous products from man. With the reagents employed by the authors above mentioned I have carefully searched two specimens of strumous gland, and many diseased organs both from rabbits and guinea-pigs inoculated with strumous glands, but have found nothing like zooglæa, except in one gland. Here were some darkly stained granular masses, but the granules were not well defined, and disappeared when the field was fully illuminated by removing the diaphragm. They were probably nothing more than masses of granular caseous material.

In passing I may here state that I have much pleasure in confirming, as regards strumous glands, the observation of Mr. Treves,⁸ which has been combated by high authority, that many of the "giant cells" are clearly formed by lymph coagula lying in lymph sinuses. I may also call attention to a curious condition of the lungs of some guinea-pigs which had been inoculated with tubercle. They are studded with rounded cavities, some larger than a pea, and many of these projected beneath the pleura, looking like bullæ. On microscopic examination they appeared to be formed by the softening of the caseous centres of tuberculous nodules, and by dilatation of the minute bronchi. The occurrence of cavities in the tuberculous lungs of animals has been denied by Chantemesse.

To conclude, while I have shown that the virus of strumous gland disease produced visceral tuberculosis in rabbits as well as in guinea-pigs, yet I admit that the disease in rabbits is not so acute and rapidly fatal as that following inoculation with, for example, acute miliary tubercle. The difference is one only of degree, not of a kind permitting us to infer, with Arloing, that struma is a specialised form of the tuberculous virus. We must, therefore, fall back on another explanation of the clinically innocent course of strumous gland disease; and we find it probably in the locality or soil in which the virus is implanted. Taking cervical gland

disease, if the virus is not inherited from a consumptive or strumous parent, it may be surmised that the common bacillus of phthisis is implanted in the lymph follicles of the pharynx or tonsil, in one of the adjoining mucous membranes on the skin, and is carried direct to the glands. These, acting as filters, arrest its progress permanently, except in some cases in which suppuration and ulceration take place, when the surrounding textures may become implicated, and general dissemination ensue. The malignancy of the virus may be somewhat attenuated under the local influence of the lymph cells and leucocytes in the gland, but to admit that the virus producing the disease is *ab initio* specialised, would be to infer that the strumous disease could only be produced by the virus of struma, and no other.⁹

In conclusion, I would emphasise the objections to the use of the terms "scrofula" and "struma" for lesions resembling tuberculosis.

Teachers must often be asked by students as I have been, What is the difference between a strumous and a tuberculous testicle?

Further, any evidence tending to connect more closely strumous gland disease with general tuberculous affections encourages us to persevere in the practice of early operation (where possible), with the view of completely eradicating the disease.

PERICHONDRITIS OF THE LARYNX.

By R. NORRIS WOLFENDEN, M.D. CANTAB.,
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A VERY instructive case has recently occurred in my clinic, of which I append the notes. The patient, C. T., aged 43, a big, strong-looking man, by occupation a policeman, applied at the Throat Hospital on September 20th, 1887. He gave the following history. He had been a policeman for sixteen years, had never had any illness that he remembered, except an injury to the knee, which kept him in hospital for fifteen weeks. The father is alive and well, the mother dead fifteen years before from "cancer of the breast;" all other relatives were healthy. The patient himself, though frequently pressed, could give no history of syphilis. At Christmas, 1885, he had caught a severe cold, suffered sore throat, and loss of voice and dyspnoea on lying down in bed. Under treatment he got somewhat better, partly regaining his voice, which, however, never became so clear as formerly. From time to time he caught cold, and suffered extinction of the voice, but was not ill enough to relinquish his work. He attended the Victoria Park Chest Hospital at Christmas, 1886. In July, 1887, he went to Yarmouth, and on returning home continued his work until coming to this hospital in September, 1887.

I saw him first on October 25th, 1887, and then found upon laryngoscopic examination that, situated under the right vocal cord, projecting beyond its edge, and occupying the anterior third of its subglottic portion, was a swelling, smooth and red, having all the appearance of a neoplasm (Fig. 1). The vocal cord of that

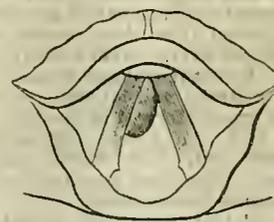


Fig. 1.

side was nearly motionless upon deep inspiration, and its surface was congested. The left cord was well abducted, and presented no abnormal appearance. The ventricular bands of both sides were a little thickened, just as in chronic laryngitis. The voice was hoarse but not extinct. No history of pain in any part could be obtained. Breathing was easy, and the patient's general condition satisfactory.

Bearing in mind the age of the patient, the history of the case, and the resemblance of the subglottic swelling to a new growth, I thought the case might possibly be one of malignant disease of the larynx. I therefore proposed to the patient that on my next

⁵ *Prophylaxie de la Tuberculose*, p. 33.

⁶ *Arch. de Physiologie*, February 15th, 1883, February 16th, 1884.

⁷ *Annales de L'Institut Pasteur*, March, 1887.

⁸ *Holmes's System of Surgery*, vol. 1.

⁹ For two cases in which the inoculation of circumcision wounds by tubercular virus was followed only by caseous abscesses, see *Lancet*, January 28th, 1888.

visit, three days afterwards, I should remove a portion of the supposed neoplasm, and submit it to microscopic diagnosis. The patient did not come to the hospital until eight days afterwards, when his symptoms had suddenly become urgent. For some days before he had suffered fresh dyspnoea, and was now at the point of suffocation. There was great inspiratory stridor, and extinction of voice; the whole skin was bathed in sweat; the pulse was rapid and feeble; breathing was most difficult, and the patient's expression was most anxious. The imminence of asphyxia rendered tracheotomy necessary on November 1st, 1887. The man was therefore put under anaesthetics, and the operation was performed with skill and dexterity by Mr. Procter S. Hutchinson, the resident medical officer.

Just before the operation I was enabled to make a laryngoscopic examination. Though this was difficult, I was able to make out that all the soft parts of the laryngeal tissues were greatly swollen—the ary-epiglottic folds, the ventricular bands, and the cushion of the epiglottis. The vocal cords were completely hidden, except a small part of their posterior extremities, of which the edges could be seen, quite white, but motionless and fixed. Externally the thyroid cartilage was swollen and enlarged, slightly tender to pressure, and giving some sense of fluctuation. There was very little bleeding during the operation of tracheotomy, and immediate relief was experienced; it was followed, however, by an attack of bronchitis.

The development of the case became now extremely interesting. Two days after the performance of tracheotomy, I obtained a laryngoscopic examination, but could see but little beyond that the whole larynx was occupied by red swellings; no vocal cords could be seen, nor any orifice to serve for respiration. The swelling was covered with frothy mucus, and brushing it off with alkaline lotion exposed a surface, upon which no ulceration could be detected. The odour of the breath was offensive, the secretion smelt also. A good deal of muco-purulent matter escaped through the tracheotomy wound, outside the outer tube. Expectoration was copious, depending of course upon the bronchitis. The secretion through the laryngeal wound continually soaked the dressings and the wound, which was dressed at first with iodoform gauze, looked irritated and inflammatory. Iodol dressings were substituted for iodoform, with great benefit. The temperature chart suggested the presence of pus, and for some days was up and down (Fig. 2).

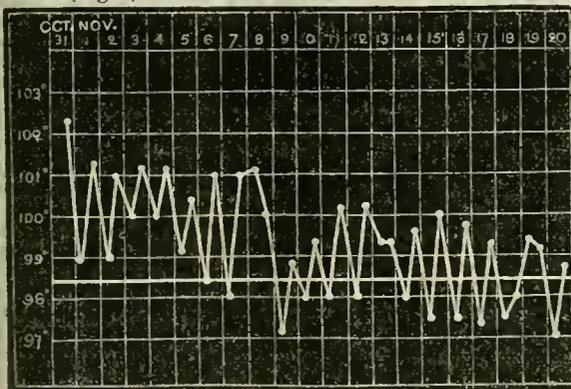


Fig. 2.

On November 10th, a little piece of cartilage was expectorated, and the discharge was lessening in offensiveness and in quantity. On the 14th the thyroid cartilage was enlarged in its whole extent, and especially the left wing, which was fluctuating to touch. An aching pain was complained of, and referred to a spot over the left wing of the thyroid cartilage. The interior of the larynx still appeared almost completely occluded by red oedematous swellings, and only just the posterior ends of the vocal cords could be seen. These swellings were well scarified with the laryngeal lancet with some relief to the patient, who had also been prescribed the vapor pini sylvestris, since the tracheotomy. A slight degree of dysphagia existed at this time. A week afterwards (November 21st) the patient reported that for some days all discharge from the larynx had ceased, and he felt comfortable. The swelling of the thyroid cartilage (externally) had gone down, but he still experienced a constant aching pain at a spot on the lower part of the left wing of this cartilage. An attempt to

obtain a subglottic view, by introduction of a mirror through the tracheal wound, was not successful. At this date (November 21st) the patient was up apparently well, and eating heartily. Cough and expectoration still continued, but the former was relieved by cocaine lozenges, and linctus papaveris. On November 22nd the swelling in the larynx was found to be diminished; but the ventricular bands formed two red tumours, meeting in the mid-line, and the swelling first observed under the right vocal cord could still be seen (Fig. 3). The posterior extremities of both vocal cords

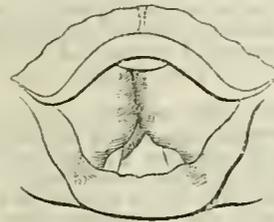


Fig. 3.

could be seen, immobile, but of normal colour.

Nothing noticeable occurred for some time. The patient was greatly improved in every respect, but there was slight discharge by the side of the tracheotomy tube, of muco-purulent character. Insufflations of iodol were daily applied to the subglottic region, through the tracheotomy tube, and had the effect of diminishing the secretion. On December 10th, 1887, the patient was discharged much relieved, and he became an out-patient. On December 14th he visited me again, and stated that there had been some discharge from the tube ever since he went out. With the laryngoscope I saw that there was increased swelling in the larynx, and, though there was a fair respiratory opening, the vocal cords were again hidden by swellings above them. He came again on December 20th, and stated that the day before he had coughed up a piece of bone. The piece was handed to me, and was of the exact size of this drawing. (Fig. 4.)



Fig. 1.

There was bluish-red swelling of both ventricular bands and over both arytenoids, but the laryngeal opening was larger than before. On December 27th I scarified the larynx freely. There had been a good deal of discharge through the tube, and a little dysphagia.

On January 3rd, 1888, he reported himself not so well. Sleep was entirely prevented by a tickling cough, and he then felt "something scratching or pricking" over the thyroid cartilage. The cartilage was much thickened externally, the whole laryngeal cavity was again blocked with red oedematous swellings, and there was a good deal of discharge of offensive pus through the tracheal wound. I was anxious for him to re-enter the hospital. As there was then no vacancy, I directed him to lie down continuously at his own home, and keep an ice-bag continuously applied over the larynx. Ten days after he was much better, and the necessity seemed to have passed away. On January 20th the larynx was not quite so occluded, and the voice was better and the patient stronger. On the 27th the oedematous swellings had still further diminished, and the voice was much stronger.

On February 3rd he was going on well, but some external redness over the thyroid cartilage made me continue the external application of ice. On February 10th all external inflammation had gone down, the voice was fairly strong, but rough, and he could breathe for two minutes at a time with the tube corked up.

On February 17th he was still better, and could breathe for ten minutes now with the cork in the tube. On February 24th he came again, stating that he had had a good deal of inflammation over the thyroid cartilage, with pain, and sharp pains over the clavicle. There was pain on pressure over both ala of the thyroid cartilage, with redness, and a boggy feel. But inside the larynx there was much less swelling, and I could now see into the trachea. There was no dis-

charge now from the tube, and he could breathe for twenty minutes at a time easily with the tube corked up. (I expect he could have breathed for longer, but was nervous.) Ice was again ordered for external application, and four days after (February 28th) the external inflammation had subsided. Internally there was still swelling of the ventricular bands and the cushion of the epiglottis and ary-epiglottic folds, but no ulceration anywhere; the extremity of the vocal cords was quite normal in appearance.

On March 9th, the laryngeal opening was larger, and breathing tolerably easy. He walked about now for several hours with the tube corked up. At this visit I commenced to dilate the laryngeal opening, and passed a No. 7 œsophageal bougie (bent to shape) through it.

On March 13th, 16th, 20th, and 23rd I again dilated it with Mackenzie's three-pronged dilator, and on each occasion passed œsophageal bougies of increased size through the constriction with ease. After each operation he was able to breathe better and for longer with the tube corked up, and now (March 28th) he is able to dispense with the tracheotomy tube altogether. The general condition is excellent, and he has gained in weight. He may now be considered as cured. The tube is entirely removed, and the tracheal opening closed up within twenty-four hours. At the last visit he pointed out to me the cicatrix of an old scrofulous ulcer in the neck, which had been hidden by the beard, and which I had not seen before.

As to treatment, iodide of potassium was, of course, given, at first in doses of 5 grains, afterwards reaching 15 grains; three times a day. This was given without any reference to syphilis. The tracheotomy wound was always dressed with iodol gauze (except just at first, when iodoform was used), and washed with perchloride of mercury (1 in 1,000). Iodol was insufflated into the subglottic region through the tracheotomy tube, and headache was relieved with antipyrin.

A drawing of the condition of the larynx at the present time is here appended (Fig. 5); it was executed by Mr. P. S. Hutchinson

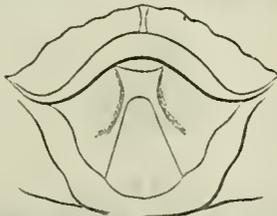


Fig. 5.

who also made the drawings of the larynx reproduced in Figs. 1 and 3. It is seen that the laryngeal aperture is now large enough to permit of easy respiration. All active inflammation has subsided. I quite expect that occasional dilatation will still have to be performed; but the patient may be said to have made a very successful recovery.

Perichondritis of the larynx may arise, as is well known, in the course of typhoid fever, tuberculosis, syphilis, and cancer; it has also been known to occur as a result of chronic laryngitis; to these must be added traumatism, both external and internal. Charles H. Knight, of New York, recently recorded a very interesting case of this kind, the cause of which was injury to the larynx by strangling during a quarrel. He also, in the same paper, recorded a case in which perichondritis followed from swallowing a plate of false teeth during an epileptic fit in a woman. The lodging of the teeth in the pharynx was succeeded by abscess of the posterior wall of the larynx. Perichondritis from deubitus, the pressure of an ossified cricoid cartilage against the vertebral column, has also been described by Gerhardt and Dittrich, and Mackenzie has seen it after cut throat.

The injudicious use of œsophageal bougies in the aged is referred to by Knight as an etiological factor, and there is no doubt that careless or prolonged use of the galvano-cautery to the larynx may give rise to it.

It seems desirable to correct the general opinion that perichondritis must necessarily be caused by syphilis or cancer. The case I have here recorded shows how it may arise out of chronic laryngitis, and the same catarrhal condition which leads to production of innocent neoplasms may also lead to perichondritis of the laryngeal cartilages.

A second case of extensive perichondritis of the larynx has occurred in my practice recently, arising out of chronic laryngitis, and in which there was no question of syphilis. In this case the cricoid cartilage was extensively affected, and formed a large abscess externally, on opening which a large quantity of sero-sanguineous fluid was poured out. The stenosis of the larynx was extreme, and tracheotomy had been performed many months before I saw the case by a surgeon at the Cape of Good Hope. As to prognosis, every case of perichondritis of the larynx, even when extensive, is not necessarily followed by fatal termination. Those due to syphilis, or of traumatic origin, frequently recover, and the case I have here first recorded in detail shows how perichondritis, arising out of chronic laryngitis, may also recover. What influences prognosis most is probably the extent of cartilage involved as well as the patient's general condition; and it is probably true, as all writers on the subject are agreed, that perichondritis of the cricoid cartilage progresses slowly but surely towards a fatal termination. Sufficiently accurate descriptions of the symptoms and laryngoscopic appearances of this disease are contained in many textbooks. I will merely remark that, in cases where there is a possibility of the presence of malignant disease, very little importance can be attached to the examination of the secretions.

A MODE OF OBTAINING VACCINE LYMPH WITHOUT PUNCTURING THE VESICLES.

By W. C. GRIGG, M.D.,

Physician to Queen Charlotte's Hospital.

THE present method of taking lymph for vaccination purposes is coupled with so many inconveniences, not to say dangers, that I feel sure medical men will gladly welcome any suggestion which will dispense with the necessity for puncturing the vesicles at the risk of obtaining a lymph contaminated with blood, or of favouring the occurrence of subsequent inflammation.

The method which I have adopted for some time past for the extraction of lymph from the pock has, so far as my present experience goes, a double advantage, namely, that the supply of lymph obtainable from each vesicle is greater and its efficiency is increased. Out of upwards of 200 infants vaccinated by me during the past few months, I have not as yet had one ill-developed pock nor a single failure of a punctured spot, although many of the cases were from vaccine obtained from very young infants. As a general rule, I only vaccinate in four places, principally on account of the young age of the infants I am called upon to vaccinate. Down to December 31st, 1886, I had vaccinated altogether 2,685 infants, of whom, with one exception, all were successful either at the first attempt or at the second. The unsuccessful case resisted four successive attempts to vaccinate, for which no explanation can be given. The mother had never had small-pox.

A complete failure in all four spots on a first vaccination was comparatively rare, and could, as a rule, be traced to a deficiency in the lymph, for it seldom or never occurred when the lymph was obtained from children of three months old and upwards. It generally happened when the lymph was drawn from an infant less than a fortnight old, at which age the quantity of lymph is very scanty and its efficacy below the normal. It is seldom possible to vaccinate successfully more than a dozen children from one such infant; and failure in one, two, or three spots is not uncommon.

I may remark incidentally that where one or more punctures had failed to take, revaccination of the infant with lymph obtained from its own successful pock generally ensured a satisfactory result, the primary pock or pocks remaining quiescent until the pocks which followed the second vaccination arrived at maturity, that is, at about the eighth day, when they all faded away together. In these cases it was impossible to say from appearances, by the eighth day, which were the primary and which the secondary pocks. In only one case did this method of re-auto-vaccination fail, and no better results were obtained when lymph from other sources was substituted for its own. I had therefore to be satisfied with the two successful primary pocks.

My system of obtaining lymph is as follows: I drop a small bead of pure glycerine upon the centre of each pock, and then gently rub the top of the vesicle with a smooth, blunt instrument (the round glass head of a shawl pin does excellently). After the lapse of two or three minutes the bead of glycerine will have

increased to nearly double its size, especially if the vesicle contain a good supply of lymph. If necessary, a second drop of glycerine may be applied after the first has been used, and even a third.

This plan avoids the risk of drawing blood, which at times it is not easy to escape doing when puncturing the vesicles. Moreover, not having to hold the infant's arm, there is no fear of capsizing the child, the possibility of which adds to the difficulty of arm-to-arm vaccination where many children have to be vaccinated from one.

I should be glad to hear whether, in the hands of other practitioners, the same good results are obtainable. I have only given the method a four months' trial so far, which is perhaps hardly sufficient to authorise any definite conclusion.

CLINICAL MEMORANDA.

HÆMOPHILIA.

THE particulars of the following case are of interest from the very early age of the patient and the symmetrical arrangement of the phenomena.

M. S., aged 38, a primipara (married eighteen years), was on February 14th delivered of a male child after a natural and quick labour. The child was apparently healthy and strong, crying lustily. On the third day a small dark spot was observed on either side of the occiput; the day following the child had two black eyes, evidently due to extravasations of blood, the discolorations extending symmetrically above the eyebrows and on the malar bones. The eyeballs presented an unusually pearly appearance. Next morning the nurse observed a purple swelling on the external aspect of the left humerus, and in the evening the same was to be observed on the right side. The following night the umbilical cord began to bleed, which the nurse arrested temporarily by the local application of brandy and by retying. Hæmorrhage broke out, however, again on the proximal side of the ligature, and the child died from loss of blood before medical assistance could be obtained. DUNCAN R. MCARTHUR, M.D.
Sturminster Newton.

UNDER the above heading Mr. Eagle recorded a case in the JOURNAL of March 10th; and as a very similar case has just come under my notice, I think it worthy of record.

On March 8th I delivered Mrs. P., a countrywoman aged 25, of an apparently healthy male infant. The child was at the full term. It was somewhat jaundiced on March 10th, but better on March 11th. On March 12th the jaundice became more intense, and on March 13th two swellings appeared, one behind each axilla, evidently composed of extravasated blood. During the next two days other swellings appeared on the back, shoulders, front of chest, elbows, and knees. The cord separated on the morning of March 15th, and there was a continual oozing from the umbilicus till the child died at mid-day on March 16th. No treatment was of any avail.

Mrs. P. was delivered of a male infant six years ago at the eighth month. He survived his birth one month, and died much swollen and covered with lumps. Two years ago she aborted at the end of the third month, and lost much blood. I did not attend her on these occasions. Two of her brothers suffer much from epistaxis. GEORGE VINCENT, M.D., M.R.C.S.
Shouldham, Downham, Norfolk.

MULTIPLE SARCOMATA OF THE SKIN.

SARCOMA CUTIS is such a rare disease as to justify the recital of the following case. Koebner reports only two such cases (secondary), whilst Kaposi had only seen five cases of the idiopathic disease (*Nebra on Diseases of the Skin*, vol. iv); in the latter the affection always began in the soles of the feet, and was doubtless a general morbid affection from the very outset.

On October 8th, 1887, I was called to see E. D. G. E. T., a school-mistress, single, aged 32 years, fair complexion, red hair, extremely anæmic, temperature 101° F., pulse over 100 and weak. She was in bed, and could not change her position in the least owing to intense pain in the right hip; she stated that she had come two or three weeks before from near Leeds, where she had been ill and treated for sciatica for six weeks. On examination, I found a distinctly localised oval swelling, four or five inches in length and three inches in width, situated immediately over the upper and back part of the right ilium to which it was attached; the inner

border of the swelling, which was elastic and semi-fluctuating corresponded with the sacro-iliac synchondrosis; the superjacent skin was of its natural hue and consistence, and could be moved freely over the growth, the borders of which were distinctly definable. The growth itself was neither tender nor painful, and of six weeks' duration. There was a history and marks of scrofula in the patient. Was the growth a sarcoma or a chronic painless abscess? Neither a hypodermic needle nor a small trocar could obtain pus. This settled the diagnosis. There was no history of injury, except a fall on "the small of the back" two years before from a gig. On further examination, I found several nodules in the skin of the head, face, and neck, and a few on the body, some of which projected half an inch above the skin level. The nodules varied in size from a split-pea to a pigeon's egg. Some were evidently situated in the deeper layers of the skin itself, whilst the skin could be moved over others; they were mostly isolated, some were firm, others elastic and compressible; over some the skin was of its normal hue, over others white and glistening, whilst on other nodules it was bluish-black, giving the appearance of an enlarged vein. She stated that these nodules developed shortly after she became ill, and that some disappeared entirely, but I could find no cicatrix nor anything else to mark the site of a former nodule. There was no ascertainable evidence of disease in the lungs or liver; there was dysphagia, which was probably due to nodules in the submucosa of the gullet (as in one of Kaposi's cases, in which they also appeared in the lining of the stomach, intestines, and bronchi); the fauces were quite bloodless. Cough and dyspnoea were conspicuous by their absence. The nodules continued to increase in number up to her death, which took place from exhaustion on November 17th, three months and a-half from the commencement of the illness, when no less than sixty or seventy were present on the head, neck, and trunk, the limbs, unlike all Kaposi's cases, being exempt. There was some remission in the sciatic pain before death, but the iliac growth was unaltered. There was no ulceration or gangrene of any of the nodules. The lymphatics were unaffected.

The rapidity with which the nodules developed after the first noticed growth seems to favour the view that the whole of the tumours were due to a primary disease of the blood, and were not the result of secondary infection. I regret not to have been able to obtain a nodule for microscopic examination after death, owing to the great distance (ten miles over moorland) from the patient's house and my other engagements at the time.

Stanhope.

WILLIAM ROBINSON, M.S. and M.D.

THERAPEUTIC MEMORANDA.

PEPPERMINT WATER IN PRURITUS PUDENDI.

EVERY practitioner will have had under his care cases of this troublesome affection, which have been proof against all treatment, especially in the neurosal forms, where the cause of the pruritus, which is, of course, only a *symptom*, is more difficult to remove. No excuse, therefore, is needed to mention a local remedy which will, if the skin be unbroken, either cure the patient, or afford relief whilst the source of the irritation is being treated.

The agent here alluded to is peppermint water, used as a lotion. The B. P. preparation of aq. menth. pip. answers well, but is bulky for carrying about, and is incapable of concentration unless rendered alkaline. This is best done by borax, as being in itself soothing and antiseptic. Patients can easily make their own lotion, as required for use, by putting a teaspoonful of borax into a pint bottle of hot water, and adding to it five drops of ol. menth. pip., and shaking well, the parts affected to be freely bathed with a soft sponge.

If no cracks or sores are present, this lotion will remove the itching, but if there be eczema, etc., or rawness from scratching, it is inapplicable, olive oil, with five grains of iodoform to the ounce, being then more useful. The greatest and most permanent relief is afforded in the neurosal form, especially in the reflex pruritus which often accompanies pregnancy, and which then may take the place of reflex sickness or vomiting. It is also very useful in the pruritus which occurs in the climacteric, or in elderly women, in whom it may be only part of a general pruritus, and also in those cases of women of all ages, where the urine simultaneously becomes of very low specific gravity, without any evidence of having a gouty or granular kidney as a remote cause.

In pruritus due to pediculi, ascariæ, an irritable urethral car-

uncle, an endocervical polypus, early cancer of the cervix, distension of Bartholini's ducts or glands, the leucorrhœa of vaginitis, endocervicitis, and metritis, or the irritating discharges of advanced carcinoma uteri, or to a gouty or diabetic diathesis, the drug excels all others, cocaine inclusive, in affording relief, whilst endeavours are being made to remove the cause.

In two obstinate cases of uncontrollable pruritus of pregnancy, where this remedy only gave temporary relief, the patients were cured by applying iodine liniment to the angry looking cervix uteri, which method has been used successfully by Dr. John Phillips and others for the similarly severe vomiting of pregnancy.

Peppermint has long been used by the Chinese as a local remedy for neuralgia, and has lately been sold here, combined with camphor, as menthol. It appears to act as a local anæsthetic, its effect lasting often many hours, and in some cases of reflex origin a single application of the lotion has cured the patient. The remedy was, I believe, named in a casual communication to the JOURNAL about twenty years ago, but I have failed to find the reference, and though it has been prescribed spasmodically by my father, and perhaps by others, its extreme utility seems known to very few.

AMAND ROUTH, M.D., B.S., M.R.C.P.,

Assistant Obstetric Physician, Charing Cross Hospital.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

THE CIVIL HOSPITAL, HYDERABAD, SIND, INDIA.

LATERAL LITHOTOMY.

By Surgeon-Major B. C. KEELAN, L.R.C.S.I., L.K.Q.C.P.I., Indian Medical Department, Civil Surgeon of Hyderabad, and Superintendent of the Medical School, Hyderabad, Sind.

THE following table gives a statement showing twenty-four large stone cases which were operated upon by the lateral method of lithotomy during the six months from June 1st, 1887, to November 30th, 1887. Besides these there were sixty-seven other cases operated upon during this period, which will be published hereafter, thus giving a total of ninety-one cases, of whom three were females operated upon since writing my last paper for the JOURNAL.

Table showing the Number and Size of Large and Hard Stones removed by the Lateral Operation from June 1st, 1887, to November 30th, 1887.

Average Size of Stones.	Number.	Sex.	Result.	Ages.
3i 5i	4	Males	Cured	50, 30, 50, and 35 years.
Miss	6	Males	Cured	42, 40, 45, 40, 11 and 50 years
3i	6	Males	45 Cured 1 Died	48, 40, 32, 40, 40 and 32 years
Miss	4	Males	3 Cured 1 Died	60, 50, 50 and 34 years.
5i	1	Male	Cured	42 years.
Miss	1	Male	Cured	24 years.
Ev	1	Male	Cured	29 years.
Miss	1	Male	Cured	48 years.
	24		22 Cured 2 Died	

The following was an important case. An adult male, 48 years of age, was admitted into hospital with severe symptoms of stone in the bladder, from which he said he had been suffering for eleven years, and could endure the pain no longer. He was operated upon by the lateral method of lithotomy, described by me in the JOURNAL of October 16th, 1887. On being removed the stone weighed 6½ ounces. It was of uric acid, and was exceedingly hard and oval-shaped. Round the greatest diameter it measured by the tape 8¼ inches, and round the smallest diameter, which passed through the wound in the perineum, it measured 7¼ inches.

Notwithstanding the large size of the stone, which was very smooth, I had not very much difficulty in removing it by traction upwards and forwards with the bent-bladed forceps, as suggested in my paper. The forceps did not slip even once. I find that the perineum in this direction dilates easily and there is no chance of the tuber ischii or the dense unyielding structures immediately in front of the rectum obstructing the passage, and the rectum is not in danger. There is less bleeding also to be feared by enlarging the wound in this direction. The patient, a stout man, left the hospital quite cured in a month exactly from the date of his admission, during which time his case went on smoothly, and his progress was never impeded by any unusual symptoms. After his discharge there was no incontinence of urine, and there was not even a fistula left behind. His sexual powers were perfect, and his general health was greatly improved.

The other patients made excellent recoveries with the exception of two, one of whom succumbed one month after the operation. He was a weakly man when operated upon, and was 60 years of age. The other man got suppression of urine on the third day after the operation with a tympanitic state of the abdomen, after which he sank rapidly. This man's stone was very peculiar. I have never seen one like it before, nor have I seen a stone similar to it described in any book. It is beautifully smooth, and of a darkish drab colour, and one part of it shines as though it was covered with a layer of varnish, which had become exceedingly hard, and there are two projections, or tears, smooth and shining, like dried up drops of hardened paint of the same colour.

The twenty-two patients who were cured were particularly asked, on being discharged, if they had lost any sexual powers, and I was invariably answered in the negative. This question, I think, has been raised without much reason. It is the testicles that secrete the semen, and as long as that fluid is emitted through the channel destined for its discharge, there can be no proof that lateral lithotomy has a tendency to render persons impotent. Many of these patients had deep perineums, so deep that the finger could with difficulty be passed into the bladder.

There seems to be some mysterious impression, which is very surprising to me, among a few in England that natives of India are weakly attenuated creatures, and, being constitutionally different from Europeans, they are somewhat more amenable to operations. But, from my experience of the Sindhis, the Beluchis, the Afghans, and the Punjaubis, among whom I have daily practice, I can affirm that they are equal in physique to Europeans, and their children are fat and healthy, like the offsprings of English parents. That there are no anatomical differences between the two races is a fact which can be demonstrated daily in the dissecting room. I hope, therefore, that lateral lithotomy may be thoroughly tried, and the operation improved upon, by persons who have equal opportunities with myself of taking up the subject, and developing it. In the JOURNAL of October 16th, 1887, there is an interesting article on the relative merits of litholapaxy and the suprapubic operations in male children. Regarding the latter operation, twelve cases are reported by nine different operators, with one death, of children operated upon under 16 years of age. Eighty-nine cases of litholapaxy have been collected by eight operators without a casualty, except one mentioned in Surgeon-Major Keegan's collection of fifty-eight cases. The article on One Year's Statistics of the Hyderabad Civil Hospital, published in the following page of the same journal, shows a total absence of mortality in one hundred and five successive cases of young people operated upon, some of whose ages did not exceed eighteen months, and many left the hospital completely cured in ten or twelve days. I omitted to mention the great assistance I derive by sometimes using a small curved forceps, if there is any difficulty experienced with the straight pointed forceps in seizing the stone, when operating on young children by my method of introducing the forceps on a small director. Mr. Walsham's paper also shows that the suprapubic operation is not only beset with danger to life as well as with numerous complications, but that the wound takes a longer time to heal. In one case nearly seven weeks, in another nearly ten weeks, a third one took months to heal, in a fourth the little patient died, and in other cases the time is not stated, and no reason is given. In one instance the surgeon who operated said he would not repeat the operation, and this is what I have said in my former paper, namely, that I have tried it and had to give it up.

If the operation is so comparatively unfavourable in children,

how much more so would it be in adults? Mr. Erichsen shows the mortality to be one in three or thereabouts. If this immense mortality is compared to lateral lithotomy on large stones which I can show to be one in twelve, the difference is startling. I will now proceed to quote from Erichsen's *Surgery*, 8th edition, which I believe is the latest, vol. ii, page 988: "...of a gross total of 467 cases of the suprapubic operation in both sexes, there had been 135 deaths, or a mortality of 1 in 3.44; the mortality being about one in three in males."

The mortality is said by Humphry, who collected 104 cases with thirty-one deaths, to be due chiefly to peritonitis and urinary infiltration. So much for the suprapubic operation for the present.

GREAT NORTHERN CENTRAL HOSPITAL.

CASE OF RAPIDLY FATAL CHOREA: DEATH IN 130 HOURS.

(Under the care of Dr. COOK and Dr. CLIFFORD BEALE.)

A. C., aged 9, was brought as an out-patient on October 27th, 1887, suffering from chorea. The mother stated that on October 25th the child had had some difficulty in putting on her stockings, owing to slight loss of control over her right arm and leg. The mouth and eyes had been noticed to twitch next morning, and since then the irregular movements had become general, though most marked on the right side. The child had not taken food well, had slept badly, and been slightly delirious during the night, occasionally screaming and complaining of pain in the left hypochondrium. She had been very thirsty. The evacuations had been normal, and never passed unconsciously. She had been a fairly healthy child, and had passed through an attack of scarlet fever two years previously without any known sequelæ. She had not been frightened, nor had she been in company with other choreic children, nor had any worms been seen.

When first brought under observation, on the 27th, the child was obviously very ill, with flushed face, hot skin, and a terrified expression of countenance. The choreic movements were violent, and according to the mother were hourly becoming more so. The pulse was very rapid, varying between 160 and 170, but the respirations were only slightly increased. She was at once sent into the ward, where, after careful examination, a short systolic murmur could be made out at the apex, which was in the normal position: Only a few scattered crepitations could be detected in the lungs, the breathing being quite regular. The child kept constantly smacking her lips and frequently protruding the tongue, but there was no difficulty in deglutition.

October 28th. She slept very little and was very restless, being sometimes delirious and occasionally screaming. During the day the movements became so violent as to render restraint necessary to prevent injury. The bowels were freely open; the urine was passed involuntarily, but a little, collected, was found to be free from albumen; the tongue was clean and moist, but the lips dry and cracked; the temperature was slightly raised, but never exceeded 101°. The heart's action continued at the same rate or faster, and the pulse at the wrist became almost imperceptible. On the following day some difficulty was experienced in swallowing and the girl became very noisy, frequently screaming and uttering inarticulate sounds; the respiration became irregular and jerky, and she died rather suddenly the same evening, the whole course of the illness having run between the morning of the 25th and the evening of October 30th.

At the *post-mortem* examination both lungs were found to be much congested at the bases, and the left pleura was adherent. The right side of the heart was slightly dilated and flabby, and contained some fibrinous clot and a little dark fluid blood; on the auricular surface of the tricuspid valve were a few punctiform patches of congestion. The left ventricle was firmly contracted, its muscular tissue very good. On the auricular surface of the mitral valve, between the hinge line and the free border, were numerous tiny patches of punctiform congestion, especially marked along the hinge line itself. At the free margin of the valve the attachments of the *cordæ tendinæ* were much thickened by lymphic vegetations, to a few of which slightly coloured fibrinous clots were attached. There was no positive ulceration of the endocardial surface to be detected. The brain and upper part of the spinal cord were healthy, except for an extreme degree of *anæmia* at the pons and medulla. The tissue of these parts seemed quite normal on section. Other organs were healthy.

The case was treated with arsenic, morphine, chloral, and bromide of potassium, but in no case did the action of the drugs

appear to have any influence upon the downward course of the disease.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 10TH, 1888.

Sir E. H. SIEVEKING, M.D., President, in the Chair.

A Case of Double Nephro-Lithotomy, in which Lateral and Median Lithotomy had been Previously Performed, with Remarks on Sympathy between the Kidneys.—Mr. HERBERT W. PAGE read this paper. A man, aged 22, entered St. Mary's Hospital in November, 1886. For ten years he had suffered pain in the region of the left kidney, with occasional attacks of left renal colic. In 1882 he began to pass gravel and to suffer from irritability of bladder, and in 1885 a small calculus was removed from the bladder by lateral lithotomy. Symptoms of vesical calculus soon recurred together with pain in the left loin, and his general health became much broken. His urine contained pus and occasionally blood. Left calculus pyelo-nephritis was diagnosed in addition to stone in the bladder, and this was accordingly removed by median incision on December 4th, 1886. On December 15th the left kidney was exposed in the loin, and two small calculi were removed from a large suppurating cyst. The amount of pus, however, did not materially lessen, and towards the end of January he began to have pain in the region of the right kidney, from which it was soon suspected that the pus now came. On February 18th he was attacked with violent pain in the right loin with rigors, vomiting, and high temperature. At the same time the pus almost entirely disappeared, and his urine dropped from forty-two to twenty ounces. It was believed that this urine was furnished by the left kidney only. The symptoms increased, and there was fulness in the right loin: On February 25th the right kidney was exposed; it was found much enlarged and surrounded by stinking pus, and there was an opening into the pelvis, from which an abscess had probably burst into the perinephral tissue. No stones were found. He did well after this operation. The urine steadily increased in quantity, the pus diminished, and his pain ceased. He left the hospital on May 26th, and a few days afterwards he passed four small calculi *per urethram*. From that time he made steady progress towards recovery. The case was of interest from its bearing on the question of sympathy between the kidneys, and it was suggested that in this case the right kidney had in all probability contained calculi, though without giving rise to symptoms, for some considerable time, and that its condition was revealed by the operation on its fellow. In support of this view, the writer referred to a case recently under his care in which the presence of calculi was first made known after the operation of hysterectomy, undertaken by the late Dr. Meadows. Reference was made to other cases in which there was a somewhat similar sequence of events. From another point of view Mr. Page considered this case of importance in its bearing on nephrectomy and preliminary abdominal exploration. Nephrectomy, as time proved, would have been in this case a very wrong thing, but he had never felt quite satisfied that abdominal exploration, by which he would have found an apparently useless left kidney, and a right kidney so enlarged as to be presumably fit for all future needs, its calculi being, moreover, so small as to elude detection, might not there and then have led to nephrectomy. The patient would have been placed thereby in a position of infinitely greater danger when at a future day the right kidney was in its turn *hors de combat*. The case thus demonstrated, with how many precautions and with what consideration abdominal exploration for the examination of kidneys must be made.—Mr. GODLEE congratulated Mr. Page on the success of his treatment, and the many valuable reflections that were to be drawn from it. It confirmed his opinion that it was wise at the time of excision of a stone to leave the kidney from which it was taken, for it might heal, or, at any rate, it would contract, and then would be easier to remove if absolutely necessary. In one of the cases Mr. Page had cited it was a question whether hysterectomy had caused a stone in the kidney, or had merely lighted up inflammation round a pre-existing stone. He thought the first hypothesis very possible, considering how often stones were apparently the results of accidental injury, such as being run over by a cart-wheel, etc. He agreed with Mr. Page in thinking much caution must be used in describing the effects of sympathy

between the kidneys.—Mr. PAGE said, in conclusion, that he had been glad to supplement the paper by showing the patient to the Society that evening in a state of very good health, with his urine normal in all respects. He agreed that mechanical injury might have been the origin of the renal calculus. The sympathy between one kidney and the other was probably not greater than that between one kidney and any other viscus. It was important to remark that in this case abdominal exploration, had he made it, would probably have led him astray, for he was tolerably satisfied that he would, after exploration, have excised the small left kidney—but wrongly, as the sequel of the case showed.

Remarks on Splenectomy, with a Report of a Successful Case.—Sir SPENCER WELLS reported a case where he had successfully removed an enlarged spleen from an unmarried woman, aged 24. He appended remarks upon the details of the operation, especially upon the mode of securing the blood-vessels, and upon the progress of splenectomy before and since the periods of anaesthesia and antiseptics. He added the following table, prepared by Professor Adelmann, to show how in fifty-three cases, recorded up to June, 1887, the result was influenced by the nature of the disease which led to operation.

Disease.	No. of Cases.	Recoveries.	Deaths.
Hypertrophy with leukaemia.....	19	1	18
Simple hypertrophy	14	1	13
Malarial hypertrophy	4	1	3
Wandering spleen	9	7	2
Splenic cysts.....	4	3	1
" hydatid	1	1	—
" sarcoma	1	1	—

He concluded that, as the results of splenectomy had gone on improving during the last thirty years, we might hope that, with increasing knowledge and greater experience, still better results might be obtained; and sufficient facts had already been accumulated to prove that patients who recovered from the operation might live in good health for many years without a spleen.—Mr. W. A. MREDDITH had three times assisted at the operation of splenectomy. In the first case, with Mr. Knowsley Thornton, there had been a cystic spleen, very mobile, and there was no great difficulty in the operation, but a very dangerous moment just after the ligature was applied and before it was divided. There was a good recovery. In the second case, also with Mr. Thornton, the spleen had been very large and very vascular; its attachments were tied with three loops, and death followed in a few hours from the giving way of the middle loop. In the third case, this of which Sir Spencer Wells had just given an account, the method had been excellent; traction on the pedicle had been avoided, and after the main mass of the spleen had been cut away the application of the ligatures had been comparatively easy. In looking back over previous cases he had noticed how those had been most favourable when there had been a long gastro-splenic omentum, allowing much movement of the spleen.—Mr. HAWARD felt, naturally enough, the encouragement given to all surgeons by the record of another success in this department of practice. Mobility of the spleen gave more distress here, but generally it gave more success, perhaps because there was less disturbance to the sympathetic plexuses and easier manipulation. Any great size of the spleen was of course against success in the operation: any reference to the lists of cases showed that those on spleens of smaller size were the most successful, and also those where there was least leukaemia. It was a question whether moderate leukaemia should be held to negative the operation; he gathered that Sir Spencer Wells did not agree in discountenancing the operation if there was only slight leukaemia. The use of pressure forceps were very advantageous. In a case of his own, however, he had found it possible to control the flow of blood from a rent in the brittle substance of the morbid spleen by a sponge.—Dr. ANGEL MONEY remarked that a moderate excess of colourless corpuscles in the blood was generally now called leucocytosis, and was always found in fever. M. Hayem had recently shown that it was universally found in all processes in which there was morbid exudation of blood corpuscles, and in states also such as carcinoma when it was an insufficient reason for the discontinuance of operations.—Mr. GODLEE said he had been puzzled by the record of frequent jaundice before the operation and none after it. Did the tumour displace the bile duct or block it?—Dr. T. M. ROOKE had been the medical adviser of the lady for about ten years, and had always seen an icteric tinge on her face, and observed many attacks of acute jaundice. He agreed that there had been none in the last three months since the operation, but was uncertain in his explanation. He was struck by the little importance of the spleen to the animal economy, and regarded it as acting as a

mechanical diverticulum to the liver.—Dr. A. H. N. LEWERS was surprised that the diagnosis should first have been of a pelvic tumour, and, further, that after the discovery of its true nature the operation should have been continued, seeing that the mortality of splenectomy was 60 per cent. as compared with 25 per cent. for hysterectomy, and 6 or 8 per cent. for ovarian tumours.—Dr. DAY had seen the operation and after-treatment, and remarked that the only period of danger in the latter was on the third day, when Sir Spencer Wells was away, and he found the temperature 103° and the pulse 130. He advised an ice cap and reduced diet, and after that the case did very well. She had only taken as anaesthetic bichloride of methylene Zij , which was given slowly, and the operation was not begun until there was full relaxation of the muscles. Those he considered important points.—Sir SPENCER WELLS, in reply, said he entirely agreed with Mr. Hayward in believing that the smaller the tumour and the longer the attachment, the less would be the difficulty and danger of removal. Of his own four cases this was the only one of wandering spleen with a long attachment. One of his other cases was the largest solid tumour hitherto removed. In two cases there was marked leukaemia. Dr. Lewis's estimate of a mortality of 60 per cent. after splenectomy for hypertrophied spleen was not greater than the general mortality of ovariectomy thirty years ago, and a very great diminution in the mortality might reasonably be hoped for. The cessation of the fever on the fourth day, as described by Dr. Day, he (Sir Spencer) was inclined to attribute, not so much to diet and the ice-cap as to the appearance of the catamenia, and he was strengthened in his belief that the most favourable period for removing any abdominal tumour from a woman was soon after a menstrual period.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, APRIL 4TH, 1888.

JOHN WILLIAMS, M.D., President, in the Chair.

Specimens.—Dr. CULLINGWORTH exhibited a thick-walled cyst behind the uterus, which lay imbedded in the anterior wall of the cyst.

Interstitial Gestation.—A report was read on Mr. Sidney Harvey's specimen of interstitial gestation, exhibited at the January meeting.

Scarlatina during Pregnancy and in the Puerperal State.—The adjourned debate on Dr. Boxall's series of papers was resumed and concluded.—Dr. GALABIN noted the remarkable absence of mortality in Dr. Boxall's cases, but brought forward statistics to show that the general belief in the danger of puerperal scarlatina was not incorrect. The favourable results in Dr. Boxall's series might be explained either as due to the excellent antiseptic precautions, or to the mild type of the epidemic. Experience proved that puerperal scarlatina was sometimes mild where no antiseptics were used; on the other hand, there might be much pelvic complication, and Dr. Galabin had twice seen fatal peritonitis appearing during desquamation. Dr. Galabin considered that evidence concerning the masked form of scarlatina resembling septicæmia was conflicting. There appeared to be a fascinating simplicity in arguing that scarlatina and septicæmia were two distinct specific diseases, the one convertible into the other. Yet septicæmia was not one disease, but a group, comparable rather to all the zymotic diseases together than to scarlatina or erysipelas alone. About twenty microbes had been described as the active agent in different forms of septicæmia, which must be defined as including the effects of all germs except the specific agents in named zymotic diseases. Hence septicæmia did not represent a definite entity like scarlatina. In the latter disease, again, Cheyne found the common microbes of suppuration in the blood not infrequently. Dr. Matthews Duncan had shown that according to the Registrar-General's Reports for London there was no increase of puerperal fever in proportion to that of scarlet fever or erysipelas; this was strong evidence that scarlatinal poison could hardly produce a disease simulating puerperal septicæmia. Dr. Galabin believed that at least the above fact proved that scarlatina was not numerically an important cause of puerperal fever; if it did not account for over 5 or 10 per cent of all cases, it would not be manifest in statistical charts. There was strong evidence of a bacterial relation of erysipelas to puerperal fever, and Dr. Galabin brought forward evidence which tended to prove that scarlatinal poison might produce a disease simulating puerperal septicæmia.—Dr. HORNBOCKS quoted Reports of the Guy's Hospital Lying-in Charity, which showed the rarity of scarlet fever of the ordinary

type in the puerperal state, and he asked how many women were confined during the time that Dr. Boxall's cases were collected. Some of those cases were possibly not scarlatinal, or else represented very mild scarlatina. He believed that the incubation was not shortened when infection took place during labour, but inasmuch as then the poison could generally enter the system at once, the incubation began at once, and so the fever developed within a few days after the exposure. He discussed at length the subjects of Dr. Boxall's series of papers, noting corroborative evidence, and indicating sources of fallacy.—Dr. CAYLEY thought that there was not sufficient evidence that the poison of scarlatina was capable of directly causing septicæmia. Cases of scarlatina following operations, and operations on patients suffering from scarlatina, had usually done well at the London Fever Hospital. Very few cases of puerperal scarlatina had been admitted into that institution, and in two alleged cases, where there were acute septicæmic symptoms, diagnosis was doubtful.—Dr. CHAMPNEYS testified to the great care with which Dr. Boxall had studied his series of cases, never neglecting to trace the history of each case after discharge from hospital. Dr. Champneys noted that the paper contained the analysis of a series which occurred during one epidemic. Different conclusions would probably be drawn from the record of cases seen in consultation, for the very fact of consultations implied picked bad cases. In other words, series should be compared with series. Dr. Champneys then made some observations on the question of scarlatina puerperalis, and criticised the accuracy of Collective Investigation Reports, which represented opinions formed by hundreds of men of different views. Dr. Cayley's valuable evidence was unfavourable to the opinion that the septicæmic variety of scarlet fever existed.—Dr. JAMISON agreed with Dr. Boxall's views; he thought that the best diagnostic difference between scarlatina and puerperal septicæmia was to be found in the retina, for retinal hæmorrhage was an almost constant occurrence in septicæmia and all but invariably absent in scarlet fever. Extreme antiseptic precautions were impossible in ordinary practice, and fortunately scarlet fever was neither very readily communicable to puerperal subjects nor very severe when they took it.—Dr. W. J. COLLINS was no great believer in the absolute specificity of scarlet fever, and hinted that a process of evolution might affect the *materies morbi* of specific diseases.—Dr. HAYES insisted on the entire distinctness of scarlatina and septicæmia, and in his experience puerperal cases were not highly susceptible to scarlet fever.—Dr. WEST distrusted theories about the evolution of diseases, and maintained the specificity of scarlet fever. He had seen much of puerperal fever, but had never come across a case which could be traced to the contagium of scarlet fever, a disease with which he might claim to be very familiar. The pregnant, parturient, and puerperal woman was undoubtedly not highly susceptible to the contagium of scarlet fever. Only two cases, which he related, represented Dr. West's personal experience of scarlatina in pregnancy or after delivery.—Dr. CHALMERS stated that in connection with disturbances in the puerperal condition, he had observed that septicæmia in the lying-in woman was associated with and apparently gave rise to a variety of pathological conditions amongst those in attendance; again, when scarlet fever assailed the mother, Dr. Chalmers found that it never ran its natural course. He did not believe in the absolute specificity of disease, and did believe in the existence of a puerperal septicæmic form of scarlet fever.—The PRESIDENT observed that it must ever be borne in mind that some epidemics of scarlet fever were mild and others severe; that infection from a mild case might give rise to a most malignant form; and that scarlet fever poison might give rise to septicæmia, but in a secondary manner. He compared Dr. Boxall's series with evidence brought forward from other sources in the course of the present discussion. In the latter case, the patients had often been seen but once or twice in consultation or under circumstances where thorough observation was impossible, and accuracy of diagnosis questionable, or where antiseptic precautions were not employed. In Dr. Boxall's cases the course of the disease had been observed throughout, and antiseptic precautions thoroughly and successfully carried out. In the course of an epidemic of scarlet fever, that disease had attacked some of the patients in a lying-in hospital where sepsis had been stamped out, and in every instance had produced scarlet fever, and not septicæmia. On the other hand, we learned that when lying-in patients were exposed to septic infection and to scarlet fever poison, septicæmia was present in all whether scarlet fever was present or not. Since the reading of Dr. Boxall's paper, Dr. Meyer, of Copenhagen, had

published a report of an outbreak of scarlet fever in the Lying-in Hospital of that town. Twenty-one cases were attacked, yet they all ran the usual course of scarlet fever. In support of the view that scarlet fever poison produced septicæmia, not a single case had been noted where this result had been brought about under circumstances where all possibility of septic infection had been excluded.—Dr. BOXALL, in reply, first thanked the Society for the attention bestowed on his paper. He founded his diagnoses on a definite chain of phenomena and not on the rash alone. Turning to the comparative immunity of pregnant and parturient women to scarlatinal infection, he stated that, when Obstetric Assistant at University College Hospital, he visited a recently delivered mother; three of her children lay in her room ill with scarlet fever, and he caught the fever himself, but the woman escaped. He did not deny that the period of incubation might be prolonged in pregnancy, but showed that evidence in favour of the theory was defective. With reference to the severity of scarlet fever in the puerperal state, Dr. Boxall referred to the Collective Investigation Report as evidence of unusually severe cases. He recognised that the cases in his series were of a mild type with one exception, and stated that during the same epidemic, three cases occurred in private patients, two of whom died of the fever. He did not attribute the severe cases to direct inoculation through the pelvic tissues, and the mild to ordinary infection, nor did he believe that of necessity the two forms represented two really distinct diseases. He reminded the Society that very great variations in the character of the fever were well known to exist in children, in men, and in women neither pregnant nor parturient, and until these varieties were explained, the anomalies which occurred in scarlatina during pregnancy and parturition could not be explained. Turning to the septicæmia question, Dr. Boxall maintained that the direct effect of scarlatinal poison was the production of scarlatina and not septicæmia in lying-in women; but the former, like all fevers, was apt to favour the onset of septicæmia at a subsequent stage. Coincidence was readily explained; scarlet fever could not protect a woman in childbed, but that such an association was none other than accidental was borne out by the fact that when the septic element was eliminated, scarlatina and not septicæmia was the result. The contention of Dr. Playfair that the modification of individual scarlatinal manifestations was contingent on the antiseptic treatment of the puerperal state rather than on that state itself, was disproved by the fact that in cases where no antiseptics had been used similar modifications had been proved to exist. The modification, not absence, of individual symptoms did not amount to masking. Eliminating septicæmia, the influence in the puerperal state which really might mask the symptoms, it might be concluded that scarlatina, whether masked or not, bred true, and did not produce septicæmia. As to prophylaxis, it was wrong to suppose that cleansing the hands was the one essential precaution, for the genital tract did not hold a monopoly for the ingress of scarlatinal poison. Though the precautions recommended in the paper were open to criticism on the score of idealism, they were such as Dr. Boxall had consistently carried out in practice; and, though fully aware that their complete adoption in every case was impracticable, they had been put forward by him as embodying the correct principles of treatment. He had omitted from his paper the bacterial question, for the germs themselves were, so to speak, on probation, and the exact relation of different organisms to scarlatina and to septic diseases were not very precisely determined.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 9TH, 1888.

SIR WILLIAM MAC CORMAC, F.R.C.S., President, in the Chair.

Case of Ulcerative Endocarditis.—Dr. ORD read the notes of a case of ulcerative endocarditis. The patient, a young woman aged 16, had been out of health for several years, but had had neither acute rheumatism, chorea, nor scarlet fever. Her main symptoms were a systolic mitral murmur, increasing in loudness under observation, enlargement of the heart on both sides, and signs of some pericardial effusion, enlargement of the liver and spleen, and dropsy of the lower limbs. The urine never contained any albumen, blood, or other indication of renal mischief. The temperature during her stay in hospital was always high in the evening (102° to 104° or more), and from 97° or 98° to 100° in the morning. She died suddenly of syncope after a little more than three months' stay in hospital, never having had hæmoptysis

nor any sign of mischief in the brain. The differential diagnosis was discussed, and the reasons which led to that of ulcerative endocarditis were stated. The heart, carefully prepared by Mr. Shattock, was exhibited. It showed very extensive lesions of ulcerative endocarditis affecting the mitral valve, and extending far into the left auricle. At the *post-mortem* examination large infarcts, recent and old, were found in the spleen, and both kidneys were greatly enlarged and pitted with the scars of infarcts. Dr. Ord drew attention to the remarkable fact that, while the kidneys were so much diseased, the urine presented no sign thereof till the very day of the patient's death.

On the Pathology of Rheumatism.—Dr. MONEY excused the disjointed nature of his remarks on the ground of the short notice he had received. He observed that they had been taught from time immemorial that rheumatism was especially prone to attack the fibrous and serous structures of the body. While he was not disposed to question that view at present, he was prepared to point out certain other affinities of the disease. The difficulty was to define exactly what they meant by "rheumatism." They were only authorised to term rheumatic phenomena those which had been frequently observed in connection with undoubtedly rheumatic manifestations. He said that if there were one thing more characteristic than another of rheumatism it was the fugitiveness and the mutability, the erratic nature of its manifestations. Another feature was that suppuration was distinctly not a result of rheumatism, and when it did occur it was due to collateral and accidental agencies. To show how little had been done in the way of careful, systematic observation, he instanced the lack of information bearing on the variations of function of the cutaneous structures during attacks of rheumatism. In acute articular rheumatism the sensibility of the skin was usually increased, especially in the neighbourhood of the inflamed articulations, but the power of distinguishing sensations was blunted; moreover, great differences were observed as to this. Complete analgesia had at times been observed, though this had been classed as hysterical. Of all the variations of cutaneous sensibility the most marked was that to faradic electricity, which was often scarcely felt, but this was usually confined to the neighbourhood of the inflamed articulations. He remarked also on the differences which presented themselves in the character of the perspiration during the attacks; that fact alone showed how profound were the functional changes in the skin. He passed in review the eruptive and desquamative phenomena which accompanied some forms of rheumatism. Finally, he alluded to the difficulty there was in demonstrating the effect on the spinal cord in rheumatism, though he inclined to the view that the symptoms were of nervous origin. He suggested that rheumatism might be due to the fact that hyperæmia of fibrous tissues led to more permanent changes than elsewhere, from its subsiding less rapidly.—Sir WILLIAM MAC CONRAC asked Dr. Money whether the curious insensitiveness of the skin over the joints to the faradic current ceased abruptly.—Dr. ORD questioned the idea of a rheumatic poison, and asked what grounds there were for believing this. He concurred in the view that suppuration was not a sequel proper of rheumatism. His own view about rheumatism was that a definite tendency existed in certain people to have inflammations of a particular character; that, when tissues became inflamed in certain individuals, they were inflamed in a particular way—a non-suppurative inflammation. Whether it was by reason of poisons generated in the system, or by the operation of the nervous system, was a difficult question to decide. He thought the cutaneous phenomena pointed in this direction.—Dr. MONEY, in reply, said that the insensibility to the faradic current faded gradually off, which was what one would expect from the nerve supply of the skin. He certainly looked upon rheumatism as the result of a blood-poison, though what the poison was he did not know—possibly sarcolactic acid, acting, not directly on the tissues, but through and by reason of its affinity for, the nerve tissue.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, APRIL 5TH, 1888.

WILLIAM SEDGWICK, M.R.C.S., President, in the Chair.

Fibromyomata Complicating Pregnancy.—Dr. JOHN PHILLIPS read a paper on fibromyomata complicating pregnancy and labour, which chiefly referred to the statistics gathered during the past nine years, and compared them with those found in theses on the subject by Lefour and others. The subject naturally fell under three heads, according as the tumour complicated early

pregnancy with non-viable foetus, pregnancy with viable foetus, including labour, or the puerperium. The uterus was capable of division into three zones, a superior and inferior segment and the cervix. Fibroids of large size or multiple in character arising in the superior segment gave trouble during pregnancy often necessitating interference, while their presence in the two latter situations was sometimes only noticed by the pressure symptoms they produced, as at labour, when they were more or less serious obstacles to the progress of the child, on its way through the pelvis. These could with some propriety be called "dangerous zones," the upper, however, being very little less so during pregnancy, both to maternal and foetal life. Unlike pelvic bony narrowing, it was difficult to fix with any precision the size of a fibrous body which could be called an obstacle to labour. The author had collected fifty-nine cases where some difficulty occurred during pregnancy and labour, but in which abdominal section was not required, and forty-seven in which one or other of the varieties of that operation was performed. Special attention was devoted to myotomy in pregnancy, five cases being noted with a mortality of 60 per cent. In Müller's ablation or "abdominal section with removal of the tumour and the uterus containing the non-viable foetus," nineteen cases were recorded with a mortality of 36.8 per cent. Analyses of each case were given in a table, special attention being paid to the reasons for the operation. The author then alluded to induction of premature labour, and related two fatal cases in his own practice, illustrating the remarks with diagrams. Forcible reposition was mentioned, and a warning given of the great dangers which accompanied it. A case of Casarean section was briefly related where a fibroid tumour filled up nearly the whole of the pelvis, and the Porro-Casarean operation was impossible. The various salient points arising during the operation were touched upon, and it was thought that the case was one with which present resources could not cope. The results of twelve other cases were given, and thirteen Porro-Casarean operations occurring in the past eight years, the mortality being the same. The author, in concluding, directed attention to a table showing the very high mortality consequent on forceps version and embryotomy in these cases.—Dr. BRAXTON HICKS thought each case must be taken on its merits. A fibroid of the uterus added greatly to the dangers of pregnancy, especially when situated near the cervix. The tumours frequently got out of the way towards the later stages, and, therefore, he was accustomed to wait and watch. During pregnancy fibroids grew very rapidly, and might entirely block the pelvis. Reposition was sometimes advisable, and, also, tumours near the cervix were always easy to enucleate. Retention of the placenta was another danger caused by fibroids.—Dr. CHAMPNEYS said it was difficult to obtain accurate statistics, rare and fatal cases being alone recorded. Twin pregnancies seemed frequent in cases of fibroids, and these tumours increased the dangers of pregnancy so much, that marriage was to be deprecated. Tumours situated in the posterior wall were the most likely to be attended with ill results, and were less often raised out of the pelvis; hydrostatic pressure, however, often achieved that result. His own cases of version had been successful.—Dr. BANTOCK considered there was great risk of hemorrhage when endeavours were made to replace the tumours. He would generally prefer Porro's operation, which would also obviate any risk of pregnancy. He had three times removed the uterus for fibroids in which it was found that pregnancy was present.—Dr. CORBYN commented upon the dangers of fibroids in pregnancy. Two cases he had watched had been fatal.—Dr. HANDFIELD-JONES emphasised the risks of forcible reposition, and thought the proceeding was seldom justifiable, more especially as there was often adhesion between the tumours and important vessels, and because the endeavour caused bruising of the fibroids. He was inclined to prefer Porro's operation. After Casarean section the uterine wound had been known to give way.—Drs. ROUTH and ALDERSON also joined in the discussion.—Dr. PHILLIPS, in reply, said version was contra-indicated.

BRITISH GYNÆCOLOGICAL SOCIETY.

MARCH 14TH AND 28TH, 1888.

ARTHUR W. EDIS, M.D., F.R.C.P., President, in the Chair.

Electrolysis of Uterine Fibroid, and subsequent Hysterectomy.—Dr. RICHARD T. SMITH exhibited a fibrous tumour of the uterus, removed fifteen days previously by abdominal section. The patient had been suffering from menorrhagia for four years, and

Apostoli's treatment had been carefully carried out. The uterus became very hard, and remained for about twenty-four hours in a state of contraction after each application. He had sent the patient away for three months to see if any benefit accrued, but she returned about a month previously almost dying from loss of blood. The tumour, which was a soft fibroma, rose to three inches above the umbilicus, and as the patient was unmarried and the parts narrow, he was of opinion that if they had attempted to enucleate the tumour they would have lost her. She made a good recovery.—Mr. A. H. REEVES also exhibited a uterine fibroid, which he had removed from a single woman, aged 41, who had undergone the Apostoli treatment without benefit. The tumour in question was pedunculated and impacted in the pelvis. The pedicle was twisted, and the tumour intensely congested and filled with clotted blood. He thought that the electrical treatment, when unsuccessful, might lead to the loss of valuable time. In that case he had removed the tumour after two attacks of peritonitis, and he thought the patient might have recovered had he operated in the first instance. Hysterectomy was a very dangerous operation, and for that reason they ought to give the electrical treatment fair play.

The Action of the Constant Current on Uterine Fibromata.—Dr. J. INGLIS PARSONS read this paper. He thought it was too early to come to any conclusion on the success or non-success of this method of treatment, therefore he had endeavoured to ascertain by experiments how the electricity acted. Electrolysis was found to cause three distinct effects: (1) a decomposition, partial or entire, of certain molecules; (2) a local action at each pole, caused by the collection of acids and bases resulting from this decomposition; (3) the transport of elements through the tissues traversed by the current. Three different experiments were devised to ascertain whether decomposition took place only at the poles or throughout the tissues traversed by the current. The result in each case showed that it only took place at the poles. The electrode, therefore, must come in contact with the tumour to produce decomposition. The chemical action at each pole could be utilised or abolished by varying the method of application. It also explained the different effects produced by each pole, and was entirely local. The positive was, if anything, found by numerous experiments to be more destructive than the negative pole. The third action—the transport of elements—became an important factor when the complex molecule of albumin was split up at the poles. It probably had a modifying influence on the cells of tumours, as they could not recuperate so well as the normal cells of the body. After several experiments the author found it impossible to introduce substances into the body in this way, as described by Munk, Legros, and others. By observing the vessels of the retina on several occasions during the passage of a current, and also the circulation in the frog's foot, the author did not think that any change took place in the vessels, except a local hyperemia due to chemical action at each pole. There appeared to be no contraction of the uterus during the passage of the current, except at the make and break. The author used a large metal electrode with several layers of damp linen; this answered quite as well as clay, and was much less troublesome. He did not agree with Apostoli in laying down a definite rule for the number of applications; each case must be taken on its merits. On one occasion he had given 250 milliamperes for thirty minutes every other day without ill result.—Dr. G. GRANVILLE BANTOCK was much gratified that Dr. Parsons's paper confirmed the views he had formed after a careful consideration of all the evidence. It was only reasonable to expect that any new method of treatment should, if not uniformly successful, at least show a goodly majority of successful results. In this it had completely failed. He admitted the local caustic action of the current. Hemorrhage might be arrested in cases of so-called granular degeneration of the endometrium, so common in association with fibroid tumours, as the result of the destruction of those granulations by that caustic action. But, he contended, where the granular disease was extensive, it was far better to remove the whole at one sitting by means of the curette than by the galvanic chemo-caustic process frequently repeated. Certainly it would be more expeditious. He admitted the production of muscular contractions of the uterus under the influence of the continuous current, but they were only temporary. The action of ergot was of a similar nature. In conjunction with the perchloride of iron the latter remedy was often most beneficial. Apostoli himself only claimed an amelioration of symptoms, and had never seen a tumour disappear under his treatment. Apostoli and his followers had found it necessary to

shift their ground in self-defence, a sure sign of a failing cause. They had recognised the inefficiency of their former method, and now found it necessary to thrust one of the electrodes into the tumour itself; still, they clung to the theory of electrolytic action. The late Dr. Greenbalgh had employed the actual cautery in a similar way, thrusting it into the substance of the tumour through the vagina. There was no essential difference in the principle of the two methods. The object of both was to bring about the destruction of the integrity of the tumour, and the practice might be said to be founded on what was now a well-known fact—namely, that if you could once start the degenerative process in a fibroid tumour, either the active and dangerous process of sloughing or the more gradual and innocent process of absorption, that process would go on until the tumour was ultimately got rid of. It was, however, impossible to control the process.—Dr. HEYWOOD SMITH said that fibroids were exogenous and not endogenous growths starting from a central point. They were therefore buried in the contractile tissue of the uterus, and it was to this external ring that they had to look for the source of absorption. How was absorption to take place if the electrodes were introduced into the centre of the mass?—Dr. FANCOURT BARNES said he had had two cases in his wards treated by this method. In the first case there was a fibroid tumour reaching nearly up to the umbilicus. After many weeks of suffering the tumour disappeared, and she left the hospital. In the second case also the tumour was much smaller, but the patient's sufferings had been great, and she declined further treatment. Comparing the results with those obtained by removal of the appendages, he much preferred the latter.—Dr. MAXWELL MOLLIN said it was not generally understood that electrolysis implied destruction; the word itself had that signification. It was impossible for electrolysis to take place in living tissue. There was no such thing as a modified electrolytic action taking place at a distance from and between the electrodes. Supposing, for the sake of argument, that such action did take place, how was it that the current picked out the morbid tissues only? Dr. Parsons's theory that it was in consequence of the lower vitality of the morbid cell growth, which was influenced in some way by the current, had nothing to support it. In two out of the four cases recently brought before the Society sloughing of the tumour had occurred. He had previously remarked upon the danger from this source, and believed that it was due to the prolonged contraction interfering with the circulation. It was not the result of electrolytic action. Seeing the difficulty of diagnosis, it being in many cases impossible to define the character and position of the fibroid, the treatment was at best essentially empirical.—Dr. AVELING said that electricity could relieve pain, hæmorrhage, and bulk of tumour, the three urgent symptoms for which hysterectomy was performed. If a patient could be thus symptomatically cured, was it not worth trying? He did not agree that there was no electrolytic action between the poles.—Dr. BURFORD raised a protest against the indiscriminate insertion of an unprotected metal rod with currents of high intensity into the uterus. He had lately witnessed the expulsion of the entire cast of the lining mucous membrane of the uterus, which had been in process of discharge for some days. He had also seen a slough detached from the mucous membrane of the cervical canal about the size of a shilling. This had resulted with a current strength of seventy-five milliamperes.—Dr. ROUTH, Mr. LAWSON TAIT, Dr. MACAN, Dr. CHALMERS, Dr. SAVAGE, Dr. STEAVENSON, Dr. RUTHERFORD, Dr. INGLIS, Dr. BEDFORD FENWICK, and the PRESIDENT took part in the discussion.—Dr. INGLIS PARSONS replied.

HUNTERIAN SOCIETY.

WEDNESDAY, MARCH 28TH.

R. CLEMENT LUCAS, B.S., F.R.C.S., President, in the Chair.

Abdominal Puncture in Tympanites.—Dr. R. J. RYLE read a paper on a case of tympanites treated by puncture through the abdominal wall. The patient, a man aged 46, came under treatment in October, 1887, with vomiting, paroxysmal pain, and constipation, of about ten days' duration. Examination of the abdomen showed considerable fulness, but no tumour was felt, and examination by the rectum revealed nothing. Enemata and O'Beirne's tube gave no information. Colotomy was declined, therefore puncture of the intestine to relieve distension was resorted to as the only treatment which promised relief. Eight punctures were made, with considerable relief to the distension, but with the result of setting up an attack of violent peristaltic

contraction about half an hour after it. Three days later it was necessary to puncture again in three places, and two precautions were used to prevent peristalsis, namely, (1) hypodermic injection of morpho-atropine, and (2) use of a larger aspirating needle. A very large quantity of gas was let off. No violent peristalsis followed. Forty-eight hours later the bowels opened. After a fortnight symptoms of obstruction returned, and puncture again became necessary, the same precautions being taken as on the former occasion, and in the course of the following three weeks puncturing was four times repeated. Great temporary relief was gained, but the patient gradually sank and died. A *post-mortem* examination showed an annular stricture of the first part of the rectum, but no evidence of peritonitis or extravasation of feces, and, with the exception of certain small black spots, no trace of the puncture was visible in the wall of the bowel. The points of interest in the diagnosis of this case of chronic obstruction were then discussed; and, secondly, those of the treatment by puncture. As to the latter, the relief afforded by this procedure was of value for three reasons: (1) as checking the respiratory and circulatory difficulties consequent on extreme distension; (2) as diminishing the direct risks of distension, namely, rupture and peritonitis; (3) as favouring the re-establishment of the normal intestinal action. The chief mode, however, in which puncture tended to produce evacuation of the bowel was by exciting brisk peristalsis, and this was a result which, as in the present instance, might require to be guarded against. As to the dangers of intestinal puncture, thinning or ulceration of some part of the bowel might convert a puncture into a rent, or liquid feces might be conveyed from the needle to the peritoneum. But a much less hypothetical danger seemed to be rupture of the diseased bowel by the violent peristalsis set up by puncturing, or if the puncturing was very free. The reality of this risk was shown (possibly) by the history of a case of Dr. Bristow's recorded in the *Pathological Society's Transactions* for 1872, and still more clearly by a case recorded in 1878 in the *JOURNAL* by Dr. Coupland and Mr. Morris, in which rupture was due to peristalsis caused by puncture. If this view of the danger were correct, the proceeding came to resemble the administration of ergot during labour, and the cases most suitable for the treatment would seem to be those which were known to be characterised by healthy bowel and an absence of insuperable obstruction, such as sometimes occurred in obstetric practice or after abdominal operations. Perhaps, too, as had been suggested by Dr. Galabin, this treatment might be of use in commencing peritonitis. The beneficial effects of simple relief of tension in checking the progress of inflammation were shown in periostitis and cellulitis, and probably a few needle-punctures would be less dangerous than continued distension to the peritoneal coat. From similar considerations he suggested its employment in enteric fever, more especially if, as was probable, excessive peristalsis could be prevented by opium. The specimen was shown at the meeting.

Acute Intestinal Obstruction complicating Utero-gestation.—Mr. CORNER read notes of a case of this kind. The patient, a woman aged 27, who had been married four months, was believed to be four months pregnant; during this period she had much sickness and retching. On November 20th, after a hearty supper, she was seized with great pain and violent vomiting. The bowels acted freely several times. Nothing abnormal was felt in the abdomen, and the uterus was of normal size. Vomiting and pain continued, with constipation. On November 26th chloroform was given, and the rectum, vagina, and abdomen were carefully explored, but nothing unusual detected. On the 27th death took place. On *post-mortem* examination the ileum was found constricted five inches above the cæcum by a thick band of adhesion in the middle line above the pubes. The bowel was completely divided. The peritoneum contained a quantity of fecal material. The specimen was shown at the meeting.—Mr. McCARTHY said that he had seen Mr. Corner's case for the first time the day before death. The diagnosis lay between pregnancy and obstruction. There being nothing to indicate the precise nature of the case, he did not advise operation; and, looking at the nature of the case as revealed after death, had this been performed the bowel would immediately have given way, as it had done on the following day. These cases, if seen early enough, especially in hospital practice, and treated by operation, might terminate in a good result. As to puncture of the intestines, he had employed this method in a gynecological case with great relief.—Dr. PYR-SMITH, in discussing the first case, spoke of the difficulty met with in diagnosis, and thought there was nothing to be gained by the passage of a

long tube up the rectum. It often coiled up, and he believed it to be anatomically impossible for it to pass beyond the second part of the rectum. Then as to the classical description usually given of "pipeelay" motions he thought it questionable if a stricture high up could imprint its form on the feces, but that this condition was usually due to some disease of the anus. Cases in point were then described. On the other hand, there might be a stricture low down with no narrowing of the motions; he therefore considered this condition unreliable. Passing to cases of annular stricture due to malignant disease, chronic in their progress and limited to the large intestine, he thought these ought to be diagnosed and treated by colotomy. Cases of this sort would often allow feces to be passed, and he quoted a case of disease in sigmoid flexure in which arrangements had been made for performing colotomy, which was deferred on account of the passage of liquid feces at the time. Death took place next day. Ulceration in these cases, as in Dr. Ryle's, was markedly absent, in contradistinction to Mr. Corner's case. In all such cases he urged operation. As regarded Mr. Corner's case he expressed regret as to the result; if the case reached the gangrenous stage, he thought that an operation took away the last chance of recovery, and as a result death was frequently put down to its performance. Considering the whole question of operation, the more cases he saw the less he trusted the signs; the signs as taught so often failed. Exploratory operation ended in failure in all his cases he had recently looked up. A more loose method of diagnosis than that usually taught he considered useful, and he classified cases under several headings: 1. Acute obstruction in which (a) operation was followed by a good result, as in cases of hernia; (b) treatment by opium and starvation—some of these recovered. 2. Chronic obstruction, like stricture of rectum, treated by colotomy. 3. Chronic obstruction due to impaction of feces, treated for constipation by enemata (this included also that due to gallstones). He agreed with all Dr. Ryle had said as to puncture. He had performed the operation once to relieve excessive distension, and found that peristalsis was excited. The patient passed some feces, and ultimately recovered. He thought it might be performed with greater freedom, and recommended frequent puncture. The needle, however, should not be allowed to remain in any length of time.—Dr. DUNDAS GRANT gave his experience of two cases of cancer of the rectum low down, in which he had used this method of treatment by puncture with great relief to the patient. He asked Dr. Ryle if he had passed the whole hand into the rectum for the purpose of diagnosis. Typhlitis being sometimes accompanied by fecal vomiting and liable to be mistaken for acute intestinal obstruction, he inquired as to what degree of weight should be attached to this sign.—Dr. GALABIN adverted to the criticism by the *Lancet* on the statements made in his manual as regards the method of treatment in puerperal peritonitis being so fatal, the relief given could only be temporary. He quoted cases of this kind, and also one of intestinal obstruction in which puncture had been used with great relief. He also thought that puncture might be used in cases of extreme distension where there was great trouble about to be experienced in abdominal section. The finest tubes only should be used. He had employed fine puncture for the relief of great distension of intestines which had escaped from the abdomen after ovariectomy: a small drop of feces was noticed at the site of each puncture. Finally, he related a case of acute intestinal obstruction with pregnancy at six months caused by volvulus of the small intestine, which terminated fatally. Nothing was done, the patient being moribund when seen.—Mr. SYMONS discussed the increasing difficulty of diagnosis in intestinal obstruction, and related several cases he had had under his care. He always recommended an exploratory operation in these cases, and the success he had met with was certainly encouraging. The use of large enemata, he thought, did not prove the position of the growth. In cases similar to that of Mr. Corner's, Newton's operation was useful as a method of relief short of abdominal section.—Dr. L. E. SHAW had seen Dr. Ryle's case during the second attack, and thought the case an admirable one for operation. He believed that puncture might always be employed in the first place before the performance of operation for the removal of growth—the method appeared to be so innocuous.—Dr. PRY related a case of puncture of the intestines in a man for obstruction due to strangulation of the ascending colon without relief. Colotomy was subsequently performed. In the majority of cases he believed the colon was not full of gas but feces, as in the case just mentioned. A very valuable method of treatment for the relief of symptoms in intestinal obstruction was to wash out the stomach. So, again,

in enteric fever, might not the contact of micro-organisms with the food form gas? From experiments he had made, it was uncertain whether the colon or small intestine was punctured.—The PRESIDENT thought Dr. Ryle's case a typical one for colotomy, and regretted that the patient could not be persuaded to undergo the operation. In chronic obstruction where the position of the disease was a matter of conjecture, he always advised left-side colotomy, and he related two cases in which patients were relieved in this way. In one case there had been symptoms of chronic disease and complete obstruction for thirteen days. He colotomised on the left side, and found the opening was below the stricture; passing in his finger he felt the disease at the splenic flexure, then turned the patient over, and operated on the right side. This patient was alive nearly three years after the operation. As illustrating the use of puncturing, he referred to a case of Mr. Forster's related in the *Guy's Hospital Reports* for 1868, where the patient lived eighty-eight days after complete obstruction.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, APRIL 6TH, 1888.

C. R. B. KEETLEY, F.R.C.S., President, in the Chair.

Cancer of the Bodies of the Vertebrae.—Mr. ROCHE LYNCH again produced his specimen of cancer or sarcoma of the lumbar vertebrae, which he described at the last meeting (*JOURNAL*, March 10th).—In the adjourned discussion the PRESIDENT observed that he had seen a case of secondary cancer of the vertebrae in which the symptoms had been mistaken for those of hysteria.—Mr. LLOYD had seen a specimen of melanotic sarcoma of the spine. The peculiarity of Mr. Lynch's specimen was that it appeared to be a unique specimen of primary cancer of vertebrae.

Rare Congenital Deformity of the Hands.—Mr. PERCY POTTER showed a man in whom the metacarpal bones were so fused that each hand had the appearance of having but two digits and a thumb.—The PRESIDENT, Mr. ALLINGHAM, Mr. BENHAM, and Dr. MANNING took part in the discussion which followed.

Dermoid Cyst Expelled per Rectum during Labour.—Mr. PRIOR MALLAN related this case and exhibited the specimen. A woman who had had two natural confinements previously was taken in labour, and found to have in the recto-vaginal septum a tumour large enough to obstruct the descent of the child's head. In delivering with forceps the tumour was forced out through the anus. It was found to contain serous fluid and some hair. The patient recovered without any bad symptoms.—The case was discussed by Dr. WELLS, Mr. DUNN, and the PRESIDENT.

Perforation of the Eyeball by the Knot of a Whip.—Mr. PERCY DUNN related the case of an attendant at a hippodrome who felt his eye suddenly cut with, as he supposed, a pebble kicked up by one of the ponies who were being trained. He was admitted to the West London Hospital; and on the following day, there being severe panophthalmitis, Mr. Dunn performed enucleation with the best possible result, the man being made an out-patient at the end of eight days. A curious thing was that the man, when struck, was standing beyond the reach of the whip. Mr. Dunn supposed that the thong had become heated, and the knot, detached, had flown off at great speed. It was found to have pierced the ball just below the horizontal meridian of the corneo-sclerotic junction and to have become embedded in the vitreous humour.—Remarks were made by Mr. LUNN and Mr. LANG.

Calculus in a Tonsil.—Dr. ALDERSON showed a hard concretion, about half an inch in diameter, which had sloughed out of the tonsil of a patient aged 72. There was no history of gout or of a calculous diathesis.—Dr. BALL had seen many calcareous concretions from the tonsils, but not one so dense and brown as this.

Large Wen in the Neck treated by a New Method.—In the case of a wen of old standing, and which extended from the jaw to the clavicle, Mr. KEETLEY (President) had operated in the following manner. Removing an elliptical piece, about three inches by an inch and a half, from the cyst wall, he turned out the contents. He then cleansed the cavity thoroughly, first with carbolic acid, then with corrosive sublimate, and finally with boracic acid. The hole in the cyst was then stitched to the hole in the skin, and the cavity of the cyst was plugged with strips of iodoform gauze, which were removed from time to time. At the end of a month the cyst had almost disappeared. During treatment the head and neck had been kept fixed by a proplastic apparatus, which had probably had much to do with the successful result.

Pathological Specimens.—Mr. JOHN R. LUNN: Cancer of the Oesophagus.—Mr. PERCY DUNN: (1) Cyst of Ovary; (2) Nævoid Condition of Brain; (3) Sarcoma of Uterus; (4) Liver from a Case of Peritonitis following Perforation in Typhoid.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF ANATOMY.

FRIDAY, MARCH 2ND, 1888.

ST. JOHN BROOKS, M.D., President, in the Chair.

Brain-growth and Cranio-cerebral Topography.—Professor CUNNINGHAM exhibited fifteen models of the human head. He stated that for some months past he had been endeavouring to determine the relative degree of growth of the several lobes and convolutions of the cerebrum from infancy up to adult life. It could easily be proved that the movement of increase of the subjacent brain did not correspond with the growth of the component bones of the skull. He quoted Féré and Topinard in support of this view, and gave two examples in which it could easily be seen, namely (1) the frontal eminence which overlay a different portion of the frontal lobe of the brain in the adult and child; and (2) the different relations which were observed between the squamo-parietal suture and the Sylvian fissure as first noticed by Foulhouze. The measurements must be applied to the brain itself, and for this purpose some means must be taken to preserve its volume and configuration absolutely unchanged after the cranium was opened. He was now able to prepare the brain so that when it was exposed *in situ* it would remain absolutely unaltered for at least twenty-four hours. But a further step was necessary. A more extensive comparison between the different brains was necessary than that afforded by columns of figures. It was very essential that the parts of the brain should be fixed and retained in their natural form. For this purpose he had had recourse to models which he had prepared immediately after exposure of the brain. Two models were prepared of each head selected for investigation, namely (a) a model of the head before it was touched; and (b) a model of the same head after it had been prepared and the brain exposed. The brain was exposed on the right side, but narrow bars of the cranial wall were left in the lines of the cranial sutures. The models on the table represented the head of a boy 5 years old, a girl of 11 years, a boy of 12½ years, a youth of 15, two middle-aged women, and two adult men. He then briefly alluded to some of the points concerning brain growth which he had observed, but stated that until he was able to obtain specimens under five years old he did not expect to make much advance. In the antero-posterior direction very little difference was observed in the relative length of the frontal, parietal, and occipital lobes above the age of 5 years. What difference there was could readily be accounted for by individual peculiarities. The temporo-sphenoidal lobe, however, showed some interesting changes as age advanced from childhood to adolescence. It was placed more horizontally in the child; in the adult its tip was turned downwards and inwards, so as to give its long axis a curved direction. Again, its vertical depth in relation to the part of the cerebrum above the Sylvian fissure diminished uniformly and steadily as adolescence and adult life was approached. In discussing whether the relative decrease of the outer surface of this lobe could have any functional significance, Professor Cunningham referred to the recent important investigations of Professor Schäfer upon the temporo-sphenoidal lobe. He also indicated that Dr. Symington had suspected that there was such a decrease in the vertical dimensions of the lobe in question, and had accounted for it on mechanical grounds. The question of cranio-cerebral topography came in as a side-issue to the present investigation. There were two distinct methods by which anatomists had determined the relation of the different parts of the brain to the surface of the head, namely, the sutural, which had been followed out with great exactitude by numerous investigators, and that method whereby, by means of certain lines and measurements made with reference to well-marked prominences, the subjacent brain could be mapped on the surface of the head. The latter plan was the one most interesting to the surgeon, and to it only he would refer. Hare, Seguin, and Reid had each developed a method of this kind. For Hare's method he had nothing but commendation. It was easy of application, and as exact as any such plan could reasonably be expected to be. Reid's method was in some measure a modification of Seguin's, and in so far as the fissure of Rolando was concerned, he had found it most unreliable. In none of his specimens did this fissure coincide with Mr. Reid's lines, and in

one model on the table it would be seen that even a trephine with a diameter of two inches would have failed to expose the upper end of the Rolandic fissure had it been applied according to Mr. Reid's rules. It was a method, further, which, although easy of application to a drawing of a head upon paper, was exceedingly difficult of application on the living head.—The PRESIDENT said Professor Cunningham's communication was of great practical utility, especially as it appeared that Reid's method was the one that was regularly taught in many schools. Now that cerebral surgery was beginning to make remarkable strides, the localisation of the different portions of the brain in relation to the outside became of more and more importance, and therefore the confirmation of the results obtained by Hare was of corresponding importance. Hare's method differed from Professor Cunningham's as consisting in removing the whole side of the skull, while Professor Cunningham left bridges of bone along the line of the suture. In another respect, also, their methods differed. Hare used no special hardening method, while Professor Cunningham hardened the brain *in situ* with absolutely no shrinking, so that when the skull-cap was removed the cerebral convolutions were seen tightly applied to the dura mater. At the same time, the results showed remarkable uniformity. Hare was of opinion that the hardening tended more or less to displace the brain and make it shrink. He was also averse to freezing the brain, because when the brain was frozen, unless special means were taken, it was inclined to thaw and become more diffident than ever. What he relied upon was to get the subjects as fresh as possible. He examined them thirty hours after death.—Mr. THOMSON, Rev. Dr. HAUGHTON, Dr. FOY, Dr. NIXON, Mr. SWANZY, and Mr. BENNETT, took part in the discussion.—Professor CUNNINGHAM, in reply to Sir WILLIAM STOKES, said the paper from which he quoted the results of Professor Schäfer's investigations would be found in the last number of *Brain*; and his experiments consisted in removing the temporo-sphenoidal lobe on each side. In each case the monkeys he operated on showed no evidence of loss of hearing, tactile sensibility, or taste. His experiments also tended rather to confirm those of Munk, in which complete removal of both occipital lobes led to total blindness.

Sacro-Iliac Joints in a Pregnant Woman.—Professor CUNNINGHAM exhibited a specimen illustrating relaxation of the sacro-iliac joints in a pregnant woman.—The PRESIDENT, Dr. BENNETT, and Dr. FOY joined in the discussion.

Homology and Innervation of the Achselbogen and Pectoralis Quartus, and the Nature of the Lateral Cutaneous Nerve of the Thorax.—Dr. AMBROSE BIRMINGHAM read a paper on this subject. The points sought to be established in the paper were: (1) that pectoralis quartus is a segmented portion of the great pectoral; (2) that *achselbogen* is a derivative of panniculus; (3) that pectoralis quartus is supplied by the internal anterior thoracic; (4) that *achselbogen* is supplied by the internal thoracic; and (5) that the lateral cutaneous nerve of the thorax is the nerve of Wisberg, associated with more or less of the internal thoracic.—The PRESIDENT and Professor CUNNINGHAM made some remarks, and Dr. BIRMINGHAM replied.

History of the Nerve to the Anconeus.—The PRESIDENT read a short paper on this subject. The history of the nerve involved the morphology of the muscle. The anconeus was usually regarded as a part of the triceps which had wandered downwards from the olecranon process to a more distal point on the forearm. For this view of its morphology two reasons were assigned: (1) continuity with the lower fibres of the triceps; and (2) nerve supply. The author had found in a lizard (*Hatteria*) that the anconeus was separated from the triceps, but formed an integral part of the extensor carpi ulnaris; he found also that the "nerve to the anconeus" supplied other muscles as well (for example, supinator brevis), and then joined the posterior interosseous nerve to take part in the innervation of the extensors of the digits. In the alligator he found the extensor carpi ulnaris absent, its place being taken by a large anconeus with a double nerve supply (from the "nerve to anconeus," and the posterior interosseous nerve). In man he had found a similar double supply for the anconeus in two out of four subjects he had examined; this arrangement had been described by Lusohka. He concluded: (1) that the anconeus was to be regarded more as part of the extensor carpi ulnaris than of the triceps; (2) that the "nerve to the anconeus" originally took a large share in the innervation of the muscles on the extensor aspect of the forearm.—Professor CUNNINGHAM made some remarks.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, MARCH 29TH, 1888.

M. M. DE BARTOLOMÉ, M.D., President, in the Chair.

Cases.—Mr. SNELL showed a boy who had been operated upon for severe ectopia.—Mr. S. ROBERTS showed a boy with hypertrophy of the gums.

Ununited Fracture.—Mr. PYE-SMITH exhibited an instrument he had devised for use in ununited fractures.

Union of Divided Urethra.—Mr. GARRARD related a case in which a man had fallen on a piece of iron and lacerated his perineum from the sphincter ani into the scrotum. The wound penetrated deeply, exposing the base of the bladder, and completely dividing the urethra near the bulbous portion and tearing part of it away. The proximal end was found, and when the silk web catheter had been passed on into the bladder, the divided ends were two inches apart; they were brought together by thin silk sutures, and a syphon tube was attached to the end of the catheter. The catheter was changed about once a week for six weeks, when the urethra was found to be united, and the perineal wound nearly healed. After this a catheter with a sharp curve was occasionally passed and in three months the perineum was entirely healed, and the man could pass his water as well as before.—Remarks were made by Dr. KEELING and the PRESIDENT.

Massage.—Mr. ATKIN read a paper on massage, in which he discussed its value in certain surgical affections. An opinion was expressed of the uselessness of treating scoliosis, flat-foot, bent legs, and rickets generally by jackets, splints, etc., unless the apparatus could constantly be removed and the parts well shampooed. Attention was also drawn to the use of shampooing in curtailing tedious convalescence, as after a surgical operation. Early massage was recommended for sprained joints and muscles, though not to the exclusion of the physiological rest needed for repair. It was also claimed for massage in certain hysterical affection which simulated surgical diseases, and benefit was stated to have been seen from massage in diseases of the anterior part of the eye.—Remarks were made by Mr. KNIGHT, Dr. HUNT, Mr. JEFFREYS, Mr. SNELL, Dr. S. ROBERTS, Dr. S. WHITE, and Mr. JACKSON.

Terebene.—Dr. MARTIN gave brief particulars of three cases of bronchorrhoea, in the treatment of which he found the use of pure terebene most useful. Ten minims was the dose prescribed, and in each case the beneficial action was immediate, progressive, and persistent. Dr. Martin laid stress on the necessity of inquiring into the condition of the kidneys before ordering terebene.—Remarks were made by Mr. SNELL, Mr. BROWNING, Mr. HARGREAVES, and Dr. CLARKE.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, MARCH 21ST, 1888.

JOHN URQUHART, M.D., Vice-President, in the Chair.

Occlusion of External Auditory Meatus.—Dr. JOHN GORDON showed a boy, aged 11, with complete occlusion of the right auditory meatus, about half an inch from the auricle. The hearing distance for the watch was $\frac{1}{60}$ and bone-conduction was good

on the affected side. With the probe a bony ring could be made out round the meatus at the blind end. Attention had been drawn to the boy seven or eight months ago, when he became deaf from Eustachian obstruction of the left side. Dr. Gordon intended to operate at a later date.

Exhibition of Electric Apparatus.—Dr. GARDEN exhibited a Schall's battery, suitable for all medical and surgical purposes. He showed Leiter's electric rhinoscope, urethral endoscope, and cystoscope, and demonstrated the mode of using the latter by means of an artificial bladder filled with water and containing various minute objects. An electric mouth-illuminator with tongue-depressor, a laryngoscope, and ear speculum were also shown. Dr. Garden also exhibited Schech's handle for the electric cautery, and its adjustment with the electric loop, and a variety of electrodes. All these appliances were worked by means of the Schall's battery.

Congenital Syphilis.—Dr. EDMOND showed a number of pathological specimens of congenital syphilis occurring in a boy aged 7, who was blind, deaf, and dumb; namely, the skull with large perforations in some places and numerous ulcerative depressions, the sites of gummata, amyloid liver filled with calcifying and cheesy gummata of varying size, and amyloid spleen and kidneys. Dr. Edmond also showed a photograph of several beautifully ex-

cut paper models of cattle, horses, deer, rabbits, etc., which the boy had made.—Professor HAMILTON had observed that the brain was the most highly convoluted one he had ever met with almost approaching that of the cetacean.

Case of so-called Spontaneous Combustion.—Dr. MACKENZIE BOOTH described a case which he had met with. It will be published in full in the JOURNAL.

ERRATUM.—In the report of the proceedings of the Sunderland and North Durham Medical Society, published in the JOURNAL of April 7th, page 749, "Post-aural Branchial Fistula" should have been "Post-oral."

REVIEWS AND NOTICES.

ÉTUDE MÉDICO-LÉGALE SUR LES BLESSURES PRODUITES PAR LES ACCIDENTS DE CHEMIN DE FER. Pp. 118. Par le Dr. CH. VIBERT. Expert près le Tribunal de la Seine, etc. Paris: Baillière et Fils, 1888.

As far as we know, this is the first work which has appeared in the French language on the subject of railway injuries. The author of it appears to have had considerable medico-legal experience, and from the titles appended to his name we gather that he holds an appointment as "medical assessor" in the Paris Courts of Justice. He has thus enjoyed the opportunity of viewing a number of cases from a wholly judicial standpoint, free from any necessity, whether imaginary or real, of supporting particular views in or against the interest of any claimant for compensation for personal injuries. From the medico-legal reports, which are to be found *verbatim* in the book, we should say that the author is well worthy of the confidence placed in him in the official position which he holds. It would be well if in this country, also, appointments of a like character were not unknown.

The injuries received in railway accidents are, as we well know, of singular interest; and nowadays, when both claimants and railway companies alike see the disadvantages of litigation, and amicable settlements are much more common than in times gone by, when medical men are, therefore, able to approach these cases in less of the spirit of contending parties, and more in that of calm judicial observation, it is to be hoped that the results of railway injuries may more closely engage the attention of leading neurologists, who have hitherto rather sought to avoid them, for various reasons which it is needless to name; for the consequences of railway injuries fall especially into the category of neurological work, and they derive their chiefest interest from the light which they sometimes throw upon the close and intimate interdependence of mind and body, of psychical and physical being. Fractures and dislocations, wounds and contusions, received in railway accidents do not differ in the least, either in their immediate symptoms or in their after-consequences, from those inflicted in a hundred other ways; nor is there any evidence that the coarser lesions of brain or of spinal cord, or of other parts of the nervous system, have any special consequences when they have been caused by accidents on railways, by the collisions which we commonly understand railway accidents to mean. To the infliction, however, of all, and every form of, injuries in collisions there is frequently added a disturbing element which is commonly, though not invariably, absent from other and more ordinary accidents; and the course of the after-symptoms is often unusual and unexpected, because of the interference with convalescence which any unsettlement of mind, such as may be induced by litigation, by anxiety as to the future, or by delayed arrangement of claim, is pretty sure to entail. As to that which has influence at the time of the accident, it is well known that considerable importance has been attached, and is apparently by Dr. VIBERT himself, to the *branlement*, or vibration, which is supposed to be communicated by, and at the moment of, the collision to every object of, or connected with, the colliding bodies. It has always seemed to us remarkable that this *branlement* should be so partial in its effects, and unaccountable, moreover, that a vibration, generated by the collision and necessarily communicated to, and diffused through, every particle of, or connected with, the colliding bodies, should exercise a great and injurious influence, say, on one individual, while another individual sitting next him should go scot free.

The different effects of railway injuries, apart from gross bodily lesion, have therefore to be sought elsewhere, and we believe that they are to be found in individual idiosyncrasy, one person suffering largely from the fright incidental to the horrors of a railway

collision, another feeling such effects but little, or it may be not at all. And therefore every variety and combination of results may be met with, as for example: (a) severe bodily injury associated with great mental disturbance; (b) severe bodily injury associated with none; (c) great mental disturbance with slight bodily injury; (d) slight bodily injury with little disturbance from fright, or it may be by none at all. By far the largest number of injured persons fall into the third class (c) thus affording some warrant for regarding *branlement* as the real cause of the symptoms so commonly seen, and for diverting attention from, and paying less heed to, the personal element in railway injuries, and for disregarding the fright, that all potent mental disturbance, either immediate or delayed, which calls the personal element into play.

This is not the place to record the ordinary symptoms of injuries of this class; they may be found in works in our own tongue. It may be well, however, once again to point out that the most recent observations upon railway injuries both in this country and in America have tended to show that it is in the brain rather than in the spinal cord we must look for the lesions, if there be any, which underlie the symptoms of railway injuries; and that "railway brain," rather than "railway spine," would be an appropriate term to apply to the congeries of symptoms with which we are familiar. The work before us is of interest from this point of view, in that the cases recorded, related as they are in detail and with the written "medico-legal" opinions about them, are very largely cases of cerebral injury, with symptoms referable to brain lesion or disturbance rather than to lesion or disturbed function of the spinal cord. The experience of the author appears to have been drawn largely, if not exclusively, from the victims of the well-remembered accident at Charenton on September 5th, 1881. The accident was one of the worst description. Eighteen persons were killed on the spot, five died within a few months, twenty-six received very severe bodily injuries, and some eighty others were more or less hurt. The collision itself was of the most truly terrifying nature, for it became known to everyone that the accident was inevitable; the cry of "Sauve qui peut" was raised aloud, and everyone was doomed to pass through a few seconds of the greatest agony and suspense before the crash came. We are not surprised, therefore, to learn that the great majority of persons suffered from profound mental and emotional disturbance, from nightmare and sleeplessness, from involuntary trembling and severe headache, from grave disturbances of nutrition, and that convalescence was slow and prolonged. We should have been glad to have heard more of the after-history of these patients, but nevertheless Dr. Vibert has made good use of their cases by giving a careful and lucid account of the cerebral troubles which are apt to supervene after railway collisions even in cases where there has been no serious bodily injury nor any true concussion of brain. His account in every way confirms the views now held in this country, and we fail to find anything new in the record.

Differences of opinion seem to exist in France as well as here, and in one of his cases we have the *verbatim* reports of the several surgeons who saw the patient. The views entertained by each appear to us to be alike legitimate and warranted by the recorded facts, and they combine to show how much better it is that the judicial tribunal should be assisted in arriving at a just conclusion by the perusal of such reports than by the oral testimony of witnesses in open court, who run the risk of being subjected there to the taunts and questionings of contending counsel, who may easily lose their presence of mind in such circumstances, and who perhaps at the best may have a difficulty in conveying their opinions on medical matters to lay and uneducated ears and minds, whether of judge or jury.

The author has little to say on the subject of exaggeration and imposture, but his remarks thereon, if short, are judicious and well timed. He rightly cautions against the suggestions to patients which lie in leading questions, and he shows that if the detection of downright imposition is not the difficult thing which it is often supposed to be, it nevertheless may be no easy matter to decide whether a person is or is not exaggerating the symptoms of some real, though very trifling, injury. Experience, however, is of the greatest value in enabling a medical man to say whether the indefinable symptoms which have no physical signs, which are purely subjective, and have no other basis than the statements of the patient himself, are or are not genuine. No book, no account of such symptoms, however accurate and clear, can supply the want of experience in such matters, and those who come to the examination of such cases without experience

would always do well to defer to those who have. We write on the assumption that the expert is a perfectly independent and impartial observer, such as Dr. Vibert seems himself to be, whose opinion would be precisely the same, and given in precisely the same words, be the interest what it may, which he is supposed to serve. Men of this kind have done much to rescue cases of railway injury from the opprobrium which once surrounded them, and to place them on a different footing from that which they had when railway injuries and the disputes arising out of them first sprang into prominence, and when neither medical men nor lawyers knew how to deal with them.

Dr. Vibert says next to nothing as to treatment, but yet treatment may do much for these cases of profound general disturbance of the bodily and mental health such as he records, and such as are so often seen after severe railway collision. Treatment it is true is very often useless because of pecuniary disputes, or at any rate is useless until pecuniary disputes are at an end, and it is obvious that these should be put out of the way as soon as possible, so that proper treatment may be brought to bear on those who are really ill, in whom each function is out of order, whose bodily feebleness becomes extreme, who find work impossible, and who provide the suitable soil for the development of all sorts of hypochondriacal or neurokinetic symptoms, with anorexia of the most aggravated kind. It is in cases such as these that the Weir-Mitchell treatment is often of the greatest service, and one at least of Dr. Vibert's own cases would, in our judgment, have derived benefit from it. How difficult it might be to inaugurate such line of treatment for railway injuries, only those who have had experience can tell; but we can speak of its usefulness in many apparently hopeless cases. Treatment may do much for the patient, but wide experience, tact, judgment, and above all good common sense are necessary first of all to unravel and rightly estimate those mysterious symptoms which may be met with after railway injuries; symptoms which often lie on that slippery borderland between genuine neurotic disturbance and the conscious or unconscious simulation of nerve disorders, when, if we may not call him "hysterical"—a phrase we can surely use without thinking of the womb—the patient nevertheless shows distinct "perversion of the ego," and is very prone indeed to develop perverted notions of the relative value of *meum* and *tuum*, especially if the latter be that of a corporate body, without a soul to be saved.

The author has had no personal experience of injuries of the spinal cord, and he has nothing of his own to tell on this subject, but his book nevertheless has in it much that is interesting and instructive, though nothing that is new, on the cerebral and general nervous derangements which follow railway injuries, and we have no doubt that it will be of much use to the medical profession in the country where most of its readers will be found.

THE MEDICO-CHIRURGICAL TARIFFS, prepared for the late Shropshire Ethical Branch of the British Medical Association. By J. STYRAP, M.K.Q.C.P., etc. The Fourth Edition, revised and enlarged. London: H. K. Lewis, 1888.

THE new edition of these valuable *Tariffs* comes not a moment too soon, for it would be a real loss to the profession if they were to be allowed to remain long out of print. Indispensable to the young practitioner, they are of great value to the more experienced for reference in circumstances a little out of the ordinary routine. Two tariffs for the ordinary work of a general practice are given—one, ex- or inclusive of medicine, one fee being named; the other, distinguishing between the fee for advice and the charge for medicine. There is also a tariff of surgical fees for a long list of operations and manipulations. These *Tariffs* are the only authoritative document of the kind in existence in this country, and their general applicability and justice are further shown by the fact that they have been translated into French. The practical value of these *Tariffs*, and the moderate price at which the pamphlet is published, ought to induce every practitioner to possess himself of a copy for reference. To this new edition valuable advice on the question of professional charges to the clergy and to the relatives of members of the medical profession have been added, and carefully considered paragraphs on the circumstances under which an extra fee for prolonged examinations or consultations have been inserted.

The thanks of the profession are due to Dr. STYRAP for the trouble which he has taken to render these tariffs absolutely reliable: he has not spared himself; and we venture to express the hope, which will be warmly reciprocated by many grateful readers,

that the ill-health which has delayed the appearance of this much needed edition being now a thing of the past, he may be enabled to supervise the issue of many more editions in future years.

SEWAGE TREATMENT, PURIFICATION, AND UTILISATION. By J. W. SLATER, F.E.S. Crown 8vo. Whittaker and Co.

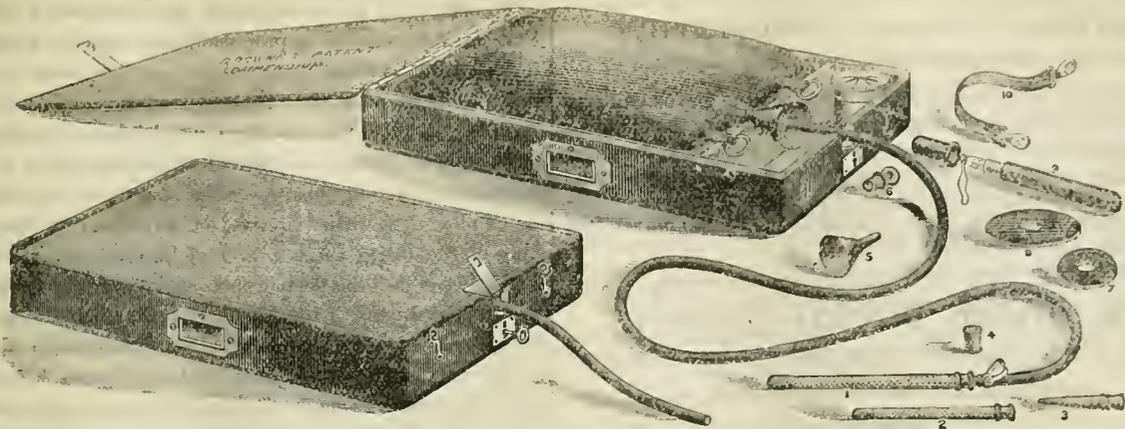
THIS volume appears in the "Specialists' Series," and purports to be a practical manual for the use of corporations, local boards, medical officers of health, inspectors of nuisances, chemists, manufacturers, riparian owners, engineers, and ratepayers. It is, therefore, a work which at any rate aims at appealing to an almost universal class of readers, and it is difficult to understand whether the book is intended for specialists in the disposal of sewage, or whether it is supposed to be written by a specialist in this particular subject. If the latter is the impression intended to be conveyed by the title, we should have been glad to learn with what branch of this very wide subject the author may be regarded to have sufficiently profound acquaintance to entitle him to be thus described. We take it that the author is neither a medical man nor a chemist, it is not our province to decide as to whether he is an engineer. Yet he does not hesitate to discuss the medical and chemical aspects of his subject with a self-confidence and flippancy which would ill-become a veteran in either of these departments of science. The author is a strong advocate of precipitation methods of sewage-treatment, although he is obliged to admit that where a pure effluent is required, it should be supplemented by filtration. But whilst the purest effluent is thus admittedly obtainable by the process of "intermittent downward filtration," the author devotes but ten short pages, principally wasted in irrelevant personalities, to this important subject, whilst a chapter of nearly forty pages is absorbed in discussing processes of precipitation.

Taking, as another instance of the kind of information imparted in this book, the chapter on the detection of sewage pollution—a chapter we take it which is especially addressed to chemists—we find a lengthy disquisition on the evidence afforded by the presence or absence of fish, frogs, and water plants of various kinds, the upshot of which is to show that very little weight is to be attached to such indications. Of chemical or bacteriological methods of detecting sewage pollution, the author appears to have an equally low opinion, but he concludes with "one very simple test, which may be applied to any apparently pure water, is to put a few ounces of the sample in a perfectly clean bottle, close it with a glass stopper, or with a new clean cork, and let it stand for some days at a temperature of 60° to 70° Fahr. If on unstopping the bottle it is found to give off an unpleasant smell, the water must be condemned." This then is supposed to be the limit of our power of diagnosing sewage-polluted water in the year 1888! We cannot help thinking that if the author had taken the trouble to read, mark, learn, and inwardly digest the Blue Books of the 1863 Commission, as well as those of the Commission of 1883, reports which have become the textbooks of the civilised world, he would have compiled a somewhat different volume from the one which we have before us.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE "COMPENDIUM," OR INVALID'S SELF-HELP.

UNDER this name an invention has been registered which seems likely to prove serviceable to invalids requiring a douche for any purpose. A glance at the accompanying illustration will show the chief parts in the apparatus. The central arrangement is a flattened bag made of patent inodorous rubber, which is very durable, and capable of withstanding tropical heat. The bag is filled to any required capacity with water or other liquid, which may be medicated with any required drug, and used at any requisite degree of temperature. A tube, in which is a tap which must at first be closed, is then attached to the bag, and the latter is placed on a spring board in a neatly finished, flattened box, the lid of which is closed on the bag, whilst the tube passes out through an aperture in front. The box being then arranged in any convenient position, the outer free end of the tube is next

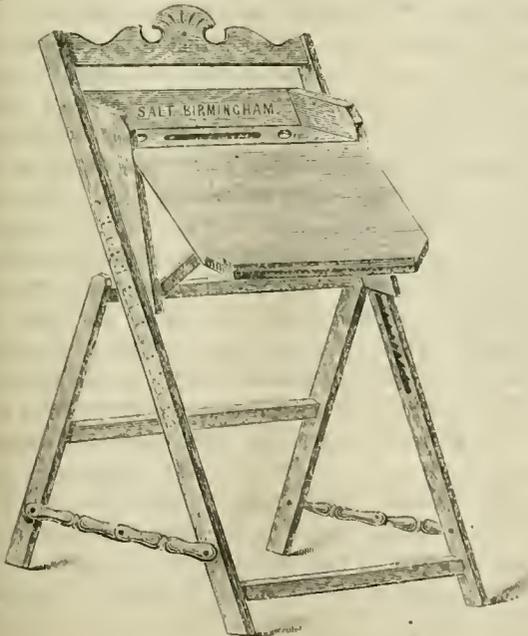


placed *in situ*; and the tap being turned on, the instrument is used. The bag automatically empties itself, and the flow of liquid therefrom is gentle, equable, and easily regulated by the height at which the box is placed, as well as by the degree to which the tap is opened. No effort on the part of the patient is necessary, and the patient may of course be in any convenient position in bedroom, bathroom, or *w.c.* As the liquid in the bag retains its warmth for an hour or two, it may be carried ready for use by doctor or nurse to the patient's house. The "Compendium" may be used as an enema, or as a douche to vagina, ears, nose, or possibly eyes, or for the irrigation of wounds, as bags of any capacity up to two quarts, or even a little more, are made and can be fitted to the instruments. The bags can also be used as hot water bags by screwing in the stopper instead of the efferent tube; and for rectal alimentation the small "Compendiums" appear to be thoroughly adapted.

The apparatus can be purchased (wholesale) of Messrs. A. Hutchinson and Co., 70, Basinghall Street, London, E.C.; of all chemists; and of the inventor and patentee, Miss M. P. Browne, 9, Blandford Square, N.W. The price is one guinea and a half.

SALT'S IMPROVED READING, WRITING, AND DRAWING EASEL.

GREAT and sometimes permanent evils, especially in girls between the ages of 12 and 18, flow from the habit of studying for pro-



longed periods in a cramped and unnatural posture, wherein the head is bent unduly forward, and two or three of the cervical vertebrae

are made to project beyond their proper curve. Much of this evil may be traced to the use of desks whose slope approaches too nearly to the horizontal line, and is incapable of being varied so as to suit the different heights of individual pupils.

Mr. Salt, of Birmingham, has devised a desk or easel (figured below) which appears likely to obviate many of these untoward results; it is eyeable, portable, and inexpensive, and when either folded or expanded for use, forms a pretty and unobtrusive article of furniture.

The flap which is to support the reading, writing, or drawing materials has a bead to prevent them from falling off, and is so arranged that by a pair of quadrant joints, one on either side, it may be raised or lowered from the perpendicular to the horizontal position, or any angle between the two; moreover, by a series of notches, the woodwork carrying the desk can be elevated or depressed, so as to suit the stature of different pupils or the convenience of an individual when sitting or standing. Provision is made for the reception of ink and pens, and the whole apparatus can be folded into a small space so as to be carried.

THE COLLEGE OF STATE MEDICINE.—The following lectures during the summer session will be given in the theatre of the Chemical Society, Burlington House, on Wednesday afternoons, at 1 o'clock:—Introductory lecture, May 2nd, R. Brudenell Carter, F.R.C.S., "The Aims and Objects of State Medicine." May 16th, Professor H. G. Seeley, F.R.S., "Soil in its Influence on Health." May 30th, Inspector-General John M. Macdonald, M.D., F.R.S., "The Organisms occurring in Fresh Water, and the Hygienic Importance of their Presence." June 13th, G. Fleming, Esq., LL.D., C.B., etc., "Some of the more Important Diseases Common to Man and Animals." June 27th, Sir Robert Rawlinson, K.C.B., "The Rise and Progress of Sanitary Engineering within the Present Century." July 11th, Sir J. Crichton Browne, M.D., LL.D., "Responsibility and Disease." All those interested in public health work are invited to be present. Further information appears in our advertising columns, or may be obtained of Surgeon-General Cornish, the Honorary Secretary, 26, King William Street, W.C.

SMALL-POX AMONG THE ARABS.—Some curious details are embodied in a paper by Dr. M. A. Prengueher, of Palestro, on the spread of variola among the Kabyles, a native tribe in Algeria. They practise inoculation by means of an incision between the thumb and the index finger, which not infrequently degenerates into an ulcerated wound, slow to heal, and giving rise to inflammation of the lymphatics and phlegmonous erysipelas. In one instance a native pedlar, on his return from Algiers, developed symptoms of small-pox. Immediately the whole tribe rushed to his tent for the purpose of procuring the material for inoculation, and from this tribe as a starting point the disease rapidly spread among the neighbouring tribes far and wide. Among a population of 13,763, 710 cases of grave and confluent small-pox occurred, with 94 deaths, equivalent to 5.2 per cent. of the inhabitants, and 13.2 per cent. of the cases. Dr. Prengueher recommends compulsory vaccination.

The Medico-Legal Society of New York announce that the time for sending in the competition essays on subjects within the domain of medical jurisprudence or forensic medicine, has been extended to June 1st, 1888.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, 11gh Holborn.

The British Medical Journal.

SATURDAY, APRIL 14th, 1888.

THE HORSE TAX.

THE proposal of the Chancellor of the Exchequer to impose new duties on horses and vehicles naturally provokes opposition. Taxes which increase the expense of locomotion are not only irksome to those who have to pay them, but they increase the cost of articles—especially heavy ones—which have to be moved from one locality to another. The answer to objections to the proposed new taxes is that the maintenance of roads necessarily involves expenses, which have to be defrayed from some source, and that it is fair that those who use and wear out the roads should contribute to some portion of the cost of their repair. Such an answer is weighty, and it seems impossible to deny that in principle the proposed taxes are fair enough, though their incidence, unless modified, seems likely to be unequal. Many different interests have made themselves heard, each with the object of showing that it is entitled to some relief or exemption, and at present the question as to what exemptions, if any, are to be allowed is still undetermined. We notice, however, with satisfaction that Mr. Goschen seems disposed to view favourably the claims of professional men; and that two classes, namely, country clergymen and doctors, on whom the proposed taxes would press heavily, seem to have a chance of obtaining relief.

It has been rightly urged on their behalf that they use horses not for pleasure, but as a part of the outfit necessary for carrying on their profession, and that a tax on such things is unfair. It is admitted on all hands that things necessarily used in a trade or business should, if possible, be exempt from taxation, and, as regards carts and horses, Mr. Goschen has from the first proposed that those used for farm purposes, though usually heavy, and therefore destructive to the roads, should be untaxed. The case for the county doctor seems at least as strong. There his vehicle is used to convey not goods but himself, but he is required to travel for the benefit of other people, and his carriage, being light, does not cause very much wear and tear to the roads. Most practitioners, if they had their choice, would probably prefer to be visited by their patients in a consulting-room rather than to be obliged to drive long distances, often in bad weather, to see them at their own homes.

No one, as far as we are aware, has disputed, or can dispute that carriages so used by professional men are not generally used for pleasure, and few would object to their claim to partial, if not total, exemption from the proposed taxes. We are glad to be able to point to a precedent which shows that such claim are legally recognised as valid. By the Income Tax Act of 1853 in assessing the duty chargeable in respect of any public office or employment, "the expenses of travelling in the performance of the duties thereof, and of keeping and maintaining a horse to enable the person chargeable to perform the same, are to be deducted before the income chargeable is ascertained." It is, therefore, clear that in some cases locomotion is considered by law as a matter of expense, to be deducted before a man's earnings are ascertained. In fact, and in the public estimation a doctor's carriage is generally as much a part of his professional outfit as his instruments or his library. According to modern economical science, taxes should not be imposed on such things and we venture to hope that Mr. Goschen will be able to carry out his half expressed intention, and to give to struggling professional men the exemption which they need, and which, on principle, they ought to have.

THERAPEUTIC STUDIES.

IV.—RECENT GERMAN LITERATURE OF CHRONIC GASTRIC DISEASES.

THE recent literature of this still unsettled department of medicine has been lately ably reviewed by Dr. Boas in the *Berliner Klin. Wochenschrift*, Nos. 6 and 7, and the views of the partisans interested in the question are fairly rendered. It appears that the Congress für innere Medizin afforded opportunity for reopening the much disputed question of the absence of free hydrochloric acid from the stomach when there is cancer of that organ. This absence has been asserted by so many clinical observers for many years now that it has become a point of great importance. Cahn at the above-named congress remarked on the unreliability of our present rough tests for HCl compared with the titration method, which never failed to give indications of the presence of HCl. The failure of colour tests to reveal HCl depends, in his opinion, upon the accumulation of the products of digestion and the loss of "eliminative activity." This failure, however, is not constant, for Cahn himself has reported a case of hyper-secretion of acid in pyloric cancer. Riegel, von Noorden, and Sticker hold out for the value of the determination of the presence or absence of HCl in the diagnosis of cancer. Moreover, von Noorden and Honigsmann (*Zeitschr. f. Klin. Med.*, Bd. xiii, H. 1) find that the HCl residue, always found to be present even in cancer when the titration method is employed, is due not to free HCl, but to combinations of the latter with albumens. They, therefore, uphold the value of the colour tests. But another difficulty arises, inasmuch as many observers have proved that HCl may be constantly absent in chronic gastric catarrh also, as well as in atrophy of the gastric mucous membrane. Jaworski and Gluzinsky have reported such cases, also Boas *Deutsche Med. Wochenschr.*, 1887, Nos. 24-26, and

Grundzuch (*Berliner Klin. Wochenschr.*, 1887, No. 30). The latter observer found that HCl was constantly absent from the stomach in five out of more than a hundred non-cancerous persons. Wolf and Ewald (*Ibid.*, No. 30) strike a still stronger blow against the theory that the absence of HCl from the stomach is pathognomonic of cancer. In eight persons—some quite healthy, others with only slight gastric disturbance—they found that free HCl was constantly absent, and even the administration of this acid made no difference.

Turning now to the colour tests of HCl, of which there are a great many, Congo-red is declared by Riegel to be a perfectly satisfactory preliminary test; Günzburg advocates phloroglucin-vanillin; and Boas prefers tropæolin paper. But here, again, there is a great disagreement, for Günzburg maintains (*Centrall. f. Klin. Med.*, 1887, No. 40) that the usual colour tests, namely, gentian violet, tropæolin, and Congo-red, are affected by the organic acids also in various degrees of concentration, and Boas specifically states that a 0.03 per cent. lactic acid solution will cause a weak but distinct blue in Congo-red paper. Arlt (*Ibid.*, 1888, No. 3) and Kuhn (Inaug. Diss. Marburg, 1887) argue that this is only true for a watery solution, but Boas replies that the objection is superfluous, as he only referred to free lactic acid. Boas has had a tropæolin paper prepared which discriminates between HCl and lactic acid, and is declared to be highly satisfactory as to cheapness, simplicity, and distinctness of result. A percentage of HCl even below 0.05 is easily recognised thus, and the presence of even 5 per cent. of organic acids makes no difference. Moreover, the degree of coloration with HCl affords an indication of the quantity of the latter present. Günzburg's test is also extremely sensitive and reliable, but less simple. Two parts of phloroglucin and one of vanillin added to thirty of absolute alcohol give a yellowish-red solution. One drop of this in contact with a trace of a mineral acid gives a fine red coloration, red crystals being precipitated. Organic acids, even when concentrated, do not affect this test. In using it, a few drops of a filtrate of the gastric contents (usually obtained by a sound) are mixed with as many of the test solutions, and the mixture is carefully evaporated over a small flame, a bright red colour appears at the margin of the liquid. The test indicates up to 1-20 per mille of HCl. Or a drop or two of the test solution may be added to a few drops of the unfiltered stomach-contents on a strip of paper. On well warming over a flame the red spot indicating HCl appears; it is not affected by ether. As before said, the absence of HCl in gastric cancer cases is attested by so many different observers as to make this sign of importance diagnostically, notwithstanding that a few cases to the contrary are cited, besides many negative cases, that is, cases in which HCl was found to be absent but in which no cancer was present.

Next in interest to absence of HCl comes hyper-acidity of the stomach. This condition is associated with hyper-secretion of gastric juice, according to Boas, who argues that (1) chronic hyper-secretion without hyper-acidity has never been observed; (2) the subjective symptoms are not the result of excess of the gastric juice, but of its abnormal acidity; if this is removed they

at once cease; (3) in general the two conditions go together, increasing and diminishing *pari passu*. The amount of acid juice in a fasting stomach must be about 100 cubic centimètres to constitute hyper-acidity, according to this observer, who lays great stress on the quantity. Riegel and his disciples, on the other hand, maintain that the two conditions are to be entirely separated from each other; Honigmann, in particular (*Münch. Med. Wochenschr.*, 1887, No. 48), states that there is no connection between them; but both Riegel and Reichmann (*Berlin. Klin. Wochenschr.*, 1887, Nos. 12-16) allow that there are transitions.

Taking hyper-secretion apart from hyper-acidity, Reichmann, who has carefully studied this subject, distinguishes continuous from periodical hyper-secretion. The latter is a symptom of derangement of either the central nervous system (tabes), or the whole nervous system (neurasthenic dyspepsia, hysteria), or else is due to local disturbance of the secretory nerves of the stomach. The *crises gastriques* of Charcot, the periodical vomiting of Leyden, and the gastroxynsia of Rossbach come under this category. The typical hemicrania and periodicity point to a central cause, and not to mere irritation of the stomach from accumulation of juice in the fasting condition, as Reichmann would have it. In such cases the acidity is lower than the normal. As to continuous hyper-secretion, this is a condition quite unexplained as yet, for it is no explanation to say that there is "increased irritability," and "lessened absorption" is not a constant accompaniment of this state.

We come now to the etiology of hyper-acidity of the gastric juice, a condition occupying the foreground in recent investigations. Riegel has constantly found an excess of acid when chronic ulcer of the stomach is present, and maintains that the latter is due to hyper-acidity *per se*. The frequency of this coincidence, though it is not absolutely constant, is asserted by so many other observers—Ewald, Korczynski and Jaworski, van der Welden, Rothschild, and others—that it may be regarded as established. Again, Decker, working in Leube's clinic, has made experiments on dogs by injecting small quantities of hot fluids into the stomach (*Berlin. Klin. Woch.*, 1887, No. 21); in one case an extravasation was produced between the mucous and muscular coats, the mucosa being intact; in another case two typical round ulcers were caused, close to the pylorus. Decker thinks that the continual ingestion of hot substances (including liquids) is the most frequent cause of ulcer, and cites a case in support of this. Ritter has experimented on animals in another way, namely, by direct injury to the gastric mucous membrane (*Zeitschr. für Klin. Med.*, Bd. xv, H. 5, 6), but lesions so caused heal too rapidly, as Cohnheim has shown, to allow of any inference from them to chronic ulcer in man. Ritter and Hirsch have recently asserted that hyper-acidity is by no means so common in gastric ulcer as has been supposed (*Ibid.* Bd. xiii, H. 5), for they found this condition only twice in five cases of ulcer; and Boas has seen two cases with all the symptoms of ulcer, but with normal acidity; these cases, however, he declares are exceptional. The test meals selected by Ritter and Hirsch, namely, egg and milk, are said to be unsuitable for ascertaining

the acidity of the gastric juice, as being highly albuminous; starch is the proper food for this purpose, as the results of Ewald, Sticker, and Boas prove.

As to the final results of excessive acidity, Jaworski (*Münchener Med. Wochenschr.*, 1887, No. 7) has followed up several cases of round ulcer, and found that after several months the formation of acid ceased altogether. Boas observed the same result in dilatation of the stomach, but observes that such cases are exceptional, and that the aim of treatment must be, not the prevention of the gastric secretion, but its regulation.

As to atrophy of the gastric mucous membrane, Ewald, Lewy, and Boas have published cases. The latter mentions sharp radiating pains in the epigastrium as important in the diagnosis, also absence of coagulating ferment (besides absence of hydrochloric acid and pepsine). See *Berliner Klin. Woch.*, 1887, No. 4; *Münchener Med. Wochenschr.*, Nos. 42, 43.

Ewald and Sievers have used salol in the diagnosis of dilatation, as this substance passes unaltered through the stomach (*Therap. Monatsh.*, 1887, August). The presence of salicylic acid in the urine was ascertained in about twenty or thirty minutes after giving salol, and at the latest after an hour, so that its absence for a longer period than this would indicate dilatation of the stomach (from pyloric stenosis). The appearance of salicylic acid in the urine was hastened by faradisation of the gastric region. But Sahli throws a doubt upon the certainty of the salol test by his assertion that fission-fungi can decompose salol—in other words, that fermentative changes in the stomach may cause the destruction of salol within that organ. But such changes always require a considerable time.

SEWERAGE OF MARGATE.

THE inhabitants of Margate have at last been brought face to face with the sewerage question; and a thorough system of tubular drainage, as some people term pipe or brick sewers, has been fully determined upon.

Few people who visit Margate year after year had realised the fact until the light of public opinion had been brought to bear upon it in the press, that the only system of sewerage was the cesspools of hygone days. Visitors, indeed, would naturally seldom think of the subject at all, and even many of the residents only discuss it when it is brought prominently before them, and quickly dismiss it again as distasteful.

As was recently stated in our columns, "the reason why the evils attending the cesspool system have not been fully recognised and remedies applied, is that cesspools afford a ready means of getting rid of a troublesome matter, and being out of sight are out of mind, requiring a positive outbreak of disease from bottled-up gases, which must sooner or later occur, to bring about a change. It is only the remarkable salubrity of Margate, and the cleanliness which so generally prevails, that have up to the present time served to counteract the evil results of the cesspool system."

We therefore heartily congratulate Margate that proper drainage of the town has been finally determined upon, and that the

demands of the visiting public, upon whom the trade and prosperity of the town depend, have been acknowledged. As Dr. Rowe pointed out the other day, the immediate welfare of Margate depends upon two classes of visitors—those who go there for pleasure, and those who go there in search of health. These searchers after invigorating breezes demand efficient sewerage coupled, as it must be, with the absence of all bad smells in the streets, and the certainty of obtaining good drinking-water and pure sea-bathing. These three desiderata are absolutely essential and each of them is as much a *sine quâ non* of Margate in the future as they have been in the past. It therefore behoves the inhabitants to pay special attention to and carefully examine any sewerage scheme which may be submitted to the Corporation, so that no plan may be adopted for the sake of economy, which may prove a worse remedy than the disease itself. Whatever is to be done must be done once and for all, and that which is most suitable to the place and its permanent residents will prove most economical in the long run.

The disposal of the sewage is by far the most difficult part of the whole question; failure here would prove disastrous to the town, and we certainly sympathise with the large body of burgesses who demand a more thorough investigation of the subject at the hands of the Council than this point has yet received. The Council, it would appear, have already to a certain extent pledged themselves to the plans of an engineer—certainly an eminent one—who is brother to the borough surveyor, and who, unfortunately, has declared himself in favour of turning the raw sewage without any purification into the sea at no great distance from the town. The majority of those who have given their attention to the subject, on the other hand, do not relish a scheme which is distinguished by a feature which may detract from the pre-eminence which their town has gained for itself. These burgesses would "draw the attention of the Town Council to the extreme desirability of inviting plans for the sewerage of the borough from other eminent engineers than the one selected, and wish their plans submitted to an independent umpire of well-known repute." Moreover, they are willing to pay for this advantage, even though it would involve an outlay in fees of four times the amount of one. In the case of Margate, which is exceptionally placed, we must confess that we quite agree with this expression of opinion, particularly as the selected engineer recommends a plan which, as we have just said, is objectionable to a great majority of the inhabitants.

Two broad points are involved, and must be met and settled:

1. The turning of the sewage in its crude state into the sea, and
2. The cleansing of it through land before discharging it into the sea.

We consider that there ought to be no hesitation in bringing under review the whole question by the comparison of several schemes embracing other treatment than mere discharge into the sea; for it ought not to be forgotten that Margate is situated on the chalk, the absorptive and purifying powers of which are well known, whilst with regard to the discharge of the crude sewage

into the ocean, not only must the burgesses be satisfied as to the currents never washing it back again on to their bathing-ground, but they must bear in mind that the Metropolitan Board of Works is threatening to discharge some 3,000 tons of sludge daily into the sea, off the Nore, and that if they themselves cause a nuisance from the discharge of their own sewage, they will necessarily be unable to resist what appears likely to prove a gigantic wrong to the North Kent watering places.

Details as to whether compressed air or steam should be used to lift the sewage are at present quite out of place; the disposal question, for which everything else waits, must first of all be settled, and we trust that the judicious proposal of the rate-payers will be immediately acted upon by the authorities of the borough.

MEDICAL OFFICERS OF HEALTH AND THE NEW COUNTY BOARDS.

In the labours of the State Medicine Committee of the British Medical Association, in which Rumsey, W. H. Michael, William Farr, Acland, and A. P. Stewart did so much to prepare the basis and mould the form of the Public Health Act, great stress was laid upon the creation of an "Intermediate Authority," for sanitary administration, such as the County Boards, which at length Mr. Ritchie's Bill will create. One of the chief functions of such an authority is its sanitary function, and one of its most important officers should be a medical officer of health. Nevertheless, Mr. Ritchie, actuated probably by the fear to disturb to the peril of his great measure) the *status quo*, has left the County Council without a medical officer or staff. It is alike in the interests of the medical officers and of the county that the medical officers of health should in future hold their appointments under the County Councils instead of the District Councils, as arranged in the Local Government Bill. We are glad to see that the Council of the Society of Medical Officers of Health are prepared to adopt that view, which we have for so many years advocated; and we trust that means may be found to bring it prominently under notice in the House of Commons on the discussion of the Bill.

We are informed that the Galen Club, Sackville Street, will be opened to members after the first general committee meeting, which is convened for Wednesday next, April 18th. The opening dinner is fixed for Thursday, April 26th, and it is desired that early application be made for tickets.

THE hospital which was founded some time since at Bahia (Brazil) for the treatment of beri-beri has recently been closed, in spite of the protest of the local medical men, who urge that, in view of the rapidly fatal effects of this disease, it is unwise to deprive them of the opportunity of studying its etiology, course, and treatment, all of which are at present enveloped in obscurity.

A NURSING SCHOOL IN CAIRO.

A PROPOSAL to establish a Nurses' Home in Cairo attached to the Kasr-el-Ain Egyptian Hospital, and the introduction of a few trained English nurses to control and educate female native

nurses in the performance of their duties, was submitted to the Khedive by Sir Sydney H. Waterlow during his recent travels in Egypt, and met with ready acceptance by His Highness. The necessary money for this year has been promised by the Minister of the department controlling the hospital, and is to be taken from the Reserve Fund. The scheme is to come into operation at once, and the nurses are to be sent out by Sir Sydney immediately he returns to London, early this month, and they are expected to be on duty by May 1st.

MEDICAL WOMEN IN THE METROPOLIS.

We understand that Miss Macdonald, having passed through the recognised course of a medical school, has been admitted by the Society of Apothecaries to examination for its diploma in medicine, surgery, and midwifery. Subject to the same condition being fulfilled, the Society will henceforth admit any lady to its examination.

EPSOM COLLEGE.

THE Duke of Cambridge will be present at the twenty-fourth festival of the Royal Medical Benevolent College, Epsom, which takes place on Tuesday next at the Hôtel Métropole. Of the success of the festival itself as a social event there has for some time been no doubt, but it may be said that those who are prevented from being present can yet contribute to its success from a financial point of view; and we may remind our readers that Dr. Holman, of Reigate, the Treasurer of the British Medical Association, fills the same responsible office in the Royal Medical Benevolent College also.

PHOTOGRAMS OF THE EYE.

IN the recent (sixtieth) Naturforscherversammlung in Wiesbaden both Dr. Claude du Bois-Reymond and Professor Cohn exhibited photographs of the eye obtained by means of the "lightning" illumination (discovered by Herren J. Goedicke and A. Mieth, Berlin, S.W., Ritterstrasse 74). The illumination is so sudden and fleeting that when it occurs in a chamber in previous absolute darkness, the pupil has not time to contract, and thus the maximal dilatation can be represented on photographs. It is hoped that by appropriate arrangements the retina can be thus photographed during life.

THE HORSE TAX.

PETITIONS against the horse tax and increased carriage tax, have been presented during the week by Mr. H. S. Cross, from Dr. John Johnston; by Mr. R. Donkin, from the practitioners of Tynemouth; by Mr. F. B. Mildmay, from the practitioners of Plympton; by Sir E. Reed, from medical men of Cowbridge; by Viscount Curzon, from Burnham and High Wycombe; by Mr. F. S. Powell, from the Wigan medical profession; by Sir R. Temple, from the medical profession of Evesham; by Mr. T. Milvain, from the medical profession of Durham; and by Mr. Round, from Dr. Nicholls, Clacton-on-Sea.

DEFORMITY OF THE HANDS IN GLASSBLOWERS.

At a meeting of the Académie des Sciences, on March 26th, M. Poncet, of Lyons, drew attention to a peculiar deformity of the hand in glassblowers which, according to him, had never before been noticed. It consists in permanent flexion of the fingers on the hand; the little finger and the ring finger are more bent than the middle one or the index; the thumb is not affected. The flexion is most marked in the second phalanx, which is bent almost at a right angle to the first. The deformity is not, according to M. Poncet, due to fibrous bands, but to retraction of the flexor tendons. The phalangeal joints are more or less deformed, and show a tendency to subluxation. Most glassblowers suffer from this deformity, which as a rule gets steadily worse as long

as they continue working at their trade. The deformity is caused by their having to hold a metal tube, over three feet long and weighing about four pounds, which they have to keep constantly turning with their closed hands. They do this on an average eight hours a day, so that it is not surprising that even after a month or two complete extension of the fingers becomes difficult, and in a short time impossible. The deformity when fully established is permanent. It is known among the workmen themselves by the name of *mains en crochets* (hooked hands).

THE LONDON HOSPITAL.

The Lord Mayor, who was supported by the Duke of Cambridge, presided over a meeting, held on Wednesday last at the Mansion House, in aid of the third quinquennial maintenance appeal for the London Hospital. The Lord Mayor, in the course of his speech, observed that while the hospital was spending £50,000 a year, it had a reliable income of only £16,000. At the close of the meeting the Secretary read a list of subscriptions and donations which had been received or promised amounting to £6,500.

HEREDITARY POLYDACTYLY AND ANOMALY OF DENTITION.

In the Naturforscherversammlung recently held in Wiesbaden, Herr Thomas, of Freiburg, brought forward a case of the above-named anomaly, which derived especial interest from the fact that there was also hereditary malformation of the teeth. Polydactyly had existed for several generations in the father's family, and similarly dentitional anomalies affected the mother's side. Some of the teeth were always wanting, and the primary dentition in many cases persisted for a long time. The offspring combined both kinds of irregularity, for one child, aged 11 years, exhibited, besides polydactyly, only two upper and no lower incisors. Milk teeth were present, and there was a corresponding defective development of the jaw. A brother had six fingers on one hand and seven on the other, also six toes on each foot; one pair of fingers had grown together; all the rest, together with the toes, were separate and well formed; the condition of the teeth in this case is not stated.

GERMAN CONGRESSES.

At the seventh German Medical Congress just held in Wiesbaden, the following papers, amongst others, were read: On Wandering Heart, by Herr Rumpf (Bonn); Experimental Investigations of the Mechanism of Respiration, by Herr Verrieh (Jena); an Address, by Herr Liebreich (Berlin); on Combined Degeneration of the Spinal Cord, by Herr Adamkiewicz (Cracow); Experiments relating to the Dietetics of Digestive Derangements, by Herr Jaworski (Cracow); an Address, by the same; the Treatment of Basedow's Disease, by Herr Stiller (Buda-Pesth); the Diagnosis of Renal Tumours, by the same; the Excretion and Solution of Uric Acid, by Herr Emil Pfeiffer (Wiesbaden); the Pathogenesis of the Epileptic Attack, by Herr Binswanger (Jena); on Cryptogenetic Septic Pyæmia, by Herr Jürgensen (Tübingen).—The seventeenth Congress of the German Surgical Society was opened on April 4th, by Professor von Bergmann, in the Aula of the University of Berlin. Geh.-Rath Professor König was chosen Vice-President of the Congress, and he initiated the scientific proceedings by an Address on the Prognosis of Cancer. Professor Gluck will edit von Langenbeck's Lectures.

THE SPREAD OF INFECTIOUS DISEASES.

At a recent meeting of the Clinical Branch of the Preston Medico-Ethical Society, Dr. J. A. Rigby read a paper on this subject, which contained numerous illustrations derived from his own experience of some of the methods by which infectious diseases are propagated in Preston and its neighbourhood. The Preston Fever

Hospital is only open to those able to pay 10s. 6d. per week for their maintenance; consequently the only means of isolation available for the poorer classes of fever patients is that which can be practised in their own overcrowded houses, with the alternative of their removal to the fever ward of the workhouse, should the guardians be willing to admit them. Naturally the hard-working and deserving poor refuse to be pauperised for what is no fault of their own; and the result is the uncontrolled spread of infectious diseases, which is sufficiently evidenced by the high zymotic death-rate which has been characteristic of Preston for many years. It seems almost incredible that the authorities of a town like Preston, which is notorious for its high general death-rate and the excessive mortality which prevails amongst children under five years of age, should have so long disregarded so ready a means of controlling by isolation the spread of infectious diseases. As Dr. Rigby has pointed out in his paper, "in the case of all dangerous infectious diseases, the State or the municipal authorities ought to be prepared to bear the burden of the expense of protecting the remainder of the people, and not expect the infected people themselves to bear it."

LOOSE BODY IN THE ELBOW-JOINT.

In the *Gazette Médicale de Strasbourg* of April 1st, Dr. G. Bœckel relates a case which is of some interest in connection with views which have recently been expressed as to the nature and mode of origin of loose bodies in joints. The patient, a strong healthy man, aged 45, fell from a ladder on his left elbow. Immediately after the accident he lost all power of movement in the forearm. When he came under Dr. Bœckel's care some two months later, movement was found to be very limited and painful, both pronation and supination being accompanied by grating in the joint. Between the olecranon and the external condyle of the humerus a hard body was felt projecting slightly, which could be moved laterally to the extent of some millimètres. Dr. Bœckel was under the impression that he had to do with a case of old arthritis deformans, which the injury had started into renewed activity by displacing an osteophyte. He cut down on the loose body, and with considerable difficulty removed it, when he was surprised to find that it consisted of half the head, with a small piece of the neck, of the radius. The patient made an excellent recovery, and in three weeks from the date of the operation had so far regained the use of his limb that he was able to do light work with it. Dr. Bœckel said that this was the first case he had met with in which the loose body was a fragment of articular surface broken off by violence, and he took the opportunity of formally recanting a different opinion to which he had recently committed himself on the subject. In fact, less than a year ago (*Gaz. Méd. de Strasbourg*, 1887, No. 11, p. 121) he had maintained that such a mode of origin was inadmissible, the loose body being in all cases formed by vegetations springing from the synovial membrane or the articular cartilage.

THE PHENOMENA OF DEATH BY DROWNING.

At the recent Congress for the Advancement of Science at Oran (Algeria), Dr. Paul Loye brought forward some observations made by him, bearing on the phenomena which precede death by sudden immersion. The first stage of deep inspirations lasts about ten seconds, followed by a reaction caused by the resistance to the entrance of water into the bronchioles. This lasts for a minute and is succeeded by arrest of respiration and loss of consciousness. Finally, the scene closes with four or five respiratory effort—the last. Immersion causes an immediate rise in the blood-pressure, with slowing of the heart-beats. The action of the heart remains slow but strong till death ensues. The pressure gradually lessens, but rises just before death, to fall to zero immediately afterwards. The heart sometimes continues to beat feebly for

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about twenty minutes. The result is the same in animals which have been tracheotomised; the period of respiratory resistance is, therefore, due to the respiratory muscles, and not to spasm of the glottis.

NATIONAL PENSION FUND FOR NURSES.

A FEW words will sum up the finance of this fund. Some people seem to think the annual payments needed to secure pensions and provide against sickness rather heavy. We give at p. 815 the analysis of the figures in some details. Briefly, a pension may be secured on this fund at rates 7 per cent. lower than in the Post Office (Government) annuities. Further, the Government payment is a maximum and devoid of bonuses; the Nurses' Pension Fund gives him as a minimum and will provide bonuses. Further, the Nurses' Pension Fund is wholly "mutual," so that if there should be a surplus the insurers receive the whole benefit. It may be added that the generous donors who have provided the deposit of £20,000 also provide that the dividends thereon shall be devoted to the payment of working expenses; and the Council of managers are unpaid; they comprise the names of leading city authorities as well as eminent medical men. So such opportunity can be again anticipated for women of the nursing profession to provide for themselves by reasonable and moderate payments. The medical profession will, we are convinced, not fail to impress upon those nurses with whom they come in contact the duty of self-help, and the importance of availing themselves of the thoughtful munificence and well-devised administration which is now provided on their behalf. Many medical men, we are glad to see, are taking opportunities of bringing the matter under the notice of the nursing staffs of the hospitals to which they are attached. They could render them to greater service. Hospital committees, it may be pointed out, might provide for their nurses the whole annual sum necessary by instituting a just and useful reform in the external economy of their institutions by providing the nurses with washing free, which would set free for the purpose of providence at least £4 a year for each nurse. Some of the best managed hospitals do this already. Documents may be obtained from the offices of the fund, 18, Old Jewry, E.C.

ANOTHER SPECIAL HOSPITAL SCANDAL.

IT is one of the many lamentable features connected with the multiplication of special hospitals that many of them are the seats of continually recurring dissensions and scandals. Comparatively recently we have had the resignation almost *en masse* of the staff of the Throat Hospital, and the creation of a new special hospital by the dissenters. Then came the Jubilee Hospital suit, and the charges brought against the administration of the St. John's Hospital, following upon various secessions in that staff. We hear now of a fresh incident of a similar kind in connection with the Cancer Hospital. The alleged cause of the trouble is a difference of opinion among the staff as to the performance of a particular operation; but that such differences of opinion should lead to suspensions or dismissals, resignations and legal proceedings are among the peculiarities of the atmosphere which seems to pervade special hospitals, and which tend so often to render them sources of professional discredit. The multiplication of special hospitals has always been regarded in the profession as a source of mischief and danger, and has been more than once the subject of grave protest by leading medical authorities. The frequency with which these disagreeable incidents of administration have attracted public attention will have a good effect if it does something to lessen in the future the multiplication of useless establishments of the kind, and to impress upon the charitable public the necessity for a more stable, sound administration of the minor medical charities, which are so often multiplied without due thought or any real public reason for

existence, but rather in obedience to selfish impulses and to further personal objects. So many of the little hospitals nowadays are created rather for the purpose of the staff than to meet a public necessity or to fill any felt want, that it can hardly be surprising that institutions commenced with egotism should end in disrepute.

THE WOKING CREMATORIUM.

THE Duke of Bedford, the Duke of Westminster, Mr. Arkwright, Mr. Budget, and Mrs. Crawshay have each forwarded a cheque for £100 in furtherance of the erection of a chapel, waiting-rooms, and lodge at the crematorium of the Cremation Society of Great Britain. The proposals and plans for the erection of these desirable buildings at the crematorium were put before the Council of the Society by the President, Sir Henry Thompson, at the meeting of the Society held on Tuesday, at which Sir Spencer Wells, Bart., Dr. Cameron, M.P., Dr. Farquharson, M.P., Sir Douglas Galton, C.B., the Rev. Mr. Haweis, and others were present. It was announced at the same time that, whereas the number of cremations that had taken place at this crematorium up to December was only twenty-five, during the last three months there have been no fewer than eleven cremations. A sum of £5,000 will be required to erect the proposed chapel and waiting-rooms. It is highly satisfactory to note, in the interests of public health, that cremation has made so rapid progress in public favour since the publication of Sir Henry Thompson's last paper on the subject answering the objections urged, and reiterating the many arguments in favour of urn burial. The example of persons of so much social influence and sober judgment will, no doubt, go far to accentuate the rate of progress, and it is much to be hoped that the proposed chapel may be provided by public liberality with as little delay as possible.

"A SEA VOYAGE."

THE prescription "a voyage in a sailing ship" is sometimes too lightly given to patients suffering from pulmonary disorder. Some of the discomforts as well as the actual dangers to such patients, which must be run, are well described in a letter recently addressed to his physician by a medical man in delicate health who sailed for New Zealand last autumn; he says:—

"I think it would be a matter of much importance to point out to medical men how much depends on the ship in sending patients for a long sea voyage. Many of them—London medical men—are quite unaware of the risk and actual hardships that have to be undergone on board sailing ships not purposely fitted up for the comfort of passengers. Most people now travel by steamer, and so but little care is taken regarding the victualling and furnishing of the sailing ships. The hospital ships as they are called—the *Sobraon*, for instance, of the Devitt and Moore line—are, of course, exceptions, and by them invalids should go, or perhaps by the other ships specially fitted for the passenger trade. Besides not carrying food of quality and variety suited to invalids, ordinary ships go much too far south for chest cases. We were for about five weeks between latitude 45° and 47° S., and though it was midsummer the cold was intense, and the heavy sea and wet decks obliged us to keep below for a great part of this time. On one occasion a heavy sea broke over the ship and flooded the saloon and cabin, everything was wet, and for a week or more the place was very damp, and the stove-heat caused constant steam. You may imagine how the invalids suffered. I mention these particulars to enable you to form a judgment of what happens in the usual southern course of the sailing ships. The ships I mentioned above, *Sobraon*, etc., do not go south beyond the Cape, after passing which they at once steer north again, and go to the east in latitude 30° to 40°, so that they never have cold, bleak weather the whole way to Australia. In fact, my experience amounts to this; that invalids lose as much during the latter part of the voyage to New Zealand as they gain by the early part (in the ordinary ships). I am sure you will believe me when I say this is a strictly accurate account. I am not actuated by any feeling of disappointment in my own case, but merely by a desire to warn other invalids of the risks so little known."

A NEW METHOD OF OBTAINING VACCINE LYMPH.

In puncturing vesicles for the purpose of obtaining a supply of lymph for vaccination, there is always some risk of causing an admixture of blood, which is undesirable and even dangerous under certain circumstances. A plan is suggested by Dr. Grigg which obviates this risk, and at the same time practically increases the supply of vaccine material. He drops a little glycerine over the ripe vesicle, and this, by a process of osmosis, withdraws the lymph from its interior without any solution of continuity in the delicate membrane which contains it. The lymph thus obtained appears to be fully as active as ordinary lymph, and failures in primary vaccinations were of extremely rare occurrence. It would seem from Dr. Grigg's observations, which we publish elsewhere, that lymph obtained from very young infants, under a fortnight old, for example, is not only very scanty in amount, but is deficient in power, unsuccessful punctures not infrequently following vaccination with lymph derived from this source. Another point of interest, although it is one which has already been observed by others, is that in cases where only one or two punctures out of several prove successful, it is generally possible to secure a more satisfactory result by reinoculation from those vesicles which remain stationary until the maturation of the second crop, when they all fade away together.

THE EMPEROR OF GERMANY.

WE are informed by special telegram from Charlottenburg that there is no change in the condition of the Emperor's throat. His Majesty's general health, however, has, we regret to learn, suffered to some extent during the past week, owing to his enforced confinement within doors and want of exercise. It is probable also that the cares of State and worries of a more personal kind have somewhat overtaxed the strength of the illustrious sufferer. We are requested to contradict the statement that Dr. Norris Wolfenden visited Berlin professionally; we are informed that he went there on business of a purely private nature. On Monday, April 9th, the Emperor conferred on Sir Morell Mackenzie the Hohenzollern Order of the Second Class and Star, in recognition of his great and distinguished services to His Majesty; Mr. Mark Hovell received the Crown Order, Second Class, at the same time. In handing the insignia of the Order to Sir Morell Mackenzie, the Emperor addressed him in the following significant terms: "When you first came to Berlin I had confidence in you, because you were recommended to me by my German doctors; but I have since learned to appreciate your skill myself. I have much pleasure in giving you this Order, in recognition of your valuable services, and in remembrance of my accession to the throne."

TEA-DRINKING.

THE habit of tea-drinking is becoming more and more thoroughly national in the British islands as the century draws to a close. Eighty years ago, the practice was looked upon as a sign of effeminacy, a well-known patriotic ballad in praise of roast beef lauding the good old days, "ere coffee and tea, and such slip-slops were known." Cobbett, in his *Advice to Young Men*, said, "let me beseech you to resolve to free yourselves from the slavery of the tea-and-coffee and other slop-kettle." He thinks that his model young man should devote to the study of arithmetic one-half of the time "usually wasted over the tea-slops." In 1888 tea-drinking is universal. The poor and the rich have long been tea-drinkers; it is amongst the lower middle classes that the habit has recently spread to so marked a degree. Young men beginning life and the great army of elder men, so well known in great cities, whose duties involve much going about from one quarter of the town to another, are steadily recognising the fact that tea is better than alcohol at lunch. In real society and sham society the "afternoon tea" affords to that beverage the powerful sanc-

tion of fashion. The chief evil of tea-drinking amongst the poor is the practice of taking tea whilst it is very hot, so that it act both directly and indirectly as a cardiac stimulant, causing pleasurable feelings to the drinker, but at the same time irritating the gastric mucous membrane. At the "afternoon tea" of polite society, too much is often consumed by the same person who may pay half a dozen visits before the dinner-hour. Well bred people hate excess, and dislike to be seen eating and drinking, nevertheless they are often automatic in their doings, so that the fact that somebody is sipping tea often causes everybody else in the same room to accept the offer of a cup, which is the simplest, tidiest, and least demonstrative way of refreshing the inner man or woman. The evils of tea-drinking have long been recognised, or, at least, we know certain bad results, though it does not follow that others have not been as yet overlooked. The acute objective symptoms of an overdose of tea are relatively trifling compared with opium-poisoning or alcoholic intoxication yet amongst them is vomiting, and violent sickness under most unfortunate circumstances may be the result of dining or smoking too soon after taking tea. This accident may happen even to a strong-stomached person, at a "high tea," "severe tea," or "tea-dinner," for, as Dr. Lauder Brunton has shown, the tannin of the tea interferes with the digestion of fresh meat, whilst Dr. J. W. Fraser has observed that it does not interfere with the digestion of ham, tongue, and other cured and dried flesh. Hence a slice of tongue is better than a cut off the best joint at a "high tea," as at breakfast. Again, severe and intractable dyspepsia may follow tea-drinking, especially between lunch and dinner. Under these circumstances the tannin and the special alkaloid of tea mix with the half-digested food and gastric juice, the products of this abnormal mixture remaining till food is swallowed at dinner, or at least irritating the stomach so as to render it unprepared for the digestion of a good dinner. Several living physicians have shown, on the evidence of experience and of chemistry, that tea cannot be served up free from tannin, even if it be filtered during the process of infusion, like coffee, and poured into a teapot free from leaves. What distant evil effects may be caused by tea-drinking, physicians have not yet determined. Yet we know that it often sets up dyspepsia, which may cause several deadly visceral disorders; it also impedes assimilation, and the resistance to cold. More interesting is the question as to whether it may not induce disease of the circulatory organs by affecting the blood-pressure. On the nervous system, both as understood by physiologists and by hypochondriacs, the habit may exercise a very bad influence. A true tea-vice is not unknown; even certain business men feel, at five o'clock, an irresistible desire to break off important duties in favour of the tea-cup. In hysterical subjects this vice is often a most serious symptom. Though tea too soon before dinner causes dyspepsia, dinner [unexpectedly delayed for many hours after a heavy draught of tea, sets up in some persons very severe nervous symptoms, especially marked by tremulousness and an inability to keep the attention fixed on any subject of duty, pleasure, or conversation. In short, the rules of all things in due season, and not too much of anything, apply to tea quite as much as to flesh diet and to alcohol.

POSITION OF SANITARY INSPECTORS.

WE are glad to see sanitary inspectors recognising the importance of their duties, but there are occasions when they appear to claim a position which is not accorded them by law, and which their previous training does not fit them to occupy. Thus, Mr. C. Eason, of Tottenham, recently read a paper before the Association of Sanitary Inspectors, in which he is reported to have said that the inspector "must be a clerk; must know something of trades, manufactures, and furnaces; must have practical knowledge and be a judge of the quality of articles of food sold by butchers,

culterers, fishmongers, fruiterers, greengrocers, millers, bakers, and dairymen; must have a fair knowledge of plumbing and of building construction, and should, withal, know something of chemistry, and of the diagnosis of zymotic diseases." Perhaps Mr. Eason could not have adopted a better course if he had desired to make his claim ridiculous. The diagnosis of zymotic diseases is often one of the most difficult duties that has to be undertaken by medical men, and an error may easily lead to loss of valuable life. To trust this duty to an officer who has had no medical training is, on the face of it, absurd. While Mr. Eason exalts his own functions, he has no high opinion of those of the medical officer of health, for he argued that this officer should be paid by fee, and only called in for expert opinion in special cases where the ordinary sanitary inspector's knowledge fell short. We should not have thought that Mr. Eason would have admitted that the ordinary sanitary inspector's knowledge ever could fall short. Indeed, endowed with such general information, he could surely place not only the medical officer, but the authority beside. It would, indeed, much simplify proceedings if the law were re-arranged to permit Mr. Eason and those who think with him to diminish the authority at such times as they might think necessary. There would be a vast saving of labour if all sanitary administration were entirely in the hands of such competent persons.

SCOTLAND.

THE GLASGOW MEETING OF THE BRITISH MEDICAL ASSOCIATION.

THE magistrates of Glasgow have intimated their readiness to entertain the members of the Association present at the approaching meeting in Glasgow, at a *conversazione* in the Corporation Galleries, and also to grant every facility for the visitation of any of the works or buildings connected with the municipality, or which they have an interest.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

At the meeting of the Edinburgh Medico-Chirurgical Society on April 4th, 1888, Professor T. R. Fraser showed a female patient presenting the interesting condition of inversion of the abdominal and visceral organs. Papers were read by Dr. W. W. Ireland, on a case of Cerebral Injury from a Fall, and by Dr. G. Dods, on Tropical Malaria and its Sequelæ.

PROFESSOR RUTHERFORD.

PROFESSOR RUTHERFORD, of Edinburgh University, whose return was anticipated for the conduct of the Second Professional Examination, still remains absent. Dr. Caton of Liverpool, formerly lecturer in physiology at Edinburgh University, has conducted the examination, in conjunction with Dr. Noël Paton, the present professor.

ROYAL SOCIETY OF EDINBURGH.

At the last meeting of the Royal Society of Edinburgh, a paper by Professor His, of Leipzig, was communicated by Sir William Turner. The paper consisted mainly of a discussion of the principles of animal morphology. The importance of observation was emphasised, as opposed to logical theories and the scholastic methods. Attention was also drawn to the great importance of elementary mechanical considerations in accounting for morphological connections.

NATIONAL REGISTRATION OF PLUMBERS: EDINBURGH BRANCH.

THE movement in furtherance of the National Registration of Plumbers continues to make progress in Edinburgh. Periodical

meetings of the Registration Committee have been held, when applications in considerable numbers have been received and discussed.

DR. THOMAS KEITH AND THE EDINBURGH ROYAL INFIRMARY.

THE managers of the Royal Infirmary of Edinburgh have adopted the following minute regarding Dr. Thomas Keith's retirement from the surgical staff:—"The managers, in accepting with regret the resignation of Dr. Thomas Keith, desire to record their sense of the importance and value of the work which, in conjunction with Mr. Skene Keith, he has done in the wards under his charge. They beg to convey to him their thanks for the skill and success with which he has performed his duties as extra surgeon for the treatment of ovarian diseases, the result of which has been much relief to suffering females, increase of credit to the Royal Infirmary, and enhancement of the reputation of the Edinburgh Surgical School."

ST. MUNGO'S COLLEGE BILL.

A DEPUTATION attended the last meeting of the Town Council, from the managers of the Royal Infirmary, to ask the support of the Council for this Bill now before Parliament. The spokesmen of the deputation, Mr. Hugh Brown, Dr. McVail, and Dr. W. G. Blackie, stated that they did not appear in any antagonistic spirit to the University; they merely desired that a new college should be erected in the east end of the city, to utilise the great amount of material for clinical teaching at present lost, and relieve the enormous classes at the University. Lord Provost King assured the deputation that the arguments would receive the careful attention of the Council. The Trades House, at a special meeting, unanimously agreed to petition Parliament in favour of the Bill.

CITY MANURE AND INFECTION.

DR. PRIDE, of Neilston, read a paper at the Glasgow Philosophical Society on the Spread of Enteric Fever, and possibly Diphtheria, in Rural Districts by the Use of City Manure for Agricultural Purposes. He related a number of cases of enteric fever that had occurred in his neighbourhood, a hilly and healthy district, and attributed them to enteric germs conveyed from the city in manure spread on the hill slopes from which the water used by the patients was collected. He argued also that there was a strong probability of diphtheritic germs being carried by the same means, and suggested the destruction of the city manure in charring furnaces as a remedy.

MEDICO-CHIRURGICAL SOCIETY, GLASGOW.

PROFESSOR GAIRDNER and Dr. Joseph Coats showed three specimens of perforating ulcer of the duodenum near the pylorus, in which an artery was laid open. In one of them stricture of the pylorus was present, and the case resembled cancer of the pylorus. Dr. Coats showed a liver with four hydatid cysts, in one of which true ossification of the cyst wall had occurred. Professor Gairdner showed a man suffering from choreiform spasms of certain facial, cervical, and abdominal muscles. Mr. Clark showed an epithelioma of the penis from a patient aged 25, and reported a case of successful trephining of the skull for abscess of the brain. Dr. Middleton showed sections of the muscles from a case of pseudo-hypertrophic paralysis, and Dr. Pollock showed sections of sebaceous cysts of the eyelids, and of dermoid cysts of the orbit.

THE UNIVERSITIES (SCOTLAND) BILL.

GREAT activity has been aroused by the appearance of the Universities Bill. All the interested parties are indulging in free criticism of the measure. The general result shows an unexpected unanimity of feeling in its favour, which cannot fail to afford

grateful encouragement to its authors. Both the Court and Senatus of Aberdeen University have expressed approval of the Bill, subject to slight modifications in detail. St. Andrews University expresses its satisfaction with the Bill in general. In particular it approves cordially (1) of the enlarged constitution of the University Court, and of the transference to that body of the management of the finance of the universities; (2) of the power given to the Commissioners to incorporate the University and Colleges of St. Andrews into one body, while retaining their position as Colleges within the University; (3) of the proposal to admit women to the teaching and graduation of the universities; and (4) of the affiliation or incorporation of University College, Dundee, with the University of St. Andrews. Opinion in Edinburgh and Glasgow appears to be rather more divided, and a fear has been expressed lest the prestige of the universities may suffer through the proposed affiliation of colleges. Probably Edinburgh and Glasgow Universities will finally adopt some conjoint line of procedure. With a view to further combined action, deputations from the other three universities met representatives of Edinburgh University on Saturday last, under the presidency of Principal Caird, Glasgow. The proceedings were private, but it is understood that a committee, including the Principals of the four Scottish Universities, was nominated, for the purpose of expressing the views of the conference to the Secretary for Scotland, and generally to watch over the interests of the universities. The only expression of determined opposition comes from the Town Council of Edinburgh, who have resolved to petition against the Bill. The chief ground of their objection lies in the re-constitution of the University Court, whereby the influence of the town authorities in university matters is curtailed.

THE GLASGOW UNIVERSITY CLUB.

THIS club has been formed with the design of promoting the reform of the University from within, in order to save her from the less friendly offices of outsiders. The principle of reform laid down in the constitution is expansion within the organisation of the University, and under the control of the University Court; and the constitution goes on to specify the direction which such reform should take, namely, towards enlargement of the University Court, increase of the teaching staff, a wider range of the subjects of study, and closer contact with secondary education in schools, and with the general intellectual life of the country. Other objects of the Club are to aid in securing endowments for new chairs, to promote social union among members of the University, and to hold periodical meetings for the discussion of University subjects. The adoption of a general fee fund, the appointment of junior professors and lecturers, vesting of financial administration in the Court instead of the Senate, and larger representation to the University Council and to public bodies in the Court are suggested as means to the attainment of the objects of the club. The mere mention of these various parts of the constitution of the new Club and of the ideas of its promoters suggests that the indoor reformers are rather late in the day, and that it is not likely, now that the whole machinery of State legislation has been set in motion to accomplish the chief of these purposes by parliamentary enactment, that the movement will be arrested at the call of a few who think reform will be more mildly effected from within. The Club may be useful for promotion of social union among members of the University, supposing such social union to be possible, and useful for the discussion of University topics. The social side of the Club was the one exhibited on April 6th, when the inaugural dinner was held in the Grand Hotel, Glasgow, under the chairmanship of Mr. Jas. A. Campbell, M.P., the Honorary President. In proposing the health of the University, Dr. A. B. McGrigor trusted that they would not seek on the one hand to sink their University into an academy,

nor, on the other hand, turn it into a simple board for conferring degrees. The Club has already a membership of 100.

IRELAND.

Dr. C. H. ROBINSON has been appointed Lecturer on Medical Jurisprudence in the Ledwich School of Medicine.

THE LECTURESHIP ON MEDICAL JURISPRUDENCE, TRINITY COLLEGE.

At a meeting of the Provost and senior Fellows of Trinity College on Saturday, April 7th, Dr. A. Bewley was elected Lecturer on Medical Jurisprudence for the present session. Dr. Bewley was formerly assistant to the Professor of Institutes of Medicine, Dr. Purser, and is Assistant Physician to the Adelaide Hospital. It is stated that the only remuneration will be the class fees.

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS. THE legal proceedings between the College of Physicians and the Apothecaries' Hall have terminated. The plaintiffs having failed to obtain an injunction to restrain the defendants from carrying out an examination conjointly with the College of Surgeons, they have now resolved not to proceed with an appeal to the higher Court. The Apothecaries are thus admitted to be within their rights in the arrangement which they have entered into. It is not impossible that hereafter the Physicians may join in an examination held by the three bodies, but, judging from their present temper, even that is remote. The victory of the Apothecaries is complete, but it is only truth to say that it does not cause general satisfaction, even to those with whom they are now associated. But the error of recognising them, if error it were, was committed too long ago to hope for its correction now.

THE COST OF PAUPER LUNATICS.

A DISPUTE exists at present between the Cork guardians and the governors for the Cork District Lunatic Asylum in reference to the payment for pauper lunatics sent to the asylum by the guardians. The latter have refused to pay for them, but it should be borne in mind that district asylums, though intended for the insane poor, are not necessarily open to every poor lunatic. The Privy Council rules have, as pointed out by Dr. Nugent, all the power of the original Lunacy statute, and give to the governors of the asylum the selection of applicants for admission. Subsequent Acts authorise the direct admission, or by the Lord Lieutenant, the inspectors, and by magistrates, when parties are duly certified to be of unsound mind and dangerous. So far back as 1831, the Cork guardians sought the admission of twenty-five lunatics from the workhouse into the asylum on an engagement to pay £8 per head per annum for each, which sum was less than the cost of their maintenance in the union. This contract was carried out, and also a similar proposal in May, 1835; but, singular to state, the guardians appear disinclined to pay for the last batch of lunatics sent to the asylum from the workhouse.

At a special meeting of the Abbey Parochial Board, Paisley, it was agreed to erect a hospital for the sick poor, capable of receiving one hundred patients.

WITHIN the last few days there has been a serious outbreak of small-pox in Oldham, beginning on Friday morning last with some nine or ten cases sent into the infectious diseases hospital. The number had increased to forty up to Wednesday night.

THE trial of Dr. Middleton for the murder of the gipsy guide who attempted his life at Cordova has resulted in a verdict of acquittal.

DR. MIDWINTER, on the occasion of his leaving Fleet to reside at Penge, was presented with an illuminated address and a handsome silver inkstand, together with a silver-mounted blotting book, as a mark of esteem.

THE REPORT OF THE BROWN INSTITUTION FOR 1887.

Rabies.—The report of Mr. Victor Horsley, the Professor Superintendent to the Committee of the Brown Institution, contains his year the usual interesting details as to the work carried on in the hospital and in the laboratory. The remarkably beneficial effect of the muzzling order and the destruction of stray dogs is again pointed out, only one case having been noted during the year among all the dogs, over one thousand in number, treated at the hospital, and none in the other animals. Distemper, which is generally communicated by the secretions of the air-passages, also very much diminished after the muzzling order was put in force; but the Professor Superintendent anticipates that both will again increase now that the authorities have been compelled to relax their vigilance. The statistics furnished by Lieutenant-Colonel Moorson as to rabies in Lancashire are very striking. In the nine months from January 1st to November 6th, 1887, seventy-five cases of rabies in dogs were reported, thirty-seven persons had been bitten, and nine had died of hydrophobia. On November 6th, 1887, the muzzling order was issued, and in the following three months nine dogs only were reported as having rabies, and no person had been bitten by a rabid dog. Mr. Horsley states that rabies, which is always prevalent in Surrey, is now beginning to work its way into the metropolis, and we can endorse his opinion that it is very greatly to be regretted that a most ignorant sentimentalism has been allowed to throw obstacles in the way of the adoption of universal measures by the Government. A good deal of work has been done in the laboratory in connection with rabies; in the first place, twenty-three cases have been investigated with the view of establishing, by the result of test inoculation of rabbits, whether animals or human beings, supposed to have died from rabies, had really suffered from that disease, these applications came from many parts of the country, and in the case of two cows, one horse, and four human beings, the answer was in the affirmative; of the sixteen dogs it was found that only eleven had died of rabies. The test inoculations, which established conclusively that the malady from which the deer in Richmond Park were dying was rabies were made at the laboratory by the Professor Superintendent, as were also the searches for the Committee on Pasteur's prophylactic, appointed by the Local Government Board in 1886; the report of this committee was fully discussed in these pages on its publication last year. Mr. Dowdeswell has also made a series of experiments on the virus of prophylaxis of rabies, which also bear out M. Pasteur's statements. He brought out the further fact that the issues of an infected animal do not become virulent till towards the close of the incubation period, and failed to find any drug which had any constant effect on the result of infection in the rabbit.

The Medical Department of the Local Government Board.—Several series of experiments were performed for the Local Government Board under the general direction of Dr. Klein; the results, so far as they have yet been made public, were published in the report of the medical officer to the Board, and have already been fully dealt with in these pages.¹

Various Researches by Mr. Ballance and others.—Mr. Ballance's searches with Mr. S. G. Shattock on the presence of micro-organisms in healthy tissues were incidentally stated in a report to the Scientific Grants Committee of the British Medical Association.² It is stated that Mr. Ballance is continuing his researches on the pathology of the ligature of arteries undertaken along with Mr. Walter Edmunds, and has commenced with Mr. Lingard a research on the infectivity of tetanus, and with Dr. Hadden experiments on the motor area of the cortex of monkeys by stimulation and ablation.

Researches on the Central Nervous System.—Dr. Beevor and the Professor Superintendent have made three sets of experiments on the functions of motor areas; a minute analysis of the representation of movements in the so-called motor region of the cortex cerebri has yielded, among other interesting results, the fact that the focus of representation of the great toe is practically as nearly lineated as that of the thumb, and is situated in front of the per end of the fissure of Rolando. This special observation has

already been of use as a guide for the operator in trephining for epilepsy. The same experimenters have ascertained by faradisation of points in the internal capsule that the fibres in it are arranged in the same relative order and position as the centres projected on the cortex cerebri of the same hemisphere. Dr. Mott has made some experiments on the cauda equina in monkeys by limited total destructions; when the posterior roots were thus destroyed a well-marked degeneration of the posterior median columns occurred throughout the cord. In three cases where the anterior roots were destroyed, there ensued not only degeneration of the muscles, but a rarefying osteitis in the ilium, femur, and leg bones.

Portal Thrombosis.—Dr. Wooldridge's curious observations on the artificial production of portal thrombosis, published in the *Proceedings of the Royal Society*, were also made in this laboratory. As has been previously stated in these pages, he has discovered a proteid body in the thymus gland and other situations, which, when injected into the jugular vein of a rabbit, causes death from complete intravascular clotting. In the dog, injection of small quantities leads to thrombosis of the portal vein and hæmorrhagic infarction of the liver. The clot in the portal vein gradually disappears; the hepatic infarctions are succeeded by areas of overgrowth of connective tissue, leading to cirrhosis. The injection of this proteid material, moreover, determines a temporary condition resembling that seen in the hæmorrhagic diathesis, extravasations of blood occurring in any part of the body which may be slightly injured.

Puerperal Fever.—Dr. W. R. Smith has completed a research on puerperal fever, which will shortly be published.

Pathology of Epilepsy.—Magnan showed many years ago that absinthe rendered an animal insensitive to pain, but provoked an epileptic fit. In conjunction with Dr. Hughlings Jackson, Mr. Horsley has made use of this fact to prove that the lowest motor centres were incapable of generating any convulsion. In an etherised animal the spinal cord was divided above the atlas, and artificial respiration maintained. Injection of essence of absinthe into the jugular vein evoked a characteristic epileptic fit entirely limited to muscles innervated from centres above the section.

NATIONAL PENSION FUND FOR NURSES.

THE National Pension Fund, as now constituted, will consist of two classes—members and policy-holders. The members are those who subscribe £2 2s. per annum, or make a single payment of £25, or who are nominated by hospitals and other similar institutions subscribing £5 5s. annually, or making a single payment of £50. The policy-holders will be nurses and hospital officials, who take out policies for annuities or sickness allowances. Under the constitution the members cannot receive any profit, not even interest on their money. All benefit must go to the policy-holders. The business of the fund will be carried on by the Council, and the policy-holders have the right to elect from among themselves eight members to the Council, thus ensuring that their views shall be fully represented. This provision disposes of the criticism which has been heard in some quarters, that the independence of the nurses will be destroyed if they have their affairs managed for them.

The most important question at present is: Are the rates charged safe, and at the same time moderate, when set against the benefits for which they are to be paid? The report of the consulting actuary states the basis on which the rates have been calculated. Setting aside the sickness allowance, the recently published experience of the Government annuitants has been used for the pensions. The policy-holders of the fund will consist mainly of females, and under the rules the pensions will commence at a comparatively early age, 50, 55, and 60. The longevity of such persons is proverbial, and although no doubt the life of nurses is often a hard one, yet when they enter on their pensions they will obtain rest, and then the mortality among them will probably not be greater than the average with their sex. It is interesting to compare the rates of the National Pension Fund so calculated with those charged by Government for precisely the same benefits. The following are the annual premiums in each case for an annuity of £15, to commence at age of 60:

Present Age.	Pension Fund Rate.	Government Rate.
	£ s. d.	£ s. d.
20	1 13 8	2 2 6
25	2 10 0	2 13 9
30	3 5 8	3 10 0

JOURNAL, Vol. ii, 1887, p. 1,296, *et seq.*, The Etiology of Scarlet Fever (Dr. Klein), Mode of Action of Pathogenic Organisms (Dr. Wooldridge), Attenuation of Perchloride of Mercury (Dr. Klein), Tuberculosis of Bone (Dr. Klein and Lingard).
 JOURNAL, vol. ii, 1887, p. 930.

The pension rates fund minimum benefits are then at least seven per cent. lower than the Post Office charges for maximum benefits. Rates are reasonable and moderate, and these figures supply a complete answer to the complaint that the Council are asking more than is necessary and fair. Although very few insurance companies now grant annuities, because the business is unprofitable, yet it is possible that some company might be found willing to compete with the National Pension Fund for business by offering lower, and, therefore relatively unsafe, rates. It must be remembered that Government and insurance companies will pay only the bare pension stipulated for, while the National Pension Fund already has handsome provision for bonuses, and, being a mutual society, all the nurse's savings will be returned to her ultimately with interest.

It has been said that nurses will be pauperised by the bonus element, but the object of the promoters is to encourage thrift and self-reliance; but, recognising the difficulties of the nurses as a body, they ask them to entrust to their keeping such periodical sums as they can afford to invest or save, and it is only the nurse who so exercises self-denial who will reap any advantage from the fund which has been organised to enable her to secure, by her own exertions, a modest competence for her declining years. It is thought that hospital managers and committees who employ nurses will find that this fund, by making the staff of nurses they employ contented and free from anxiety as to the future, introduces an element of permanence and contentment now often wanting. With the view of encouraging the hospitals and kindred institutions to induce their nurses to join the Pension Fund, it has been arranged to give a rebate of 2½ per cent. on all premiums received officially through recognised institutions.

Medical men, who already possess a flourishing fund of their own, are doing much to foster the Nurses' Pension Fund. The medical officers of some institutions have convened meetings of the nursing staff with the view of explaining the objects of this fund, which they hold to afford to nurses an opportunity for good not likely to recur if the present opportunity is lost. It is probable the announcement will very soon be made that one thousand nurses have joined the fund, this being the minimum number that must be reached before the nurses will be able to avail themselves of the munificence of the City princes, who have conditionally given £26,000 as a nucleus for a bonus fund. The office of the Fund is at 38, Old Jewry, E.C.

SOCIETY FOR THE STUDY OF INEBRIETY.

The annual meeting of this Society was held in the rooms of the Medical Society of London, Chandos Street, on Wednesday, April 4th, Dr. Norman Kerr in the chair.

A paper by Mr. Clark Bell, the President of the Medical-Legal Society of New York, on the Medical Jurisprudence of Inebriety, was read by Dr. Joseph Smith. Mr. Clark Bell pointed out as to civil relations that intoxication was regarded by the common law, when complete and characterised by unconsciousness, as a species of insanity. Delirium tremens, which resulted directly from habits of intoxication, was in civil matters considered to be a form of insanity, and this had been repeatedly held by the courts. "It had always been a well-settled rule of law that no person could make a contract binding upon himself while he was wholly deprived of his reason by intoxication. This would be true as to deeds, wills, all instruments and obligations of every kind. This rule was not changed where the intoxication was not procured by the other party to the contract, but was voluntary on the part of the drunkard. An intoxicated person was rendered incompetent as a witness, and the American statute law usually classified such intoxicated persons as lunatics, and the provisions frequently applied similarly to each and both. In the marriage contract the sound general rule had been that if the party was so far intoxicated as not to understand the nature and consequences of the act, this would invalidate the contract. By English law, the Lord Chancellor, as the direct representative of the Crown, had always exercised the right of assuming the custody and control of the persons and estates of all those who, by reason of imbecility or want of understanding, were incapable of taking care of themselves. Writs *de lunatico inquirendo* were issued in cases to inquire whether the party was incapable of conducting his affairs on account of habitual drunkenness. This principle had been exercised and adjudicated upon in Kentucky, in Maryland, Illinois, Indiana, and North Carolina. In many of

the American States the habitual drunkard even was classified and treated under the same provisions and in the same manner as the lunatic and the idiot, notably in Pennsylvania, New Jersey, Maryland, Illinois, New York, and many other States. In New York it had been held by the courts that all contracts made by habitual drunkards who had been so adjudged in proceedings *de lunatico inquirendo* were void, and that the disability continued after the committee had been appointed, even when he was perfectly sober and fully aware of the nature and consequences of his acts. It had also been held that habitual drunkenness being established was *prima facie* evidence of the subject's incapacity to manage his affairs. Medical men should keep in mind the distinction running all through the law between insanity and irresponsibility. The medical view that irresponsibility should follow where insanity exists had nowhere been conceded by the law. Responsibility was a different matter, and this was more severe. Some judges held that intoxication was an aggravation of a criminal offence, but most held that it was simply no excuse. In some cases the frenzy of delirium tremens had exempted from responsibility. The law did not as yet recognise inebriety as a disease.

A paper by Dr. T. D. Crothers, of Hartford, Conn., was read treating of the study of inebriate criminals, in which it was laid down that the medical history of the accused should be first studied, then the crime.

Dr. Arthur Jamison read the recommendations of the New South Wales Intoxicating Drink Inquiry Commission, to the effect that an inebriate home should be opened at the public expense besides a hospital for the treatment of quasi-criminal inebriates the evidence having shown that punishment had been a failure and that inebriety was a disease demanding remedial treatment.

THE REPORT OF THE DIRECTORS OF CONVICT PRISONS FOR THE YEAR 1886-87.

The latest Report of the Directors of Convict Prisons is now before us, and, as usual, the medical statistics present, as judged by the death-rate, an exemplary standard of sanitation. For some reason or another, probably economy, which is the present craze in Government circles, the medical report is much curtailed. It is, however, improved in form: instead of, as heretofore, separate reports from the medical officers of the different prisons, these have been amalgamated and analysed by the head of the Medical Department, and so presented as a whole to the public.

"The chief causes of mortality," so runs the report, "were pulmonary phthisis, 18 cases; and heart disease, 13 cases. It is noteworthy there were but three deaths from acute inflammatory diseases of the respiratory organs, namely, one from acute bronchitis, and two from acute pneumonia. With the exception of a single death from enteric fever at Dartmoor, there were no deaths from any eruptive fever in any convict prison."

This is very satisfactory, and, taken with the death-rate, shows a low mortality. The report does not, however, say whether the single death from typhoid was due to general exemption from the disease, or from the skill of the medical officers in their treatment of an epidemic. The existence or non-existence of important diseases, such as small-pox, diphtheria, acute rheumatism, etc., is passed by in silence; nor are we informed as to the nature and extent of accidental injuries, beyond the fact that one death resulted from a compound fracture of the leg.

Taking, however, the report as it stands, we learn that 11,127 prisoners were accounted for during the year, giving a daily average of 7,573. The entire number of natural deaths (there was one suicide, not included) was 86, giving a death-rate of 11.3 per 1,000, which was slightly in excess of the average, 10.5, of the past eight years.

In analysing the death-return, which is given in satisfactory detail, we find that, of the 86 deaths, only 36 of the patients were or appeared to be, in good health on reception, the remainder being more or less unsound; it is also noticeable that 62, or over 72 per cent., had been previously convicted, in most instances more than once, and in several more than ten times. In two instances, the causes of death being Bright's disease and hepatitis, the unfortunate victims had been convicted each no less than sixteen times, one being at the date of death only 40 years of age, the other, the Bright's case, but 50.

The greater proportion of the deaths from phthisis were at the prime of life or early manhood, ranging from the age of 20 up to

46, only four deaths being recorded at the ages of 50 and upwards, the average of all ages being 36.8.

Turning to the reports, or rather extracts from the reports, of the medical officers themselves, they are meagre in the extreme. We gather, however, that at Chatham there was a mild epidemic of diphtheria in the officers' barracks, which did not spread to the prisoners; and at Portsmouth some cases of typhoid and scarlet fevers, which were also confined to the officers' quarters. According to both these reports there seems to have been an unusual sick and death rate, which is accounted for by the closing of Woking Invalid Prison, referred to in the Directors' report, and consequent distribution of the invalid inmates to these prisons. In the report of the medical officer of Wormwood Scrubs Prison it is not a little amusing to notice the anxiety on account of one possible case of scarlet fever in a prisoner, as compared with the feeling expressed in the relation of the epidemic amongst the warders' children.

On the whole, it is to be regretted that the report is not a little more expansive. It is good as far as it goes, and shows, especially when confirmed by previous experience, that there is nothing in the medical statistics of convict prisons that need fear to see the light. It would add materially to the value of these reports if the medical statistics of the whole establishment were included.

Prisoners are so isolated from external influences that it is difficult to make a useful comparison between them and the community at large; but whilst the prison staff with their families are presumably under the same conditions as the prisoners with regard to house sanitation, ventilation, sewerage, and water supply, they are, as regards age, food, clothing, and risk of contagion or infection, on a par with the rest of the population. If, on investigation, it should turn out that the same high state of sanitation prevails amongst them as within the prison walls, an exemplary proof would be afforded to our sanitary authorities of the necessity for enforced cleanliness and properly-constructed dwellings, with a plentiful supply of fresh air and pure water.

AN APPEAL.

An appeal is now being made to raise a fund sufficient to enable a medical man of good position, who has been reduced to absolute destitution, through no fault of his own, to buy a small practice, and thus make a living for himself and his wife. A good opening at a watering place can be secured at very small cost, and contributions towards the purchase money will be received by Dr. Farquharson, M.P., Migvie Lodge, Porchester Gardens. Amounts already subscribed:

Sir William Jenner, Bart. ...	£ 2 2 0	Sir Andrew Clark, Bart. ...	£ 8 8 0
Sir James Paget, Bart. ...	6 8 0	Dr. Broadbent ...	1 1 0
Sir Joseph Lister, Bart. ...	20 0 0	Dr. Hare ...	1 1 0
Sir Henry Thompson ...	5 0 0	Dr. Farquharson, M.P. ...	1 0 0
Sir Spencer Wells, Bart. ...	1 1 0	British Medical Benevolent Fund ...	5 0 0
Dr. Ramskill ...	4 4 0		

THE CLIFTON LUNACY CASE.

OUR readers are aware that, at the assizes recently held in Bristol, two members of our profession, Dr. Henry Marshall and Dr. J. E. Shaw, of Clifton, were subjected to the annoyance and worry of an action for damages for certifying a lady to be insane. Although they were completely successful in defending their conduct, yet, in addition to the loss of time and anxiety necessarily attendant upon such an action, they are left, on account of the plaintiff's impecuniosity, to pay their own heavy costs.

It has been generally felt by those more especially acquainted with the circumstances that the case is a particularly hard one, and that many members of our profession, any of whom, in the present state of the law, are liable to a similar prosecution in the course of their daily duty, would be glad to contribute towards a fund raised for the purpose of relieving Dr. Marshall and Dr. Shaw to some extent of the heavy pecuniary fine incurred, and at the same time of expressing their sympathy with them in a practical manner.

Dr. E. Long Fox has consented to act as treasurer of the fund, and subscriptions may be forwarded to him at Church House, Clifton, or to either of the undersigned.

J. MICHELL CLARKE, M.B., 2, York Buildings, Clifton } Honorary Secretaries.
W. H. HARSANT, 16, Pembroke Road, Clifton }

List of Subscriptions.

£	s.	d.	£	s.	d.		
G. E. Alford, Weston-Super-Mare ...	1	1	0	John Gill, M.D. ...	2	2	0
G. F. Atchley, M.B. ...	2	2	0	G. A. Glog ...	1	1	0
W. M. Barclay ...	1	1	0	W. H. Harsant ...	5	5	0
J. S. Bartrum, Bath ...	5	0	0	C. Holman, M.D., Reigate ...	2	2	0
E. C. Board ...	10	10	0	J. Clements Ilaies, M.B. ...	1	1	0
J. R. Brush, M.D. ...	1	1	0	Miss Katherine Leonard ...	10	10	0
J. Paul Bush ...	1	1	0	C. E. Matthews ...	1	1	0
Mrs. Lionel Brough, per J. Michell Clarke ...	0	10	6	W. W. Morgan, M.D., Newport ...	5	0	0
A. F. Blegg ...	1	1	0	W. H. Newnham, M.B. ...	1	1	0
N. W. Belfield, M.D. ...	1	1	0	T. C. Parson ...	5	5	0
J. Beddoe, M.D., F.R.S. ...	2	2	0	J. H. Parry ...	1	1	0
J. Michell Clarke, M.B. ...	1	1	0	W. J. Penny ...	2	2	0
F. Richardson Cross, M.B. ...	5	0	0	Augustin Prichard, M.D. ...	5	5	0
T. V. Coker ...	1	1	0	G. F. Rossiter, M.B., Weston-super-Mare ...	2	2	0
J. Dacre ...	1	1	0	E. Markham Skerritt, M.D. ...	5	5	0
N. C. Dobson ...	5	5	0	J. Greig Smith, M.B. ...	5	5	0
Eliza Walker Dunbar, M.D. ...	1	1	0	G. Munro Smith ...	1	1	0
C. H. Dowson ...	5	5	0	R. Shingleton Smith, M.D. ...	5	5	0
C. Elliott, M.D. ...	1	1	0	J. G. Swayne, M.D. ...	10	10	0
Charles H. Fox, M.D. ...	10	10	0	S. H. Swayne ...	5	5	0
Bonville B. Fox, M.D. ...	10	10	0	J. Taylor ...	1	1	0
E. Long Fox, M.D. ...	10	0	0	H. Waldo, M.D. ...	2	2	0
W. J. Fyffe, M.D. ...	5	5	0	P. Watson Williams, M.B. ...	1	1	0
L. M. Griffiths ...	2	2	0	Lionel A. Weatherly, M.D., Bath ...	3	3	0

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Ager Street), London, on Wednesday, the 18th day of April next, at 2 o'clock in the afternoon.

The following Committees will also meet:—

Tuesday April 17th, 1888.—Relative Rank Committee, 3 P.M.—Premises and Library Committee, 4 P.M.—Branch Organisation Committee, 4.30 P.M.—Scientific Grants Committee, 5 P.M. Wednesday April 18th, 1888.—Therapeutics Committee, 10 A.M.—Journal and Finance Committee, 11.30 A.M.

FRANCIS FOWKE, General Secretary.

April 11th, 1888.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on April 18th, July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, General Secretary.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887 will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting will be held on Thursday, April 19th, at the Hackney Town Hall, at 8.30 P.M. The chair will be taken by F. M. Corner, Esq. A paper on the Surgery of Abscess will be read by Howard Marsh, Esq. Visitors will be welcome.—J. W. HUNT, 101, Queen's Road, Dalston, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Infirmary, Sunderland, on Wednesday, April 25th, at 3 P.M. Members intending to read papers or show specimens are requested to communicate at once with the secretary. The dinner after the meeting will take place at the Queen's Hotel, at 5 o'clock. The following papers are already promised:—Dr. Hume: A Case of Congenital Fistula of the Stomach, Cured by Operation. Dr. Coley: On the Treatment of Effusion into the Pleura in Children. Dr. Murphy: A Man 229 Days after Gastrotomy. Dr. Oliver: Notes on an Unusual Case of Hematuria. Mr. Morgan will move a Resolution on Quack Advertisements. Mr. Rutherford Morrison will read Notes of two cases of Gall-Stones: (1) Operation on Dilated Gall-Bladder: Removal of Stones: Drainage: Cure. (2) Abdominal Section for Intestinal Obstruction: Discovery of Gall-Stone, Incision and Suture of Intestine and Removal of Stone. Specimens exhibited. Mr. Morgan will show (1) a Girl disfigured by Cancer of the Ovary; (2) specimens from a case of Tubercular Peritonitis simulating Cystic Disease of the Ovary. Dr. Drummond will exhibit some Pathological specimens. Dr. Lindsay will show a patient suffering from Paralytic Agitation.—G. E. WILLIAMSON, F.R.C.S., 22, Eldon Square, Newcastle-on-Tyne, Honorary Secretary.

—ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The April meeting of the Branch will be held at 198, Union Street, Aberdeen, on Wednesday, April 18th, at 8 P.M., the President, Dr. Smith, of Kinnairdy, in the chair. Business: (1) Minutes, nomination of new members, etc. (2) Ballot for the admission of Dr. James Cravie, Newburgh, Aberdeenshire. (3) Exhibition of patient: Case of Senile Chorea, by Dr. Gordon. (4) Motion by Dr. Wight: "That the Branch petition the House of Commons against the taxation of horses of medical practitioners, as proposed by Mr. Goschen in the Budget, and also recommend individual members to use their influence with Members of Parliament to attain the above object." (5) Case of Labour obstructed by Fibroid Tumour of Uterus in Pelvis, by Dr. Aymer, Bervie. (6) Report of Standing Committee on Post-Graduate Courses for 1888, by Dr. Edmond, Convener. (7) Exhibition of specimens: 1. Exhibition of Lungs, with casts, in a state of Chronic Interstitial Pneumonia and Bronchiectasy, by Dr. Gibson. 2. Dissection of Hammer-toe, by Dr. Mackenzie Booth.—ROBERT JOHN GARDNER and J. MACKENZIE BOOTH, Honorary Secretaries.

BORDER COUNTIES BRANCH.—The next meeting of this Branch will be held at Cockerhous on Friday, May 4th, at 3.15 P.M. The Secretary will be glad to receive intimation of papers for reading.—H. A. LEDIARD, 31, Lowther Street, Carlisle, Honorary Secretary.

BATH AND BRISTOL BRANCH.—The fifth ordinary meeting of the Session will be held at the Grand Pump-Room Hotel, Bath, on Thursday, April 19th, at 7.50 P.M., Dr. G. F. Burder, President. A discussion on Diphtheria will be opened with a short paper by Dr. A. B. Hrabazon, Medical Officer of Health, Bath.—R. J. H. SCOTT and E. MARHAM SKERRITT, Honorary Secretaries.

NORTH OF IRELAND BRANCH.—A general meeting of this Branch will be held in the Royal Hospital, Belfast, on Thursday, April 18th, at 11 A.M. Dr. John Strahan will read a paper on Turpentine in Whooping-Cough and some other affections. Dr. O'Neill will show (1) Two patients on whom he operated for Congenital Inguino-Scrotal Hernia (Radical cure), and read notes of the cases. (2) An Ovarian Cyst successfully removed. Professor Sinclair will report upon a Successful Jejunocolic Enteroctomy performed on the day of the last Branch meeting, and exhibit the segment of intestine excised. Dr. Burden will show a series of Microscopic Preparations of Tumours. Dr. Byers will show an Ovarian Tumour which he successfully removed. Dr. Esler will bring forward a communication on Injection of Carbolic Acid in Hydrocele. Dr. Whitla will show a case of Abdominal Aneurysm.—JOHN W. BYERS, M.D., Lower Crescent, Belfast, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at the Hospital, Gravesend, on Friday, April 27th, at 4 P.M., R. J. Bryden, Esq., in the chair. The dinner will take place at the New Falcon Hotel at 6.30 P.M. Charge 6s. 6d., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, R. J. Bryden, Esq., 21, Harmer Street, Gravesend, not later than April 25th. Papers already promised:—Dr. P. Horrocks: On Puerperal Fever. Dr. Tanoahill: On Symmetrical Gangrene. All Members of the South-Eastern Branch are entitled to attend this meeting and to introduce friends.—A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary, Oxford, on Friday, April 27th, at 3 P.M. Notice of papers to be read must be sent to W. Lewis Morgan, 43, Broad Street, Oxford, on or before April 18th. A dinner will be provided for those members who signify their intention to dine to the Secretary two days before the meeting.—S. D. DARBISHIRE and W. LEWIS MORGAN, Honorary Secretaries.

CEYLON BRANCH.

An ordinary meeting was held at the Colonial Medical Library, Colombo, at 2 P.M. on Saturday, January 14th, 1888. The following gentlemen were present: the Hon. Dr. P. D. Anthonisz (in the chair); Drs. Asserappa, Attygalle, Macdonald, Stokes, Vanderstraeten (Hon. Treasurer); Messrs. Aldous, Brito, Eleyatambi,

Fernando, Garvin, Johnson, Schokman, Thornhill, and Keegel (Hon. Secretary).

The minutes of the previous meeting were read and confirmed.

Election of Members.—Mr. THORNHILL drew attention to the irregularity of the election of members at the last meeting, in that the names of members to be elected did not appear on the notice paper. It was decided that the elections be confirmed at the next meeting of the Council.

President's Address.—The Hon. PRESIDENT then delivered his presidential address "On the Progress of British Medicine and Surgery in Ceylon during the last Forty Years."

Mr. THORNHILL proposed a vote of thanks to the President for his address, which was duly carried.

Head Injury.—Mr. FERNANDO, on behalf of Mr. Thomas, of Hambantota, read a paper entitled "Observations on a case of Head Injury, especially as regards Ophthalmoscopic Examinations in such cases."

Postponement of Paper.—A paper by Dr. VAN DORT, entitled "A Translation (with notes) of Dr. Daalmans's Observations of the Diseases of Ceylon and India towards the End of the Seventeenth Century," was postponed to the next meeting for want of time.

The meeting then separated with a vote of thanks to the chair.

A meeting of the Council was held at the Colonial Medical Library, Colombo, at 1 P.M. on Saturday, February 4th, 1888, at which Dr. Van Dort, Vice-President (in the chair), Drs. Loos, Attygalle, Rockwood, Macdonald, Messrs. Van Geysel, Schokman, Thornhill, Nell, and Keegel (Honorary Secretary) were present.

New Members.—The CHAIRMAN proposed, and Dr. MACDONALD seconded, the election of Surgeon-Major Stokes, M.D., M.S., and Mr. W. J. A. Wright, L.C., M.C., to membership of the Parent Association and Local Branch. (Carried.)

New By-laws.—Mr. THORNHILL proposed in terms of notice that the Council, under the authority of By-law 6, pass the following new by-laws:

1. At all elections of members or of officers voting shall be by "voting papers;" such voting papers to be signed and dated by any member of Council voting without being present at the meeting of Council at which the election takes place.

2. That no alteration in the hour, date, or place of meetings, nor any by-law be made or altered, nor any member be elected by the Council, unless written notice of such alteration, or by-law, or election proposed has been sent to each member of Council at least one week before the Council meeting at which such is to be discussed.

3. Council meetings to be held half an hour before each ordinary meeting, and at other times when the President or Vice-President or any two members of Council request.

The second and third by-laws passed *nem. dis.*, but in proposing the first Mr. THORNHILL referred to the wording of the third by-law of the Branch, which required that the election of a member should always take place by the "majority of the whole Council." He felt that this rendered it necessary that the votes of all members of the Council should be recorded, and hence the necessity of giving sufficient notice in order to obtain the votes of all such members as could not arrange to be present.

Dr. Loos, in seconding this motion, said that it was necessary that the tone and character of the Branch should be maintained, inasmuch as this was not an ordinary medical society, but one affiliated to a highly respectable and influential Association. All possible guarantee should be afforded that the election of proper persons would take place in a proper manner. The election should not rest with a few members of the Committee who might find it convenient to attend the meetings in Colombo, but all members of the Council should have the opportunity of voting, and sufficient time for this purpose should be allowed to elapse between proposal and election of new members.

No substantive amendment in Clause 1 was, however, proposed, but the original motion having been put to the vote, was carried by six votes against four.

An ordinary meeting was also held at the Colonial Medical Library, Colombo, on February 4th, 1888, at 2 P.M., at which Dr. Van Dort, Vice-President (in the chair), Drs. Loos, Attygalle, Macdonald, Rockwood, Messrs. Van Geysel, Thornhill, Nell, Schokman, and Keegel (Honorary Secretary) were present.

Diseases of Ceylon and India in the Seventeenth Century.—Dr. VAN DORT read "Translations (with notes) of Dr. Daalmans's

Observations of the Diseases of Ceylon and India towards the End of the Seventeenth Century."

A vote of thanks was accorded to Dr. Van Dort for his interesting paper.

The reading of the second paper was deferred to next meeting or want of time.

Alteration of By-law.—Mr. THORNHILL gave notice that at the next ordinary meeting on March 3rd next, he would propose the following alteration or amendment of by-law 4:

"After the word 'Colombo' to insert 'Kandy, Galle, Jaffna, and Madulla,' to omit the words 'and the following' and also the whole of the fourth and fifth lines, and the word 'Colombo' in the sixth line, and insert the words 'these towns.'"

In doing so he desired to be allowed to explain the object of his motion in order that the members might understand its import, as he might not be able to be present personally at the next meeting. This, however, the CHAIRMAN held to be out of order, although there could be no objection to an informal discussion at the conclusion of the meeting. Notice of motion was accordingly given, and the meeting separated with a vote of thanks to the chair.

BERMUDA BRANCH.

MEETING of this Branch was held on March 14th, PARK B. TUCKER, M.D., President, in the chair. Two members and two visitors were present.

Office Bearers for the Year.—Park B. Tucker, Esq., M.D., President; Dr. Heldon Harvey, Secretary and Treasurer.

Delivery in Arm Presentation.—Dr. TUCKER explained a new, safe, and easy mode of delivery in arm presentations, the child being dead, and turning impossible, by puncturing the thorax of the child, and crushing the bodies of two or three of the vertebrae with tooth or other forceps; the breech descending, by slight traction, the foetus is easily delivered without danger to the mother.

Enormous Number of Calculi.—Dr. TUCKER also exhibited 242 calculi taken from the prostate and bladder after death. The patient was a medical man, who was quite ignorant of the cause of his so frequently suffering from retention of urine, being under the impression that stricture was the cause of his trouble, nor could he be made to think otherwise, as he was often on horse-back, and could ride long distances without inconvenience. Two of the largest calculi, oblong in shape, were taken from the bladder, having been forced there by the sudden introduction of the catheter. His death was caused by an overdose of morphine, taken carelessly, without weighing, to induce sleep.

ERRATUM.—In the report of the meeting of the Shropshire and Mid-Wales Branch, published in the JOURNAL of April 7th, page 762, the name of Mr. J. T. Meek was erroneously printed "Meek."

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Hemianopsia Cured by Iodide of Potassium.—*Antifebrin in Epilepsy.*—*Erythrophloëin.*—*The Imperial Royal Society of Physicians.*—*The Vacant Chair of Anatomy.*—*Ligature of the Thyroid Arteries in Goitre.*

At a recent meeting of the Royal Society of Physicians of Budapesth Dr. St. Csapodi brought forward a man, aged 53 years, who, after a sudden attack of giddiness, repeated twice on the same day, had remarked on the following day that he could not see objects situated on his right side. He also suffered from headache of the left side. Examination showed that vision was absent on the right side. No organic changes were found except some signs of endarteritis. Improvement took place under iodide of potassium; a symmetrical scotoma, situated 15° outside of the fixation centre, remained, which did not, however, interfere with vision. The hemianopsia in this case was probably due to hæmorrhage into the cerebral cortex.

Dr. Borosnyói, of Hermannstadt, referring to the use of antifebrin as an anti-epileptic, reports to the use of antifebrin in nine cases of epilepsy (six males and three females) in the lunatic asylum of Hermannstadt, which had been first treated with bromide of potassium, and later on with antifebrin. On comparing the results which were obtained with bromide of potassium

(from 6 to 9 grammes) with those obtained with antifebrin (from 0.25 to 2.0 grammes), it was evident that the former had in all cases a much more powerful effect than the latter. Antifebrin, as a rule, did not seem to have much influence on the disease. Even if larger doses of this drug should be proved to be useful, it would not be advisable to carry out a course of treatment with it, as cyanosis was observed in all cases treated with antifebrin.

At a recent meeting of the Society of Physicians of Styria, Professor Lipp, of Graz, gave an account of the results of his experiments with erythrophloëin on thirty persons. He used Merck's "erythrophloëin muriaticum," and made injections of doses varying from 1 milligramme to 1 centigramme. He had never observed any bad general after-effects, except in the case of a neurotic woman, who, after the injection of one centigramme of erythrophloëin, showed retardation of the pulse and respiration, and was attacked with giddiness. He made the injections under the epidermis, as well as under the skin. In each instance analgesia (not anaesthesia, as tactile sensation remained intact) was established over a large area round the point of injection; the analgesia lasted forty-eight hours. The local appearances were intense redness, swelling, and pain. The intensity of the local symptoms, however, depended more on individual irritability than on the strength of the dose used. The most remarkable feature in the experiments with erythrophloëin, in Professor Lipp's opinion, was the development of peripheral analgesic areas, which persisted in this condition for several hours, and even for some days after the injection. These territories corresponded to those which were supplied by nerve branches taking origin near the seat of injection.

The Imperial Royal Society of Physicians of Vienna held its annual festival meeting on Friday, March 16th, under the presidency of Hofrath Bamberger. The first secretary of the Society, Professor Kundrat, gave a report of the Society for the last year, which is the fifty-first of its existence. The report showed that the number of members, which had increased in the last year from 279 to 306, was again reduced to 285, 5 members having resigned their membership, 4 having changed their domicile, and 12 having died. Thirty-one meetings, with 89 lectures and demonstrations, had been held during the past year.

The committee charged to select names from among the candidates for the vacant second chair of Normal Anatomy in the Faculty of Medicine, proposed Professor Schwalbe, of Strasburg (*primo loco*); Professor Zuckerkandl, of Graz (*secundo loco*); and Professor Rabi, of Prague (*tertio loco*). The general opinion is that Professor Zuckerkandl has the best chance of being called to Vienna by the Ministry of Instruction, though his name only stands second.

Professor Billoth, in the first number (April 5th, 1888) of the *Wiener Klinische Wochenschrift*, the new Vienna weekly medical journal, discusses the utility of the method of ligaturing the thyroid arteries with the view of producing atrophy in goitres—a procedure which was not long ago reintroduced into surgery by his late assistant, Professor Wölfler, of Graz. Professor Billoth first tries to answer the question why we are not content with the very satisfactory results obtained in recent years by the extirpation of goitre, and replies: (1) because we are not able to prevent tetanus, which sometimes supervenes after these operations; (2) because it may occur, even when the greatest precautions are observed, that the recurrent nerve is cut or tied into the ligature; (3) because "cachexia strumipriva" is a not infrequent result in children when the whole of the thyroid gland is removed. Among the operations by which it was proposed to replace extirpation, the method of ligaturing the thyroid arteries deserved the greatest attention. *A priori*, the following statements could be made as to the eventual success of this operation: As, after ligaturing all the four arteries, several small arteries still supplied the goitre with a certain quantity of blood, it was probable that no gangrene, but only a gradual shrinking, would take place, just in the same way as in the case of obliteration of the renal artery. The small arteries, which, in this case, derived their origin from the renal capsule, hindered the occurrence of gangrene after the obliteration of the renal artery, but they were not able to prevent atrophy supervening in the kidney. Though this analogy was very striking, the matter nevertheless required to be verified by experiments on animals and men, which was also done by Wölfler. The indications for this operation were nevertheless limited, as extravasation, calcification, cystic and colloid softening were very often met with in goitres, which, owing to the absence of any circulation in

them, would, of course, undergo no change whatever after the ligation of the thyroid arteries. The question as to whether the fluid contents of cysts were capable of undergoing absorption after operation had yet to be decided. It thus became evident that the method in question would be really successful only in those cases in which no degenerative necrobiotic processes had yet taken place, such as rapidly growing goitres in young subjects. Two points were necessary for the success of this plan: 1. The first effect after ligation of all four arteries was that of a glandular anæmia; the goitre would be smaller and softer than before operation. 2. The second effect was obliteration of the blood-vessels, and the disappearance of the epithelial and interstitial tissue, so that only cicatricial connective tissue would remain behind. Respecting the development of "cachexia strumipriva" in children after complete atrophy of the thyroid gland, Professor Billroth considers that no positive statement could be made on this subject, but that it was possible that such a condition would not supervene, as the atrophic process, in such a case, took some weeks or months to become complete, and the organism had thus sufficient time to get accustomed to the absence of the thyroid gland. As to whether it was probable that the atrophy would be permanent, Professor Billroth holds that, when all four arteries are ligatured, there could be no doubt about this, but that, when circulation still existed in one of the chief arteries, or became established again by the "vasa vasorum," such a permanent atrophy would never occur. This had already been confirmed by experience. Discussing the details of the operation, Professor Billroth states that, in his opinion, the incision on the outer margin of the sterno-mastoid muscle was the most convenient one for ligaturing the inferior thyroid artery; he wished, however, to lay stress on a point which had not yet been mentioned, namely, the extreme thinness and fragility of the inferior thyroid artery. It had occurred to him on three different occasions that this blood-vessel was torn by the manipulations with the forceps or by ligaturing too fast, etc. The hæmorrhage which thus ensued was very considerable, and it was very difficult to pick up the artery, which retracted behind the scalenus muscle. In one case he cut through the scalenus muscle to enable him to seize the end of the artery with a broad clamp. In ligaturing arteries, Professor Billroth usually applied two ligatures in their continuity, dividing the vessel between them. In the above-mentioned operation, however, he contented himself with one ligature, owing to the fragility of the inferior thyroid artery. He had never met with secondary hæmorrhage in such cases. Professor Billroth has performed the operation in question in four cases of common goitre. In all of them there was a slight degree of fever, of short duration, but the absorption of the substance of the goitre was not attended with any ill effect on the general condition of the patients. The impression which the operation had made on him was a very favourable one, and he would repeat it in appropriate cases, but in future he would ligature all the four arteries at one sitting. In one of the cases thus operated upon he observed a slight degree of jaundice, which soon disappeared, and was probably due to absorption of blood. From a cosmetic point of view it had to be borne in mind that the ligation of all four arteries naturally caused four scars, as against the single lateral scar left after extirpation, which could easily be hidden by a small cravat. On the other hand, the attenuated appearance of the neck from which the thyroid had been removed was a still greater disfigurement. Professor Billroth concludes by stating that although ligation of the thyroid arteries was a valuable and interesting addition to our operative resources in the treatment of goitre, it would have a much greater importance if it were attended with similar results in the case of sarcoma and carcinoma of the thyroid gland. The attempt made by him in this direction failed. It was possible that ligation might be successful even in such cases, if done at an early enough period in the development of the disease.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Memorial Celebration in Honour of von Langenbeck.—Transplantation of Mucous Membrane.

PROFESSOR VON BERGMANN opened the Seventeenth Congress of German surgeons in the Aula of the University. The evening before, a memorial gathering in honour of the late Bernhard von Langenbeck had brought the members of the Congress and of the

Berlin Medical Association together in the largest room of the Philharmonic. Langenbeck had been honorary president of both societies. The vast room was completely filled. The family of the great surgeon took part in the celebration; in the boxes were present the Grand Duke of Baden and many ladies. One end of the room was hung with black cloth and magnificent palms, in the midst of which was placed a full-length bust of Langenbeck. After some choral singing, Dr. v. Bergmann delivered the funeral oration, of which I will only give the part dealing with the deceased surgeon's relations with England. "His journey to England increased his inclination for surgery, and decided his career. In London at that time many illustrious surgeons were teaching who kept up the heritage of a glorious past. Scientific collections, never seen or heard of in Germany, were freely open to him; whilst the hospitals gave him occupation for the whole day. Astley Cooper especially attracted him. He had already given up lecturing; but his three nephews, first-rate surgeons, paid much attention to the young German surgeon. Here Langenbeck felt happy and at home. These men were not only distinguished practitioners of the healing art, but they were happy in the unselfish practice of their profession. The impression made on Langenbeck's mind by his visit to the College of Surgeons was deep and lasting. His influence has been of the greatest service in establishing intimate relations between English and German surgeons. When in 1881 he went for the last time to England, to take part in the International Congress of London, he had a most enthusiastic reception wherever he went."

Professor Wölfler (Graz) spoke on April 3rd of the value of transplantsations of mucous membrane. He said that where cicatrices were produced in cylindrical organs of the body, which were lined with mucous membrane, an operation could only be useful, if it were possible, after excision of the scar, to unite the mucosa. But that was impossible in many cases. Therefore he had employed the method of Thiersch (the transplantation of portions of epidermis) with great success. After having excised the thickened and indurated tissue from impermeable urethral strictures, he transplanted mucous membrane from a prolapsed uterus. The operation was completely successful. In the same manner he transplanted mucous membrane from a prolapsed rectum on to the conjunctiva in a case of blepharoplasty. He succeeded even in transplanting mucous membrane from frogs, pigeons, and rabbits with good results.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Hypodermic Injections of Artificial Serum.—"Growing Fever."—The late Dr. Constantin James.

DR. PREGADIUS has made some interesting observations on the subcutaneous injection of artificial serum. He experimented on a large number of dogs, which, after considerable and rapid loss of blood, revived after having had artificial serum injected into their veins. The saline injection, or artificial serum, is composed of six grammes of pure sea-salt dissolved in one litre of boiled water, and then filtered. Before injecting care must be taken to render the skin as aseptic as possible by washing it with antiseptics. The injection should be made at a point where there is plenty of cellular tissue, from twenty to thirty cubic centimetres of liquid being given as a dose. In all, the quantity injected must be about one-half of the quantity of blood lost. A slight massage aids the diffusion of the liquid. The syringe must be aseptic. The sensibility being deadened by loss of blood, there is not much pain. The immediate results of the injections are renewed sensibility, cessation of contractions and of cardiac pressure, followed by gradual return of vital manifestations. The process is simple, free from danger, and rapid enough even for acute cases. Dr. Pregadius recommends its trial on the human subject.

At the Hôtel Dieu M. Reclus recently gave a lecture on the fever of growing children. He described the case of a young girl aged 19, who, while suffering from febrile symptoms, was suddenly seized with severe pain, especially referred to the left hip. She had been growing rapidly. M. Bouilly was the first to call attention to the subject in a little work published in 1879. In it he described the three important characteristics of this fever, which is rarely met with in infancy, although a case is recorded in which an infant aged 25 months grew 8 centimetres in six weeks. M. Reclus cited two cases of this fever observed in patients aged 20 and 21. The affection usually occurs between the ages of 7 and 13 or 15. It is frequently manifested after extended movements and

ter great fatigue following violent exercise (gymnastics, swimming, etc.). It sometimes appears after pyrexia (eruptive and phoid fevers). The anatomical lesions observed are due to disturbance in the function of nutrition in the region of the connecting cartilages, more particularly in those fibro-cartilages which enrich most bone, such as the cartilage of the upper extremity of the humerus, the cartilage of the lower extremity of the radius and ulna, the cartilage of the lower extremity of the femur, and those of the upper extremity of the tibia and fibula. Faulty nutrition is observed in the epiphyses which furnish most bone, especially in the interior of the lower extremity of the femur. "Growing fever" is never fatal, so there is no opportunity for necroscopic examination. The bone alterations which characterise this affection cannot therefore be thoroughly known. It is certain, however, that it presents a series of osseous lesions closely allied to each other proceeding from simple inflammation or osteo-myelitis. In some cases "growing fever" causes the formation of exostoses on one or more epiphyses. In other cases results in inflammation, which engenders staphylococci aurei or infectious osteo-myelitis. M. Bouilly has described the three principal clinical symptoms of "growing fever" as follows: the first of these is pain of a particular kind; this may be spontaneous and generalised, in which case it is not a pathognomonic symptom; or it may be confined to the epiphyses, when it may be regarded as a characteristic phenomenon. The second symptom is the rapid growth of the patient; a case is recorded of a child of 15 who grew 14 centimètres in six months, and of one of the same age who grew 14 centimètres in two months. The third symptom is fever of a particular kind, which may present three distinct forms: 1, acute and transitory; 2, acute and prolonged; 3, chronic and prolonged. The first form is similar to the fever met with at the beginning of pneumonia. It reappears at night with sudden intensity, being preceded by shivering fits. The temperature reaches 40° and 41° C. (104° and 105.8° F.). There is severe pain in the limbs. This fever lasts one or two days. The patient grows from 1 to 3 centimètres in seven or eight days. The acute and prolonged form is frequently preceded by headache, general pain, epistaxis, singing in the ears; these symptoms are followed by shivering, fever, nausea, vomiting, disturbance in the respiratory function; the spleen is hypertrophied; spots are observed on the body; the tongue is foul; there is diarrhoea, with gurgling in the iliac fossa. These phenomena disappear in five or seven days; the patient recovers, but remains thin for a certain time. In order to ascertain whether these symptoms are the result of "growing fever," the epiphyses should be carefully examined. In the third form the fever is slight; the temperature never exceeds 39° C. (102.2° F.). The fever only lasts a few hours at a time; it reappears from time to time during several months. The epiphyses are painful when pressed; the patient increases in height. Reclus cited cases in which the symptoms of "growing fever" were attributed to coxalgia; similar errors are often made. M. Rissaud lately met with a case of this affection in which the patient, a girl aged 16, grew 8 centimètres in two months. The diagnosis of acute chlorosis, typhoid fever, and tuberculosis had been successively made in this case.

Dr. Constantin James recently died, at the age of 75, of inflammation of the lungs. His professional career began in 1840, and he was well known by his writings on mineral waters. He had also obtained celebrity by his criticisms on M. Pasteur's antirabic method, by his theories on hypnotism and suggestion, and by his controversies on the subject of the experiments made by Drs. Harcot and Luys. He also wrote against the Darwinian theory, and his work on the subject had the honour of being annotated by the Emperor of Brazil. In 1869, on his return from the opening of the Suez Canal, he narrowly escaped assassination, a youth inflicting fourteen blows with a loaded stick upon his head. Even this misadventure furnished material for Dr. James's prolific pen.

APPALLING accounts have been received of the inundations caused in the Elbe district by the accumulation of ice, and the consequent breaches made in the river banks. From a Reuter's telegram we learn that from Wittenberge to Danuenberg and Poitzendorf both banks of the Elbe are flooded for miles. A hundred villages are under water, and there has been some loss of life. The damage done is enormous and the distress terrible. Many cattle have been drowned.

TRACES of gold are said to have been recently found in the waters of the sprüdel at Carlsbad.

CORRESPONDENCE.

THE LOCAL GOVERNMENT BILL AND THE P. H. SERVICE.

SIR,—I should like to say a few words in supplement to your excellent article in the *JOURNAL* of March 31st on the subject of "Public Health Service under the Local Government Bill."

I hold an appointment as medical officer of health to one of the largest uncombined rural districts in the country, with a population of over 50,000, and am, therefore, qualified to state where the shoe pinches, and unlikely, if the new Bill becomes law, to pinch again. I shall only touch upon one or two salient points in connection with rural districts.

First, with respect to the guardians. A parsimonious expenditure of the public money being the one aim of the average ratepayer, the most parsimonious candidate obtainable—a small farmer—is probably returned to the board. Men of this stamp form a majority on most rural boards, and it strikes me that the District Councils will be very similarly constituted. Farmers, because of the straitness of their own circumstances at the present time, are the best possible representatives of a parsimonious policy, and being often, in addition, open offenders against sanitary law, their nominal office as guardians of the public health becomes a most unseemly farce. I have said nothing of their educational unfitness, as this goes without saying. It is commonly supposed that the "ex-officio" seen on the lists are effective guardians. This is for the most part an error, as county magistrates, for various reasons, seldom attend the meetings.

The appointment of a superintendent medical officer of health for the county is advocated by you and many others, but it seems to me a much easier way out of the difficulty would be to vest the appointment of all medical officers of health in the County Council, leaving the Local Government Board, as in many other matters, still the superintending authority; the tenure of office, under such appointment, to be also "during good behaviour." The amalgamation of the duties of analyst and pathologist with that of superintendent medical officer of health in a large county would involve more work than any one man, however able and energetic, could effectively do. A great deal of detail in public health matters must still be left to simple evolution; but the present system of appointing sanitary medical officers, which it seems the intention of the Government to perpetuate, is a radical error and evil. There could be little danger of the medical officer of health abusing the power and status given him by the elective arrangement suggested above. Local influence and control would be too strong for this, though not so powerful and paralysing as it often is under the present system. The redistribution of sanitary areas upon a scale sufficiently liberal to allow of the exclusive appointment of pure medical officers of health would be, I fear, too large an order for the Government or County Councils to undertake.

I may add, as a remark applying especially to rural districts, that the inspector of nuisances, by whomsoever appointed, should be directly subordinate to the medical officer of health. This does not follow from the L. G. B. order (1872), but is a most necessary provision.—I am, etc.,
NOTTS.

DENTAL DEPARTMENTS OF HOSPITALS.

SIR,—The thanks of the dental profession are due to Mr. Newland Pedley for his practical paper in the *JOURNAL* of April 7th, and it is to be hoped that the subject may not be allowed altogether to drop until reforms of the kind proposed have been generally adopted. They would confer benefits not only upon medical and dental students, but upon vast numbers of the suffering poor, who now either go unrelieved, or submit to the barbarous operation of extraction for the relief of curable dental diseases. These diseases, the most common and universal of maladies, are much neglected because they rarely endanger life, and yet, in great numbers of instances, they render existence as miserable as it can be made by any form of physical suffering. Many years' experience of hospital dental work convinced me that it would not be possible to deal with the entire mass of dental disease existing among the poor by any organisation however extensive, but very much more might be accomplished than is now done if measures such as Mr. Pedley advocates were systematically carried out. I, however, go further than he does. I long ago formed and expressed the opinion that every hospital, and particularly those with medical schools attached, ought to have a completely

equipped dental department in which dental surgery might be as fully practised and taught as at the dental hospitals. No special hospital could be more free from even the suspicion of abuse than the Dental Hospital of London. It has done and is doing work which could not have been done elsewhere. But not to speak of notorious evils and abuses which sooner rather than later seem to become associated with most special hospitals, it is appearing more and more evident that, with rare exceptions, these institutions might with advantage in every respect be merged into special departments of general hospitals.

Instead of founding a dental hospital, had it been possible from the first to divide the staff and students and to organise well arranged dental departments at a few of the leading London hospitals, many of the complaints that Mr. Pedley justly makes would have been now uncalled for. If during the last twenty-five years dental operations had been fully demonstrated daily at general hospitals, a large proportion of medical practitioners, to whom such an accomplishment is valuable, would have gained knowledge and skill in dental surgery, and the medical profession would have become more thoroughly enlightened as to the scope of dental science, and the value of conservative dental surgery. There seems no room to doubt that in a very few years there will be so great an increase in the numbers of medical students taking up dental surgery as a profession that the Dental Hospital will be quite inadequate to accommodate them. The qualified dentists on the *Register* number only a few hundreds, and there are besides three or four thousand unqualified practitioners registered by virtue of being in practice prior to the passing of the Dentists Act. This latter class is decreasing, and must of course more and more rapidly disappear as years go by. They can be replaced in future only by qualified men. Owing to the elevation of dentistry in consequence of its recognition as a legitimate special branch of the medical profession, and the gradual enlightenment of the public as to the value of dental surgery, the demand for qualified dentists must increase, whilst under these circumstances the crowded condition of the medical profession must, I repeat, lead many medical students to adopt the speciality as a calling. The expenses of a dental department in a large hospital are, as Mr. Pedley shows, comparatively trivial. There could be no difficulty nowadays in finding full staffs of highly qualified dental officers to provide daily attendance and teaching. I believe that if general hospitals would organise such departments so as to furnish special instruction equal to that given at dental hospitals, there would soon be attracted enough students to efficiently work the department without putting an undue strain upon the officers or calling upon them for unnecessary sacrifices.—I remain, etc.,

HENRY SEWILL, M.R.C.S., L.D.S.,

Wimpole Street, W., April 7th.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

SIR,—The letter from Dr. Alfred Carpenter, in the *JOURNAL* of April 7th, might lead the casual reader to suppose that some private motives had dictated the prosecution of Dr. Dalton for not notifying a case of infectious disease; it is, therefore, incumbent upon me to ask you to place before your readers the real facts of the case.

During the few years that compulsory notification has been in force in Croydon, Dr. Dalton has been the only medical practitioner who has refused to comply with the provisions of the Act of Parliament. In this refusal he has been persistent, notwithstanding official and private remonstrance from myself, couched, as I think, in the most friendly terms.

Owing to the difficulty of obtaining evidence of the existence of infectious disease without the testimony of the medical attendant, it has not been possible to prosecute Dr. Dalton until the occurrence of the case referred to. There the patient died, and in accordance with law Dr. Dalton gave the registrar of deaths a certificate, stating the cause of death as scarlatina. An inquiry was then made, which gave Dr. Dalton an opportunity of explaining his omission to notify, if any explanation had been possible. In answer to that inquiry the right of the Corporation to require notification was denied; thereupon a summons was issued, and upon the hearing of the summons, for the first time the defence was raised that an informal notification had, in fact, been given to the sanitary inspector. It appeared, however, that this informal notification related to a previous case, and not to the case under discussion; a conviction therefore followed, as was inevitable.

Under these circumstances, I think your readers will see that the Corporation, unless they were prepared to allow the Act of

Parliament, obtained with considerable trouble, to be set at naught, were bound to take proceedings to enforce it. Other medical men in the borough who were notifying had just cause of complaint if, whilst they fairly carried out the provisions of the Act, one of their professional brethren should be allowed to set them at naught.

All medical men will understand that a prosecution of this sort is distasteful to those who have to embark in it, but both before and after the issue of the summons private attempts were made to get from Dr. Dalton an undertaking that in future he would comply with the provisions of the Act, and an offer was made to him, both before and during the hearing of the case, to withdraw the summons if such undertaking was given. He, however, absolutely refused to give any sort of undertaking, and apparently relied upon being able to upset the proceeding upon technical grounds. In this he was unsuccessful, with the result known to your readers.

It is hardly worth while to discuss what might have been if the case had borne the aspect suggested by Dr. Carpenter. The facts, however, as will be seen, differ entirely from those related in Dr. Carpenter's letter. I have been on friendly terms with Dr. Dalton for many years, and hope that these proceedings, in which I had no alternative but to appear, will make no difference in those friendly relations.—I am, etc.,

CHARLES W. PHILPOT, M.D. Lond.,
Medical Officer of Health, Croydon.

SIR,—The medical profession generally have reason to thank Drs. Dalton and Carpenter for standing out in opposition to those who wish to make us responsible for the delinquencies of other people. Let but regulations of a like nature be forced upon clergymen and solicitors, and a cry of persecution would be raised immediately. The Kingston Corporation at the present time are promoting a Bill in Parliament similar to that in force at Croydon; and eighteen of the local medical men, including three out of the four officers of health, have signed a petition in opposition to the clause which seeks to impose a penalty on any medical man who neglects to forward personally a certificate notifying the existence of infectious disease. We are all willing to give a certificate to the householder for transmission, but we decline to act the part of public informers. Moreover, a radical defect in the Bill, and one which we desire to see altered, is that it allows medical men who are engaged in practice to be appointed public health officers. The following reasons will suffice to show, I think, why they should be entirely independent. Though engaged in practice as ourselves, they would be placed on an entirely different footing to their brother professionals, inasmuch as they would have to report to no one, and would be in every way a law unto themselves; and, in the case of their having as patients large owners of property, they would, for fear of giving offence, be inclined to allow nuisances and dangers to the public health to remain uncorrected, which they would not do were they in a perfectly independent position. It is almost impossible in certain instances, however conscientious one may be, not to be biased to some extent by existing circumstances. In order to work any Sanitary Act properly, it is necessary a person should be appointed who is independent of all external considerations.—I am, etc.,

F. P. ATKINSON.

Surbiton.

THE ALLEGED ARREST OF SYPHILIS IN ITS PRIMARY STAGE.

SIR,—I do not agree with Mr. Jonathan Hutchinson or Dr. Drysedale, that there is the slightest evidence that syphilis is due to a microbe "as yet unknown to the microscope." This may be heresy in the present microbial age. I must also say that I was much surprised at Mr. Hutchinson's experience in invariably arresting the sequelæ of primary syphilis, if seen sufficiently early, by small doses of grey powder. I have seen a good deal of syphilis for over twenty years, and my habit has been in all doubtful cases to administer bichloride of mercury with potassium iodide. In some cases thus treated, no matter how early, secondary manifestations occurred, though certainly of a very modified nature, while in others there were no secondary symptoms. My experience goes to show that no one can predicate to a certainty that under any treatment a given sore will not be followed by secondary manifestations.

The subject is, of course, too wide to be dilated upon at any length in a note. The combination of mercury which I employ is

almost invariably the bichloride, dissolved in an excess of iodide of potassium. Ptyalism I consider to be due to the precipitation of metallic mercury in the glandular structures. Mercury dissolved in iodide of potassium is not so precipitated, and in this form ptyalism from mercury is rarely or ever seen. Iodide of potassium further aids the action of mercury by stimulating histolysis, and thus acting on the glandular system. It is thus, in my opinion, that the therapeutic effects of these agents, in syphilis, are to be explained.—I am, etc.,

D. CAMPBELL BLACK, M.D.,

Assistant Physician to Glasgow Royal Infirmary.

Glasgow, April 9th.

ST. ANDREWS UNIVERSITY AND AN M.D. FOR PRACTITIONERS.

SIR,—A petition is about to be presented to the Senate of St. Andrews University, praying that all medical men of ten years' standing may be eligible for the practitioner examination for the M.D. degree, without restriction as to age or residence, and I am enabled to say that the Senate will not oppose such a scheme if it be well supported by a large number of names.

Already one petition to this effect has been lodged, containing the names of representatives of nearly every British university, who, whilst not desiring the change for themselves, support it as a means of justice to others.

The subject was thoroughly ventilated in the JOURNAL some time ago, and I hope those who are in favour of the change will send their names to me at once, and I shall also be glad if those who would be willing to obtain the signatures of their neighbours in large towns would so express themselves.—I am, etc.,

Leigh, Lancashire.

B. JONES, L.R.C.P.Ed.

GAD FLIES ATTACKING MAN.

SIR,—With reference to recent correspondence on this subject in the JOURNAL, the following note may be of interest:—

A friend of mine was engaged for some weeks on a survey up one of the rivers of Venezuela. Soon after his return to Trinidad, a large grub was squeezed from a swelling over his lower jaw. The sore healed rapidly after the escape of the larva.

He gave me the grub preserved in spirit, and I forwarded it to Mr. C. O. Waterhouse, of the British Museum, who kindly sent me the following report by last mail:—

"Your larva is the one known under the name dermatobia toxialis, but there is not at present sufficient evidence to prove that it is the same insect as was originally described under the name *noxialis*."—I am, etc.,

BEAVEN RAKE, M.D.Lond.

Trinidad, March 12th, 1888.

LECTURESHIP ON FORENSIC MEDICINE, TRINITY COLLEGE, DUBLIN.

SIR,—In page 760 of the JOURNAL of April 7th, you mention my name among the candidates for the Lectureship in Forensic Medicine in Trinity College, Dublin, vacated by the death of the late Dr. Travers. Kindly permit me to state through your columns that such is not the case. I have not in any way sought the position in question.—I am, etc.,

F. J. B. QUINLAN, M.D.

29, Lower Fitzwilliam Street, Dublin,

April 7th.

NAVAL AND MILITARY MEDICAL SERVICES.

THE ARMY MEDICAL WARRANT OF 1879 AND MR. STANHOPE.

WE are glad to acknowledge the conciliatory spirit in which Mr. Stanhope replied to Dr. Tanner's question, as to whether it was intended to tamper with or set aside the Warrant of 1879, especially the right of medical officers to retire after twenty years' service. The Secretary of State for War went out of his way to answer the question, which had remained unput for four days on the notice paper. We welcome this changed attitude to a great army department, and to the civil medical profession, who are deeply interested in the rights and status of their military brethren. He intimated that "it is not intended to prevent medical officers retiring after twenty years' service, but it is proposed to require a reasonable service in a given rank before allowing retirement on the rates permitted for that rank."

This statement, which is most important, at first sight seems

clear enough; yet, reflection suggests that much depends upon the interpretation of the term "reasonable service;" and perhaps even more, as regards the medical officer, on what is meant by "that rank." For instance, a medical officer on completion of twenty years' full pay service, acquires a new army rank, in ranking as or with a Lieutenant-Colonel, but does not alter his departmental title of Surgeon-Major; but, on being promoted Brigade-Surgeon, he changes his departmental title without gaining any addition to his army rank.

What, then, is "that rank" to which Mr. Stanhope refers? Is it Departmental, or Army, or both? If the former, then, as the medical officer at twenty years will already have served eight years as Surgeon-Major, the "reasonable service" cannot apply, and he may retire at once; if the latter, then, as the Brigade-Surgeon, who will be at least of twenty-five years' service, gets no increase thereof, he, too, may go at once after promotion.

The "reasonable service" becomes bound up, therefore, in the question of "rank." We gathered from Mr. Stanhope's memorandum on the Estimates that a "reasonable period" was to be exacted in a given rank throughout all branches of the service, and we presume, therefore, the rank referred to must be army rank; if so, how is a medical officer who gets a step at twenty years able to claim retirement at once, and at the same time serve a "reasonable period" in this rank?

We advise Mr. Stanhope to clear up all the doubts and difficulties created by the late miserable tampering with the rank and status of medical officers before modifying the right of retirement. The War Secretary further admitted that retirement at twenty years was undoubtedly granted as an "inducement to candidates" to enter the service; and that "no restrictions" would be placed "on retirement on £1 a day." Good; but, if so, why at the same time speak of requiring a "reasonable service" in each rank before retirement? A continuation of service beyond twenty years will clearly be a "restriction."

His announcement that an officer's "vested rights," according to Lord Penance's Royal Commission of 1876, "are limited to the rank he holds" is no doubt good law as applied to the question of compensation in the curtailment of prospective advantages; but we would venture to think this decision does not bear on the right or justice of limiting the vested rights in a given rank, deliberately created by Royal Warrant, by merely setting them aside, at convenience, in another Royal Warrant.

The further developments of Mr. Stanhope's plans will be watched with much interest.

THE BURMAH MEDAL.

A CORRESPONDENT complains that the officers and men on board the hospital ship during the late Burmese war have been refused the medal, whereas medals were granted to those on board similar ships during the Abyssinian, Ashantee, and Egyptian expeditions. The official grounds of refusal were that the ship did not cross the frontier—a physical impossibility. But we believe the authorities maintain with no little force that the Burmah ship was so far removed from the scene of hostilities in Upper Burmah, that it was not on all fours with the ships in the other expeditions, which were located directly on the seaboard of operations.

ADMINISTRATIVE MEDICAL OFFICERS OF THE ARMY AND THEIR RESPONSIBILITIES.

WE regret to learn of the retirement from the service of a surgeon-general owing to a decision recently arrived at by the military and medical authorities. Judging from the facts of the case, this appears to mean that an administrative medical officer in visiting a hospital is personally responsible for the correct diagnosis of every case in it, whether reported to him or not, which is certainly a new departure. If this be so, we are strongly of opinion that the sooner the medical regulations of the army are revised the better, both in the interest of the soldier and of the medical officer; as at present, by all existing regulations, the senior medical officer specially appointed to the charge of the hospital is held responsible for this duty.

This strange decision as regards responsibility appears to us contrary to the spirit of the Queen's Regulations for the Army, and the "chain of responsibility" thereto laid down, and also to the usages of the medical and military professions, and to the true interest of the sick or wounded soldier. It is the more unjust and inexplicable in this case as the Secretary of State for War, while declining to alter the decision of the authorities, at the same time officially and "fully recognises the excellent services performed" by this medical officer. The surgeon-general referred to holds seven special letters of approval and thanks for his services received at various times up to the date of leaving the army, at home and abroad, from as many directors-general and

general officers, which were submitted to the Commander-in-Chief. This is, to say the least, a strange manner of encouraging medical officers to do their duty under all circumstances of difficulty and danger.

DUTIES OF ACTING SURGEON OF VOLUNTEERS.

M.D. asks: 1. What are the duties of an acting surgeon of volunteers? 2. Where can I obtain the best information about conducting an ambulance class or ambulance drill for volunteers? 3. What uniform does an acting surgeon of volunteers wear?

*. 1. Duties of acting surgeons of volunteers: (a) Proficiency examination (Volunteer Regulations, 1887, Part I, Sec. II, Para. 144). (b) Camps with Regular Forces (Volunteer Regulations, 1887, Part I, Sec. IV, Para. 405; Medical Regulations for Army, 1885, Part I, Sec. III, Para. 55 to 82).

2. Training of Stretcher Bearers (Queen's Regulations for the Army, 1885, Sec. XIV, Para. 80; and Volunteer Regulations, 1887, Part I, Sec. VI, Para. 517).

3. Uniform (Volunteer Regulations, 1887, Part IV, Sec. III, Para. 1044).

ARE BATTALION SURGEONS NONCOMMISSIONED OFFICERS?

DR. WALTER PEARCE, Acting Surgeon, Artists R.V., writes: Volunteer surgeons have substantive rank (Volunteer Regulations, 1887, Part I, Sec. II, Para. 124 and 125), and are commissioned. Acting surgeons have no substantive rank, are not commissioned, and their appointments cease whenever the corps to which they belong is called out for active service.

PRECEDENCE OF ARMY MEDICAL OFFICERS IN INDIA.

AN ADMINISTRATIVE OFFICER writes: In the JOURNAL of February 18th, page 379, you published a letter on this subject. I now enclose a verbatim copy of the orders relating to precedence.

By the first, paragraph 1360, vol. vi (The Medical Regulations), you will see that medical officers are only to be members of medical boards, and should, in all other cases, attend to give evidence. If this rule were adhered to, there would be no ground for complaint, as if the president acted as described in your correspondent's letter, he would do so on his own responsibility, and it would be evident on the face of the proceeding that the medical officer's opinion had not been asked for or recorded.

It happens, however, that in paragraph 1139, vol. ii of the Indian Army (Discipline) Regulations, power is given to the Government (really to the headquarter military staff) to nominate medical officers as members of mixed boards, and, when this is done, to my certain knowledge the medical officer is invariably nominated last, and has, therefore, to "sit and sign" junior to all the other members of the board.

Two instances have quite lately come under my observation, as principal medical officer of the division in which this has been done. In one case, a surgeon-major of twenty-five years' service, with rank as lieutenant-colonel of five years' standing, had to sign below a junior captain; and in the second, a surgeon-major of twenty-three years' service had to sign below a subaltern. In both these cases the medical officers appealed to me, but my advice to them was (considering they were both rapidly approaching their turn for promotion) to accept the position, and "don't kick up a row."

Will no member of our profession take this matter up in the House, and call on the Secretary of State for India to amend the regulations to such an extent as to give medical officers their proper position on all boards?

Army Regulations, India (Medical), vol. vi, p. 1360.—"Medical officers will be detailed as members of medical boards only. Should a medical opinion be required by any other board, reference will be made to the medical officer detailed to attend it, who will, if necessary, furnish his report in writing, or give evidence in person."

Army Regulations, India (Discipline), vol. ii, p. 1139.—"When committees are convened by Government composed of military and medical officers, or of these and civilians also, the relative precedence of the members is to be that in which they are named in the order convening the committee. In such cases the president may belong to any branch of the Service."

*. It seems to us the military authorities in India (and elsewhere) stick at nothing in their extravagant endeavours to deprive medical officers of any semblance of army rank and status. We have no difficulty in realising the utterly unworthy spirit which works in such a paragraph as 1139, Indian Army Regulations; but what is past our comprehension is that such an order can be promulgated without drawing a vigorous protest from the heads of the Medical Service in India. We never hear of any such protests.

THE NEW WARRANT.

NEMO writes: The more the Warrant on the Reserve of Medical Officers is studied the more insidious do its terms appear; he considers the Warrant has been issued to afford the authorities a powerful lever against the regular service, should that again become unpopular; he trusts the influence of the British Medical Association will frustrate any such scheme; he thinks no medical man of any standing could accept the "Reserve" terms at the risk of ruining his civil practice.

A CORRESPONDENT, signing himself "Beware," thinks the Warrant creating the Army Medical Reserve of Officers "another mean fly-trap of the most approved War Office pattern;" and says that medical men should be careful before they walk into it; the terms offered, he thinks, are beneath professional dignity.

REGULAR MEDICAL STAFF writes: The Royal Warrant for the establishment of an Army Medical Reserve will be read with interest by all who have long recognised the necessity for such provision being made. It only remains to be seen how the new Warrant will be accepted by the medical staff of the Auxiliary Forces, who it is presumed will carefully weigh all the conditions of service before joining.

The Secretary of State's instructions are practically the Warrant. In the light of these instructions, what does a medical officer gain by joining the Reserve.

1. According to Paragraph 1, a medical officer may presumably be unfit for service in the Reserve, yet fit for service with the present corps. Clearly he had better remain with his corps.

2. Publication of his name in an Army List, however useful to the Government, is no advantage to him.

3. Compulsory service as a surgeon-major up to the advanced age of 65, is certainly a doubtful advantage, yet no provision is made for any higher rank, which means higher pay.

4. If a real great national emergency should occur, all the auxiliary forces will naturally be called out, when the medical officer of a corps will necessarily draw the pay and allowances of his rank, and will have a better chance of serving with his regiment, instead of being knocked about the country as a Medical Reserve officer.

5. To a question whether the terms offered are sufficient remuneration for the duties to be performed, most officers of the regular Medical Staff acquainted with these duties will say most decidedly they are not.

6. Prior claims to hard work and insufficient pay can hardly be considered an advantage.

7. Would appear to be a provision for medical officers retaining their present regimental appointments. Should they join a reserve, they would soon find out that they would be sent just wherever their services were required.

Finally, the Warrant is clearly an attempt to play off a medical reserve against the present Medical Staff. Whether our professional brethren will come to the assistance of a Government which has persistently treated the regular medical officers of the army with flagrant injustice and scant courtesy, whether they will accept terms all the advantages of which are on the side of the Government, and whether they will not be far wiser to wait until the emergency arises, when bearing in mind the treatment now being experienced by the Medical Staff, these terms will be what the medical profession chooses to demand, are questions deserving the careful consideration of those now being tempted to join the Medical Reserve.

As a Medical Reserve, the provision made by the Warrant is utterly inadequate, and does not bring us one step nearer to the solution of the questions how to provide for one or two army corps in the field. A more unstatesmanlike Warrant was never issued. One thing is certain, that with the present strength of the regular Medical Staff, our first small war will have to constitute in the opinion of the authorities a great national emergency, and the new Medical Reserve will be called on to give up practice and home, and undertake duties for which the remuneration is totally inadequate. Let medical men, more particularly at this moment, bide their time if hereafter they wish to serve the Government; their market value will be three or four times what the Government now offers.

CIVIL OR MILITARY?

DR. J. RUXTON (Blackpool; late 17th Regiment and Army Medical Department) writes: I have lately wondered whether my old comrades in the Army Medical Staff are to be considered civil or military; the order removing the aiguilletes from the uniform of honorary surgeons to the Viceroy of India, on account of "exception having been taken by the military authorities to the honorary surgeons of the Viceroy wearing an aiguillette," compels one to ask the question. For my own part I consider that army medical officers are as much military as those of any other branch of the service. Wherein, therefore, lies the nucleus of the order?—evidently in the jealousy of the so-called combatant officers. Surely this is small. If medical officers are not military they must trust to civilians to look after their rights; but I observe Mr. Stanhope considers the action of the British Medical Association in finding out the grievances of the Medical Staff, contrary to military discipline. How will the Royal Warrant for reserve and army medical officers affect those now on full pay and those aspiring to the Medical Staff; will the elastic "exigencies of the service" curtail home service, and rob military surgeons of their last chance of a year or two at home, after the extended period of six years abroad?

We medical men are all indebted to Dr. Farquharson and others for bringing medical officers' grievances to the front, and we must ventilate them as it individually strikes us. We have a common welfare as a profession; the well-being of military medical men is ours.

THE ARMY MEDICAL STAFF.

UNION IS STRENGTH writes: The time has come when the medical officers of the army will have to offer, in the defence of their own interests, the most strenuous opposition to the proposed changes in the Medical Department contained in the memorandum recently issued by the Secretary of State for War. Their vested rights are seriously threatened, and if they do not now speak out, they will have only themselves to blame if the proposed changes be carried into effect. These changes mainly refer to conditions of service, pension, and the formation of an Army Medical Reserve, the latter to be composed of retired officers, officers of the auxiliary forces, and civilian surgeons. Naturally, they are calculated to excite the gravest apprehensions in the minds of medical officers, affecting as they do most seriously their privileges and prospects.

The Medical Service has been already transferred by a recent order from the War Office to the Horse Guards, who, following their old traditions, may be expected to treat our grievances with scanty consideration. In this struggle for the recognition of our claims combined representation is denied us, and individual representation, though allowed, is perilous; hence we have to depend altogether on external support, and on the influence which can be most powerfully exercised in our behalf by the various licensing bodies, the universities, and the members of the British Medical Association.

Under the present system there is already intense dissatisfaction existing as to the very short period of home service permitted to medical officers; and if the proposed scheme of the addition of an extra year abroad to each tour be adopted, the inevitable result will be such an increase of prolonged and continuous service in tropical climates as will leave us practically no home service to recruit our health. What is the good of life under such conditions of perpetual exile? And what are likely to be the consequences? The answer is easy: a greater amount of sickness, temporary half-pay on the expiration of six months' sick leave, followed six months later by removal from the service, with a small bonus for permanent ill-health, and an increase in the death-rate of the medical officers, already considerably higher than that of the combatant branch, together with the loss of all the advantages conferred by the Royal Warrant of 1879 while serving in India. This is a sorrowful outlook. Do Mr. Stanhope and his advisers think a medical officer requires no rest in England after frequent and prolonged tours of service in unhealthy climates? Do they think he has no bones to be racked by fever, and no inside to be rent by dysentery?

No arrangement is entered into between them in the signed agreement as to fees for attending and giving evidence at inquests and courts of justice, the point not having been mooted by either A. or B. at the time of signing the deed. B., nine months afterwards, considers he is entitled to these fees, though he did not claim them at first. A. has conceded so far as to give B. the fee when both A. and B. have been required and received a fee each, but declines in the matter of inquests and *post-mortems*, holding that B. was engaged to represent him during his absence, and relieve him of a portion of the work, and that the giving of evidence and making *post-mortems* is only part of his duty in the carrying on of the practice which he has agreed to do. Which is in the right?

"* Taking a common-sense view (based, moreover, on the customary provisions made in all carefully and practically drafted deeds of medical partnerships) of the points specified in our correspondent's communication, we are clearly of opinion that the view of the matter as expressed by "A." is in strict accord with right.

A QUESTION OF DAMAGES.

M. writes: For more than two months I have been attending a child who had fallen down an open cellar-door and received injuries to head and chest. The father of the child has recently threatened to sue the owner of the cellar for damages. Yesterday, without acquainting me, another practitioner, at the request of the owner of the cellar, visited and examined my patient, and this I consider a breach of professional etiquette. If he had called on me, I would have had no objection to his examining my patient, or even accompanying him. I think that the first duty of a medical man in such a case is to ascertain from the medical attendant if the patient is in a fit state to receive such a visit.

"* The duty which devolved upon the interviewing practitioner is clearly laid down in the following rule:

"When an employer or other person becomes anxious and apprehensive in regard to the illness of an *employé*, or in the case of an impending action for damages, and the like, and for his personal satisfaction requests his own family or another doctor to visit the patient and report to him thereon, it is a duty incumbent upon the deputed practitioner to point out to the employer or other interested party their respective ethical obligations in the matter; and, prior to making such visit, to solicit and obtain the sanction of the medical attendant in the case; otherwise, he will commit a grave breach of professional etiquette, and justly subject himself to severe criticism and reproof."

PAYMENT OF FEES TO SUBSTITUTE.

A. is engaged to attend a lady, who has a very quick confinement, so that the patient's mother sends for a doctor (B.) who lives close at hand. B. has left before A. arrives; still the patient requires an attendance of two hours and a half, owing to impending collapse, such having been her condition after her last confinement. Frequent visits were necessary during the following twelve days, and medicine was supplied. B. demanded half the fee, which was two guineas. A. wishes to know who ought to pay it—the patient or A.?

"* The only rule within our knowledge that bears on the point submitted by our correspondent is the following (12) extracted from the *Code of Medical Ethics*, 2nd edition, page 71:

"When a practitioner is called in or otherwise requested to attend at an accouchement for another, and completes the delivery, or is detained for a considerable time, he is entitled by custom (except in the case of illness, etc., provided for by Rule 3) to one-half of the fee, etc."

At the same time, we are of opinion that, under the circumstances related, the patient in question may fairly be called upon to pay the half fee demanded by B., and especially if the fee of two guineas includes the "frequent visits and medicine which were necessary during the twelve days following the confinement," in reference to which latter point A. will, we think, do well in his own interest to consult the explanatory note (No. 11) on "Midwifery," in the new edition of the *Medico-Chirurgical Tariffs*, page 14.

HEAVILY HANDICAPPED.

A. writes: In my absence urgent cases have been sent on to B.; he has retained them, and I have not taken any notice of it. But if B. happens to be out when a message comes for him, his servant comes round to me with B.'s card, requesting me to see the case for B. Thus, he not only keeps the patients that have sent for him and I have seen, but gains those who would have been my patients if I had been in. I wish to do whatever is professional; but this is rather heavy handicapping.

"* Under the circumstances related by our correspondent, he may, we think, not only justly regard himself as (to quote his own language) "heavily handicapped," but unfairly so, in the matter in question. The following is the rule extracted from the second edition of the *Code of Medical Ethics*, page 69, by which practitioners should in similar cases be strictly governed:

"When a practitioner is called to an urgent case, either of sudden or other illness, accident, or injury, in a family usually attended by another, he should (unless his further attendance in consultation be desired), when the emergency is provided for, or on the arrival of the attendant in ordinary, resign the case to the latter; but he is entitled to charge the family for his services."

THE CONSEQUENCES OF CATCHING SCARLET FEVER.

T. S. J. writes: (1) I was subpoenaed to give evidence as principal medical witness in a case for X. v. an Accidental Insurance Company, at assizes in Ireland, on March 16th, the terms arranged being first-class expenses and £3 3s. a day, also £2 2s. for a statement of the cause of death, and reasons for my opinion, etc. On March 9th I got scarlet fever, and consequently could

not attend. On the day of the trial the company compromised, giving £75 instead of £1,000 claimed. I may add that X. relied almost solely on my evidence, which was opposed to that of the jury. Knowing that I would have to go to the trial, I was unable to take any permanent appointment (which was offered), and was out of work for over three weeks, by which I calculate I lost £20. Am I entitled to claim this £20? I have been paid for the statement.

(2) I was acting as *locum tenens* for fifteen days, at rate of £3 3s. per week. On the tenth day I was attacked with scarlet fever, which I got from my patient. Am I entitled to the pay for fifteen days or for ten days?

"* (1) Apparently all the services actually rendered were in making the report, which has been paid for. No fees are ordinarily payable to witnesses unless they attend for the purpose of giving evidence. They might be payable under a special contract, but such contract does not appear in this case to have been made.

(2) The engagement being a definite one for a definite period, the agreed remuneration is payable for the whole time. Illness contracted in the performance of the duties is no reason for refusing payment.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, April 5th.

Retirement of Army Medical Officers.—DR. TANNER asked the Secretary of State for War whether the Royal Warrant of November, 1879, which gave officers of the Army Medical Staff the right to retire after twenty years' service, was about to be interfered with or set aside; whether the condition of retirement was intended as an inducement to medical men to enter the service; and whether the provisions under the said Warrant, if interfered with, would affect the retirement of those medical officers who entered the service since the Warrant was issued.—MR. E. STANHOPE replied that it was not intended to prevent medical officers from retiring after twenty years' service, but it was proposed to require reasonable service in a given rank before allowing retirement at the rates permitted for that rank. The power of retiring after twenty years' service was undoubtedly held out as an inducement to candidates to come forward; and as regards that retirement of £1 a day, no restriction would be placed upon it. The last paragraph of the question touched on vested rights. These, as in all other branches of the service, must be regarded as governed by the rule enunciated by Lord Penzance's Royal Commission in 1874, that an officer's rights are limited to the rank he holds, and this rule was embodied in the preamble to the Royal Warrant.

Friday, April 6th.

Pharmacy Acts Amendment Bill.—DR. FARQUHARSON moved the second reading of this Bill.—MR. J. R. KELLY opposed the Bill, on the ground that it would alter the whole status of chemists' assistants, who would, if this Bill passed, be entirely deprived in many cases of all chance of becoming chemists or druggists. The Bill simply placed the chemists' assistants bound hand and foot in the power of an irresponsible body called the Pharmaceutical Society.

The Horse Tax.—MR. MOZIER asked the Chancellor of the Exchequer whether he could see his way to permit medical men to keep, at least, one horse each free of horse tax.—DR. FARQUHARSON said, before the question was answered, he should like to say whether horses used by medical men for professional purposes might not fairly be considered as horses used for trade purposes.—THE CHANCELLOR OF THE EXCHEQUER said, in reply: I find that there is a precedent for such an exemption as the honorable member suggests. Up to 1869-70, when the horse tax stood at one guinea, doctors and ministers of religion paid only half that duty, and this continued till the duty was reduced to 10s. 6d. for everybody. The question whether one horse ought to be exempt in the case of doctors and ministers of religion is receiving the consideration of the Government; but it must not be forgotten that exemptions are almost always of an invidious nature, and that it is difficult, when once you begin making exemptions from any duty, to know where to draw the line. There is some force in the observation of the hon. member opposite that doctors in country districts do, to a certain extent, come under the definition of traders. I must take this opportunity of reminding the House that the question of exemptions from horse or wheel tax, and, indeed, the question of these taxes generally, is one between the interests of persons using horses and carts and that of the general body of ratepayers. It is not a question between the former and the National Exchequer. I mention this because I see that in many quarters the idea still prevails that these taxes are in some way connected with the reduction of a penny in the income tax.

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the same time, the Government feel that it is essential that the taxes, purely local as they are, should be placed upon the lightest possible basis.—Mr. CHANNING inquired whether the taxes used by farmers would be exempt.—The CHANCELLOR of the EXCHEQUER said the principle which he wished to carry out was that horses used for purposes of luxury should be taxed, and those used in any particular trade should be exempt. He would refer the point raised by the hon. member to his most careful consideration.

Monday, April 9th.

Medical Practitioners.—Mr. A. MORLEY asked the Vice-President of the Committee of Council whether registered medical practitioners in the United Kingdom were afforded privileges of acting in the United States of America; and whether any steps had been taken or were in contemplation by the Privy Council, under Section 17 of the Medical Act, 1836, in the direction of similar privileges being given to legally qualified American practitioners who might be desirous of practising medicine in the United Kingdom.—Sir W. HART-DYKE replied in the negative to both questions.

Thursday, April 12th.

Medical Practitioners and their Horses.—Mr. KNATCHBULL-EGGENSEN asked whether medical practitioners were now allowed to deduct the expenses of their horses in the calculation of income tax, as being necessary for the carrying on of their business.—The CHANCELLOR OF THE EXCHEQUER: Yes, Sir, if the horses are used solely in the exercise of their profession, they would be exempt in the manner suggested.

OBITUARY.

THOMAS HITCHCOCK, M.R.C.S.

WE have to announce the death of Mr. Hitchcock, who died at Leek on March 14th, in his seventy-ninth year, from heart disease. He was born in 1809, and became a pupil of Mr. C. Mayo, of Winchester. He afterwards studied at St. Thomas's Hospital, becoming a Licentiate of the Apothecaries' Society in 1830, M.R.C.S. in 1831, extra-Licentiate of the Royal College of Physicians in 1845, and Licentiate in 1859. For many years he practised at Winchester, where he gained the esteem and respect of all. In 1851 he was appointed Physician to the County Hospital, a post which he held for twenty-eight years; on resigning it he was appointed Consulting Physician. He held the appointment, up to within six months of his death, of Medical Visitor to the Westbrook House Lunatic Asylum, Alton. At the time of his death Mr. Hitchcock had retired for some years from active practice. In 1871 he was appointed county magistrate, having been previously appointed to the Commission of the Peace. The deceased gentleman was fond of sport, and was ever foremost in giving a helping hand to philanthropic, charitable, and other objects. He leaves issue one son, Colonel T. B. Hitchcock, and two daughters.

GEORGE YATES, M.R.C.S.ENG., L.S.A.

WE regret to announce the death of Mr. George Yates, late of Perry Bar, Birmingham, who died at Leamington, after prolonged illness due to renal disease, on April 2nd, aged 66. Mr. Yates was Mr. Alfred Baker's first pupil at the Birmingham General Hospital, and from that time until his death was an earnest worker. He obtained the diplomas of M.R.C.S.ENG. and L.S.A. in 1844. He was a member of the Paris Medical Society, and became Resident Surgeon to the Bedford General Infirmary. Afterwards he was honorary Surgeon to the Birmingham General Dispensary. He contributed papers of great interest to the *Dublin Quarterly* and *Midland Quarterly Journals*; he read many papers to local medical societies, and was a constant debater at their meetings. He was a good classical scholar, and deeply interested in physiological questions. He has ended a long professional career generally esteemed by his professional brethren as a true friend and honest gentleman.

ROBERT TRAVERS, M.B.T.C.D., F.K.Q.C.P.I., Professor of Medical Jurisprudence, Dublin.

MR. ROBERT TRAVERS, whose death on March 27th we have already announced, was Professor of Medical Jurisprudence in Trinity College, Dublin. He graduated in 1832 and became professor in 1844. He did not devote himself to practice, but rather to purely

literary work. In 1841 he became assistant in Marsh's Library, and he was thus enabled to indulge the tastes which were so strong in him. He, however, still maintained his connection with medicine, and, in addition to his other occupations, he lectured on medical jurisprudence in the Ledwich School of Medicine. His lectures were well worked up, full of interest, and instructive, but they were peculiar in style, and some of his laughable class stories, told in quaint and stilted language, are the common property of medical society. To the general body of the profession he was not known, for his habits were essentially those of the recluse. He had a remarkable knowledge of anonymous literature, particularly in that of a theological or patriotic character, and he was always prepared to help any inquirer from the vast stores which he had accumulated. His illness was of short duration. When asked what faith he held, he declared "Christianus sum; I die in the faith of the three creeds." To the many students whom he taught and who survive him, his death will cause much pain, for they all had for him a strong personal affection and admiration.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

It is expected that the magnificent new Chemical Laboratory which has been erected in Downing Street will be partially ready for occupation this term. The laboratory course in pharmaceutical chemistry for the second M.B. examination will be held there daily, beginning on April 23rd.

Dr. Annington, Medical Officer of Health for the Borough, and Secretary of the State Medicine Syndicate, and Mr. Robinson, Assistant to Professor Liveing, announce for the ensuing long vacation a course in Practical Hygiene, suitable for candidates for the Diploma in Public Health Examination in October. The course will include analysis of air, water, and food, and the demonstration of sanitary models. Details may be learned on application to Dr. Annington or Mr. Robinson, at the Chemical Laboratory.

Professor Macalister announces a course of lectures on the Rudimentary Structures in the Human Body, beginning on April 24th.

PUBLIC HEALTH

AND POOR-LAW MEDICAL SERVICES.

PIT BURIAL IN SCOTLAND: AMENDMENT OF THE BURIALS ACT.

At a recent meeting of the Glasgow Philosophical Society, Dr. Eben Duncan, President of the Sanitary Section, proposed and carried the following resolutions: "That the Society memorialise the Secretary for Scotland to take steps for the amendment of the Burials Act, so as to place the private cemetery companies of Scotland under the regulations issued by the Home Secretary in 1883 for burial grounds under the Burials Act," and "That it be remitted to the Council of the Sanitary Section to consider what other reforms are required on our present methods of disposal of the dead, and to report."

After referring to the horrors of pit burial in vogue in all the private cemeteries round Glasgow, Dr. Duncan showed that these cemetery companies were not affected by the Burials Act. That Act, passed in 1855, provided that every local authority should take compulsory powers to secure ground for the proper interment of the people, but, unfortunately, there was one clause introduced into the Act which had prevented any benefit being derived from it in Scotland. It was enacted that local authorities could make an agreement with private cemetery companies to inter their poor for them in any way the cemetery companies thought proper. The cemetery companies were under no regulation whatever; they could do exactly as they liked. The amendment that he proposed would enable local authorities to deal with these cemeteries, and put a stop to pit burials or other nuisances. At present, if a local authority wished to put down such nuisances, it required to act under the Public Health Act, and to prove to the satisfaction of the sheriff that there was an immediate danger to health. Moreover, country local authorities had never paid the slightest attention to this matter. There were three private

cemeteries outside Glasgow that had continued this system of pit burial in spite of much public criticism, and yet the local authorities had not bestirred themselves in the least to put an end to this crying nuisance. It was therefore time that Government should take up the question, and amend the Act so as to bring these cemeteries under proper supervision.

In the discussion that followed Sheriff Spens stated that the sanitary authorities in rural districts were simply no authorities at all, so far as doing practical work was concerned. The present state of matters was not only an outrage upon public decency, but could not by possibility be consistent with public health.

The President (Dr. J. B. Russell) said the local authority of Glasgow had thought it of so much importance that they had resolved to endeavour to get power under the Burgh Police (Scotland) Bill to make by-laws for the regulation of burial grounds. The whole difficulty was that there was no power in the hands of the local authority to enforce regulations that would prevent such a nuisance arising.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight largest English towns, including London, which have an estimated population of 9,398,273 persons, 3,766 births and 3,584 deaths were registered during the week ending Saturday, April 7th. The annual rate of mortality, which had increased in the three preceding weeks from 20.3 to 21.5 per 1,000 declined again during the week under notice to 19.9. The rates in the several towns ranged from 13.6 in Derby; 14.8 in Brighton, and 15.0 in Halifax and in Sunderland to 23.7 in Salford, 28.1 in Blackburn, and 29.7 in Manchester. In the twenty-seven provincial towns the mean death-rate was 20.3 per 1,000, and exceeded by 0.9 the rate recorded in London, which was 19.4 per 1,000. The 3,584 deaths registered during the week under notice included 141 which were referred to whooping-cough, 51 to "fever" (principally enteric), 48 to measles, 46 to scarlet fever, 41 to diarrhoea, 27 to diphtheria, and 17 to small-pox; in all, 371 deaths resulted from these principal zymotic diseases, against 319 and 338 in the two preceding weeks. These 371 deaths were equal to an annual rate of 2.1 per 1,000; in London the zymotic death-rate was 2.2, while it averaged 2.0 in the twenty-seven provincial towns, and ranged from 0.0 in Sunderland, 0.3 in Newcastle-upon-Tyne, and 0.4 in Portsmouth to 3.9 in Blackburn, 4.6 in Salford, and 5.4 in Plymouth. Measles caused the highest proportional fatality in Derby and Plymouth; scarlet fever in Halifax and Blackburn; whooping-cough in Manchester, Liverpool, London, and Salford; and "fever" in Preston, Leicester, and Nottingham. Of the 27 deaths from diphtheria recorded during the week under notice in the twenty-eight towns, 16 occurred in London, 3 in Birmingham, and 3 in Salford. The 17 fatal cases of small-pox included 14 in Sheffield, 1 in Manchester, 1 in Halifax, and 1 in Leeds. The number of small-pox patients in the Metropolitan Asylums Hospitals on Saturday, April 7th, was 8, of which 3 had been admitted during the week. These hospitals also contained 1,032 scarlet fever patients on the same date, which showed a further decline from the numbers in recent weeks; 62 cases were admitted during the week, against 94, 77, and 70 in the three preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 5.1 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, April 7th, 933 births and 551 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had risen in the three preceding weeks from 21.0 to 23.7 per 1,000, declined to 21.8 during the week under notice, but exceeded by 1.9 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Leith and Greenock, and the highest in Glasgow and Aberdeen. The 551 deaths in these towns during the week under notice included 51 which were referred to the principal zymotic diseases, equal to an annual rate of 2.0 per 1,000, which was slightly below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded Glasgow and Paisley. The largest proportional fatality of measles occurred in Edinburgh; and of whooping-cough in Glasgow, Aberdeen, and Paisley. Two deaths were referred to diphtheria in Edinburgh. The mortality from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 5.8 per 1,000, against 5.1 in London.

HEALTH OF IRISH TOWNS.—In the sixteen principal town districts of Ireland the deaths registered during the week ending Saturday, April 7th, were equal to an annual rate of 27.2 per 1,000. The lowest rates were recorded in Sligo and Kilkenny, a the highest in Drogheda and Dundalk. The 188 deaths registered in Dublin during the week under notice were equal to an annual rate of 27.8 per 1,000 (against 29.7 and 31.2 in the two preceding weeks), the rate for the same period being only 19.4 in Lond and 22.0 in Edinburgh. The 188 deaths included 19 which resulted from the principal zymotic diseases (equal to an annual rate of 2.8 per 1,000), of which 6 resulted from "fever," 5 from measles, 4 from whooping-cough, 3 from scarlet fever, and 1 from diarrhoea.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE COTTAGE HOSPITAL, WALSALL.

In contradiction of the statements made in the JOURNAL of March 3rd, Dr. MacLachlan, Mr. John Wood, and Mr. P. Shore, write follows:—

1. There is always a qualified medical practitioner at the outpatient department, which is open on three afternoons in the week.
2. The Sisters do not treat fractures without surgical supervision.
3. There never has been a case corresponding to, or in the least resembling, that related by the "well informed correspondent" of the boy with the fractured fibula.
4. The patients have fish for dinner once in the week, in which cod, fresh herrings, and plaice, play about equal parts in the course of the year. The doctor's instructions as to diet and other matters are, and always have been, faithfully carried out.
5. That "the Sister in charge carries things with a very high hand," is a vague assertion, but that during the whole time she has filled that office, now over nine years, there has never been the smallest friction between her and the three doctors, who now form the honorary staff of surgeons, is only the bare truth.

A HOMŒOPATHIC PEER.

LORD DESART, a believer in homœopathy, has availed himself of the opportunity afforded by the projected enlargement of the Grantham Hospital (of which he is president) to offer £225 to complete the required sum of £350, and £100 a year for the next ten years, "on condition that a homœopathic physician be admitted in the staff of the hospital, with full power of treating patients on that system." The letter came before a meeting of the committee on Monday, but its consideration was postponed. The governors will of course understand that if any such offer is accepted, the medical staff will undoubtedly feel called upon in accordance with the general rule in the profession, and the state of opinion which prevails on the subject, to resign.

MEDICAL NEWS.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Second Examination in Anatomy and Physiology at a meeting of the Board of Examiners on April 5th, namely:—

T. A. O. Langston, H. S. Thurston, E. F. Snyrett, and H. J. Waring, students of St. Bartholomew's Hospital; G. D. K. Bannerman, of London Hospital and Mr. Cooke's School of Anatomy; F. E. Rogers, of London Hospital; R. N. Daniel, J. W. Mactavish, J. R. Harper, and S. Zeldin, of St. Thomas's Hospital; D. Drew, E. Ringrose, L. Williams, A. C. Stevens, and J. B. Paul, of University College; J. B. N. Vickers and G. M. W. of St. Mary's Hospital; C. Thompson, of Charing Cross Hospital; M. Makalua and J. Wood, of King's College; E. C. Long and C. B. Solymon, of Middlesex Hospital.

Passed in Anatomy only.

E. J. H. Budge, of Guy's Hospital; A. Dalzell, of St. Thomas's Hospital.

Passed in Physiology only.

P. C. B. Swanseger, of Charing Cross Hospital; W. K. Steele, of Guy's Hospital.

Passed in Anatomy and Physiology only on April 6th.

F. M. Mangan, H. W. Richards, A. Queinell, F. M. J. Powell, and W. H. Mallow, of St. Bartholomew's Hospital; E. T. Whitehead and J. S. Cooper, of St. Thomas's Hospital; T. J. Wood and C. B. Turner, of University College; E. A. Roek and H. L. Curling-Hope, of Middlesex Hospital; M. S. F. Monier-Williams, of St. George's Hospital; D. L. Southey, of King's College; E. H. Sharmar, of Liverpool, Edinburgh, and

minster Hospital; A. K. Barrett, of St. Mary's Hospital; J. H. Bryant and H. W. John, of Guy's Hospital; A. W. Allen and A. R. Colyer, of Charing Cross Hospital.
 Passed in Anatomy only.
 H. W. Weekes and E. W. Smith, of University College; H. V. Prynne, of Middlesex Hospital; H. L. Morgan, of Westminster Hospital; A. Thorne, of St. Mary's Hospital; J. L. Blakiston, of King's College.
 Passed in Physiology only.
 R. T. Bakewell and W. F. Chambers, of University College; N. Marder, of St. Bartholomew's Hospital; A. Lawson, of Middlesex Hospital.
 Passed in Anatomy and Physiology on April 7th.
 C. P. Le Quesne, F. Arthur, C. P. M. Swales, J. P. Wightman, and C. H. Langford, of St. Bartholomew's Hospital; H. Burden and E. Du Bois, of St. Thomas's Hospital; A. Crick, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy; K. M. Mackenzie and G. E. T. Haydon, of London Hospital; H. S. Baker, D. J. Jones, and J. B. Williams, of Charing Cross Hospital; P. J. Duffy, P. Evans, and A. J. Chambers, of University College; B. W. Hogarth, of Guy's Hospital; L. Rogers and J. C. Wood, of St. Mary's Hospital; W. F. Adams, W. A. Eden, M. K. Soutter, and J. J. Waddelou, of King's College; F. B. Marlin, R. H. Reynolds, and C. L. Lake, of Westminster Hospital; P. G. Garrett, of Middlesex Hospital.

Passed in Anatomy only.
 A. G. R. Cameron and H. M. Phillpotts, of St. Mary's Hospital; H. J. F. Badcock, of Charing Cross Hospital; A. Kidd, of Middlesex Hospital; J. B. Lemon, of St. Bartholomew's Hospital; G. Pernet, of Edinburgh and University College; F. T. Morris, of University College.
 Passed in Physiology only.
 W. A. Hampton, of Middlesex Hospital; J. W. Davies, of King's College.
 Passed in Anatomy and Physiology on April 9th.
 M. L. Margrave, R. Brown, and H. W. C. Austen, of St. Bartholomew's Hospital; H. E. Girdlestone, W. H. Miller, H. D. Levick, and J. B. F. André, of St. Thomas's Hospital; F. G. S. S. Harvey and V. W. Law, of St. Mary's Hospital; W. B. Morton, of University College; T. R. Hamlen and E. Jones, of Middlesex Hospital; A. Rudd, A. T. Coleman, and H. C. De Renzi, of Westminster Hospital; E. W. M. Higgs, of Charing Cross Hospital; D. W. Samways, of Guy's Hospital.
 Passed in Anatomy only.
 H. Clift and C. A. Covertan, of St. Bartholomew's Hospital; E. J. Finch, of St. Mary's Hospital; C. H. C. Visick and E. B. Allan, of University College; J. B. O. Richards and L. J. Minter, of King's College.
 Passed in Physiology only.
 A. G. Minshall, of University College; F. A. Harsant, of Middlesex Hospital; H. W. West, of London Hospital.
 Passed in Anatomy and Physiology on April 10th.
 A. A. Hewer, P. Furnivall, R. Stephens, C. H. Fowler, A. G. Gane, H. A. Eccles, C. B. Dale, and A. Carney, of St. Bartholomew's Hospital; H. L. Hatch, of St. Mary's Hospital; D. C. Johnston, G. F. Dickinson, F. C. Porter, and F. H. S. Blucke, of Charing Cross Hospital; R. E. S. Krohn, of University College; T. G. Brodie, A. Whitfield, and E. L. Pritchard, of King's College; T. H. Kellock, A. King, and H. T. Jones, of St. Thomas's Hospital; A. W. Harrison, of Westminster Hospital.
 Passed in Anatomy only.
 S. H. Rentsch, of King's College; R. F. J. Gill, A. G. Rider, and T. G. S. Crouch, of University College; H. Kneivitt, of London Hospital; St. J. B. Killery and H. Kerwill, of St. Bartholomew's Hospital; A. Jeffreys, of St. Thomas's Hospital.
 Passed in Physiology only.
 J. Mountford, of Charing Cross Hospital; and C. G. Hoysted, of Charing Cross Hospital and Mr. Cooke's School of Anatomy.

The following Member having passed the necessary examinations on November 24th, 25th, 26th, and 27th, 1886, and having since attained the legal age (25), was at a meeting of the Council on April 12th granted his Diploma of Fellow of the College.
 G. P. Newbolt, date of membership, January 22nd, 1855, M.B. Durham, of Newcastle and St. Bartholomew's Hospital.
 The following gentleman having passed the necessary examinations was admitted a Member of the College.
 E. L. Haynes, of St. Bartholomew's Hospital.

MEDICAL VACANCIES.

The following Vacancies are announced:
BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £50, board, etc., and extras. Applications by April 16th to the Chairman of the Weekly Board.
BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150, and £30 extra for cab hire. Applications by May 10th to A. Forrest, Esq., Secretary.
BIRMINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Residence, board, etc. Applications by April 25th, to the House Governor.
BOROUGH OF BRIGHITON.—Medical Officer of Health. Salary, £500 per annum. Applications by May 2nd to F. J. Tillstone, Esq., Town Clerk.
BRISTOL ROYAL INFIRMARY.—Honorary Assistant Physician (to out-patients). Applications by May 5th to the Secretary.
DURHAM COUNTY HOSPITAL.—Honorary Surgeon. Applications by April 30th to the Secretary.
DURHAM COUNTY HOSPITAL.—Honorary Surgeon-Dentist. Applications by April 30th to the Secretary.
DURHAM UNION WORKHOUSE.—Medical Officer. Salary, £50, and extras. Applications by April 20th to William Lisle, Esq., Clerk to the Guardians, 35, Sadler Street, Durham.
LIDDELL PROVIDENT DISPENSARY, Jarrow-on-Tyne.—Medical Officer. Salary, £200. Applications to John Christie, Esq., 23, Cobden Street, Jarrow.

LIVERPOOL STANLEY HOSPITAL.—Junior House-Surgeon. Salary, £70, with board, etc. Applications by April 19th to the Honorary Secretary.
LIVERPOOL STANLEY HOSPITAL.—Senior House-Surgeon. Salary, £80, with board, etc. Applications by April 19th to the Honorary Secretary.
NORFOLK COUNTY ASYLUM, Thorpe, near Norwich.—Junior Assistant Medical Officer. Salary, £100, with board, etc. Applications by April 21st to Dr. Thompson, Medical Superintendent.
NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Senior Resident Medical Officer. Applications by April 23rd to the Secretary.
OUGHTRARD UNION, Cloonbur No. 2 Dispensary.—Medical Officer. Salary, £102 per annum and fees. Applications to Mr. James Higgins, Honorary Secretary. Election on April 17th.
OUGHTRARD UNION, Lettermore Dispensary.—Medical Officer. Salary, £132 per annum and fees. Applications to Mr. John Wallace, Honorary Secretary, Tully, Inveran. Election on April 17th.
PARISH OF TARBAT EUSTEE, Ross-shire, N.B.—Medical Officer. Salary, £115. Applications to Finlay Munro, Rockfield-by-Fearn, Ross-shire, N.B.
ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Board, etc. Applications by April 27th to the House-Surgeon.
ST. LUKE'S HOSPITAL.—Resident Clinical Assistant. Board and lodging. Applications by April 26th to the Secretary.

MEDICAL APPOINTMENTS.

BOWKES, Charles S., L.R.C.S. and L.M.E., L.F.P. and S.G., L.R.C.P., appointed House-Surgeon to the Royal Infirmary, Glasgow.
BRANE, Woodhouse, L.R.C.P., F.R.C.S., appointed Anesthetist to St. Peter's Hospital for Stone, Henrietta Street, W.C.
CLEWOW, Frank G., M.B., C.M.Edin., appointed Resident Medical Officer to the British Seamen's Hospital, Cronstadt, St. Petersburg.
FISHER, Alfred, M.R.C.S. Eng., L.R.C.P. Edin., appointed Honorary Medical Officer to the No. 2 District of the Ladies' Charity and Lying-in Hospital, Liverpool, vice William O. Pugh, M.B. Lond., resigned.
FOURQUEMIN, George V., L.R.C.P., L.R.C.S., L.M.Ed., appointed Resident Medical Officer to the St. Helen's Friendly Societies' Medical Aid Association, vice A. M. Hynes, L.R.C.P., M.R.C.S.
GEMMELL, John E., M.B., C.M.Edin., etc., appointed Honorary Medical Officer to the No. 4 District of the Ladies' Charity and Lying-in Hospital, Liverpool, vice Meyer J. Bernstein, M.D., C.M.Edin., resigned.
HOLMES, Thomas D. H., M.B., C.M.Ed., appointed Assistant Medical Officer to the East Riding Asylum.
MECHAN, Joseph, M.B., C.M., late Resident Assistant at the Glasgow Royal Infirmary, appointed Resident Assistant Medical Officer to the Glasgow Town Hospital.
MILNE, J. B., M.B., C.M., appointed House-Surgeon to the Dewsbury and District General Infirmary, vice Alexander Milne, M.B., C.M., resigned.
McKINSTRY, W. H., M.B., M.Ch., appointed Assistant Surgeon to the Liverpool Dispensaries.
PEDLER, William Frederick, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., appointed House-Surgeon to the Richmond Hospital, vice W. A. Payne, resigned.
ROLSTON, J. R., M.R.C.S. Eng., appointed Honorary Ophthalmic Surgeon to the Royal Albert Hospital, Devonport.
SIMPSON, Samuel, M.B. and B.Ch. Dub., appointed Second Assistant Medical Officer to the Somerset and Bath Asylum, vice W. S. Barnes, M.D., resigned.
SMYTH, W. J. S., M.B., C.M.Ed., appointed Temporary Assistant Medical Officer to the Essex Lunatic Asylum, Brentwood.
WATSON, Thomas Alfred, M.B., C.M.Edin., appointed Assistant Resident Medical Officer to the Woolwich Union Infirmary, Plumstead, S.E., vice J. M. Caw, M.B., C.M., resigned.
WEBB, J. B., M.R.C.S. Eng., L.R.C.P. Lond., appointed Assistant-Surgeon to the Liverpool Dispensaries.
WHITBY, Charles J., B.A., M.B. Cantab., appointed Resident Assistant-Surgeon to the Liverpool Dispensaries (East).
WILLS, William Alfred, M.B. Lond., M.R.C.S., appointed Medical Registrar to the Westminster Hospital, vice Dr. Syers, resigned.

GUY'S HOSPITAL MEDICAL SCHOOL.—The Michael Harris prize in anatomy, value £10, has been awarded to Mr. J. H. Bryant, of Ilminster; the Beaney prize in pathology, value 30 guineas, to Mr. E. H. Starling, of Bombay; and the Golding Bird prize for diagnosis, value 33 guineas, to Mr. R. D. Mothersole, of Colchester.

ST. JOHN AMBULANCE ASSOCIATION.—We learn from Mr. Hugh Lane, of Bath, that the whole of the candidates of the Bath Ladies Branch of the St. John Ambulance Association obtained certificates of competency at the recent examination.

A TABLET bearing a portrait of the late Dr. Austin Flint, erected in the Carnegie Laboratory by the Alumni Association of the Bellevue Hospital, New York, was recently unveiled by the President of the Medical College.

A BILL has been introduced into the House of Assembly with the object of providing the United States with a national *Pharmacopœia*.

THE will of Dr. Robert Palmer Clayton, of Denby Dale, Huddersfield, has been proved, the personal estate amounting to over £14,000.

THE PARKES MUSEUM, MARGARET STREET, S.W.—His Grace the Duke of Westminster, K.G., has made a donation of £100 to this Museum in aid of its work of practical teaching and demonstrating sanitary science.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. Damer Harrison, of Liverpool: Cerebral Abscess treated by Operation. Dr. J. Milner Fothergill: Small and Moderate Valvular Lesions of the Heart.

SOCIETY OF ARTS, 8 P.M.—Mr. Richard Bannister, F.I.C., F.C.S.: The Cantor Lectures on Milk Supply and Butter and Cheese Making. Lecture II.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Specimens: Mr. Shattock: Rare kind of Pedunculated Body in Knee-joint. Mr. Sharkey: Alcoholic Paralysis of Phrenic, Pneumogastric, and other Nerves. Mr. Bowly: Some Cases of Gangrene. Mr. Doran: Primary Cancer of Fallopian Tube. Dr. G. Griffiths: Tumour in Neck invading Jugular Veins. Mr. Bruce Clarke: Sloughing of Bladder following Cystitis. Mr. Silcock: Cystic Disease in Testis. Card Specimens: Mr. Bowly: Unusual Forms of Loose Bodies from Knee-joint. Dr. Leclard: Enlarged Bursa Patellæ with Outgrowths from Walls. Dr. N. Dalton: Gummata in Liver of an Infant.

ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.—Twenty-fourth Annual Festival at the Hôtel Métropole, at 7 P.M.

WEDNESDAY.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND, St. Bartholomew's Hospital, 4.45 P.M.

THURSDAY.

PARKES MUSEUM OF HYGIENE, 5 P.M.—Mr. Justice Cunningham: On the Public Health in India.

HARVEIAN SOCIETY OF LONDON, 8.30 P.M.—Dr. Braxton Hicks, F.R.S.: Two Cases of Ovariectomy complicated with Pregnancy. Dr. Frankish: On Venesection.

FRIDAY.

SOCIETY OF MEDICAL OFFICERS OF HEALTH, 7.30 P.M.—The Council will present reports on: (1) The Journal of the Society; (2) The Local Government Bill. The following papers will be read: C. A. Watts Parkinson, M.R.C.S.: Notes of an Epidemic of Pneumonia. J. F. J. Sykes, M.B., B.Sc.: Verification and Certification of Deaths.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

BROWNE.—On April 9th, the wife of Samuel Browne, M.D., late Royal Navy Medical Officer to H. M. Prison, Warwick, of a son.

DARTNELL.—At Rochester, on April 4th, the wife of William A. Dartnell, surgeon, of a son.

GRIFFITHS.—On April 8th, at 18, St. George's Terrace, S.W., the wife of Herbert T. Griffiths, M.D., of a son.

MCCAW.—On April 7th, at Alba House, Portglenone, Belfast, the wife of J. Dysart McCaw, M.D., F.R.C.S., of a son.

MARRIAGES.

ACLAND-GULL.—On April 12th, at All Saints' Church, Margaret Street, London, by the Right. Rev. the Lord Bishop of Lincoln, assisted by the Rev. A. B. Cotton, uncle of the bridegroom, Theodore Dyke Acland, third son of Sir Henry Acland, K.C.B., F.R.S., of Oxford, to Caroline Cameron, daughter of Sir William W. Gull, Bart., F.R.S.

BAUMGARTNER-PATTINSON.—On April 5th, at St. Mary's Church, Gateshead, by the Rector, the Rev. W. Moore Ede. Henry Spelman Baumgartner M.B., M.S., M.R.C.S., etc., Newcastleton-Tyne, youngest son of John Percy Baumgartner, Esq., J.P., of Gorleston, Suffolk, to Ethel Mawson, second daughter of John Pattinson, Esq., Shipcote House, Gateshead.

EVANS-BARTON.—On April 11th, at St. Mary's, Balham, Charles Silvester Evans, M.B., of Shaftesbury, Dorset, son of the late Benjamin Evans, F.R.C.S., of Brixton, to Lilian Mary, daughter of George Mitchell Barton, Esq., of Calcutta.

FLOOD-SPROULE.—On April 4th, at Omagh, by the Rev. W. Colquhoun, assisted by the Rev. — Houston, Surgeon S. J. Flood, Army Medical Staff, youngest son of A. Flood, Esq., M.D., Danesfort, co. Fermanagh, to Marion, only daughter of H. Sproule, Esq., J.P., Irish Land Commissioner, Coolnagarde, co. Tyrone.

HICKSON-DURHAM.—On April 4th, at St. George's, Hanover Square, by the Rev. William Rogers, M.A., Rector of St. Botolph's, Bishopsgate, and Chaplain in Ordinary to the Queen, John Godfrey Hickson, son of the late James Hickson, of Highgate, to Ellen Lucy (Nellie), second daughter of Arthur E. Durham, F.R.C.S., of 82, Brook Street, Grosvenor Square, W.

LYONS-CORMACK.—On January 21st, at St. Paul's Pro-cathedral, Melbourne, Victoria, by the Rev. G. E. Bromby, D.D., Brigade-Surgeon R. T. Lyons, M.D., to Helen Rose, eldest daughter of the late Sir John Rose Cormack, M.D., of Paris.

ROWBOTHAM-ABBOTT.—On April 5th, at St. Mary's, Bideford, Devon, by the Rev. Roger Grauville, M.A., Rector, Herbert Claude Rowbotham, surgeon, Melbourne, Derbyshire, son of the late Dr. Rowbotham, of Woolwich, to Jessie Caroline, daughter of John Abbott, of Bideford.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

THE quarterly meeting of the Council was held on Thursday April 12th, 1888.

The minutes of the ordinary Council on March 8th were confirmed. Mr. Sibert Cowell was appointed Assistant Secretary of the College.

The minutes of the Jacksonian Committee on April 11th were read as the report from that Committee. The Committee having adjudged the Jacksonian Prize for the past year to the author of the dissertation bearing the motto "Thorough," the President opened the sealed envelope bearing the aforesaid motto, and declared the name written therein to be Edwin Hurry Fenwick.

The Council also recognise the merits of the dissertation bearing the motto "Veritas" as deserving of special mention; and it was resolved to open the envelope bearing the said motto, upon which it appeared that the author was Mr. F. A. Southam, of Manchester. Both these gentlemen were invited to attend the next meeting of Council.

The following was declared to be the subject of the Jacksonian Prize for the ensuing year 1889, namely:—The Pathology, Diagnosis, and Surgical Treatment of Intracranial Abscess and Tumour.

A report, dated March 20th, 1888, from the Committee of Management of the Examining Board in England by the Royal College of Physicians and the Royal College of Surgeons was approved and entered on the minutes.

The Committee reported that, in consideration of the necessary additional work which had fallen on the staff during the past year, involving as it did a considerable extension of the office hours beyond those originally contemplated, the Committee has thought it right to recognise their services by awarding to the Secretary fifty guineas, to each of the two senior clerks fifteen guineas, and to the junior clerks ten guineas.

A report, dated April 11th, 1888, from the Committee on the form of the report of the Council to the annual meeting of the Fellows and Members of the College, was approved, adopted, and entered on the minutes.

The report stated that the Committee having, in pursuance of the resolution of the Council of March 8th, 1888, taken into consideration the "form of the report of the Council to the annual meeting of the Fellows and Members of the College," had adopted the following report to the Council, namely:

"The Committee are of opinion that no alteration should be made in the report so far as the materials from which it is framed are concerned; and that, in addition to the returns as to the examinations and the statement of accounts, in which no change, necessary, it should only contain, as heretofore, an actual record of the transactions of the Council; but the Committee recommend that the form in which the report is drawn up should be altered so as to provide that, in the arrangement of the several subjects discussed and determined by the Council, each subject should be within the range of the period to which the report relates, but complete."

A report, dated April 3rd, 1888, from the President and Vice-Presidents on the arrangements for the College lectures was approved and entered on the minutes. This report was as follows:

"The President and Vice-Presidents have to report that, in pursuance of the resolution of the Council of June 9th, 1887, they have taken into consideration 'the propriety of rearranging the lectures annually delivered in the College, and of making them more serviceable to the profession; and that they are not prepared to recommend to the Council that any alteration should be made in the arrangements for the lectures, believing that the plan recently adopted of dividing the lectures amongst several professors has been to some extent successful, as evidenced by the increased attendance upon them, and that it would therefore be inopportune at present to make any change in that plan."

It was also agreed that the experiment of the lectures being delivered at 5 P.M. instead of at 4 P.M. as hitherto should be tried.

Sir T. Spencer Wells, Bart., was appointed the Morton Lecture on Cancer and Cancerous Diseases for the present year.

A letter of March 15th was read from the Privy Council stating that the Government had determined to advise Her Majesty to refer the subject of the grant of degrees in medicine and surgery to Royal Commission.

Deputy Surgeon-General Jeffery Allen Marston, C.B., and Mr. Thomas Annandale, of Edinburgh, were elected Fellows under Section 5 of the charter of the 15th Victoria applicable to Members of the College of twenty years' standing.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

QUERIES.

R. H. C. asks to be recommended where to obtain the best kind of portable commode suitable for an invalid when travelling.

E. N. C. asks if there is any institution for the reception of medical men in delicate health, or any home in which a medical man would receive slight medical treatment. He would be prepared to pay a small amount, say £1 or 30s. a week.

INCONTINENCE OF URINE AND FÆCES.

R. K. C. B. writes: I have a patient, aged 5½ (girl), who from infancy has passed both fæces and urine involuntarily. She is not nervous, enjoys good health, and is well developed, both mentally and physically, for her age. There is no pain or tenderness over the spine. She has been seen by various medical men, and different remedies (including galvanism, which was not applied regularly owing to the patient residing in the country) have been tried, but without any permanent benefit. I should feel grateful for any hints as to treatment and prognosis from those who have had similar cases under their care; also to know of any paper or book which deals with the subject.

ANSWERS.

SURGEON F. M. KNIGHT.—A paper on the determination of proteid bodies in the urine is in type, and will be published shortly.

RUSTICUS.—The case has been inquired into by the officers of the British Medical Benevolent Fund, and the facts are as stated. The circumstances are peculiarly distressing, and the case is stated to be a genuine one.

CONGENITAL BLINDNESS.

H.C.M.G. asks whether there are any institutions for cases of congenital blindness, where they would be taught a trade, such as basket-making, etc.

* * Our correspondent will probably be able to obtain all information from Dr. Armitage, 34, Cambridge Square, Hyde Park, Secretary to the Association for the General Welfare of the Blind. There is also a list of various institutions in Fry's *London Charities*.

TREATMENT OF HEARTHURN.

M.D. writes: In reply to a Member suffering from hearthurn, I would recommend him to try the effect of a piece of the best Spanish liquorice, of the size of a pin's head. It may be repeated as often as he needs it, but not in greater quantity at a time.

PURE WOOL CLOTHING.

A MEMBER asks if there is any way by which irritation of the skin, caused by pure wool clothing may be checked or minimised.

* * The irritation diminishes after the clothing has been properly washed and the skin becomes habituated to the wool. A great deal depends upon obtaining good material in the first place, and in this respect the English, Scotch, or Welsh goods are far superior to their competitors.

GYNÆCOLOGICAL COUCH.

COUNTRY MEMBER will find the Rotunda Couch, advertised by Stewart and Co., Newgate Street, meet his requirements.

TREATMENT BY ANTICIPATION OF POST-PARTUM HÆMORRHAGE.

DR. A. H. NEWTH (Hayward's Heath) writes: I have found the following plan of treatment remarkably successful in several cases in which severe flooding has previously and repeatedly taken place, and the patients have made good recoveries.

For some days or even weeks before give a mixture containing dilute sulphuric acid 10 drops, liq. strychnie 4 minims, with a little sulphate of magnesia if there is constipation. Just before labour sets in give 5 minims of liq. strychnie with a dose of ergot, unless the pains are strong. Then use constant pressure on the uterus during the passage of the child. I like a towel folded cornerwise, with a knot tied at the back. Directly the placenta is expelled, wash out the uterus with a large quantity of warm, almost hot, water containing Condy's fluid. Put on a binder or tighten the towel with a firm pad over the uterus.

DR. G. ARMSTRONG ATKINSON (Newcastle-upon-Tyne) writes: In reply to "Felix," I fear the account he gives of the stages of labour is too brief to indicate the manner in which he conducts them, especially as regards the third stage. In his case obviously one ought very carefully to keep grasping the uterus during the birth of the child and the placenta, the latter being removed only after the lapse of at least half an hour from the conclusion of the second stage. The bladder ought to be emptied shortly before the child is born. After delivery the uterus must be kept within the hand and the organ steadily compressed, from time to time making firmer pressure. If necessary the other hand may be introduced into the vaginal canal or uterus, so as to compress the organ between the two hands. As a rule, however, I regard the use of hot water injections as detailed by Athill, Emmett, and more recently by Milne Murray, preferable if further means be required.

As to the use of ergot or ergotin in labour, I regard any pills as quite useless. The Pharmacopœial hypodermic injection of ergotin is as convenient a preparation, and one giving as satisfactory results, as any yet formulated, but one must always bear in mind how very variable ergot is in quality, and also that it deteriorates, however carefully it be preserved. In the case under discussion, I would inject the ergotin as soon as the head was born. Any treatment which would raise the patient's tone before labour would be of great advantage.

DR. C. T. BROOKHOUSE (Brockley, S.E.) writes: In reply to "Felix," who asks for suggestions in the treatment of anticipated post-partum hæmorrhage, I

would suggest the administration of my liq. strychnie twice a day for a month prior to the expected confinement, and the immediate application of electricity after the birth of the child, should normal contraction not take place. This can easily be done by means of a Gaiffe battery, price 21s., one sponge being pressed above the pubes and the other introduced by the hand to the cervix. The sol. ergotin hypoderm. B. P., is a very reliable preparation; it may be injected deep into the gluteal region, and repeated if necessary.

MR. GEORGE EATON STANGER writes: In reply to the query of "Felix" in the JOURNAL of April 7th, I have long been in the habit of administering liq. strychnie my ter die for a month before the completion of the term.

DR. JOSEPH THOMPSON (Nottingham) writes: If "Felix" will give his patient 5 minims of liq. strychnie in tincture of orange peel three times a day for a month or six weeks before her confinement, I think she will have no hæmorrhage.

AMICUS writes: In answer to the inquiry of "Felix" as to the treatment to be adopted in a case where post-partum hæmorrhage has occurred after three previous confinements, may I suggest to him a trial of strychnine, in doses of 4 or 5 minims of the official solution, three times a day, with or without iron as advisable? In two cases in my practice, where such hæmorrhage had occurred twice and four times respectively in former labours, this treatment during two months before the expected time was most satisfactory. The uterine contractions were more forcible, and no atony followed the expulsion of the placenta.

PRACTICE IN AMERICA.

YANKEE writes: In reply to "Stars and Stripes," I beg to state that he can practise in all the States, with the exception of New York, Pennsylvania, and Illinois. These States demand an examination which is rather severe, particularly for an Englishman. It would be a great advantage for anyone contemplating locating in the States to possess the M.D. degree. The registration fee is thirty dollars (about £8) in the States requiring registration.

TREATMENT OF TRACHEAL COUGH.

MR. LOCKHART STEPHENS (Emsworth) suggests inhalations of pinol, 20 to 30 drops to be placed on a pledget of absorbent cotton in the hot water of an ordinary form of inhaler, to be used for ten or fifteen minutes three or four times daily. During the past six months he has had under close observation four cases of incipient phthisis, in which the cough was the most prominent symptom, and in all the cough ceased after using these inhalations for from four to six days; all the patients are doing well, and are very grateful for relief afforded. He adds that in these cases sedatives had had full trial, and had failed. No remedy, in his personal experience, gives such relief as pinol inhalations. The makers of pinol are Messrs. Burroughs, Wellcome and Co., Snow Hill Buildings.

NOTES, LETTERS, ETC.

THE BUDGET.

MEDICUS writes: The classing a doctor's horses as "pleasure horses" and his carriages as used for purposes of luxury is very unjust. I doubt if they are so used in any sense on half a dozen occasions in the course of the year. Owing to our practice being in a mixed suburban and country district ten miles from town, my partners and myself are obliged to keep two horses each, and, owing to the distances we have to travel and the often heavy state of the roads, it is sometimes necessary, in order to get over the ground quickly, to drive a pair. Our rents and local rates are very heavy, so that this additional taxation will press on us with increased severity. I see that already letters from medical men in protest have appeared in the lay press, and I feel confident that any measure so injurious to the interests of a hard-worked and poorly-paid profession will be opposed by the leaders of the British Medical Association.

THE LATE MR. J. TEEVAN.

MR. A. TEEVAN (Ballarat, Victoria) writes: There was a slight mistake in the obituary notice of my uncle, the late Mr. James Teevan, which appeared in the JOURNAL of November 26th, 1887. He had three brothers in the profession instead of two, namely, William Teevan, of Bryanston Square (father of the late Mr. William Frederick Teevan, of Portman Square, Dr. Henry Teevan, of Dunedin, New Zealand, and myself); John Teevan, of Woodside, Croydon; and Michael Teevan, of Kensington, both of whom had at the time of their death retired from practice.

A CASE OF DISTRESS.

Second List of Donations.

£	s.	d.	£	s.	d.	
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Further donations in aid of the family will be gratefully received by Dr. George C. Jonson, 16, South Eaton Place, S.W., or by Dr. John M. Bright, Park Hill, Forest Hill, S.E.

OLD CLOTHES: AN APPEAL TO THE BENEVOLENT.

MR. EDWARD EAST (16, Upper Berkeley Street, Portman Square, W.), Honorary Secretary of the British Medical Benevolent Fund, writes: I am in urgent need of some cast-off clothing of any sort for men, women, or children, and shall feel very much obliged if any kind friends could help me by sending a few articles to me at this address. I can assure their being well used and most thankfully received. Great-coats and warm clothing for men, jackets

CLINICAL LECTURE

DISEASES OF THE TONGUE.

Delivered at University College Hospital.

By CHRISTOPHER HEATH, F.R.C.S.

Holme Professor of Clinical Surgery in University College, London.

GENTLEMEN,—I propose to-day to speak of the diseases of the tongue. Of course the tongue is constantly looked at simply as an index of disease elsewhere; and, as far as that is concerned, I do not propose to deal with it to-day, but to confine my observations to the surgical diseases of the tongue. I think you will admit that the simplest way to consider these will be under three heads, namely, the inflammatory affections of the tongue, the ulcerations of the tongue, and, lastly, deposits in the tongue. Of course you will find them given differently by different authors, but, on the whole, I think that it is perhaps as convenient a way of putting it as any other.

First, as regards the inflammatory affections of the tongue, here is, of course, such a thing as acute glossitis, but, it is very rare, and you have not had an example of it before you, that I know of, of late—at all events, not in my practice. Still you may meet with such a case, and it is well to know that patients are liable to a sudden great enlargement and inflammatory swelling of the tongue, which looks very formidable for the first few hours, and may sometimes prove dangerous to the patient's life by inducing suffocation. You may occasionally meet with it coming apparently idiopathically, but more often it seems to be connected with the administration of mercury. A patient has been taking mercury for some reason; and, it is difficult to say why, he gets acute glossitis. Under these circumstances you find the tongue enormously swollen, filling up the mouth of the patient and almost suffocating him, and naturally requiring to be relieved immediately. The treatment is extremely simple—by making an incision on each side of the median line of the tongue. Do not mind a little free bleeding. Bleeding relieves the affection, and then with a little fomentation and simple gargles the whole thing subsides in a few hours. It really is not a very important affection, although it looks very alarming when you first see it.

What I want to speak more particularly about to-day are the chronic affections of the tongue. We get chronic inflammation of the tongue from various causes. Perhaps one of the commonest is the form which is due to smoking, for there can be no question whatever that tobacco has a deleterious effect upon the mucous membrane of the tongue. If you must smoke, and I suppose in the present day it is difficult for any young man not to smoke, may smoke mild tobacco, and do not use pipes which are saturated with oil, and which, perhaps, have been smoked by other people.

Now, with regard to the chronic glossitis which is produced by the tobacco affection, you will find that authorities differ about it, but I agree with Mr. Barker in his essay in *Holmes's Surgery* that there is a condition of reddened tongue which is an early stage of chronic glossitis. When that has passed away you find a later stage where you have a development more or less complete (it varies, of course, in different patients) of a white patch. This may be simply a loss of epithelium—that is, a common condition which is sometimes known as "glazed tongue"—but you find in addition to that sometimes a development of white tissue in the tongue, of which you see a very good example in one of the illustrations in Mr. Butlin's book. We happen to have a patient who has been in No. 1 ward lately for an anal affection. I have invited him out to you when you have gone round, as a remarkably good example of what is dignified by the name of "leucokakia" or "leucoma," and I will now bring him before you; and let me remind you that when you examine a tongue, the first thing to do is to dry it. I will dry this man's tongue, and then you will see clearly a white patch, which is partly the cicatrization resulting from an operation performed upon it. Here we have a good example of the results of chronic glossitis, which at one time seemed likely to run into more serious disease. We have

here a growth developed in the white patch, which at one time looked exceedingly like epithelioma, so much so that the man was admitted into the hospital in 1886 with the view of having part of the tongue removed. It was not removed quite so promptly as it would have been but for a Fellowship examination which was coming off, and we wanted the patient to be shown. I postponed the operation, therefore, and during the fortnight or so that he was waiting here the tongue improved so much under simple treatment that I made up my mind that it could not be epithelioma, and accordingly I simply scraped away the disease which had sprung up in the white patch, or beneath it, and the result, as you see, is that the man is now well. He has a perfect tongue instead of having lost part of it, and it is quite clear that it was not a case of epithelioma developing in a patch, but was simply hypertrophy of the submucous tissues, the result of chronic inflammation. Let me at the same time warn you that there is no doubt whatever among those who have carefully observed these cases, that a patient who has a white patch is more liable to epithelioma than the patient who has not a white patch. I do not like to put it more strongly than that. I do not say that every such patient will have epithelioma, but his chances of having it are greater than those of a patient who has not a white patch.

The white patch may of course go on and develop into a sort of warty growth, as you see here in one or two of these pictures, or it may develop into a condition which is sometimes badly called psoriasis; or again, it may develop by still greater irritation into what is sometimes called ichthyosis of the tongue. They are all degrees of the same disease. Ichthyosis was the name given by Mr. Hulke, who first called attention to it; and it is undoubtedly much nearer epithelioma than the white patch. There is a drawing here in Mr. Clarke's book which illustrates it very well. It is a very good representation of a highly hypertrophied and roughened mucous membrane. An ichthyotic tongue is so near epithelioma that it is just a question whether you should remove the tongue at once, or wait until there are positive signs of epithelioma. I think myself, if I had a well developed ichthyotic tongue, I should prefer to have it out at once rather than run any further risk.

Now let us take another class of case, where you have a chronic change in the epithelium due to syphilis. You may have a primary chancre. The early enlargement of the glands under the chin and jaw is very characteristic of chancre; but do not suppose that you will find that induration which we see so commonly on the penis, because you will not any more than you do on the lip. The cases of primary chancre on the tongue are extremely rare; but you must bear in mind that a patient may most innocently get a primary sore upon the tongue from another. If a patient hands, from a mouth which has mucous tubercles in it, a pipe, which must necessarily have some syphilitic saliva upon it, to another person who has a little sore or crack on the tongue, it is conceivable that the tongue may become affected, and the patient may have a primary chancre. Much more common than that, but still rather rare, are mucous tubercles. You find that a patient who has syphilis in the system sometimes develops mucous tubercles about the tongue, particularly on the back part of the organ.

But the most common syphilitic affection of the tongue is another form of glossitis—chronic glossitis with cracks in the tongue—which is well recognised as the result of secondary syphilis. The picture in my hand shows it well. You see the loss of epithelium in the centre of the tongue, and round the sides you see a cracked, cicatrised tongue. Those deep cracks, sometimes running quite far into the tongue, are as characteristic as anything you can have of secondary syphilis. Then, if you go further and follow out syphilis, of course you may have gummata in the tongue; but I shall put these under the head of deposits, and I will say a word now with regard to the treatment of that which is so common an affection.

The question arises, in the case of such a tongue as I have described, will you give mercury or iodide of potassium? Certainly, in a tongue like that you had better give small doses of mercury. It is true the patient may have had mercury before; but I find that these patients do better with small doses of mercury—which you can, if you like, combine with iodide—in the form of biniodide, or you may give it separately as liquor hydrargyri perchloridi. The thing I lay most stress on, however, is the local application of mercury. These tongues do well if you only pickle them in a mercurial lotion. It is of no use to tell the patients to use a mercurial mouth-wash and

then spit it out. They should be told to hold it in their mouths ten minutes by the watch, and breathe through their noses, so as to get the tongue thoroughly pickled with the lotion. As to the strength of the lotion, I advise you to begin with a quarter of a grain (afterwards getting a little stronger) of perchloride of mercury, with a little honey to make it more palatable, in an ounce of water. If the process of "pickling" is repeated twice or three times a day, the effect produced on the tongue is astonishing; the ulcers will heal under the mercurial treatment, the tongue will cicatrize, and the patient will recover a perfectly useful tongue, in which there will be no risk, so far as I know, of any future development of epithelioma. It is longstanding diseases that develop into epithelioma; but if you cure the disease and make the tongue healthy, or comparatively healthy, the patient will be no more liable to epithelioma than any other person.

Now let us go on and take the forms of ulceration, which we have from three different sources. You may have the syphilitic ulceration, you may have the tubercular ulceration, and you may also have the epitheliomatous ulceration. Syphilitic ulceration I have already mentioned in connection with superficial inflammation of the tongue. It is well that you should remember that there is another form of ulceration connected with syphilis, that is the ulcerated gumma. Some months ago we had in the hospital an old man, a foreigner, with very well marked ulcerated gumma on one side of the tongue. I took him in because he could not be attended at home, and he got steadily better under good treatment. He was here a week or two ago to show his tongue, and I then called your attention to how very much it was improved. The treatment of these ulcerated gummata is of course a little different from that of the ulcers occurring in the earlier stage of syphilis. Where you have ulcerated gummata of the tongue, it would be unwise to push mercury. You give iodide of potassium, and improve the patient's health in every possible way; and if you use the mercurial wash, not stronger than a $\frac{1}{4}$ to a $\frac{1}{2}$ grain to the ounce, you certainly get those tongues better.

The tubercular ulcer of the tongue is not a very common thing, and you see it more often in private practice than in the hospital. It usually occurs at the tip of the tongue, and is I believe very often determined by irritation from the teeth; at all events, I have found that by covering the teeth with gutta-percha, so as to prevent the tongue being rubbed against the back of the teeth, I have been able to get these tongues very much better. Here is an example in Butlin's book of a well-marked ulcer of the tip of the tongue, and where you find an ulcer in that condition you will generally find some evidence of tubercle in the lungs or other parts of the body. An ulcer like that you must treat as you would treat an ordinary tubercular ulcer elsewhere, namely, by scraping away all the diseased tissue. You may or may not find tubercle bacilli in it. I am not prepared to say which is more common, but at all events you should scrape the ulcer, and then dress it with iodoform, and treat the patient with cod-liver oil and by general anti-tubercular remedies.

Then we come to the third form, which is the malignant or epitheliomatous ulcer. Now, why does a patient get epithelioma of the tongue? Invariably, I believe, from some irritation. Patients with perfectly healthy tongues do not get epithelioma. But if you have a patient who has a white patch beforehand, which is a little irritable, perhaps scratched by a tooth, and which is kept in a state of irritation by the constant application of tobacco juice, one can easily imagine that developing into epithelioma. But as far as my experience goes, the greater number of cases of epithelioma are simply due to the local irritation of a ragged tooth cutting into the tongue; nothing has been done to relieve it, and then at last a development of epithelioma takes place. During the last winter I have seen two middle-aged gentlemen, both of whom had the very smallest patches of epithelioma that I have ever seen on the tongue from that cause. They both had sharp pointed teeth, and they were conscious that those teeth had been irritating their tongues. They went on, however, until at last they began to find something wrong, and then they took advice. In both cases I cut out the piece, and it was simply mucous membrane that was affected by the disease, which did not go down into the muscular fibre of the tongue at all; but still in both cases there was well-marked microscopic evidence of epithelioma. One may hope that by such an early removal as that, the patient may be completely relieved of the disease. Still, the great thing is to prevent the occurrence of such cases. I am happy to say that dentists are becoming better instructed every day; they are more

alive than they were to the importance of irritation caused by teeth, and they do send on cases at once, when they find anything suspicious about the tongue, to medical men and surgeons to see what the matter is. Too often, however, patients themselves are content to let the thing go on; and then at last they come with a ragged ulcer, which is undoubtedly epitheliomatous.

I quite allow that the very early stage of epithelioma is a little difficult to recognise; but when the ulcer is well developed, and the induration at its base has become well formed, no one can hesitate for a moment. Here we have three examples of epithelioma. An epitheliomatous ulcer is not simply an ulcer, but an ulcer with a growth, a growth springing up at the edges of the base and forming a protrusion, sometimes a distinct protrusion, as in this particular case, but more often like this other case, an indurated base of the ulcer with well marked granulations coming up into the cavity. Unfortunately, you have seen many of these cases, because we have a great many in the hospital at various times, and in hospital practice they do not come until very late, so late that generally the glands are enlarged. But in private practice we see them rather earlier, before the glands are enlarged, and I want particularly to impress upon you the importance of not waiting for the glands to become affected. It is very absurd that a surgeon should think to himself, "This cannot be cancer because there is no enlargement of the glands," and then deliberately wait and watch to see whether the gland become affected or not before he makes his diagnosis. That is a very good as regards diagnosis but very bad as regards the patient, and the patient who is waited for in that way is hardly treated, for you ought, if possible, to get rid of the cancer before the glands become affected.

Let me now say a word about diagnosis, because that is really the important point. How will you diagnose a case of epithelioma when you see it? In the first place by the position. It is more generally at the edge and side of the tongue than anywhere else, and the history is pretty conclusive. You will find that for weeks or months the patient has had some irritation about the tongue; he has had an ulcer which has too often been constantly irritated by the application of nitrate of silver, and has developed more and more until there is the characteristic growth in the base and edge of the ulcer which I have mentioned. Then there may be tenderness of the glands of the neck. The pain, too, is characteristic; the patient tells you that it shoots up into the ear. I always dread that phrase, and never prompt a patient to use it, but as sure as he does so it is a case of cancer of the tongue.

Lastly, we have the deposits in the tongue, which I have mentioned incidentally, and which are of two kinds, the epitheliomatous, which always follows the ulcer and extends beneath it, and the gumma, which develops, as a rule, in the central portion of the tongue, and is apt to break down and give rise to a formic-like-looking ulcer, as already described. Unquestionably a ulcerated gumma may develop into epithelioma, and it is these mixed cases which apparently improve for a time under iodide of potassium, and yet prove malignant after all.

What, then, is to be done for cancer of the tongue? Undoubtedly to palliate these cases is merely to lose valuable time, and the so-called "cancer cures" are simply swindles on the public. Chian turpentine stands on a different footing altogether, and I have used it where I thought it right as an adjuvant to surgical treatment, but I confess that I have never seen any benefit from it whatever. I have even sent a patient on whom I had operated and who had a return of the disease, by his own wish, to Dr. Clay, of Birmingham, that he might himself carry out the treatment; but the patient died under the treatment, just as he would have done without it, and in about the same time, without having received the slightest benefit. I do not think there is any special cure for cancer, and the only chance for the patient is to get rid of it as early as possible.

That brings me to the question of operations on the tongue. Of course there are many, but I am not going to trouble you with them all; it will be sufficient to tell you what we do here at the present time. We have all come, in most cases, to removing the tongue with scissors. Years ago, as you will find if you look in the records of the hospital, the galvanic *écraseur* was used, but we gave it up because it led to secondary hæmorrhage. The answers well for the time, if the battery is in good order, and you can remove the tongue without bleeding; but you are apt to get secondary hæmorrhage a few days afterwards, when the slough comes away. After the galvanic *écraseur* we used the wire *écraseur*. The best way of using it is Mr. Baker's modification of the oper-

tion—namely, to split the tongue down the middle, to loosen it from all its attachments beneath, and then divide with the *éraseur* far back, taking one-half of the tongue at a time. Of course in many cases you remove only half; it is not necessary to remove the whole. We have most of us now given up that operation and gone to the intrabuccal operation with the scissors, generally known as Mr. Whitehead's operation. It is extremely simple. All you have to do is to gag the patient thoroughly—it is important to have a good gag; then, getting a firm hold of the tongue, with the scissors you divide the mucous membrane under the tongue and the muscles, and, drawing the tongue well forward, next divide it at the root, cutting steadily through till the lingual artery is exposed, when you can often pick it up before dividing it. Having done one side, you go to the other, if you remove the whole tongue, and treat it in exactly the same way. The result is that you get the tongue away as far back as you like with very little hæmorrhage.

Let me say, on the subject of hæmorrhage, that I myself introduced an improvement in the operation about the tongue some years ago, which I find most surgeons have adopted, namely, that when there is hæmorrhage and you require to stop it, you simply put your fingers down the patient's throat and hook up the base of the tongue and the hyoid bone. I found that out when assisting my colleagues in removing the tongue. We used to have occasionally sharpish hæmorrhage. It was my business to help to pick up the arteries, and I found that by putting the fingers well down I could stop the bleeding, making the tongue bloodless, and pick up the arteries quietly, as you might pick up an artery in a limb.

But then supposing you have disease of the tongue with enlargement of the glands, should you or should you not operate upon them? For myself I am not particularly fond of removing glands, yet I am obliged to do it from time to time. Where I find a patient has an ulcer of the tongue which is distinctly cancerous with infiltration in the submaxillary glands, I do not hesitate to make an incision and take the glands out. It becomes a little different when the glands of the neck are affected. In my experience cases where the submaxillary lymphatic glands are not affected and the glands under the sterno-mastoid are affected are the worst possible cases. If you cut out one gland, you find very soon afterwards that another becomes affected; and those patients, as a rule, have very short lives. Cases where you can remove the glands under the jaw merely do fairly well, as well perhaps as any of these cases. Because, after all, you must remember that recurrence is almost invariable, and one hardly knows of a patient with *bonâ fide* epithelioma living more than two years. Then in these cases where the glands are affected you may have seen some of my colleagues do a very large operation called Kocher's operation. You make an incision into the neck, turn up a large flap, and get down upon the glands; you then get hold of the tongue, and you can undoubtedly remove numerous glands and extensive disease of the tongue through that incision. I am not particularly favourable to it. It seems to me that in cases in which there is such extensive disease as to warrant an operation like that, we had better not interfere with the neck, but content ourselves with removing the tongue. That, however, is my individual opinion.

You saw me in the beginning of last session do an extensive operation on a man in the private ward, No. 1. He was sent up from the country with extensive disease of the tongue and of the submaxillary tissues. He was in a miserable state, and anxious to have something done. I told him plainly that I would operate if he wished, but I could not promise him anything more than temporary relief. On November 2nd I operated on him. The disease was so extensive that I thought it better to do tracheotomy first. I do not usually do tracheotomy in these cases; I do not hold with preliminary tracheotomy in ordinary operations on the tongue; but this was so extensive a case that I thought it right to do it. I was then able quietly to remove the whole tongue down to the hyoid bone, and a piece of jaw right up to the masseter on each side, and all the infiltrated submaxillary tissues. It is not the first time that I have done an extensive operation like that. The first case I had was in 1876, and the result of it is in the museum. The patient lived certainly four years after the operation, but he did not appear to have many weeks to live at the time I operated.

Still these extensive operations are not very satisfactory. This very patient, before he was really well, had a recurrence. The operation was on November 2nd, and he went out on December 2nd convalescent from the operation, but having already evidences

of a return of the disease. I heard from the friends that he had a recurrence, but I have not heard whether he is dead: the poor fellow cannot have long to live.

The satisfactory cases are those where the disease is entirely confined to one part of the tongue, where you can get well behind that portion and remove it at once, and where there is no infiltration of the glands. It rests with you, who will see these cases early, to insist upon the patients having an operation in early days if there is evidence of disease. When we get that sufficiently insisted on, unquestionably our rate of mortality and our rate of cure will very much improve.

The Registrar-General has pointed out that cancer is much on the increase. There are two or three explanations. No doubt many cases are put down as cancer which formerly were not recognised as such. Still even if that be so, I think, from my own observation, there can be no doubt that we do see more cases of cancer of the tongue than we did twenty or thirty years ago. One explanation is, I believe—you will excuse my saying so—the greater spread of smoking; and another, I think, is the greater spread of syphilis. Those are the two main elements which have to do with cancer of the tongue being so much on the increase. I hope that we shall be able to diminish it, and that by taking the cases early and by removing the diseased part thoroughly, we may be able to hold out some prospect to the patient of prolongation of life—we cannot honestly do much more than that at present.

THE PROCESS OF COMPENSATION AND SOME OF ITS BEARINGS ON PROGNOSIS AND TREATMENT.

By BYROM BRAMWELL, M.D., F.R.C.P. EDIN.

Assistant Physician to the Edinburgh Royal Infirmary; Lecturer on the Principles and Practice of Medicine in the Extra-Academical School of Medicine, Edinburgh; etc.

MR. PRESIDENT AND GENTLEMEN,—When my old friend, your esteemed Secretary, asked me in the name of your Council to read a paper and introduce a discussion at this meeting, I felt that it was impossible to refuse such a complimentary invitation, for which I now beg to return you my warmest thanks; but I did not, I fear, sufficiently appreciate the difficulties of the task to which I was committing myself; indeed, it was only after I had accepted your courteous invitation, and when I came to look about me for a subject, that those difficulties became fully apparent. After much consideration and not a little hesitation in coming to a decision, the subject which finally commended itself to me was "the process of compensation and some of its bearings on prognosis and treatment;" and I trust that in selecting this subject my judgment may have guided me correctly, and that it may prove both acceptable to you and the source of a good debate.

Speaking generally, and using the term in its widest sense, compensation may be said to include all those processes by means of which Nature endeavours to repair a damage done by disease or injury, to protect herself against the injurious results of disease, or to relieve, reduce to a minimum, and make bearable those results.

The basis of all compensation is the fundamental fact that the human organism as a whole, and each of its individual parts in particular, is, in ordinary circumstances—and granting, of course, that the condition is one of health—working below its full strength; that, in short, it possesses a large balance or reserve on which it can fall back when any sudden or unusual demand is made upon it.

Now the success of the result—in other words, the completeness of the compensation—depends upon several factors, the most important of which are:

1. The amount of the reserve.
2. The suddenness and extent of the call; or, in other words, whether time is allowed for the realisation or development of the reserve.
3. Whether the demand is temporary or continuous; in other words, whether the lesion is stationary or progressive.

I may perhaps be able to make my meaning clearer if I make use of a financial illustration.

* A paper read before the Border Counties Branch of the British Medical Association at Carlisle on February 24th, 1888.

Suppose, then, in the *first* place, that a call is made upon a trader which exceeds his reserve, the result will, of course, be bankruptcy or financial death. The same result may follow when a demand for a sum, well within his reserve, is made so suddenly that he is unable to realise his resources and so to meet the call which is thus unexpectedly made upon him. In the latter case, the risk of bankruptcy will, of course, be greater when the reserve is already partly mortgaged and tightly tied up.

Now both of these conditions have an exact parallel in disease. A severe case of malignant scarlet fever, which rapidly proves fatal, and in which, from the intensity of the attack, the case is clearly hopeless from the first, may be taken as an illustration of the former; while the latter is exemplified by the fact that sudden destruction of a comparatively small portion of the motor cortex of the brain will produce paralysis or loss of function—bankruptcy of the muscles, as we may term it—while much more extensive destruction, provided that it is slowly and gradually established, or, in other words, provided that time is allowed for compensation or realisation of the reserve, may be unattended with any paralysis (see Figs. 1, 2, 3, and 4).

In the *second* place, a heavy call made upon a man in a large way of business and who has an ample reserve, may severely tax his energies and resources for the moment; but, provided that he is able to keep himself afloat and to tide over the great and sudden strain which is placed upon him, his position is ultimately little, if any, the worse. For a time, it is true, he may be debilitated and shaken; but his business is so sound, his credit is so good, in other words, his vitality is so great, and the local damage which is left behind is comparatively speaking so slight, that he soon makes up his loss, and is ultimately in no way deteriorated. As examples of this condition, acute croupous pneumonia and those inflammatory and febrile diseases, such as typhus, which leave little or no permanent local damage, may be mentioned.

In the *third* place, a demand, which falls short of producing bankruptcy, may so seriously reduce the trader's reserve and so materially damage his credit that it leaves him permanently crippled. Under such circumstances, a wise man appreciates the difference in his position, reduces his expenditure, is careful to avoid risks and hazardous speculations, and above all, to guard himself as carefully as possible against a repetition of the conditions which produced his previous reverse. Permanent compression of the lung, the result of a pleurisy with effusion or an empyema, destruction of one kidney by suppuration, and syphilitic disease of the larynx with resulting stenosis, may be mentioned as cases in point.

In the *fourth* place, instead of, as in the former cases, a single call being made, the demand may be repeated from time to time, or it may become more or less continuous. At first the effect may be unnoticed, for, the call being small in proportion to the reserve, it may excite no anxiety or apprehension. But frequent repetitions of the call may so reduce the reserve that ultimately a period may arrive when the reserve is exhausted and the income is only just sufficient to balance the expenditure. Under such circumstances, a trifling extra demand, which formerly would have been laughed at because of its insignificance, may now be sufficient to upset the balance, to throw the trader into great difficulties, or even to produce bankruptcy. Illustrations of this group are numerous in disease; perhaps the best that can be cited is a slowly progressive cardiac valvular lesion, such as aortic regurgitation.

Turning now to actual disease, let me mention some of the chief means by which compensation and compensatory protection are effected in the human subject.

In the case of doubly or bilaterally represented organs, when one is disabled or destroyed, compensation is effected by enlargement or true hypertrophy of the remaining sound organ on the opposite side. Familiar illustrations are the hypertrophy of one kidney or of one lung which follows destruction of the kidney or lung on the opposite side.

The very important practical bearing which the condition of the remaining and apparently sound organ has, both for prognosis or treatment, is self-evident. The success or failure of an operation for the removal of a diseased kidney to a large extent depends upon the condition of the kidney on the opposite side.

And here I would raise a practical point, and ask whether there is any other means than palpation and percussion of the kidney

(in other words, than the presence of localised pain or tenderness on pressure, or of distinct enlargement of the organ), by which it is possible to ascertain the condition of the kidney which is to remain. The condition of the urine discharged *per urethram*, is an uncertain guide, for, representing as it does the products of both kidneys, any abnormal constituents which it contains may, of course, be derived from the diseased kidney. I would like to ask whether it may not be possible, by the aid of the electric endoscope which Mr. Hurry Fenwick has recently described, to catheterise the ureters in the male, and by obtaining the urine direct from either kidney, to ascertain the functional condition of each organ individually.

The relative value of life after one of two bilateral organs, such as the lung or kidney, has been destroyed or removed, is a question of distinct practical importance, and one which, so far as I know, has not yet received the attention it deserves. The subject is one which might I think be profitably taken up by the Collective Investigation Committee of the Association.

It is quite obvious that the life of an individual who has lost one lung in consequence of an empyema or a long standing and badly treated pleurisy with effusion, or of a patient who has lost one kidney either as the result of a pyelitis, or in consequence of its having been excised by the surgeon because it was the seat of a tumour, or affected with hydro-nephrosis, hydratid or cystic disease, is a bad one, quite apart from the risks entailed by the diathesis or special pathological tendencies of which the original disease was a manifestation. A limited pneumonia or a small pleuritic effusion, which in a normal individual would be a comparatively trifling condition, is, as we all know, attended with the greatest danger when the opposite lung is useless. But irrespective of such obvious and well-known risks, does not, I would ask, the increased strain and functional activity which is thrown upon the remaining sound organ, when its fellow has been destroyed, entail special risks, and predispose it to disease? When, for instance, one kidney has been destroyed or removed, is not the risk of Bright's disease greater than it would be in the same individual, provided that he had two kidneys? I would ask the members of the Branch to give us their experience on these points—to detail, for example, the life-history of cases in which one lung has been rendered useless, by a previous pleurisy or empyema.

Compensation in Brain Lesions.—There is perhaps no organ in which the results of unilateral damage are more interesting, or require more careful observation than the brain. Consisting as it does of two hemispheres or halves, the different portions of which (areas or centres of grey matter) are, as modern investigation (experimental and clinico-pathological) has shown, endowed with special functional activities, it is a most interesting and important question to determine whether the corresponding centres in the two hemispheres are functionally separate and distinct, or whether they are so related that when one, say a centre in the right hemisphere, is destroyed, the damage may not be compensated, in other words, the function taken up and carried on by the corresponding centre on the opposite (say the left) side.

The question is a difficult and complicated one, and the facts which we at present possess are not sufficient to enable us to give a definite answer in all cases. The result would appear to depend chiefly upon two factors, namely (1) the function of the centre which is destroyed, and (2) the age of the patient at the time when the destruction takes place.

The motor centre for speech in right-handed persons is, as we all know, located in the posterior end of the lower or third left frontal convolution. Destruction of this centre is followed by motor aphasia, but the permanence of the speech derangement depends to a large extent at least, upon the age of the patient. In children the aphasia is usually of quite temporary duration, and in young adults the condition may be entirely or to a large extent recovered from, but in old people recovery is usually very imperfect; indeed, in many cases after the temporary disturbances (speech defects) due to shock, inflammatory oedema, and cerebritis have subsided, the aphasia which is due to the actual destruction of nerve tissue (that is, to the lesion itself, and not to the temporary disturbances in its neighbourhood) remains, and little or no improvement in the condition subsequently takes place.

Now in those cases in which Broca's convolution has been destroyed, and in which recovery from the aphasia takes place, compensation is in all probability effected by the corresponding centre on the opposite side (posterior part of the right lower frontal convolution) taking on the function of the part which has been de-

² The paralysis which follows a sudden but small lesion of the motor cortex may be, in fact usually is, merely temporary.

stroyed. That this is the manner in which compensation is effected in such cases seems proved by a case of great interest and importance which Barlow has recorded; the chief details of which are as follows. A boy, aged 10, affected with aortic disease, was suddenly seized with right hemiplegia and aphasia, the paralysis chiefly affecting the face and arm. The aphasic symptoms soon passed off, and at the end of a month he had apparently quite recovered. He was then seized with left-sided hemiplegia, which chiefly affected the face and arm. There was now complete aphasia, with paralysis of all the muscles of the face and tongue, reflex movements, such as deglutition, being, however, unaffected. The aphasia continued until the time of death, which resulted from the cardiac lesion. At the necropsy a lesion was found in exactly the same situation in each hemisphere, namely, a yellow softening of the posterior part of the middle and lower frontal, and of the lower end of the ascending frontal convolutions. In this case, therefore, destruction of the left motor speech centre produced aphasia, which was soon recovered from, while subsequent destruction of the corresponding part in the right hemisphere (destruction of which, it will be observed, does not as a rule produce any aphasic disturbances in right-handed persons) was followed by complete and permanent aphasia, and, in addition, by paralysis of the facial and tongue muscles (*JOURNAL*, July 28th, 1877, p. 103).

In the case of the motor centres more strictly so called, the result (that is, whether compensation will or will not take place) seems to depend largely upon the fact whether the movements which are represented in the centre which is destroyed are in the habit of being performed bilaterally or unilaterally.

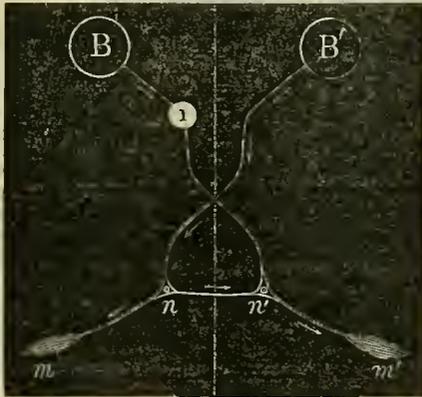


Fig. 1.—Diagram illustrative of the manner in which paralysis is compensated in the case of muscles which are in the habit of acting in association. The letter B points to the right, and B' to the left, cerebral hemisphere; n and n' to the nerve nuclei in the spinal cord, for the muscles m and m', which are in the habit of acting together. A lesion, in the position of 1, will arrest the motor nerve force, passing down from B to m' through n'; and will therefore cause paralysis of m'. Compensation is effected, and the paralysis recovered from by the motor nerve force from B', passing through n and n' to m', as shown by the arrow.

The movements of the two eyes, of the two sides of the face, chest, and trunk are, for the most part, performed in concert. We laugh, for example, with both sides of our faces, and although some persons are able, by means of a voluntary effort, to put each individual muscle of expression into separate and independent action, for most of us this is impossible without long practice. Many people even find it difficult to wink with one eye alone.

In short, there is every reason to suppose, from the observation of muscular action in the healthy man, from the results of experimental investigation on the brains of monkeys, and from observation of spasms due to localised cortical irritation in the human subject, that those muscles on the two sides of the body which are in the habit of acting in true association or concert may be thrown into action from either hemisphere.

Possibly this associated bilateral action is effected, as Broadbent has ingeniously theorised, by means of commissural fibres connecting the nerve cells of the trophic nerve nuclei in the pons Varolii, medulla oblongata, and spinal cord. (See Fig. 1). But be that as it may, there can be little doubt that when a cortical centre which innervates muscles which are in the habit of acting in concert with corresponding muscles on the opposite side of the body is destroyed, compensation is effected and permanent

paralysis prevented by the function of the destroyed centre being taken up and carried on by the corresponding centre in the opposite hemisphere of the brain.

The more highly specialised movements, on the other hand, seem, so far as we at present know, to be represented only in one—the opposite—cerebral hemisphere. If this is so we should expect that complete destruction of the cortical centre, say, for the muscles of the forearm and hand, would be followed by permanent paralysis, and that such is actually the case seems proved by the experiments of Ferrier, Horsley, and Schäfer, in the monkey, and by the results of disease (destroying lesions) in the human subject. In those cases, for example, in which hemiplegia results from a lesion in early life, though the leg regains a considerable amount of power—indeed, in some cases, almost completely recovers, the muscles of the hand and forearm may, and often do, remain markedly paralysed. Such cases seem to prove conclusively that the motor centres for the muscles of the hand and forearm of one side are only represented in one, the opposite, hemisphere; and that when the muscles concerned in the production of the highly specialised movements of the hand are paralysed, compensation cannot be effected by the corresponding centre on the opposite side of the brain taking up and carrying on the function of that which is destroyed.

Cases are occasionally met with which seem at first sight, at all events, to form exceptions to this law. The most remarkable case of this kind with which I am acquainted is one which I have reported in the *Edinburgh Medical Journal* for February, 1879, page 693. In it, a large sarcomatous tumour, almost the size of the closed fist, had apparently destroyed the greater part of the motor area on the right side. So far as one could judge with the naked eye, the whole of the motor centres for the face and upper extremity were destroyed (see Figs. 2, 3, and 4), and on microscopical examination the grey matter in this region seemed to have completely disappeared. And yet there was absolutely no trace of paralysis.

Cases such as this suggest at all events the possibility of substitution being in some rare cases effected, even when the movements paralysed are highly specialised and differentiated by the corresponding motor centres in the opposite hemisphere.

A more probable explanation is, however, that which supposes that the grey matter in the affected area was not entirely destroyed. In considering cases of this description, it must be remembered that the different cortical centres are not sharply defined and separated one from the other, that to some extent at all events they run one into the other. Such an overlapping has been clearly demonstrated by Horsley and Schäfer in the case of those centres which are situated on the inner side of the cerebral hemisphere (that is, in the marginal convolution).

The importance of this overlapping, and the possibility of compensation being effected by undeveloped or embryonic nerve-cells in the immediate neighbourhood of a centre which has been destroyed has been clearly set forth by Victor Horsley. "Since," he says, "in a complete piece of mechanical apparatus we find that loss of function is in proportion to the amount and seat of the injury inflicted on it, analogy will surely lead us to imagine that unless it is specially provided with a reserve of embryonic tissue in every part, the nervous system is no exception to this general rule. Although the purport of this paper is briefly to discuss the scientific value of the theory of substitution or compensation, it is impossible to go further without referring to the saving clause above mentioned, namely, the possible existence in the cerebral cortex at least of numbers of small nerve-corpuscles, connected with the veteran corpuscles of well-marked centres, but which have not yet themselves subserved psychical function. The existence of such corpuscles has been assumed by several writers at the present day, and with fair ground, seeing that in the first place the gradual accretion of knowledge by the child, and in the second place the intellectual acquirement of some new subject late in life, are both best explained theoretically on the assumption that fresh tracts are opened up with each new and complete idea. The bearing that this view has on the question of substitution is of course of fundamental importance, since, supposing it to be true, it is very easy to imagine that if a centre be destroyed, the elementary corpuscles in the uninjured area around having within themselves a faint echo of the nerve disturbance which before was normally existent in their immediate neighbourhood can be educated gradually so as to replace the part injured" (*Lancet*, July, 1884, p. 7).

In order to illustrate this theory of substitution, and to show

the important difference that there is between rapid and slow destruction of a motor centre, I am in the habit of making use of the following simile: Supposing a peal of bells, each rung by a ringer especially trained to ring his own bell and that bell only (the bell-ringers representing the discharging motor centres in

of whom may be able to establish lateral connections, and to train themselves to carry on the work of their disabled colleague. In the case of the sensory cerebral centres, compensation by the action of the opposite hemisphere seems to occur much more readily.

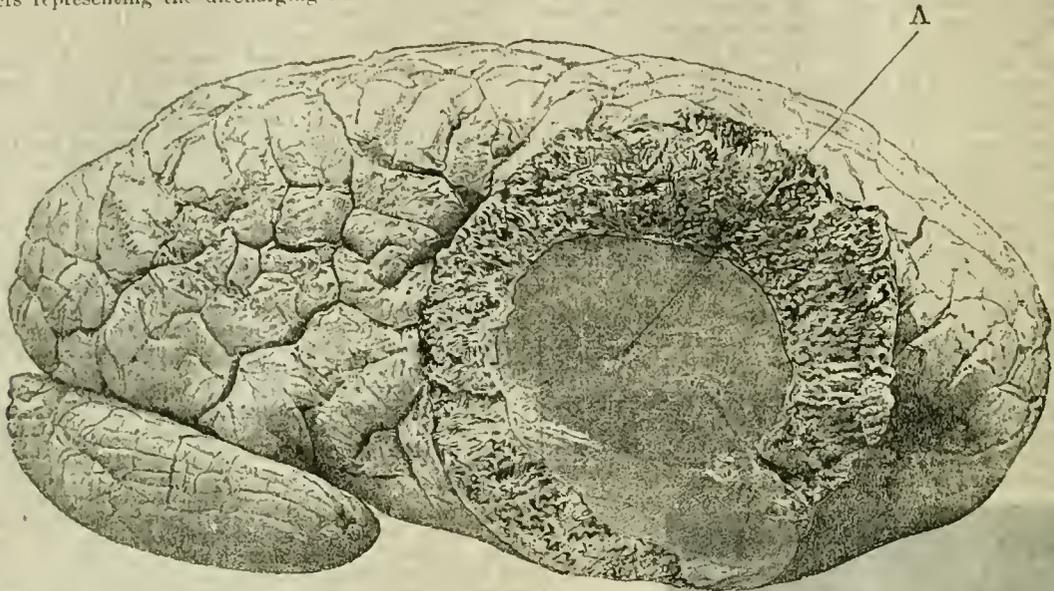


Fig. 2.—The outer surface of the right hemisphere of the brain in the case of M. D. (large sarcoma growing from the dura mater, which had produced extensive atrophy of the motor centres, but was unattended with paralysis) showing the tumour *in situ*. (Copied from a photograph, and somewhat reduced in size.) The letter A points to the outer surface of the dura mater over the centre of the tumour. The leading features of the case are detailed in my work on *Intra-cranial Tumours*, page 11.

the cerebral cortex, the bell-ropes the conducting fibres of the pyramidal tract, and the bells the muscles); and suppose that one of the bell-ringers or discharging centres is suddenly disabled—say, killed or put *hors de combat* by an apoplectic seizure—paralysis of the bell or muscle, which he, and he only, has been trained

The tactile centre (which according to Ferrier is situated in the hippocampal region, and according to Schafer in the gyrus fornicatus as well as the hippocampal lobe) appears in the adult, at all events, to be distinct and separate from its fellow on the opposite side; but it is doubtful if its complete destruction in the child is

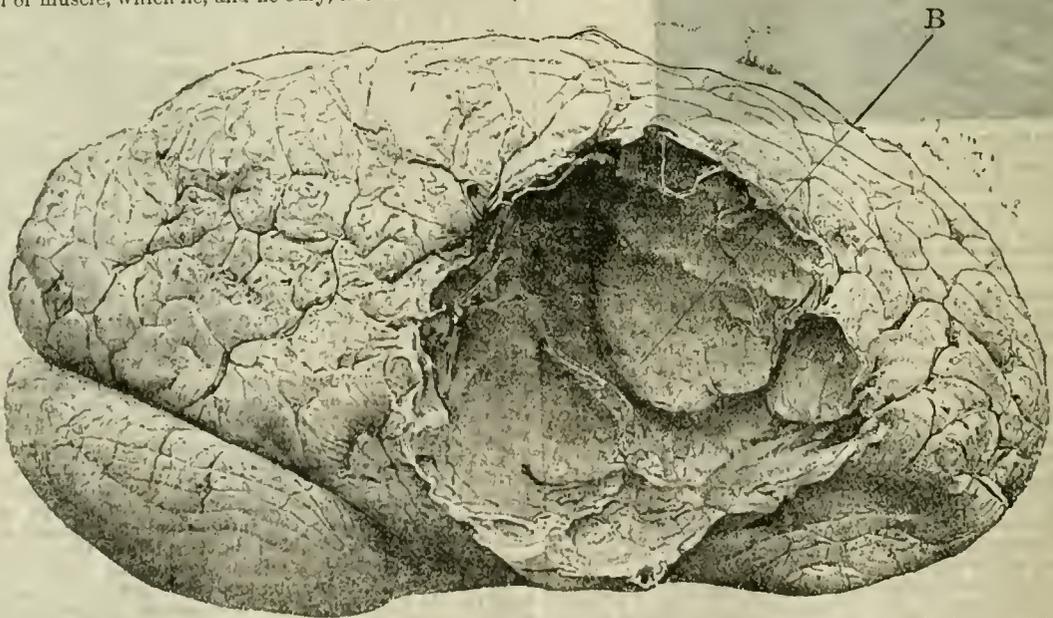


Fig. 3.—The outer surface of the right hemisphere of the brain in the case of M. D., showing the brain after the tumour was removed. (Copied from a photograph, and somewhat reduced in size.) The letter B points to the extensive depression on the surface of the brain into which the tumour fitted.

to ring, will necessarily result; but if instead of being suddenly destroyed, one of the ringers is gradually and slowly disabled by some chronic disease—say cancer of the stomach—he will be able to communicate his failing condition to his fellow ringers, some

ever followed by permanent hemianæsthesia; in other words, it would appear that the tactile centre in one hemisphere can, in the child, take up and carry on the function of its fellow on the opposite side. The extensive connections which the tactile centre

has with the other portions of the cerebrum, and the important fact that when one sense is placed *hors de combat*, compensation may be effected by one of the other senses supplying the place of that which is destroyed, are shown by the facts that blind persons may be taught to read and that they may be largely educated by means of the sense of touch, and also by the most interesting and remarkable circumstance that in some cases in which there is complete word-blindness, in which the patient is unable to decipher a single word or letter by the aid of sight, he is able to read, when he writes the letters or even when he traces the letters with his finger in the air. In the latter case the loss of vision is compensated by means of the muscular sense.

In the case of sight, destruction of the posterior part of the occipital lobe—the half vision centre as it has been termed—seems to be followed in the adult by permanent loss of vision towards the opposite side (that is homonymous hemianopsia). Whether this is so in the child, in other words, whether the half-vision centre in one occipital lobe is able, even in the child, to take up and carry on the function of the half vision-centre in the opposite occipital lobe, has not been as yet ascertained.

Central vision seems to be bilaterally represented, so that complete destruction of the whole of the visual centre in one hemisphere need not destroy the acuity of vision, since central vision is bilaterally represented. It is said, however, by Munk, and his observations on this point seem supported by Schäfer, that destruction of the half vision-centre in both hemispheres is followed by complete and permanent blindness.

It seems certain that the special senses of hearing, taste, and smell are bilaterally represented, but the exact position of their respective cerebral centres is not yet definitely decided, Schäfer's recently published observations being opposed to some of Ferrier's observations on this point. Clinico-pathological observation in man has as yet failed to throw any very certain light upon the subject. Loss of hearing, taste and smell, very rarely, if ever, result from a localised lesion such as a tumour in either cerebral hemisphere,³ though a peculiar form of loss of hearing, "word-blindness," does seem to result from a lesion of the first temporo-sphenoidal convolution in the left hemisphere. The fact too,

that localised lesions in the temporo-sphenoidal lobe are in some cases attended with an auditory or olfactory "aura" a noise or a smell, seems to support the view that the auditory and olfactory centres are situated in this region. It would appear, therefore, that the cortical centres for hearing, taste, and smell in one hemisphere can take up and carry on the function of the corresponding centres on the opposite side.

As regards the mental and intellectual defects which result from localised lesions in parts of the cerebral hemispheres other than those parts or centres which have just been referred to, our knowledge is also somewhat indefinite; but there is reason to suppose that localised destruction of the prefrontal lobe on one side can, to some extent at least, be compensated by the action of the corresponding centre on the opposite side. In this, as in other cases, the compensation is more perfect in those cases in which the lesion is slowly and gradually established, and in which the patient is young. The size of the lesion or the amount of de-

struction is also, of course, a most important factor in determining the result.

Extensive lesions of the prefrontal lobe are probably, in the adult, attended with lasting alterations in the mental faculties and disposition; small localised lesions may, in all probability, be compensated to some extent; but in investigating such cases it is necessary to remember that slight mental defects and alterations are difficult to detect, and may therefore easily pass unnoticed. In dealing with purely mental symptoms, in other words, with cases of localised brain destruction in which there are no motor or sensory derangements properly so called, the greatest caution is required. We can only determine whether any mental defect has resulted from a lesion (in other words, whether perfect compensation has resulted or not) when we are in a position minutely to compare the mental condition after recovery with the mental condition before the occurrence of the lesion; and it is unnecessary to say that in most cases we are not able to make such a comparison founded on our own personal knowledge. We have in most cases to rely upon the statements of the patient's friends and relatives—in many cases an uncertain and unsatisfactory method of ascertaining the normal mental condition of the patient, even when dealing with educated and intelligent people. That severe lesions of the prefrontal lobes

which produce no obvious motor or sensory disturbances do produce permanent mental alterations, in other words, that such lesions are not compensated, in the adult, at all events—and the same also applies to the child—is abundantly proved by clinical observation. The extraordinary case, which is known under the name of the "American crowbar case," shows how profound these mental symptoms may be; and at the same time illustrates the enormous reserve which Nature possesses, and the marvellous recoveries which sometimes take place after the most serious injuries. The details of this remarkable case (I quote from Ferrier) are as follows:

"The subject of the lesion was a young man, Phineas P. Gage, aged 25. While he was engaged tamping a blasting charge in a rock with a pointed iron bar, 3 feet 7 inches in length, 1½ inch in diameter, and weighing 13½ lbs., the charge suddenly exploded. The iron bar, propelled with its pointed end first, entered at the left

angle of the patient's jaw, and passed clean through the top of his head, near the sagittal suture in the frontal region, and was picked up at some distance covered with 'blood and brains.' The patient was for the moment stunned; but within an hour after the accident he was able to walk up a long flight of stairs and give the surgeon an intelligible account of the injury he had sustained. His life was naturally for a long time despaired of; but he ultimately recovered, and lived twelve years and a half afterwards. Unfortunately, he died (of epileptic convulsions) at a distance from medical supervision, and no *post-mortem* examination of the brain was made; but, through the exertions of Dr. Harlow, the skull was exhumed and preserved. Upon this the exact seat of the lesion can be determined. The line of union of the cicatrices of entrance and exit, however, allowed a pretty accurate estimation of the track of the bar during life, and Dr. Bigelow did so with considerable accuracy.

"Dr. Bigelow, who examined the man two years after the accident, thus describes the appearances presented: 'A linear cicatrix of an inch in length occupies the left ramus of the jaw near its angle.....The eyelid of this side is shut, and the patient is unable

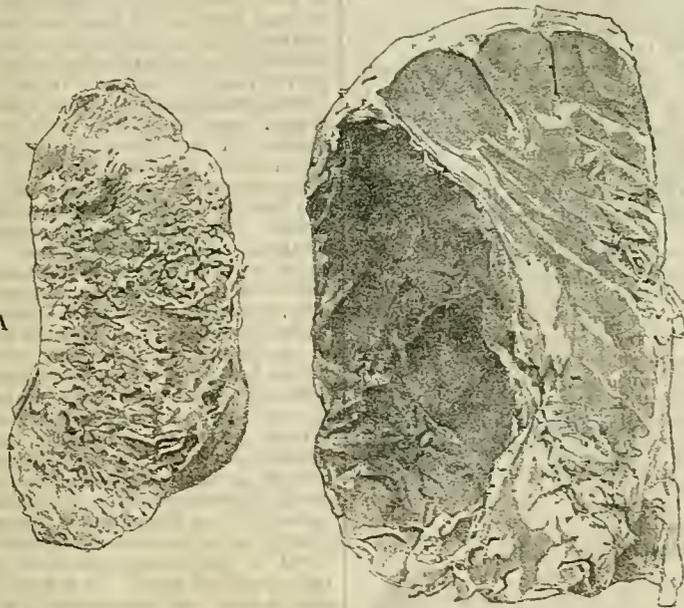


Fig. 4.—Transverse vertical section through the right hemisphere of the brain in the case of M. D., showing the tumour in section, and the depression in the brain tissue produced by it. (Copied from a photograph, and somewhat reduced in size.) The letter A points to the tumour; B is placed on the inner (left) side of the right hemisphere, which has been separated from the opposite (left) hemisphere by a section made from before backwards, in the middle line.

³ Loss of hearing of course may result from a localised cerebral lesion, such as a tumour, which presses upon the auditory nerve.

to open it; the eye considerably more prominent than the other. ... (Vision lost.—Harlow.)... Upon the head, and covered by the hair, is a large unequal depression and elevation..... A piece of the cranium of about the size of the palm of the hand, its posterior border lying near the coronal suture, its anterior edge low on the forehead, was raised upon the latter as a hinge, to allow the egress of the bar; it still remains raised and prominent.'

"From his examination of the skull itself, Dr. Harlow thus describes the track of the bar: 'The missile entered, as previously stated, immediately anterior and external to the angle of the inferior maxillary bone, proceeding obliquely upwards in the line of its axis, passed under the junction of the superior maxillary and malar bones, comminuting the posterior wall of the antrum, entered the base of the skull at a point the centre of which is an inch and a quarter to the left of the median line, in the junction of the lesser wing of the sphenoid with the orbital process of the frontal bone, comminuting and removing the entire lesser wing with one-half of the greater wing of the sphenoid bone, also fracturing and carrying away a large portion of the orbital process of the frontal bone, leaving an opening in the base of the cranium after the natural efforts at repair by the deposit of new bone of one inch in its lateral, by two inches in its antero-posterior, diameters.' (See Figs. 5, 6, and 7.) Dr. Harlow does not describe the further track of the bar through the frontal bone, but you will clearly see from the figures that the whole lesion is situated anterior to the coronal suture. If, now, you will compare the track of the bar through the skull and brain with the diagram before you (Fig. 8), showing the relations between the skull and the brain, you will, I think, have no doubt in convincing yourselves that the whole track is included within that region of the brain which I have described as the prefrontal region, and that, therefore, the absence of paralysis in this case is quite in harmony with the results of experimental physiology. The only other region which the bar could have injured is the tip of the temporo-sphenoidal lobe and the outer root of the olfactory bulb. Respecting the condition as to smell, nothing is, however, said either by Bigelow or Harlow. This case is generally quoted as one in which the man suffered no damage bodily or mental. But hear what Dr. Harlow says as to his mental condition: 'His contractors, who regarded him as the most efficient and capable foreman in their employ previous to his injury, considered the change in his



Figs. 5, 6, and 7.—Illustrations of Dr. Harlow's case of the passage of an iron bar through the head. (Copied from Ferrier.)

mind so marked that they could not give him his place again. The equilibrium or balance, so to speak, between his intellectual faculties and animal propensities seems to have been destroyed. He is fitful, irreverent, indulging at times in the grossest profanity (which was not previously his custom), manifesting but little deference for his fellows, impatient of restraint or advice when it conflicts with his desires, at times pertinaciously obstinate, yet capricious and vacillating, devising many plans for future operation, which are no sooner arranged than they are abandoned in turn for others appearing more feasible. A child in

his intellectual capacity and manifestations, he has the animal passions of a strong man. Previous to his injury, though untrained in the schools, he possessed a well-balanced mind, and was looked upon by those who knew him as a shrewd, smart, business man, very energetic and persistent in executing all his plans of operation. In this regard, his mind was radically changed, so decidedly that his friends and acquaintances said he was "no longer Gage".'

(To be continued.)

ON A CASE ILLUSTRATING THE PROGNOSTIC SIGNIFICANCE OF THE BLOOD PRESSURE IN ACUTE RENAL DISEASE.

By W. H. BROADBENT, M.D., F.R.C.P.,
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It is well known that kidney disease is attended with increase of tension in the arterial system. This is most marked in the contracted granular affection of these organs, but it is present in almost every form of renal disease. I have, however, met with cases in which the arterial tension has been much below instead of above the normal average, and all such I have watched with unusual interest. I have twice seen low tension when the character of the urine, the age, antecedents, and condition of the patient have indicated cirrhosis of the kidney; in both the disease proved fatal with unusual rapidity. In acute renal dropsy I have found persistent pulse of low tension more frequently, and it has always been associated with an intractable character of the disease. A fatal case of this kind was the subject of a clinical lecture some years since.

In acute renal dropsy the artery is usually at first full between the beats, and rather large, but the beat is short and easily arrested. This corresponds to a period of temporary dilatation and weakness of the left ventricle. In the course of a week or ten days, however, the heart recovers itself, and the pulse acquires the character of moderate tension, which, in a case ending favourably, is sustained up to the time of complete recovery. I have learnt, therefore, to look for the supervention of a certain degree of tension in the pulse as an indication of favourable progress; but as has been said, already, in some cases it is missing. The defect of tension may be due to persistent weakness of the heart, the capillary or arterio-capillary resistance being present, but the driving power on which the degree of pressure in the intermediate arteries ultimately depends being deficient. That weakness of the central organ of circulation is of unfavourable prognostic import is easily seen, but the low tension is not always so caused; there is sometimes diminished resistance at the periphery; the capillaries and arterioles are relaxed, and allow the blood to slip through them as in pyrexia, and the pulse is not only weak but short. It is not so easy to understand why this should be of bad augury, and it is only by observation that this conclusion has been reached.

The case to which these remarks lead up is summarised in the following account.

J. L., aged 27, a carman, married and having three healthy children, of sober and steady habits, and previously in the enjoyment of good health, was admitted into St. Mary's Hospital on October 29th, 1887, on account of acute renal dropsy. His mother, still alive, was much addicted to drink, which brought her to the workhouse, where she then was. There was no other unfavourable family history.

The patient was born and had lived all his life in London, and had had no illness since childhood, when he had small-pox. He underwent a certain amount of privation two years previously, when he was out of work for four months, but did not apparently suffer in health. For the last eighteen months he had been a carman. Without any special exposure to cold, he had four days previously noticed on rising that his face, arms, and legs were much swollen, and he had a bad cough. He remained at home for two days, and then returned to work, but on the day of his admission to the hospital the scrotum became swollen, and with this the face was pale and swollen, the eyelids puffy, and the extremities—the arms and hands more than the legs—affected by the characteristic firm, waxy œdema of early acute desquamative nephritis. The urine was found to have a specific gravity of

1030, and was almost entirely converted into a coagulum of albumen on boiling and adding nitric acid. It was straw coloured, gave a very slight blood reaction with guaiacum and ozonic ether; no blood-corpuscles were seen, but numerous epithelial cells. The temperature was slightly subnormal, the pulse 64.

I first saw the patient on November 1st, and found the pulse 60, short and very compressible. The heart was normal in size, but the apex beat could only just be felt, and could not be definitely localised, and there was no right ventricle impulse; the sounds were everywhere weak and indistinct.

A week later the dropsy had everywhere increased, and there was a small amount of fluid in both pleural cavities. The pulse was still short, weak, and devoid of tension; the heart somewhat enlarged downwards, the first sound short, the interval between this and the second rather longer than normal, the second sound weak. The amount of albumen in the urine was still very large, the coagulum occupying seven-eighths of the volume; hyaline and granular casts were present.

The prognosis was at once formulated that the case would be of long duration, the basis for this being the defective pulse-tension and weak blood-propulsion by the heart. It was at the same time considered probable that the large proportion of albumen was not due to any specially severe affection of the kidneys, but was in part the consequence of the languid circulation, which would almost permit of complete stasis in the capillaries ramifying between the convoluted tubes in the cortex of the kidneys, and, consequently, in the Malpighian tufts. It was anticipated, therefore, that if the circulation could be improved, the amount of albumen might diminish rapidly.

The patient was, of course, kept in bed. His diet was mainly milk. Tincture of iron with sulphate of magnesia was given at first, to which were added in a few days nux vomica and digitalis; dry cupping over the loins was practised.

At the end of a fortnight, on November 14th, the dropsy had slightly diminished, and there was still much fluid in both pleural cavities. The pulse was short and compressible, the apex beat of the heart just perceptible in the fifth space slightly outside the nipple line. The urine had a specific gravity of 1018, and the coagulated albumen occupied half its volume.

On November 17th the albumen was somewhat diminished.

On the 21st a general improvement was noted in the pulse. The artery could easily be felt between the beats, and rolled under the finger, and was not so compressible. Simultaneously the amount of albumen had fallen, so that it was described as rather more than a trace. The dropsy and pleural effusion were much less.

On November 24th the apex beat could be distinctly felt in the fifth space, three-quarters of an inch outside the nipple line. The first sound was here indistinct and rather prolonged instead of short, as before; the second sharp and louder than normal, the interval still much prolonged; the pulse was long, and not easily compressible; albumen one-eighth; dropsy nearly gone.

Two days later the patient appeared to be so nearly well, that he was allowed by the resident surgeon to get up for a short time. There was at once, December 5th, some return of swelling in the legs. The apex beat and heart sounds became weaker and the pulse more compressible, while the proportion of albumen rose to one-third.

That this was not an ordinary relapse due to chill was clear from the rapid return to the previous condition of the urine when he was sent back to bed. The explanation was that the heart was not equal to the maintenance of the circulation in the erect position, and with the languid movement of blood so caused came the increased amount of albumen.

He was now kept in bed. He took his food, slept well, remained free from dropsy, and had only a varying trace of albumen. Before it was considered safe again to allow him to rise he had an attack of tonsillitis, in which the temperature rose to 103.8° on January 23rd, and the urine was now of a dark blood-purple colour, and contained four-fifths of its volume of albumen. Under the microscope, however, there were scarcely any blood-corpuscles. The blood and albumen rapidly disappeared, and were succeeded three days later by uric acid crystals in large quantity. The attack was, in fact, one of hæmoglobinuria. The patient is still in hospital, but his subsequent history possesses no points of interest.

The imperfect development of blood pressure to which I have called attention in this case is not to be looked upon as the cause of the slow recovery or of the complications observed in the course

of the disease; it merely reveals the constitutional weakness to which they are to be attributed, and shows that the patient is made of poor stuff. In doing this, however, it fulfils a useful purpose, as it throws light on the prognosis. The occurrence of hæmatolysis and hæmoglobinuria in the course of an attack of tonsillitis was an interesting confirmation of the opinion formed as to the feeble powers of resistance possessed by this young man's constitution.

The development or non-development of pulse-tension in the course of acute renal disease appears to me again to furnish some guidance in treatment. To raise the tone of the circulation is a help towards recovery when this is defective.

CASE OF SO-CALLED "SPONTANEOUS COMBUSTION."

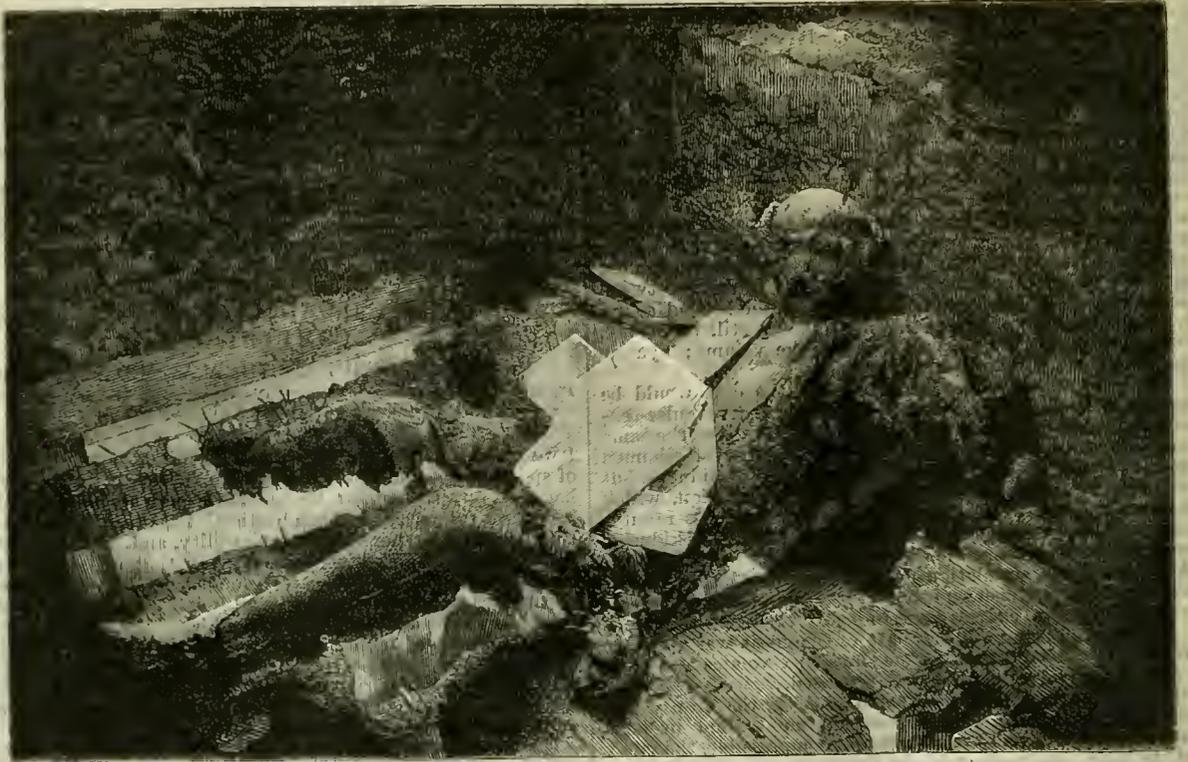
By J. MACKENZIE BOOTH, M.A., M.D., C.M. ABERD.,

Physician to the Aberdeen General Dispensary, and Lecturer on Diseases of the Ear and Larynx in the University of Aberdeen.

I was lately called to a case which vividly recalled the old tales of spontaneous combustion, and more especially an article that I had read on that subject by our late President, Professor Ogston. The term "spontaneous combustion" has been applied to two conditions: first, spontaneous ignitability, and, secondly, increased combustibility; and I need hardly say that it is to the second category that the present case belongs. As Dr. Ogston remarks on these cases, the subjects were all found dead, their bodies, their clothes, and the articles in their neighbourhood being partially or entirely destroyed by fire, the only remarkable thing about them being that the bodies were burnt and charred out of all proportion to the neighbouring objects, and to an extent which seems incapable of being accounted for by the heat of the burning clothes and objects in the vicinity.

On the morning of Sunday, February 19th, I was sent for to examine the remains of a man, A. M., aged 65, which were found in a hayloft off Constitution Street. This man, a pensioner, of notoriously intemperate habits, had been seen at 9 o'clock the night before to enter the stable below in an intoxicated condition, and he asked the lad and girl who saw him to shut the stable door after him, which they did. They then heard him ascend the ladder leading to the loft above, and afterwards saw the skylight of the loft lighted, and later still the light put out. Between 8 and 9 o'clock next morning the wife of the proprietor of the stable, living near by, happening to look out of the window, observed smoke issuing from a hole in the roof of the loft. She informed her husband of the fact, and he, on entering the stable, was horrified to see through a hole in the loft floor the remains of the old soldier perched on the joists above, and leaning against the wall. The police were at once communicated with, and I was sent for to attest the accident. On arriving I ascended to the loft, and found the charred remains of a man reclining against the stone wall, and kept only by one of the joists and the burnt remnant of the flooring under him from falling through into the stable beneath. What struck me especially at first sight was the fact that, notwithstanding the presence of abundant combustible material around, such as hay and wood, the main effects of combustion were limited to the corpse, and only a small piece of the adjacent flooring and the woodwork immediately above the man's head had suffered. Several of the slates had fallen in over the corpse, making a small hole in the roof above it, and a small piece of the flooring had fallen through immediately round him into the stable below, leaving the hole through which he had been first seen. The body was almost a cinder, yet retaining the form of the face and figure so well, that those who had known him in life could readily recognise him. Both hands and the right foot had been burnt off and had fallen through the floor among the ashes into the stables below, and the charred and calcined ends of the right radius and ulna, the left humerus, and the right tibia and fibula were exposed to view. The hair and scalp were burnt off the forehead, exposing the bare and calcined skull. The tissues of the face were represented by a greasy cinder retaining the cast of the features, and the incinerated moustache still gave the wonted military expression to the old soldier. The soft tissues were almost entirely consumed, more especially on the posterior surface of the body, where the clothes were destroyed, and the pos-

¹ Read at a meeting of the Aberdeen, Banff, and Kincardine Branch on March 21st.



[From a Photograph by Mr. W. REID, 100, Holburn Street, Aberdeen.]

terior surfaces of the femora, innominate bones, and ribs exposed to view. This was doubtless in a measure caused by the falling of the slates on the body, and a more perfect cinder would have been found had we arrived earlier on the scene. Part of the trousers on the anterior aspect of the legs that had escaped the impact of the slates was still represented in cinder.

Regarding the condition of the internal organs, I regretted much having been denied the opportunity of investigating their condition, as wishing to have a photograph taken of the remains prevented me at the time, and on my return from other work later on I found that the whole had been removed. The bearers told me that the whole body had collapsed when they tried to remove it *en masse*. From the comfortably recumbent attitude of the body it was evident that there had been no death struggle, and that, obfuscated by the whisky within and the smoke without, the man had expired without suffering, the body burning away quietly all the time.

So much for the condition of the corpse. The strange fact remains that while round about in close proximity were dry woodwork and hay, loose and in bundles, these had escaped, and the body of the man was thoroughly incinerated. The exceeding stillness of the night (for it was remarked by the policeman on the beat that there was not a breath of wind) would only in part account for the facts.

To return to Dr. Ogston's paper. That increased combustibility exists cannot be denied, though at first sight it is not so clear to what it owes its existence. The question has given rise, as has been already seen, to numerous hypotheses, all of which, with one exception, are manifestly untenable, and it is owing to the wildness and illogicality of these hypotheses and deductions surrounding the subject that the whole question has come to be treated as a half-forgotten fable. In the doctrine that increased combustibility in bodies is due to excess of fat, Dupuytren has advanced the only explanation capable of setting the subject at rest, and on a true basis explaining rationally and philosophically the cases of so-called "spontaneous combustion."

When we consider the amount of fat some bodies contain, the subject grows even clearer, and a review of the cases demonstrates that the incineration was always most extensive in the skin and subcutaneous adipose tissue, and other places where fat is abun-

dant, and least marked in organs and regions with less fat. The fatty degeneration of various organs and structures, the intermuscular and subcutaneous adipose tissue, along with the masses deposited on other parts of the body, all present a body of oleaginous matter amply sufficient to account for the combustion, and which, once ignited, would tend rather to burn *in situ* than to flow out, thus explaining the greater destruction of the corpse than of objects in the vicinity.

Regarding the influence of alcoholic indulgence in these cases, it has been conclusively proved that tissues soaked in alcohol do not burn more readily than others not so treated, and that it is only as a stupefying agent and in its tending to the deposition of fat in the body that alcohol aids in increasing its combustibility.

THE DETECTION OF PROTEID BODIES IN URINE.

By SIDNEY MARTIN, M.D., M.R.C.P.,

Pathologist and Registrar, Victoria Park Chest Hospital; and British Medical Association Research Scholar.

The test ordinarily applied for the detection of albumin in the urine is, as is well known, that of boiling and acidulation. This test is taken as indicative of albumin alone; it does not distinguish between albumin and paraglobulin, and, moreover, does not indicate the presence of those proteids which occur more rarely in urine, as for example, the albumoses and peptones. Of late years the methods for distinguishing and separating proteid bodies have greatly improved as our knowledge of their properties has advanced.

The object of the present paper is to discuss these more modern methods of the separation and detection of the proteids in the urine—methods which are not universally applicable in bedside clinical examination, but which are necessary for the elucidation of doubtful cases. The bodies which I shall consider are:

1. Albumin: serum-albumin, egg-albumin. 2. Globulin: paraglobulin (serum, fibrino-plastin). 3. Albumoses (globulin, hemialbumose, propepton). 4. Peptones.

As was stated above, the heat test does not distinguish between these bodies. This test may be applied in two ways as follows: a small quantity of dilute acetic acid may be added to the urine

in a test tube, and the upper stratum of liquid boiled; or the liquid may be boiled first and rendered strongly acid with nitric acid. The first method is more delicate, provided too much acid is not added so as to convert albumin into acid-albumin; it also prevents the precipitation of phosphates. In the second method, phosphates, if present in excess, are precipitated by heat and redissolved by the acid. The picric acid test has no advantage over the heat test carefully applied.

In ordinary cases these tests are quite sufficient, but when it is a question of the presence of globulin or albumoses or peptones, other tests are necessary.

In the first place, if the proteid is present in only small quantity, it ought to be obtained in a concentrated solution before tests are applied to it; and even if present in large quantities in the urine, it ought to be separated and redissolved if its nature is of a doubtful character.

Precipitation of Proteids in an Unchanged Form from the Urine.—This is readily done for most proteids by saturating the urine with neutral ammonium sulphate $[(NH_4)_2SO_4]$. After powdering the crystals in a mortar the salt must be added to the urine in a flask, and shaken well with the hand until no more is taken up by the liquid. This operation takes only a few minutes. By this means albumin (serum and egg), paraglobulin, and albumoses are completely precipitated, whether the liquid be acid, neutral, or alkaline; while peptones remain in solution.

The precipitate obtained is amorphous, and rises to the surface of the liquid; it is readily removed by filtration. When on the filter it may be redissolved by adding a small quantity of distilled water, or, if it is requisite to obtain the proteid in a state of great purity, it may be washed twice with a saturated solution of ammonium sulphate before adding the distilled water. The proteid or proteids are now in concentrated solution containing ammonium sulphate, the presence of which does not interfere with the ordinary test for proteids. The filtrate, after saturation with ammonium sulphate, may contain peptones, and these are to be tested for in the manner presently to be described. We shall now consider the tests for the individual proteids.

Albumin.—In the great majority of cases the precipitate obtained by boiling urine after acidulation is due to serum-albumin. But in a smaller number of cases it may be due to egg-albumin, paraglobulin, or to hemi-albumose. It is, therefore, not possible by this test to distinguish between serum-, egg-albumin, or paraglobulin, even if the temperature of heat-coagulation be carefully taken, inasmuch as they are all precipitated at about $75^\circ C$. The behaviour of heat to the kind of hemi-albumose which has been found in urine is peculiar, and is suggestive of its presence. If urine be not acidulated, the albumose is precipitated on gently heating, but redissolves on further heating, being reprecipitated on cooling. If the liquid be acidulated with acetic acid, it is not precipitated by heat. Further details of this reaction will be given further on.

Egg-albumin is distinguished from serum-albumin by the addition of ether, which coagulates it. Before this test is applied, however, the proteids ought to be separated by saturation with ammonium sulphate in the manner described. If it is a question of the presence of serum-albumin or paraglobulin, or both together, the tests for paraglobulin must be applied.

Paraglobulin.—This may be found in urine by itself (globulinuria) or in association with albumin when there is pus or blood present. It is indicated by the following tests:

1. Urine containing it gives a precipitate on acidulating and boiling, which precipitate is not soluble in an excess of acid; that is, it is coagulated proteid.

2. Saturation of the liquid with magnesium sulphate precipitates the paraglobulin. Before doing this test the urine must be perfectly clear. If there is a deposit of mucus, urates, or phosphates, the clear superstratum of liquid must be poured off, and if the urine is turbid it must be filtered till clear. Two or three drops of dilute acetic acid are then added to the urine in a test tube, and magnesium sulphate added to the liquid, which is to be well shaken with the thumb placed over the mouth of the tube. The amount of salt that it is necessary to add is about equal to half the bulk of the liquid. Complete saturation at the ordinary temperature does not occur unless the liquid be shaken three or four hours, but for ordinary purposes simple hand-shaking for a few minutes is sufficient to cause the precipitation of most of the globulin. The precipitate is readily removed by filtration, and after dissolving it by adding distilled water the ordinary tests for proteids can be applied to the solution. This test distinguishes

paraglobulin from serum-albumin, which is not precipitated by magnesium sulphate; but it does not distinguish it from hemi-albumose or any of the albumoses presently to be described. There is only one albumose which is precipitated by heating; this is called hetero-albumose, and this is the albumose found by Kühne and others in the urine. As has been stated, this body is precipitated at a low temperature, and is dissolved on further heating. Moreover, the precipitate by heat is readily dissolved by adding a drop of dilute acetic acid—an important point of distinction from paraglobulin, which when precipitated by heating is rendered insoluble in acid.

If this heat test is doubtful the clear urine must be saturated with magnesium sulphate, and the precipitate with the liquid poured off from the sediment of salt into a clean dry test tube. This precipitate and liquid must now be boiled and several drops of acetic or nitric acid afterwards added. If the precipitate dissolves it is albumose; if it does not dissolve it is paraglobulin. These tests may be confirmed by the following: To a small quantity of the original urine, or, better still, to the magnesium sulphate precipitate dissolved in water, a drop of one per cent. solution of copper sulphate is added, and then an excess of liquor potassæ; the albumose gives a pink colour (biuret reaction), while the paraglobulin gives a violet colour (ordinary proteid reaction). These reactions taken together distinguish paraglobulin from serum- and egg-albumen and albumose. Sodium chloride also precipitates paraglobulin and most of the albumoses, and it has been stated that saturation of the liquid with ammonium sulphate precipitates globulin, leaving albumin in solution. But besides the doubtful character of this reaction, some albumoses, if present, would be precipitated with the globulin. It is only necessary to perform these distinctive tests between paraglobulin and albumoses when there is an indication of the latter being present. To the detection of these we shall now pass.

Albumoses.—These are bodies which are formed during peptic digestion, and are considered as intermediate between globulin and albumin on the one hand and peptone on the other. To those derived from albumin the term "albumose" has been applied, and to those from globulin the term "globulose." These two classes, however, bear so close a resemblance to each other in their reactions and properties that, in the present state of our knowledge, it is more practical to use the term "albumose" for both. The reactions to be described apply to both albumoses and globuloses.

Albumoses are of three kinds, and they may be considered as a row of bodies linked at one end by their properties to globulins or albumins (undigested proteids), and at the other end to peptones (digested proteids). They are named hetero-, proto-, and deuterio-albumose. They differ in the following manner. Hetero-albumose is soluble only in saline solutions (1 to 15 per cent. sodium chloride), and not in distilled water. It is precipitated from solution by heat, and by saturation with sodium chloride or magnesium sulphate, but only partially; it is thrown down also by dialysis.

Proto- and deuterio-albumose are soluble in distilled water, are not affected by heat, and are not thrown down by dialysis. Proto-albumose is, like hetero-albumose, partially precipitated by saturation with sodium chloride, but deuterio-albumose only if 20 per cent. of acetic acid be added. All the albumoses are precipitated by saturation with neutral ammonium sulphate in the manner which has been previously described, and they all give a characteristic reaction with strong nitric acid. Nitric acid added to a solution of hetero- or proto-albumose causes a precipitate, which dissolves on heating, is reprecipitated on cooling, redissolves on again heating, and so on. Deuterio-albumose only gives this reaction when a few crystals of sodium chloride are added to its solution in a test-tube. All the albumoses are precipitated by adding acetic acid and the ferrocyanide of potassium to their solution. The precipitation by ammonium sulphate, and by acetic acid and ferrocyanide of potassium, and the peculiar behaviour of the nitric acid precipitate, serve to distinguish albumoses from all other proteids. Like peptones, they all give a pink colour with copper sulphate and potash.

All these albumoses have not been described as occurring in urine, very probably because their distinctive tests have not been applied.

The albumose first described by Bence-Jones, and later by Kühne and others, as occurring in the urine, was probably hetero-albumose. The specimen of urine examined by Kühne ("Hemi-albumose im Harn," *Zeits. für Biologie*, Bd. xix) gave a proteid precipitate between 43° and $50^\circ C$. (109.4° and $120^\circ F.$), the pre-

precipitate dissolving on further heating. If a small quantity of acetic acid were added to the urine, no precipitate was obtained by heating. Sodium chloride to saturation gave a precipitate, and the precipitate with nitric acid behaved in the manner peculiar to albumoses. The sediment in the urine partly consisted of albumose. These reactions are similar to those given by hetero-albumose in urine, as I have ascertained by applying them after dissolving some of the proteid in normal urine. Further researches will show whether the other albumoses occur as abnormal urinary constituents. At present it will be sufficient to state that an albumose is indicated in urine by the following reactions.

1. The precipitate by heat comes down at a lower temperature than that of paraglobulin and albumin. The temperature of coagulation may be accurately taken by means of a very simple apparatus. A portion of clear urine is placed in a test tube, in which an accurate thermometer is also put, and the test tube allowed to rest in the neck of a small flask containing distilled water. The water must be above the line of the urine. The flask is then gradually heated, while the urine in the tube is stirred by means of the thermometer. The temperature at which the urine becomes cloudy is the lower limit of coagulation; the liquid is then heated further until a precipitate occurs; this is the higher limit of coagulation. For paraglobulin and albumin the lower limit is about 73° C. and the higher 75° C.; for hetero-albumose the lower limit is 43° and the higher 50° C. If hetero-albumose be suspected, the urine must not be acidified previous to heating; but in the case of paraglobulin or serum-albumin, one or two drops of dilute acetic acid must be added.

It is important to emphasise the fact that a specimen of urine containing hetero-albumose (without paraglobulin or serum albumin) will give a precipitate with heat only when no acetic or other free acid is added.

2. Nitric acid added drop by drop to the urine causes a precipitate if albumoses are present, which behave in the characteristic manner already described. This reaction is distinctive of albumoses. It is not given, it must be remembered, by deutero-albumose, unless solid sodium chloride be added to the urine.

Peptones are closely allied to albumoses, especially to deutero-albumose. A urine containing them alone would give no precipitate on boiling, and none with nitric acid, even if sodium chloride be added. Such a urine would, however, give a pink colour with copper sulphate and potash. This test (biuret reaction) would indicate the presence of peptones if the heat and nitric acid tests proved negative. A small quantity of proto- and deutero-albumose would, however give the biuret reaction, and be in such small quantity as to give a doubtful reaction with nitric acid. The biuret reaction cannot then be taken as absolutely demonstrating the presence of peptones, even when applied after the heat and nitric acid tests. It is best to apply the following: saturate the urine with neutral ammonium sulphate in the manner described above, and filter off the precipitate, if any, which occurs. The precipitate will consist of globulin, albumin, or albumose, if they be present, and the filtrate will contain the peptones, for these are not precipitated by saturation with ammonium sulphate. To the filtrate then add a drop of 10 per cent. copper sulphate solution and a large excess of potash; if a pink colour is produced peptones are present. Or add two or three drops of nitric acid, boil and add liquor ammoniac after cooling; if the liquid turns brown peptones are present. This method of saturation with ammonium sulphate is the only certain one of testing for peptones in urine.

A method which has been commonly applied is to filter the urine after concentration into a large excess of alcohol; the peptones are thrown down, and may be collected on a filter and dissolved in water. If such a solution gives no precipitate on heating, or with nitric acid, or with acetic acid and ferrocyanide of potassium, or on saturation with ammonium sulphate, and yet gives a brownish colour on heating with nitric acid and adding ammonia, and a pink colour with copper sulphate and potash, the urine contains no proteid but peptones, and the case is one of simple peptonuria. But in every case it is best to saturate the urine first with ammonium sulphate, as by this means all proteids are readily separated from peptones.

PROFESSOR CACCIOPOLI recently performed extirpation of the larynx and six rings of the trachea for sarcoma on a woman, aged 50, in the Hospital for Incurables at Naples. This is the thirteenth case of laryngectomy in Italy.

ON THE TREATMENT OF STERILITY IN WOMEN.¹

By THOMAS MORE MADDEN, M.D., F.R.C.S. Ed.,

Obstetric Physician, Mater Misericordie Hospital, Dublin; Physician to the Hospital for Sick Children; Consultant National Lying-in Hospital; Ex-President Obstetric Section Royal Academy of Medicine, Ireland; President-elect Obstetric Section British Medical Association; sometime Vice-President British Gynaecological Society; formerly Examiner in Obstetrics, Queen's University; etc.

THERE are few gynaecological questions of greater practical interest, and none which have been more frequently brought under my notice in the course of a somewhat extensive clinical experience in hospital and consultation practice, than those connected with the subject of sterility in women: I therefore now venture to submit the following observations on this topic, not merely for the purpose of expressing my own views, which I believe to be well-founded, but also in the hope of eliciting the opinions of other practitioners on a matter of much importance, and one involving not only the physical health of our patients, but, moreover, in many instances also intimately affecting their social interests and the happiness of conjugal life.

Etiology of Barrenness.—As in every other morbid condition, so with regard to sterility, our first aim must be to ascertain its cause in each instance. Of the various factors in the causation of infecundity, some—such as the absence or arrested development of any of the organs essential for conception, namely, the uterus, Fallopian tubes, or ovaries—being beyond remedy need not here occupy consideration. In the great majority of instances, however, sterility, when occurring in women within the period of ovarian functional activity, admits of effectual treatment, provided that treatment be rationally directed to the special exigencies of each case.

For convenience of description, in the following observations I have followed the example of the majority of writers on female sterility, by whom, under this term, is also included the subject of impotency or sexual incapacity. Strictly speaking, however, the latter term should be restricted to those cases in which marital intercourse is prevented by some physical impediment, such as vaginal or vulvar occlusion, imperforate hymen, vaginismus, etc., whilst sterility, or reproductive inability, is commonly the result of some structural lesion, malformation, displacement, or deficiency of either the uterus or its appendages, although it may also be due to certain morbid constitutional conditions, as well as be occasioned by other causes, such as sexual incongruity or irrespoudence of a moral rather than of a physical kind.

Stenosis of the Cervical Canal.—This is not only the most common of all the causes of sterility just alluded to, but is, moreover, according to my experience, the one which proves most amenable to appropriate treatment. Until a comparatively modern period, however, atresia of the cervical canal was generally regarded as irremediable, and this opinion continued to prevail very generally for years after the period when Dr. Mackintosh, of Edinburgh, by his revival of the ancient but long-disused method of dilating the cervical canal when occluded, proved the curability of that condition. Practically, the modern treatment of cervical stenosis was initiated a quarter of a century later, when Simpson brought the subject prominently before the profession, and proved the feasibility of treating stenosis by incision with the metrotome, as well as by dilatation with sponge and laminaria tents. This, however, is not the place to trace the progressive history of the improved procedures by which the crude operations resorted to half a century ago in the treatment of obstructive dysmenorrhoea and sterility have been now replaced. My present object is a more practical one. Believing as I do that, though both dilatation and incision of the cervix may be successfully employed in many cases, I also know that both these plans very often fail in permanently overcoming the natural contractility of the cervical structures, and that after each operation the canal too commonly rapidly resumes its former condition, and frequently from cicatricial contraction becomes still less permeable than before the operation. Hence I now desire to direct attention to the advantage I have observed in the treatment of such cases from a method of procedure and the use of instruments by which the parts are so forcibly separated and torn

¹ Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association, held in Dublin, August, 1887.

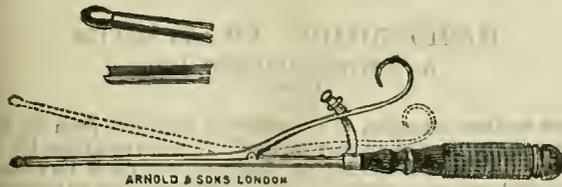
apart, rather than cut, as to reduce any risk of their speedy reunion.

Operative Treatment of Cervical Stenosis.—As the method which I employ in such cases differs in some respects from that generally adopted, I may perhaps be permitted to refer to the details of a plan of treatment which within the past session alone has been employed in eighty-two of my hospital cases of stenosis, and in many of these with the co-operation of my friend Dr. Duke. The total number of cases on which I have operated during the past ten years now exceed five hundred instances in cases of cervical stenosis productive of obstructive dysmenorrhœa or sterility.

In such cases the operation should, if possible, be undertaken a few days after the catamenial period, and should be preceded by daily hot water syringing for some time previously. For its satisfactory performance the patient should be fully etherised, and placed in ordinary semi-prone position on a suitable gynæcological table. Then the cervix being exposed by a duck-bill speculum, the anterior lip is drawn down by a strong vulsellum as near to the vulva as possible. The sound should be now used, or, if this cannot be introduced at first (as happened in a case of stenosis on which I recently operated in England), a very small flexible probe may be passed, and followed by a larger one, until the ordinary uterine sound can be introduced. This being removed, I then pass in, up to the fundus, my uterine director, which you perceive is a long probe-pointed instrument, with ball and socket adjustment in handle, and rather less bulky than the common sound; and along its groove the button of the triangular guarded, blunt-edged knife, now exhibited, is forced, with the cutting surface directed backwards into the uterine cavity. It is then rotated, and withdrawn in the opposite direction. The edge of this instrument is thick and blunted, so as to crush apart or tear, rather than sharply divide, the parts through which it is forced, and thus to diminish the risk of hæmorrhage at the time, and to prevent the subsequent reunion of the separated surfaces.

These instruments have now been used with satisfactory results in upwards of a hundred cases in my hospital and private practice during the past session. But for twenty years previously I have employed, and in many cases still use for this purpose, Simpson's original metrotome, which I regard as a far better instrument than any of the more recent metrotomes, and in every respect superior to Sims's or Emmet's, or any other intra-uterine knife.

Whether the metrotome or my knife be used, I think matters little, at least when compared with the importance of maintaining the permanent permeability of the passage by whatever means this has been restored. This, I believe, may be best secured by the use of the dilator now shown.



Immediately after the completion of the incisions I employ this instrument, not merely with the view of thoroughly expanding the canal and its orifices in the most effectual manner possible, but also for the purpose of tearing the divided tissues and vessels, and thus arresting any excessive hæmorrhage. The extent to which this dilatation may be carried must, of course, be largely determined by the special circumstances of each case. As a rule, however, in ordinary cases I pass the instrument well into the uterine cavity, and then, by means of the screw adjustment, separating the points to their full extent (that is, one inch and a quarter, and then not redneible by any external pressure to less than three-quarters of an inch), I withdraw the expanded blades forcibly through the canal, so as to expand the canal in the natural direction from within downwards and outwards, and not, as most other dilators, which act in the opposite direction; reintroducing it, and repeating the same manœuvre in opposite directions, until the passage is so expanded that I can readily pass my finger into the uterine cavity, which is then thoroughly washed out with a hot carbolicised injection. In the next place, I pack the cervical canal with a long tampon of compressed absorbent cotton, saturated in dilute glycerine of carbolic acid, and fill the underlying vagina with a

large glycerine plug. The latter is removed in twenty-four hours, and the former in sixty hours, if not sooner expelled, being then replaced with a large-sized, soft rubber stem, also previously well carbolicised, or else by Dr. Duke's ingenious ball and socket intra-uterine stem, which causes no irritation and requires no additional support, and which I direct to be worn, if possible, until the next monthly period passes over. For a fortnight or ten days after operation the patient should be kept in bed, and the uterine cavity daily washed out with hot water, plain or medicated. Before allowing the patient to leave her bed I invariably secure the uterus *in situ*, and lift its weight off the ligaments by a properly adjusted Hodge pessary, which to a considerable extent obviates the occurrence of the possible after-troubles that might otherwise be consequent on this operation. Moreover, I desire the patient to remain in bed during the next menstrual period, which is generally attended with some pain and increased discharge. She should then wear a soft rubber stem until the approach of the subsequent period, after which, and never sooner, she may return to marital intercourse.

These precautions and directions may perhaps be regarded as superfluous after an operation which has been described by some who ought to know better as "one of the simplest and safest of all gynæcological procedures." This certainly is not my opinion, and I ascribe the success which has attended my treatment of stenosis chiefly to their adoption. For although any tyre armed with a metrotome may lay open a contracted cervical canal easily enough, the operation may probably prove worse than useless if it be rashly and needlessly undertaken or carelessly performed, being extremely apt to be followed by ill consequences, such as hæmorrhage, pelvic cellulitis, endometritis, and above all by permanent cicatricial occlusion of the canal, when abused by those who disregard these details and precautions which are essential for its safe and successful accomplishment.

Vaginal Aphoria or Incapacity.—In reference to the causes of sterility, the condition of the vagina also requires consideration, it being obviously essential that this canal should be capable of receiving, retaining, and transmitting the spermatic fluid. These requirements may be variously defeated. Thus the vagina may be wanting, as I have seen in one instance, wherein the urethra opened on the perineum directly. The vulvar orifice may be occluded by morbid adhesions from vulvitis or congenital atresia; the vaginal canal may be abnormally narrowed, or—and more frequently—it may be occluded by membranous septa consequent on former parturient injuries or inflammation, of which I have recorded several cases, one of which is at present under my care in the hospital.

Infecundity from Vaginismus.—Conceptive incapacity, or female impotency, is, according to my experience, very frequently traceable to vaginismus or excessive sensibility of the vaginal orifice and adjaent parts, attended with such spasmodic contraction of the sphincter vaginae as to form an impediment to marital intercourse. This occurs chiefly in patients of a hysterical temperament, and is generally occasioned by neuromata, confined to the parts supplied by the superficial perineal branch of the pudic nerve. In all such cases constitutional treatment by nerve tonics and sedatives should be combined with the simple plan of local treatment, which I have generally found efficient in relieving the most intense dyspareunia thus caused, without any operative interference beyond the forcible dilatation of the vaginal canal, and stretching of the pudic nerve by a method fully described in a recent paper of mine. In some instances, however, these measures fail, and we must then fall back on Sims's and Emmet's operations for the cure of vaginismus. It sometimes happens, that even in cases of vaginismus, so intense as to render complete marital intercourse impossible, the disease is not necessarily a barrier to impregnation. Thus, in one instance under my observation, so extreme was the local hyperæsthesia as not only to prevent the possibility of complete cohabitation, but also to prevent the patient submitting to any local treatment for relief of the morbid condition. Nevertheless conception occurred, and I was subsequently called in to deliver her at full term, and, in doing so, was obliged to incise the still unruptured hymen by which delivery was obstructed.

Sterility from Uterine Flexions.—The various displacements of the uterus by which sterility may be occasioned have been fully discussed by recent writers. For my own part, I am inclined to think that an undue degree of importance is attached by Dr. Graffy Hewitt and his followers to the influence of anteversion and antelexion in the causation of infecundity. In my own

practice, at least, I have not often met with cases of sterility assignable to anterior deviations from the normal position of the uterus, and I have seen early pregnancy coexistent with marked antelexions. On the other hand, I have often traced sterility to retroversion, and again still more frequently to retroflexion, by the latter of which not only is the permeability of the canal mechanically constricted at the point of flexion, but, moreover, as in cases of retroversion, and also of prolapsus uteri, the vaginal retentive capacity was necessarily interfered with. In each and all of these three latter conditions I have generally found that the reposition and maintenance *in situ* of the uterus by a properly adjusted Hodge pessary sufficed, if the canal itself was permeable, to cure the sterility thus occasioned; otherwise, the operation of opening, by incision and dilatation, the cervical canal is also necessary, more especially in cases of flexion with elongation of the cervix, where, from long-continued pressure at the angle of flexure, much absorption of tissues has taken place. In such cases the result of incising the cervix, which should always be divided backwards, is, as Dr. Emmet observed, to bring the neck of the uterus to a more natural length, and it then becomes straighter, shorter, and thicker. This change in the neck is brought about, it is supposed, by the action of the longitudinal fibres after the circular ones have been divided.

Endometritis and Sterility.—Chronic endometritis is incompatible with fecundity, and as long as that disease exists to any serious extent the patient must remain barren. This fact, to which I called attention many years ago, is one of great practical importance, and is too generally ignored in practice. I have known many instances in which patients were subjected to active surgical treatment to overcome some supposed mechanical obstacle to impregnation, and who nevertheless remained childless, no attention having been paid to the existence of chronic cervical inflammation, on the subsequent cure of which pregnancy has followed. In such cases not only is impregnation mechanically obstructed by the viscid glairy secretion by which the os and inferior segment of the cervical canal is sealed in all cases of endocervicitis, but also, as Mr. Whitebread long since pointed out, the inflammatory action, going on within the uterus may prevent the formation of the membrana decidua; and hence the ovum, even though impregnated, is unable to attain the fertilised state. Secondly, the diseased condition of the lining membrane of the uterus may be extended to the Fallopian canals, and obliterated for a time their internal orifices, so as to oppose an insurmountable barrier to impregnation. Thirdly, the uterine secretions, in cases of endometritis, may be inimical to the active existence of the spermatozoa.

Hence, agreeing as I do with Mr. Whitebread's views, I may also recapitulate briefly the conclusions on this subject which I published several years ago in the first volume of the *Dublin Obstetrical Transactions*, and which have been confirmed by my more recent experience, namely: 1. That congestive hypertrophy of the uterus, and especially of the cervix uteri, is a very common cause of sterility. 2. That these conditions are, in the majority of cases, occasioned by constitutional causes, and in the most frequent of which is the serofulous diathesis. 3. That these diseases require constitutional as well as local treatment; and in this connection I therefore would again urge the benefits derivable in such cases from certain mineral and thermal waters, the uses of which are fully described in my work on *The Health Resorts of Europe*.

Ovarian and Tubal Sterility.—Ovarian inflammation is one of the most frequent consequences and accompaniments of endometritis. In these cases the inflammation extends from the uterus along the Fallopian tubes to the ovaries, and this to a great extent accounts for the fact just mentioned, that patients suffering from endometritis or endocervicitis are invariably sterile. In such cases the inflammatory action is generally attended by a viscid exudation, by which the tubes, and especially their uterine orifices, are mechanically sealed against the possibility of impregnation. Independently, however, of its frequent sequence on endometritis, tubal obstruction, productive of dysmenorrhœa and of sterility, may also arise from those possibly graver, but, according to my experience, comparatively exceptional diseases, namely, idiopathic salpingitis and pyo-salpinx, in the treatment of which operative procedures, involving loss of all future conceptive ability by the complete removal of the uterine annexa, are now so readily resorted to by some practitioners. For my own part, having in not a few cases seen all the supposed symptoms of pyo-salpinx subside completely without any surgical interposition

whatever, it would seem to me quite as rational to amputate the breast for an ordinary mammary abscess as to remove the Fallopian tubes merely because they may be the seat of serous or purulent exudations. In some cases of the latter kind there is, as I can vouch from clinical experience, no absolute impossibility of reaching and removing such collections by aspiration or even by catheterisation of the Fallopian tubes.

Many years ago, having occasion to use the sound in a patient suffering from dysmenorrhœa and sterility, I was surprised, there being no enlargement of the uterus, to find the sound pass in up to the handle, and on palpation discovered that obviously it had entered the right Fallopian tube. A year subsequently that lady gave birth to her first child, after eight years of married life. Since then I have more than once succeeded in accomplishing by a little careful manipulation what in the first instance was but a happy accident. And hence I endeavour to impress on those who attend my hospital practice, the fact that the catheterisation of the Fallopian tubes, when employed by a practised hand and with due caution, is a feasible, and in some exceptional instances may possibly prove an effectual, method of treating certain cases of dysmenorrhœa, sterility, and other morbid conditions.

Sterility may also arise from causes irrespective of any physical lesion; and although impregnation in no way depends on the sexual orgasm, unquestionably it may be prevented by strong mental emotion or personal dislike. In some instances, however, sexual incongruity productive of sterility coexists with conjugal affection. Thus, I have more than once been consulted by sterile patients, happily married, desirous of offspring, and not suffering from any physical disability, who informed me that, though warmly attached to their husbands, not only were there absolutely sexual indifference, but even positive repugnance to coition, any attempt at which in one of these cases invariably produced nausea. In that case I may add that the last-mentioned symptom was allayed by the use of cocaine suppositories.

Still more commonly is sterility dependent on abuse or abnormal irritation of the sexual organs, and hence the general sterility of prostitutes. It is hardly necessary to observe that in such cases long period of abstention from all sexual stimulation affords the only hope of curing the *impotentia generandi*.

In the treatment of infecundity, independent of any local disease, malformation, or displacement, or of any obvious derangement of the general health, or other tangible cause, and in which the mineral waters already referred to have either been tried without benefit, or are contraindicated or not available, a course of sea-bathing, whatever may be its *modus operandi*, is a prescription the occasional efficacy of which in such cases I have seen proved by experience.

HÆMORRHAGIC PHARYNGITIS.

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I WISH to draw attention to a condition I may call, from its chief symptom, "hæmorrhagic pharyngitis." It is not mentioned in our textbooks. I have found it very obstinate to cure if its cause overlooked, and also because I have found amongst patients suffering from it some of the greatest grumblers at medical men whom I have ever met. And no wonder. Five out of eleven very marked examples of this condition were thought to be, or were become, victims of phthisis, had got no benefit from medical treatment, and before they came under my care had drifted, by the advice of friends, to the tender mercies of quacks, who promised to cure their consumption, and had made themselves worse by pocket and digestion by swallowing many bottles of tarry emulsions. Three other patients, whom I saw when at the Riviera, were wandering from one town to another there, at great inconvenience to their work in life, and without any benefit to their ailment. Let me give a case fairly typical of them all, as much as possible in the patient's own words.

Mr. B. came to see me, and, almost before I had time to say a word, produced his pocket handkerchief, and, with a voice expressing the deepest concern, said, "Doctor, what's this? Is it serious? Is it a return of consumption?" I saw on the handkerchief several masses of dusky, red-stained expectoration. He told me that, preceding this attack for several days, he had a sensation of constant tickling in his throat, and an equally tormenting desire to clear it; and his throat felt dry and burnt, and this burning feeling was greatly increased by swallowing

anything pungent. He told me he generally got his first warning whenever sherry felt burning as he swallowed it. After about two days of great discomfort he got relief by being able to hawk up very frequently dark, blood-stained lumps of phlegm. This he kept constantly doing all day long for about a fortnight. He at the same time had a good deal of pyrosis and great mental depression. As the attack wore off the blood-staining got less and less; and, as he invariably examined each mass of expectoration, he got cheered by seeing it become yellow; then the yellow mixed with something clear and gelatinous, with what he called dark spots in it. He very strongly emphasised the fact that he got no benefit from coughing; that only by hawking, in which he was quite an expert, did he bring the secretion up easily and quickly. This gentleman was of an intensely nervous, anxious temperament, seemed to be in fairly good health, not intemperate in any way—indeed, far too careful to keep up his tone, and had not got any thinner, felt himself very low, was very liable to be bilious, and in cold weather liable to attacks of extremely painful diarrhoea, passing many copious, offensive, white-coloured motions. An attack of this diarrhoea seemed to relieve his throat for some time afterwards, and the sanguineous expectoration stopped for awhile. He never had piles, and when a boy had many attacks of epistaxis.

Another interesting case was that of a young gentleman, a Mr. McK., aged 27, who was brought to me by his father, having been old by their family doctor that his son was suffering from an attack of hæmoptysis, which indicated commencing mischief in his chest and urged him to take a long sea voyage, or a stay on the Riviera. This young gentleman had had frequent free epistaxis when a boy, and was frequently bilious. Another case was that of a Mr. R., aged 52, of portly size, and, being a man of leisure and means, had been to a fresh physician for each recurrence, and now thought he would try me just to give me a chance. He had epistaxis when a boy, and told me also that he remembered getting innumerable powders in childhood, as his liver was said to be perpetually out of order, and his motions never pleased his mother or nurse either in colour or consistence, being always called pasty. The least indulgence in the good things of life gave him a bilious headache, and he had been told his heart was weak.

The diagnosis of all these cases rested on the fact of the entire absence of lung mischief, and on the microscopic characters of the sputum. The clear portion of the secretion consisted of large mucous epithelium from the mouth, and many small round cells from the entrance to the larynx, and a few pus corpuscles, the yellow portion of pus and fat cells, a few blood corpuscles, and in great abundance the large spheroidal cells from the pharynx, and a few cubes of common salt—when the phlegm was dark red, of course quantities of blood corpuscles and crystals of hæmatin. There were no elastic fibres nor any distinctive epithelium from the alveoli or bronchial tubes. Two of the cases came under my notice since the discovery of the tubercle bacillus, and I need hardly say I could not find it. I may mention that as most of these cases were very nervous people the microscopic examination seemed to reassure them very greatly, and I would like to advise every practitioner as a routine thing the microscopic examination of the sputum. I have found nothing equal to it in obtaining the patient's confidence. There was nothing unusual to be seen in the pharynx except that it looked frequently anæmic in the early stages with enlarged veins coursing over it. Afterwards there were patches, especially laterally, of a very deep dusky-red colour. There were no signs of follicular disease, and the larynx was normal in every case. In nine out of the eleven cases the liver was slightly enlarged and tender.

Now what causes this condition? Is it catarrhal? I think not. I am inclined to think it hepatic in its cause. The epistaxis that most of these cases suffered from in childhood is, we know, associated with hepatic disturbance. There was a fairly continuous history of biliousness and liver engorgement, and as there were no piles, it seems to me that pharyngeal hæmorrhage of a passive character replaced the ordinary rectal leakage.

At first, thinking I had to do with a local disease, I used various stringent pigments and sprays chiefly of iron and tannin, but no benefit was derived from their use. I have found most relief in the irritative stage from painting the pharynx with a solution of carbolic acid and glycerine (3ss to ℥j), and using Allen and Hanbury's pastilles of chlorate of soda. As most of the cases were men of a flabby condition in addition to their biliousness, I have found a combination of nitric acid and extract of bark of the greatest value if continued for several weeks, adding a little tincture of

nux vomica if much flatulence troubled the patient; also limiting the amount of fluid taken to about half a pint with each meal, and the avoidance of cold bathing or sponging helped to maintain the gain derived from the mixture. The effect of alcohol was very marked in its positive injury. It was noticed by several that if they had been out to dine and had taken more wine—especially champagne or port—than usual, they knew that next morning their expectoration would be bloody. One gentleman noticed that he invariably had a relapse when abroad after taking *café noir* and cognac the night before.

I found in obstinate cases when the nitric acid failed, the somewhat old-fashioned prescription of sulphates of magnesia and iron with dilute sulphuric acid of great use. The use of a saline aperient, especially if taken after a little blue pill the night before, was extremely useful, and latterly I have always started the treatment with it. Thus it will be seen that as I treated the throat less and the general condition of the patient more, and, to use an old medical phrase, "looked after his liver," the better the result. Many times I have heard patients say that they could not get their medical men to do this. It seems to me that this important organ has gone out of fashion with the profession nowadays, and bacilli and endless neuroses absorb all its energies, greatly to the gain of the endless makers of pills and mineral waters; the numbers of aloetic pills and glasses of waters containing chiefly sulphate of magnesia, that are swallowed—too often unwisely—by the public is hardly realised by medical men.

THE COMMUNICABILITY OF TUBERCLE THROUGH COW'S MILK.

By LOUIS PARKES, M.D., D.P.H.Lond.

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THAT cow's milk is not uncommonly a vehicle for the transmission of infectious disease to the human subject is now well understood. The evidence in support of such a mode of propagation is in many cases incontestable. Enteric fever, scarlet fever, diphtheria, and a disease resembling the foot-and-mouth disease of cattle are known to have been spread by means of the milk-supply. There is one other disease, tuberculosis, in which cow's milk has not been definitely proved to have served as a carrier of contagion; but amongst those who have made a study of the subject the view in favour of such a mode of propagation is regarded as containing the elements of extreme probability.

Cattle are very susceptible to tubercle, and stall-fed dairy cows in towns are not infrequently found to be affected. Indeed, Professor Fleming has asserted that at least 25 per cent. of all dairy cows kept in towns are the subjects of this malady. These animals are stalled day and night in stables often uncleanly or badly ventilated, and they are perpetually being drained of large quantities of milk. Prolonged lactation in the human female is well known to be a frequent precursor of phthisis, and it is not to be wondered at that, under such circumstances, and with the additional factors of confinement, want of exercise, and bad air, cows should succumb to a malady to which they are in a high degree susceptible.

It has been found by experience that the best bred animals, which are also usually the best milkers, are those which are soonest affected. In the early stages the symptoms of the disease are ill-defined, the health of the animal is apparently not interfered with, and the milk secretion is as abundant as ever. It is not until the disease is well established that nutrition is interfered with; and even then, unless the amount of milk is seriously lessened, the dairy farmer continues to keep the animal in stock. So far as known at present, the milk of tuberculous cows is free from tubercle bacilli, unless there has been—as is sometimes the case—a deposition of tubercles in the glands of the udder.

It would be extremely interesting to know in what percentage of cases the mammary glands are involved in the process of tuberculation, and at what stage of the disease such involvement usually commences. Milk which contains tubercle bacilli, when given to guinea-pigs and rabbits, causes tubercular deposits in the lymphatic follicles lining the intestinal walls, followed by tubercles in the mesenteric glands, peritoneum, liver, spleen, and general tuberculosis (Klein). Milk which is free from tubercle bacilli, although derived from undoubtedly tubercular cows, has

not so far been found to be productive of tuberculosis in calves and other animals to which the milk was given.

It may be fairly assumed that in many of those cases of primary tubercular ulceration of the intestines or of tuberculous of the peritoneum and mesenteric glands (tabes mesenterica), which occur in the human subject, the tubercular virus has been introduced with the food, and the absorption of the virus has taken place through some part of the digestive tract. These diseases are usually primary in young children; in adults they are mostly secondary to tubercular disease of other organs, especially of the lungs. On referring to the Registrar-General's Summary it is seen that in the ten years 1871-80 tubercular peritonitis and its allied disease, tabes mesenterica, caused amongst children under 5 years of age an average mortality of 2.55 per 1,000 per annum, which approaches closely the average mortality from measles (2.57 per 1,000) in the same period, and is more than twelve times as great as the corresponding mortality from these diseases of any other age-period of five years, from the age of 5 up to 100. Primary tubercular disease of the lungs in children under 5 years of age is a comparatively rare event. The average annual mortality from phthisis of children under 5 years for the decennium 1871-80 was only 0.77 per 1,000, and possibly some of the cases so registered were really secondary to primary tuberculous of the abdominal organs. The extreme incidence of primary tubercular disease of the abdominal lymphatic system on young children is at once seen from these figures. In the matter of dietary there is one great distinguishing feature between this age period and all others. Under 5 years of age, milk—usually unboiled—forms the staple food of children.

Whilst not denying that the tubercular virus may find other means of reaching the digestive tract than through unboiled cow's milk, it appears to me that there are no sufficient safeguards in the management of town dairies to warrant us in assuming that milk from cows in an advanced stage of tuberculous has no chance of being mixed with the milk of other healthy cows. In every dairy of any size there will probably be tubercular cows, some of them, perhaps, with tubercular deposits in the udders; and as it is the common custom with dairymen to mix together the milk yielded by different cows, it is not too much to assume that tubercle bacilli may be widely distributed in the milk supply of any town. It has been said that the tuberculous of cattle is not the same disease as the tuberculous of man, and that the absence of any proof of the human variety having ever been dependent upon ingestion or inoculation of the virus of the bovine variety tends to strengthen such a belief. To this it may be replied that the bacilli of bovine tuberculous are identical—according to all bacteriological methods at present known—with those found in tubercular formations in the organs of man, and that although the disease presents anatomical differences in man and cattle, these differences may be explained as being due to differences of soil in the human and bovine tissues, the bacilli ingrafting themselves in those tissues which present conditions most favourable to their growth and development. Secondly, absence of proof may only mean want of observation or recorded data, and cannot be held to imply that at no future time will satisfactory evidence of the dependence of the human disease upon a bovine source be brought to light.

Having regard to all these considerations, surely the time has arrived when a radical change in the present methods of milk production and milk consumption is urgently needed. In the first place it should be rendered illegal for cows known to be suffering from tuberculous to be kept in stock by dairymen and farmers for milking purposes; and, secondly, in no household should unboiled milk be consumed, more especially by children. No other animal food is consumed by civilised nations in an uncooked state; and by the light of our recently acquired knowledge it would appear that there is as much, or more, danger connected with the practice of drinking unboiled milk as of eating raw flesh.

Exposure to the heat of boiling water for five minutes destroys the life and action of the tubercular virus (Klein); and the same is true of the other specific disease poisons. By such simple means, then, is it possible to guard against an ever present source of danger, as well as to obtain protection from those possibilities of the introduction into our bodies of the viruses of enteric fever, scarlet fever, and the like, which the experience of past epidemics has taught us to be latent possibilities in milk, with powers of development at the most unexpected periods. If medical practitioners generally recognised the importance of these views, and

were careful to enforce them upon those entrusted with the care of delicate children of scrofulous diathesis or with hereditary tendencies to tubercle, a commencement would be made in the right direction, which would gradually extend itself through all classes of society.

CEREBRAL ABSCESS TREATED SUCCESSFULLY BY OPERATION.

By DANER HARRISSON, M.K.Q.C.P.I.,
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THE case was one of traumatic origin, the injury having been received eleven years before urgent, and ten years before even slight, symptoms appeared.

The patient, a boy, aged 15, was admitted into the Northern Hospital, Liverpool, on December 22nd, 1887, with partial right hemiplegia and severe pain in the head. His parents gave the following history: Eight days before admission, he received a blow upon the right side of the head, which another boy accidentally inflicted with a pair of tongs. Three days afterwards, he was suddenly attacked with convulsions of the right side of the body. These appeared first in the arm, and then spread to the face and leg. When they had ceased, the patient found that he had lost more or less power on the whole of the right side of the body, especially in the right arm. During the succeeding four days, he had eight similar attacks. These convulsive fits were accompanied by giddiness and pain in the head, but by no loss of consciousness. The pain in the head had increased in severity, and the paralysis had also increased, especially in the face and leg. Vomiting had occurred two or three times.

On admission into the hospital, there was marked paralysis of the right side of the face and neck, the right arm and the right leg. In the arm the extensors of the wrist were principally affected, the biceps next, and the deltoid only slightly so. In the leg the quadriceps extensor and the long extensors of the toes were the muscles chiefly paralysed.

There was very severe pain over the top of the head, not referred to one side more than the other, and the intellect was dull. The tongue was protruded towards the right side. There was impairment of vision in the right eye, but sensation over the surface of the body was quite normal.

The reflexes on the right side were as follows:—Superficial plantar markedly diminished, abdominal diminished; deep: knee-jerk much exaggerated, no ankle clonus. Numerous moist rales and sonorous rhonchi were heard over the right apex, and bronchophony was marked posteriorly on the right side.

Soon after admission all the paralysed muscles were convulsed for about five minutes. Upon examination of the head no spot tender to pressure or percussion could be definitely discovered, but a cicatrix was observed on the left side covering a somewhat uneven surface of bone, and a further inquiry from the patient's friends elicited the following history: Eleven years before, when between 4 and 5 years old, he had received a severe blow upon the left side of the head, causing a wound from which bone was removed; this injury was followed by no severe symptoms. During the last twelve months twitchings in the right arm had been observed, which were confined to the flexors of the wrist, the biceps and the deltoid. There had, however, been no fits except those already described.

From the history of the patient and the personal observations have related, my colleagues and I came to the conclusion that there was probably an abscess of the brain, situated in the motor region of the cortex, and an operation was determined upon.

On mapping out the side of the head by Thane's method the cicatrix was found to correspond in position to the upper part of the left ascending frontal convolution, and the centre of the cicatrix was therefore chosen as the site of operation; and on December 23rd an inch disc of bone was removed, the centre of the trephine hole being three-quarters of an inch in front of the fissure of Rolando. The bone removed was very adherent to the dura mater, and was found to be of very unequal thickness, a ridge of bone occupying its centre, having evidently pressed in an abnormal manner upon the brain. The whole extent of the ridge not having been removed by the trephine, it was followed up with a chisel close to the middle line and removed, leaving an irregular opening an inch by an inch and a half in extent. Having removed what

might possibly be a source of irritation, and as there was no bulging of the dura mater, I decided to postpone further procedure, in the meantime keeping the wound open, so that further exploration might readily be made.

December 24th. The patient passed a quiet night, with complete relief from pain, and was more intelligent. The plantar and patellar reflexes had become normal. Pulse 60; temperature normal.

December 25th. He had had slight pain in the head occasionally. The plantar reflexes were more marked, the limb becoming firmly flexed, and remaining so for some minutes.

December 26th. He had passed a restless night, complaining of pain at intervals; the right lower limb was tonically half flexed, and could not be extended, the plantar reflex exaggerating this contraction for a few minutes.

December 27th. He was rather more apathetic, and inclined to be drowsy. The temperature during the night 97.2° F., the pulse 45. Paralysis was absolute. The contraction of the right leg was more marked, the patella tendon reflex was absent, and the plantar reflex delayed.

I now considered it necessary that a further exploration should be made. This was effected by a crucial incision through the dura mater one inch in length; then, with a tenotomy knife, a puncture was made into the brain in a vertical direction for one inch and a quarter in depth, until a drop of pus was observed to have made its way along the blade; an incision was then made one inch in extent, through which nearly four drachms of foetid pus rapidly flowed, as if under the influence of considerable pressure. The abscess cavity was syringed out with corrosive sublimate lotion, and a horsehair drain inserted.

December 28th. He slept all night, and had no pain. The patella tendon reflex was just perceptible.

December 30th. He had not been so drowsy. The drainage was unsatisfactory, one drachm of pus having collected. The horsehair drain was removed, and a small india-rubber tube inserted.

January 1st. The right leg had recovered some power; the plantar reflex was much less marked.

January 2nd. The hamstring and quadriceps extensor muscles of the leg had recovered more power; facial paralysis was less marked. On January 3rd, slight movement was observed for the first time in the right arm, and on January 5th he was no longer drowsy, had no pain, and was quite intelligent and quick in answering all questions. The right arm could be rotated outwards at the shoulder. The leg had power of flexion, extension, and adduction. On January 6th, a hernia cerebri protruded from the wound an inch in height. On January 10th he could flex the arm at the elbow.

January 18th. Pressure having been applied to the hernia cerebri, it was observed that upon relief of pressure during the dressing of the wound, the pulse would rise from 60 to 84, becoming again 60 after two hours of pressure.

From this time the history of the case is simply an uninterrupted progress towards recovery. The hernia cerebri, which at one time assumed the proportions of a large walnut, entirely subsided under the influence of elastic pressure. The temperature was generally subnormal, and only reached 100° F. upon one occasion.

The patient was allowed to get up on January 29th, and could walk with some assistance; about a fortnight afterwards the drainage-tube was finally removed.

At the present time, April 15th, the patient is perfectly well—the only difference when comparing the opposite sides of the body, being found in the grip of the hands, the right hand grip being 27, the left hand grip being 25½ kilogrammes. Optic discs are normal.

REMARKS.—The duration of the latent period, eleven years, forms an interesting feature in this case, as I understand that here are not many recorded. The symptoms of localised disease during the latent stage, as shown by the twitchings of the right arm, and afterwards by the convulsions beginning in the arm before spreading to the face and leg, clearly point to the arm centre as the focal area of the abscess. The order in which recovery took place also supports this view. 1. The face and tongue. 2. Neck. 3. The leg. Lastly, the arm.

The localisation was much facilitated by the presence of a cicatrix indicating the point of original injury, but, in the absence of this, the extensive nature of the paralysis, which implicated so rapidly the face, tongue, and neck (the centre for the latter in monkeys being the first and second frontal convolutions), would

have led to the choice of the ascending frontal, rather than the ascending parietal, convolution as the seat of disease.

In diagnosing abscess rather than tumour, the factors chiefly taken into consideration were the original injury and the prolonged latency, afterwards followed by acute symptoms, accelerated by a recent blow, the symptoms bearing the character of a rapidly increasing focus exerting great pressure on surrounding parts.

The operations and after-treatment of the wound were conducted with the most careful antiseptic precautions. I regret that no ophthalmoscopic examination was made on the patient's admission, but his condition at that time would have rendered any satisfactory examination extremely difficult. The horsehair drain was a complete failure, but the india-rubber tube gave perfect drainage, showing that drainage by silver tubes is not absolutely necessary.

OPHTHALMOLOGICAL MEMORANDA.

EYE OPERATIONS: BROMIDE OF POTASSIUM.

THE JOURNAL has recently contained several contributions describing methods of employing cocaine in squint operations, the aim being to render the operation painless. Mr. Browne says: "Squint operation, even on nervous, frightened children, can be done painlessly." Immunity from pain is not enough for the "nervous frightened" child, whose fear must be allayed. Cocaine will not banish alarm. We are all, however, familiar with the soothing influence of bromide of potassium in emotional disturbance, and yet the virtues of this drug do not appear to have been utilised in relation to operations. It is now my practice to give to children who are to undergo operation a full dose of the drug, and operate during the calm which ensues. I now speak not of squint operations merely, but of eye operations in general. The suggestion I make commends itself; it does not need much advocacy. I shall mention only one recent case: C. H., aged 5, had double congenital cataract, a considerable portion of the lens being transparent. For both eyes the procedure was the same—needling, and several days afterwards linear extraction. On each of the four occasions cocaine was instilled, bromide (40 grains for the extraction) administered, the operation performed without difficulty, and followed by sound sleep. I tried to tear the capsule of the second eye without bromide, but the boy was unmanageable.

DAVID MCKEOWN, M.D.

Manchester.

TOXICOLOGICAL MEMORANDA.

TOXIC ACTION OF EXTRACT OF EUCALYPTUS.

A FEW days ago, a male patient, aged 25 years, took by mistake about five drachms of extract of eucalyptus, at 10.45 P.M., and laid himself down in bed again, after going to attend to a sick relative in the same room. Near 12 o'clock he felt faint and giddy, and as if he was being lifted up by the heels and his heels pulled up over his head. He also began to feel inclined to say all his thoughts aloud, and found some twitching going on involuntarily in his fingers. Thinking dreamily he might be poisoned, he drank a large glass of cold water, but did not vomit. His wife, aroused to his condition, came for me, and at 1.20 A.M. I found him with weak, rapid pulse (120), but quite sensible, and complaining of the above symptoms. Free vomiting (smelling and tasting strongly of eucalyptus) was caused by administration of mustard and water.

On page 840 of Dr. Lauder Brunton's *Materia Medica*, he says: "Eucalyptus acts chiefly on nerve centres; depression of brain, medulla and heart; drowsiness, feeble respiration, lowered blood-pressure, and fall of temperature.....Death from paralysis of respiration." At page 798 of the same book, caffeine is said to—"stimulate medulla and cardiac centres, and raise the blood-pressure."

As I was unable to find in any book, or remember an antidote for eucalyptus, I hastily prepared a hypodermic injection (Martindale and Westcott) as follows: Caffeine, 20 grains; salicylate of soda, 17½ grains; water, 1 drachm. After the emetic had acted, I injected into the arm six minims of the solution. All unpleasant symptoms speedily disappeared, and we sat talking till 3.30 A.M., when I left him apparently recovered.

He called upon me in the evening of the next day, said he was sleepless after I had left him, for a couple of hours, got up at noon; the urine had a peculiar odour, and there was some diarrhoea of a blaekish colour; he had also pain in the end of the penis and the right testicle (which was drawn up). The dose of extract of eucalyptus is about fifteen minims.

ERNEST SHEAF, M.R.C.P., F.R.C.S.E.,
Honorary Surgeon to the Toowoomba Hospital,
Toowoomba, Queensland, Australia.

POISONING BY STRAMONIUM.

J. B., a strong and healthy young woman of eighteen, took by mistake for herbs about half an ounce of stramonium leaves (which her father had left in the cupboard for smoking to relieve his asthma), and having made an infusion with nearly a pint of boiling water, she drank a large teacupful of it off. Characteristic symptoms were developed within an hour, and I saw her shortly after they appeared. Briefly they were as follows: 1. She had no rash, yet (2) there was complete mydriasis, indistinctness of vision, and a staggering gait. 3. There was no stupor, but incessant "fussy" delirium and much "giddiness." 4. The mouth and throat were dry and the fauces insensible to the touch, so that irritation of the pharynx produced no reflex action. 5. She chattered, laughed, and grasped at imaginary objects, and had a tendency to fall over when endeavouring to rise. 6. The pulse and respiration were not seriously affected.

The treatment consisted in the administration of stimulating emetics and five-grain doses of caffeine, at frequent intervals, followed by a full dose of castor-oil. The symptoms subsided in about eight hours; and a partial explanation of their less than usual intensity after such a dose is probably to be found in the fact that the patient, feeling "giddy and queer," as she described it, took a copious tea-meal immediately after the ingestion of the poison.

Tamworth.

J. HOLMES JOY, M.A., M.D.

CASE OF OPIUM POISONING IN AN INFANT ONE MONTH OLD: ARTIFICIAL RESPIRATION: RECOVERY AFTER FORTY-FIVE HOURS.

At 6 A.M. on February 16th I was called to an infant, aged one month, to whom a dose of three drops of laudanum had been administered by its nurse, on the previous night, at 10 P.M. The child was in a semi-comatose condition, from which it could with difficulty be aroused. Two drachms of vin. ipec. had no effect as an emetic, but a hot bath, followed by a cold douche down the back, thoroughly roused the child for the moment, but the sleep subsequently, grew deeper and the respiration fainter, till it gradually ceased altogether.

I at once resorted to artificial respiration, and after about an hour's work succeeded in inducing the child to breathe again. This was maintained by means of constant stimulation with hot flannel for an hour and a half, when another relapse took place. I again had recourse to artificial respiration, and after another hour the child once more opened its eyes. Another hot bath and cold douche had now a good effect, and by dint of constant friction, patting on the back, application of hot cloths, and stimulation with the current of air induction apparatus, we kept her awake for a couple of hours. The effect of the drug, however, had not in the least worked off, though it was now eighteen hours since it had been given, but the infant seemed more under its influence than ten hours previously. Nutrient enemata had been given every hour and retained.

She relapsed for the third time into a comatose state, and artificial respiration was again kept up almost constantly for about three hours, by which time natural breathing was again established; but constant watchfulness was still necessary. The face was wizened, the jaw dropped, and the eyes glazed and heavy; pulse and respiration barely perceptible. In this condition she remained for nineteen hours, fed by nutrient enemata. At about 5 P.M. on February 17th she seemed to wake up of her own accord, and gave a little cry. On being put to the breast she took it and drank heartily. She made a rapid recovery. The child was one of twins, and premature by about a month.

Seaford, Sussex.

WILLIAM PRINGLE MORGAN, B.A., M.D.

LORD JUSTICE BOWEN will preside at the annual festival dinner of King's College Hospital, which will be held in the Whitehall Rooms of the Hôtel Métropole, on Monday, April 30th.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES

MIDDLESEX HOSPITAL.

TWO CASES OF LARYNGOTOMY: A SUGGESTION AS TO THE APPLICABILITY OF SUTURES TO THE AIR-PASSAGES IN CASES OF CUT THROAT.

(Under the care of Mr. HENRY MORRIS.)

[Notes by Mr. W. G. NASH.]

CASE I. *A Large Recurrent Myeloid Sarcoma of the Face; Laryngotomy; Removal of the Growth; Recovery.*—W. T., aged 45, a stonecutter, was sent by Mr. Lang into Broderip ward on January 16th, 1888, under Mr. Morris. He was suffering from a large recurrent sarcoma of the right side of the face.

History.—Two years ago he first noticed slight protrusion of the right eye and blocking of the right nostril, followed by a small swelling of the right side of the nose. There was bleeding from the right nostril, the eye became more prominent, and the swelling increased for a period of six months. The mouth was not involved at this time. He went to the Bristol Royal Infirmary, and Mr. Board removed the superior maxilla with the growth. As soon as the wound was healed the tumour recurred. During the next few months a large swelling formed and projected the cheek, but did not involve the eye, and six months after the first operation this recurrent growth was removed. Six weeks after the second operation a swelling formed below the right eye, from which the present disease has gradually developed. He had syphilis at 20. Ulceration of legs for the last twenty years. Has been a great beer drinker. Father died of alcoholism, aged 60. Mother died, aged 70, of unknown cause. One sister died of phthisis. No family history of cancer or tumour.

State on Admission.—On the right side of his face is a tumour about the size of an orange. The skin over it is of a mottled, dark-purple colour, and is ulcerated, and there is discharge of sanious pus and blood. The tumour is firmly fixed to the surrounding structures, and involves the skin from the orbit to the upper lip, infiltrating it for nearly an inch from the margin of the tumour. It spreads upwards as far as the upper margin of the orbit behind the eyeball, and downwards nearly as far as the corner of the mouth. Internally the growth projects against the nasal septum extending forwards to within half an inch of the anterior aperture of the nose. Externally it spreads to within an inch and a half of the ear. Its edge is ill-defined. It is not adherent to the roof of the orbit. The lower eyelid is everted, and the eye is pushed upwards and prominently forwards, thus producing diplopia. There is a very offensive discharge from the right nostril, and frequent hæmorrhage from the tumour. In the mouth there is a large soft swelling, which extends internally as far as the middle line and backwards to the front part of the soft palate. There are no enlarged glands beneath the jaw or in the neck. The patient was in a very distressing and loathsome condition, and was quite willing to undergo any operation which afforded him fair hopes of relief.

Operation, January 24th.—Patient being anæsthetised, laryngotomy was performed and a Hahn's tube inserted. After waiting a few minutes to allow the compressed sponge around the tube to swell, an incision was made beyond the upper and outer margins of the growth along the free margin of the orbit a little below the eyebrow and just over the external angular process of the frontal bone. The tumour and the eye were freed and pushed forwards and downwards with a raspator; the deeper structures of the orbit were divided with scissors, and the whole of the contents of the orbit thus enucleated. An incision was then made downwards along the outer border of the growth about an inch in front of the ear-hole to about half an inch above the angle of the mouth, and another incision inwards above the free border of the upper lip as far as the frenum of the nose. Lastly, a fourth incision was carried upwards to the inner end of the first incision along the right side of the bridge of the nose, ending at the inner end of the right eyebrow. The bones were divided with bone-pliers, and the growth was thus taken away *en masse*. A large chasm remained, the roof of which was formed by the roof of the orbit; its inner wall by the septum of the nose; its outer

wall by the outer wall of the orbit, pterygoid processes, and ascending ramus of the lower jaw. The floor was formed by the tongue and a portion of the soft palate which was left intact. Posteriorly it communicated by a wide opening with the pharynx. The internal maxillary artery bled freely, but was easily controlled. The cut end of the parotid duct opened at the lower and outer margin of the chasm (seen as a dark spot in the woodcut). Paquelin's cautery was freely applied to the stumps



of the muscles and the optic nerve at the apex of the orbit. The mucous membrane of the cheek was sutured to the skin at the edge of the wound. The wound was stuffed with a large soft antiseptic sponge; the cannula was easily withdrawn from the air-tube; and the wound over the crico-thyroid membrane was dressed with carbolic gauze, but no sutures were inserted either into the crico-thyroid membrane or the external wound in the neck. The Hahn's tube acted very well, and allowed of the operation being rapidly proceeded with, without any interruption from hæmorrhage, or difficulty in the administration of the anæsthetic.

Course.—For the first twenty-four hours the patient was fed by nutrient enemata. The subsequent progress was, on the whole, most satisfactory, although it was interrupted on January 27th, and on two or three subsequent days, by swelling and tenderness over the parotid region, and on February 13th, 14th, and 15th by severe headache on the right side. On January 31st, just a week after the operation, the laryngotomy wound was quite healed, and the patient sat up. There was never at any time after the operation either air or mucus discharged through the wound in the larynx. The patient has been greatly benefited by the operation. The outer and lower parts of the chasm have much contracted; the line of the upper lip is perfect. There are no signs of recurrence in any part of the structures; he is quite well, and ready to wear the artificial face with which he will be provided. The microscopic examination showed the growth to be a very vascular myeloid sarcoma.

CASE II. Papilloma of Larynx: Extra-laryngeal Excision: Immediate Healing after Suturing the Wound in the Larynx.—W. G., aged 38, a board-school teacher, was admitted under Mr. Morris on January 24th, 1888, suffering from loss of voice due to a polypoid tumour below the anterior extremities of the vocal cords.

History.—He has had good health until eighteen months ago, when he lost his voice and was treated for laryngeal catarrh. He recovered his voice until October, 1887, when he lost it again. He came to see Mr. Hensman as an out-patient, who has kindly furnished the following account of his case at that time: "W. G. was first seen by me in the out-patient department of the hospital on October 4th, 1887. Patient was a strong, healthy man, though

looking somewhat old for his years. Had for more than twelve months past complained of huskiness and weakness of voice. Latterly he had been obliged to relinquish his duties on this account. Previous to this, however, he had experienced several attacks of 'sore throat,' which had passed away without affecting his voice. He was able to swallow and breathe without difficulty, and had at no time suffered from laryngeal pain. On examining his throat it was clear he was at this time suffering from an attack of catarrhal pharyngitis extending into the larynx. Patient was ordered an inhalation and a throat paint, and was advised to come the following week with a view to a more complete examination of the larynx. On examining the fauces on the following Tuesday (October 11th) the catarrhal attack had subsided, but the voice remained as before, thick and husky. The larynx was apparently healthy, and the vocal cords moved freely and looked quite normal. On placing the mirror far back in order to bring into view the anterior portions of the cords—previously hidden by the epiglottis—a reddish, smooth growth about the size of a pea was observed below and apparently midway between them. In phonation this was observed to be freely movable, a portion of the growth appearing momentarily above the cords, but slipping below them during inspiration, and remaining there during ordinary breathing. The patient subsequently came into the hospital, and remained some weeks under treatment. With the aid of a 10 per cent. solution of cocaine brushed over the parts and the intelligent co-operation of the patient, in spite of a very low isthmus of the fauces, every chance was afforded of dealing by intra-laryngeal methods with the growth. I was, however, unable to remove it or reduce it materially by crushing. The upper portion of the growth was seized and crushed on several occasions, and at one time the voice materially improved. Mackenzie's forceps were used (those with the antero-posterior blades being most easily managed), also Schrötter's forceps (very much curved in order to pass round the pendant epiglottis). As it became evident that a further operation was desirable the patient, after a considerable interval, during which he was under observation as an out-patient, decided to come into the hospital under Mr. Morris to have the growth removed through an external incision."

On Admission.—Patient is a healthy-looking, well-nourished man, complaining of great hoarseness and occasional attacks of difficulty of breathing. On laryngoscopic examination there is seen a small pinkish-white pedunculated growth below the vocal cords at their anterior extremity.

Operation. January 25th, 1888.—Chloroform being administered, Mr. Morris made a vertical incision over the centre of the crico-thyroid membrane and cricoid cartilage, about an inch and a half in length. Several transverse and oblique veins had to be divided, and the isthmus of the thyroid body was found much enlarged. The bleeding being controlled, a vertical incision was made through the crico-thyroid membrane and cricoid cartilage and membrane above the first tracheal ring. The edges were held apart by blunt hooks. A good deal of mucus was expelled by coughing; and then, by the aid of an electric light, a small pedunculated polypus, about the size of a large pea, was very plainly brought into view immediately below the anterior extremity of the vocal cords, a little to the right of the median line. A fine wire snare was passed around it, and, on being tightened up, it brought the tumour away easily. The spot at which the pedicle was attached was touched with the fine point of a Paquelin's cautery. The edges of the wound in the air-tube were brought together by five catgut sutures, passed so as not to perforate the mucous membrane. Two were inserted in the crico-thyroid membrane, two in the cricoid cartilage, and one in the membrane below the cartilage. The upper half of the skin incision was secured with two silk sutures, but the remainder was left open. The wound was dressed with carbolic gauze.

Growth removed from the larynx was examined microscopically by Mr. Hindson, who reported as follows: "This growth is a simple papilloma. It is of roughly spherical shape, and consists of a central portion, from the surface of which spring numerous papillary processes. The central portion is composed of firm fibrous tissue, with numerous nuclei of irregular shape. It contains some dilated blood-vessels, and towards the free convex outer part a deposit of pigment has taken place from these. The epithelium covering it is of the stratified squamous variety, and arranged in a thin layer like that on the normal true cord; the papilliform projections have for the most part broad bases, and in

their centre is a prolongation of the fibromatous structure from the central part of the growth. The epithelium both of the central part and of the papillæ everywhere preserves a regular line, and does not transgress the basement membrane."

After the operation nothing escaped through the wound in the larynx, the closure of which was quite perfect.

January 27th. Patient says he feels "as if he had a very large passage for air in his throat." He is still hoarse. External wound healed. He has a little pain on swallowing, and the fauces were congested. Ordered inhalations of steam and a spray of a solution of chlorate of potash. Liquid diet.

January 28th. Better; got up for an hour.

January 31st. There is a good ring in his voice to-day. Much less hoarseness and soreness of throat. Wound looking well. Temperature 98°.

February 2nd. Silk sutures in external wound removed. Wound healed at the upper half, but not at the lower.

February 14th. Laryngoscopic examination by Mr. Hensman. "Epiglottis is quite normal, vocal cords are still very slightly congested, their action is perfect. The voice is stronger and quite clear. Nothing can be seen below the vocal cords except a congested appearance. There is still a feeling of effort when swallowing saliva." The external wound presented exuberant granulations, which were rubbed down with nitrate of silver.

February 21st. Mr. Hensman again examined patient, and reported "the whole larynx appears normal; the vocal cords are now of their normal colour, and act perfectly in phonation. There is no congestion below the vocal cords, and no sign of any recurrent growth. The voice is normal in the lower notes, but he has some difficulty in the higher notes."

February 28th. The vocal cords now act perfectly; the voice is stronger. Patient is able to resume his duties as a teacher.

March 23rd. Seen to-day. There has remained a minute granulation mass in the middle of the scar from which a short piece of twisted silk was presenting. It was the deep part of the silk suture the knot of which only had been cut off and removed on February 2nd. The wound closed immediately after this.

REMARKS BY MR. HENRY MORRIS.—These two cases, which happened to come under my care about the same time, are reported together because they afford some evidence as to the value of stitching up the opening in the air-passage when made for a brief temporary purpose. In Case I the crico-thyroid membrane was divided transversely as usual in such operations, and it was found impossible to close the wound by sutures. This was due, partly to the very small external wound not allowing the edges of the divided membrane to be seized, partly to the narrowness of the crico-thyroid membrane, and partly to the compression of the edges of the divided membrane, by the withdrawal of the swollen sponge-covered cannula. Though the wound was left unstitched it will be observed that both superficial and deep structures were completely united in a week.

In Case II the incision of the air-tube was much larger and in a vertical direction through the crico-thyroid membrane, cricoid cartilage, and the membrane between the cricoid and the first ring of the trachea. This wound was completely and accurately closed by sutures, and its healing was by immediate union. The portion of the external wound which was sutured united immediately, and there is no doubt the whole of the wound would have as readily healed had sutures been inserted in the lower half also. Still, even then healing would not have been more rapid than in Case I. (The protracted granulation growth in the superficial wound may be ignored in a comparison of the two cases, as it was clearly due to the fragment of silk suture used for the external wound, and had no reference to the catgut sutures employed on the larynx.)

Allowing for the difference in length and direction of the wound in the air-passage of these two cases, we may at least draw this conclusion: that a simple incision in the crico-thyroid membrane, such as is made for convenience and safety in operations on the tongue and mouth can close at once without sutures. It is most probable, however, that a vertical wound will close more rapidly and perfectly by being sutured, and that if sutures are also introduced into the superficial soft structures, the patient will be quicker well than when the tracheal and external wounds are left to granulate. In the vertical division of the cricoid cartilage it would seem that sutures prevent the lateral gaping caused by the inferior constrictor muscles. That this was so in my patient is suggested by the sense of dragging and effort experienced at the wound during swallowing.

Another advantage of primary closure of the wound in the trachea or larynx is the impossibility of stricture or narrowing following; union of the wound which occurs when sutures are used is immediate and not followed by contraction.

In cases of cut throat I think we shall often do well to employ sutures on the air-passage, and close the external wound also, using drain-tubes if they are indicated. In the only case of cut throat under my care this year the air-tube was not opened, and the superficial wound after being sutured healed by first intention. But at the first opportunity in a case where the larynx or trachea is opened, I intend to put this practice to the test of experience. If the edges of the divided air tube be accurately sutured, emphysema would not occur, and there would be no danger of the passage of discharges from the surrounding tissues into the lungs. Cut throat wounds, being usually clean incised wounds, ought to heal by immediate union.

KING'S COLLEGE HOSPITAL.

GUNSHOT INJURY OF RIGHT KNEE-JOINT: RECOVERY WITH FAIR MOVEMENT.

(Under the care of Mr. WILLIAM ROSE.)

[Notes by Mr. G. L. CHEATLE, House-Surgeon.]

C. C., aged 31, a coachman, has always enjoyed good health, and been moderate in the use of stimulants. He was out shooting on November 16th, 1887, near Caterham, and about 5 P.M. he was holding his gun in his right hand by the muzzle, and ramming the butt end down a rabbit hole. It was an old fashioned muzzle loader. He states that the hammer was at half cock, the gun went off, and the charge passed through the outer side of his right knee. He did not suffer much pain at the time, and managed to walk a distance of forty yards to the house, where he was seen soon after by Dr. Eady, who wrapped up the limb in a towel, applied a temporary back splint, and sent him up by train to King College Hospital.

Condition on Admission.—There had been profuse hæmorrhage on the journey up, the dressings being completely saturated. The patient was seen by Mr. Rose at 10 P.M., taken into the operating theatre and placed under an anæsthetic. There was a ragged wound on the outer aspect of the knee measuring $3\frac{1}{2}$ inches from before backwards, by $2\frac{1}{2}$ inches wide. The tissues and skin around were blackened by gunpowder. On examination with the finger the outer third of the patella was found to be shot away, leaving a rough and comminuted surface, and the upper and outer portion of the external condyle of the femur had a portion of the cartilage carried away, and the cancellous tissue exposed about the size of a two-shilling piece. The joint was open, the finger passed easily into the subcutaneous pouch. The external lateral ligament were intact.

A careful examination of the interior of the joint failed to detect the presence of any foreign substance therein, neither skin nor portions of wad; and, from the direction of the fire, there was every probability that the main portion of the joint had escaped.

Mr. Rose proceeded to clip away the ragged and blackened tissues, and smoothed off the irregular surfaces of the patella and external condyle. The whole cavity of the joint, as well as the wound, was next washed out by means of a Higginson's syringe with a solution of carbolic acid (1 in 20) and corrosive sublimate (1 in 500), and one or two articular branches were secured. The washing was most thoroughly carried out for upwards of half an hour, as there was still some oozing. The opening in the subcutaneous pouch was extended downwards to insure complete drainage from the cavity of the joint, which otherwise would have had a tendency to pocket. A medium-sized drainage tube was inserted into the pouch, the wound dressed with iodoform and salicylic wool, and the limb placed on an ordinary back splint. In consequence of oozing, the dressings had to be changed five times in the first twenty-four hours. Temperature 99°; pulse 110.

On the 18th the temperature rose to 101.2°, and the pulse 132; face flushed; tongue white fur. He complained of throbbing pain in the knee, but, on examining the wound, it looked well, and there was no effusion or tenderness of joint.

The drainage tube was removed on the third day, and the limb placed on a carefully-padded Gooch splint, with a side flap opposite the wound, so that the dressings could be changed without disturbing the rest of the limb.

On the following day the knee felt hot, and painful, and there was some redness and swelling, for which an ice-bag was applied.

outside the dressings. These symptoms quickly disappeared, and the after-progress of the case was most satisfactory. After a small superficial slough of fibrous tissue had separated, the wound slowly granulated over, cicatrisation being assisted by occasional skin-grafts. The patient left the hospital on February 9th, with a para-plastic splint fitted to the knee, so as to limit the movements of the joint, which then admitted of slight flexion. The adhesion of the cicatrix to the external condyle rendered it necessary to control the movements of the joint for the present, to prevent the possibility of the wound being torn open.

N.B.—The patient was shown to the Fellows of the Medical Society of London on March 26th.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, APRIL 17TH, 1888.

Sir JAMES PAGET, Bart., F.R.C.S., F.R.S., President, in the Chair.

Pedunculated Body in Knee-joint.—Mr. SHATTOCK showed a specimen of a rare form of foreign body removed from the knee-joint. The lower and other structures were quite healthy except for some fibrous metaplasia. Projecting into the joint on the right side, and immediately below the patella, was a discoidal body 4 centimetres in its transverse diameter, 3.2 centimetres in a vertical direction, and 7 centimetres thick. It was invested by a thin capsule of connective tissue continued into the falciform synovial fold on the right side, which fold was lost on the adjacent borders of the patella in the general synovial membrane. It rested on the posterior surface of the bone, and its upper border was adapted to the lower margin of the articular surface. At first sight it looked like an overgrowth of fat such as often occurred in the alar ligaments. There was an example of such a lipoma in the museum of St. Bartholomew's Hospital. Mr. Barwell had had a case of inter-articular lipoma on each side of the patella. Further inspection of the body showed blotches of orange red, characteristic of extravasation. It was of compact feel and consistency. Histological examination showed a faintly stained structure, with collections of reddish brown granular pigment in trabeculae, variously arranged. The size of the coagulum placed it beyond the pale of organisation. It was evidently due to an old hæmatocele into the alar ligament from contusion or other injury. He mentioned that one form of foreign body was constituted by unorganised substances, such as the ordinary melon-seed bodies. These consisted sometimes of blood, in part, as in a specimen in the University College Museum. The best collection, numbering fifteen, was in the museum of St. Thomas's Hospital. They were laminated in structure, and of a reddish-brown colour. A distinct nucleus was found in these bodies, easily distinguishable on account of its white colour. These laminated bodies might become calcified, and then resembled phlebotoliths.—Mr. BOWLBY alluded to a specimen in St. Bartholomew's Hospital Museum of a hæmatocele which formed a loose body and was removed from the knee of a strong healthy man who had wrenched his knee. The injury was followed by an attack of acute synovitis, which left a chronic synovitis. Three months afterwards the patient, a surgeon, detected a loose body in the joint, and this was removed by direct incision. It was found to be attached by a small pedicle to the synovial membrane. After removal it was seen to consist of a torn portion of synovial membrane, and between its two surfaces there was a considerable extravasation of blood. He then showed another specimen from one of Mr. Marrant Baker's cases, of a loose body starting from a torn fringe of synovial membrane. There was a history of injury to the knee a considerable time prior to the admission of the patient. He had the usual symptoms. It was removed, and consisted of a torn portion of synovial membrane thickened by inflammatory effusion. Another specimen showed apposition of portions of semilunar cartilages removed a few days before. The patient, an athlete, after a football match found his knees swollen and painful, and was unable to play for a time. Subsequently, while playing cricket, one of his knees gave way with a crunching sensation, which disabled him. He recovered from this, but afterwards his left knee gave way in the same manner. A year later he came to the hospital with a loose body in the left knee. It turned out to be a torn portion of the internal semilunar cartilage, which was torn about half-way from

its posterior attachment. He had also brought down two other specimens, one of which was shown by their President to illustrate his Bradshawe lectures on certain rare diseases. The interest in that case was the number of the loose bodies (415) removed from the knee-joint of a man who, six years before admission, had suffered from chronic swelling and pain. He had had three attacks of rheumatic fever. The synovial membrane was rough and vascular, and the joint was packed full of these bodies, only four or five of which had pedicles. The other specimen, which he had already shown to Professor Humphry, was interesting in connection with the possibility of separation in connection with damage to the cartilages of the knee. The patient was a lad, aged 18, with no history of any injury to either knee. On admission a loose body was found in the left knee, and incision revealed a small detached portion of cartilage from the surface of the femur. He made a good recovery. A year later he returned with a similar body in the other knee, identical in its nature with the other.—Mr. LEDIARD sent a dislocated and loose semilunar cartilage.—Mr. RICKMAN GODLEE mentioned that he once had the opportunity of removing a very peculiar body from the knee-joint, diagnosed as a loose cartilage, which turned out to be a broadly pedunculated mass, growing from the internal ligament.—Mr. CLUTTON said that in his case the cartilage did not suggest that it was articular cartilage. The interest lay in the fact that the specimen was symmetrical. In 1885 he removed a body from one knee-joint in a boy, and two years afterwards he had removed another from the other joint.—Professor HUMPHRY said that Mr. Shattock's and Mr. Bowlby's specimens were singularly interesting. The specimens, also, of detached, or partially detached, inter-articular cartilages were not quite new; a similar case was reported in the *St. George's Hospital Reports*. They were generally more or less attached. The specimens showing the large detached portions, loose in the joint, like articular cartilage on one side, and fibrous tissue on the other, had caused him to ponder a good deal, and he had been unable to give any satisfactory explanation of the manner in which they were formed. He discussed the possibility of quiet necrosis of the cartilages leading to separation, and added that the presence of calcareous matter was a difficulty in connection therewith. He said that up to the present time no instances had been adduced of a portion of bone or cartilage being chipped off and forming a loose body in the joint, except the case reported by Mr. Simon, in which, three weeks after a wrench which gave rise to no immediate symptoms of consequence, Mr. Simon had removed what appeared to be a piece of cartilage and bone, considered to have been detached from one of the articular surfaces. It was very difficult to understand how that could be. They must bear in mind that these loose bodies might lie for years snugly hidden in the joint, causing absorption of the bone with which they were in contact, and then in some sudden strain they became detached, and gave rise for the first time to the symptoms of a loose body. That was certainly a very frequent condition.—Mr. HOWARD MARSH said that the only criticism he was disposed to make on Professor Humphry's letter was, that he assumed that there was an adequate explanation, and therefore that there was no necessity to go further in search of one. They ought not, however, to prejudice the case, but form an opinion from the evidence. He thought that Professor Humphry was still unconvinced that a piece of articular cartilage could be chipped off, but he could only refer him to the specimens of Mr. Simon. There was the authority of Mr. Shattock for saying that, however it was produced, there it was. They also had the statement of Mr. Simon of its presence in the joint three weeks after the injury. He was quite convinced of the fact, and did not presume to offer any explanation. Professor Humphry, moreover, evidently did not believe in quiet necrosis, though of this there were at least two specimens. It was perhaps a rare process, but certainly did take place. He thought of all the structures articular cartilage would be the most likely site of quiet necrosis. He referred to the cases of Cline and Teale (of Leeds). The second one he had illustrated in the *JOURNAL* of April 14th; he alluded to the fact that this drawing in the *Medico-Chirurgical Transactions* had been misplaced, and probably overlooked. The history in that case was almost the prophecy of what their President had described as quiet necrosis. A brewer's drayman had an injury, and a year later a loose body was found in his knee-joint. The man died, and on being enabled to compare this loose cartilage with the hole in the femur, they exactly corresponded. Cline's case was inter-

esting in several ways, partly as showing the kind of injury that was necessary to set it going. A young man, aged 36, in perfect health, stepped on a billiard ball, and brought his foot with a sharp bang on the ground. The injury was followed by some inflammation of the joint, and ten months afterwards a loose body was found. Cline removed this, and, unfortunately, the patient got pyæmia and died. A vacuity was found in the surface of the femur, into which the loose body accurately fitted. In reference to Professor Humphry's suggestion, Cline specially mentioned that the vacuity in the femur could not be accounted for on any such hypothesis, because the body fitted so accurately into the vacuity, and the surface of the tibia which faced the cavity, although a little degenerated, was not in any way worn. That case was very much like one of their President's cases in a boy at Harrow. He thought Mr. Bowlby's cases were cases of quiet necrosis.—Sir JAMES PAGET said the credit of the suggestion of quiet necrosis as applied to articular cartilages belonged to Mr. Teale and not to himself. He thought the specimens accumulated showed that they were right in thinking that it was possible that a piece of cartilage might be so damaged by injury as to undergo slow necrosis and separate. He was glad the subject had come up for discussion, especially as it had been questioned, for nothing was more likely to cause evidence to be forthcoming. He referred to a point which he thought was generally accepted in relation to what Professor Humphry said as to necrosis following strain in cartilage or bone. Had time allowed he would have brought a paper to show what he called periostitis from strain. He said that many of the consequences of a strain or jolt were attributable to the periosteum, which became inflamed. There were two or three cases in which the strain upon the muscles had been followed by well marked necrosis at their attachments. He mentioned the case of a young lady who took violent exercise with her arms in a gymnastic institution. Some more than usually violent feats were followed by necrosis of the acromion attachment of the deltoid without any other sign of inflammation of the adjacent parts or shoulder. He had seen several cases of this kind.—Professor HUMPHRY explained that he had not intended to express a doubt as to the possibility of the occurrence of necrosis.—Mr. SHATTOCK, in reply, said that certain loose bodies simulated very closely detached pieces of cartilage.—Sir JAMES PAGET asked whether there was any definite change of structure in the section of the loose body such as one found in articular cartilage.—Mr. SHATTOCK replied that he had not observed.

Alcoholic Paralysis of Phrenic, Pneumogastric, and other Nerves.
—Mr. SHARKEY showed some microscopic sections from the case of a woman who was admitted on August 29th, and died on September 25th. She had been an in-patient six months before for what her husband called "liver complaint with yellow fever." She had been a hard drinker, principally of whisky and beer; had suffered from diarrhoea and hæmoptysis (one attack). She had been losing flesh and strength, and was very weak in her legs. She had also complained of numbness and cramp in her legs. On admission she could understand well enough what was said to her, but was incoherent in her replies. Respiratory sounds harsh, but no evidence of pulmonary disease. Liver enlarged and hard. No albumen in urine. Legs wasted, especially in front of tibiae. She could neither walk nor stand. The legs were tender both superficially and on deep pressure. Temperature normal. Tremors of the tongue and lips. A few days later she had a rigor; her temperature went up to 102.8° F. On September 13th she had two severe attacks of dyspnoea, and it was then noticed for the first time that the diaphragm was completely paralysed. There was a difficulty in swallowing. Respirations 40 to the minute. On the morning of the 15th she began to spit blood. The average pulse-rate 143. On September 23rd the apices of the lungs showed signs of breaking down, and on the 25th she died in a sudden access of dyspnoea. *Post mortem* the diaphragm was found on a level with the fourth rib; slight hæmorrhage beneath pericardium over right ventricle. Tuberculosis of apices. Liver hard and firm, in early stage of cirrhosis. Kidneys normal. Spinal and cerebral membranes healthy; brain normal throughout. In the dorsal and lower cervical regions there was softening which seemed to be pathological and not a *post-mortem* change. The microscope revealed slight general inflammatory vascular changes throughout the whole central nervous system, including the motor convolutions and spinal cord, though the changes were trivial except in the lumbar enlargement. The brain of the disease had evidently fallen on the peripheral nerves,

inflammatory changes being intense in the phrenic, pneumogastric, and popliteal nerves; there were inflammatory changes also in the muscles supplied by those nerves.—Dr. ORMEROD observed that, as a rule, alcoholic neuritis got well when the cause was removed, but some cases did succumb quite suddenly. He mentioned a case which bore on the subject of sudden death through the pneumogastric from the *post-mortem* room at St. Bartholomew's. It was the case of a child under Dr. Andrew, who had just recovered from diphtheria, and was apparently well. Being a weakly child she developed abscesses in the neck, but she was going on well when suddenly she died, and at the *post-mortem* examination it was found, on dissecting up the pneumogastric nerve on one side, that it was involved in the capsule of an abscess, which pressed upon and flattened it. Nothing else was found to account for the sudden death.

Tumour in Neck invading Jugular Veins.—Dr. G. GRIFFITHS showed a specimen obtained from a man who was admitted on October 23rd, 1886, and died in January, 1887. Three months before admission he noticed a small movable tumour, seated in the posterior border of the left sterno-mastoid muscle. It grew gradually downwards in the neck. On admission, there was nothing particular to observe, except that he had certain lung symptoms, with intensely fetid expectoration, pointing to gangrene of the lungs. *Post mortem* the growth was found to have involved the upper third of the sterno-mastoid muscle, extending downwards in the line of the external jugular vein, the lumen of which, and the internal jugular vein, it followed towards the root of the neck; thence it extended into the right side of the heart and into the right ventricle. There was a small, shrunken-like growth, free in the interior of the ventricle, consisting apparently of small masses of fibrin. A similar growth extended along the pulmonary arteries into both lungs, passing along the lumen of the vessels, and giving rise to coagulation of blood. There was a large cancerous cavity in the right lung. Nothing was found in the superior vena cava, nor in the right auricle. Microscopically the growth consisted of fibrous tissue, which did not admit of being classed, in various stages of degeneration. He mentioned that a similar case had been reported by Sir James Paget.—Mr. BOWLBY suggested that the growth should be referred to the Morbid Growths Committee.

Cases illustrating the Pathology of Gangrene from Embolism and Arterial Thrombosis.—Mr. BOWLBY brought before the Society a series of specimens illustrating the pathology of gangrene from embolism and arterial thrombosis. The first was a gangrenous hand from a man, aged 63, who was admitted in 1884. He had always been healthy until just before admission, when he had symptoms of heart disease. A fortnight before, while cleaning his boots, he was seized with pain in the thumb, which became numb and cold, and this condition shortly afterwards extended to the fingers. There was evidence of advanced heart disease. The thumb was black and shrivelled, and the fingers blue and cold. There was no pulsation in radial or brachial arteries. The gangrene slowly spread, and he died a few days later. *Post mortem* the heart was found enlarged and fatty. The mitral orifice very much dilated arteries atheromatous. The brachial artery was normal as far as the bend of the elbow, where it was blocked. The specimen showed exceedingly well a multiple embolism. The second case was that of an old and feeble man, admitted on November 7th. He had pain and tenderness in the left leg. He had rheumatic fever and a history of heart disease. The left foot was gangrenous, and no pulsation could be felt in the arteries of the leg, not even in the femoral artery. This slowly cleared up. On December 12th the patient was suddenly seized with pain in the right leg below the knee. The limb became cold, and pulsation ceased in the right femoral artery. Ultimately the limb became gangrenous, and two days later he had right hemiplegia, soon after which he died. It showed the plugging of the arteries of the brain, and the right femoral was blocked; the left femoral, the first to be affected, was clear. Another case was that of a man who had had rheumatic fever forty years previously. There was evidence of heart disease. On December 9th, 1885, he was suddenly seized with cramp-like pain in the left groin, and the left leg became cold. Gangrenous patches showed themselves on the outer side of the thigh. On December 13th the leg and foot became gangrenous, and the patient died. The heart was found to be extremely diseased, and the right femoral artery was blocked by an embolus. The fourth case was a woman aged 37, who was suddenly seized with pain in the left groin, followed by coldness and numbness of the foot, and ultimately by gangrene. There was a

evidence of heart disease. These were specimens of embolic gangrene. It was rare to see such large vessels blocked by emboli. An embolus generally blocked the artery at a bifurcation, thus occluding two vessels; and secondary emboli were common. In all the cases except one the heart was diseased. He then showed two cases of gangrene from arterial thrombosis, though one of the cases was complicated by embolism. A woman aged 56, admitted in 1885. She was seized, while walking, with pain and numbness in the left leg. She had heart disease, and sank and died. The aorta was completely filled with a large clot, and, on washing this away, a raw patch was found, on which the blood had clotted to the extent of complete occlusion. Plugs were also carried into the arteries of both lower extremities. The other specimen was the hand of a comparatively young woman. Her general health had been fairly good. In December, 1883, she "caught cold," and never recovered from it. Weakness was the prominent symptom. Her legs, feet, and hands were liable to become cold, blue, and swollen, all together. In the first week of February the left hand became more numb, and gangrene set in. No pulsation in the vessels of that arm, which was the seat of a burning pain. The patient gradually became weaker, and the circulation almost imperceptible. She became comatose and died. The heart was found quite normal; in fact, no disease was found anywhere except in the left upper extremity, the arteries of which were completely and evenly filled with clot. This case was unique. It was difficult to assign any definite cause for the thrombosis, yet the history pointed rather to a general than a local cause.

Card Specimens.—Mr. BOWLBY: An unusual Form of Loose Body from the Knee-Joint.—Dr. LEDIARD: Enlarged Bursa Patellæ with Outgrowths from Walls.—Mr. DALTON: Gummata in Liver of Infant.—Mr. TURGETT: Bony Tumours of Buttock.—Mr. PERCY KIDD: (1) Mitral Stenosis with Pulmonary Phthisis; (2) Tuberculosis of Bladder and Urethra.—Mr. CLUTTON: Symmetrical Loose Bodies from Knee-Joint.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 13TH, 1888.

W. H. DICKINSON, M.D., F.R.C.P., Vice-President, in the Chair.

A Case of Acromegaly.—Mr. RICKMAN J. GODLEE described the case. The patient, a lady, aged 41, had applied to him on account of a great enlargement of the thyroid body, of about nine years' duration, in which a cyst formed which caused neuralgia by pressure on branches of the cervical plexus; this cyst Mr. Godlee opened and drained, with relief of the symptoms. The patient, who had previously been of a slight figure, and the possessor of a good voice, first noticed the disappearance of her high notes, then the swelling of the neck, and then the sudden stopping of the menses at the age of 36. Since that time there had occurred a gradual increase of the thyroid, accompanied by enlargement of the bones of the face and limbs, and especially of the lower jaw and of the hands and feet. The patient came of a gouty and rheumatic family, and had been the subject of rheumatism before the illness developed itself, but not afterwards. The present state was then described. *Bones:* The lower jaw was much enlarged, so that the teeth, which spread out, could not adapt themselves to those of the upper jaw. The head lines were little if at all affected, so that the face had the shape of an egg with the large end downwards, thus differing much from that of osteitis deformans. The clavicles and ends of the ribs were massive, so that the sternum seemed sunk in a hollow. The bones of the limbs were not generally thickened, but all the natural prominences were much exaggerated, and the small bones of the hands and feet much enlarged, so that the extremities had become broad and spade-like. *Spine:* There was marked kyphosis, suggesting caries, and causing considerable diminution of height. The cartilages of the ears, and probably of the nose and larynx, were thick and stiff. The skin was coarse, and with large sebaceous glands in the face, but was natural elsewhere. The subcutaneous cellular tissue was normal, but deficient in amount owing to emaciation. Perspiration was profuse, the skin having been previously not abnormally moist. The muscles were much wasted. *Senses:* Hearing was normal. Smell was much impaired, especially for delicate odours. Tasting was also much impaired, especially for delicate flavours; the tongue was very thick and large. Vision remained good. Touch was normal, the patient being still able to play the organ as well as ever. The voice was harsh, metallic, and monotonous. *Respiration:* There was some dyspnoea, partly due, no doubt, to the

thyroid enlargement. The general condition was one of marked and increasing weakness; she "shuffles about like an old woman." The appetite was poor, but thirst excessive. Pulse rapid. Temperature normal. The urine contained no albumen or sugar. Her intelligence was perfect, and disposition placid. Mr. Godlee then referred to: 1. The connection between this remarkable condition of the bones and the abnormal state of the thyroid noted in most cases, comparing it with cases of serous malignant tumours of the thyroid, which had a tendency to recur in bones. 2. The relation between the abnormal state of the thyroid and the early stoppage of the catamenia, also apparently a common symptom of the disease. 3. The resemblances and differences between acromegaly and osteitis deformans. 4. The superficial resemblance but wide difference between acromegaly and myxœdema.

A Case of Acromegaly.—Dr. HADDEN and Mr. BALLANCE brought forward another case. The first observations respecting it had been published in the *Clinical Society's Transactions* three years previously (vol. xviii). Fifteen months later the attention of the authors was again drawn to the subject by a paragraph in the *Lancet*, headed "Acromégalie," and under this head it was found that Marie had described a condition which tallied with the authors' case (*Revue de Médecine*, April, 1886). Dr. Hadden's patient was a woman aged 37, and the disease dated five years back, when she had rheumatic swelling of the knees, following probable scarlet fever. But previous to this she had suffered from a tingling sensation in the hands, and the catamenia had ceased and never reappeared. The face became enlarged, the nose broadened from hypertrophy of the nasal cartilages, the cheek-bones prominent, the lower jaw square, massive, and protruding, the lower lip thick and everted. There was some fulness beneath the eyes, but no pallor or translucency, and no circumscribed redness over the cheeks. The cranium was not affected. The thyroid gland was distinctly atrophied. There was no indication of enlarged thymus, as shown by dulness over the manubrium. The clavicles were hypertrophied. The hands and feet were enlarged, but not deformed. The enlargement was general, but the subcutaneous fatty tissue was disproportionately thickened. The skin of the extremities, as elsewhere, was in every respect natural. Previously she used to wear 7 gloves, now the circumference of the hand was 9½ inches. The feet were even more enlarged in proportion than the hands. At one time she wore large 4 boots, now she took large 8's. There was no loss of muscular power, and the woman could use her hands as well as ever she did. The forearm and legs were not hypertrophied. The arm was natural. The speech was guttural, not slow. The tongue was hypertrophied. The viscera were natural, and there was no albumen in the urine. The arteries of the extremities were apparently natural. There was complete blindness of the right eye, due to optic nerve atrophy, probably following neuritis. Sensation was good, the muscular power unimpaired, and the muscles not wasted; the intellectual processes were good; there was no excessive perspiration, no undue thirst, and no curving of the spine. The authors then gave an account of the literature of the affection, and among other cases quoted one by Dr. Wilks, mentioned in Fagge's *Medicine*. It would appear that rheumatism was a possible cause, and in four cases at least the catamenia were suppressed at the onset of the disease. Both the sexes might be affected. The disease received its name from the characteristic enlargement of the hands and feet, but the bones of the face become hypertrophied, as also the cartilages of the nose, ears, and eyelids. The long bones, unlike in osteitis deformans, usually remained unaffected. Blindness had been noted in three or four cases, and the authors mentioned that this might depend on hypertrophy of the pituitary body exerting pressure on the optic chiasma and tracts. Enlargement of this body had been found in two or three fatal cases. The thyroid gland also always seemed to be abnormal. Attention was called to the chief points of difference between acromegaly and myxœdema and osteitis deformans. The differences in the shape of the face were very obvious. In addition there were many important features absolutely characteristic of acromegaly.—Dr. WILKS congratulated Dr. Hadden on having so well pursued the investigation of this remarkable malady that now, after four years, he was able to bring the case again before the Society. No doubt many instances of the disease had been observed before Marie had christened it; not only was there Dr. Hadden's own case, but the one he had alluded to as described in Fagge's work on *Medicine*. Dr. Wilks said this was the case of a young lady, aged 28, who visited him for the first time on February 9th, 1869. She had been a tolerably good-looking girl, but her face had be-

come now frightfully distorted. She had been ailing six years with amenorrhœa, pain in the face and back of head, and gradual loss of sight. Her appearance was so disfigured that people would stop in the street to look at her; her ears, nose, and lips having become enormously enlarged, and the whole face elongated. Her hands and feet also had become gigantic, so that she could with difficulty get gloves to fit her. Dr. Wilks saw her several times during the following year, and prescribed arsenic. The pains in the head became less, and she expressed herself as altogether better. She then went into the country, and died shortly afterwards in a state of coma. He believed she had an intracranial tumour. Dr. Wilks said he thought we were right in giving this disease a distinct appellation, as it certainly differed from myxœdema, osteitis deformans, and other maladies to which it had been compared. He remarked that these cases of overgrowth were of very great interest, as they were quite removed from ordinary examples of disease, which depended upon morbid changes in the structures and organs of the body. They had rather a physiological than a pathological bearing, and by their very exceptional occurrence emphasised the great fact so well enforced by Paget, of the necessary exact relation of the different organs of the body for the due fulfilment of the natural functions. These overgrowths showed that from some unexplained cause this relationship might be broken up, so that the bony skeleton might grow enormously, or the fat of the body increase until the patient became of preposterous size, or the lymphatic gland tissue develop to an extraordinary extent, or as in the present instance a sudden sprouting of the extremities take place. In a very interesting case described about a year ago in the *Berliner Klinische Wochenschrift*, the patient, a musician, was obliged to give up a wind instrument, as well as his violin, owing to the enlargement of his hands and lips; he also had headache, and had partially lost his vision. His thyroid also was diminished in size. The writer alluded to other cases, and said that where an opportunity occurred of a *post-mortem* examination, the pituitary body was found much enlarged by new growth. Dr. Wilks said he could quite believe that his patient might have had a tumour of this kind. Virchow had remarked on the resemblance between the thyroid and the pituitary body, and Sir W. Gull, many years ago, had been struck with the similarity of structure between the pituitary body and the suprarenal capsules, and had asked Dr. Wilks to look at these organs in all cases of Addison's disease. He had done so, but never found them affected. It was very interesting, however, to remark on the possibility of "acromegaly" being associated with the pituitary body, since it had a structural resemblance to the adrenals and the thyroid, both of which organs were admitted to have a marked influence on nutrition.—Mr. GODLEE, in reply, said that in three cases of acromegaly he had found, *post-mortem*, some enlargement of the pituitary body. In one case it was as large as a walnut. Erb's paper collected eleven cases of the disease, which, with the two now reported, brought the number up to thirteen. They had occurred between the ages of 15 and 50. The cases recorded by him were very interesting. The first case was in a woman, aged 58. The disease came on at the menopause. This patient suffered from migraine, a not uncommon symptom in this disease. In her case the disease progressed for three years, and then remained stationary for six. The loss of vision in several cases seemed to have been due to opacity of the cornea. Friedreich had described two cases. With regard to the temperature, it was normal in his own case, except just subsequently to the removal of the thyroid body. The long bones were distinctly affected. In several cases the marked enlargement of the lower jaw was absent. In connection with the nails, Erb had pointed out that in his cases they were much affected, as in other recorded cases.—Dr. HADDEN, in reply, mentioned that Dr. Ord had examined his patient, and had said distinctly that it was not a case of myxœdema, the disease with which it was most likely to be confounded.

Acute Periosteal Swellings in several Young Infants of the same Family, probably Rickety in Nature.—Dr. S. WEST read this paper. A child, aged five weeks, was brought by its mother, with the statement that its left arm had "dropped." A swelling, apparently periosteal, occupied the middle third of the shaft of the left humerus. It was exquisitely painful and tender. The movements of the arm were perfect, but the child kept the arm still on account of the pain which movement caused. Similar swellings were found on the right humerus and on the left femur. There were some slight bosses on the ribs, but no other signs of rickets, and the child was well developed

and well nourished, and except for the pain of the swellings seemed in good health. The treatment consisted in the administration of some cod-liver oil and a little iodide of potassium, and the mother's milk was supplemented with cow's milk. In a fortnight the pain had almost gone, and the swellings were smaller. In the course of three months they were hardly to be made out, and they ultimately entirely disappeared, leaving the bones straight. The patient was the fifth child, born at the eighth month, and fed upon the breast only. The first swelling came on the ninth day, the second in the fourth week, and the last two days before it came under observation. Of the other children the eldest was similarly affected at the age of a week. The child, now a lad aged 9 years, was seen, and showed no traces of the old bone affection. The second, a boy aged 7, was never so affected. The third, a girl, aged 5½, and also the fourth, a boy aged 3½ years, were both affected; the former recovered completely, but the latter had considerable rickety deformity. There was no history of syphilis, or evidence of it in the family. The second case was seen in a child of the brother of the father of the previous children. It was a girl infant aged 3 weeks, and had developed a swelling of the left humerus a week before being seen. It was also suckled, and as the mother was strong no medicine was given and no treatment adopted except to keep the arm still by a loose bandage. In about a month the swelling had entirely disappeared. This patient was the fourth child. The first, a girl aged 6, and the third, a girl aged 2, were and had been always well. The second, a boy aged 4, had had both arms and legs affected in the same way at the same age, but had quite recovered. In this case also there was no evidence of syphilis. Dr. West believed that all these cases were rickety in nature, and closely allied to acute rickets, if not actually cases of that disease. From the cases of acute rickets recorded they differed in respect of age, acute rickets being rare in so young children; also in the fact that more than one member of the family was attacked; and lastly in the mortality. That these were cases of early rickets could not, however, be doubted, on account of the evidence of rickets in the family, and of the absence of any other assignable cause. Of syphilis there was no other evidence, and greenstick fracture or injury must also be excluded. Dr. West also referred to another case seen by him, and recorded by Mr. Herbert Page, which was an undoubted case of acute rickets, and that seemed to him to differ from those here described only in degree. The element of scurvy had been supposed to enter into the causation of acute rickets, but that condition was certainly not existent in the present cases.—Dr. BARLOW considered Dr. Samuel West's cases of great value, and could not remember any quite similar group of cases on record. The closest parallel that he could recall was the late Dr. Ormerod's case of a man who was the subject of combined molities and rickets, with remarkable proneness to fracture, and who transmitted his bone proclivities to two of his children; but these children were, according to the history, healthy-born, and did not manifest the tendency to bone fracture until they were a few years old. The special features in Dr. West's cases seemed to be (1) the very early appearance of bone lesions (within a week of birth in one case), and (2) the repeated occurrence in the same family. Dr. Barlow had, by Dr. West's kindness, seen one of the children when these lesions were present, and he quite agreed with the description given of them. He also agreed that there was no evidence of congenital syphilis, but he was unable to accept the view that the cases belonged to the group called "acute rickets" by the Germans, and which group Dr. Cheadle and he had given reasons for believing was a combination of rickets and scurvy. In contrast, Dr. West's cases with the scorbutic cases, he pointed out that the latter had severe cachexia, with much sallowness and pallor and great proneness to hæmorrhage, especially showing itself in spongy bleeding gums or ecchymoses in the gums, but also in subconjunctival and other ecchymoses; that the pain and suffering were very severe, and that the local bone lesions were dependent on hæmorrhage between bone and periosteum, commencing at the area of junction of shaft with epiphysis, and sometimes separating the whole length of the diaphysis, or leading to fracture just above the epiphysal line. In none of the recorded acute rickety (that is, scorbutic) cases had the infant been breast-fed at the time of the appearance of the symptoms. In Dr. West's case, the cachexia was almost nil; there was no proneness to hæmorrhage; there was no suffering, except on pressure; the lesion were in the middle third of the shaft of each long bone; the infants were actually breast-fed at the time. Into what category

then, should Dr. West's cases be put? Dr. Barlow thought the most probable explanation of the lesions was that they were greenstick fractures with some callus round them. He suggested that the infants had been the subjects of intra-uterine rickets from some faulty nutrition of the mother during pregnancy, and that the results of the intra-uterine rickets made the bones easily liable to yield after birth. The ease with which multiple greenstick fracture might occur was sometimes very remarkable. The question might be asked, Was there any reason to believe that true rickets occurred as an intra-uterine disease? No doubt many cases described as foetal rickets were quite distinct from rickets, and depended on an error of development in which the cartilage cells did not proliferate, but the bone was formed entirely from periosteal outgrowth, etc. Thus a malformed fetus was developed, presenting features superficially resembling rickets, but differing fundamentally from that disease. Nevertheless there seemed reason to believe that a true rickety change in the fetus was sometimes present quite comparable in anatomical features with the disease so commonly found in hand-fed children. Some years ago Dr. Barlow had found in several fetuses a slight but definite beading at the anterior ends of ribs, and some recent extensive investigations by observers in Naples and in Vienna had shown the existence of true congenital rickets to be by no means rare. Dr. Barlow had brought to the Society that evening a child aged 9 months who had been under his observation since she was ten weeks old, and whose case, he thought, had some bearing upon Dr. West's paper. This infant had been delivered with head presentation, but the legs were found considerably bent. The lower limbs were found to present an extreme curvature convex forward, the curve affecting both femora and both tibiae, whilst the tibiae were also flattened from side to side. The appearance was exactly like that of many museum specimens of extreme rickety deformity. The lower limbs for some weeks after birth were very tender, but the tenderness gradually passed away, and the curvature had undergone a certain amount of involution. When the infant was one month old a swelling appeared in the middle of the right arm, and for this it was brought to see Dr. Barlow. The swelling was in the middle third of the humerus, was very tender on pressure, but did not yield erepitis. There was subsequently a similar swelling on the left humerus, but it was a little higher up. The swelling referred to gradually subsided, and now a slight bony projection was present, marking, as Dr. Barlow believed, the vestige of a greenstick fracture. Thus in the case a question there was probably intra-uterine rickets, giving rise to deformation of femora and tibiae, and causing these bones to be tender for some time after birth, and the rickety cachexia still showed its continuance from the foetal into the infantile life by the occurrence of the greenstick fracture of first the right, then probably of the left humerus. Dr. Barlow suggested that Dr. West's group of cases might admit of a similar explanation.—Dr. DICKINSON said he had seen several instances of acute periosteal swellings in infants and young children, and connected them especially with rickets and scurvy. He formerly supposed them to have some association with syphilis, but increased experience had convinced him that this was not the case. The association with scurvy was very striking. A child of about four months old was brought to him from the country in a miserable state of pallor and cachexia; it had a large hard swelling round each femur, evidently connected with the periosteum; and it was passing bloody urine. At an early period of its life it had been deprived of fresh milk, which was not thought to agree with it, and fed chiefly on Swiss milk. Under a complete change of diet, fresh Alderney cow's milk being substituted for the Swiss milk, the hæmaturia ceased, the swellings disappeared, and the child got perfectly well. A little iodide of potassium was given for a short time, and in some doubt. He did not think this did any good, and now never gave it in such cases. Whatever scorbutic results presented themselves in infants—hæmaturia was frequent in this relation—fresh milk was the one thing needful. The benefit which ensued in such a case upon its taking the place of less suitable diet was very striking.—Dr. GLOVER mentioned a very similar case which puzzled him very much for a time. The patient was a child a few years old, with painful swellings of the legs and slight hæmaturia. Syphilis being suspected, the iodide was given, but with unsatisfactory result, but the child rapidly recovered with Parrish's food. Dr. Gee, who saw the case with him, was of opinion that the child was scorbutic, a condition which could be attributed to the use of Swiss milk.—Dr. WILBERFORCE

SMITH pointed out that strumous periostitis almost always went on to suppuration, which this disease never did.—Dr. ORMEROD drew attention to the fact that in Dr. West's interesting series of cases the disease affected relatives, and not merely the children of one family, but the children of two brothers. He thought that this fact, unless it were explained as a mere coincidence, did not harmonise with the view that the disease was due to rickets or syphilis.—Mr. R. W. PARKER was pleased to hear Dr. Ormerod draw attention to a very special feature in the cases related, namely, the multiplicity of the lesion, as well as to the fact that the lesion occurred in the families of two brothers; in seeking for a name for the disease, this multiplicity was of considerable importance. In the course of the debate scurvy, rickets, and syphilis had been referred to. As regarded scurvy in this and kindred cases, he would only say this: that, were a hundred sailors exposed to the conditions which were formerly known to produce scurvy, in the classical sense of the word, probably not a single one would escape; on the other hand, notwithstanding that many thousands of children, predisposed to malnutrition both by inheritance and by bringing up, had for years and years past been exposed to what had been described as a scurvy diet, yet these cases of so-called scurvy rickets belonged to the greatest of pathological rarities. Under such circumstances, he (Mr. Parker) could not agree that scurvy, in the classical sense of the term, had anything to do with the disease under consideration. Then, as regarded rickets: it was quite new to him to hear of periosteal complications; the bones suffered quite commonly, but only at the epiphyseal parts of the diaphyses. In Dr. West's cases the stress of the disease fell on the middle of the shafts, a most unusual place for rickety manifestations. To come next to syphilis, the incidence of syphilis was quite the rule during the earliest weeks of life, while rickets, as regarded the long bones, was infinitely rare at this period; the shafts of the long bones, moreover, were the "seats of election" of syphilitic disease, while the multiplicity and uniformity of the lesion were most suggestive of a syphilitic origin, the absence of a syphilitic history notwithstanding. The cases were doubtless peculiar, but the peculiarity was due to some very special personal or family idiosyncrasy of the subjects attacked.—Dr. WEST, in reply, said that he adhered to his original opinion in the absence of any serious reason for altering it. He said he had failed to find the slightest bending of the bone in Dr. Barlow's case. He had only noticed cachexia in a case where there had been a good deal of hæmorrhage. He observed that Mr. Parker begged the question. If the swellings were to be accepted as proof of syphilis, there was an end of the matter, but there were no other signs of its existence, though they had been carefully looked for. With reference to the parentage of the children, he mentioned that none of the brothers were strong, and one was actually suffering from some strumous affection of the ankle-joint.

Living Specimens.—Dr. BARLOW showed a Case of (Partly) Congenital Rickets; Mr. MURPHY, an Infant Recovering from Bromide Rash, the Bromide having been taken by the Mother; Dr. HADDEN and Mr. BALLANCE, a Case of Acromegaly.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 16TH, 1888.

EDMUND OWEN, F.R.C.S., Vice-President, in the Chair.

Cerebral Abscess treated successfully by Operation.—Mr. DAMER HARRISON read a paper on this subject, which is published at page 848.—Mr. BARKER alluded to the immense difficulty of examining the eyes of patients just at the time when it possessed the greatest interest. In some cases there was papillitis, and in others this symptom was absent. In neither of his cases was there any tendency to hernia cerebri. He recommended the use of a metallic drainage-tube, such as a silver catheter split and bent to form flanges, as better calculated to favour a free discharge. He mentioned that cerebral abscess might remain latent for years.—Dr. BEEVOY thought that the tendency of all these cases of cerebral abscess was to confirm Dr. Ferrier's view as to the cerebral centres. He observed that the site of the lesion was evidently the upper part of the arm centre, but it was of large extent, as evidenced by the parts involved. He asked Mr. Harrison in what part of the arm the fits began, whether in flexion or extension, and in what sequence, as this was essential to the localisation of the lesion. He pointed out that abscess, being of rapid growth, might not give rise to optic neuritis, whereas in tumours this was generally present.—Dr. ANGEL MONEY asked what was the

condition of the superficial as compared with the deep reflexes. In brain lesions the deep reflexes were generally increased and the superficial lessened. He mentioned a case at present under his care in which he had diagnosed a tumour in the middle lobe of the cerebellum, evidently pressing upon the pons, interfering with the function of the pyramidal tracts when they passed through the pons. In this case there was practically no cremasteric reflex on the right side.—Dr. MACLAGAN asked whether the absence of pyrexia was common after such operations.—Mr. JESSOP asked what was the extent and the degree of the usual lesions.—Dr. MONEY added that their experience at University College Hospital was that the temperature, in cases of suppuration in the brain, was invariably subnormal.—Dr. BERRINGHAM confirmed Dr. Money's remark as to the subnormal temperature in cases of suppuration in the brain.—Mr. HARRISSON, in reply, acknowledged that he had a prejudice against using metallic drainage-tubes, and said that although the horsehair drain had failed, the india-rubber tube had answered every purpose. He made the trephine hole as far forward as possible on account of the extent of the paralysis. The wound was absolutely aseptic. The first operation relieved the patient's symptoms, probably by reducing the pressure. The first symptoms on the arm began twelve months before the urgent symptoms showed themselves, and he was very careful to elicit the minute history of the case. The first sign was the contraction of the flexors of the wrist and hand. The patient was carefully examined on April 15th, and both eyes were found to be normal.

Small and Moderate Valvular Lesions.—Dr. MILNER FOTHERGILL said that in the consideration of valvular lesions of the heart little or no attention was paid to the discrimination of large and small injuries; all were grouped together, and usually the prognosis of the gravest lesions was given to small injuries producing very little effect upon the organisation. In order to grasp the subject properly the facts of comparative anatomy and of embryology must be borne in mind. They saw the primitive heart a mere pulsatile, muscular sac. It was not till the ganoid fishes were reached that imperfect pouch-valves were developed in the bulbus arteriosus. So in the foetus. At first the heart had no valves; then imperfect valves appeared, and became more complete as the embryo grew. A valvular lesion was the undoing of evolution precisely to the extent of the valve mutilation; and there was all the difference in the world betwixt a small lesion well compensated, and a large one which could not be efficiently compensated. He added that Nature compensated a valvular injury by falling back upon the primitive form of heart—the muscular sac. As in evolution valves economised muscular energy, so in dissolution an injury to the valvular mechanism of the higher heart was compensated by muscular growth—a development of the early lower heart—spoken of as “compensatory hypertrophy.” When they detected a valvular injury they realised that they could do nothing for that; their hopes were centred on the primitive muscle. If by rest and good food, with cardiac tonics, they could aid Nature's attempt to develop the primitive heart, so far so good. A small lesion was easily compensated, and the compensation was well maintained for many years. Where the injury inflicted was large, complete compensation was unattainable; and such compensation as was possible, wore out comparatively soon. Consequently it was of great importance to measure the extent of valve-mutilation in each case, and from that to calculate the chances of the patient. A murmur revealed the existence of valvular injury; but it was dumb as to its extent. For that they must examine the case physiologically, especially in mitral lesions, and test the effect of effort. With a small lesion the patient could run, but not very far; with a moderate lesion he could walk on the flat, but could not get up hills very well, or run; with a large injury all effort was distressing. In strict proportion to the extent of the lesion the organism was crippled and life shortened.—Dr. MONY said that the nodules which formed in rheumatism offered some idea of what was going on in the heart.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

FRIDAY, MARCH 23RD, 1888.

SAMUEL GORDON, M.D., President, in the Chair.

Carcinoma of Liver.—Dr. WALTER SMITH exhibited a specimen of carcinoma of the liver from a woman, aged 35. Three months before admission to hospital she complained of dull pain in the right side and posteriorly. In about a month jaundice super-

vened, increased from day to day, and lasted until her death. At first she vomited, but not subsequently. The motions were white, and the urine was free from albumen, and not very deeply tinged with bile. No increase in the size of the liver could be detected, and there was no ascites until within a few weeks of her death. While in hospital she emaciated rapidly, and later on she vomited blood on several occasions, oedema of the legs and ascites developed, and she died about six weeks after admission. During nearly the whole of her illness the temperature was above normal—on one occasion as high as 102°. On *post-mortem* examination no diffuse peritonitis was found; the spleen was adherent, the liver not materially enlarged. On the upper surface of the left lobe there was a cancerous node about the size of a florin, and numerous other prominences, some of them cupped, on the upper surface of the right lobe; there were a few nodules on the lower surface. The gall-bladder presented itself as a hard, pyriform tumour, and upon incision its coats were found to be greatly thickened and calcified, except at the fundus. It contained some white gall-stones, and a yellow, grumous pulp composed of cholesterin. The cystic and hepatic ducts were enormously dilated. The pancreas was adherent to the liver, and was fused into a mass along with enlarged glands. The kidneys and stomach were healthy. Microscopically, the disease was proved to be polygonal-celled carcinoma.—The CHAIRMAN said it was rather an unusual circumstance to have so much malignant disease without a good deal of enlargement of the liver, and from that peculiarity arose the question whether it was not originally a case of cirrhosis of the liver, in which carcinoma supervened. A most interesting fact was the absence of any disease of the stomach from which carcinomatous disease so often proceeded.—Dr. O'CARROLL mentioned a case which, during eleven months, presented all the signs of continued enteritis, the number of motions having gradually increased to something like twenty a day, while they varied between fifteen and twenty-five during the last five or six months of the patient's illness. The motions came on very suddenly, and were fluid and foetid. The patient never had an jaundice, save a passing tinge in the conjunctivæ during some two or three days, which was merely suggestive of it. He had no ascites or vomiting, and it was more or less constantly a question whether there was any hepatic trouble whatever. The symptom always pointed to enteric trouble. He arrived at a diagnosis of the case rather by the exclusion of other diagnoses than from the actual symptoms, and that diagnosis was afterwards confirmed by the *post-mortem* examination. The liver was found to be simply a mass of encephaloid tumours, which had crushed out all the normal liver tissue. The cancer was primarily in the liver, as far as he was able to make out, for he found no trace of any other tumour in the abdomen.

Acute Pulmonary Tuberculosis.—Dr. C. J. NIXON exhibited the lungs of a man, aged 29, who died after an illness of five weeks in which a deposit of miliary tubercle was distributed uniformly throughout both organs. The patient had been in good health five weeks before his death, when he was seized with a shivering fit. He became feverish, and gradually developed symptoms of gastro-enteric disturbance, which led to his being treated outside the hospital for enteric fever. The chief symptoms during the progress of the case were high temperature without any marked depression; dyspnoea with greatly increased respiratory rate, the respirations averaging 48 in the minute; marked cyanosis, especially about the finger-nails and alæ of nose; a pulse varying between 132 and 148; tendency to profuse sweating; tongue clean and red. The physical signs, on examination of the chest, were minute crepitating râles, heard best at the bases of the lungs, but before death extending over the whole of both lungs; occasional friction sound heard posteriorly; no alteration of sound on percussion. From these symptoms the diagnosis of pulmonary tuberculosis was made.—Dr. M'KEE thought that in almost all cases of tuberculosis—even the most acute—it would be found that there had been some old focus of the disease in the body. Dr. NIXON, in reply, said the point raised by Dr. M'Kee was an important one. In the present case there was no evidence whatever of caseation in the bronchial glands. There was caseation in two or three places at the base of the lungs, but it was an actual caseation brought about by the clustering of the tubercles; and in one of those centres the caseation was evidently a recent production, and the lung was broken down.

Chronic Bright's Disease.—Dr. JAMES LITTLE submitted the following case of chronic Bright's disease. The kidneys weighed rather more than 2½ lbs. The patient was 38 years of age at 1

death. Thirteen years previously he had had an attack of acute nephritis. Afterwards he came under his (Dr. Little's) care in the Adelaide Hospital for acute renal dropsy. He did not know whether it was justifiable to connect the state of his kidneys at the time of his death with that past illness, because they all knew that acute nephritis usually ended either in death or a complete cure; and the man appeared to have recovered from that former illness. After five or six years he became subject to winter cough, of which he had attacks every year; but these were never severe enough to oblige him to seek hospital relief until the winter of 1886-87. He then came under his care for dropsy and general bronchial catarrh, his urine being markedly albuminous. After being four or five weeks in hospital, he went home apparently quite well. There was no record as to whether his urine was free from albumen at the time he left the hospital; but the man himself said that he heard the clerk who had charge of his case say that it was entirely free from albumen before he went away. The matter was one of consequence, because an important point in the case was as to the age of the renal changes that were found after death. About three months ago he came again to the hospital, suffering from extensive anasarca with dyspnoea. At that time he generally passed between 30 and 40 ounces of urine daily; it was highly albuminous, and had a specific gravity of 1012. The diagnosis made was that he had some chronic form of Bright's disease, with general bronchial catarrh. His pulse was always exceedingly soft and weak, his heart-sounds very feeble. There was no evidence of the cardio-vascular changes that were found in some forms of Bright's disease. He fought off death for more than two months in hospital, and the day before he died appeared as if he might recover. On the day of his death he awoke in the morning, after a fair night's rest, with a violent pain low down in his left side. He remained in great suffering during the day, and died in the middle of the night. On a *post-mortem* examination the cause of intense pain was found to be, as they had guessed, acute pleurisy affecting a small portion of the lower lobe of the left lung. It was also found that, in addition to general catarrh with highly emphysematous lungs, he had small cavities in both lungs, and miliary tubercles all through them. His heart weighed 9 ounces, and was soft and flaccid, presenting no sign of enlargement. One of the kidneys weighed 19 ounces and the other 21½. They were smooth and rather pale on the surface; the capsules peeled off very readily, and when each kidney was divided the cortical portion was of a dull, yellowish-white colour, and the pyramidal portion had a vivid red staining. The question was, were these kidneys affected by parenchymatous nephritis since the affection of thirteen years previously. All their knowledge, however, forbade such a conclusion. They must conclude that the last disease was of about a year's duration. The kidneys showed distinct evidence of amyloid change.—Dr. BEWLEY said the kidneys were an example of chronic Bright's disease, every constituent part of the organ being more or less affected. The renal tubes were in some places dilated, and in others diminished; and the epithelium was a most parts fatty, and in many parts low and with jagged edges. The connective tissue was increased in several places, but not to any great extent. The glomeruli were a good deal diseased, being the parts chiefly affected by the amyloid change. The vessels were also affected by amyloid change. The spleen, with its veins, arteries, and capillaries, was affected in the same way; and the Malpighian bodies were also similarly affected.—The CHAIRMAN remarked that the absence of cardiac pain indicated that the disease was not of very long standing.

Chronic Bright's Disease with Cerebral Hemorrhage.—Dr. AMES LITTLE submitted a case of cerebral hemorrhage. About three weeks before a man aged 45 was admitted into the Adelaide Hospital in an apparently unconscious state. The story told of him was that, about a week before, he had violent convulsions, after which he remained in a more or less stupid and confused state in bed. Two days before his admission he had another fit, and then he was brought to the hospital. When first seen he was lying in bed with his eyes open, the pupils being equal in size, but moderately dilated. If spoken to, he made some attempt to answer, but could not speak; but when a little drink was offered to him he swallowed it. He could move both arms and legs perfectly, and there was no sign of paralysis of any of the facial muscles, eyes, or cranial nerves. The only thing of that kind occasionally observable was a very slight twitching of the left angle of the mouth, and of the left occipito-frontalis muscle. On examining his reflexes they found the knee-jerk extremely well

marked in both lower extremities, and also ankle-clonus developed in as high a degree as he had ever seen. On listening over the heart they perceived a deficiency in the first sound, and also a well-marked systolic muscular murmur. He (Dr. Little) concluded that he had to deal with a case of uræmic convulsions, judging by the pulse and cardiac action. His urine had been passed involuntarily in bed, and by means of a catheter a few ounces were drawn off, which were found to be rather highly coloured and densely albuminous. He was carefully observed from that time until his death, and it was noticed that he had no hemiplegia, but moved his arms and legs on both sides; and, beyond the twitchings of the corner of the mouth and of the occipito-frontalis muscle, there were no indications of paralysis. Early the following morning the man jumped out of bed, put his hand to his head, and went into a violent fit of convulsions, in which he died. On *post-mortem* examination the kidneys were found in a shrivelled condition, one a little less and the other a little more than three ounces in weight. The capsules were thickened, and when peeled off, left a rough granular surface. The heart showed very distinctly hypertrophy of the left ventricle. They found nothing to account for the muscular murmur. The whole of the arterial system was very much diseased. A portion of the aorta showed in a very highly marked form the changes that used to be called atheroma, but which were now called endarteritis deformans. The circle of Willis at the base of the brain was the seat of patches of similar change. On the right side of the brain was an enormous hemorrhage, the right lateral ventricle being full of blood; and the hemorrhage appeared to have taken place in the frontal lobe just outside the right lateral ventricle. There had evidently been two hemorrhages—namely, one that must have occurred at the time of the seizure a week previous to his admission, and a second one that, he presumed, occurred at the moment of his death. There was a clot, which had the appearance of being a week or ten days old; and there was also a large quantity of what appeared to be recently extravasated blood. The man had been a soldier, and a very hard drinker at one time of his life. The case presented a specimen of a chronic form of Bright's disease occurring in a person of intemperate habits, and accompanied with the cardiac vascular changes that were conspicuously absent in the preceding case.—Dr. NIXON believed that most of the hemorrhage now seen in the specimen must have occurred at the time of the final convulsion. So far as he could make out from the specimen now, the hemorrhage seemed to have come from the posterior lenticulo-optic artery; and that was just the situation where there would have been the least amount of pressure on the motor part of the internal capsule. A small hemorrhage might have occurred there for some days without its being attended by any paralytic phenomena; but at the time the man sprang out of bed in convulsions there was most likely a disturbance of the clot, followed by the fresh hemorrhage and large amount of blood now visible, which could not possibly have existed previously during the man's life without producing paralytic phenomena.

Corneal Tumour.—Dr. STORRY exhibited, jointly with Mr. SCOTT, a corneal tumour. It was removed from the eye of a boy aged 16 or 17, about ten days before. About four years previously the lad had been in St. Mark's Hospital, under his care, and the growth in the cornea was then in exactly the same state as it was when recently removed. It was a small opaque, yellowish-white body, situated at the upper margin of the cornea, of oval shape, of five or six millimetres in its long, and three or four in its transverse diameter. The colour was somewhat the same as that of the Meibomian glands when seen through the conjunctiva. The tumour was vascular, as blood-vessels could be seen running up to it and over its surface. It occupied nearly the whole thickness of the cornea, reaching from the anterior coat to the posterior surface. The epithelium of the cornea ran smoothly over the tumour, which was not the least raised above the surface of the cornea. He removed only a portion of it, because he believed that if he had removed the whole he would have gone into the anterior chamber.—Mr. SCOTT said the specimen, when examined under a high power, practically represented the whole of the cornea. Under the conjunctiva there was a mass of undoubtedly fibrous tissue, containing a quantity of small round cells, and this had a very large supply of blood-vessels. In one of the specimens seen under a high power, the supply of round cells was greater than in the rest, so much so that if that specimen alone were looked at, they would think the structure more like sarcoma than anything else. It was very difficult to make out how the fibrous tissue

came there. It might have been either a cicatrix from an old ulcer or an old pannus.—Mr. BENSON remarked that in a somewhat similar case which he brought before the Section last year, the tumour, which was present in the cornea, was entirely removed from the sclerotic border, and there were no blood-vessels running into it, nor any evidence of blood-vessels having ever gone into its neighbourhood. The pannus theory would therefore not apply to this case. The growth would rather seem to be a hyperplasia of the corneal tissue itself.—Mr. STONY, in reply, said the tumour in Mr. Benson's case was almost in the centre of the cornea, and there was a perfectly clear cornea between it and the sclerotic. In the present case the tumour was situated at the junction between the cornea and the sclerotic. The case was one in which there had been at one time granular ophthalmia, but not of a very severe character. He had come into the hospital for the state of his other eye, which had entropion consequent on the granular ophthalmia. The slice which he took off the tumour occupied nearly the whole surface of it, but did not go through to the posterior surface of it except in particular places, and there was left a circular depression in the tumour as if a little piece of it had been scooped out. The way in which the healing progressed was remarkable. It progressed from the periphery of the little ulcer equally all round toward its centre, and a fresh little collection of blood-vessels and a fresh pannus sprang up, running not alone from the sclerotic edge, but from the cornea towards the centre of the tumour, which was now the deepest part of the ulcer.

SOUTH INDIAN BRANCH (MADRAS).

FRIDAY, DECEMBER 2ND, 1887.

Surgeon-General G. BIDIE, President, in the Chair.

Syphilitic Keloid.—Drawings of a remarkable example of wide-spread keloid, associated with syphilis, was shown by Surgeon-Major E. F. DRAKE-BROCKMAN. The patient, a Brahmin ryot, aged 27, was admitted into the Eye Infirmary, Madras, with corneal ulceration and prolapse of the iris in both eyes. He contracted primary syphilis at the age of 22; he had a secondary eruption, in several crops, with fever. The only other illness he had had was variola when aged 3, but no marks of that disease were visible. When admitted the whole body was found to be covered with disseminated, indurated, elevated growths, which were distinctly keloid in character. Some parts of the body were more affected than others—namely, the trunk on its ventral and dorsal aspects, and the upper extremities. The lower limbs, as far as the insteps, were also covered with growths similar to those on the trunk, though in a much less aggravated form. In the vicinity of some of the nodules scar-like patches might be seen, in which situation also the skin was in an atrophic state, and had lost some of the natural pigment of its structure. In reference to these atrophic patches the patient stated that they corresponded to the sites of former similar nodosities which had disappeared by a process of shrinking. Besides these markings there were also evidences of a former skin eruption in the form of pigmented patches, varying in size from a small pea to that of a hazel nut. The patient stated that the keloid had made its appearance on the sites of these patches. The etiology of keloid was discussed in reference to this case.—Surgeon-Major BRANFLOO mentioned a case in which keloid growths formed at the site of vaccination.—The PRESIDENT thought that keloid was more often seen amongst convicts, especially Burmese convicts, than in the civil population.—Brigade-Surgeon FOX had frequently seen the growths in convicts, and Brigade-Surgeon SIBTHORPE in sepoys, especially Telugu men, who were frequently burnt on the abdomen when children.

Filaria Sanguinis Hominis.—Brigade-Surgeon SIBTHORPE showed two patients in whose blood filarise sanguinis hominis were present; in one of the cases there was chyluria, and the filarise were only discoverable at night. The blood contained in bugs (*acanthia lectularia*) from the cots occupied by these patients contained filarise, in much larger numbers, moreover, than the blood taken from the finger. Reference was made to Dr. Manson's observation that the intermediate host of the filarise was the female of a species of mosquito.—Brigade-Surgeon PORTER had had three cases of chyluria under his care early in 1887; in one case filarise were found in the blood both by day and night, in another during the night only, and in the third none could be found.—Brigade-Surgeon SIBTHORPE, in reply, observed that cases of chyluria often terminated spontaneously.

Scrofulous Kidney: Uterine Fibroids: Colloid Cancer.—Surgeon J. SMYTH, M.D., related the case of an unmarried lady, aged 40, who was admitted into the Civil Hospital, Vizagapatam. There was a smooth globular tumour on the right of the abdomen, extending from the margin of the ribs to a point two inches below the umbilical level; the tumour was not connected with the liver or uterus; the urine was acid and free from albumen. The patient was also suffering from phthisis, and to it her death appeared to be attributable. At the necropsy, the ascending colon and small intestines were found matted together by firm adhesions and attached to the left anterior aspect of the tumour: A very friable new growth, resembling the roe of fish in appearance and consistence, affected the meso-colon, mesentery, and capsule of right kidney, affecting especially the pelvis of the latter, binding them all together in a solid mass. On tearing open this mass the kidney was found in its centre, considerably enlarged and softened, its capsule enormously thickened, yet fairly separable from its surface. The pelvis and infundibula of the kidney were much distended, and full of a urinous purulent fluid. The interior of this dilated cavity was studded over with granulations in several parts. The parenchyma of the organ was softened and infiltrated in several places with caseous deposits of small size; several large calculi, like masses of dried ginger, occupied the dilated infundibula and pelvis. The uterus and small tumour with the ovaries were removed together. They were not involved in any way in the large tumour. This small tumour, about two inches in diameter, was a sub-peritoneal uterine fibroid, and three other small ones about the size of a grape were now also seen. The uterus, small, only two inches long, was otherwise quite healthy. The right ureter was obliterated about two inches from its pelvis; just at the margin of the mass of new growth. The left kidney was quite healthy.

Infantile Hydrocele.—An adult patient with infantile hydrocele was exhibited by Brigade-Surgeon SIBTHORPE, who stated that there appeared to have been an encysted hydrocele of the cord, which had extended down along the cord into the scrotum.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, APRIL 6TH, 1888.

W. H. RANSOM, M.D., F.R.S., President, in the Chair.

Treatment of Uterine Displacements.—Mr. HATHERLY read a paper on this subject, advocating more attention to constitutional treatment by rest and tonics, with local treatment of accompanying conditions, and less reliance on purely mechanical treatment. He held that in recent displacements, especially such as followed parturition, and were due to deferred involution of the uterus and a relaxed condition of its normal supports, treatment by pessaries was not only unnecessary but sometimes mischievous. It was very often some accidental complication which first directed attention to an antelexion or anteversion, and in such cases the treatment should be chiefly directed to the removal of such complication. Posterior displacements were more amenable to mechanical treatment, but even in them a pessary might be compared to a crutch to a lame man, not in itself curative, but affording a useful support to a weak part whilst Nature was doing her work. He found pessaries often very useful in procidentia, but in extreme cases of prolapsus after the menopause, advised the narrowing of the vagina by operative methods. In conclusion, he enumerated briefly the conditions which contra-indicated the use of pessaries, and the general principles which should govern their use.—A discussion ensued in which Dr. RANSOM, Mr. GERATY, Dr. COLLINS, Mr. WOLVERSON, Dr. MICKIE, Dr. MUTCH, Mr. WHITE, Mr. BOOBYER, and Mr. BURNIE took part.

Swelling of Scrotum.—Mr. CREW showed a case of swelling of the scrotum presenting unusual symptoms.

Proposed Horse Tax.—Upon the initiative of Drs. MUTCH and WOLVERSON, the following resolution was passed: "That in the opinion of this Society the proposed tax upon horses would press unduly upon medical practitioners who use horses in the practice of their profession."

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, MARCH 21ST, 1888.

Surgeon-Major TURTON in the Chair.

Amputation at Shoulder-joint.—Mr. JORDAN LLOYD showed a case of amputation through the right shoulder-joint, with clearing away of the whole of the axillary contents for recurrent carcinoma. The subclavian artery was tied as a preliminary step, and

no blood was lost at the operation. The wound healed in three weeks.

Abortion after Removal of Ovaries.—Dr. LESLIE PHILLIPS showed a remarkable abortion. Two months before aborting, the woman, aged 30, had had a large, pedunculated, uterine myoma, as well as both ovaries, removed by abdominal section. The foetus was of the fourth or fifth month. Pregnancy was unsuspected at the time of operation.

Extra-uterine Fœtation.—Mr. J. W. TAYLOR showed an extra-uterine pregnancy of three or four months successfully removed a fortnight previously.

Amputation by Berger's Method.—Mr. BENNETT MAY showed an upper extremity, with the attached shoulder-girdle, which he had removed a few days before by "Berger's method," from a boy aged 17, for sarcoma of the humerus. The patient's condition was in every way satisfactory.

Uterine Myoma.—Mr. LAWSON TAIT showed an enormous uterine myoma, weighing nearly forty pounds, removed from a woman, aged 56. A great part of the tumour had formed a hernia in the abdominal wall, and the overlying skin was ulcerated. The patient was doing well.

Abdominal Section for Peritonitis.—Mr. LAWSON TAIT read a paper on a series of cases of acute peritonitis treated by abdominal section.

Acute Peritonitis successfully Treated with Saline Purgatives.—Dr. SUCKLING showed a man, aged 21, who was admitted into the Workhouse Infirmary on January 6th, suffering from acute peritonitis. He stated that he had had the "bowel complaint" two years previously, but had been well till three days before admission, when he was taken ill suddenly in the early morning with pain in the abdomen and vomiting. He had been constipated before this attack, and had had no motion since. The abdomen was tense and tympanitic, and the abdominal respiratory movements were abolished. There was extreme tenderness all over the abdomen, the legs were drawn up, the pulse small and frequent, and the expression anxious. He had retention of urine and fever. No tumour could be discovered in the right iliac fossa. Vomiting was incessant, and pain about the umbilicus greatly complained of. Dr. Suckling thought that the peritonitis was set up by typhlitis, due to faecal retention. Opium and belladonna were first given, but the vomiting and pain continued. Then half-trachm doses of sulphate of magnesium and sulphate of sodium, with ten minims of tincture of belladonna, were administered every four hours. Improvement soon followed this treatment, several liquid motions being passed. On January 9th the vomiting, pain, and tympanites had passed off, and a distinct fulness could be observed, with increased resistance to pressure in the right iliac fossa. The medicine was continued, with the result that the motions became more and more solid, till on the 14th the patient was apparently quite well, and free from fever. Only small quantities of peptonised milk and beef-tea were given. The patient continued to complain of dragging pain in the abdomen or some time, but in about three weeks he was able to get up, and, five weeks after his admission, was allowed solid food. He had since had two or three slight relapses, which at once yielded to purgatives and proper dieting, and at the present time there was a distinct indurated swelling in the right iliac fossa. Dr. Suckling was of opinion that in this form of peritonitis, and in typhlitis due to faecal retention, saline purgatives, in moderate doses and with plenty of water, were of great value.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, APRIL 4TH, 1888.

JAMES ROSS, M.D., LL.D., Vice-President, in the Chair.

Complication in a Case of Femoral Hernia.—Mr. STOCKS described a peculiar complication in an operation for right femoral hernia, where a large mass of omentum accompanied the protruded bowel. The bowel was returned, and the omentum tied and cut off. The patient did not rally, and died three hours after the operation. On examination it was found that the strangulated bowel was ileum, and that the omentum had been tied so close to the colon as to include a small piece of the bowel. The transverse colon had so nearly recovered its normal position that the ligatured stump was found above the level of the umbilicus.

Œsophageal Forceps.—Mr. STOCKS also exhibited an Œsophageal forceps made by Krohne and Sesemann, by means of which a foreign body could be removed almost from the lower extremity

of the outlet without the danger of pushing it further down, as must be the case when using an ordinary probang.

Erythromelalgia.—Dr. MORGAN made some remarks on a case of erythromelalgia, and showed a patient suffering from this affection.

Malarial Fevers.—Dr. BASIL made some observations regarding imported malarial fevers.

The Action and Uses of Nitro-glycerine and the Nitrites.—Dr. LEECH and Dr. R. B. WILD read a paper on this subject, the first portion of which comprised an account of experimental researches to determine the action of various nitrites on the contractile tissues, and the extent to which this could be modified by different bases. The latter portion of the paper discussed the therapeutic uses of the nitrites, the indications for their administration in various diseases, and more especially the danger attending their use in certain conditions of the heart and circulatory system.

REVIEWS AND NOTICES.

THE PATHOLOGY OF INTRA-UTERINE DEATH. By WILLIAM O. PRIESTLEY, M.D., F.R.C.P., etc., Consulting Physician to King's College Hospital. London: J. and A. Churchill. 1887. The lectures included in this volume comprise the Lumleian Lectures delivered at the Royal College of Physicians of London in 1887. The references to the literature of the subject are numerous, and will be found of special value to the student.

In Lecture I the author compares his statistics of abortion with the well-known tables drawn up by Whitehead. An analysis of 400 cases shows that 152, or 38.00 per cent., had not aborted; while 248, or 62.00 per cent., aborted. These statistics are almost exactly the reverse of Whitehead's, and are explained by the difference in age. Whitehead's analysis was made from women under thirty years of age, Dr. Priestley's from women over forty. Ten pages of this lecture are devoted to the effects of high temperature as a cause of abortion, and the results of a series of experiments carried out in the Physiological Laboratory in King's College are shortly recorded. The "heat theory" of Runge is probably the correct explanation of the death of the foetus *in utero*; Houlier's theory of degeneration of the myocardium being untenable. The forcible uterine contractions so frequently observed in cases of abortion during high temperatures are brought about by an accumulation of dark venous blood, charged with carbonic acid, in the uterine sinuses. Undue distension of these sinuses will cause contraction, while the excess of carbonic acid present will bring about a still more vigorous contraction of the uterine muscles. This action of carbonic acid upon contractile tissues was first proved by Brown-Séquard in 1851.

Lecture II treats of the diseases of the fetal appendages, and is full of valuable information. Dysmenorrhœal membranes, resembling "both in external appearance and minute structure" a decidua cast from the impregnated uterus, are capable, as is now known, of being expelled quite independently of pregnancy. Extravasations of blood in the decidua and decidua inflammation are fully considered.

Considerable attention is paid to the morbid changes affecting the chorion; the etiology and pathology of cystic degeneration of this body being specially discussed. The views of Virchow and Ercolani upon this interesting and somewhat rare disease are discussed at some length, with the result that the author confesses himself unable to accept the tenets of the latter authority. Except in exceptional instances, it may be laid down as a rule that cystic degeneration precedes and is the cause of the death of the foetus. To the question: Can cystic or vesicular chorion ever occur in women without conception? a negative answer is given.

In Lecture III the various diseases and anomalies of the placenta are studied fully and adequately. The experience and teaching of the author are opposed to those of Charpentier, who holds that the placenta undergoes only one morbid change. It is now admitted that the placenta may be affected by various diseases, and many obstetricians will be found who entirely agree with Dr. Priestley when he says "the placenta is, in truth, as liable to be affected by a variety of diseases as the liver or the lung." Under the term "phthisis of the placenta," we find described a low form of inflammation, not associated with bacilli as phthisis of the lung is, but characterised by a tendency for exudations to be thrown out into the parenchyma of the placenta.

This exudation may either become organised, and so form fibroid nodules scattered in the organ, or it may break down, and destruction of the placental tissue take place. In either case, if the disease advances beyond a certain point, the result will be the same, and the life of the fetus will be destroyed. With regard to the changes produced in the placenta by syphilis, our present knowledge scarcely entitles us to attribute any specific lesion to that disease alone.

In conclusion, we must note the numerous diagrams and several coloured plates of microscopical sections. The volume is of very handy size and neatly got up. Much of the material contained in it is original, and all of it is extremely valuable, especially to the student of obstetrics. Hitherto no book, so far as we know, has ever been published in which this subject is treated of in the same systematic manner; indeed we believe no attempt has ever been made to collect so much material into one volume. There is still much to be learned, and the author is careful to point out the paths by which many more facts may be gathered. The book should be in the library of every obstetrician.

FIRST AID IN ACCIDENT AND SUDDEN ILLNESS. By GEORGE BLACK, M.B. Edin., C.B. London: Ward, Lock, and Co.

THIS book is very well arranged and excellently written, but it almost reaches the requirements of a manual on minor surgery, rather than of a plain, practical guide to the rendering of help in cases of accident and sudden illness, and a manual for the instruction for ambulance students. The anatomy and surgery of the nose, eye, ear, and larynx cannot be usefully comprised within the teaching of an ordinary ambulance class. No doubt many who take an interest in the work of the St. John Ambulance Association will read this book with interest and profit.

NOTES ON BOOKS.

Modern Theories of Chemistry. By LOTHAR MEYER; translated from the German (5th edition) by P. P. BEDSON, D.Sc., and W. CARLETON WILLIAMS, B.Sc. (Longmans, Green, and Co.).—This volume is a translation of a work which has gained for itself a world-wide reputation, as being undoubtedly the most successful attempt to present to the student a complete survey of the theories of chemistry which have been built up from the vast array of experimental data. The work is one which from its nature appeals mainly to the pure chemist, to whom for a number of years past the German original has formed an almost indispensable companion. The present translation will be welcomed by all whose German scholarship is too limited to enable them to pursue such hard reading as a study of the original entails. We can thoroughly congratulate the translators on the faithful and conscientious manner in which they have performed their task. We notice, however, that some of the matters treated of have not been quite brought up to date; thus, in dealing with the laws governing the incomplete combustion of gaseous mixtures, no reference is made to the important researches made in this country, and published as long ago as 1884.

The Royal London Ophthalmic Hospital Reports. Vol. xii, Part 1, January, 1888. (J. and A. Churchill).—Notwithstanding its extremely emaciated appearance, this number of the Reports contains matter for instruction. Mr. Lawson contributes an interesting case of Sarcoma of the Optic Nerve Sheath. Tumours growing from the optic nerve are extremely rare, although several cases have, however, been recorded in addition to those mentioned by Mr. Lawson, and a few monographs have been written on the subject. The value of the case under consideration is increased, however, by the fact that a thorough examination of the tumour was made. Messrs. Lang and Barrett contribute a paper on Convergent Squint which gives evidence of systematic work extending over a considerable period. We hope to consider this paper in detail on a future occasion. It is sufficient to say here that it shows that in young subjects squint can be completely cured by glasses in about 10 per cent. of the cases, and that the occurrence of squint can be prevented while the glasses are being worn in 33 per cent. No doubt, as suggested by the authors, many in the latter class would ultimately be completely cured; on the other hand, it is not unlikely that some of the cases of complete cure would relapse if the glasses were discontinued for long. The authors promise a further communication on the subject. The

same authors make another short communication on the frequency with which cilio-retinal vessels and retinal pulsation are seen. As the presence of venous pulsation has been not infrequently mentioned as a symptom of glaucoma, it is important to note that it was found in 73.8 per cent. of the eyes examined. It would have been interesting to know whether age has any influence on the frequency of its occurrence. Mr. Collins, the house-surgeon, contributes a paper on Suppuration, Glaucoma, and Corneal Opacity following Cataract Extraction. The facts given are valuable, but when the writer launches into statistics he is unsafe. The cases of complication are collected from several years, while the tables showing the average age of patients, the number of operations in different months, etc., are compiled from one year only. Mr. Collins attributes suppuration to general conditions rather than to local infection; nearly all the facts, however, that he adduces would be equally consistent with the view that such conditions only rendered the eye more susceptible to the influence of septic organisms. Five cases are given in which the injection of a solution of biniodide of mercury (1 in 25,000) was followed by corneal opacity, a matter which is of interest in its bearing on the subject of intra-ocular injections, on which a correspondence recently appeared in our columns. It is difficult to see with what object Mr. Doyne's Observations on Tobacco Amblyopia have been inserted. On the strength of a solitary case, of which the early history is obviously unreliable, and the result admitted to be unknown, and which the writer only observed for twelve days, he has the temerity to found a theory of pathology in support of which he does not produce a single piece of evidence. In propounding this theory, he entirely ignores the pathological evidence which has been collected by others at considerable labour, and on which the commonly accepted view of the pathology of tobacco amblyopia is based. The admission of crude material of this kind will, we cannot but think, do much to damage the high reputation which the *Reports* of the Royal London Ophthalmic Hospital have always enjoyed.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ANOTHER BINAURAL STETHOSCOPE.

THIS is a stethoscope which I venture to think is worthy of being brought into notice. Its form was suggested to me by that of an instrument for one ear which was described by Mr. R. N. Combes. I have employed it now for about two years, and find it both efficient and exceedingly convenient in use, more especially in comparing different portions of the chest in children. Its portability is a great recommendation, as it can be easily carried in any coat pocket without any case to contain it. It is also cheap. The old-fashioned wooden stethoscope excels it for auscultating thick-walled chests, as of men with strongly-developed muscles; but for all others, especially of women and children, it is entirely satisfactory, contributing greatly to the comfort of both patient and auscultator—of the former by largely diminishing the need for change of position, and of the latter by the avoidance of awkward and constrained attitudes. It is good to carry both instruments, this in the pocket, the other in the hat.

This stethoscope has the chest-piece like that of the common binaural instrument, but about an inch shorter. The tubes are about 14 or 15 inches in length, made of rubber tubing somewhat larger in calibre and firmer than that used for infants' feeding bottles. The ear-pieces are tipped with rubber tubing to make them fit comfortably in the ear, and should be selected so as to fairly well the ear of the auscultator. The ear-pieces are retained with quite sufficient firmness, without any aid by a spring or other contrivance, if they are gently pressed into the meat, giving them at the same time about half a turn of a screw motion.

The stethoscope is sold by Young, Forest Road, Edinburgh, 3s. 6d., and also by the Argyle Rubber Company, Glasgow.
J. W. MILLER, M.D.
Dundee.

SUCCESSFUL VACCINATION.—Mr. William Cooper, of Widnes, received the Government grant for successful vaccination.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, APRIL 21st, 1888.

SANITARY ADMINISTRATION AND THE LOCAL GOVERNMENT BILL.

A SOMEWHAT remarkable feature of the debate on the second reading of the Local Government Bill has been the inadequacy of the attention that has been given to the public health aspect of the Government proposals. Mr. Stansfeld opened the debate in a very clear and carefully-reasoned speech, in which he pointed out various matters in respect of which the Bill falls short of completeness as a measure of local government reform affecting the health and prosperity of the nation. But, with the exception of Sir Lyon Playfair, the subsequent speakers directed their remarks almost exclusively to those other phases of local administration which, although matters of vital importance, do not stand in such great need of reorganisation as does our system of sanitary administration.

Sir Lyon Playfair, in his able speech, very forcibly exposed the insufficiency of the proposals in the present Bill to secure a removal of the hindrances to sanitary progress which at the present time are in full operation in many localities. Chief amongst these hindrances must be reckoned—as we have on many occasions pointed out—the unsatisfactory system under which medical officers of health are appointed and hold office. At present, as Sir Lyon Playfair observed, the plan of appointing a medical officer of health for a small, insignificant area results frequently in a practitioner being chosen who has had no special training in the science of public medicine, and who, in exchange for a trifling remuneration, gives some fragments of his time to sanitary duties and to preparing reports to the Local Government Board. The less such an officer does the better will his employers be pleased.

“The people would rather have their dunghills and nuisances left alone, as in the time of their fathers, than have them stirred up by the stick of a parish doctor. The officers are paid to do nothing and they do nothing. What is the result? That while our towns have largely improved under sanitary legislation, as they generally possess well-qualified medical officers of health, the rural districts, as a whole, have not shared in this rate of improvement, and their disease and death-rates remain much what they were.”

In contradistinction to this picture Sir L. Playfair points to Cheshire, where much has been done to improve the organisation of the sanitary service, and where the duties of the medical officers of health have been consolidated in respect of large areas. One of these areas has 280,000 acres and a population of 135,000 persons. It has the entire services of an able officer of health, who has a salary of £800 a year. Another consolidated area in the county has 139,000 acres and a population of 84,000 persons, and the medical officer of health has a salary of £635. But the rest of the county has not shown this intelligence, and there remain 213,000 acres, with a population of 420,000 persons, split up among 28 health officers, who, if Stockport be excluded, have salaries ranging from £10 to £75. Combinations exist in other parts of the country where sanitary matters are properly supervised and controlled with benefit to the public health. But, on the other hand, many combinations have been broken up or have crumbled to pieces through the jealousies or quarrels of constituent authorities or individual members. It is clear, therefore, that in practice the system of voluntary combination of districts cannot always be secured, whilst the use of compulsory powers by a central authority is, for obvious reasons, not satisfactory.

At the present time, according to the last report of the Local Government Board, there are some 1,300 medical officers of health throughout the country, and the salaries of these officers range from £3 a year to £900. In Sir L. Playfair's opinion there would be far more efficient sanitation in the country if the number of health officers were reduced to 180, each of these officers having a larger area than at present, and having public health as his sole duty, instead of regarding it as an accidental adjunct to his private practice. If London, and the larger towns that are to become counties in themselves, be excluded, a population of some 18,000,000 remains, and this would form 180 health officers' districts of 100,000 each. Undoubtedly the £130,000 annually spent on medical officers of health would, under an arrangement of this sort, secure infinitely better results than at present. Instead of this considerable sum being frittered away in small honoraria, a thoroughly effective method of sanitary administration would be built up.

The means proposed for putting this matter on a satisfactory footing is to make all officers of health officers of the County Councils, and not, as proposed in Mr. Ritchie's Bill as at present drawn, to make them officers of the District Councils. Each County Council should be required by the Act to appoint a duly qualified Superintendent Medical Officer of Health, who should be responsible for advising on all public health matters in the county, should be debarred from private practice, should be paid a reasonable salary, and should be secured in his office so long as his duties are adequately and faithfully performed. Only under such circumstances can the most useful and unfettered skilled advice be secured, which a county authority must have, if it is to fulfil properly the functions transferred to it from the Local Government Board. Subsidiary health officers would be necessary for special areas or towns in the county, or in order

to deal with cases of emergency, but such officers also should be appointed by the County Council, should act under the Superintendent Medical Officer, and should report to him.

This is a simple, logical proposal which we are glad to find has very general support in the medical profession, and which we feel sure in practice would greatly improve the sanitary service of the country. It is the ideal which the Joint Committee of the British Medical and Social Science Associations on State Medicine advocated in their memorial to Lord Beaconsfield in June, 1877, and it is to be hoped that Mr. Ritchie will see the public advantage of the scheme, and will agree to the modification of his Bill accordingly.

SULPHONAL: A NEW HYPNOTIC.

This substance is "diethylsulphondimethylmethan," an oxidation product of the union of ethyl-mercaptan with acetone, and has, therefore, the composition represented by the formula $(CH_3)_2C=C(C_2H_5)_2SO_2$. We owe its discovery to Professor E. Baumann, of Freiburg, and its therapeutical application, or, rather, some knowledge of its remarkable physiological properties to Professor A. Kast, of Freiburg, who has a long article on the subject in the current issue of the *Berliner Klinische Wochenschrift* (April 16th, 1888), in which he has nothing but praise for this new addition to the materia medica. The term "sulphonal" is due to a happy suggestion of Herren Fr. Bayer and Co., Elberfeld, who supply it. This substance crystallises in large colourless tables, and is perfectly devoid of taste and smell. It dissolves in 18 or 20 parts of boiling water, in 100 parts of water at the ordinary temperature, and is easily soluble in alcohol or alcoholic ether. It is not affected by acids or alkalis, or by oxydising agents either in the cold or warm. Thus, concentrated sulphuric acid with heat scarcely affects it, and it resists fuming nitric acid; and even chlorine and bromine; it is, therefore, a very stable body. Twenty experiments with sulphonal on healthy men showed that doses of three or four grammes were borne by adults without the least discomfort or disagreeable after-effect. Thus, a medical man, aged 28, took 3 grammes (46 grains) at 4 P.M., and at 5.15 P.M. began to feel sleepy, with a feeling of heaviness in the head. At 6.15 these feelings lessened, but at 8.15 they increased somewhat. At 9.15 the subject of experiment went out for the evening, having resisted the inclination to sleep. He passed a tranquil night afterwards, and felt no after-effects of any kind. Another medical colleague sank into a sound sleep two hours after the same dose, the sleep lasting several hours. The time of day and the meals were found to influence the action of sulphonal very much.

Employed medically the drug has been given to 60 patients; and 300 observations of its effects were made (Professor Cramer gave it 200 times in the Marburg Lunatic Asylum). The results, almost without exception, were that the patients sank within from half an hour to two hours into a tranquil and sound sleep, lasting from five to eight hours, and awoke feeling perfectly comfortable. A few felt tired and sleepy next day. The diges-

tion, pulse, and temperature were unaffected, and it is curious that no ataxy of any degree or kind was present, whereas this was the most prominent symptom in dogs after large doses. The ordinary dose for man is two grammes (half a drachm). Professor Kries has examined the effect of sulphonal on the blood-pressure, and has established the fact that in dogs, even after very large doses, the blood-pressure is not lowered. Poisonous doses in dogs, to determine the mode of death, caused severe convulsions, then, after a few hours, a heavy sleep, deepening to coma and ending in death in about ten hours. Spectroscopic and microscopic examination of the blood revealed no alteration of its elements. Sulphonal appeared most efficacious in cases of sleeplessness in nervous subjects, but was given with benefit in all kinds of cases, including even cardiac valvular disease.

ELECTRICAL TREATMENT OF DISEASES OF THE UTERUS.

At the next meeting of the Brighton and Sussex Medical-Chirurgical Society on Thursday, May 3rd, a paper on the above subject will be read by Sir Spencer Wells, Bart. Dr. Apostoli will be present and take part in the discussion. The meeting will be held at the Dispensary, 112, Queen's Road, Brighton, at 8 P.M. Members of the profession are admitted on the introduction of a member of the Society.

SANITARY PLUMBING.

MEDICAL officers of health have consistently and persistently supported the movement now on foot for the reform of plumber work. The medical officer of Liverpool (Dr. Taylor) has recently brought the subject prominently before the Health Committee of the city, and he is, we learn, now taking steps to obtain such support from the architects and plumbers of the locality as will secure the formation of a district council to carry out in Liverpool the examination and registration of plumbers on a national system inaugurated by the Worshipful Plumbers' Company, London. The medical officer of Birkenhead (Dr. Vacher), who has evinced an active interest in the movement from the outset, read a paper on Defective Plumbing at the Royal Institution, Liverpool on Monday, April 16th, illustrating it by some of his own sketches of cases coming under his observation.

THE RESEARCH SCHOLARSHIP OF THE BRITISH MEDICAL ASSOCIATION.

DR. RALPH STOCKMAN has been appointed Research Scholar of the British Medical Association. Dr. Stockman is assistant Professor of Materia Medica in the University of Edinburgh, and received a special training in the modern methods of pharmacological and physiological research in the laboratories of Professors Schiemedeberg and Hoppe-Seyler. He proposes to undertake researches on the following subjects:—1. The chemical changes which menthol, camphor, and similar bodies undergo after absorption; how far these metabolic products affect the organism, and whether they still act as antiseptics. 2. The mode of action of the camphor group on the heart and circulation. 3. The pharmacology of a new body which acts like digitalis. The problems connected with the absorption and excretion of glycerine and of fats. 5. On the connection between chemical constitution and physiological action of some alcohols.

NEW WARDS AT THE SUSSEX COUNTY HOSPITAL.—LARGE detached wards have been built on the site of the museum. The wards are intended to be used for violent patients, or for cases of erysipelas, etc., and a special feature is that those on

top floor constitute almost a separate establishment, having a separate entrance and staircase, as well as bath room and offices. Here there are two large wards—28 feet by 16—and four smaller—16 feet by 12½—all 13 feet high; a corridor 52 feet long and 5 wide separating north from south rooms. The middle floor has six wards, which are either 16 feet by 16, or 16 by 12½, separated by a corridor nearly 90 feet in length. On the ground floor there are four wards, with kitchen, laundry, and other offices. The internal walls of the building are covered with Portland and Keene's cement, trowelled to a smooth face, and all angles of walls and ceilings are rounded off, so as to lessen deposit of dust, etc. The floors are fireproof, and laid with pitch-pine; the grates are "Economisers," and the general appearance of the wards is very bright and pleasant. The closets are fitted with "Unitas" pans, and the ventilation through the window-sills and over the doors is on an improved plan. In the lower rooms are two large beds, with movable sides, for refractory patients, constructed on the model of those at St. Bartholomew's. The museum has been rebuilt, and is well arranged in its new quarters; the *post-mortem* room is equal to the best in light and convenience. Altogether the buildings are an extremely advantageous addition to the professional resources of the institution, and reflect credit on the Committee and the staff, as well as on the architect, Mr. Scott.

EXTENSION OF ST. MARY'S HOSPITAL, PADDINGTON.
We are informed that at a recent Board meeting of St. Mary's Hospital a resolution was unanimously passed arranging for the purchase of twenty-three houses on the north side of Praed Street adjoining the hospital, giving an entrance to the hospital in Praed Street. The new buildings will include a residence for nurses, special wards, and wards for lying-in women. The latter department will obviously be of great value to the clinical work of the hospital as well as an immense boon to the many poor women who frequently suffer at their own homes for the want of the advantages of a special treatment and careful nursing, which they would receive the wards of the hospital. In adopting this resolution, the Board passed also a vote of thanks to Mr. Field, the Dean of the school, to whose energy and warm interest in the hospital much of the success which has attended the preliminary arrangements for this enlargement is due.

A NEW MEDICAL JOURNAL.

A new medical journal, the *Wiener Klinische Wochenschrift*, appeared in Vienna on April 5th. It is to be published weekly, under the editorship of Dr. G. Riehl. The first number contains an article by Professor Billroth on the Treatment of Goitre by Ligature of the Thyroid Arteries, an abstract of which was given in the letter of our Vienna correspondent last week; and other important papers by Professors von Bamberger and E. von Hofmann. The journal is well printed, on good paper, and is altogether more satisfactory to the eye than the majority of foreign journals, whether lay or medical.

DEATH OF PROFESSOR DE CHAUMONT.

We deeply regret to have to announce the death of Professor de Chaumont, who succeeded the late Professor Parkes as Professor of Military Hygiene at the Royal Army School, Netley Hospital. Dr. de Chaumont was amongst the most able and accomplished members of the Army Medical Department. His scientific acquirements, especially in chemistry and physics, and his valuable contributions to the Army Blue Books on the subjects of dietary, hygiene, and ventilation, early marked him out for special employment as a teacher. He assisted Professor Parkes for some years at Netley, and his appointment in succession to that eminent man was recognised as one which did much to fill the void. Professor de Chaumont was also employed by the Privy Council and

the Local Government Board to carry out special inquiries in public health matters. His social accomplishments were hardly less notable than his scientific acquirements, and his personal character was so agreeable, his bearing so courteous and considerate, that he was universally beloved. Professor de Chaumont, whose weak state of health has caused his friends much anxiety for some time past, died suddenly of failure of the heart at his residence at Woolston.

THE SUMMER SESSION.

TRADITION in medical schools disparages the summer session. The first of October is the student's New Year's Day. At once he begins his work in the dissecting room, and, with the exception of a few days' holiday at Christmas, his labours are continued till the end of March. The new requirements of the Conjoint Examining Board will give greater importance to the summer session. The medical schools are shaping their arrangements in accordance with the new order. When the student enters in May, he will enjoy the advantage of getting used to hospital life, and will be able to spend part of his summer vacation in learning osteology. At the end of September he will know how to ensure a "part" in due season. It is, therefore, satisfactory to learn that the Warden of the College at St. Bartholomew's Hospital has issued a notice encouraging the entrance of freshmen in May. The notice advises a student who has passed a preliminary examination in arts early in the year (and has not commenced medical study) to enter in May, and to pursue his studies as follows:

1. In his first summer session to attend chemistry lectures and practical chemistry, with lectures on chemical physics. At the end of this session to pass the examination of the Examining Board in England of the Royal College of Physicians and Royal College of Surgeons in these subjects. He thus goes from his chemistry lecture to the practical study of the subject, and has the direct stimulus in his work of a public examination at the end of the session.
2. In his first winter session to attend anatomy lectures and dissect; to attend physiology lectures and practical physiology classes. At the end of his first winter session to pass the examination of the Examining Board in elementary anatomy and physiology.
3. In his second summer session to attend materia medica lectures and practical pharmacy. At the end of this summer session to pass the examination of the Examining Board in materia medica and pharmacy.
4. In his second winter session to dissect and to study practical physiology, and to attend the advanced course of lectures on anatomy. He may with advantage also attend a second course of physiology lectures. At the end of his second winter session to pass the second examination of the Examining Board in anatomy and physiology. Although systematic clinical work is necessarily deferred until after a student has passed his examinations in anatomy, physiology, and the other elementary subjects, he should from the beginning of his career take every opportunity of learning the rudiments of practical medicine and surgery by attendance as opportunities occur to him in the wards, out-patient rooms, and the *post-mortem* room.

We understand that other medical schools intend to follow the example long ago set by University and King's Colleges, and more recently by St. Mary's, and to encourage the entry of new students in summer.

UNFOUNDED CHARGES AGAINST MEDICAL MEN.

MEDICAL practitioners are, as our readers know too well, liable to have unfounded charges of negligence brought against them, and are consequently are often put to a great deal of unnecessary trouble and expense for their own protection. The fact of charges having been made is sometimes remembered, and perhaps mentioned against a man behind his back, while the more important fact that they were shown to be unfounded is forgotten or ignored. We think it well, therefore, to give publicity to a case in which a member of the profession was enabled recently to vindicate his character successfully. In the County Court at Yarmouth in

March last, a Mrs. Grief brought an action against Mr. C. A. Mayo, a medical practitioner of good standing in the town, to recover damages for injury to her health consequent on abusive and violent language used by the defendant, and on his negligent treatment of her case. In the winter of 1886 she was ill, suffering from rheumatism and pneumonia, and attended by Mr. Mayo. She wanted to call in another doctor, a Mr. Collier, but Mr. Mayo objected to meet him, as he was his junior, and Mr. Meadows was called in instead. The plaintiff alleged that on the morning after the consultation, Mr. Mayo, on paying his regular visit, accused her of having been attended by Mr. Collier, swore at her, using disgusting language, and went violently out of the room, banging the door after him; and that the effect of this conduct was to cause her to spit blood and confine her to her bed for six months. The story on the face of it appears improbable, but the plaintiff took no steps against Mr. Mayo for nearly a year, when she consulted several solicitors successively, and at last found one to bring her case into court. The demand in the first instance was for £20 and an apology for violent conduct and brutal language, and the charge of negligence was subsequently added in order to make a legal course of action. The plaintiff and her witnesses contradicted themselves and each other as to the language alleged to have been used by Mr. Mayo; and Mr. Meadows said that he was satisfied with Mr. Mayo's treatment when he was called in. The judge, Sir F. Roxburgh, decided that the plaintiff's case as to negligence failed entirely, and said that "having heard the witnesses called for her, and also the defendant himself, he was satisfied that no such conduct as alleged took place. As a question of character was involved, he had thought it right to hear the case out, but even if he had considered that the words alleged had been used, he should have decided, in point of law, that they would not support an action. In justice to a medical man, he had preferred to decide upon the facts, and he considered Mr. Mayo had vindicated his character most completely." The result is satisfactory, and should be generally known. That the defendant should have been put to considerable expense and more trouble and annoyance in repelling an unfounded charge is less so. But English law, in its anxiety to refuse justice to nobody, is unwilling to prevent actions being brought where there may possibly be a good claim. It is not till a case gets into court, and the evidence is tested, that its value or worthlessness becomes apparent. Hard though it may be on defendants to have to resist extortionate or unfounded claims, we do not see any probability of the law in this respect being altered, and members of the medical profession, when thus attacked, must be content with the knowledge that they are only under the same liability as other respectable Englishmen, though the consequences of an adverse decision are to a professional man more serious than to others.

INDIVIDUALITY OF CHILDREN AND RESULTS OF TEACHING.

CONSTANT and urgent complaints are made by teachers that, in judging of results, inspectors and managers do not sufficiently take into account the individuality of children. This feeling found strong expression at the annual conference of the National Union of Elementary Teachers. The work of teachers paid by the Government and ratepayers must ever be estimated by results: those who pay must have some security as to what they get for their money. If we visit schools for the blind, the dumb, or the feeble-minded children, we see that different criteria are looked for in each case as indicating "results" of training. The individuality of children differs greatly, consequently the objects and methods of training must be various. The attainments which we desire to see in children of 11 years old are not simply such as are indicated by examinations in grammar, writing, arithmetic, etc., but also the signs of physical growth and healthiness, the

signs of tidiness, intelligence, quickness, and happiness. It is an important but a difficult and complicated question how to estimate "results" of education; the teaching profession might do well to try and give some practical definition of "good results." An assessment of the results of school work must take into account individual differences among children; it is very undesirable that the age of children should in any large degree be taken to indicate what standard in the school a certain child ought to occupy late developments often make very good growth. In framing a statement of results of educational work, allowance ought to be made for the variations of individuality in the children, and this can only be done by those trained to observe individual children, and able to estimate their condition and progress by what they see in them. The results to be sought in a child that is feeble, or 'one of poor development,' differ greatly from those to be expected in children of average growth; a very moderate amount of knowledge, but fairly quick brain action, well under control, is perhaps all that can be expected, but a "good result" has been obtained if such a dull child is made to like the school, if he attend regularly, and is active and obedient. We protest that school results should not be estimated by mere scholastic work, and should not much depend upon lesson work in relation to age. The individuality of children differs immensely, so also does the special character of different teachers. Some method of estimating results must be employed, but it is highly desirable to leave considerable freedom of action to teachers, and they in their turn will be glad that the results of their work should be known and estimated. The real question at issue is not that any of us doubt the varying individuality of children and teachers, but how are we to apply tests as standards of results? This difficulty is less felt in secondary schools, where the parents' opinion of progress and later successes of former pupils in part form a standard of school success.

AWARD OF THE MARSHALL HALL PRIZE.

FIFTEEN years have passed since the Marshall Hall Fund was instituted, with the twofold purpose of commemorating the late Dr. Marshall Hall, and of encouraging research in that branch of natural science which he did so much to develop. The trust provides "that a prize shall be given every fifth year for the best original work done and recorded in the English language during the previous quinquennium in physiological or pathological researches relating to the nervous system, and that the prize shall consist of the simple interest derived during the preceding five years from the amount of the capital fund." The first award was made to Dr. Hughlings Jackson, the second to Dr. Ferrier; and this year the Council of the Royal Medical and Chirurgical Society, whose hands the fund was placed, have awarded the prize to Dr. Walter Holbrook Gaskell, F.R.S., Lecturer in Advanced Physiology in the University of Cambridge. The Council have invited Dr. Gaskell to give some account of his work before the Society, at a special meeting will be convened for this purpose, which will be duly announced.

THE LATE MR. MATTHEW ARNOLD.

THE life and death of Mr. Matthew Arnold have a lesson of hope and a warning for the large number of persons who suffer from heart disease. Twenty-five years ago he consulted Dr.—now Dr. Andrew—Clark, and was told that he had valvular disease of the heart, but advised that if he exercised reasonable care it need not at all interfere with his career. For many years he rigidly adhered to the recommendations as to regimen and exertion which were given to him, and it is interesting and encouraging to recall that nearly all his serious work in criticism, education, and theology was done within the last twenty-five years. His reports and essays on middle-class education, the *Essays in Criticism*, and *Literature and Dogma*, all belong to this period. Such a life is

striking proof that heart disease, even of a type generally accounted serious—for Mr. Arnold had disease of the mitral and aortic valves—need not interfere with the labours or the enjoyments of a successful career, provided only that the limitations and moderate restrictions to which the individual must submit are frankly recognised. Emboldened by long impunity, patients are disposed to come to believe that the precautions have been unnecessary, and to relax their vigilance at the very time when the approach of old age renders all more or less liable to weakness of the heart. The Arnold family are a remarkable instance of family predisposition to disease of particular structures; the father of Dr. Arnold of Rugby, Dr. Arnold himself, and now two of his sons, have all succumbed to chronic heart disease.

THE EMPEROR OF GERMANY.

WE learn, by special telegram from Charlottenburg, that at the end of last week inflammatory swelling of the loose tissue surrounding the windpipe was observed below the tracheotomy wound in the Emperor's throat. His Majesty had a slight shivering fit on Saturday evening, and this was followed by symptoms which made the medical attendants fear that the lungs were becoming affected either by the development of a fresh centre of the disease which has so long existed in the larynx, or by inflammation excited by the trickling of irritating discharges into the bronchial tubes. So far, however, we are pleased to know that no trace of any pulmonary complication has been discovered after repeated careful examinations by Professors Senator and Leyden, whose scientific attainments and practical skill are as fully recognised by the medical profession in this country as they are in Germany. The Emperor's temperature rose to 103° F. on Tuesday, but came down to 101° F. in the evening. On Wednesday it reached 104° F. for a short time, but quickly fell again. Sir Morell Mackenzie believes that His Majesty is at present suffering from pyæmia, a form of blood-poisoning which is, under any circumstances, extremely dangerous, and which, in a patient whose vital powers have been slowly sapped by a lingering and painful illness, must give rise to the worst apprehensions. His Majesty's physique, however, is so exceptionally robust, and his life has been so entirely free from excesses of any kind that could weaken or vitiate the natural soundness of his constitution, that there may still be some room to hope that the present crisis—threatening and almost desperate as it undoubtedly is—may be successfully got over. The worst feature of the case, however, with regard to the ultimate prognosis is the internal condition of the air-passage, which, it appears, became suddenly so much narrower at a point opposite to the wound that it was found necessary to introduce a new tube long enough to reach below the obstruction. We have pointed out more than once that one of the most perplexing features of the case is the extraordinary suddenness with which the disease, after prolonged periods of quiescence, starts into renewed activity. Whether the invading mass be an offshoot from the original cancerous formation in the larynx, as the German physicians are said to be unanimous in believing, or an abscess depending on destructive inflammation of the cartilaginous structures, is now, we consider, a matter of comparatively little practical moment. Probably a patient would have a chance of a longer lease of life with undoubted cancer than with perichondritis of so widespread and severe a character as is postulated in the present case.

SCOTLAND.

THE honorary degree of LL.D. was conferred upon Sir William Mackenzie, M.D., and Dr. W. H. Walshe, by the University of Edinburgh at the annual graduation ceremony on Wednesday last.

GLASGOW UNIVERSITY EXTENSION SCHEME.

THE town of Paisley has taken the lead in adopting the extension scheme recently announced by the University of Glasgow. A largely attended public meeting, convened by the Provost, was held on April 13th, and after the details of the scheme had been fully explained, the meeting unanimously agreed to its adoption. A large and strong committee was appointed to make the necessary arrangements.

SOUTHERN MEDICAL SOCIETY, GLASGOW.

DR. EBEN DUNCAN introduced a discussion on the modes of disposal of the dead, and after reviewing present modes of burial, he pointed out very fully the advantages of cremation. He illustrated this subject by the accounts of experiments made on the bodies of animals, and then discussed the various precautions taken to prevent, at any time, a miscarriage of justice by cremation.

CHOCOLATE CHEWING GUM.

TWO confectioners in Glasgow have been fined £3 each under the Adulteration of Foods Act, for selling a sweetmeat called chocolate chewing gum, and containing 42 per cent of paraffin wax. It was stated for the respondents that the confection was manufactured in Lincoln, and that it was bought by children for the purpose of chewing and then making crackers. Dr. Russell stated that the paraffin wax was insoluble in any of the fluids, and indigestible, and might so irritate the stomach as to cause convulsions in children of tender years. The sheriff said the article had a misleading name, and as children might purchase it for eating the trade must be put down.

DALBETH CEMETERY, GLASGOW.

THE Archbishop of Glasgow has replied to the communication made to him by the local authority in regard to the condition of Dalbeth Cemetery owing to the custom of pit burial. He expresses the willingness of the committee in charge of the cemetery to make such regulations in the method of interment as are indicated in Dr. Christie's report, and intimates that instructions to that effect have already been given. At the same time he states that the Committee, while willing and anxious to meet every proper and reasonable requirement, cannot see that there is any evidence that the methods hitherto adopted have created, or are likely to create, a nuisance. He refers to the exceptionally good health enjoyed by the inmates and attendants of the reformatories on each side of the cemetery, the low death-rate, and the favourable reports of Her Majesty's inspectors as supporting this view, and expresses the opinion that the offensive odours complained of arise from the Tollcross Burn. He, therefore, thinks it a hardship that Dalbeth Cemetery should have been singled out for animadversion, and the managers of it alone called on to alter their method of interment.

FRESH AIR FORTNIGHT FOR CITY CHILDREN.

THE Committee who so successfully carried out last year the idea of giving the poor children from the slums of Glasgow a fortnight in fresh country air, are again taking steps to carry on this important work during the ensuing summer. Their plan consists in boarding the children in the homes of cottagers in healthy country districts. The Committee, however, found last year that children with open sores could not be so boarded out, although they required fresh air even more than the others, and, consequently, nothing was done for them. An attempt is to be made this year to get over the difficulty by providing a special home for such children. We wish the attempt all success, as the work is most necessary, and will assuredly be followed by excellent results.

PATHOLOGICAL AND CLINICAL SOCIETY, GLASGOW.

At the meeting, on April 9th, Dr. Meighan showed a man who had had a piece of metal embedded in his left eye for ten years. The metal was now making its way outwards through the cornea. Dr. Reid showed microscopic specimens from a case of mycosis of the eyeball, in which mycelium tubes and spores were found spreading from the deeper layers of the conjunctiva into the substance of choroid and interior of the eyeball. Dr. Joseph Coats showed specimens of fat-embolism of the lung from a case of simple fracture of the femur. Dr. Fleming showed a portion of ascending colon containing a large concretion, which had caused the formation of an abscess in the right iliac region. Dr. Newman showed a perforating ulcer of the anterior wall of the stomach communicating with an abscess cavity of old standing. Recent rupture of abscess into the peritoneum had occurred.

EDINBURGH UNIVERSITY COUNCIL AND THE UNIVERSITIES (SCOTLAND) BILL.

At the statutory half-yearly meeting of the General Council of Edinburgh University, held on Tuesday, April 17th, the text of the Universities (Scotland) Bill came up for consideration. The Business Committee presented a report on the Bill, which in large part was accepted by the Council. The Committee held that the proposals for affiliation and incorporation of other colleges were needlessly vague. It appeared to the Committee that the term affiliation might be accepted as sufficient. The Committee insisted on their previous contention as to the impolicy of transferring the Botanic Garden to the University, and as to the inadequacy of the proposed grant to the Scottish universities. In other respects the Committee, believing the measure to embody much for which they had long contended, expressed the opinion that, subject to such minor alterations as had been suggested, it should be passed.

SCARLET FEVER AT GARNET HILL, GLASGOW.

SCARLET fever is very prevalent at present in the Garnet Hill district of Glasgow. It appeared first in a dairy in the district, the proprietor of which at once communicated with the authorities. All the other cases have been traced to this dairy. Immediate investigation of the sanitary conditions of the farms whence the milk supply of the dairy was obtained led to the discovery that at one of them—a farm near Eaglesham—there were two cows suffering from sores on the teats and other symptoms resembling the recent Hendon cow-disease. It was accordingly resolved to bring these cows into the city for further and more careful observation. Professor McCall kindly offered accommodation at the Veterinary College. During the last fortnight careful observations have been made as to the condition of the cows, and some young calves and pigs fed with the milk. Bacteriological observations are also being made, and in due course a full report of the whole circumstances will doubtless be given.

IRELAND.

SANITARY CONDITION OF NAAS.

THE Local Government Board have received a report from their inspector, Dr. Burke, in reference to the sanitary state of this town, which they forwarded last week to the Naas guardians. The report states that the sewerage is in a defective condition, and the Board have requested that the matter may receive the attention of the guardians, who are the sanitary authority. The latter, however, are of opinion that they have done all that is necessary, and refuse to have a main drainage scheme for their town. That up to a recent period the sanitary condition was positively disgraceful is shown by a report of the medical officer

of the district, who some time since stated that considerably less than one half of the entire number of houses had any sanitary accommodation whatsoever.

CASE OF HYDROPHOBIA.

IN January last, a workman employed in Guinness's stores, at Limerick, was bitten on the hand by a rabid animal. The wound was cauterised at the time, but symptoms of hydrophobia supervened last week, and he died in Barrington's Hospital, two days after admission.

SIR PATRICK DUN'S HOSPITAL.

A DEPUTATION of the governors of this hospital waited on the Public Health Committee on April 17th in reference to the proposed fever hospital in connection with that institution. After some discussion, the deputation stated that their board would acquiesce in the wishes of the Public Health Committee. A deputation of residents in the neighbourhood of the proposed fever hospital also waited upon the Committee. The following resolution was then agreed upon unanimously:—"That this Committee cordially thanks the Board of Governors of Sir Patrick Dun's Hospital for their public-spirited conduct in agreeing at the request of this Committee and at material cost to abandon their original intention of using the new wing of their hospital for the reception of fever patients, and to devote that wing to the treatment of non-infectious diseases, and that the Committee regard as entirely satisfactory this concession freely made by the Board of Governors in deference to the desire of this Committee."

ULSTER MEDICAL SOCIETY: DISCUSSION ON MEMBRANOUS LARYNGITIS.

A VERY interesting discussion upon the diagnosis and treatment of membranous laryngitis, occupied the attention of the Ulster Medical Society at its last meeting, upon April 11th. The discussion was opened by Professor Cuming, who devoted his remarks mainly to the therapeutic aspects of the question. He deprecated the excessive use of steam, and especially the erection of a tent around the patient's bed to concentrate the vapour, but thought that a warm and somewhat moist atmosphere was desirable. He had seen no advantage from the use of emetics, which were of acknowledged efficacy in simple laryngitis. Sprays of lactic acid, sulpho-carbolate of soda, lime water, and glycerine might be employed, but he did not rely much upon them. As regards internal medication, he had a leaning in favour of mercury, but thought that probably he had seen most benefit from iron and chlorate of potash. Nutrients and stimulants were, of course, most valuable. The important question of tracheotomy was fully considered. He drew attention to the remarkable discrepancy between the results of the operation in different hands and in different localities. Although his own experience of the operation was unfavourable, he had little doubt that if performed sufficiently early it materially improved the very gloomy prognosis usually necessary in membranous laryngitis. He thought that as soon as the existence of a membrane in the larynx was definitely diagnosed, tracheotomy should be at once proposed, lest of time being very perilous. As regards the new procedure of intubation, he had no personal experience of it, but thought that there was a rapidly accumulating body of evidence in its favour. Professor Sinclair, Professor Dill, Dr. McFarland, Dr. Byers, Dr. Wales, Dr. Lindsay, Dr. Dempsey, Dr. M. Connell, Mr. Fagan, and the President, Dr. Esler, took part in the discussion which followed.

THE twenty-second annual report of the Bristol Hospital for Sick Children and Women states that, owing to the system which requires some payment towards the cost of medicines—although 788 women and 2,327 children made 8,113 and 16,929 attendances respectively—the net expense to the hospital was less than £1.

PARLIAMENTARY BILLS COMMITTEE.

Lunacy Acts Amendment Bill.—Tax upon Horses.—Irish Lunacy Laws.—Notification of Infectious Diseases.—Public Health Prevention of Infectious Diseases (Hastings) Bill.—Relative Rank.—Pharmacy Bill.—Coroners Bill.—Burials Bill.—Local Government Bill.

A MEETING of the Parliamentary Bills Committee of the British Medical Association was held on Thursday, April 12th, at the offices of the Association, 429, Strand. The following members were present:

Mr. ERNEST HART in the Chair.

Dr. Bridgwater, Harrow
Dr. Holman, Reigate
Dr. Alfred Carpenter, Croydon
Dr. Langdon Down, London
Dr. Mickle, London
Dr. Grigg, London
Mr. Eastes, London
Dr. C. Orton, Newcastle-under-Lyme

Mr. W. D. Spanton, Hanley
Dr. Walter Dixon, London
Mr. Balding, Royston
Dr. Phillips, Reading
Mr. Wallace, London
Dr. C. E. Glascott, Manchester
Dr. A. J. Harrison, Clifton
Dr. S. H. Agar, Henley-in-Arden

The minutes of the previous meeting, of which printed copies had been circulated among the members, were confirmed.

Dr. BRIDGWATER proposed and Dr. HOLMAN seconded the re-appointment of Mr. Ernest Hart as Chairman, which was carried unanimously.

Letters of apology for non-attendance were received from the President and the President-elect; Dr. Deas, Exeter; Dr. Duffey, Dublin; Dr. Meadows, Market Drayton; Dr. Bruce Goff, Bothwell; Mr. Harrison, Liverpool; Mr. Jeaffreson, Framlingham; Dr. Philipson, Newcastle-on-Tyne; Dr. Ritchie, Edinburgh; Mr. Sibley, London; Mr. Watkins, Towcester; also from Dr. Esler, of Belfast, who sympathised with the efforts made to prevent the taxing of horses of medical men.

The CHAIRMAN said he had asked the Committee to meet at that time, because it was the time at which they usually met to consider the Bills before Parliament, and to consider specially any points in respect to particular Bills or any matter affecting the medical profession. They had a long list of Bills before them, and he suggested that, with respect to any Bill requiring detailed consideration, it might be convenient to appoint a subcommittee to consider the special points, and to refer the conclusions arrived at to a future meeting.

Lunacy Acts Amendment Bill.—This Bill, which had been twice before the Committee had, the CHAIRMAN pointed out, now passed the House of Lords, and he asked Dr. Mickle to report on the further proceedings desirable.

Dr. MICKLE said the Bill was considered by the Committee last year in its amended form, and the present Bill seemed to be very much the same thing. There had been a shuffling of the clauses, still the provisions were very much the same. Some matters in the former Bill had been omitted and a few new matters introduced, but these, he thought, were not important from a medical point of view. He had drawn up a report upon these which he would read if necessary. With regard to registered hospitals, as to which they made representations last year, some of the clauses had been omitted and others retained, and he would be glad to know if Dr. Deas (who had interested himself in this question) was satisfied. He (Dr. Mickle) had also noted the points to which the Committee were committed in previous years, and which still applied in the present Bill. The first was Subsections 1 and 2 of Section 4, which had been introduced, partly in modification of, and partly in substitution for, clauses existing in a former Bill. The provisions, as they had already argued, left it optional with the judge, magistrate, or justice to consider whether or not he was satisfied with the evidence appearing by the medical certificates, etc.; and, if not, he should make such further inquiries as he thought fit. But, if he thought the evidence sufficient, he might make an order forthwith. This was connected with a different section, namely, Section 2, pages 6 and 7, where a number of provisions were made for cases in which the magistrate had not seen the alleged lunatic; and in that case the alleged lunatic might, if he had not been previously seen by a judge, magistrate, or justice, demand, at any time within seven days, an interview with judge, magistrate, or justice. This left room for a good deal of delay; so that he might be certified and yet his case only decided upon a fortnight later; and though when certified he might be extremely

insane, when examined by a magistrate he might have recovered. It was most desirable that it should be made compulsory for a magistrate to see the alleged lunatic before signing an order for his admittance. Then there was the question of the remuneration of workhouse medical officers, as to which there was some little doubt whether the Bill really meant that the workhouse medical officer should receive any remuneration. They recommended that the workhouse medical officer should receive remuneration. They also made a recommendation in respect to the severe penalties attaching to the workhouse medical officer for not reporting cases, which might easily happen from oversight. Dr. Mickle called attention to Section 36, page 22, as to which it had been suggested by their Committee that "the person making application for the discharge of a patient under this section, shall give security for the payment of all expenses." The clause in the Bill read as follows: "An order for the examination by two medical practitioners, authorised by the Commissioners, of any person detained as a lunatic in any asylum, hospital, or licensed house, or as a single patient, may be obtained from the Commissioners upon the application of any person, whether a relative, or friend, or not, who shall satisfy the Commissioners that it is proper for them to grant such order; and on production to the Commissioners of the certificates of the medical practitioners so authorised, certifying that after two separate examinations, with at least seven days intervening between the first and the second examination, they are of opinion that the patient may, without risk or injury to himself or the public, be discharged, the Commissioners may order the patient to be discharged at the expiration of ten days from the date of the order." It was to be anticipated that under this section vexatious and wholly unnecessary proceedings would be instituted, likely to lead to the discharge of patients unfit for discharge. Any person, whether a relative or friend of the patient or not, might apply and get an order from the Commissioners for the patient to be seen by any two medical men, who, after two examinations, may certify that the patient should be discharged. There were, he thought, "black sheep" in the profession who would make it their business to see patients, and certify for their discharge. A patient so discharged would have, *prima facie*, a very strong case if the certifying was recklessly done by persons who were not acting *bona fide*.

It was also suggested that service of medical officers in public asylums should count accumulatively towards pension, etc.

It was proposed that Dr. Mickle's report be accepted and referred for consideration to a subcommittee consisting of Dr. Bridgwater, the Chairman (Mr. Ernest Hart), Dr. Alfred Carpenter, Dr. Langdon Down, and Dr. Mickle, with power to act.

This resolution was seconded and adopted.

Dr. LANGDON DOWN thought it very desirable that the Bill should be carefully watched through Committee.

The CHAIRMAN said the Committee were greatly indebted to Dr. Mickle for the trouble he had taken in drawing up his reports.

Tax upon Horses.—The CHAIRMAN said there had been, as they knew, a considerable feeling raised throughout the profession on the subject, and he had received a large number of communications, practically unanimous, from persons feeling it to be a grievance that such a tax should be imposed. One or two persons however had taken a different view, feeling it undignified on the part of the profession to protest against the imposition of a tax of £1 per year. He (the Chairman) felt that the question of £20,000 or £30,000 a year was an important matter for the profession as a whole, and that there was an obvious objection to taxing horses employed in medical business as pleasure horses. He had had himself some private communication with the Chancellor of the Exchequer, and he (the Chairman) had advised medical men, individually, to address communications to Parliament. They had seen the statement made by Mr. Goschen in the House, which he thought they might accept as practically indicating his willingness to make some considerable exemptions. He did not think, from the tenour of the communications which had been received, that it would be quite abolished, but he thought they might gather from what had been said, that probably one horse would be exempted, and in the same way exemptions would be made as to the carriage tax, which would considerably lighten the existing burden of medical men in that respect. The Chancellor of the Exchequer had intimated that he did not think it necessary that he should receive a deputation from their Committee, because he was already very fully in possession of the views of medical men on the subject, from a great variety of sources, and he was doubtful whether it would add to his information. He further pointed out that the actual provi-

sions of the Bill had not yet been passed. He (the Chairman) thought that, taking the tone of that letter, and seeing they had already a considerable body of Parliamentary assistance in the matter, that it would perhaps be hardly necessary or dignified that, under the circumstances, they should put further pressure on Mr. Goschen, but wait until the actual provisions were introduced in the measure, and if then no concessions were made, he should be allowed to call the Committee together to make a collective representation. A number of petitions had been presented, and members generally had received instructions from their medical constituents.

Dr. HOLMAN called attention to the threefold nature of the undue burden of taxation upon the medical man. There was the increased taxation on his income, upon his horses, and upon his carriage wheels. The average earnings of a medical man in the country were under £300 a year. He could not earn more than that with one horse, and to earn £500 he had to keep two.

Mr. BALDING agreed with Dr. Holman.

The CHAIRMAN thought the statement made by Dr. Holman would be an important element in any further statement they might have to make. The income of medical men was a precarious one; they would have the wheel tax to pay, and the house in which they carried on their business was taxed as if it were a pure dwelling house; so that medical men were hit in every possible way.

Dr. CARPENTER suggested that a letter should be written to Mr. Goschen, stating the views that had been expressed had had that day the support of the Parliamentary Bills Committee.

Mr. BALDING said he knew two or three medical men with a thousand a year practices, who required the use of three horses.

Dr. BRIDGWATER agreed with the suggestion of the Chairman that it would be well that the Chairman should address a further letter to Mr. Goschen, and then they might wait and see the provisions as introduced into the measure before taking further action. This course was decided upon.

Irish Lunacy Laws.—The CHAIRMAN read the following resolution of the Psychological Section of the Dublin meeting, which had been referred to the Parliamentary Bills Committee by the Council.

"It was moved by Dr. Yellowlees and seconded by Dr. Savage:—

"That this Section of the British Medical Association, having had under consideration during the meeting in Dublin the Irish lunacy laws and their practical working, and having strongly felt their grave defects when compared with those of England and Scotland, conclude to bring this subject under the consideration of the Council, in the hope that they will take such steps as to bring under the attention of the Government the urgent need of better regulations and further legislation in regard to this matter. The chief defects are the following:

"1. The modes of admission of patients into asylums, which often involve injustice and injury to the patients, and great danger to the public.

"2. The defective powers possessed by the medical superintendent for the proper and efficient management of the asylums, for example, his having no power to engage or to dismiss the attendants, on whose loyal discharge of duty the welfare of the patients so greatly depends.

"3. The want, in the majority of asylums, of assistant medical officers, so that the medical superintendent is unable to give the necessary time to his strictly medical duties, and large asylums containing some hundreds of lunatics may be left entirely without resident medical supervision when the superintendent is absent."

The CHAIRMAN said he had obtained the opinions of the gentlemen who moved and seconded the resolution, and also of Dr. Mickle, who had drafted a report, as to the necessary reforms. The state of things there disclosed was obviously one which was far behind that of which they complained in England and Scotland.

The following resolution was moved by Dr. DIXON, R.N., seconded by Mr. EASTES, and carried *nem. con.*:

"That the foregoing resolution, together with the memorandum now handed in by Dr. Mickle, be referred to the subcommittee already appointed, with directions to frame a report on the subject, and to circulate it in type before the next meeting." Subsequently, being found to deal fully with the subject, this memorandum was accepted as the report to be so printed for consideration by the Committee.

Notification of Infectious Diseases.—The CHAIRMAN reported the receipt of a letter from Dr. Biddle, of Kingston, accompanied by a memorial signed by a number of medical men residing in that town, calling attention to the fact that in the Kingston Improvement Bill a clause had been inserted requiring concurrent notification of infectious disease; that was to say, notification by the householder and by the medical attendant. The memorialists objected to the latter.

Dr. LANGDON DOWN explained that there was a very strong feeling in Kingston on the subject, the medical profession being practically unanimous in opposing the dual notification, the feeling being that their practices would be worth nothing if they were put in the light of common informers.

The CHAIRMAN pointed out that it had long ago been legally decided that their Committee had no *locus standi* before a Private Bills Committee in respect to any private Bill, and this had been repeatedly stated in the JOURNAL. The local medical men must themselves apply to be represented. The proper course was to instruct a solicitor. They were the only persons who could oppose.

Dr. ALFRED CARPENTER said the question was one of some interest and some importance, though of course he agreed that they had no *locus standi*. In his neighbourhood dual notification prevailed, and medical men, as a rule, did notify; but there were medical men in Croydon who objected to it, and the authorities were just then proceeding against Dr. Dalton to recover a penalty because he refused, and would still refuse, to notify, but would do as he had done in the case referred to, instruct the householder and occupier. And in the above case the householder did notify, and the house was cleansed, but the local authority, for some reason or another—not, he thought, suggested by the medical officer—thought it best to proceed against Dr. Dalton. A second case occurred soon after. The authority recovered, but there was the principle involved that though there was dual notification there had been no notification by the householder, nor could proceedings be taken against the householder because he did not notify, but immediately they got a complaint against a medical man they proceeded against him. It showed the way in which the Act was being worked was not exactly the best to promote the repression of disease, because at that moment in the parish of Croydon there were cases of infectious disease which were being attended by herbalists, who were not called upon and could not be compelled to disclose. The consequence was that disease was being spread because they were not under the care and management of qualified medical men, and no proper measures were taken for preventing the spread of disease. If the law said the medical man was to act as agent of the patient there would be no difficulty whatever, and where there was a determination not to be a so-called informer, he would request the householder to give the notice, and the householder would probably do it.

Dr. Langdon Down was requested to inform Dr. Biddle that the Committee sympathised with his views, but that, as had several times been determined and announced in the JOURNAL, the Parliamentary Bills Committee had no *locus standi* before a private Bill Committee.

Public Health Prevention of Infectious Diseases (Hastings) Bill.—The CHAIRMAN said Dr. Carpenter's observations might be considered an introduction to the consideration of the above Bill. It was a general measure introduced by Mr. Hastings, Dr. Farquharson, Mr. Francis Powell, Mr. Wharton, and Mr. Harcastle. The object of the Bill was to make universal the notification of infectious disease which now existed in about forty-eight cities or towns of England, and the Bill proposed the method to which Dr. Carpenter objected, and to which so many people in the Association objected, namely, the method of dual notification. It was a Bill which he supposed had very little chance of passing. If the Committee proposed to take any such steps as Dr. Carpenter would suggest, it might, he thought, be well for them to appoint a subcommittee to draw up reasons to submit to the promoters of the Bill in favour of or against the provisions of the Bill.

Dr. GRIGG called attention to the fact that in the list of infectious diseases given in the Bill as to which notification was to be made, puerperal fever was included.

The following subcommittee was appointed to draw up reasons for opposing the Bill:—Dr. Bridgewater, Dr. Alfred Carpenter, Dr. Langdon Down, Dr. Grigg.

Relative Rank.—The CHAIRMAN said he had to report on the question of rank that for the moment they might consider it

taken out of their hands, inasmuch as it was still before the Council, who were dealing with the subject. As they would have seen, he was not seeking to give the matter attention, and various questions had been put to Mr. Stanhope. The answer given as to the interpretation of the Warrant was more conciliatory and promising. A considerable number of military members of the House of Commons had sympathised with them. He was sure it would be pleasing to the Committee to know that the course taken thus far by the Committee was exceedingly satisfactory to the Service, and that they were constantly receiving letters from officers of all classes giving their most sincere thanks. One officer, as a testimony of his sense of the great services of their Committee, had forwarded the names of no less than forty new members during the year.

Dr. ALFRED CARPENTER said he thought they owed Mr. Hart a very cordial vote of thanks for the ability and energy which, as their Chairman, he had shown in dealing with the matter of rank.

Dr. BRIDGWATER proposed a cordial vote of thanks to their Chairman, Mr. Ernest Hart, which was seconded, and unanimously accorded.

Pharmacy Bill.—The CHAIRMAN said they would remember that he brought before them certain points connected with the Pharmacy Bill which indicated that, under that Bill, there was a possible tendency to encroach on medical rights, especially in including among the courses of instruction *materia medica*, and to examine therein. The Committee had directed him to write letters to the Privy Council and to the General Medical Council. The General Medical Council adopted their views, and Mr. Marshall and Dr. Quain, on behalf of that body, had an interview with the Privy Council. The Bill as now introduced had been expressly modified to meet their views, and it was satisfactory to know that the resolution of the Committee had had so good an effect.

Coroners Bill: Coroners Election Bill.—The CHAIRMAN explained that the Coroners Bill of the Lord Chancellor proposed to put the election of coroners in the hands of the Lord Chancellor, and the Coroners Election Bill proposed otherwise to amend the Act. The Committee would remember that they had, some years previously, a very elaborate series of reports on the amendment of coroners' law prepared for them and by it, with the assistance of the late Dr. Taylor and other eminent persons. They were all in favour of the abolition of the election of coroners by freeholders, and thought it would lead to great abuses. The objection seen to the Bill as drawn was that, if the Lord Chancellor appointed, he would probably appoint a lawyer and not a doctor; otherwise the Bill seemed to be a good one. The Bill might, he thought, be printed in the JOURNAL, and suggestions asked for.

Dr. CARPENTER said if there was to be an alteration with regard to the law of coroners, they should endeavour to get a plan by which medical assessors to coroners should be appointed, and he suggested for this purpose medical officers of health where their whole time was devoted to their duties. If the Bill was to be seriously considered in this Parliament, he would suggest that a committee should be appointed to deal with the Bill, and to press the question of the appointment of medical assessors upon the attention of the Government.

Mr. BALDING thought if the Bill passed it would be very much to the disadvantage of the medical profession. There were from 400 to 500 coroners in England, and it was proposed to revolutionise a system of appointing coroners which had existed for many hundreds of years. How was the Lord Chancellor to decide on the proper men to hold the office of coroner? He contended that the duties of that office were, in some respects, better performed by the medical man than by the lawyer. One of the most difficult points for a coroner to decide was when to hold an inquest and when to order a *post-mortem* examination. These questions could be much better solved by a medical man than by a lawyer. It was compulsory upon a borough coroner, whatever his profession, to appoint a lawyer as his deputy, but that did not apply to county coroners. He was in favour of a medical coroner being compelled to appoint a lawyer as his deputy, and a legal coroner being compelled to appoint a medical man as his deputy. He thought it would work much better than appointing assessors.

The CHAIRMAN suggested the appointment of a subcommittee, to consist of Mr. Balding, Dr. Danford Thomas, Dr. Carpenter, and Mr. Sibley, with power to call in the assistance of gentlemen not members of the Committee, for the purpose of considering the Coroners' Bill.

Burials Bill.—The CHAIRMAN called attention to the fact that in the Burials Bill, which was otherwise generally approved, there was no provision for supplying a zone around cemeteries or burial grounds. It had frequently come to the notice of sanitary authorities that they were quite up to the very verge of high-ways. It was decided that the Committee should urge the insertion of a clause providing for a zone of unoccupied ground around cemeteries and burial grounds as being important in the interests of public health.

A resolution in accordance with the above was proposed by Dr. HOLMAN, seconded by Mr. SPANTON, and adopted.

Local Government Bill.—The CHAIRMAN, in calling the attention of the Committee to this Bill, said it had always been maintained by their Committee and by the State Medicine Committee of the British Medical Association and by the Council that it was of the utmost importance, first of all, that an intermediary authority, such as the County Boards, should be established for health purposes, and they knew that when the Public Health Bill was framed, they fought very hard to have such County Boards created. Now that intermediary authority had been created, it answered in many respects the desire of the Committee. Although large sanitary powers were given to its Council, it had no sanitary staff, and the medical officers of health were in no relation to it, and the County Boards in cases of epidemics would have no means of communication with the Local Government Board. They had always contended that medical officers of health should be appointed over large areas and have large jurisdiction, and any reduction in their numbers would be more than made up by the efficiency of having officers over a large area. He was glad to see that the Council of the Society of Medical Officers of Health also considered that they should be attached to and should be appointed by the County Councils. He thought that would have the entire concurrence of their Committee. It was entirely in accordance with their traditions, and the only objection that could possibly be raised would be the objection of cost, and he did not think that would be any obstacle. Supposing there were 200 appointed and they were paid £200,000 a year, there would be little or no increased expenditure, with considerably increased efficiency.

Dr. CARPENTER said those were the views which had been so often expressed by the Association at various times, and the time seemed to be at hand at which it would be right to urge those views upon the Government, especially in connection with the Local Government Bill. Dr. Carpenter also called attention to suggestions made at a meeting held at Croydon, to consider the treatment of a medical officer at the hands of the Holborn Guardians, and suggested they should be considered in connection with that matter.

A resolution was passed to the following effect:—

“That an endeavour be made to introduce into the Local Government Bill a clause attaching the medical officer of health to the new County Councils.”

The subject was referred to the same subcommittee as that appointed to consider the Coroners Bill.

SEVENTH GERMAN MEDICAL CONGRESS, HELD AT WIESBADEN.

[FROM OUR SPECIAL CORRESPONDENT.]

THE seventh German Medical Congress was opened by the President, Professor LEUBE (Würzburg), on April 9th. He gave a short historical view of the advance in medicine during the century, and pointed out that in future we must endeavour to find means of treatment corresponding to our progressing powers of diagnosis.

Treatment of Heart Disease.—Professor OERTEL (Munich), whose method has attracted so much attention, both at home and abroad, since the cure of Prince Bismarck by Dr. Schweningen (hence falsely “Schweningencur”), opened the discussion on the treatment of chronic diseases of the heart-muscle. After stating that, in his opinion, Stokes, who first introduced this method, had not found any followers, he said that it had first been employed in Germany by himself, with great success on a relative of his own, who suffered severely from weakness of the heart-muscle in 1875. During the following nine years he endeavoured to give a scientific basis to this mode of treatment by experiments on animals and observations on men, which are to be found in his book *Therapie der Kreislauf Störungen*. He had, however, reconsidered his position, and recognising that his

treatment was not equally suitable for all cases, he would exclude from it advanced atheroma and grave incompetence of the heart-muscle. By a combination of an appropriate diet (animal food containing little water) and exercise obtained by the gradual ascent of mountains (Terraincur), he obtained the following results: 1, diminution of the quantity of fluid in the body, and removal of the condition which he had termed "serous plethora;" 2, oxidation of the fat; 3, compensation between the arterial and venous system; 4, strengthening of the heart-muscle. The method he said ought not to be employed when the dyspnoea was increased by it and the flow of urine diminished.—Professor LICHTHEIM (Berne), his opponent in the discussion, denied the existence of a serous plethora, and cited the recent publications of Bamberger, and of one of his own pupils, showing that the relative amount of red corpuscles and serum was a constant quantity. He considered the method only suited (although then very effectual) for cases of fatty heart in persons of sedentary habit who lived high, and for the removal of dropsical swellings. The chief danger lay in acute dilatation of the ventricles; several of the cases of sudden death recorded were thus brought about.—Dr. KISCH (Prague) mentioned that in cases of general obesity, with or without dropsical swellings, he had found that the proportion of red corpuscles was always constant.

Alcohol as a Remedy.—The discussion of the second day on alcohol as a remedy was opened by Professor BINZ (Bonn), and Professor von JAKSCH (Graz), who considered that recent observations had proved that alcohol was an excellent remedy in febrile diseases (diphtheria, typhoid fever), owing to the multiplicity of its effects in lowering the temperature, stimulating the heart's action, and diminishing metabolism. A healthy man, however, needed no alcohol.—Professor NOTHNAGEL uttered a warning word as to the employment of alcohol in childhood, and expressed the belief that the rapid increase of neurasthenia was one of its effects.

Prevention and Treatment of Cholera.—The third discussion was on the prevention and treatment of cholera. Dr. PREIFFER (Wiesbaden), who gave expression to contagionist views, without, however, bringing forward further evidence, agreed generally with the results arrived at by the Vienna Cholera Conference. Prevention was to be effected by isolating the patient, and disinfecting everything coming from him.—Professor CANTANI (Naples) spoke in German on the treatment of cholera. He confirmed the results laid down in his recent publications by new experiments on animals and new statistical material. The idea that tannin might prove powerful originated in his mind from seeing that tanners were exempt from cholera in the recent epidemics. After experiments on animals he ascertained that his so-called "tannin clyster" (injection of 5 to 10 grammes tannic acid dissolved in 1 to 2 litres 38° to 40° C. warm water into the rectum) fulfilled the following three chief indications: (1) weakening and destruction of micro-organisms; (2) excretion of Brieger's ptomaine by the removal of anuria; (3) removal of the inspissated condition of the blood. He believed that his injections reached the ileo-cæcal valve and even the stomach, for they were sometimes vomited. He warmly recommended also a 6 in 1,000 solution of chloride of sodium as a hypodermic injection.—Drs. HÜPPE and BÜCHNER, both well-known bacteriologists, gave expression to the view that even the recent epidemics had shown the existence of what Pettenkofer called local and periodic influences. While considering the comma bacillus as the cause of the disease, they believed that we were yet far from recognising the whole etiology of cholera.—Professor BRIEGER made some observations on cholera ptomaines.—Dr. ROSENAU (Wiesbaden) urged that the investigations brought forward by a large body of English and Indian epidemiologists, who studied the disease in its home, had not received due attention in Germany. Mentioning the recent Milroy Lectures of Surgeon-General Lawson, he (Dr. Rosenau) thought it possible that by dust winds, so often experienced by ships at sea in tropical zones, which carry an immense amount of organic matter, cholera germs might be widely spread. As prophylactic means he would advise a combination of pepsine with muriatic acid.

Œsophageal Catheter.—Professor LEYDEN (Berlin) showed a permanent catheter (*Dauersonde*), resembling that of Symonds, for cases of stricture of the œsophagus. In one case of cancerous stricture the sound had remained during ten months without any alteration of tissue.

Pathology of Epilepsy.—Professor BINSWAUGER (Jena) reported a new series of experiments confirming those made by Nothnagel fourteen years ago, and showing that epileptic fits might originate

from a centre in the medulla oblongata; both, however, agreed with Hughlings Jackson on the origin of the epilepsy from the motor area of the cortex.

Xanthelasma.—A very remarkable case was shown by Professor LEUBE (Würzburg), of general xanthelasma of the skin, where growths were also met with in the aorta and the substance of the heart.

Local Anæsthesia and Local Anæsthetics.—Professor LIEBRICHT read a paper of high interest, demonstrating that the most heterogeneous substances, even distilled water, might produce anæsthesia on rabbits when injected subcutaneously; this might serve as a caution against the too ready acceptance of the recent experiments on erythrophlein.

Diagnosis of Gastric Diseases.—Professor DEHIO (Dorpat) described a method of examining by percussion the area occupied by the stomach when fasting and when gradually dilated by measured quantities of water, which might prove useful for the difficult differential diagnosis of atony and ectasia.

Pasteur's Prophylactic.—Professor CANTANI reported a large number of experiments after Pasteur's method, which went to disprove the views of Professor von Frisch (Vienna). He showed that the poison of rabies might propagate itself along the course of the peripheral nerves in both centripetal and centrifugal directions.

Many other interesting papers were read and largely discussed. Some were shortly reported in the JOURNAL of April 14th. The meetings lasted daily from 9 to 12.30 A.M., and from 3 to 5.30 P.M.

By a large majority Wiesbaden, the Queen of German watering-places, was chosen as the place of the next meeting, in spite of a considerable number being in favour of Berlin.

ROYAL MEDICAL BENEVOLENT COLLEGE.

THE twenty-fourth festival of this College was held on Tuesday at the Hôtel Métropole, when about 300 guests assembled under the Presidency of the Right Hon. the Lord Mayor. Amongst the guests were His Royal Highness the Duke of Cambridge, K.G.; the Earl of Dartmouth; Sir A. Clark, Bart.; Sir Trevor Lawrence, Bart., M.P.; Sir E. H. Sieveking; Sir A. T. Watson, Bart., etc.

The usual loyal toasts having been duly honoured, THE LORD MAYOR, in proposing the toast of "The Army, Navy, and Reserve Forces," said it was a matter of necessity that the defensive forces should be always kept in the greatest possible state of efficiency. It was not the place for him to mention the great services rendered to the army by the Medical Staff, but they were rendered in some cases with the most heroic devotion.

THE DUKE OF CAMBRIDGE, in responding to the toast, said: My Lord Mayor and gentlemen, the Lord Mayor has done me the honour of coupling my name with the toast of "The Army, Navy, and Reserve Forces." I am always proud to have the honour of responding in a large assembly for the services generally, and for my own service in particular. I believe that, as far as possible, what the Lord Mayor has suggested is at this moment the case. I mean that, as far as our means will admit, the services are as efficient as they can be. But there is a difference in that, because, though the services are as efficient as they can be as far as possible, I do not mean to imply by that that they are as efficient as they ought to be. We are a very powerful and a very influential nation, and every individual, whether in this room or walking in the street out there, ought to be, and should be, interested in the condition of those services, for it is the power of this country that its prosperity must depend, and unless you have that power in these days always more or less ready, depend upon it you never can feel that you are in a safe or in a satisfactory condition. This is the great question that is now occupying very much the public mind, but not a bit more than believe me, it ought. The fact is, we live in times of great difficulty, and, I might almost say, of great anxiety. It is impossible to foresee from day to day, I might almost say at this moment from hour to hour, what the next morning may produce to us or news from distant parts. It is not a moment in which we can shut our eyes to our own especial condition. We live in an age when everything progresses most rapidly. Nobody is more aware of that than the large body of scientific men which I am addressing on this occasion, and who know that in their own profession everything changes, everything progresses, everything advances in a degree, and to an extent which some few years ago would have been thought impossible. But it is possible now, you know it, you appreciate, you see it, and are obliged to deal with it when the moment arrives; and just as in your profession these changes

improvements, and advances take place, so it must be, and is, with other professions, and so it is with the great military profession of the army and navy, for which I have at this moment the honour to respond. This is, perhaps not the occasion when I ought to indulge in my thoughts on this subject, but I can assure you I feel so impressed with the importance and the anxieties which are surrounding this subject, that I never like to get up and speak for these services without bringing to your notice what ought to be done, what might be done, what should be done, and what would be done if we look into this subject, which is not to be thought of or dealt with in a party spirit or a political spirit; for, to my mind, it has nothing on earth to do with politics whatever. What it has to do with is the existence of this grand country, which every one of you, here or elsewhere, is ready to defend with your life, if necessity arises. That being so, I never can shrink from bringing this to your notice in the most forcible manner that I can. Now, gentlemen, I have said my say as regards the special toast to which I have been called upon to respond, and I now will turn to the fact of my being here to-night, not in the chair, but most delighted to support the Lord Mayor, who, with that good taste which is conspicuous on these occasions in all the Lord Mayors of London, is always ready to come forward to do what he can for works of benevolent charity. Gentlemen, I am here to-night at your invitation, also, I hope, with your full concurrence. I think I may claim, to a certain extent, to have a right to be here in this respect, that there is a great affinity between the important service that I represent and the great corporation which you represent here upon the present occasion. The fact is that we army men could not exist without the medical service. I have always felt that most fully. I have always deplored the possibility of occasional little rubs and grinds, which I hope have now entirely passed away, and I sincerely trust that that cordiality and good feeling which ought to exist, and which I hope exists, between the military and naval professions and the great medical profession in all parts of this country is so strong that nothing possibly can shake it in the future. Well, now, gentlemen, when you come to see what I have seen, and what others have seen more than I have, of what military service is, I can assure you that, if it was not for the medical profession armies could not exist in the field. And not only in the field but even in daily life, in our daily avocations. If it was not for the great assistance that we have from the medical profession of the army, which emanates from the great colleges and medical schools which are so largely represented here to-night, it would be impossible to keep our forces in the condition in which they ought to be. Therefore, I think I have a right to claim that I, representing those services, may be assumed to have great sympathy for those institutions which are connected with the profession many of whose members I am at this moment addressing, and therefore I appreciate the compliment that has been paid to me in having been invited to support the Lord Mayor on the present occasion. Gentlemen, there can be no difference of opinion that in every profession there is need of help—I speak absolutely now of help not in a professional sense, but, I am sorry to say, in an economic sense; that is to say, there are members of every profession, who, by circumstances, either by death or accident, or some means, are not in a position to leave their families and friends able to look after themselves. Well, gentlemen, it is right that there should be great institutions, such as the one that we are assembled to support to-night, in which these incidents should be considered; and I am glad to think that there is a feeling of sympathy amongst medical men, as there is amongst all right-thinking professions, that one man ought to support the other when he is in difficulty. That has been the foundation, no doubt, of this institution, which, I believe, owed its origin to Mr. Probert, and the first Treasurer, the late Mr. Hancock. Now you are represented by Dr. Holman, and you have a most influential supporter in Dr. Jenson. It has also been very much aided by the great liberality of Mr. Fry, and though there are many others. I think I have named sufficient to show you that I have taken that interest in the institution which it is right that those who come to support it should appreciate and be able to give to those whom they are addressing. I can only assure you that I for one, and every member of my profession, have the greatest regard and esteem for their medical friends of the army. Sometimes it is said that we do not appreciate you, that there is no cordiality. I can assure you there is nothing of the sort, and if ever there is anything of the sort, depend upon it there is some individuality in the matter which in

every land will occur, and which we all appreciate every day that we exist. There is another point; we in the army are called upon to go to every portion of the world. We have great difficulties of climate to contend with, we have the advantage and the knowledge and experience which you possess and which you acquire in the medical profession in mitigating the dangers, the risks and the anxieties of military life in bad climates. There again we have your valuable assistance. As to war, I need not say that that carries with it its consequences: they are deplorable, but yet they are inevitable, and but for you they would be detestable; your assistance enables that to be passed over with less distress, with less pain, with less anxiety than would be the case otherwise. I believe that there is no profession in the world so ready to do its duty, not only for the sake of its profession, but for the spread of humanity throughout the world. We have men like my friend Sir Joseph Fayrer and others, who have been in India, who have studied all those climatic differences that we have to contend with, and who have given us the benefit of their advice and assistance, and the consequence has been that we have passed through difficulties which other nations have never been able correctly to face. All this justifies me in feeling that I am no intruder amongst you; that the army is not an intruder amongst you; and, as a result, I trust that the cordial feeling which I have endeavoured to express on this occasion throughout the medical profession is reciprocated, and will be more and more reciprocated year by year. In my opinion it is the bounden duty of every man, whatever position he may fill, to try to bring together every element that can produce results beneficial to the great State to which we belong. It ought to be our bounden duty. I can assure you it is my anxious endeavour and desire always to try to be in accord with all my neighbours, under whatever circumstances I find them. I can only say that, if at any time there are differences, they certainly are not created by me, and I do my utmost on all such occasions to mitigate and to assuage, and to try to bring cordiality where there ought never to have been any question of anything else. These are the sentiments which I on my own part and on that of the army entertain towards this great profession; and, having that feeling, I could have no hesitation in at once coming forward and accepting with satisfaction the compliment that you have paid me, and I thank you on the part of the army and of myself for the honour you have done me on this occasion.

Sir EDWARD SIEVEKING, in proposing the toast of "The Houses of Parliament," expressed the debt of gratitude which all who were connected with the Medical College owed to Earl Manvers, its first president.

The Earl of DARTMOUTH, in responding for the House of Lords, claimed that, with any amendment of the House a gentle treatment would be preferable to more drastic treatment.

Sir TREVOR LAWRENCE, M.P., on behalf of the House of Commons, expressed the belief that the House was doing its duty in a satisfactory manner. He was glad that a Medical Bill having been brought in year after year, the House had at last had the good sense to leave to the medical profession the management and settlement of its own affairs.

Mr. C. G. WHEELHOUSE: At the request of those who have organised this banquet, I have been entrusted with the proposal of a toast which I know you will receive with enthusiasm. If I pass over those impolitic and illogical restrictions by which experimental research is hampered and hindered, I think I may venture to say, without fear of contradiction, that at no time and in no other country in the world have the opportunities for the study of medicine and the allied sciences been more abundant or more perfect than they are in our own. Covered as each division of the kingdom is with ancient universities, ancient corporations, and great schools, devoted alike to the study and to the teaching of medicine, and flooded as the country is with zeal on all hands for the promotion of scientific knowledge, it would be marvellous indeed if British medicine and British surgery did not stand in the foremost rank all the world over; and, whether as pioneers or as practitioners of our profession, Great Britain may certainly point with pride and satisfaction to the achievements and reputation of her sons. And if we regard that reputation as it was in ancient days, and only a generation or two ago, and as it is in these present times of ours, where are we to look for the springs and sources of its present improvement but in the training insisted on by our great corporations? Without the guiding hands of our Colleges of Physicians and Surgeons, and of that most excellent and useful corporation the Society of Apothecaries.

if every man had been still permitted, as in former days, to pick up his knowledge and information where and how he could, what could we have hoped to remain but a nation of empirics, where now we stand out as one of scientific and educated practitioners? To the Royal College of Physicians, with her stringent laws, her abundant lectures, the honours and the prizes she offers to her Licentiatees, to her Members and her Fellows, medicine owes well-nigh all her pre-eminence; surgery could never have attained to its present standard of greatness had it not been for similar efforts on the part of the Royal College of Surgeons. Presided over, as these corporations have been, by men whose names have become household words all the world over, they have done their work with singular dignity and efficiency, and have manifested to the world what such corporations ought to be and may be; and the mere mention of the name of Sir William Jenner, beloved at home, and held in veneration wherever true medicine is appreciated, will, I know, call forth your generous enthusiasm. To his successor, Sir Andrew Clark, we look for great things also, and we look with no fear of disappointment. Troublous days seem, indeed, for the moment, to have fallen on these grand old corporations; differences and schisms have arisen among their constituencies, but, gentlemen, they are such that time and reflection will heal them all, and I am one of those who believe and sincerely hope that in the great principle of "union" we shall, ere long, discern the remedy for these evils. Union is, proverbially, strength, and with our Colleges united, their laws consolidated, their requirements assimilated, we shall soon see them working smoothly and harmoniously together, and I am not without hope that even we who are gathered at these tables may live to see arising out of their union yet another corporation, whose great function it shall be to grant to those who aspire to possess them, and who are able to show by the acquisition of superior knowledge, wheresoever acquired, whether in our universities, or in London, or in our great provincial schools, that they deserve them those higher titles and qualifications which it is a legitimate aim and ambition for every man to set before himself. Gentlemen, I propose to you the toast of "Our Medical Corporations," and I couple with it the names of Sir Andrew Clark as the President of the College of Physicians, and of Dr. Amsden as Master of the Society of Apothecaries.

Sir ANDREW CLARK in responding, said he would do all that lay in his power to stimulate the corporation with which he was connected as well as the other corporations to come forward in the support of the Royal Medical Benevolent College in a way that they had not hitherto done.

The LORD MAYOR, in proposing "Success to the College," dwelt upon the great services that were rendered by the medical profession to the community at large, and urged that provision should be made for the support of the widows and children of those who fell in the discharge of their duty. He stated that he had visited the College and saw the good work it was doing, and concluded by appealing to those present and also to the public for increased liberality in the support of this noble work.

Dr. HOLMAN having acknowledged the toast,

The SECRETARY announced that the total sum received that evening, including £20 from the Duke of Cambridge, was £2,574.

The toast of "The Chairman" was then proposed by Dr. HOLMAN, after which Sir Joseph T. FAYRER proposed "The Head Master," which was responded to by the Rev. CECIL WOOD, and the toast of "The Local Secretaries," proposed by Dr. JONSON and responded to by Dr. PURNELL, brought the proceeding to a close.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

REPORT FOR THE QUARTER ENDING MARCH 31ST, 1888.
PRESENTED APRIL 18TH, 1888.

THE number of proposals received during the past quarter is above the average, namely, 43, as compared with 34 in the previous quarter, and 30 in the corresponding quarter of last year. The total number of proposals received during the four years the Society has been established is 1011. On the other hand, the Society has lost more members than usual during the quarter—2 having died, 2 proposals being declined, 2 having withdrawn with surrender values, and 11 (quite an unusual number) having lapsed by non-payment. If this total (17) be deducted from the 43 new members during the quarter, there remains a net increase of 26, which, added to the 829 members good

on the books at the commencement of the quarter, gives a present available membership of 855. Neither of the two members whose deaths were notified during the quarter had effected life assurances with the Society.

The following is a summary of the operations of the various funds:—

Sickness Fund.—The premium income of this fund has been £1,272 4s. 6d., against £1161 18s. 10d. in the previous quarter, and £1,091 4s. 2d. in the corresponding quarter of last year. The expenditure for sickness pay is £383 5s., as compared with £423 19s. in the preceding quarter, and £337 12s. in the corresponding period of last year. The number of members claiming is 30, and the aggregate period of sickness, 115 weeks 6 days, an average of 3.86 weeks for each claimant. The number of claimants in the preceding quarter was 40, and the aggregate sickness, 129 weeks 6 days, while in the corresponding quarter of 1887 there were 32 claimants, and an aggregate sickness period of 123 weeks 4 days. The claims, which are chiefly on account of affections of the throat and air-passages, include also 2 cases of fever, and 2 accidents. It will be noted the sickness rate continues below the average assumed in the data on which the tables were calculated, and, so far, has not shown the expected tendency to increase as the Society grows older. On the contrary, the ratio of sickness is less now than it was some time ago. If the expenditure be treated as a charge on income, it will be seen that this quarter the proportion is 0.302 of the total, while last quarter it amounted to 0.364, and in the corresponding period of last year to 0.355.

Annuity Fund.—The net premium income to this fund is £601 9s. 1d. as compared with £574 18s. in the preceding quarter. From this the only expenditure is £14, the surrender value of a membership withdrawn. As a number of members will be entitled from March 31st, 1889, to have a proportion of their annuity premiums returned to their representatives in case of death before the age of 65, a larger expenditure from this fund may then be expected.

Life Assurance Fund.—The premium income to this fund has been £216 13s. 4d., compared with £213 6s. 7d. in the preceding quarter, and £197 11s. 11d. in the corresponding period of 1887. There is an expenditure of £200 on account of the death of a member at Norwich, reported last quarter. Payment of this was delayed while the representatives procured letters of administration, and was made immediately on their having done so.

Management Fund.—There is an income to this fund of £256 4s. 6d. From this the expenditure for management, etc., for the quarter is £97 2s. 2d., leaving nearly £160 to be added to the amount accumulated to the credit of the fund as the result of care and economy in the administration of the Society, and the honorary services rendered by the officers and the committees. The defined and limited proportion of 10 per cent. of the premium income for management purposes has thus proved more than sufficient, the amount expended during the quarter under review being only £3 15s. per cent.

General Position.—The position of the Society and the amount standing to the credit of the various funds is now as follows:

	£	s.	d.
Sickness Fund	10,181	10	6
Annuity Fund	8,423	8	10
Life Assurance Fund	1,984	15	0
Management Fund	1,862	13	0
Interest (not yet divided)	145	3	7
	22,602	10	11

This, the aggregate present worth of the Society, represents an increase on the quarter of £1,760 18s. 10d., and on the year of £6,594 18s. 3d. Of the above total, £21,635 0s. 10d. is invested in the names of the trustees at an average interest of 3½ per cent. the remaining amount (£967 10s. 1d.), and a further sum of £77 14s., to meet outstanding cheques, being with the Union Bank of London in the names of the treasurers, no cash balances ever remaining in the hands of any of the officers. The investment are all of a trustworthy and secure nature, and are here stated, the price actually paid for them by the Society. This, however, is considerably under their true value, as the £5,353 invested in saleable stocks with fluctuating values is, at the present price, worth nearly £500 more than cost price, and this profit can be realised should a sale and reinvestment be thought advisable. The remainder of the investments are made at par, and are not capable of increase or depreciation in value.

THE PROPOSED TAX ON PLEASURE HORSES.

THE following letter has been forwarded to the Chancellor of the Exchequer from the Metropolitan Counties Branch:

82, Brook Street, Grosvenor Square, London, W.,
April 17th, 1888.

To the Right Hon. G. J. Goschen, M.P., Chancellor of the Exchequer, etc.

SIR,—On behalf of this Branch, which includes upwards of one thousand members of the British Medical Association, we venture to draw your attention to the hardship which will be inflicted upon members of the medical profession, particularly those resident in country districts, whose work is of necessity largely unremunerative, if the proposed tax on pleasure horses be applied to those horses which are necessarily used by medical men in their daily avocations and practice. We, therefore, respectfully beg that you will take into your favourable consideration the justice and practicability of making an exception in favour of such horses so used.

We have the honour to be, Sir, your obedient servants,
(Signed) ARTHUR E. DURHAM, President.

C. BRODIE SEWELL, President-elect.
SEPTIMUS W. SIBLEY, Hon. Treasurer.
GEORGE EASTES, } Honorary
NOBLE SMITH, } Secretaries.

The following petitions against the Horse Tax have been presented from provincial medical men: By Sir J. Pease, from William Robinson, M.D., Stanhope; by Sir W. Foster, from medical practitioners of Ripley, Derbyshire; by Sir J. Pease, from Reginald and Maurice Kottlitz; by Mr. Rankin, from medical men in the Leominster Division of Herefordshire; by Mr. E. R. Wodehouse, from Mr. T. Biddulph Goss; by Mr. C. W. Gray, from the medical profession of Brainree; by Viscount Newark, from Epperstone; by Mr. W. Lowther, from Dr. Palmer, Kirkby-Stephen; by Mr. C. Hall, from the district medical officers of Cottenham, Willingham, and Swavesey; by Mr. L. Fry, from G. D. T. Willett and others; by Mr. Morrison (2), from medical men; by Mr. W. Sidebottom, from medical practitioners at Hadfield; by Mr. F. B. Mildmay, from medical officers of health of Plympton St. Mary Union; by Mr. H. J. Trotter, from medical men of Colchester and neighbourhood; by Mr. Hobhouse, from medical men of Castle Cary; and by Sir J. Whittaker Ellis, from Dr. George Cowen; also a petition from the medical men of Shrewsbury.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 23th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, General Secretary.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF TEMPERANCE, which was presented to the Section of Medicine at the Annual Meeting of 1887 will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into EPIDEMIC DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS. A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMIC DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

NORTH OF ENGLAND BRANCH.—The spring meeting will be held at the Infirmary, Sunderland, on Wednesday, April 25th, at 3 P.M. Members intending to read papers or show specimens are requested to communicate at once with the secretary. The dinner after the meeting will take place at the Queen's Hotel, at 5 o'clock. The following papers are already promised:—Dr. Hume: A Case of Congenital Fistula of the Stomach, Cured by Operation. Dr. Coley: On the Treatment of Effusion into the Pleura in Children. Dr. Murphy: A Man 22 Years after Gastrostomy. Dr. Oliver: Notes on an Unusual Case of Hæmaturia. Mr. Morgan will move a Resolution on Quack Advertisements. Mr. Rutherford Morison will read Notes of two cases of Gall-Stones: (1) Operation on Dilated Gall-Bladder: Removal of Stones: Drainage: Cure. (2) Abdominal Section for Intestinal Obstruction: Discovery of Gall-Stone, Incision and Suture of Intestine and Removal of Stone. Specimens exhibited. Mr. Morgan will show (1) a Girl disfigured by Cancer of the Ovary. Dr. Drummond will exhibit some Pathological specimens. Dr. Lindsay will show a patient suffering from Paralysis Agitans.—G. E. WILLIAMSON, F.R.C.S., 22 Eldon Square, Newcastle-on-Tyne, Honorary Secretary.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at Cockermouth on Friday, May 4th. The chair will be taken by Dr. McLeod, at 3.15 P.M. The following papers will be read: Dr. Campbell (Garlands): On Three Cases of Recovery after a Lengthened Duration of Insanity, with remarks. Dr. Hight (Workington): Notes on a Case of Puerperal Eclampsia. Dr. Black (Keswick): Notes on a Case of Suppurative Peritonitis. Dr. Hight will open a discussion on the subject of Fees Paid to Witnesses. The Secretary will be glad to receive intimation of papers for reading or specimens for showing prior to the 25th.—H. A. LEDDARD, 41, Lowther Street, Carlisle, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this District will be held at the Hospital, Gravesend, on Friday, April 27th, at 4 P.M. R. J. Bryden, Esq., in the chair. The dinner will take place at the New Falcon Hotel at 6.30 P.M.; charge 6s. 6d., exclusive of wine. Gentlemen who intend to dine are particularly requested to signify their intention to the Chairman, R. J. Bryden, Esq., 21, Harmer Street, Gravesend, not later than April 25th. Papers already promised:—Dr. P. Horrocks: On Puerperal Fever. Dr. Tannahill: On Symmetrical Gangrene. All members of the South-Eastern Branch are entitled to attend this meeting and to introduce friends.—A. W. NARRIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham, Honorary Secretary.

OXFORD AND DISTRICT BRANCH.—The next meeting will be held at the Radcliffe Infirmary, Oxford, on Friday, April 27th, at 3 P.M. Notice of papers to be read must be sent to W. Lewis Morgan, 42, Broad Street, Oxford, on or before April 18th. A dinner will be provided for those members who signify their intention to dine to the Secretary two days before the meeting.—S. D. DARBISHIRE and W. LEWIS MORGAN, Honorary Secretaries.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.—Annual meeting, Pel's Hotel, Ryde, Thursday, April 26th, 1888, at 4 P.M. J. M. Williamson, Esq., M.D., President, in the chair. Proposed new district member, Edward Pawcett, M.D., Dub., M.Ch., East Cowes. Agenda: 1. The President: Report of the proceedings of the District during the past year. 2. Election of officers and statement of accounts. 3. Next place of meeting. 4. T. A. Buck, M.B.: An address by the President-elect at 4.45 P.M. 5. Charles Fryer, Esq.: Cerebral Aneurysm. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary. Dinner at 5.45 P.M.; charge 6s., exclusive of wine. Please return postcard before Tuesday, 24th. Trains leave Ryde for Sandown, Shanklin, and Ventnor at 7.45; and for Newport at 7.41. [By-law.—When a member cannot attend whose paper is upon the agenda, it should be sent before the meeting to the Secretary for the purpose of being read and discussed.]—W. E. GREEN, Honorary Secretary.

WEST SOMERSET BRANCH: SPRING MEETING.

THE spring meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, April 12th, at 5 P.M. In the absence of Mr. Edward Stephens, the President, who was professionally prevented from attending, Mr. J. B. SINCOCK was voted to the chair. The minutes of the last meeting were read and confirmed.

Cases.—Mr. W. B. COSENS exhibited a man suffering from Charcot's disease of the knee-joint, and gave a history of the case.—An infant, a year old, suffering from blindness after convulsions, was sent by Mr. STEPHENS and seen by the meeting.

Instruments.—Mr. WREN (Taunton) exhibited some instruments and an electric light for surgical purposes.—Messrs. LYNCH and Co., London, also exhibited an assortment of surgical instruments.

Bone-setting.—After dinner, at which fifteen members and five visitors attended, Mr. W. J. PENNY, of Bristol, opened a discussion on the subject of bone-setting. He described the various affections which were often successfully treated by bone-setters, and by means of drawings and the narrative of typical cases he showed that, for the most part, the pathological condition existing in these affections was that of adhesions in and about joints, by the forcible rupture of which a sensation was given as if a bone which was out of place had been reduced. He pointed out that this practice was much neglected by the profession, and, in conse-

quence, many cases were cured by quacks to the discredit and disadvantage of medical men. He pointed out that the proper cases were healthy subjects, who some months before had sustained an injury, leaving them with a stiffened joint; in such cases the part was usually colder than normal, and there was a good deal of spasm. Cases of a strumous or syphilitic diathesis required great caution in being treated, and, as a rule, were best left alone. The subject was discussed by the members and visitors present, and Mr. Penny replied.

Vote of Thanks.—A hearty vote of thanks was given to Mr. Penny for his interesting and instructive paper.

Specimens.—Mr. LIDDON exhibited a specimen of Epithelioma of the Tongue, which he had removed by splitting the tongue in the middle line, and removing each half separately with the *écraseur*. The patient made a good recovery, and could talk fairly well; but now, five months after the operation, there were signs of recurrence. Mr. LIDDON also exhibited a specimen of a very large Uterine Polypus which he had removed from a middle-aged unmarried woman.—Mr. W. B. COSENS exhibited a specimen of Fractured Femur amputated after a gunshot injury.

SPECIAL CORRESPONDENCE.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

The Illness of the Emperor.—The German Emperor and Sir Morell Mackenzie.

THE disease from which the Emperor is suffering has, I am sorry to say, made further progress during the last few days. Increased difficulty of breathing suddenly came on. On removing the cannula, Sir Morell Mackenzie made a laryngoscopic examination, and observed that the disease had extended downwards into the trachea, so that the tube had become too short. It is one of the special features of this singular case, that after long pauses the tumour suddenly begins to grow again with great rapidity. Where even the day before the lumen of the trachea was distinctly seen to be quite free, it was now blocked by a large mass. It was necessary therefore to introduce a longer tube. Sir Morell Mackenzie sent a mounted messenger for Professor von Bergmann, who immediately proceeded to Charlottenburg. Professor von Bergmann succeeded in introducing the new tube, and the dyspnoea was relieved. The most remarkable part of the whole matter is, that the worse the local symptoms are, the better His Majesty seems to feel. He still (April 13th) absolutely refuses to give up his daily walks and excursions.

Sir Morell Mackenzie's professional brethren, not only at home but in the colonies and in America, where he has numerous friends and pupils, cannot fail to be gratified by the confidence placed in him by the Emperor Frederick, and by the extraordinarily warm appreciation of the English physician's services which His Majesty has expressed both by word and deed. In conferring on Sir Morell Mackenzie the honours and decorations which he has so well earned, the Emperor added immensely to their value by a letter written with his own hand, of which the following is the full text:—

"Charlottenburg, April 9th, 1888.
"My dear Sir Morell.—You were called in to me at the unanimous desire of my German doctors who were treating me. As I did not know you personally I had confidence in you in consequence of that recommendation, but I soon learned from personal experience how to value you. You have rendered me most valuable services. In recognition of these services, and as a souvenir of my accession to the throne, I have pleasure in conferring upon you the Comthur Cross and Star of my Royal Order of Hohenzollern.—Your well disposed
"FRIEDRICH.

"To Sir Morell Mackenzie."
One does not need to "read between the lines" of this letter to perceive its significance. The first sentence fully disposes of various mythical accounts of the way in which Sir Morell Mackenzie was called in to the case which have been current in the profession and in society. Before subjecting the heir to the Imperial Crown of Germany to a formidable operation—which might possibly be attended with disastrous consequences, not only to the angust patient but to the whole of Europe—Professor von Bergmann naturally wished to have the sanction of an expert whose authority would be generally recognised. The choice lay between the leading English laryngologist and Professor Raucufuss, of St. Petersburg, and the former was selected, as the Emperor says, "at the unanimous desire of my German doctors." The concluding words in which the Emperor speaks of his acces-

sion to the throne prove beyond all doubt that His Majesty believes that it is to Sir Morell Mackenzie's "masterly inactivity" that he owes his present position, with all that it involves. We are pleased to see that the people of Germany are beginning to judge Sir Morell Mackenzie's conduct of a most difficult and anxious case in a fairer spirit than some persons there seemed at first inclined to do.

SHEFFIELD.

[FROM OUR OWN CORRESPONDENT.]

Decline of the Small-pox Epidemic.—New Wards at the Children's Hospital.—Donations.

It is gratifying to notice that the small-pox epidemic, which for so long has hung over this town, and has seriously interfered with trade, is now fast declining. The number of cases admitted to the borough hospital and to the two workhouse hospitals is greatly lessened. In March the number admitted to the borough hospital was 790, whilst in February there were 1,264. The present month has thus far shown a still greater reduction. It was predicted that the effect of the numerous revaccinations would begin to tell about the middle of March, and such has been the case. The public spirit and energy with which the public vaccinators undertook their greatly increased and, in some instances, very arduous labours is worthy of all praise.

The new wards at the Children's Hospital were opened on April 5th by Lady Alice Fitzwilliam, in the presence of a large and influential gathering. Beds have hitherto only existed for 14 patients, but in future there will be accommodation for 34 little sufferers. On the ground floor of the new building are two wards, each 40 feet by 21 feet, and containing between them 30 beds. On the upper floor is an operating theatre and a small ward for 4 beds. The total cost, inclusive of alterations in adapting the old building for administrative purposes and out-patients, is about £2,000. The medical staff and the subscribers may be well congratulated on the success that has attended their efforts to add to the comfort of the little patients, and the usefulness of the charity.

The Committee of the Sheffield and Hallamshire Football Association has handed over the following donations to the Sheffield medical charities: General Infirmary, £50; Public Hospital and Dispensary, £40; Jessop Hospital for Women, £25; Nurses' Home, £5.—Mrs. William Cutts, the daughter of a former resident at Barnsley (Mr. Leadam) has decided to give £1,000 towards the funds of the Beckett Hospital.

CORRESPONDENCE.

THE HORSE TAX.

SIR,—Acting on your advice, I have obtained the signatures of nearly all the medical men in this district to a petition against the horse and carriage tax, which the Hon. Gathorne Hardy has promised to present before Parliament. I would advise medical men still to petition, so that as the Bill comes on in Committee strong feeling may be shown by the medical profession against the tax.

A simple plan to get signatures is to send the petition to a medical man, asking him to get those in his neighbourhood sign, and post it on to another to do the same, and so on.—I am, etc.,
A. H. NEWTH.

Hayward's Heath.

PERICHONDRITIS AND CANCER OF THE LARYNX.

SIR,—Dr. Norris Wolfenden, in his paper on perichondritis of the larynx published in the *JOURNAL* of April 14th, says: "second case of extensive perichondritis of the larynx has occurred in my practice recently, arising out of chronic laryngitis, and which there was no question of syphilis." In this case the cric cartilage was extensively affected and formed a large abscess externally, on opening which a large quantity of sero-sanguine fluid was poured out. The stenosis of the larynx was extra-ordinary and tracheotomy had been performed many months before I saw the case by a surgeon at the Cape of Good Hope.

It being avowedly the object of Dr. Wolfenden's paper to correct the opinions generally held on the etiology of laryngeal perichondritis, I consider it, in the interest of scientific truth, my duty to state that the above-quoted case is not well chosen for support.

his views. The patient in question, who is at this moment an inmate of St. Thomas's Hospital under the care of Sir William MacCormac and myself, suffers beyond doubt from laryngeal cancer; and this disease, not chronic laryngitis, has caused the perichondritis. What Dr. Wolfenden considered to be a large abscess and incised was tumour-mass spreading externally. Hence no pus, but sero-sanguineous fluid, was poured out. The incision wound never healed, the tumefaction rapidly spread, and at this moment the tracheal tube is sticking in an ulcerating mass of cancer. A fragment of this mass has been removed for the purpose of microscopic examination, and the latter, made by Mr. Shattock, has placed the diagnosis of carcinoma beyond dispute. I am ready to give Dr. Wolfenden the opportunity of personally verifying the actual state of matters.—I am, etc.,
39, Wimpole Street.

FELIX SEMON.

ST. JOHN'S HOSPITAL.

SIR,—I will ask you to give me space for the following facts respecting the behaviour of the Board of Management of St. John's Hospital for Diseases of the Skin. Since my connection with the institution I have taken, or have dictated, notes of every case which came before me. After my dismissal by the Board of Management, I wrote to these in authority and asked them to let me have these notes, offering at the same time to defray the expenses incurred by purchasing new books. To this request I received a peremptory refusal from the secretary. I wrote again, asking that some of the notes, which I was anxious to refer to, might be copied by the gentleman (Mr. Jones) who was acting as clinical clerk at the time of my elimination. The answer I received was, that I might send Mr. Jones to select those cases I was anxious to refer to, but they must be copied by an official of the Hospital, for whose services I was to pay. I appealed against this vexatious decision, and in reply received an impertinent letter from the secretary.

I make it a rule of my life not to complain, but surely the facts which I have stated must demonstrate the harshness of the treatment which the Board of Management mete out, and when we remember that on this Board sit two members of our own profession, Mr. Melton and Dr. Dow, I hope I shall be considered to be justified in bringing this before the profession.

It is most irritating to have the labour of some years snatched away from us: it is doubly irritating to know that those who must realise the full value of that labour should be instrumental in supporting the conduct of those whose action might be put down to motives which I do not care to find in my vocabulary.—I am, etc.,
T. ROBINSON, M.D.

9, Princes Street, Cavendish Square, W.

SIR,—Pray allow me to correct an inaccuracy in an annotation published in the JOURNAL on April 14th. It is not in accordance with fact that "charges were brought against the administration of St. John's Hospital, following upon various secessions in the staff." Such a loose version of what really occurred is not fair to myself and my colleagues, who were the first to bring those charges to the notice of the governors, the president, and finally the public; and who, for thus doing our duty as honourable men, were vindictively dismissed by a Board, whose behaviour, both before and since, has amply proved that we were right in protesting as we did.—I am, etc.,
C. M. CAMPBELL, M.D.

37, Queen Anne Street, Cavendish Square, W.

BRANCH PRACTICES IN CHARGE OF UNQUALIFIED MEN.

SIR,—It is hoped that the General Medical Council will actively enforce their memorandum in regard to the employment of unqualified assistants; and not, as has hitherto been the case, allow it to remain practically a dead letter. The memorandum appears to me to be rather vague, and to afford many a loophole of escape for the delinquent.

In Section C it is stated that irregular practice will probably not long continue to exist, because the practitioner cannot recover or services rendered by his unqualified substitute; this argument is fallacious, inasmuch as these gentry take pretty good care to insure ready money. A censure, pure and simple, even from the General Medical Council, will mean nothing whatever to many offenders unless followed up by more active measures. Who cares or a censure? As far as I have been able to gather, the General Medical Council have as yet only struck off the Register those who had already been convicted by a jury—there is nothing at all wonderful in that. What we want them to do is to go a step further—to judge and to punish those who are guilty of professional mis-

conduct. The law provides for those who offend against public morality.

I believe the Incorporated Law Society has power to strike off the rolls any of their members who are guilty solely and simply of professional irregularities, and by no means infrequently make use of their power. Let the General Medical Council do the same if they have the power; if they have not, it is quite time they took means to procure it, in order to rid the profession of the great blot that we all know exists in our midst.

The General Medical Council must do their own "dirty work," for they cannot, for obvious reasons, expect a medical man to take the initiative against an offending brother. Many of us, no doubt, know of cases of irregular practice; but if we take the "law into our own hands," we immediately incur the slur of private malice and professional jealousy. Besides, individually, the "game would not be worth the candle."

If the General Medical Council will only follow up their words by action (on information received, or otherwise), they would gain the great thanks of the profession—be respected and revered, a veritable Alma Mater, which they ought to be. At present one hardly knows what they exist for.—I am, etc.,

WALTER FOWLER, M.A., M.B., F.R.C.S.

145, Bishopsgate Without.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

SIR,—Dr. Philpot's letter does not touch the points which are raised in mine, except so far that he accepts a responsibility for which I did not give him credit, and which I even now think that he has done chivalrously and not instinctively.

How can he reconcile his duty with his acts? He puts a clause of an Act of Parliament in force against one delinquent without having been able to show the least ill consequences from the "lâches," while he allows the 999 other persons, who, as a class, altogether ignore the provisions of the Act, to escape; he condones their disobedience to law, and makes the dual notification a farce. Infectious disease can only be stamped out by the people themselves, yet Dr. Philpot and the supporters of the dual notification clause are publicly telling them that, in spite of the Act of Parliament, it is a matter with which they have nothing to do, that it is the doctor who has to do all. By what right can he prosecute a professional brother and yet allow the whole class of non-professional persons who ought to notify to ignore the Act and neglect its provisions? He shows that it is not from a desire to compel a compliance with its provisions, otherwise he would be impartial. He is satisfied with a single notification, he proves by his own habit that a single notification is sufficient, then on what ground can he claim a right to prosecute a professional brother, and not take note of the whole class of non-professional delinquents? The law is no respecter of persons, but Dr. Philpot singles out his professional brother and lets the rest alone. If there is a duty cast upon Dr. Philpot then he has failed to do it, for dual notification is not enforced. Dr. Philpot cannot show that dual notification is efficient in stamping out scarlatina; it is not diminished in one town more than another. The Act is nowhere in existence as a dual performance; medical notification is as beneficial when voluntary as it is when it is compulsory, provided a fee is paid for the notice. The cases are at times as numerous in all districts as before notification was observed. The house in question had been disinfected by Dr. Philpot's agents after notice, immediately before the case occurred, about which Dr. Philpot has taken action.

Does Dr. Philpot or anybody else suppose that a 40s. penalty will overcome a man's determination to remain a free agent? Dr. Dalton is not likely to change his conduct at the bidding of a professional rival; he will continue to ignore the Act, and until medical officers of health are prohibited from being in private practice such action as that taken by Dr. Philpot ought not to be. I am not intending to charge Dr. Philpot with having taken this course on account of professional jealousy; it is not his nature, of that I am assured; but it is open to the charge, and it is a false move on his part which all medical men must regret that he has made.

It will be soon enough to put the penal clause in force against the profession when it can be fairly shown that repression cannot be forthcoming without it. This has not hitherto been done.—I am, etc.,
ALFRED CARPENTER.

Duppas House, Croydon, April 16th.

* * * Owing to pressure on our space, several long letters are unavoidably held over.

NAVAL AND MILITARY MEDICAL SERVICES.

CHANGES OF STATION.

THE following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Brigade-Surgeon J. Jameson, M.D.	Aldershot	Portsmouth.
J. S. MacAdam	London	Devonport.
Surgeon-Major T. M. O'Brien	Bengal	Colchester.
W. H. Climo, M.D.	Mauritius	Ilong Kong.
J. Fleming, M.D.	Nova Scotia	Netley.
T. Babington	Bengal	Woolwich.
J. P. H. Boileau, M.B.	Netley	Singapore.
J. G. Williamson	—	Dublin.
W. J. Charlton	—	Curragh.
W. A. May	—	York.
Surgeon M. R. Ryan, M.D.	Netley	Portsmouth.
W. A. Parker	—	Dublin.
J. G. MacNeece	Aldershot	Portsmouth.
F. R. Barker, M.B.	Netley	Dublin.
T. Dorman, M.D.	—	Devonport.
T. B. Moffitt	—	Dublin.
C. A. Webb	—	Dover.
J. G. S. Lewis	—	York.
H. Martin, M.B.	—	Dublin.
R. O. Cusack	—	—
E. F. Smith	—	—
W. D. A. Cowen	—	—
S. J. Flood	—	—
G. W. Robinson	—	—
G. F. A. Smythe	Dover	Eastbourne.
A. P. O'Connor	Curragh	Dublin.
J. M. Bolster	Cork	Buttevant.
W. J. Macnamara, M.D.	Woolwich	Netley.
M. F. Macnamara	Tipperary	—
J. O. G. Sandiford, M.D.	Buttevant	—
H. W. Murray, M.B.	Woolwich	—
M. W. Kerio	Cork	Tipperary.
A. Peterkin, M.B.	Shorncliffe	Netley.
W. Heffernan	Fleetwood	Lancaster.
J. G. W. Crofts	—	Netley.
A. P. Hart, M.B.	Colchester	—
T. F. W. Fogarty, M.B.	Dublin	—
G. Coutts, M.B.	Hulme	—
E. Butt	Belfast	—
S. Townsend, M.D.	Queenstown	—
J. Gibson, M.B.	Belfast	—
L. W. Swabey	Fort George	—
R. Porter, M.B.	Dover	—
J. W. Beatty, M.D.	Sunderland	Newcastle.
W. Babbie, M.B.	Bengal	Netley.
J. M'Laughlin, M.D.	Dublin	Belfast.
W. L. Reade	Clifton	Netley.
F. T. Wilkinson	Chatham	—
S. F. Longhead	Belfast	—
W. A. Morris	Bengal	Aldershot.
F. W. Reid, M.B.	Dover	Netley.
T. W. O'H. Hamilton, M.B.	Dublin	Mauritius.
G. M. Dobson, M.B.	Egypt	Dublin.
F. J. W. Stoney	Cork	Ferriby.

THE NAVY.

THE following appointments have been made at the Admiralty: S. W. VASEY, Surgeon, to the *Triton*, temporarily; GARLAND W. L. HARRISON, Fleet-Surgeon, to the *Swiftsure*; JAMES H. MARTIN, Fleet-Surgeon, to the *Boadicea*; BRIEN P. S. M'DERMOTT, Fleet-Surgeon, to the *Eritania*, additional; EDWARD J. SHAROOD, Fleet-Surgeon, to the *Sultan*; CHARLES W. MAGRANE, Staff-Surgeon, to the *Impregnable*; RICHARD D. WHITE, Staff-Surgeon, to the *Duncan*; MICHAEL FITZGERALD, Staff-Surgeon, to the *Swiftsure*; HENRY HARRIES, Surgeon, to the *Boadicea*; CHARLES F. NEWLAND, Surgeon, to the *Calypto*; WILLIAM S. LIGHTFOOT and JOHN B. PENN, Surgeons, to the *Swiftsure*.

THE MEDICAL STAFF.

THE following appointments have been made in the Madras command: Brigade-Surgeon J. Y. DONALDSON, M.D., to be Senior Medical Officer, Bellary station hospital; Surgeon-Major J. A. SMITH, to do duty at the station hospital, Bellary; Surgeon J. ANDERSON, M.B., to do general duty in the Eastern district; Surgeon P. J. NEALON, M.D., to do duty at the station hospital, Bellary; Surgeon J. F. DONEGAN to do duty at the station hospital, Bellary.

Brigade-Surgeon W. GRAVES, serving in the Bombay command, is appointed to the medical charge of the station hospital at Mhow.

Surgeon W. G. BIRRELL, also serving in the Bombay command, having returned from field service in Burmah, is posted to general duty in the Presidency district.

The undermentioned gentlemen, who are serving in Bengal, have leave of absence as specified: Surgeon-Major T. O'FARRELL for six months on urgent private affairs; Surgeon-Major R. F. BUCHANAN, on private affairs, pending retirement from the Service; and Surgeon H. C. DENT and C. O'DONEL each for six months on medical certificate.

Surgeon-Major O'DONOVAN died in Dublin on the 13th ultimo. He entered the Service as Assistant-Surgeon, July 14th, 1854; and became Surgeon, August 6th, 1867; retiring on half pay, October 21st, 1879. He was in medical charge of the 54th Regiment during the burning of the steam transport *Sarah Sands* at sea, on November 11th, 1857. He also served with a force sent against the hostile Indians of Yucatan, in April and May, 1861.

THE INDIAN MEDICAL SERVICE.

SURGEON-MAJOR G. HUTCHESON, M.D., Bengal Establishment, is appointed to officiate as Statistical Officer to the Government of India in the Sanitary and Medical Departments, during the absence on furlough of Surgeon-Major D. WILKIE, M.B.

Brigade-Surgeon E. BONAVIA, M.D., Bengal Establishment, has been permitted to retire from the service, which he entered as Assistant-Surgeon, August 4th, 1857; he attained the rank of Brigade-Surgeon, January 17th, 1855. He has no war record.

The undermentioned gentlemen, all of the Bengal Establishment, have been appointed to the officiating medical charge of the regiments named:—Surgeon H. HAMILTON, 5th Bengal Cavalry, *vice* Surgeon-Major G. S. A. Ranking, M.D., appointed officiating Medical Storekeeper at Calcutta; Surgeon W. R. CLARK, 4th Bengal Cavalry, *vice* Surgeon-Major P. F. O'Connor, M.D., granted furlough; Surgeon J. MURRAY, 15th Bengal Cavalry, *vice* Surgeon D. F. Barry, M.D., granted leave; Surgeon A. W. DAWSON, M.B., 18th Bengal Lancers, *vice* Surgeon-Major G. Griffith, transferred to civil employ; Surgeon A. C. YOUNG, M.B., 4th Bengal Infantry, *vice* Surgeon T. Grainger, M.D., ordered on field service; Surgeon W. H. B. ROBINSON, 43rd Gorkha Light Infantry, *vice* Surgeon-Major R. M. Downie, M.D., who rejoins his permanent appointment in the 29th Punjab Infantry.

The promotion of Deputy Surgeon-General J. PINKERTON, M.D., of the Bombay Establishment, to be Surgeon-General; and of Brigade-Surgeon P. S. TURNBULL, M.D., also of the Bombay Establishment, to be Deputy Surgeon-General, already announced in this JOURNAL, have received the approval of Her Majesty.

The undermentioned gentlemen have leave of absence for the periods specified:—Surgeon R. J. MARKS, Bengal Establishment, for 182 days on medical certificate; Surgeon-Major R. C. SANDERS, M.D., Bengal Establishment, Ophthalmic Surgeon, and Professor of Ophthalmic Surgery, Medical College, Calcutta, for 245 days on private affairs.

THE VOLUNTEERS.

MESSRS. SAMUEL BEATTIE, M.B., and DAVID LAING, M.D., have been appointed Acting Surgeons to the 1st Forfar Artillery.

Mr. D. V. REES is appointed Acting Surgeon to the 1st Volunteer Battalion South Wales Borderers (late the 1st Brecknockshire).

Honorary Assistant Surgeon R. LANPHER, of the 1st Volunteer Battalion Lincolnshire Regiment (late the 1st Lincoln), has resigned his commission, which was dated May 11th, 1880.

EXAMINATION OF VOLUNTEER SURGEONS.

SURGEON writes: Can you kindly inform me what the examination for proficiency volunteer surgeon consists of? When and where are such examinations held?

** See Proficiency Examination for Volunteer Officers, JOURNAL, June 4th 1887, and Volunteer Regulations, 1887, Part I, Section II, para. 144.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, April 16th.

Smoke Abatement.—Lord STRATHEDEN and CAMPBELL presented a Bill for the abatement of smoke in the metropolis. I was, he said, the same Bill as that of last year, with some modifications suggested by the report of the Select Committee on the subject.—The Bill was read a first time.

HOUSE OF COMMONS.—Thursday, April 12th.

The Leasing Powers of Sanitary Authorities.—Mr. RITCHIE, in answer to Mr. COZENS-HARDY, stated that a sanitary authority could not compulsorily acquire land upon lease instead of purchasing the fee simple; and for the reasons which were stated in the debate which arose on this question when the Allotments Bill was in Committee, it was not the intention of the Government to introduce a Bill conferring this power on sanitary authorities.

Honorary Surgeons to the Viceroy.—Sir G. HUNTER asked the SECRETARY OF STATE FOR INDIA whether honorary surgeons to the Viceroy of India had been prohibited from wearing the aiguillette heretofore used by them.—Sir J. GORST replied that, under the dress regulations of the army, honorary surgeons to the Viceroy had no authority to wear such a decoration. If they had been in the habit of so doing, it had been an irregularity.

Friday, April 13th.

Local Government Bill.—Sir LYON PLAXFAIR, in the course of a long speech, in the discussion on this Bill, said he was anxious that the President of the Local Government Board should consider carefully whether the clauses of the Bill dealing with sanitary matters sufficiently preserved the controlling powers of the acts of the District Councils, which the existing law gave to the Local Government Board. With regard to officers of health, he suggested that they should be servants of the County Council, and not of District Councils. The moment that was done, the County Councils would soon be able to consolidate areas; and would make that compulsory upon them. The beneficial result would be to bring County Councils into touch with the com-

ment District Councils. That could not be accomplished as the Bill stood. He fancied that by a single clause considerable improvement might be effected in the measure. At present about 1,200 medical officers were employed throughout England, with salaries amounting in the aggregate to £130,000. But if, instead of the 1,200, something like 180 medical officers were appointed in consolidated areas, omitting the scheduled towns, immensely better results would be obtained without any extra expense. Unless medical intelligence were brought to the aid of the County Councils in the way he suggested, public health would largely deteriorate, instead of improving. Sanitary science had given enormous benefits in preventing deaths, and in keeping up the living health and productive ability. Diseases which formerly prevailed in this country had almost disappeared since the advance of sanitary science.

Monday, April 16th.

Burgh Police and Health (Scotland) Bill.—The LORD ADVOCATE moved the second reading of this Bill with a view to its being referred to a Select Committee.—Mr. BUCHANAN asked whether the Committee would be composed wholly of Scotch members, and whether the large towns at present mentioned in the Bill as places which would be exempted from its operations were really to be exempted.—The LORD ADVOCATE replied that the Committee could consist largely, but not exclusively, of Scotch members. It would be contrary to usage to nominate only Scotch members to the Committee. To the second question of the hon. member he replied in the affirmative.—The Bill was then read a second time and ordered to be referred to a Select Committee.

Sale of Foreign as English Meat.—Sir MICHAEL HICKS-BEACH, in reply to Dr. CLARK, said he believed, although he could not give an authoritative opinion, that the sale of foreign meat as English when English meat was demanded was an offence under section 6 of the Sale of Food and Drugs Act, 1875.

Tuesday, April 17th.

The Public Safety and Theatres.—Mr. TATTON EGERTON moved the second reading of the Metropolitan Board of Works (Theatres) Bill, the object of which was to continue to the Board the powers given to them in reference to theatres.—Mr. DIXON-HARTLAND moved the rejection of the Bill, mainly on the ground that the Board was threatened with extinction by the Local Government Bill.—Mr. MATTHEWS took the same view, and, after a short conversation, the Bill was thrown out by 144 to 18.

The Medical Staff Corps.—Dr. CLARK asked the Secretary of State for War whether the new general order restricting the enlistment of men for the Medical Staff Corps to three years' army and nine years' reserve service had been considered or approved by the Director-General; and whether he had considered that the result of the new regulations might be that the men of the corps could scarcely have become skilled in their nursing duties as orderlies when they would be removed and replaced by raw, untrained men.—Mr. E. STANHOPE, in reply, said every army order was issued on the responsibility of the Secretary of State after consultation with his professional advisers. The importance of having a large reserve of trained men of the Medical Staff Corps available in war time was so great that the disadvantage of a somewhat curtailed training must be faced.

Irish Prison Surgeons.—Mr. MURPHY asked whether the Irish Prison Regulations (Rule 105) provided that the surgeon might, in case of danger or difficulty, call in medical assistance; whether there was anything in the rules to limit the discretion of the surgeon in selecting the medical assistance he would call in; whether a circular had been sent from the Irish Prisons Board to governors of gaols requiring them to submit a list of names of medical practitioners whom they might consider suitable in their districts for the purpose of being called in consultation; and whether the Prisons Board were justified in attempting to fetter the discretion of the prison surgeons in this matter.—Mr. A. J. BALFOUR replied that the rule was as stated, and a circular had been issued as mentioned. The appointment of medical officers of prisons required the sanction of the authorities, and it seemed to him to be entirely within the spirit of the rules that some effective control should be exercised as to the election of consulting physicians.

The Architects' Registration Bill.—Colonel DUNCAN, in moving the second reading of this Bill, said that its principal object was to throw obstacles in the way of improper and unqualified persons acting as architects.—Sir W. POSTER asked the House not to accept the second reading without having more information upon

the subject.—Sir L. PLAYFAIR said that the Bill was drawn exactly in accordance with the Medical Act, 1886. It was only after consultation with all the examining bodies and the practitioners that he was able to get sufficient support to pass such an Act. The Bill now before the House was framed on exactly the same principle—that was to say, there were certain qualified bodies who were to go upon the General Council. Then there were to be certain representative members elected for the three parts of the kingdom. But who were the representatives in this case? There were no regularly qualified and registered people who could become representatives at the present moment. They were to be constituted by the Bill. The architects, and engineers, and surveyors were not at present identical, and the House could not in justice pass a Bill which met with so much opposition as this Bill did, and which was not founded upon the same conditions as enabled the House to pass the Bill relating to the medical profession.—The Bill was by consent withdrawn.

MEDICO-LEGAL AND MEDICO-ETHICAL.

COVERING UNQUALIFIED PRACTICE.

FAIR PLAY had better communicate with the Clerk to the Society of Apothecaries, Blackfriars.

NATIONAL MEDICAL AID COMPANY.

PRO BONO PUBLICO.—We have already more than once expressed a decided condemnation of the proposed arrangements and proffered terms.

REGISTRATION AND FEES.

MR. GRAME.—In the case of *Leman v. Fletcher*, L. R., 8 Q. B., p. 323, the Court, in putting a construction on the 31st section of the Medical Act, 1858, held that a practitioner must register his qualification, and can only recover according to it, and that in a medical case, in order to recover for medicines supplied, he must be either registered as an apothecary or as a physician. In a surgical case a surgeon, if duly registered, can recover for medicines.

PROFITS OR ARREARS.

M.D. LONDON.—The division of profits must depend on the exact words used in the partnership agreement. Unless words having a different meaning have been used, profits of a practice during a certain period must mean profits earned during that period. Money received then in respect of fees due previously would not be earned during the period, and would not ordinarily be divisible as profits of the practice under the agreement. On the other hand, an outgoing partner would have a right to his share of fees paid subsequently in respect of work done while he was a partner. A division of receipts, irrespective of the matters for which the money is paid, is not a division of profits. The partners may, however, have agreed to treat it as a proper division under their agreement; and if so, the account could not properly be reopened.

If the division has been made under a mutual mistake as to the meaning of the agreement, the lapse of four years is no bar to a proper account being taken.

If further information is wanted, the agreement and a precise statement of facts should be sent.

"THE GREAT ROYAL STAFF OF FRENCH, BRITISH, AND GERMAN SURGEONS."

DR. W. J. McK.—Although we are at all times desirous to respond to the reasonable requests of our Antipodean and other colonial correspondents, we are constrained, owing to the ever-increasing demands on our space, to restrict insertion to matters of practical interest to the profession; for which reason, as will be patent to Dr. McK., we are unable to accede to his request that the circular and extracts from the *Colonist* might appear in the JOURNAL, since they merely tend to establish the too-evident fact that quackery and illegitimate practice, in conjunction with a like gullibility of the public, are as rife in the colonies as in the old country; a regrettable condition of things which may, we think, not unfairly be attributed to the unrestricted facilities for charlatan advertising afforded by the newspaper press, the proprietors of which are naturally unwilling to forego such lucrative advertisements, highly prejudicial though they be to the true interests of the public.

PAYMENTS FOR POST-MORTEM EXAMINATIONS.

M.D. asks if he is entitled to claim a fee for making a *post-mortem* examination without previously having received an order from the coroner for so doing, although at the inquest he gave evidence as to the results of the *post-mortem* examination.

* * Section 4 of the 6 and 7 Will. IV, c. 89, provides as follows: "That no fee or remuneration shall be paid to any medical practitioner for the performance of any *post-mortem* examination without the previous direction of the coroner."

We should advise "M.D.," in similar cases to the one he describes, to communicate at once with the coroner and delay the making of *post-mortem* examinations until he has received an order from the coroner for so doing. It may happen that the friends of a deceased person might accuse the medical attendant of neglect or improper treatment, or indeed he may himself be implicated in causing the death. Under either of these circumstances it is obvious that the *post-mortem* examination should be placed in other hands than his, otherwise the ends of justice might be defeated. We are aware of the difficulties surrounding a case where there may be a strong belief in the

mind of the practitioner that the death did not arise from natural causes, and his reluctance to call for a public inquiry unless the *post-mortem* evidence confirms any suspicion he may entertain. In "M.D.'s" case the *post-mortem* examination was of the utmost importance, and in making it he did not act contrary to the law or unwisely, but unfortunately, he is deprived by law of the fee which he might well expect to receive, being, we presume, previously unaware of the law on the subject.

PARTNERSHIP WITH AN UNQUALIFIED PERSON.

M.B. writes: My brother is at present a medical student, but unqualified; I am a qualified medical practitioner. Can my brother enter into a partnership with me so as to satisfy the condition of a will which requires us to enter into partnership as "medical practitioners" before we can receive a certain legacy left on those conditions?

"* The Medical Acts prohibit unqualified persons from acting as medical practitioners. But the Court of Appeal, in the year 1885, in the case of *Davles v. Makuna*, intimated that there would be nothing illegal if an unqualified person carried on business as a surgeon or apothecary entirely by means of qualified assistants, and not personally. There seems therefore to be nothing to prevent an unqualified person entering into an agreement of partnership with a qualified one, so as to share the profits; but he must take care, while unqualified, to confine his practice to such matters as do not require to be performed by a qualified practitioner.

MEDICAL ETIQUETTE OF SUBSTITUTES.

M.B. Edin. writes: A and B are neighbouring practitioners, residing within less than half a mile of each other. A was engaged to attend Mrs. C. in her confinement in August last, and remained in town until September 13th; then, as the case had not come off (and as A's partner did not undertake midwifery), A asked B to attend for him, which he consented to do, and Mrs. C. was confined on September 21st. B received the fee, which A requested him to keep. On his return, A attended the family from October 27th to December 14th.

On April 6th A heard of the serious illness of Mrs. C.'s baby, and was told that B was in attendance, and on calling at Mrs. C.'s residence found that B had lately given surgical advice to Mrs. C.'s husband, and afterwards was called in to attend the baby. This he did without informing A, although he knew A was their usual medical attendant.

B writes A, saying, "I saw no reason for refusing to attend him (Mr. C.), in fact it never occurred to me to do so. I have not attended him before, and as far as I could see, he was as much my patient as anybody's. Since that time he has called me in to his child, and as I had not attended her (the baby) for anyone else, I did not hesitate."

"* A careful consideration of the correspondence between A and B, in reference to the case submitted by "M.B. Edin.," leaves no doubt upon our mind that B, having gained an introduction to the family in question through the medium of his attendance on Mrs. C., as the officiating friend of A, it was (as we view it) clearly his duty to have declined to take charge of either case, and to have referred Mr. C. to the usual family medical attendant A. We may add that although B, in assenting to attend Mr. C. and the baby may possibly have acted within the strict letter of the law, he certainly failed to fulfil the moral obligation of doing unto others 'as he would wish to be done by, and therefore by such omission contravened the true spirit of medical ethics.

DETENTION OF CERTIFICATES.

M.R.C.S. writes: A week ago I applied to a certain medical man residing in the north of England for an appointment to take charge of a colliery practice, and enclosed him my testimonials. A few days ago I received information that the appointment was filled. I wrote to him requesting him to kindly return my testimonials, which he has not done. I have written to him three letters and can get no reply. I am now in treaty for an appointment to take charge of a branch practice. I will thank you to advise me what steps I ought to take in this matter in order to compel this medical man to deliver up my testimonials.

"* If "M.R.C.S." commences proceedings for the recovery of his testimonials, and in such proceedings ask for damages against the person detaining them, this would soon lead to their return.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF ABERDEEN. GRADUATION IN MEDICINE.

At the graduation, on April 11th, the following candidates received degrees in Medicine and Surgery.

The degree of M.D.:

F. A. Bennett, M.A., M.B., C.M., Victoria, Australia; J. Glaister, M.B., C.M., Putney, London; J. Jenkyns, M.B., C.M., Belize, British Honduras; W. Lawson, M.B., C.M., West Bromwich, Staffordshire; J. Russell, M.B., C.M., Arbroath; W. R. Tough, M.A., M.B., C.M., Crook, co. Durham; A. Wilson, M.A., M.B., C.M., Middlesbrough.

The degrees of M.B. and C.M. (The awarding of honours has been deferred until the graduation in July):

G. Allan, Fife-Keith; J. Barclay, Dunceath; R. Cumming, Duthil, Strathspay; A. Dingwall, M.A., Aberdeen; J. Don, Cults; A. L. Duke, Arbroath; R. Batough, Brindley, Lancashire; A. D. Ellis, Aberdeen; J. G. Forsyth, Abernethy; A. R. Galloway, M.A., Inverurie; G. Gibb, M.A., Aberdeen; G. Gordon, Huntly; C. Grant, Caithness; T. W. Illigworth,

Scarborough; J. Joss, M.A., Huntly; A. Keith, Turriff; D. A. F. Kydd, Pollokshields, Glasgow; A. Leach, London; W. L. Mackenzie, M.A., Alness; R. G. McKerron, M.A., Aberdeen; W. R. C. Middleton, M.A., Aberdeen; T. M. Rae, M.A., Uday; J. S. Riddell, M.A., Aberdeen; G. R. C. Russell, Orkney; A. M. Saunders, M.A., Woodside, W. St. John Skeen, Aberdeen; R. M. Townsend, Cape Colony; A. M. Will, Aberdeen. J. Grant, Tomintoul, has passed the examinations for the degrees of M.B. and C.M., but will not graduate until he has attained the necessary age.

The diploma in Public Health was conferred on the following gentlemen:

A. C. Ferguson, M.A., M.B., C.M.; G. Rose, M.B., C.M.; A. M. Saunders, M.A., M.B., C.M.

The following candidates have passed the First Division of the First Professional Examination for the degrees of M.B. and C.M.: W. Astin, R. N. de Beauvais, J. Bell, W. L. Collie, D. Crichton, B. Cunliffe, W. W. Forbes, W. L. Heaton, A. Lamont, A. B. Macartney, J. A. Macintosh, F. M'Leod, E. L. Mansel, W. S. Park, B. Saunders, W. J. Soysa.

The following candidates have completed the First Professional Examination:

G. Black, J. W. Bulloch, S. H. Burnett, J. H. G. Cowie, E. J. Cox, W. Davidson, J. A. Davie, R. C. Duthie, J. Fraser, A. Geddes, J. Gray, T. Holt, A. Hunter, J. R. Keith, *C. A. B. Laing, D. Lamond, G. A. Lang, J. B. Lendrum, J. R. Levaek, A. B. Lyon, W. Macbain, F. P. M'Lennan, J. Miller, L. J. Milne, W. S. Park, A. Pickles, *J. Rannie, A. H. Rideal, G. Robertson, A. C. Ross, C. R. Selbie, J. H. Skeen, J. Smith, J. H. L. Sutherland, F. H. Thomson, *D. M. Tomory, J. D. Walker, J. W. Watson, J. S. Williamson, J. Wilson.

The following candidates have passed the Second Professional Examination:

A. Barber, J. F. Black, J. A. Bruce, H. F. Cameron, J. A. R. Cushny, *G. Dean, W. Diack, S. S. Dunn, J. G. Durran, C. F. Fearnside, D. W. Geddie, R. Grant, A. G. Johnston, *A. Little, F. W. Ludlow, D. J. Macdonald, G. Macdonald, *A. M'Gillivray, T. M'Hardy, J. M. Mackay, A. B. Mackin, *A. Noble, J. P. Philip, D. Reid, J. Reid, W. R. Reith, D. Rennet, F. A. Roden, *A. Rose, L. M. Scott, G. J. Silver, D. M. Smith, J. F. Souler, W. H. Stephen, C. W. T. Stephenson, J. A. Sutherland, W. C. Taylor, R. Thomson, J. Troup, J. Valentine.

* Indicates that the candidate has passed the examination with "credit."
† Indicates that the candidate has passed the examination with "much credit."

UNIVERSITY OF GLASGOW.

The following gentlemen have passed the first professional examination for the degrees of M.B. and C.M. (subjects—Chemistry, Botany, and Natural History):

H. C. Anderson, J. W. M. Buick, D. G. Carmichael, A. Chalmers, D. Christie, W. Craik, W. Crichton, J. Falconer, A. Higgin, J. Johnson, D. Kerr, S. R. Lane, H. Lang, C. Lavery, E. L. Marsh, J. W. Mathie, A. M. G. Macdonald, J. A. Macintosh, N. Macintyre, J. M'Kay, Bellshill; R. J. Mackay, G. M'Lauchlan, W. A. Neish, D. W. Reese, R. Reid, J. G. Ronald, R. H. Rothery, C. Symington, W. T. M. Wallace, A. Watson, J. Iz White, J. W. White, J. Whitehouse, B. Williams, J. Zaill.

The following have passed the second professional examination (subjects—Anatomy and Physiology):

P. H. Abercrombie, R. H. Adam, M.A.; C. Bannatyne, J. W. Boyd, R. Brownridge, J. R. Bryce, M. Cameron, J. Caskie, W. Colvin, A. Fairlie, M.A.; A. F. C. Gilmour, J. Hunter, J. H. Jones, C. F. Laing, J. Munro, C. M. C. Macaulay, M.A.; D. Macdougall, P. Rankin, J. Richardson, B.A.; W. J. Robertson, M.A.; A. M. Roy, J. Swanson, M.A.; A. W. Taylor, J. S. Wallace, J. R. Wabert.

The following have passed the third professional examination (subjects—Regional Anatomy, Materia Medica, and Pharmacy):

J. Abbott, *J. Adam, *J. Aitken, W. M. Alexander, *J. B. M. Anderson, M.A.; J. T. Biernacki, *M. Blair, H. M. D. Borland, *W. M. Boyd, J. David, J. H. Dickson, A. Donald, J. P. Dunn, P. Ferguson, A. R. Fraser, M.A.; J. H. Glaister, G. Gordon, *J. G. Gray, *T. B. Hutchison, *C. A. Lewis, G. Lowson, *G. Mathieson, A. W. Miller, A. Morton, *W. Muir, D. M'Callum, J. D. M'Intosh, K. C. Mackenzie, J. B. M'Lean, *D. Revie, J. Robertson, J. Rowan, H. S. Russell, *W. P. B. Sandilands, W. J. M. Sloman, J. Smith, *J. T. Smith, *G. Steele, *H. G. Stewart, *A. F. Walker, M. Whyte, W. M'G. Young, M.A.; H. H. Park.

* Passed also in Pathology.

UNIVERSITY OF ST. ANDREWS.

MEDICAL GRADUATION, Session 1887-88.

The following gentlemen, having passed the required examinations, had the degree of Doctor of Medicine conferred upon them on April 18th, 1888:

J. J. Bingham, M.R.C.S.Eng., L.S.A.Lond., Alfreton; W. N. Elder, L.R.C.P.Ed., L.R.C.S.Ed., Edinburgh; A. Hirst, F.R.C.P.Ed., Prestwick; A. Moir, L.R.C.P.Ed., L.R.C.S.Ed., Edinburgh; W. Richardson, L.R.C.P.Ed., F. and L.R.C.S.Ed., L.M., Reading; J. J. Rutherford, L.R.C.P.Ed., L.F.P.S.Glasgow, L.M., Shipley, E. I. Scott, L.K.Q.C.P.Irel., L.R.C.S.Irel., Brackley; W. W. Smith, L.R.C.P.Ed., L.S.A.Lond., Sittlingbourne; S. Stirling, F. and L.R.C.S.Ed., Edinburgh; W. B. Thorne, L.R.C.P.Lond., M.R.C.S.Eng., London.

DEODORISATION OF THE METROPOLITAN SEWAGE.—The Metropolitan Board of Works have resolved to appoint Sir Henry Roscoe, M.P., consulting chemist to the Board, in connection with the deodorisation of the sewage and the purification of the River Thames, for a period of twelve months.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE TRUE DEATH-RATES OF LONDON DISTRICTS DURING THE FIRST QUARTER OF 1888.

In the accompanying table will be found summarised the vital and mortal statistics of the forty-one sanitary districts of the metropolis, based upon the Registrar-General's returns for the first quarter of this year. The mortality figures in the table relate to the deaths of persons actually belonging to the respective sanitary districts, and are the result of a complete system of distribution of deaths occurring in the institutions of London among the various sanitary districts in which the patients had previously resided. By this means the precise number of deaths of persons actually belonging to the respective sanitary districts is known, as all deaths occurring in institutions of persons who had previously resided in another district have been excluded from the total number of deaths in the district in which the institution is situated, and credited to the districts from which they came. By this means alone can trustworthy data be secured upon which to calculate reliable rates of mortality.

The births registered in London during the first quarter of the current year were equal to an annual rate of 32.2 per 1,000 of the population of the metropolis, estimated at 4,282,921 persons, and showed a further decline from the rates recorded in the corresponding periods of recent years. The birth-rates in the various sanitary

districts last quarter showed the usual wide variations, the age and sex distribution of the population differing greatly. In St. James Westminster, Kensington, London City, and Hampstead the birth-rates were considerably below the average, while in East London, St. Luke's, Southwark, and Fulham, where the population contains a large proportion of young married persons, the birth-rates showed a marked excess.

The 23,164 deaths of persons belonging to London registered during the quarter under notice were equal to an annual rate of 21.7 per 1,000, which, although it exceeded the low rate recorded in the corresponding period of 1887, was below the mean rate in the first quarter of the ten preceding years, 1878-87. The lowest death-rates among the forty-one sanitary districts last quarter were 13.9 in Hampstead, 16.7 in Kensington, 17.5 in Plumstead, 17.8 in Battersea, and 18.1 in Camberwell; in the other districts the rates ranged upwards to 28.3 in Bethnal Green, 28.9 in London City, 29.9 in St. George-in-the-East, 30.2 in Fulham, and 32.8 in Holborn. During the quarter under notice 2,965 deaths resulted from the principal zymotic diseases in London; of these, 1,617 were referred to whooping-cough, 412 to scarlet fever, 307 to diphtheria, 238 to measles, 238 to different forms of "fever" (including 4 to typhus, 224 to enteric or typhoid fever, and 10 to simple and ill-defined forms of fever), 149 to diarrhoea, and 4 to small-pox. These 2,965 deaths were equal to an annual rate of 2.8 per 1,000, which exceeded that recorded in the corresponding quarter of any year since 1882. The lowest zymotic death-rates during the three months under notice were recorded in Hampstead, Strand, St. Giles, Plumstead, Marylebone, St. George Southwark, Woolwich, St. George Hanover Square, Ken-

Analysis of the Vital and Mortal Statistics of the Sanitary Districts of the Metropolis, after Complete Distribution of Deaths occurring in Public Institutions, during the First Quarter of 1888.

Sanitary Areas.	Estimated Population middle of 1888.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric Fever.	Simple and Undefined Fever.	Diarrhoea.	Deaths of Children under one year of age to 1,000 births.
				Births.	Deaths.	Principal Zymotic Diseases.											
LONDON	4,282,921	34,368	23,164	32.2	21.7	2.8	2,965	4	238	412	307	1,617	4	224	10	149	143
<i>West Districts</i>																	
Paddington	112,781	753	582	26.8	20.7	2.6	72	—	9	26	—	22	—	9	—	—	3
Paddington	193,247	1,016	803	21.1	16.7	1.9	92	—	13	11	8	48	—	—	—	—	3
Paddington	98,823	780	520	29.6	21.1	3.4	83	—	3	6	5	60	—	—	—	—	2
Paddington	82,556	787	471	50.5	30.2	5.0	78	—	13	7	4	41	1	5	—	—	7
Paddington	102,106	793	543	31.2	21.3	2.3	58	—	5	9	5	32	—	—	—	—	4
St. George, Hanover Square	88,024	489	455	21.9	20.7	1.8	39	—	3	6	5	16	—	3	—	—	5
Westminster	55,406	417	359	30.2	26.0	4.1	57	—	3	12	7	33	—	—	—	—	1
St. James, Westminster	27,528	137	156	20.0	22.7	2.5	17	—	5	2	2	3	—	5	—	—	1
<i>North Districts</i>																	
Marylebone	150,053	1,113	837	29.8	22.4	1.7	82	—	6	12	8	26	—	4	—	—	6
Hampstead	56,565	343	196	24.3	13.9	0.9	13	—	4	2	4	2	—	2	—	—	1
Pancreas	244,703	1,895	1,284	31.1	21.1	2.2	134	—	18	17	15	62	—	19	—	—	3
St. Pancras	332,163	2,468	1,629	29.8	19.7	2.0	244	—	27	24	13	154	—	15	—	—	9
St. Pancras	238,374	1,688	1,102	28.4	18.6	2.8	169	—	27	18	19	82	1	13	—	—	9
<i>Central Districts</i>																	
St. Giles	40,001	329	258	33.0	25.9	1.5	15	—	3	3	5	2	—	2	—	—	106
Martin-in-the-Fields	15,125	93	101	24.7	26.8	3.5	13	—	2	4	2	2	—	1	—	—	2
St. Martin	29,309	204	201	27.9	27.5	1.4	10	—	2	1	1	3	—	2	—	—	1
St. Martin	30,489	263	249	34.6	32.8	2.0	15	—	—	1	1	11	—	2	—	—	163
St. Martin	70,308	627	436	35.8	24.9	3.4	59	—	—	8	5	39	—	4	—	—	3
St. Luke's	52,000	523	329	40.4	25.4	3.6	47	—	1	2	3	37	—	2	—	—	2
London City	38,528	210	277	21.9	28.9	2.0	19	—	—	4	2	10	—	1	—	—	2
<i>East Districts</i>																	
Bethnal Green	125,396	1,256	839	40.2	26.9	3.6	114	—	6	8	11	84	—	2	—	—	3
Bethnal Green	131,347	1,308	926	40.0	28.3	5.6	182	1	10	29	6	127	—	4	—	—	5
Bethnal Green	67,389	693	460	41.3	27.4	3.0	51	—	—	9	4	23	—	4	—	—	6
St. George-in-the-East	46,229	479	344	41.6	29.9	2.8	32	—	2	3	2	21	—	3	—	—	1
St. George-in-the-East	58,802	577	393	34.4	26.8	4.0	58	—	3	12	5	36	—	2	—	—	149
St. George-in-the-East	114,444	1,123	641	39.4	23.5	4.3	124	1	11	22	2	72	—	10	—	—	6
St. George-in-the-East	186,200	1,595	994	41.4	21.4	2.9	136	—	11	15	9	80	—	18	—	—	3
<i>South Districts</i>																	
Saviour, Southwark	27,230	254	190	37.4	28.0	1.9	13	—	—	4	1	5	—	2	—	—	1
Saviour, Southwark	59,864	573	367	38.4	24.6	1.7	26	—	—	6	5	8	—	1	—	—	4
Saviour, Southwark	121,123	1,049	616	34.7	20.4	2.2	66	—	—	17	4	37	—	4	—	—	4
Saviour, Southwark	10,053	104	64	41.5	25.5	3.6	9	—	—	2	1	4	—	2	—	—	144
Saviour, Southwark	89,802	811	511	36.2	22.8	2.0	45	—	2	10	4	19	—	10	—	—	142
Saviour, Southwark	43,072	355	246	33.1	22.9	2.7	29	—	3	3	5	9	—	4	—	—	6
Saviour, Southwark	284,809	2,298	1,449	32.4	20.3	2.0	140	—	13	27	20	62	—	8	—	—	8
Saviour, Southwark	160,377	1,404	712	35.1	17.8	3.0	120	—	4	15	7	78	—	9	—	—	9
Saviour, Southwark	128,448	1,024	633	32.0	19.8	3.0	97	—	—	12	19	49	—	6	—	—	10
Saviour, Southwark	256,404	1,825	1,159	38.6	18.1	2.6	165	1	5	41	24	70	1	12	1	—	10
Saviour, Southwark	156,169	1,341	897	34.5	23.1	3.6	141	1	18	15	16	76	—	8	2	—	5
Saviour, Southwark	59,837	432	353	29.0	23.7	4.8	71	—	9	1	19	38	—	3	—	—	1
Saviour, Southwark	37,098	366	240	38.5	26.0	1.8	17	—	2	2	2	10	—	2	—	—	1
Hampstead	80,739	642	351	32.1	17.5	1.6	33	—	—	1	3	23	—	1	—	—	3

sington, and St. Saviour Southwark, in each of which it was below 2.0 per 1,000. In the other districts the zymotic death-rate ranged upwards to 4.0 in Stepney, 4.1 in Westminster, 4.3 in Mile End Old Town, 4.8 in Lewisham, 5.0 in Fulham, and 5.6 in Bethnal Green. Compared with the preceding quarter, the fatality of each of the principal zymotic diseases, except whooping-cough, showed a decline. Only 4 deaths from small-pox were recorded in London during the first three months of this year, of which 1 belonged to Bethnal Green, 1 to Mile End Old Town, 1 to Camberwell, and 1 to Greenwich sanitary districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 7 at the beginning of the year, had increased to 17 in the middle of March, but declined to 9 at the end of the quarter; the admissions were 38 during the quarter, against 37 in the last six months of 1887. Measles showed the highest proportional fatality in Greenwich, Lewisham, Fulham, and St. James Westminster; scarlet fever in Mile End Old Town, Westminster, Bethnal Green, Camberwell, and Greenwich; diphtheria in Westminster, St. Giles, Paddington, and Lewisham; whooping-cough in Fulham, Shoreditch, St. Luke's, and Bethnal Green; and "fever" in Poplar and St. James Westminster. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,049 at the beginning of the year, steadily declined to 1,087 at the end of March; the admissions to these hospitals of persons suffering from this disease, which had risen from 531 to 2,186 in the four quarters of 1887, declined to 1,416 during the three months ending March last.

Infant mortality last quarter, measured by the proportion of deaths under one year of age to births registered, averaged 143 per 1,000, against 133, 149, and 131 in the corresponding periods of the three preceding years, 1885-6-7. Among the various sanitary districts the rates of infant mortality were lowest in Hampstead, St. Giles, Wandsworth, Mile End Old Town, and Lambeth; whereas they showed the largest excess in Lewisham, Woolwich, Rotherhithe, Fulham, Bethnal Green, and Hammer-smith.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, April 14th, 6,477 births and 3,952 deaths were registered in the twenty-eight largest English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 21.5 and 19.9 in the two preceding weeks, rose again to 21.9 during the week under notice. The rates in the several towns ranged from 16.8 in Portsmouth, 17.7 in Huddersfield, 17.8 in Sunderland, and 18.4 in Norwich to 26.2 in Plymouth, 28.1 in Blackburn, 30.0 in Wolverhampton, and 34.9 in Manchester. The mean death-rate in the twenty-seven provincial towns was 23.1 per 1,000, and exceeded by 2.5 the rate recorded in London, which was 20.6 per 1,000. The 3,952 deaths registered during the week under notice in the twenty-eight towns included 358 which were referred to the principal zymotic diseases, against 388 and 371 in the two preceding weeks; of these, 172 resulted from whooping-cough, 46 from scarlet fever, 38 from diarrhoea, 33 from diphtheria, 32 from measles, 21 from "fever" (principally enteric), and 16 from small-pox. These 358 deaths were equal to an annual rate of 2.0 per 1,000; in London the zymotic death-rate was 2.2, while in the twenty-seven provincial towns it averaged 1.8 per 1,000, and ranged from 0.4 and 0.5 in Sunderland and Preston to 3.2 in Salford, 3.4 in Plymouth and in Sheffield, and 3.5 in Blackburn. Measles caused the highest proportional fatality in Nottingham and Plymouth; scarlet fever in Birkenhead, Hull, and Oldham; whooping-cough in London, Leicester, Blackburn, and Salford; and "fever" in Derby. The 33 deaths from diphtheria in the twenty-eight towns included 19 in London, 4 in Liverpool, and 2 in Sheffield. Of the 16 fatal cases of small-pox recorded during the week under notice, 11 occurred in Sheffield, 3 in Blackburn, 1 in Bristol, and 1 in Manchester. The Metropolitan Asylums Hospitals contained 15 small-pox patients on Saturday, April 14th, of whom 7 had been admitted during the week. These hospitals also contained 1,002 scarlet fever patients on the same date, showing a further decline from recent weekly numbers; there were 92 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 5.4 per 1,000, and was slightly below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 849 births and 526 deaths were registered during the

week ending Saturday, April 14th. The annual rate of mortality, which had been 23.7 and 21.8 per 1,000 in the two preceding weeks, further declined to 20.8 during the week under notice, and was 1.1 per 1,000 below the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Leith and Greenock, and the highest in Aberdeen and Perth. The 526 deaths in these towns during the week under notice included 49 which were referred to the principal zymotic diseases, equal to an annual rate of 1.9 per 1,000, which almost corresponded with the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Edinburgh, Glasgow, and Perth. The largest proportional fatality of whooping-cough occurred in Glasgow and Edinburgh. The three deaths from diphtheria included 2 in Edinburgh; and 5 fatal cases of "fever" were recorded in Glasgow. The mortality from diseases of the respiratory organs in these towns was equal to 5.1 per 1,000, against 5.4 in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, April 14th, the deaths registered in the sixteen principal town districts of Ireland were equal to an annual rate of 26.9 per 1,000. The lowest rates were recorded in Sligo and Galway, and the highest in Kilkenny and Lisburn. The death-rate from the principal zymotic diseases in these towns averaged 2.9 per 1,000, and was highest in Lisburn and Lurgan. The 187 deaths registered in Dublin during the week under notice were equal to an annual rate of 27.6 per 1,000, which showed a slight further decline from the rates recorded in the two preceding weeks. The 187 deaths included 15 from the principal zymotic diseases (equal to an annual rate of 2.2 per 1,000), of which 7 were referred to whooping-cough, 3 to measles, 3 to "fever," 1 to scarlet fever, and 1 to diarrhoea.

BELVIDERE FEVER HOSPITAL, GLASGOW.

FURTHER improvements are proposed at Belvidere Hospital, with a view to increase the administrative department. It is proposed to erect new washing houses, with all necessary appliances, and so arranged as to isolate officials, patients, and hospital clothing, a point strongly urged by the medical staff. The present washing houses would then be reconstructed for the accommodation of the house steward's department, stores, etc. The total cost of the new work is estimated at £10,000. It will also provide for the erection of dwelling-house accommodation for the employees other than the nursing staff, who should reside in the hospital.

THE MARGARINE ACT IN OPERATION.

A SECOND prosecution under this Act has occurred in Glasgow, in which a penalty has been imposed. The shopkeeper was fined for having lumps of margarine exposed for sale unticketed. Beside the margarine there was butter labelled as such. The suggestion was that the lumps of margarine were meant to be covered by the butter label.

THE GOVERNMENT SANITARY SURVEY.

MR. J. DAVIES.—The sanitary survey in question was made by the Medical Department of the Local Government Board. It was begun in the summer of 1884, when cholera first began to threaten us from the Continent, and it was continued until the close of 1886. It did not include every sanitary area in the kingdom, but that was not the fault of the Department. It embraced however, all the coast districts, and such of the inland areas as were special liable to the importation of infection, or had shown by their sickness and other records evidence of doubtful sanitation. The results of the survey have not been issued in an absolutely separate form, but are contained in the Papers on Cholera, published as a supplement to the Fifteenth Annual Report of the Local Government Board (Command Paper 4,873, Session 1886, price 2s.), and in the Report of the Medical Department, published as a supplement to the Sixteenth Report of the Board (Command Paper 5,171, Session 1887, price 7s.). These reports can be obtained from the Queen's Printers, or from any of the agents who sell Parliamentary papers. An article on this subject will be found at page 787 of the JOURNAL for April 9th, 1887.

DUTIES OF MEDICAL OFFICERS OF HEALTH WITH REGARD TO NUISANCES.

ALPHA asks: I. What is my duty with regard to nuisances if the inspector of nuisances is under the control exclusively of the Sanitary Committee? Am I responsible for the reporting of all nuisances?

ANS.—It is your duty to report generally as to the necessity for removing nuisances in your district, and you would necessarily call attention to special causes of ill-health, but the duty cannot be performed in the detail way that is required of an Inspector of nuisances, and we hold you have no responsibility for reporting all.

OBITUARY.

SURGEON-MAJOR R. H. GARDNER, M.S.

THE death of Surgeon-Major Gardner occurred at Cheltenham on March 19th of fever contracted at Dune Dune. The deceased officer was in his thirty-seventh year. The following is an account of his public services.

He was gazetted Surgeon September 30th, 1874. He served in India (Madras Presidency) and Burmah from 1875, and in the first Egyptian campaign of 1882, and was at the engagement at El Magfar, in two actions at Kassassin, and at Tel-el-Kebir (medal with clasp and Egyptian bronze star). On his return he was in medical charge of the Station Hospital, Sheerness, when he was again ordered to Egypt for duty during the cholera epidemic of 1883. Returning to England in 1884, he did duty in the Station Hospital, Dover, and at the end of the year he was again ordered to India, and did duty in Fort William, Calcutta, till November, 1885, when he left for Burmah in medical charge of the King's Liverpool Regiment, and was present at the capture of the Minhla Forts, and when King The-baw was taken prisoner, and accompanied him in medical charge from Mandalay to Madras (Burmah medal with clasp). In March, 1886, he returned, and took over the duties of Staff-Surgeon at Fort William, and on May 10th, 1887, was appointed to the medical charge of the Station Hospital, Dune Dune. During his service he had many severe illnesses, which so undermined his constitution that he never recovered from the effects of the fever attack, though a change first to Ceylon and then to England was tried.

HENRY JAMES DWELLY, L.R.C.P. EDIN., M.R.C.S.E.

THE death of Mr. Dwelly occurred at his residence, Rye Lane, Peckham, on Sunday, April 8th, at the age of 45. The deceased gentleman was born in London, and had been in practice at Peckham for the last twenty-three years. He took an active part in the Volunteer movement, and at the time of his death held the office of major of the 1st City of London Artillery. The immediate cause of his death was inflammation of the lungs, to which he succumbed after five days of suffering. He was widely known in his district as a busy practitioner, and highly esteemed for his pleasant social qualities. He was buried with military honours. He leaves a widow and three children.

MEDICAL NEWS.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Second Examination in Anatomy only at a meeting of the Board of Examiners on April 11th, namely:—

F. A. Field, C. H. Whiteford, R. A. Walter, F. Johnson, J. B. Anderson, G. E. Bensley, W. W. Nuttall, R. S. McD. Pullen, E. C. Bridges, M. Swabey, W. W. Smith, A. W. Tidbury, and J. H. Tootal, students of St. Bartholomew's Hospital; E. G. Renny and P. C. Phillips, of St. Thomas's Hospital; E. K. Goodwin, of King's College; M. C. Langford, of London Hospital; W. E. Passmore, of Westminster Hospital; W. K. Bell, of Charing Cross Hospital and Mr. Cooke's School of Anatomy.

Passed in Physiology only.

J. M. Rogers-Tillstone, R. E. Wickes, E. E. Wilbe, and A. W. Lemarchand, of St. Bartholomew's Hospital; M. F. Agar and A. W. Sturdee, of London Hospital; T. S. Byass and F. S. Colton, of University College; G. Liechl and H. G. Biddle, of Guy's Hospital; T. Prescott and J. B. M. Kennedy, of King's College; W. D. Lockhart, A. R. Chater, and H. J. L. Bullen, of St. Mary's Hospital; W. White, of Middlesex Hospital; W. F. E. Milton and J. R. Scott, of St. Thomas's Hospital.

Passed in Anatomy only on April 12th.

C. W. Grant, E. W. Everett, A. O. Hubbard, and J. E. S. Frazer, of St. Bartholomew's Hospital; C. E. M. Hey, A. E. F. F. Huntsman, and E. M. Knott, of St. Mary's Hospital; E. J. MacGrath and J. C. Ellis, of St. George's Hospital; G. Padmore, of St. George's Hospital and Mr. Cooke's School of Anatomy; E. B. Smith, F. Dove, and C. T. W. Hirsch, of London Hospital; E. M. Rooke, F. A. Osborn, and W. A. Higgs, of Guy's Hospital; J. Yeomans, of University College; E. C. MacLeod, of Westminster Hospital; A. R. McFarlane, of Middlesex Hospital; and E. D. Dunn, of St. Thomas's Hospital.

Passed in Physiology only.

S. A. Ord-Mackenzie, A. S. Jones, and A. C. Black, of University College; B. F. Parish, L. A. Francis, E. G. Boon, and G. R. M. Gideon, of St. Mary's Hospital; J. Wells and S. R. Strouts, of London Hospital; J. H. Roberts and C. E. Pollock, of Guy's Hospital; S. Gresswell and A. R. Badger, of St. Bartholomew's Hospital; J. W. Williams, of Middlesex Hospital.

Passed in Anatomy and Physiology on April 13th.

J. Grimshaw, of London Hospital.

Passed in Anatomy only.

E. Henry and H. F. Luckie, of St. Bartholomew's Hospital; C. E. Salter, of Guy's Hospital; E. C. Walter, J. S. Bradish, E. P. Isaacs, and A. S. Gedge, of St. Thomas's Hospital; G. E. Gillett, R. Jackson, P. A. Green, J. E. S. Passmore, E. J. F. Moore, and C. H. Hemming, of London Hospital; H. C. Nicholls, of Charing Cross Hospital; A. J. Lattev, H. W. Roberts, and G. Y. C. Hunter, of St. George's Hospital; H. G. Beville, of St. George's Hospital and Mr. Cooke's School of Anatomy; C. S. Bowker, of Middlesex Hospital.

Passed in Physiology only.

H. Hodgson, of Guy's Hospital; H. E. Burch, A. C. Durham, W. Watkins, and A. Plumble, of London Hospital; J. H. Hadaway, of Middlesex Hospital; R. H. Collins, of Charing Cross Hospital; H. J. Curtis, of University College.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examination meeting of the President and Fellows, held on Friday, April 13th, 1888, the following registered medical practitioners, having passed the necessary examinations, were duly admitted Licentiates of the College.

For the Licences to Practise Medicine and Midwifery.—W. G. Rutherford, L.R.C.S.I., Tipperary.

For the Licence to Practise Medicine.—A. D. MacLeod, L.R.C.S.I., Portlinton, Queen's County.

For the Licence to Practise Midwifery.—E. A. C. Baylor, M.B. Univ. Dub., Fermoy, co. Cork; J. W. Gallagher, L.R.C.S.I., Strabane; E. J. Jacob, L.K.Q.C.P., Maryborough.

At a special examination for the Licence in Medicine of the College, held on Thursday, March 22nd, 1888, the undermentioned candidate was successful.

C. Westbrook, L.S.A. Lond.

At a meeting of the President and Fellows, held on Friday, April 6th, 1888, the following candidate was elected a Fellow of the College.

G. P. L'Estrange Nugent, M.B. Univ. Dub. 1878, L.K.Q.C.P.I. 1885, M.K.Q.C.P.I. 1887, Physician to the House of Industry Hospitals, Dublin.

STRAY AND RABID DOGS.—We glean from the report of Mr. Charles Colam, Secretary of the Dogs' Home at Battersea, that the number of stray dogs which entered the home during last year was considerably smaller than during the previous twelve months. This is regarded as the natural result of the rigorous enforcement of the police orders respecting stray dogs issued in 1885 and 1886. During the year 12,881 were brought into the home. It is satisfactory to learn that during the past year only one dog in the whole of the metropolis was afflicted with rabies, a fact which seems almost incredible when it is remembered that three years ago there were no fewer than sixty so attacked, and a year later fourteen. This points to the practical extinction of this dreadful disease. It is a matter for regret that this institution, which has done so much to stamp out hydrophobia, has not received more substantial support. An unsuccessful application has been made to the Government for an increase in its subscription, which amounted only to £10 per annum, and an appeal to the Metropolitan Board of Works for a special donation has also been made in vain. There is still a debt of £1,000 upon this institution.

THE HOSPITALS ASSOCIATION.—The next evening meeting of the Hospitals Association will be held in the Governors' Hall of St. Thomas's Hospital, Albert Embankment, S.E., on Wednesday, April 25th, at 8 P.M. The President of the Association, Dr. J. S. Bristowe, will preside, and a paper will be read by Mr. W. Burdett-Coutts, M.P., on "Contributions by Patients in relation to the Financial Condition of London Hospitals." Cards of admission can be obtained on application from Mr. Howard J. Collins, Secretary to the Hospitals Association, Norfolk House, Norfolk Street, W.C.

A CHARGE OF NEGLECTING TO NOTIFY.—A charge which created a good deal of local medical interest was brought a few days since by the Jarrow Corporation against Mr. W. M. Jennings, M.R.C.S., a medical practitioner of the borough, of neglecting properly to notify cases of infectious disease to the authorities. Mr. Jennings had, it appears, informed the mother that the children were suffering from scarlatina, and that scarlatina was one of the diseases mentioned in the Act. The Town Clerk eventually admitted his inability to carry the case any further, and it was therefore dismissed, as were three other charges of a similar character. Each party had to pay their own costs.

DR. JAMES HUTCHISON, Paisley, has just been presented with a purse containing 120 sovereigns, and a gold Albert, by gentlemen in Paisley and neighbourhood, on the attainment of his jubilee as a medical practitioner. A short time ago Dr. Hutchison also

received a presentation, with congratulations on his jubilee, from his professional brethren in Paisley.

THE St. Pancras Vestry have decided, by a large majority, to contribute £30,000 to the fund for the acquisition of Parliament Hill.

A WHOLESALE provision dealer at Shrewsbury has been fined £20 for supplying to the Salop Infirmary margarine containing eighty parts of foreign fat, for butter.

DR. H. F. BURNES, of Dalmeny House, Tufnell Park Road, has been elected a guardian for the Lower Holloway Ward, on the Islington Board of Guardians. The superannuation of medical officers will early occupy the attention of the board, and Dr. Burnes promises to be a firm friend of professional rights on the board.

MEDICAL VACANCIES.

The following Vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon, Salary, £150, and £30 extra for cab hire. Applications by May 10th to A. Forrest, Esq., Secretary.

BIRMINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Residence, board, etc. Applications by April 28th, to the House Governor.

BIRMINGHAM GENERAL HOSPITAL.—Resident Surgical Officer. Salary, £130 per annum, with board and residence. Applications by April 30th to the House Governor.

BOROUGH OF BRIGHTON.—Medical Officer of Health. Salary, £500 per annum. Applications by May 2nd to F. J. Tillstone, Esq., Town Clerk.

BRISTOL ROYAL INFIRMARY.—Honorary Assistant Physician (to out-patients). Applications by May 5th to the Secretary.

DURHAM COUNTY HOSPITAL.—Honorary Surgeon. Applications by April 30th to the Secretary.

DURHAM COUNTY HOSPITAL.—Honorary Surgeon-Dentist. Applications by April 30th to the Secretary.

HERTFORD BRITISH HOSPITAL, Paris.—House-Surgeon. Applications to the Secretary, Rue de Villiers, Levallois, Paris.

HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—House-Physician. Salary, £50 per annum, with board and residence. Applications by April 30th to B. Burford Rawlings, Esq., Secretary-Director.

LIDDELL PROVIDENT DISPENSARY, Jarrow-on-Tyne.—Medical Officer. Salary, £200. Applications to John Christie, Esq., 28, Cobden Street, Jarrow.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Board and residence. Applications by May 2nd to the Honorary Secretary.

LONDON SKIN HOSPITAL, 47, Cranbourn Street, W.C.—Assistant Medical Officer. Applications by May 1st to the Secretary.

LONDON THROAT HOSPITAL, Great Portland Street, W.—Surgeon. Applications by May 1st to W. R. H. Stewart, Esq., Honorary Secretary of Medical Committee.

NEWPORT AND COUNTY INFIRMARY.—House-Surgeon. Salary, £100 per annum with board and residence. Applications to J. K. Stone, Esq., The Infirmary, Newport, Mon.

NORFOLK COUNTY ASYLUM, Thorpe, near Norwich.—Junior Assistant Medical Officer. Salary, £100, with board, etc. Applications by April 21st to Dr. Thompson, Medical Superintendent.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Senior Resident Medical Officer. Applications by April 23rd to the Secretary.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Board, etc. Applications by April 27th to the House-Surgeon.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant to House-Surgeon. Board and residence. Applications by May 5th to Dr. Thomas, Angelsea Place, Southampton.

SEAMAN'S HOSPITAL SOCIETY.—Visiting Physician. Applications by May 5th to P. Michelli, Secretary, Seaman's Hospital, Greenwich, S.E.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant. Board and lodging. Applications by April 28th to the Secretary.

WARWICK COUNTY LUNATIC ASYLUM, Hatton, near Warwick.—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications to the Superintendent.

MEDICAL APPOINTMENTS.

BOTCOTT, W. F., M.R., C.M., Ed., appointed Senior House-Surgeon to the Ancoats Hospital, Manchester, vice A. W. Hutton, M.R.C.S., L.R.C.P. Lond., resigned.

BREWSTER, Wm. Moss, M.R.C.S. Eng., L.R.C.P., L.M. Ed., 7 late Chloroformist to the Liverpool Royal Infirmary, appointed Honorary Assistant Surgeon to Seacombe Hospital, Birkenhead.

BROADBENT, Frank, M.R.C.S., L.R.C.P. Ed., appointed Medical Officer of Health for the Northern Division of the Newark Union.

BOOKS, Samuel John, M.R.C.S. Eng., L.S.A. Lond., appointed Medical Officer of Health to the Lanchester Urban and Rural Sanitary Authority; Medical Officer to the Lanchester Workhouse, to the No. 6 and No. 8 Districts respectively; Public Vaccinator to the Borough of Lanchester, vice G. Sargent, M.R.C.S., L.S.A., resigned.

DOBBS, Thomas Anthony, L.R.C.P. Ed., M.R.C.S. Eng., appointed Consulting Medical Officer to the Newcastle-on-Tyne Workhouse Hospital.

HEBB, R. G., M.A., M.D. Camb., M.R.C.S., Pathologist to the Westminster Hospital, appointed to the Lectureship on Morbid Histology at that school, vice Dr. Henegar Gibbs, resigned.

JONES, Robert, Honorary Surgeon to the Liverpool Stanley Hospital, appointed Consulting Surgeon to the Manchester Ship Canal from Lymm to Liverpool.

MCLEAN, Allan, M.B., C.M., appointed Medical Officer of Health to the Portland Urban Sanitary Authority.

MANNING, L. S., M.B., C.M., appointed House-Surgeon to the Central London Ophthalmic Hospital, Gray's Inn Road, W.C.

MURRAY, R. M., M.B., C.M., appointed House-Surgeon to the Infirmary for Children, Liverpool, vice E. L. Fox, M.B., M.R.C.S. Eng., resigned.

SCATLIFE, A. W., L.R.C.P., L.R.C.S., L.M. Ed., L.S.A., appointed Medical Officer of Health for the Margate Urban Sanitary District, vice W. K. Treves, F.R.C.S., resigned.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. J. Astley Bloxam: On the Treatment of Syphilis by the Intra-Muscular Injection of Mercury. Dr. Handford (Nottingham): On Albuminuria in Enteric Fever.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Dr. Archibald R. Garrow: A further Contribution to the Study of Rheumatoid Arthritis. Dr. Haig: Effects in Diseases connected with Uric Acid of some Drugs which cause retention of Uric Acid, in contrast with the Action of Salicylates, as shown in a previous Paper.

WEDNESDAY.

ROYAL METEOROLOGICAL SOCIETY, 7 P.M.—Papers:—Mr. James B. Jordan: Jordan's new pattern Photographic Sunshine Recorder. Mr. William Doberck, Ph.D., F.R. Met. Soc.: On the Meteorology of South-Eastern China in 1886. Professor A. S. Herschel, M.A., F.R.S.: Lightning in Snowstorms. Mr. Rupert T. Smith, M. Inst. C.E., F.R. Met. Soc.: Insolation.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Specimens will be exhibited by Dr. Purcell, Dr. Fancourt Barnes, Mr. Lawson Tait, the President, and others. Dr. William Alexander: A new Method of treating hitherto incurable cases of Incontinence of Urine in Women. Council, 8 P.M.

HUNTERIAN SOCIETY, 8 P.M.—Dr. A. D. Davies: A Case of Paralysis Agitans. Dr. Stephen Mackenzie: On the Skin Affections connected with Rheumatism. Dr. Dundas Grant: (1) Cancer of the Larynx benefited by Tracheotomy; (2) A Nasal Trephine. Dr. Carpenter (for the President): Hereditary Absence of the Iris associated with Talipes.

HOSPITALS ASSOCIATION, 8 P.M.—Mr. W. Burdett-Coutts, M.P. (at St. Thomas' Hospital): Contributions by Patients in relation to the Financial Condition of London Hospitals.

ROYAL MICROSCOPICAL SOCIETY, 8 P.M.—Conversation.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 8 P.M.—Mr. B. Wainwright: Case illustrating Advantage of early Incision with Drainage as opposed to Excision of Joints. Dr. Hale White: On Perihepatitis. Mr. Lucas: Case of Tumour of Right Ovary in a Child aged 7, associate with Precocious Puberty: Ovariectomy: Cure. Mr. Symonds: Case of Rupture of the Urinary Bladder, in which the Rent was Sutured.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcement.

MARRIAGES.

BRISTOW-McVEAGA.—On April 11th, at St. Osburgh's Church, Coventry, by the Rev. A. Pereira, O.S.B., Rector, William Frederick, second son of William Bristow, "Woodlands," Blackheath, to Catherine Stuart (Kate), second daughter of Dr. McVeagh, J.P., Coventry.

CLELAND-BALFOUR.—At St. Giles' Cathedral, Edinburgh, on April 18th, by the Very Rev. Principal Caird, LL.D., assisted by the Rev. W. Lockhart Collins, John Cleland, M.D., F.R.S., Professor of Anatomy in the University (Glasgow), to Ada Marian Spottiswood, eldest daughter of the late J. Balfour, M.D., F.R.S., Professor of Botany in the University of Edinburgh.

CROFT-STORY.—On April 18th, at St. Matthew's, Lightcliffe, Yorks., Edward Octavius Croft, M.R.C.S., L.R.C.P., of Clarendon Road, Leeds, eighth son of the late Charles Hederton Croft, F.R.C.S., of the City of London, to Eleanor Annie, second daughter of John Storey, Esq., of Newcastle-Tyne.

GODFREY-POWELL.—On April 12th, at St. Philip's Church, Sydenham, by the Rev. J. G. Holmes, Vicar, Henry William Godfrey, M.B., M.R.C.S., Ventnor, only son of Charles Godfrey, of Colchester, High Bailiff of Court and Official Receiver in Bankruptcy, to Florence, youngest daughter of the late A. J. Powell, Esq.

HOLMES-WALKER.—On April 17th, 1888, at St. Mark's Church, Peterborough, by the Very Rev. the Dean of Peterborough, assisted by the Rev. Edward Holmes, father of the bridegroom, and the Rev. J. H. Molesworth, vicar of the parish, the Rev. William Perowne Holmes, vicar of Longthorpe, minor canon of Peterborough Cathedral, to Ethel Margaret, eldest daughter of Thomas James Walker, of Peterborough, M.D. and J.P.

PHILIP-SEDDON.—At Bridge of Allan, on April 19th, by the Rev. George Philip, M.A., Free St. John's Church, Edinburgh, father of the bridegroom, Robert William Philip, M.A., M.D., F.R.C.P.E., Edinburgh, to Beatrice, youngest daughter of the late John F. Metherwell, Cultbar House, Couglis, and widow of the late Isaac Cooke Seddon, solicitor, Melbourne.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department); Brompton.—National Orthopaedic.—10.30 A.M.; Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M. St. Bartholomew's, St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.; King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.; West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. F., 12.30.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu. S., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p., Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 3; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 2.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S. 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

SMELL OF IODINE IN BEDROOM.
 IODINE wishes information from members as to the best way to remove the smell of iodine from a bedroom, inhabited during the winter, by a patient who has freely used the same.

PRACTICE IN AMERICA.
 STARS AND STRIPES begs to return his thanks to the gentlemen who kindly answered his queries, and to ask further: 1. What are the most suitable American and Canadian States for rheumatics to live in? 2. Can a medical man who is without friends or private means hope to be able at once to make a livelihood by his profession. 3. The usual way of starting in practice; whether as assistant, house-surgeon, dispensary doctor, or in a private capacity? 4. In the event of a medical man being unable to support himself by his profession, would he be able to learn a livelihood by teaching, writing, acting in the capacity of clerk, etc., or are all these offices (as in the old country) overstocked?

NASO-PHARYNGEAL ULCERATION.
 A MEMBER asks for advice in the treatment of the following case: Miss—, aged 19, has suffered for two years from superficial ulceration (not syphilitic) of the naso-pharyngeal surface. There is no oedema, no pain, no fetor. Some membranous fragments mixed with mucus and pus, but no blood, constitute the discharge. She is anæmic and strumous-looking. The lungs are healthy. Remedies hitherto used: cod-liver oil, Fellowes's syrup, ferri iodid, and other tonics; inhalations of chloride of ammonium; gargles of borax, Condy, and Sanitas; brushing with boroglyceride, iodine, iodoform, arg. nit., dilute carbolic acid; snuffs of diluted hydrastin, etc.; vapour of terebene; generous diet, and residence by the sea. So far I can only say that she is no better and no worse than she was a year ago. There are no vegetations in the naso-pharyngeal cavity.

MEDICAL HEROISM.
 DR. D. MITCHELL (Renton) asks whether any publications exist which contain the records of instances of heroism displayed by medical men, both civil and military. If no such publication exists, whether there is any information regarding some such instances as may be found in a scattered form in many publications.

CLIMATE FOR RHEUMATISM.
 C. M. asks for the best places in England for a person suffering from rheumatism in the winter to reside in. A large town preferred, and one where rents are low and living cheap.

ANSWERS.

RUPTURED PERINEUM.
 PROVINCIAL SURGEON asks: Having, during a period of over twenty years' practice in midwifery, met with about eight cases of ruptured perineum, I would like to ask through the medium of the JOURNAL if any of your contributors would inform me whether, in their experience of such cases, it is always accompanied by retention of the urine. I may mention that I have attended nearly 5,000 cases, a great number of them being instrumental, in consequence of a peculiarity in this district of most of the midwifery being attended by midwives, and the use of the forceps is so frequently called for in their difficult cases; but the cases of perineal laceration that I have met with have in every case happened where no instruments have been used; the perineum having been well supported, but the force of the pains has driven the child's head through, and lacerated right up to, but not through, the sphincter, and in each case retention of the urine has followed, necessitating the use of the catheter, in some cases twice a day for a month, in others for shorter periods. All the cases were rigid perineums of primiparæ. I have looked in half a dozen works on midwifery, but cannot find any statement about this being one of the sequelæ, and therefore should like to have the opinion of some more experienced obstetricians than myself, and any suggestions as to the future treatment to prevent the use of the catheter, which to lady patients is most objectionable. I know that it will be said that these accidents should not occur, but I think from my having only had eight cases in 5,000, I shall have the credit given me of using every needful care.

* Retention of urine is most frequent when the patient is a primiparæ. There can be no direct relation between that complication and rupture of the perineum.

POST-PARTUM HÆMORRHAGE.
 D. H. G. writes: "Felix" asks for the experience of others as to the efficacy of ergotin. A few weeks back I also asked for an expression of the experiences of members in Burroughs and Wellcome's ergotinin (1 in 150) tabloids, which I have found most satisfactory and rapid in their action, given hypodermically. Ergotin either in pills or solution I have not found reliable.

NOTES, LETTERS, ETC.

A CASE OF DISTRESS.

Second List of Donations.

	£	s.	d.		£	s.	d.
A gentleman, on £90 being collected	90	0	0	Dr. H. Joy Clarke, Doncaster (per Dr. O. C. Jonsou) ...	1	1	0
Dr. J. F. Goodhart	2	2	0	M.B., Torquay	0	10	0
				Mrs. Luscombe	1	0	0

The donations already received, thanks to the generosity of the donors, will enable one of the children to obtain an immediate presentation to St. Anne's School, in compliance with the offer of a gentleman to give half the amount necessary for that purpose.

Any further donations will be applied to the relief of the family, and towards providing for the education of the other children.

ERRATUM.—The donation from "Two Friends at St. Bartholomew's Hospital" should have been entered as £2 0 0, instead of as printed in part of our edition.

ERYTHEMA NODOSUM.
 MR. BEAMISH HAMILTON (Tonby) writes: I have recently treated two cases of erythema nodosum by perforate rubber bandages with most gratifying results. The first, an anæmic young woman aged 50, who could not stay in bed

and on whom tonics of various kinds seemed to have no effect, got immediate relief from pain, and made a speedy recovery. The second, a very stout woman, aged 52, had a very painful and red eruption, with considerable swelling of both legs and feet. I treated her with the bandages only; her progress was quick and complete, and she went about her household work during the attack with very trifling inconvenience.

THE CLIFTON LUNACY CASE.

MR. W. H. HARSANT (Clifton) writes: Will you be kind enough to give publicity to the accompanying additional list of subscriptions to the Marshall and Shaw fund?

	£	s.	d.		£	s.	d.
Amount already acknowledged	159	18	6	Lawrence, A. E. Aust, M.D.	2	2	0
Andrews, O., M.D.	1	1	0	Lansdown, F. P.	2	2	0
Aekland, W. R.	1	1	0	Liddon, W. M.B. (Taunton)	2	2	0
Burder, G. F., M.D.	2	2	0	Lysaght, John, Esq.	21	0	0
Burroughs, R. P. B. (Weston-super-Mare)	1	1	0	Morchant, W. R. F., M.D.	0	10	6
Crossman, E., M.D. (Hampton)	2	2	0	Morgan, John	3	3	0
Cunningham, A. G., M.B.	1	1	0	Needham, F., M.D. (Gloucester)	3	3	0
Coombs, C. P., M.D. (Castle-Cary)	1	1	0	Newstead, J.	5	5	0
Colman, T. J., M.D.	3	3	0	Parker, G., M.D.	1	1	0
Cory, W. H.	1	1	0	Rom, W. Barrett, M.D.	1	1	0
Ewens, J.	1	1	0	Roxburgh R., M.B. (Weston-super-Mare)	2	12	6
Fitzgerald, —, M.D.	3	3	0	Smith, Samuel	1	1	0
Fowler, H. S. (Bath)	1	1	0	Steele, C., M.D.	2	2	0
Fendick, R. G.	1	1	0	Swain, J., M.D.	1	1	0
Giles and Schacht, Messrs.	2	2	0	Skelton, H., M.D. (Downend)	1	1	0
Goss, T. B.	2	2	0	Shaw, Miss (Tiverton) per J. Star H.	5	0	0
Gibbs, A. N. Godby	1	1	0	Star H. (Saffron-Walden)	1	1	0
Hifton, J. (Warmminster)	5	0	0	Taylor, T. H. (Thornbury)	2	2	0
Johnson, George, M.D., F.R.S.	2	2	0	Wigan, G. C. H., M.D. (Portsmouth)	1	1	0
				White, J. W. (Nailsea)	0	10	0

THE UNGUAL FURROW.

DR. GODRICH (Surbinton) writes: It would be interesting to learn whether or not this stage of discontinuity is coincident with the period of the febrile rigors. At all events it (the furrow) is always found at the very earliest period of the disease. The hair and skin are equally influenced by this discontinuity; the former falling off, and the latter either scurfing or peeling. In scarlatina this process seems to attain to its maximum. I have noticed it in cases of simple gonorrhoea, catarrh, and in fact in every case, however slight, where there is a febrile condition. I found that the furrow takes about eight months to reach the free edge of the thumb-nail, and about four to five for the little finger. Trousseau gives the credit of its discovery to his clinical assistant, Dr. Peter. This would be about twenty years ago.

THE "MEDICAL DIGEST."

A MEMBER writes: I notice the puff oblique from "H. M. D." respecting the above in the JOURNAL of April 14th. About two years since I ordered the work on seeing a similar notice, but was annoyed to find it nothing but an index to seven or eight medical journals. I quite fail to see where the help to a busy practitioner comes in, even if he has all these numbers to refer to. Fancy relying on such help in an emergency, and finding reference merely to page so-and-so, in such-and-such publication, year 1873!

STATE EXAMINATION.

M.D., F.R.C.S.I. writes: May I venture to suggest the propriety of asking the State to grant to those members of the profession who have competed for entry into the public medical services, and passed a satisfactory examination in the various subjects laid down, a certificate that they have gone through a "State examination with credit?" I think you will agree with me that men who pass what is considered a pretty stiff examination, and gain a good number of marks, say 50 per cent., might be considered entitled to some such certificate. It need not cost the State anything, as those earning it might be willing to pay any small charge for the document. It might also act as a stimulus to candidates to try and obtain the necessary number of marks, and not rest satisfied with a "pass examination" only.

A CASE OF MYXEDEMA.

DR. FRED. TRESILIAN (Ebbw Vale, Mon.) writes: In my description of a case of myxœdema which you published, I inadvertently omitted to state the condition of the thyroid gland. As usual, neither the gland nor its isthmus could be felt, so that it was very probably atrophied. I may state that I am trying the effect of the liquid extract of jaborandi in half-drachm doses, three times a day.

COMMUNICATIONS, LETTERS, etc., have been received from

Mr. W. A. Jayasingha, Balangoda, Ceylon; Surgeon-General Cornish, London; Mr. F. J. Warwick, London; The Secretary of the Anatomical Society of Great Britain; D. Mitchell, M.B., Renton; Surgeon R. R. Weir, London; Messrs. Carr and Co., Carlisle; The Secretary of the Richmond Hospital, Richmond; Dr. T. Cranston Charles, London; Dr. McVeagh, Coventry; Mr. J. W. Shore, London; Mr. M. F. Cox, Dublin; The Secretary of the Devonshire Hospital and Buxton Bath Charity, Buxton; Dr. V. Uekerman, Kristiana, Norway; Our Berlin Correspondent; Justice; Professor Schafer, London; Mr. G. R. Gardner, London; Dr. Fraser, Salford; Dr. S. J. Brooks, Llanneyston; Mr. K. Bayley, Kingston-on-Thames; Mr. H. J. Stansfield, London; Dr. J. Hamilton, Aberdeen; Dr. Major Greenwood, jun., London; Mr. F. Broadbent, Newark; Mr. W. J. Coryn, London; Mr. J. G. Swayne, Clifton; Aide-toi le ciel t'aidera; Dr. W. J. Penny, Clifton; Mr. R. M. Craven, Southport; Dr. H. F. A. Goodridge, Bath; Mr. W. D. Moore, Leeds; Professor Charteris, Glasgow; Dr. G. Whyte, Elgin; Dr. Sanctuary, London; Mr. Bernard O'Connor, London; Mr. Adams Frost,

London; Dr. Kelly, London; Mr. W. Fowler, London; Mr. J. W. Fry, Waterbury; Dr. J. D. M. Coghill, Birmingham; Dr. Raiton, Man-chester; Mr. J. Brown, Bacup; G. James, M.B., Calcutta; Dr. J. W. Moore, Dublin; Dr. Edge, Manchester; Dr. T. Robinson, London; Mr. J. Bellamy, London; Dr. C. W. Suckling, Birmingham; A. H. Tubby, M.B., Halle, Germany; Mr. P. Feroza, London; Mr. Lawson Tait, Birmingham; Mr. G. A. G. Simpson, London; Mr. A. G. Klugh, London; Dr. T. Murray Robertson, Rotherham; Dr. Mickle, London; Dr. Paramore, London; Dr. A. D. Waller, London; Dr. W. H. Gaskell, Ventnor; A Senior Surgeon-Major; Dr. T. W. Trend, Southampton; Mr. F. Mulliner, Liverpool; Mr. F. A. Davey, Barkway; Mr. A. Wilkinson, Lynemouth; Mr. E. S. Wood, Pontypool; Dr. W. F. Haslam, Birmingham; Mr. F. W. Lowndes, Liverpool; Dr. B. Fenwick, London; Dr. A. Carpenter, Croydon; P. R. Griffiths, M.B., Cardiff; Mr. E. Hurry Fenwick, London; Mr. H. Ashton, Oldham; Mr. J. MacAlister, London; Mr. R. Jones, Liverpool; Mr. T. E. Williams, Talgarth; Mr. H. Coryn, London; Our Glasgow Correspondent; Mr. J. West, London; Mr. G. E. Dobson, Exeter; Mrs. Jane Hurd, Clifton; Mr. A. G. Bateman, London; Mr. A. Kinsey-Norgan, Bournemouth; Mr. H. W. Thornton, New Richmond, Canada; Mr. A. H. Newth, Hayward's Heath; Professor V. Horsley, London; Mr. D. J. Mount Bleyer, New York; Mr. E. Crosswell Baber, Brighton; Dr. J. J. Leiser, London; Dr. C. W. C. M. Medlicott, Teddington; Mr. Arthur Cooper, London; Dr. P. J. Freyer, Moradabad; Dr. W. J. Simpson, Calcutta; Dr. J. Oliver, London; Dr. F. C. Turner, London; Mr. J. F. C. Smith, London; Messrs. Lynch and Co., London; Mr. Blackett, London; Messrs. C. Griffin and Co., London; Mr. A. R. Owst, Pontypridd; Dr. A. Kempe, Exeter; Dr. Fatham, Salford; Dr. Edwards, London; Mr. L. M. Wills, Bootle; Surgeon-General J. Irving, M.D., Fowey, Cornwall; Mr. T. Jones, Manchester; Dr. Ricketts, Southport; H. V. Rake, M.B., Fordingbridge; Dr. A. Rosenau, Wiesbaden; Messrs. T. Christy, London; Dr. Bell Taylor, Nottingham; Mr. C. B. Lockwood, London; Dr. G. V. O. Meyer, Utrecht; The Secretary of the Vegetarian Society, London; Mr. F. G. Harvey, London; Dr. E. Mackey, Ilave; Surgeon L. W. Swabe, Netley; Surgeon-Major E. V. MacSwiney, Aldershot; Mr. J. Beddoe, Clifton; T. A. Watson, M.B., Plumstead; Mr. F. Fletcher, London; Mr. G. King, London; The Lord Mayor of London; Mr. H. H. Sturge, London; Messrs. T. Walters and Co., London; Mr. H. Cracknall, London; Mr. C. H. Weld, Sandhurst; Our Vienna Correspondent; Mr. E. Williams, Bridgnd; Dr. Bristow, New Brighton; Mr. L. Humphry, Cambridge; Mr. C. Jackson, London; Mr. Lennox Browne, London; Mr. R. W. Forsythe, Cork; Dr. T. G. Styan, Ramsgate; Mr. H. P. Iderton, Fairfield, near Manchester; Mr. Kingzett, London; Mr. M. Harris, Leeds; Mr. A. Devonald, Penarth; Dr. Menzies, Venice; Mr. T. G. Cooper, Ealing; etc.

BOOKS, ETC. RECEIVED.

Physiological and Pathological Researches; being a Reprint of the Principal Scientific Writings of the late F. R. Lewis, M.B. Arranged and edited by Sir W. Aitken, M.D., F.R.S.; G. E. Dodson, M.B., F.R.S.; and A. E. Brown, B.Sc. Published by the Lewis Memorial Committee, with the permission of Her Majesty's Secretaries of State for War and India.

Mechanics and Experimental Science, as required for the Matriculation Examination of the University of London; Chemistry, with numerous woodcuts. By Edward Aveling, D.Sc. London: Chapman and Hall, Limited, 1888.

Year-Book of the Scientific and Learned Societies of Great Britain and Ireland: compiled from official sources. Fifth annual issue. London: Griffin and Co.

A Textbook of Biology, comprising Vegetable and Animal Morphology and Physiology. By J. R. Ainsworth Davis, B.A. London: Griffin and Co.

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REMARKS.

BRASSWORKERS' DISEASES:

BEING A THESIS FOR THE DEGREE OF M.D. IN THE UNIVERSITY OF CAMBRIDGE.

By ROBERT M. SIMON, M.D., M.R.C.P. LOND.

Assistant Physician to the Birmingham General Hospital, and Visiting Physician to the Jaffray Suburban Hospital.

This subject is one of the greatest interest to those who live in manufacturing towns, such as Birmingham, where large numbers of men are employed in the brass trade. That brassworkers are exposed to unhealthy conditions is fully recognised by the men themselves, as well as by their employers, who speak of the trade as a most unhealthy one. Brassworkers rarely attain old age, and formerly provident sick societies either altogether refused to enroll them on their lists, or accepted them as members at greatly increased rates.

The recognition of working in and making brass as causative of disease is due to Dr. Headlam Greenhow, who, in 1862, read before the Royal Medical and Chirurgical Society a paper on Brassfounders' Ague. This was based on his experience gained while paying a brief holiday visit to Birmingham in 1858, in connection with his investigation of trades injurious to health. It is curious that he should have selected for his title the name of a disorder which undoubtedly occurs, but which, as I shall endeavour to show, is only an acute expression of a chronic disease, and one which rarely or never comes within the range of experience of practising physicians.

In the out-patient departments of the Birmingham hospitals one meets with an enormous number of brassworkers complaining of various pulmonary and gastric disorders; but in over eight years' experience among over 30,000 patients, I have never yet been consulted by anyone in the matter of this so-called ague, although questions will very frequently elicit the statement of its occurrence.

The literature of this subject is very scanty, but Greenhow quotes Thackrah's essay on the *Effects of Arts, Trades, and Professions on Health and Longevity*, published about 1830, as well as the writings of a few Frenchmen, who have not, however, materially advanced our knowledge of the disease. Thackrah's observations were clearly inaccurate and imperfect, for he mentions only "ague," which he speaks of as an intermittent fever, attacking brassworkers from once a month to once a year, and leaving them in a state of great debility.

Dr. Hogben, Physician for Out-patients at the Queen's Hospital, Birmingham, published a very interesting paper on this subject in the *Birmingham Medical Review* in May, 1887. Dr. Greenhow refers only to ague and bronchial disorders, and very cursorily to nervous troubles, as resulting from brass-casting; but Dr. Hogben mentions also the colic, constipation, and dyspeptic troubles which result from this occupation. Dr. Greenhow, on the one hand, refers all the symptoms to intoxication by zinc, while Dr. Hogben thinks they should rather be referred to chronic copper poisoning. These two metals are the principal ingredients in the making of brass, which needs a brief description.

Copper is put into crucibles, which are plunged into a sunken furnace, and covered in order to exclude the air. When the copper is melted, the crucible is removed, and zinc—about 30 per cent.—and small quantities of lead, tin, and brass dust are mixed with the molten copper, which is hot enough to melt them. When the whole mass is molten, it is poured into moulds called sows; during the pouring the zinc desintegrates, and a dense white smoke is formed, which almost instantaneously fills the atmosphere of the casting shop. This smoke is rapidly converted into snow-white flakes and white powder, consisting of the oxide of zinc, which remains for some time diffused through the atmosphere of the shop, and, in ill-ventilated casting shops, collects upon the rafters and ceiling in the form of a dense white incrustation. The quantity of these fumes depends, first, upon the amount of zinc employed; secondly, upon the ventilation of the casting shops; and, thirdly, upon the weather—a dull foggy day preventing their

escape. The shops in newly-erected factories are only one story high, and have large sliding panels in the roof to permit free escape of the fumes, but in the older buildings they sometimes have other rooms above them, and free ventilation is impossible. It is a matter of experience that workers in ill-ventilated shops suffer much more from ague and bronchitis than those who work in the better buildings. The men who do this work are called mixers, and protect themselves to some extent by tying handkerchiefs over the nose and mouth to prevent as far as possible inhalation of the fumes. From the mixers the work goes to the casters or founders, who remelt the pigs of cold brass, at a lower temperature than is required for melting copper, and pour it into the sand moulds, which are faced with a fine powder of loam, charcoal, coal, and bean flour. From this powder rises a dense cloud of dust, and from the molten metal a cloud of zinc-oxide, though not so much as in the mixing shop. Founders suffer principally from bronchitis, or asthma as they call it, and ague, though in a lesser degree than the mixers. From the casters the work goes to the warehouse, where it is sorted and sent to be polished, or dipped and bronzed.

By the polishers, emery, fine sand, lime, and rouge are used on rapidly revolving brushes, or wooden wheels faced with leather. From these considerable dust is given off, and bronchial troubles are caused; but "ague" does not affect the polishers.

The dippers work under a shed open on all sides to the air, and immerse the brass in a weak solution of sulphuric acid; it is then dipped into water, then into a stronger acid solution, again into water, once more into acid, then into a solution of soda, finally into pure acid, and washed in water. There are always exhalations of acid, and in warm weather these are especially troublesome. It is noteworthy that, though dippers do not suffer from ague or intestinal troubles, their occupation is considered by masters and workmen alike to be the most unhealthy of all, on account of the great bronchial irritation from the acid fumes.

From the bronzers the work is sent to the lacquerers, who are nearly always females, and suffer nothing from their occupation. From them it goes to the dressers to be fitted, and finally to the warehouse.

It will appear from this account of the process, that those who deal with the molten metal are the only ones to suffer from brass ague, while they, as well as those occupied in shops where there is much dust or acid fumes, are liable to bronchitis and asthma. Moreover, all brassworkers except dippers and lacquerers are subject to colic, constipation, and various other disturbances of the gastro-intestinal system.

That Thackrah was in error in speaking of brass-ague as an intermittent affection, occurring once a month or once a year, is clearly proved by the following positive observation, which is supported by all brassworkers. Ague never occurs among the regular workers, but always affects those who are new to the work, or who resume work after an absence of even a month or a fortnight. If a man resumes work, that is, melting or casting, after ever so brief an interval, he is sure to have an attack of ague; but he will have only one attack, and remain free until after his next holiday. There is most certainly no kind of regular intermission, and, according to brassworkers themselves, they only suffer until they are inured to the poison.

The following are the symptoms of this so-called ague: after working a few hours, a man becomes languid, depressed, and feels very cold. He is very pale and almost in a state of collapse; his face is covered with a cold perspiration, he shivers, his teeth chatter, and he is restless and anxious. His head aches, there is much nausea and complaint of muscular pains. As a rule he goes or is led home, where he drinks freely of milk and goes to bed. The symptoms continue until he has vomited, either as the result of taking an emetic or independently of it. Vomiting is usually followed by sleep or recovery, with more or less of debility and lassitude on waking.

Dr. Greenhow and Hogben speak of a more or less marked hot stage following the cold, and following the hot stage they mention profuse sweating. The hot stage may be absent, but the sweating, according to these writers, invariably occurs.

My own observations, based on inquiry amongst those who have suffered from this ague, have never elicited a statement of these hot and sweating stages. Even direct questions as to their occurrence have always been met with positive negation, though some have spoken of free perspiration in the stage of collapse. How to reconcile these statements I do not know.

The cycle of events, as recorded by Greenhow, is just that of

ordinary ague, from which this disease differs, otherwise than in the suggested sequence of symptoms, *in toto*. The inquiries I have made do not support such a sequence, and certainly not a relationship to malarial ague. The symptoms are just such as would be caused by the ingestion of a quantity of an irritant metal, sufficiently large to cause vomiting and its attendant depression. Such, indeed, is my opinion of the causation of the symptoms, and therefore the name "ague" should not be continued, as being wrongly suggestive and misleading.

It will be remembered that it is only when fresh to the work that brassworkers suffer from "ague;" but, though they do not suffer from acute metallic poisoning, they do suffer from its chronic effects, and it is extremely probable that, as with arsenic and opium eaters, they may become inured to the use of the metals. It is not very common for brassworkers to use tooth-brushes, and the accumulating tartar will be found coloured green. If every effort be made to cleanse the teeth, there will yet be generally green discoloration of them. This has been proved to be due to the presence of copper. White hair is often coloured green among these workmen, and the underclothing is often stained green by the perspiration. The gums may be slightly blackened at the edges, but there is nothing distinctive as in the case of the blue line of lead poisoning; nor, indeed, beyond the green colouring of the hair and teeth, do brassworkers present any unequivocal evidence of their calling.

Ague is not a disorder for which brassworkers consult a medical man; they know how to treat it themselves, and also that it is transitory in its effects; but they come to hospitals in large numbers to be treated for bronchitis. About this there is nothing special. They suffer from it in common with all workers in dusty trades; and, so far as I can learn from the secretary of the Brassworkers' Organisation, they usually die from chronic bronchitis or fibroid phthisis, unless they succumb to some acute malady.

The existence of nervous disorders, especially paralysis agitans, has been said to be common amongst them, but I cannot find that a larger percentage of brassworkers than of the rest of the community suffer from diseases of the nervous system. It is common, however, amongst them to meet with complaints of disturbance of the digestive function. They suffer from dyspepsia, loss of appetite, gastro-intestinal catarrh, nausea, vomiting, metallic taste, thirst, colic, constipation, and diarrhoea. They are often nervous and hypochondriacal, complaining of headache and muscular pains. There is nothing distinctive about any of these disorders, except the obstinacy with which they resist ordinary methods of treatment, and the readiness with which they yield to the administration of iodide of potassium in combination with the other drugs indicated by the various conditions of ill-health. All the symptoms bear a remarkable resemblance to those produced by chronic copper poisoning, and in Guy and Ferrier's *Forensic Medicine* an outbreak of copper poisoning from the use of copper vessels in cooking is recorded, in which the symptoms were almost identical with those here mentioned.

The inmates of a convent suffered severely from obstinate and severe colic, retching, and bilious vomiting, costiveness and flatulence, burning pain in the pit of the stomach and extremities, and paralytic weakness in the arm. According to Stevenson, it is impossible to distinguish between the symptoms produced by zinc and copper poisoning; these are just such as brassworkers suffer from, and it is therefore impossible to say which metal—copper or zinc—is most concerned in the production of these symptoms.

Dr. Greenhow attributes them all to the inhalation of the de-flagrating zinc; this forms zinc oxide, which is only sparingly if at all soluble, and therefore is not likely to be freely absorbed in the stomach; but he pays little or no attention to the common and chronic gastric and intestinal troubles to which brassworkers are liable. These affect all those engaged in the various processes by which either in vapour or in minute particles copper and zinc—that is, brass—are distributed in the atmosphere.

Dr. Hfobgen, on the other hand, considers copper alone to be the efficient cause of the symptoms, and advances the following arguments:

1. We have no evidence that the internal administration of zinc ever produces the symptoms of brass-ague. Enormous doses of the oxide have been administered without apparently producing the characteristic febrile reaction of brass-ague.

2. The malady is observed in individuals whose work is other than casting.

3. The malady is not observed in operatives such as galvanised ironworkers, who work with zinc and are exposed to its fumes.

4. Zinc is rapidly excreted, and does not, like lead, mercury, or copper, become fixed in the body, and produce chronic affections.

It seems more probable that, accepting Stevenson's statement of the impossibility of distinguishing between the effects of acute copper or zinc poisoning, the symptoms of ague are due to an admixture of the two metals, whereas for the chronic complaints the copper is responsible.

How the practice of taking milk during an attack of so-called ague has arisen is not clear, but its wisdom is proved by the fact that in cases both of copper and zinc poisoning, milk is one of the best antidotes, since it precipitates both these metals into insoluble albuminates.

It is abundantly evident that brassworkers are specially liable to diseases from the use of the metals employed in its manufacture, but they are not new disorders; they are either proofs of chronic poisoning by zinc or copper, or as in the so-called ague, are due to intoxication by them.

For much of my information as to the effects of this work I am indebted to Mr. Lilly, the local secretary of the Brassworkers' Association.

ON TESTING THE COMPETENCY OF THE VALVES OF THE HEART BY MEANS OF AIR.

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THE ordinary method of testing the competency of the valves of the heart with water is admittedly faulty in many respects. It can be applied only to the aortic and pulmonary artery orifices, and even with them the pressure of $1\frac{1}{2}$ to 2 inches of water which alone can be retained in the attached portions of the vessel does not represent anything like the pressure to which they are naturally subjected. Hence a valve which during life might have been sufficiently incompetent to give rise to a murmur, may be found after death to be perfectly competent. The water method is also defective from the fact that the cusps of the valve are not seen in motion, so that the mechanism by which a murmur may have been elicited is incapable of being demonstrated in the *post-mortem* room. We possess, moreover, no exact method of gauging the amount of incompetency of the mitral and tricuspid, nor of ascertaining when they are competent.

For some time past I have been in the habit of demonstrating to my class the natural action of the valves by driving air into the instead of water, and also of reproducing the murmurs heard in disease of the valves by several simple modifications of the same method.

The ascending aorta with the attached valve is cut off from the heart of an ox. A brass tube attached to a bellows is introduced into the distal end of the aorta. The aorta is now fixed in a nearly as possible its natural position, and air is driven in from the bellows with a sharp click, so as to imitate as closely as may be the effect of the arterial recoil. With each inflation of the bellows the cusps are retracted, to be closed again as soon as the air is expelled; and so perfect is their adaptation, even after death, that not only do they prove perfectly competent when the heart is healthy, but the sharp sound elicited bears a remarkable resemblance to the second sound of the heart. The valve can be turned up in any position, so as to be made readily visible to the whole class.

The same means may be employed to display the action of the pulmonary artery valve. In the case of the mitral and tricuspid the respective auricles should be cut away close down to the orifices. The nozzle is pushed down through the aorta or pulmonary artery, as the case may be, past the valve, so that it enters well into the cavity of the ventricle. It is tied into the vessel, as to prevent regurgitation of the air.

It struck me that the same means might be utilised for testing the competency of the valves in the *post-mortem* room; and, having employed the method lately in a number of cases, I find that it works admirably. It can be applied almost as quickly as the water test, and has the great advantage of being available for all the orifices.

The procedure I adopt is the following. An opening is made into the left auricle, so as to expose the auricular aspect of

mitral. Any *post-mortem* clots which may be adhering to the edge of the valve are removed with care, so as not to disturb the position of the cusps. An aperture sufficiently large to admit the brass nozzle is next made into the apex of the left ventricle in the line of incision which will afterwards be required to lay the ventricle open. The nozzle is then introduced, and air driven in by the bellows in the manner before described. The heart should meanwhile be suspended by the cut edges of the auricle. A series of hooks fixed on supports is useful for this purpose, the supports being movable so as to allow of the proper apposition of the cusps.

The slightest incompetency can be detected quite as much by the irregular manner in which the cusps mutually adjust themselves, as by the escape of air between them.

The same means of demonstration is to be followed in the case of the tricuspid; and, after its condition has been ascertained, the incision in the left ventricle is carried up as close as possible to the root of the aorta, without, of course, injuring the aortic ring. The heart is now suspended, as before, by the cut edges of the ventricle, and the nozzle is tied into the distal end of the aorta. The aorta should either be cut off at the termination of the ascending part of the arch, or be laid open up to this point. The nozzle both in the case of the mitral and in that of the aortic may be simply held in with the hand, or it may be tied in; or, what is even preferable, a simple clamp apparatus may be attached to its extremity, which seizes the cut edge of the vessel or cavity into which the nozzle is introduced, and holds it air-tight or nearly so. In watching the action of the valve, the ventricular aspect should be turned upwards, the air being driven in from below.

The pulmonary artery orifice is next tested in the same manner.

In a perfectly healthy heart it will be found that the aortic, mitral, and pulmonary artery valves are quite competent, but, so far as my present experience goes, I have never met with a tricuspid in man which will stand the test. There is always a slight leakage, even when the cusps are perfectly free to move.

THE PROCESS OF COMPENSATION AND SOME OF ITS BEARINGS ON PROGNOSIS AND TREATMENT.

By BYROM BRAMWELL, M.D., F.R.C.P. EDIN.,

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(Concluded from page 840.)

Compensation in Cardiac Lesions.—One of the most common and obvious methods of compensation is the increase (hypertrophy) of muscular tissue which takes place in muscular tubes and muscular organs when an increased effort is frequently and repeatedly demanded of them. The hypertrophy of the bladder, esophagus, and intestine in cases of organic stricture are familiar examples; but there is, perhaps, no organ in which compensatory hypertrophy is more beautifully developed than in the heart. But, although hypertrophy of its muscular walls is by far the most important manner in which valvular lesions are compensated, it must also be remembered that in some forms of valvular disease a certain limited amount of dilatation and alterations in the frequency of the cardiac contractions also take part in the compensation, and assist the hypertrophy to restore and maintain the balance of the circulation. It may be stated broadly that in obstructive valvular lesions compensation is effected by muscular hypertrophy, aided, in some cases, by slowing of the cardiac action, while regurgitant lesions are compensated by hypertrophy, aided by a certain but strictly limited amount of dilatation, and it may be by increased frequency of the cardiac contractions. The manner in which the different valvular lesions are compensated is briefly as follows:—

In stenosis of the aortic orifice, compensation is chiefly effected by hypertrophy of the left ventricle, by means of which an increased quantity of blood is forced through the narrowed orifice at each ventricular contraction. The duration of the ventricular systole is at the same time lengthened, while the frequency of the cardiac contractions is diminished rather than increased, with the result that more time is afforded for the hypertrophied left ventricle to discharge its contents. In aortic stenosis, dilatation of the left ventricle affords no aid as a means of compensation, and when it does occur, it is a secondary and injurious result.

In stenosis of the mitral orifice, compensation is partly due to hypertrophy of the left auricle, but chiefly to hypertrophy of the right ventricle. Prolongation of the ventricular diastole, increased duration of the auricular systole, and slow action of the heart are also, when present, important factors in the compensation, since they facilitate the flow of an increased quantity of blood through the stenosed orifice during each cycle of the heart. At the best, however, the compensation in severe mitral stenosis is imperfect, much less perfect than it is in many cases of aortic stenosis, for even when fully developed the pulmonary circulation is subject to some strain. The most that the compensation can do in mitral stenosis is to enable the left ventricle to supply an adequate quantity of blood to the peripheral tissues, and to protect the organs and tissues which are situated behind the right heart from the effects of venous engorgement. In mitral stenosis, the pulmonary circulation is exposed to engorgement and all its secondary consequences, for the obstruction in front (that is, at the mitral orifice) is not suddenly relieved, as it is in mitral regurgitation, by the bursting open of the mitral valve and the suction action of the left ventricle. Even in these cases, then, in which the compensation is most perfect, the blood-vessels of the lung are exposed (in consequence of the obstruction in front and the powerful action of the right ventricle behind) to increased pressure and the injurious consequences which may result therefrom.

In stenosis of the pulmonary orifice, compensation is partly due to hypertrophy of the wall of the right ventricle, but chiefly in congenital cases (which comprise the great majority of cases of pulmonary stenosis) to the fact that the foramen ovale remains patent and allows a portion of the blood to avoid the lungs and to make a short cut, as it were, from the right to the left heart. The imperfect aëration of the blood which results from this arrangement is, of course, a disadvantage, and the compensation is, consequently, always imperfect; but if the foramen ovale did not remain open, the circulation could not be carried on with the extreme contraction of the pulmonary orifice which is present in some cases of this description, for the blood which could get through the contracted pulmonary orifice and lungs to the left heart would be inadequate to distend the arterial system, while the engorgement of the venous circulation behind the lesion would be too great to allow of the long continuance of life.

In incompetence of the aortic orifice, compensation is effected chiefly by hypertrophy of the left ventricle, partly by a certain but limited amount of dilatation of the left ventricle, and partly by shortening of the ventricular diastole, and, it may be, by increased frequency of the cardiac contractions. When the dilatation of the left ventricle is just sufficient to accommodate the blood which regurgitates through the aortic orifice, and, at the same time, to receive the normal quantity of blood from the left auricle, and, when the hypertrophy is sufficiently great to enable the cavity to empty itself at each systole, compensation is as perfect as circumstances will allow. The circulation in the parts behind the mitral valve is little, if at all, interfered with; and, provided that the arterial anæmia, due to regurgitation from the aorta during the ventricular diastole, is not great, there are few, if any, symptoms. But in free aortic regurgitation, compensation can never be perfect for any length of time, for a greater amount of dilatation than the theoretical minimum required for the perfect restoration of the balance of the circulation is sooner or later established; this necessitates a proportionate excess of hypertrophy if the cavity is to be completely and satisfactorily emptied, and this dilatation and hypertrophy tend to go on increasing. Again, the increased frequency of the cardiac contractions and the diminished duration of the ventricular diastole prevent the normal amount of blood flowing into the left ventricle from the left auricle, and consequently tend to cause some obstruction to the blood-flow behind the mitral valve and left heart. The sudden and excessive distension of the arterial system is also apt to produce dilatation in the aorta and the vessels arising from it.

In incompetence of the mitral orifice, compensation is effected in a still more complicated manner—namely, partly by dilatation and hypertrophy of the left auricle, partly by hypertrophy of the right ventricle, partly by dilatation and hypertrophy of the left ventricle, and perhaps to some slight extent by diminished duration of the ventricular diastole and increased frequency of the heart beats.

When the dilatation of the left auricle is just sufficient to accommodate the blood which regurgitates through the mitral orifice, and at the same time to receive the normal amount of

blood passing to it from the lungs; when the hypertrophy of the right ventricle and left auricle is sufficient to drive the normal amount of blood through the lungs and to empty the left auricle of the normal and abnormal (regurgitant) blood which it is just sufficiently dilated to contain; when the left ventricle is sufficiently dilated to receive the abnormally large quantity of blood from the left auricle, and sufficiently hypertrophied to expel all the blood (part of it passing forwards into the aorta in the normal course, and part passing back into the left auricle), the compensation is as satisfactory as it is possible to be under the circumstances; but in free regurgitation satisfactory compensation does not, as a rule, last long.

In mitral regurgitation, so long as the compensation is good, the engorgement of the pulmonary circulation is not so continuous as it is in mitral stenosis, for relief is afforded and pressure is removed with the occurrence of ventricular diastole and the bursting open of the mitral valve. But in free mitral regurgitation the theoretical minimum of dilatation of the left auricle required for satisfactory compensation is sooner or later exceeded; the lungs become engorged, and there is a tendency to dilatation both of the left and right ventricles; to venous engorgement in the parts behind the right heart, and to arterial anemia in the parts in front of the left heart, and hence to the production of symptoms.

In *incompetence of the tricuspid orifice*, the compensation can never be satisfactory if the regurgitation is at all free. Compensation in this case entirely depends upon the condition of the right auricle. If the cavity of the right auricle could become just sufficiently dilated to accommodate the blood which regurgitates from the right ventricle and at the same time to receive the normal amount of blood passing into it from the venæ cavae, and if its wall could become sufficiently hypertrophied to expel all this blood into the right ventricle, the compensation would be as perfect as it could be under the circumstances. As a matter of fact, too much dilatation and too little hypertrophy are almost always the result; and even in the earlier stages of anything like free tricuspid regurgitation, engorgement of the peripheral venous circulation takes place.

The relative order of gravity of the different cardiac valvular lesions is a question which has given rise to a good deal of debate, though authorities are now pretty well agreed, except perhaps as regards the relative gravity of aortic regurgitation and mitral stenosis. I shall be glad to hear the opinion of members on this point. For my own part, I believe, for the reasons advanced above, that free aortic incompetence is, as a general rule, more progressive and more rapidly fatal than advanced mitral stenosis. It seems to me that in free aortic regurgitation the lesion must of necessity get the upper hand, and the compensation prove inadequate before very long, but that there is no such necessity in advanced stenosis, provided that the patient leads a quiet, vegetative life. The following is a case in point.

Some few years after entering practice I examined *post mortem* the body of a woman, aged 56, who had been under my father's observation with advanced mitral disease for more than thirty years. For the greater part of this long period she had been a helpless cripple from left-sided hemiplegia, the result of embolic plugging of the right middle cerebral artery, and had lived a vegetative life. The mitral valve was so much contracted that it would not admit of the tip of the little finger; and, still more remarkable, considering the extreme mitral stenosis and the comparative absence of all lung symptoms, the left lung was, to a large extent, useless, being compressed into small size by a very much dilated left auricle, and bound by adhesions to the upper and back part of the chest.

Now I very much doubt if a relatively great aortic incompetence could have been compensated and tolerated (even under the same circumstances) for such a length of time. I am prepared, therefore, to allow that a free and progressive aortic regurgitation of necessity tends to a more rapid breakdown of the compensation than an advanced degree of mitral stenosis, even when all the other conditions for compensation are as favourable as could be wished. I believe this is the general rule when the lesion is a serious one, but there are certainly exceptions to it—cases, on the one hand, in which free aortic incompetence is tolerated for a long time, and, on the other, cases of mitral stenosis in which compensation fails much more quickly than is usually the case; but when the lesion is slight in degree or stationary, aortic incompetence is I think in many cases—and this is perhaps the general rule—less serious than mitral stenosis. Slight aortic incompe-

tence causes, in my experience, less disturbance of the circulation, less discomfort to the patient, is compatible with a more active and often also with a longer life, than the same (relative) amount of mitral stenosis. The "accidental risk" of aortic incompetence (death from syncope) is also, I think, less in such (relatively slight and not progressive) cases, than the "accidental risk" of mitral stenosis, namely, embolism.

From this description it will be apparent that hypertrophy of the muscular wall of some one or other of the cardiac cavities is the chief means by which valvular lesions are compensated. When, therefore, an organic valvular lesion is established, and more especially when that lesion is a serious one, or when, though slight at first, it is progressive, the prognosis depends largely on the probability of a sufficient and satisfactory amount of muscular hypertrophy being produced.

It must, of course, be remembered that in forming a forecast or prognosis in cases of cardiac valvular disease, many other considerations—besides the capability of a sufficient amount of muscular hypertrophy being produced—have to be taken into account. In fact, the more important points which enable us to determine the prognosis are as follows: (1) the form of valvular disease and the risk of its causing sudden death; (2) the severity of the lesion; (3) the stationary or progressive character of the lesion; (4) the capability of compensation in the heart itself and the power of resistance possessed by the peripheral tissues; (5) the occupation, circumstances, and surroundings of the patient, and the possibility or probability of his carrying out the treatment which is recommended; (6) the mental temperament of the patient; (7) the presence or absence of complications, more especially the presence or absence of disease of the kidney.

Time does not permit me to enter into details with regard to all these matters; nor, indeed, do I desire to do so, for I have already considered most of them elsewhere.⁵

But I may perhaps be allowed to say that for the production and maintenance of a sufficient and satisfactory muscular hypertrophy, the following conditions are necessary:—

1. The muscular tissue must be healthy, or at all events sufficiently healthy to become hypertrophied. When the wall of the heart is in a condition of fatty degeneration or fibroid disease the hypertrophy is never very satisfactory.

2. The cardiac muscle must receive a sufficient supply of healthy arterial blood.

3. The waste products of its combustion must be sufficiently quickly removed.

4. Its trophic nerve apparatus must be healthy. In short, the heart muscle must possess the conditions which are essential for rapid development and healthy growth.

The age of the patient, the etiology of the case, and the facility with which the cardiac muscle responds to cardiac tonics (digital and strophanthus), together with the general condition of the patient and the state of the other tissues and organs, are the chief means by which we endeavour to form an opinion as to the condition of the cardiac muscle.

In young persons the muscular tissue is, as a rule, healthier, and the capabilities of repair and of the production of compensatory hypertrophy are generally greater than in older people. When, too, the valvular lesion has resulted from acute endocarditis, the capabilities of repair are, speaking generally, greater than when the lesion is due to atheroma or senile or degenerative changes. There are, however, many exceptions to this general statement. The endocarditis may have been complicated with pericarditis, or with myocarditis, and the valvular lesion may therefore be associated with a damaged cardiac muscle, a condition which may interfere with the production of satisfactory hypertrophy, and materially add to the gravity of the case. It must not, indeed, be supposed that in cases of cardiac valvular disease all the advantages are on the side of youth. In old people who lead quiet vegetative lives there is little strain put upon the damaged heart and for this reason, if other things were at all equal, the valvular lesion would be more likely to remain stationary, and the call for repeated and renewed compensation would certainly be less than in children, youths, and active adults, who are with difficulty kept quiet, and who, notwithstanding all the advice which we can give them, are only too apt to over-exert themselves and to put a injurious strain upon the damaged heart.

In trying to ascertain whether a sufficient amount of arteri-

⁵ See my *Diseases of the Heart*. Sections devoted to the general pathology of the heart and the prognosis in valvular lesions. Also my *Practical Medicine*. *Medical Diagnosis*. Sections devoted to the prognosis.

blood is supplied to the cardiac muscle, and whether the products of its waste are satisfactorily removed, we observe the condition of the peripheral, arterial, and venous circulations.

A badly filled radial pulse or atheroma of the superficial vessels is suggestive that the coronary arteries are also badly filled or diseased, and therefore that the supply of arterial blood to the muscular wall of the heart is deficient. Angina-like pain in the region of the heart is also suggestive of disease of the coronary arteries, and of fibroid or fatty changes in the wall of the heart.

A dilated right heart and engorgement of the systemic veins suggest that the veins of the heart are also engorged, and that the removal of waste products from the cardiac muscle is defective.

As yet we have no satisfactory means of ascertaining the condition of the trophic nerve apparatus connected with the heart. Indeed the exact nature of this mechanism is not as yet thoroughly understood, though Gaskell's brilliant researches seem to show that the vagus exerts some sort of stimulating and trophic influence upon the cardiac muscle. But be that as it may, the course of cardiac valvular lesions (and perhaps, too, the amount of muscular hypertrophy, and compensation which are developed) is largely determined by the condition of the nervous system, and by the mental temperament of the patient. In no affections are the beneficial results of a healthy nervous system, and of a serene, happy, placid disposition more manifest than in cardiac valvular lesions.

The power of resistance possessed by the peripheral tissues and organs to the injurious effects of cardiac valvular lesions depends, as in the case of the heart itself, upon (1) the condition, healthy or otherwise, of the peripheral tissues; and (2) the fact whether the conditions for their nutrition are satisfactory or not.

Here, as in the case of the heart muscle itself, the tissue must receive an adequate supply of healthy arterial blood; the waste products of its metabolism must be satisfactorily removed, and its trophic condition must be satisfactorily regulated by the nervous system.

It is quite obvious, therefore, that the presence or absence of complications, more especially of diseased conditions of the stomach and other organs which manufacture the nutrient fluid; of the kidneys, liver, and intestines and other organs, which purify it; and of the nervous system, which exerts such an important influence upon all the processes of nutrition and resistance are most important factors in enabling the peripheral tissues to resist the injurious effects of valvular lesions, and to protect themselves (in some cases by the production of an increased amount of connective tissue) against the injurious effects of venous engorgement. And, *vice versa*, that the presence of disease in any of these organs adds most materially to the gravity of the prognosis.

The important bearing which these facts have in the treatment of cardiac valvular lesions is obvious. It is now an acknowledged axiom in cardiac therapeutics that the muscular hypertrophy, which was at one time thought to be injurious, and, therefore, a condition to be attacked and removed by treatment, is the best thing which can result under the circumstances, and is, therefore, to be encouraged. Our therapeutic efforts are now directed to sustaining the vitality of the cardiac muscle. Our main object is to reduce and remove the lesion on which the cardiac hypertrophy depends, but, so long as the lesion persists, to sustain the hypertrophy, which is Nature's chief means of compensating it. The more I see of cardiac valvular lesions, the more I am convinced that digitalis, strophanthus, and other remedies of a similar kind, are much too freely and too frequently used in the earlier stages, and that the indiscriminate use of these remedies is often most injurious. It is only when compensation fails, either in the earlier stages, as the result of some temporary overbalance of the compensation, such as is so frequently occasioned in mitral cases by an intercurrent attack of bronchitis, or, in the later stages, when the period has at length arrived at which Nature's reserve is exhausted, when the lesion has gained the upper hand, when the cardiac muscular fibre is undergoing degenerative changes, and when dilatation is succeeding to hypertrophy, that digitalis or other remedies are called for. So long as the natural compensation is sufficient to meet the lesion, our chief efforts should be directed, *first*, to removing all sources of cardiac strain and excitement. *Secondly*, to maintaining the general health in the best possible state of efficiency, by (a) careful regulation of the diet, exercise, rest, sleep, whole mode of life, and general hygienic condition of the patient; (b) by attention to the condition of the

blood-forming and blood-depurating organs, more especially of the stomach, liver, intestine, kidneys, and skin; (c) by the administration of such general tonics as arsenic, quinine, and strychnine; and (d) by avoiding all causes of nervous exhaustion, and by promoting, as far as possible, a tranquil, happy, and healthful state of mind. And here I must again emphasise the all-important influence which the mental condition has upon all the processes of nutrition and repair, and the value of what I term mental therapeutics—the influence produced on the mind of the patient by a judicious and hopeful medical adviser, by the avoidance of all worry and anxiety, and by cheerful and pleasant surroundings. *Thirdly*, to avoid all conditions which are likely to aggravate the lesion or to produce those complications and accidents to which the disease predisposes and renders the patient liable.

The Importance of forming a Correct Estimate of the "Reserve," for the Purposes of Prognosis.—In forming an opinion as to the chances of recovery, both in acute and chronic affections, it is of the utmost importance to endeavour to estimate correctly the amount of reserve on which the patient can fall back, and the power of compensation which he possesses. In order that this estimate may be correct, it is necessary (1) to be acquainted with the mental temperament of the patient; for this, as I have elsewhere tried to show, exercises a most important influence on the chances of recovery, more especially in cases of acute disease (*Practical Medicine and Medical Diagnosis*, page 141); and (2) to gauge correctly the condition, not only of the part which is primarily affected, but of all the tissues and organs. In illustration of the importance of the latter point, I need only instance the extreme gravity of acute croupous pneumonia in the presence of a weak or fatty heart, and of typhus or typhoid fever when the kidneys are diseased. The advantage which a knowledge of these particulars gives the ordinary medical attendant over the consultant is so obvious that I need hardly refer to it.

Compensatory Protection.—Closely allied to these processes, which we truly term compensatory, by which Nature endeavours to counteract or minimise the effects of lesions such as I have already described, there are many other methods by means of which the causes of disease are got rid of, or the injurious effects of disease prevented. The vomiting and diarrhoea which are due to the introduction of irritants into the stomach or intestine; the contraction of the peripheral blood-vessels which results from exposure to external cold; the board-like rigidity of the abdominal muscles which is present in perityphlitis; and many reflex nerve alternations, such, for example, as the beautiful reflex process by which the peripheral blood-vessels are relaxed when too great strain is suddenly thrown on the left ventricle of the heart, may be mentioned as illustrations.

Probably the process of suppuration, as Mr. Bland Sutton has so ingeniously theorised, is also a protective and compensatory condition, the pus corpuscles endeavouring to take up, devour as it were, and carry off the irritative particles on which the inflammatory condition depends.

Whether the pyrexia which so frequently follows the introduction of noxious materials—more especially particulate organic poisons—into the blood has any beneficial and compensatory action, or whether it is wholly injurious, we do not at present know.

The adhesive inflammation which prevents the production of pneumothorax in cases of phthisis and the perforation and peritonitis in some cases of ulcer of the stomach, and the obliterative process which seals up the blood-vessels and prevents the occurrence of hæmoptysis in cases of phthisis are also beautiful examples of Nature's protective processes.

The Value of the Local Application of Cold in the Treatment of Hæmoptysis; and the Treatment of Acute Perforative Peritonitis.—And here I would raise two practical questions: First, what, in the opinion of the members of the Branch, is the value of the local application of cold to the exterior of the body in the treatment of hæmoptysis, and indeed in the treatment of localised internal inflammations such as acute pericarditis or acute peritonitis?

Although personally I have until comparatively recently been in the habit of recommending the application of an ice-bag to the surface of the chest, at a point superficial to what appears to be the source of the bleeding in cases of hæmoptysis, I have never felt thoroughly satisfied as to the practical value of the treatment, and for some time past I have had grave doubts as to the correctness of the theory on which it is based. It is supposed

that the local application of cold produces, by means of reflex nerve action, contraction of the blood vessels of the internal organ, which is situated beneath the part of the surface to which the cold is applied. But the experiments of Dr. Milne Murray, and the practical experience both of surgeons and gynecologists have conclusively shown that the application of very hot water is a much more powerful means of arresting hæmorrhage and of producing marked and sustained contraction of the blood-vessels than the local application of cold water. The question naturally arises whether, instead of applying an ice-bag, we should not rather apply a bag containing very hot water over the part of the surface which is superficial to an inflamed or bleeding part. I have hopes that Dr. Milne Murray will clear up this very important practical question by an additional series of experiments; but pending such direct evidence I shall be glad to elicit the opinion and to learn the practice of the members of the Branch on this point.

Secondly, I would ask has any gentleman present seen a case of recovery from peritonitis due to the perforation of an ulcer of the stomach; and what practice is it advisable to adopt in the treatment of this most serious accident?

Personally I have never seen a case of recovery, though cases do without doubt occur. For my own part, I am disposed to think (since by means of transfusion we are able to temporarily restore the patient, and so greatly minimise the danger of death from shock during or soon after the operation) that the proper plan of treatment is first to transfuse the patient, and then to open the abdomen, wash out the peritoneum, and stitch up the opening in the stomach. I am not of course oblivious of the gravity of this procedure and of the difficulty, perhaps the impossibility, that there would often be of carrying it out in private practice; but I shall be glad to hear the opinion of the surgeons on the point.

Euphoria.—Whether the feeling of well-being and hopefulness which is present in some affections, notably in many cases of phthisis, has any special or beneficial effect on this disease, and why this peculiar condition of mind is associated with some affections, and present in some cases and not in others, it is perhaps impossible to say. That the opposite condition of mental depression, which is often associated with derangement of the functions of the liver, has a distinctly prejudicial effect, no one, I presume, will deny. The causation and significance of the remarkable hopefulness which is present in some cases of advanced organic disease requires, I think, more attention than that which it has hitherto received. One of the most remarkable cases of the kind which has come under my own observation occurred in the person of a medical friend, aged, I think, 56. While in charge of an important appointment in the Indian Medical Service he began to fail in health. He was seen by several medical men, and a small hard tumour about the size of an egg was discovered in the epigastric region. The patient was of an extremely nervous and anxious disposition, and since the exact nature of the tumour was

not very obvious, it was not thought advisable to inform him of its presence. He was therefore advised to come home on sick leave; this he accordingly did. He arrived in Edinburgh some two months after the tumour was first noticed, under the firm belief that there was nothing of any importance the matter with him, and that his great weakness and extreme emaciation were entirely due to the effects of very small doses of morphine, which he had been in the habit of taking on the voyage to relieve the uneasiness (not actual pain) which he felt in the abdomen. Both the patient and his wife, a most intelligent, sensible, and sober-minded lady, were fully persuaded that there was no serious organic disease, and that the patient had only to come to Edinburgh to get thoroughly restored to health. I saw the patient a few

hours after his arrival, and my wonder was that he had been able to complete his journey. Profoundly cachectic-looking, emaciated to the last degree, so weak that he was unable to walk across the room, with an unhealthy sloughing ulceration of a few days' duration on the cornea, it was obvious, without any further examination, that he was dying from some serious organic disease. On uncovering the abdomen the cause was at once apparent, for a large tumour, fully the size of a child's head, of great hardness, and evidently malignant, occupied the upper and central part of the cavity. The new growth appeared to be (chiefly, at all events) an enlargement of the abdominal glands; but as no *post-mortem* examination was made, the exact connections of the tumour and the organs which were involved were not ascertained. Both the patient and his wife seemed amazed when the presence of the tumour was pointed out to them. How it could possibly have escaped the attention of the patient, a most cultured and intelligent medical man, I am utterly unable to conceive, for it was impossible to place the hand on the abdomen without at once recognising the large tumour and its dense, hard, character. Nothing, of course, in the way of an operation was possible, though Dr. Keith was kind enough to see the patient with me, and to corroborate my opinion on this point. The patient died, I think, on the second day after I saw him first.

Advanced Organic Disease without Symptoms.—The manner in which the most serious disease is tolerated, and, indeed, in some cases borne with-

out any apparent suffering or distress, is sometimes very remarkable. Why there should be this extraordinary tolerance in some cases and not in others, it is difficult to say. One of the most remarkable cases of the kind which has come under my own personal observation was a case of aneurysm of the thoracic aorta. All physicians and pathologists are, of course familiar with the fact that sudden death not infrequently results from the rupture of a thoracic aneurysm whose presence was unsuspected during life. In most cases of this kind the aneurysm is of small size, usually deep seated, often arising from the first part (root) of the aorta; and seldom so situated as to have compressed such important structures as the œsophagus and trachea

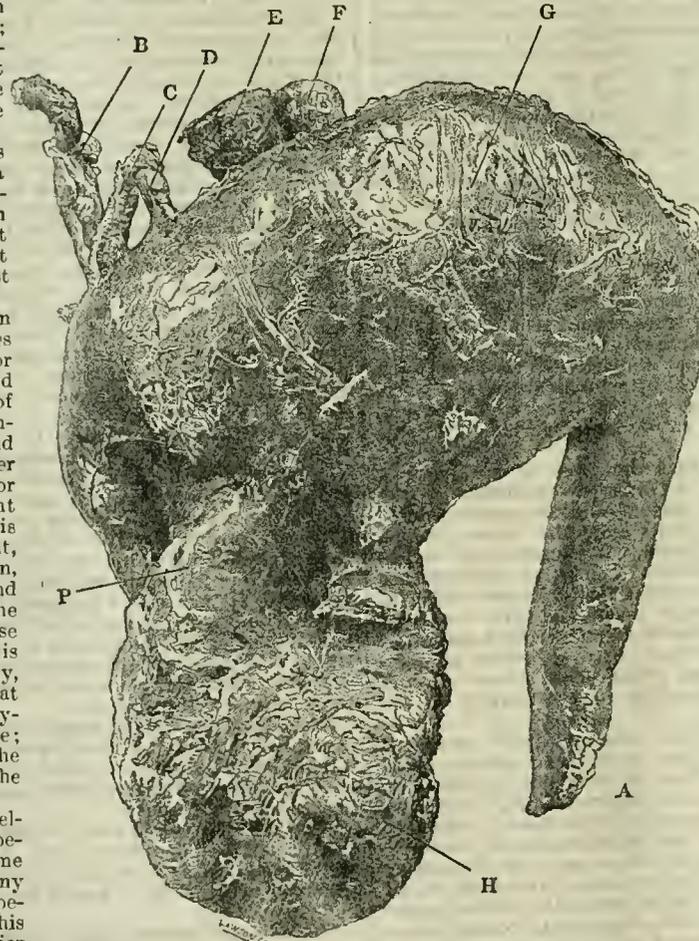


Fig. 8.—The heart and thoracic aorta in the case of J. G., from the front, showing an enormous aneurysm of the ascending and transverse portions of the aortic arch (copied from a photograph of the dried preparation). The size of the preparation is 10½ inches vertically and 7½ inches transversely. The figure measures 4½ inches vertically and 3½ inches transversely. The letter A points to the descending thoracic aorta; B to the innominate artery, from which a piece of cotton-wool is projecting; C to the left common carotid, and D to the left subclavian arteries; E to the trachea; F to the œsophagus; G to the aneurysm; H to the heart; and P to the pulmonary artery.

The case which I am about to relate is a remarkable exception to these statements. It is probably unique when the enormous size of the tumour is considered (it is, I think, the largest entirely *intra-thoracic* aneurysmal sac which has come under my own notice), and when it is remembered that there is an entire absence of symptoms, the patient having regularly followed his employment without ever making complaint of illness until an accident to the eye caused him to seek admission to the infirmary, where the aneurysm was discovered almost by accident the very day before the fatal rupture occurred. Further, it is important to note that not only was the main tumour of such great size, but that a small secondary sac (which cannot be seen in the figures) sprang from the primary tumour, and was in direct contact with the trachea. It is remarkable that, so far as I have been able to ascertain, the patient did not complain of shortness of breath until the night before he died, for the small secondary aneurysmal sac was not only in contact with, but had evidently pressed upon and flattened the trachea. The notes of the case are as follows:—

Enormous aneurysm of the ascending and transverse portions of the aortic arch, entire absence of symptoms, death from rupture into the left pleural cavity.

J. G., aged 58, was admitted to the Edinburgh Royal Infirmary under the care of Dr. Argyll Robertson on March 11th, 1885, suffering from an injury to the right eye. The patient stated that on March 9th a piece of wood struck his eye with great force. Upon admission the lens was found in the anterior chamber; it had already caused a considerable amount of irritation.

On March 12th, Dr. Robertson (to whom I am indebted for this clinical note) removed the lens with the scoop. On the evening of March 14th, the patient complained of difficulty of breathing, and when examined by the clinical clerk, Mr. Pettie, he was sitting up and labouring under considerable dyspnoea. In the course of a little time, and after the administration of an antispasmodic, the difficulty of breathing subsided. Mr. Pettie then examined the chest, and found extensive dullness and very marked heaving pulsation over the whole of the upper

part of the front of the thorax, more especially on the left side. The following day, March 15th, the patient suddenly died, before any further examination of the chest had been made.

The *post-mortem* examination was made by me on March 18th, 1885. The body was well nourished, and the patient had evidently been a very muscular man. The capacity of the thorax was great in proportion to his height, the length of the body being 66 inches, and the circumference of the thorax 41 inches.

The left pleural cavity was filled with blood, for the most part clotted, which had escaped from a huge aneurysmal sac, which occupied a large part of the thoracic cavity (see Figs. 8 and 9). The aneurysm involved the terminations of the ascending and the whole of the transverse portion of the arch of the aorta. It was lobular in form, and measured transversely (from a point a little

above the letter P, to a point a little below the letter G. in Fig. 8) 21 inches; and in circumference, the tape being passed round the distended and dried sac between the left subclavian artery (D) and the trachea (E, in Fig. 8) 16 inches. Without any exaggeration, the distended dried sac is larger than a child's head.

A small secondary sac, about the size of a walnut, sprang from the upper and posterior surface of the large tumour, and pressed directly upon the trachea. This pressure had evidently been considerable, for the trachea was distinctly compressed and flattened. The aneurysm contained a large quantity of laminated clot; the sac had ruptured just above the root of the left lung, and a very large quantity of blood had escaped through the wide laceration into the sac of the left pleura. The aneurysm was in contact behind with the trachea, esophagus, and spinal column; there had apparently been little if any pressure on the spinal column, for there was no erosion of the vertebrae. The left lung was extensively adherent to the exterior of the tumour; and the left recurrent and vagus nerves were incorporated in the anterior wall of the sac.

The sac wall was remarkably friable, and on microscopic examination the structures composing it were found to be markedly fatty. The heart was of small size; it was not weighed, for this would have necessitated detaching it from the aneurysmal sac. The exterior of the heart was covered with a moderately thick layer of fat; the muscular tissue of the organ was in an advanced condition of fatty degeneration; its valves were healthy.

The question naturally arises whether this fatty condition of the heart and the low arterial tension which we would expect in such a condition may not to some extent account for the absence of symptoms in this remarkable case. The descending thoracic aorta and the great vessels arising from the sac were dilated. The lungs were deeply pigmented, but otherwise healthy. Permission was restricted to the cavity of the thorax; the other organs were consequently not examined.

The history of the case seemed so remarkable that I wrote to Messrs. Tancred, Arrol and Co., in whose employment the patient was; and also to Dr. James Hunter, the medical officer of the Forth Bridge Works. I append the answers which they kindly sent me. It is, perhaps, right to mention that the men employed at the Forth Bridge Works can have the benefit of Dr. Hunter's advice and attendance simply by asking for it. It is, therefore, very unlikely that this man could have been ill without Dr. Hunter hearing of it.

Copy of Letter from Messrs. Tancred, Arrol and Co.
 "Forth Bridge Works, South Queensferry, N.B. June 16th, 1885.
 Dear Sir,—Referring to yours of yesterday, we have the pleasure in giving you the following information. The man you refer to worked here under the name of J. G. for about two years, first as a fitter, but latterly in looking after the planing machine, neither of which is heavy or severe work. So far as we can make

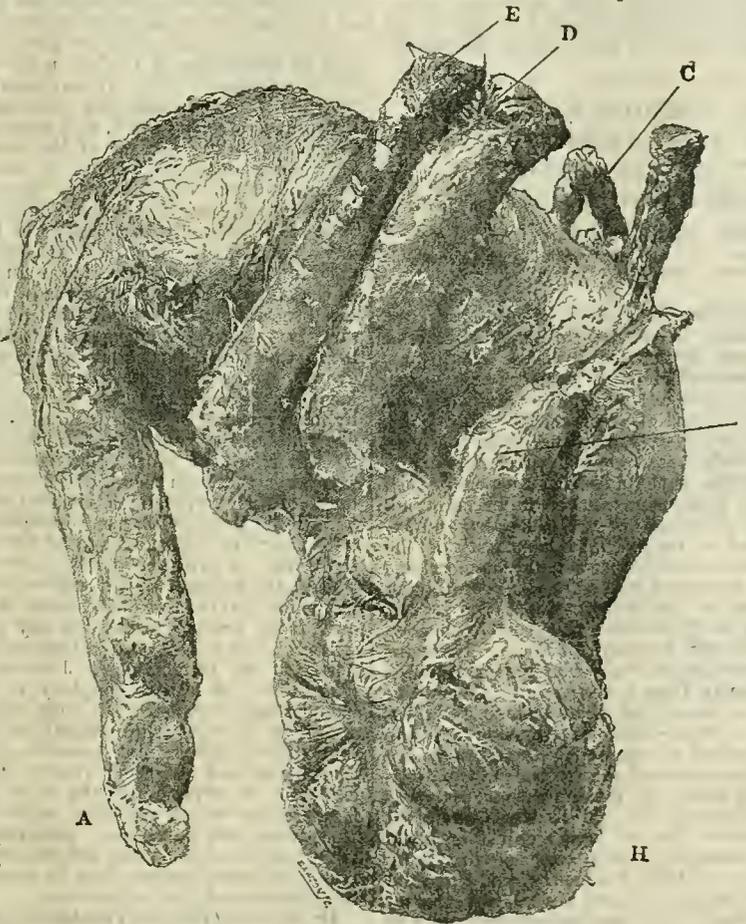


Fig. 9.—The heart and thoracic aorta in the case of J. G., from the back, showing an enormous aneurysm of the ascending and transverse portions of the aortic arch (copied from a photograph of the dried preparation). The size of the preparation is vertically 10½ inches and transversely 7½ inches. The figure measures 4½ inches vertically and 3½ inches transversely. The letter A points to the descending thoracic aorta; B to the superior vena cava; C to the left common carotid artery; D to the trachea; E to the esophagus; and H to the heart. The heart, aneurysm, arteries, trachea, and esophagus were first filled with cotton wool; the preparation was then dried, varnished, and photographed.

out he was not under medical care here, nor did he complain of illness at any time. We trust the above information will suit your purpose, and are, yours faithfully, TANCRED, ARROL AND Co.
—Dr. Byrom Bramwell."

Copy of Letter from Dr. James Hunter.

"The Priory, Queensferry, December 29th, 1887. Dear Dr. Bramwell,—J. G. was a member of the Forth Bridge Workmen's Club, in virtue of which he was entitled to medical advice at any time. Up to the date on which he met with the accident to his eye I had not been asked to see him professionally. Indeed, I am not aware that he was on any occasion absent from his duties at the bridge.—Yours sincerely, JAMES HUNTER."

The details of another case of aneurysm (which is reported in the *Edinburgh Medical Journal* for April, 1888) were also given, in which the patient was able to work for a period of eight years with an aneurysm projecting through the front wall of the thorax.

CASE OF SERIOUS HÆMORRHAGE FROM THE CAVITY OF THE TYMPANUM IN AN INFANT (OTITIS MEDIA HÆMORRHAGICA).

By THOMAS BARR, M.D.,

Surgeon to the Glasgow Ear Hospital; Lecturer on Aural Surgery, Anderson's College, etc.

BLEEDING from the ear may occur in various affections of that organ. Thus it is not uncommon in purulent diseases associated with polypi, granulation tissue, or caries; in these conditions, however, it is rarely more than sufficient to tinge the discharge. A moderate escape of blood is also not unusual in otitis externa and in myringitis, from the rupture of hæmorrhagic elevations, either on the osseous portion of the external canal or on the tympanic membrane. In otitis media hæmorrhagica the source of the hæmorrhage, as the name implies, is the middle ear, especially the cavity of the tympanum, the mucous membrane of which is in a state of acute inflammation. The walls of the distended and engorged vessels give way, blood is poured into the cavity of the tympanum, the tympanic membrane is ruptured, and hæmorrhage takes place externally. The following case is probably unique in respect of (1) the tender age of the patient, and (2) the serious loss of blood. A baby (girl) of 9½ months was sent to me on November 17th last by Dr. Sinclair Kennedy, of Perth. I was informed that, five weeks previously, the baby had become restless, uneasy, and sleepless, apparently from severe pain. These symptoms continued for about a week, and then seemed to be explained by the appearance of muco-purulent secretion from the left ear. There was also noticed a considerable swelling in the neck below the left ear. This escape of matter was on the evening of Friday, and on Sunday night the mother awoke, and was dismayed to find the upper part of the child's dress saturated with blood; she was of opinion that at least a cupful of blood must have escaped. Dr. Kennedy says, in a letter of November 15th, "I was sent for at 5 A.M. on Monday, when I found the child deluged with blood from the left ear. I used a weak injection of acetate of lead, and enjoined rest. The bleeding returned once or twice during the day, but not to so great an extent. I had Dr. Bramwell seeing her with me in the afternoon, and we tried to see the state of the tympanum, but she was so restless we left her alone. We thought she must have had some inflammatory mischief of the middle ear, with rupture of the membrane. Under the ear there was a swelling as large as a walnut, and tender to touch, with a brawny feeling around. She had no pain over the mastoid process, but did not like to be touched over the head of the lower jaw-bone. She was put on iodide of potash, with liq. hydrarg. perchlor. and tinct. of iodine. Iodoform was put into the ear on cotton-wool, and iodoform and vaseline applied to the swelling under the jaw. Some hours after the first bleeding a troublesome dry cough came on, without any chest symptoms, and as we concluded it was aural. The bleeding again returned on Tuesday morning, and I put her on gallic acid internally. From this time there was no return of the bleeding. In a few days the swelling under the jaw went completely away. The discharge from the ear by Thursday, the 21st, was colourless and odourless. On her recovery I tried to examine the ear, but she was restless with me. However, I felt satisfied. I saw a ragged tear of the upper half of the tympanum."

When I examined the patient, there was neither discharge from the ear nor perforation of the tympanic membrane; but a small cicatrix on the antero-inferior part of the membrane indicated the recent existence of a perforation. The membrane had not the ordinary lustre, and the vessels of the manubrium were somewhat injected. The Eustachian tube was permeable. I had no doubt that a perforation had recently existed in the tympanic membrane, and that the hæmorrhage had its source in the middle ear. The child was decidedly anæmic, but, according to the statement of the parents, the pallor was much less than it had been soon after the bleeding, when the face was quite blanched.

In regard to the explanation of the hæmorrhage in a case such as this, it has been argued that the dilated and engorged arterioles in the tympanic mucous membrane give way under the influence of the partial or complete vacuum produced in the tympanic cavity from the closure of the Eustachian tube. It is urged that just as rarefaction of the air in the tympanum may so act upon the blood-vessels of the mucous membrane of the middle ear as to produce a serous exudation (*hydrops, ex vacuo*), so when acute inflammation exists with, as a consequence, dilated and engorged arterioles on the surface of the mucous membrane, the suction may in time lead, not simply to transudation of serum through the coats of the vessels, but to their rupture, with free hæmorrhage into the cavities of the middle ear. In this case, however, there was probably perforation of the tympanic membrane two days previous to the hæmorrhage, which would remove the vacuum, unless, indeed, which is quite conceivable, the aperture in the membrane was afterwards closed temporarily by inspissated secretion, so as again to lead to partial rarefaction of the air. But while admitting the possibility of the vacuum theory, it must be pointed out that such conditions frequently exist—in every case of otitis media, a very common affection—without hæmorrhage; and therefore it is probable that in cases attended by hæmorrhage there is, in addition, some peculiar weakness of the walls of the vessels of the middle ear. Such weakness may be the result of morbid changes due to Bright's disease, and several cases are on record of hæmorrhage from the mucous membrane of the tympanum associated with, and probably the result of, chronic Bright's disease, corresponding, as has been suggested, with the retinal hæmorrhage of the same disease. In this child there was no evidence of the existence of Bright's disease, and, indeed, the age was quite opposed to the supposition of changes in the arterial coats from chronic Bright's disease. Apart, however, from Bright's disease or any other chronic affection, there was probably in this child a hæmorrhagic tendency which predisposed to the hæmorrhage. Just as ophthalmic surgeons recognise a form of retinal apoplexy in the young, due simply to a hæmorrhagic tendency, so may such a case as this (tympanic apoplexy) have its origin mainly in the same predisposition. The immediately determining cause may have been the action upon the dilated and engorged vessels of the partial vacuum in the cavity of the tympanum. In view of the predisposition to the hæmorrhage which probably existed in this child, the parents were instructed to use every precaution in order to avoid, if possible, future inflammatory attacks in the ear.

The following authors may be consulted by those interested in the literature of this subject:—

Dr. Roosa's *Practical Treatise on Diseases of the Ear*; Politzer on the Membrana Tympani (p. 95), translated by Drs. Mathewson and Newton; Schwartze in a paper in *Archiv für Ohrenheilkunde*, entitled "Ein Fall von Bluterguss in die Paukenhöhle bei Morbus Brightii," Bd. iv; Dr. McBride on Otitis Hæmorrhagica in *Archives of Otolaryngology*, vol. xv.

LUMBAR COLOTOMY; THE CAUSES OF FAILURE IN FINDING THE COLON, AND HOW THEY MAY BE OBVIATED.

By HERBERT W.M. ALLINGHAM, JUN., F.R.C.S.,

Surgeon to the Great Northern Hospital; Demonstrator of Anatomy at St. George's Hospital.

MANY surgeons commence the operation of lumbar colotomy under the impression that it may be impossible to find the colon, or almost all of us have seen the best operators experience difficulty, and even failure in finding the gut. Cases, too, have been reported in which the small intestine has been opened by mistake. Knowing this, and having read Mr. C. B. Lockwood's interesti-

pamphlet on the development of the colon and the abnormal positions it may take up, it occurred to me to try and find out these causes of failure, and, what is more important, the ways by which they may be overcome. All will agree that unless one of the longitudinal muscular bands (which are invariably and only found in the large intestine) be seen, the intestine should not be opened from the loin. These bands are described as being situated, one on the anterior surface, another along the inner part, and the third at the posterior aspect of the gut. It is this posterior band that is looked for, and generally supposed to be seen, when searching for the bowel in lumbar colotomy. It is thought by some authorities that these bands can be easily detected without opening the peritoneum, but this is not so, except in a very few cases. For I find from an examination and dissection of over one hundred ascending and descending colons, that the bands are always more easily and distinctly seen when they are covered by the peritoneum, which makes them hard, prominent, and shiny; whereas when the peritoneum is stripped off them, these characteristics are lost. I admit that in eight cases out of the one hundred examined one or two of these bands could be seen, but not very distinctly, on the posterior part of the intestine, although they were uncovered by peritoneum. When the peritoneum only covers about one-half or two-thirds of the circumference of the gut, it is generally reflected off the gut at the longitudinal bands on to the walls of the belly. Thus, unless the peritoneum is stripped off, the bands are not visible. If an attempt is made to expose these longitudinal fibres the peritoneum, owing to its being so firmly adherent to them, is frequently torn and the abdominal cavity opened perhaps unknown to the operator.

It is argued in favour of lumbar colotomy that the large intestine can be reached without opening the abdominal cavity. This, of course, is possible. Yet it is much more important to make absolutely certain that the large intestine is being opened by first seeing the longitudinal bands. This, from the anatomical points I have mentioned, can only be done by opening the peritoneum. Moreover, I propose to prove that in this way only can the large intestine be found with certainty in most cases. I am strengthened in these conclusions by three cases in which I operated on the right side on the dead subject, where it afterwards appeared that, if I had not looked carefully for the longitudinal bands, the descending portion of the duodenum would have been opened instead of the large intestine. This occasionally happens when operating on the living.

Some years ago my father came to the conclusion, after careful investigation, that the best incision from which the colon could be found was one with its centre quite half an inch posterior to midway between the anterior superior and posterior superior spines of the ilium, and midway between the last rib and the crest of the ilium. This incision should be limited in length to between two and three inches, for this compels the operator to cut down exactly in the position in which the colon generally lies; whereas if, as is frequently the case, the length of the incision is five or six inches, the operator runs the risk of missing the gut. Moreover, another advantage of the small incision is that afterwards there is no collapse of the gut and very considerable sphincter power is obtained. For it is obvious that if a large wound is made, which does not heal by first intention at the anterior and posterior part, a weak cicatrix is left in the abdominal wall, and there is consequently a loss of muscular power over the new anus.

I will now consider the various positions which the right and left colons may occupy with regard to their peritoneal covering. The general position (as shown in Diagram 1) is where the peri-

toneum only covers a half or two-thirds of the circumference of the gut, leaving the posterior part uncovered, with the intestine bound down to the loin. This, according to Mr. Treves is found to be the position in

74 cases out of 100 on the right side,
64 " " " 100 " left "

My own observations, assisted by Mr. Stewart Pollock and Dr. Penrose at St. George's Hospital, show

11 cases out of 60 on the right side,
10 " " " 60 " left "

This, by taking the percentage, is

18½ cases out of 100 on the right side,
16½ " " " 100 " left "

From this it would appear that the position above described is less general than is popularly supposed. With the intestine in this state and a longitudinal muscular band seen, which must be uncovered by the peritoneum, all should go well, and there is little or no difficulty in operating. But when no bands can be seen, owing to the peritoneum covering them, the best distinction between large and small intestine is wanting. Therefore, knowing that the small intestine is frequently exposed by opening the peritoneum unwittingly, I consider that it is much more advisable to open the peritoneum intentionally and search for a piece of intestine with longitudinal bands than to run the risk of opening the small intestine, under the impression the peritoneum has never been opened at all, and that it is the large intestine with which you are dealing.

In Diagram 2 the colon is represented entirely surrounded by firmly adherent peritoneum, and having a comparatively short

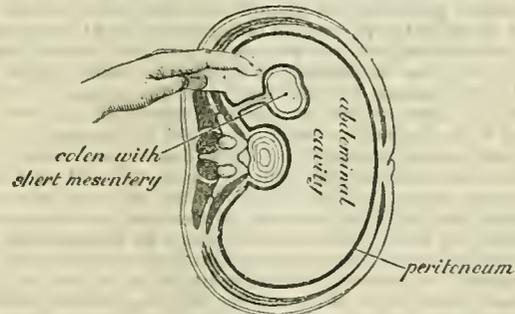


Diagram 2.

mesentery, and in such a condition that it is absolutely impossible to reach it or to see the longitudinal bands without first opening the peritoneal cavity.

The ascending and descending colons were found to have a mesentery of varying length, according to Mr. Treves, in

26 cases out of 100 on the right side,
36 " " " 100 " left "

I have observed this in

49 cases out of 60 on the right side,
50 " " " 60 " left "

showing, by taking the percentage,

81½ cases out of 100 on the right side,
83½ " " " 100 " left "

In Diagram 3 it will be seen that this condition of mesentery is much intensified, and that the intestine, although it may rest in the loin, can so alter its position in the belly that when operating

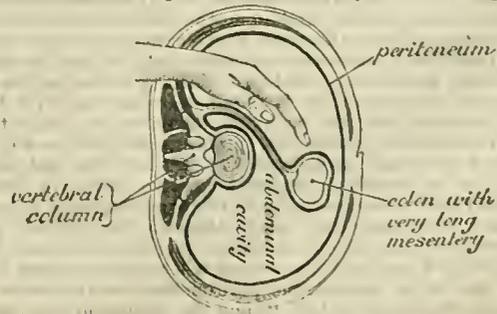


Diagram 3.

on either side it may lie on the side of the belly opposite to that

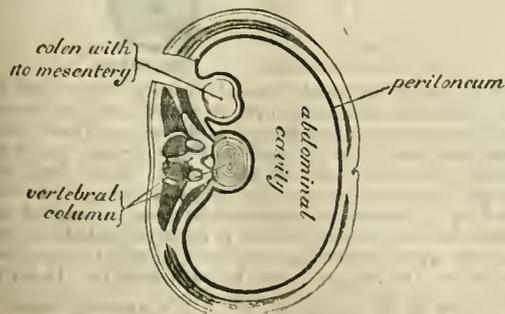


Diagram 1.

in which the incision is made. It then, in the cases reported, was said and supposed to be impossible to find the colon from the lumbar region.

The last two examples show how imperative it is to make sure that it is the large and not the small intestine, or even the stomach, which is going to be opened. At the risk of reiteration I must impress upon my readers the necessity of following the lines laid down for ascertaining that it is the large intestine which the operator is bringing to the loin. The presence of the appendices epiploicæ may also inform the surgeon that he has found the large intestine, but I do not consider these as so important as the longitudinal bands, since the appendices may not always exist on the piece of large gut brought to view. Bearing in mind these anatomical facts, we must now consider how they may be dealt with successfully.

In a case represented by Diagram 1, after exposing a piece of intestine, and failing to see a longitudinal band, I make a small incision into the peritoneum, and convince myself, by finding a band, that it is the large intestine. The posterior part of the intestine is then taken hold of, drawn to the surface of the wound (the gut being pulled out as far as possible, so as to obtain a good spur), and carefully stitched with interrupted sutures all round to the edges of the skin, without perforating the mucous lining. The intestine may then be left unopened for some hours, or, if necessary, opened at once; provided that it is carefully attached at every point to the surrounding edges of the wound.

When a condition occurs, as is represented in Diagram 2, of course in the first place a sufficient search should be made for the gut about the subperitoneal tissue, under the assumption that it is in its normal position; but should this search fail, all the loose pieces of fat must be sponged out of the wound, and the peritoneum at the anterior angle of the wound, deliberately opened (and the edges clipped), just sufficiently to admit the index finger. This finger I pass towards the vertebrae, and then sweep it over the front of the kidney and quadratus lumborum, and the gut, although it be in the position represented in Diagram 2, can be easily felt, hooked up, and the longitudinal bands seen. I then open the peritoneum to the extent of the wound, and introduce a sponge, with string attached, to keep the intestine out of the way while the edges of the cut peritoneum are drawn up and sutured to the skin in the manner I adopt in inguinal colotomy. This entirely shuts off the cut abdominal muscles from the peritoneal cavity. Occasionally this stitching is not easy to do, either on account of the depth of the wound, or from the firm adherence of the peritoneum to the abdominal wall. The rest of the operation is completed in the usual way, as described in Case 1. Here, if the mesentery be sufficiently long, a stitch may be passed through it, fixing it to the surface of the wound; thus a good spur is obtained.

In dealing with the third position, as represented in Diagram 3, after proceeding in the manner described in Cases 1 and 2, and failing to find the colon, I then enlarge the external wound forwards and backwards sufficiently to admit the hand. I next open the peritoneum to a corresponding extent, and, having well cleaned the hand, I introduce it into the abdomen. If it is the left colon that is to be operated on, I first pass the hand upwards towards the spleen, and feel for the splenic flexure. Hereupon I draw the hand down the intestine until the piece opposite the wound is found and brought to the surface. Failing to find the intestine at its splenic bend, I pass the hand towards the rectum or across the abdomen (keeping the back of the hand in contact with the posterior aspect of the anterior abdominal wall), towards the hepatic flexure, and then slip the hand along the large intestine, and draw a piece to the surface. Of course I take care to ascertain that this piece of intestine has the characteristic longitudinal bands. By these means I have never found any difficulty in finding the colon.

When the large intestine is found, command it with forceps that will not perforate the gut, and introduce a sponge to keep the small intestines, which may prolapse, out of the way while the wound is treated as follows. At the anterior and posterior parts, if the incision is six inches long, two inches in front and two behind should be dealt with as in an ordinary case of abdominal section, by passing the suture through the skin and peritoneum, so as to bring the cut peritoneal edges in contact. But at the middle two inches of the wound where the intestine is to be brought up to the surface, the peritoneum should be sutured to the skin as described in Case 2, and the operation completed in the same way. In this third condition a good spur can and should always be made, and when the gut is opened its promi-

nent edges ought to be cut away in the manner I suggested in my paper on inguinal colotomy.

I cannot help thinking that the above described methods of treatment must have occurred to, and been used by, some surgeons when performing lumbar colotomy.

I am much surprised, considering the frequency of the operation, that these details are so little known, or, at any rate, practised. Yet, as far as I am aware, no account of these important details in finding or treating the large intestine from the loin has, up to now, been brought before the profession. This silence on the subject has encouraged me to express my views, and I am confident that I shall never undertake this operation with any fear of failing to find the colon. I do not at all advocate lumbar colotomy when it is possible to perform the inguinal operation, for the lumbar is certainly the more difficult; the patient runs greater risks and recovers with less rapidity, and the after results are not so satisfactory. Nevertheless, for those surgeons who persist in the lumbar operation, and in cases where the obstruction is at the upper part of the sigmoid flexure or in the transverse colon, I hope that these remarks may assist in simplifying the supposed difficulties, and minimise the mistakes not infrequently made.

SUCCESSFUL EXTRACTION OF A PIECE OF GLASS FROM AN EYE WHERE IT HAD LODGED FOR MORE THAN TEN YEARS.

By T. H. BICKERTON, M.R.C.S.,
Oculist, Liverpool Royal Infirmary.

HAVING, in the literature of ophthalmic surgery, been able to find but four cases mentioned¹ where glass has been found in the anterior chamber of the eye, a record of the following case may not be without interest.

Mr. H. T., aged 29, was, more than ten years ago, watching closely the manufacture of oxygen. Suddenly the glass retort burst, and, on Mr. T. recovering himself, numerous pieces of glass were found sticking in his face; his lip was cut in two, and he could not see well with the left eye. Owing to a severe cornea wound, he was for a fortnight kept in a darkened room, for three weeks longer he had a bandage over both eyes, and for about six months he wore dark protectors. The following is his statement as to the progress of affairs:—"My eye gradually got better, useful sight was regained; and for years it gave no trouble, though in cold winds it used to inflame now and again. Within the last four years it has given more trouble, but this was ascribed to a granular condition of the lids; and rubbing with blue stone gave relief. Still there was always a red look about the eye. In a fierce sun it was weak, and often, when playing tennis it would water much and become red and irritable. Once, when bending over a dog, he suddenly jumped up, and his nose coming in contact with my eye caused pain. This year I have played tennis vigorously, and found the eye getting more and more red and irritable; and the local application of the blue stone, which up to this attack had always given relief, was now of no benefit.

On July 15th, 1887, the condition was as follows:—Right eye, V. $\frac{20}{20}$. J. i, normal in all respects; pupil $\frac{4}{16}$ m. Left eye, V. $\frac{20}{20}$.

Left Eye.



Line of incision. Glass. Glass in situ.

I letter J. i; small brownish corneal cicatrix below and to the inner side of the centre of the pupil, to which a tag of the surface of the iris (not the pupillary margin) adheres, and from it a faint cicatricial line runs up to the centre of the cornea; pupil $\frac{2}{3}$ m. and slightly irregular; iris acting well to light; lens normal. Lying at the bottom of the anterior chamber, not quite horizontal but tilted up to the outer side, can be seen, on careful oblique illumination, a foreign body, which is indistinguishable in certain positions, but which, when the eye is so directed as to allow the light to fall on its margins, can be seen readily. It lay in the

¹ Theobald, von Graefe's Archiv, vol. xxx, p. 2; Ammon's Zeitschrift, iii, p. 103; Critchett, Moorfields Reports, vol. i, Ferguson, Ophthalmic Review, vol. iv, p. 293.

inus between the cornea and iris, and was not imbedded in the latter. The iris in its neighbourhood seemed to be slightly cloudy, but this appearance might have been due to a condition of the cornea or aqueous humour. The ocular conjunctiva around his part of the cornea was very hyperæmic, and it had slightly encroached upon the cornea. There was also localised ciliary congestion. The attacks of irritation could now be accounted for on the supposition that the active exercise—tennis, shooting, riding, &c.—in which Mr. T. engaged caused some slight movement of the glass; and he could now recollect that each fresh attack had followed exercise.

A quiet life was advised, and in two months the muddiness of the iris and the ciliary congestion had disappeared, and much of the conjunctival redness had gone.

On September 12th, 1887, the operation was performed; and I may here thank Dr. Fox, of Philadelphia, an old Moorfields friend, for the good advice and able assistance he gave me. Eserine having been freely applied, in order to cause firm contraction of the iris, and the eye placed thoroughly under the influence of a 1 per cent. solution of cocaine, a horizontal, purely corneal incision was made by puncture and counter-puncture with a Graefe's knife across the front of the cornea, at the junction of the lower third with the upper two-thirds, the aqueous being allowed to escape slowly. A curette was then introduced between the lips of the wound and passed on in front of the iris to a position behind the foreign body, in order to fix it. This being done, a pair of fine forceps was introduced to the bottom of the anterior chamber, and the glass, being seized at the first attempt, was removed entire. At the moment of withdrawal a speck of blood appeared on the surface of the iris, evidently being due to its having been pricked by a fine needle-like point which projected from one of the ends of the glass. Ice-d compresses were applied, and the eye made an uninterrupted good recovery, though, in spite of frequent instillations of eserine, a slight adhesion took place between the surface, not the pupillary margin, of the iris and the outer part of the corneal incision.

Two months after the removal all conjunctival redness had gone; the pupil was almost regular, and had increased in size to 4 mm. Vision $\frac{4}{2}$ letters, J. i.

The glass measures in its greatest length $4\frac{3}{4}$ mm., in its shortest length $3\frac{3}{4}$ mm. It is 1 mm. in breadth, and $\frac{3}{4}$ mm. in thickness.

A NOTE ON THE CONDITION OF THE BLOOD IN MALARIA.

By J. F. EVANS, SURGEON, I.M.S., MANDALAY.

MALARIAL fevers have naturally always obtained a great deal of attention from medical men throughout the Indian Empire. In 1855, according to Surgeon-General Thomson's report, one-fourth of the admissions to the European military hospitals of the Bombay Presidency were for this disease. But, while the mortality is very high, the debility that results from repeated attacks is a much more serious matter. Englishmen who have been living in a malarious climate occasionally suffer from ague after their return to their native home, pointing to some effect on the tissues persisting subsequent to exposure. An officer who had been some years in India told me that his first attack of ague was when taking his first leave home.

It may be that malarial poisoning is a gradual process, and that a condition of semi-tolerance is established, and that the chill or exposure, of which Dr. Oldham writes, is the immediate exciting cause. In 1879, Klebs and Tommasi-Crudeli professed to have successfully inoculated rabbits with malarial fever, and to have discovered the bacillus malarie; their experiments do not seem to have been confirmed by other observers. Marchiafava and Celli, in 1885, published a detailed account of the changes observed by them in malarial blood, with which the later researches of Dr. Laveran greatly coincide (*vide* BRITISH MEDICAL JOURNAL, October 29th, 1887). There has of late, in the military hospitals of Mandalay, been a wide field for research into the pathological changes induced by malaria. I have never examined a single specimen of blood taken from a patient suffering from ague or remittent fever without finding some definite change.

The following are the changes observed by me:

1. In health the red blood cells are with difficulty stained by aniline dye, but, after even a single attack of ague, the red blood cells can be readily stained by an aniline solution of gentian

violet; a small area, however, in most being left unstained. This unstained area is not constant in size, nor in its position in the corpuscle, in some involving nearly the whole corpuscle, in others so small as to be easily ignored. In specimens of unstained blood I have recognised the hyaline material replacing the hæmoglobin of the red corpuscles, as described by Marchiafava and Celli, who state that this hyaline material can be readily stained with methyl blue; but hitherto I have not been successful in obtaining this reaction. The globule of new hyaline matter in the red corpuscles can be seen slowly to change its shape from time to time, which Marchiafava and Celli pointed out. Whether this hyaline material coincides with the unstained area, I am not at present able to decide. In cases of malarial cachexia, the softening and crenation of the red corpuscles is a marked feature; in such cases, it is difficult to find in a specimen of blood a corpuscle with normal outline. This crenation is certainly more marked in the blood of natives than in that of Europeans, and may be due in part to the deficiency of nitrogenous matter in their diet. It is due probably to a gradual loss of the cell contents, and may serve to account for the intense anæmia that occurs in malarial cachexia. The red corpuscles are not only altered in structure by this disease, but are absolutely destroyed in the process; they can be seen in every stage of destruction, from mere erosion of the margin to almost complete obliteration, a thin semilunar rim of pellicle being left. As might be expected in blood undergoing a process of slow deterioration, small free masses of pigment are often met with.

2. In addition to the structural changes already mentioned in the blood-corpuscles, I have found free spherical bodies in the serum and in the corpuscles. These spherical bodies are possessed of movement, both rotatory and from place to place. They are of two perfectly distinct kinds, and I shall, for purposes of description, describe them as nucleated and non-nucleated, although not considering the nuclear body of the nature of a nucleus:

a. The non-nucleated spherical bodies are dark in colour, of the same consistence throughout, and about $\frac{1}{2}$ th to $\frac{2}{3}$ th the diameter of a red corpuscle (that is to say, 0.2μ to 0.3μ in diameter). They are to be met with either moving freely about in the serum, or else stationary inside the red corpuscles; when immured in a red corpuscle they as a rule remain fixed, but rotatory movements are to be observed sometimes. Three or four of these bodies generally occur in the same corpuscle together, beneath the pellicle, at one point; they frequently occur in the corpuscles undergoing the hyaline degeneration noted by Marchiafava and Celli, and also in those cells where this degeneration cannot be distinguished. I have never seen any of these organisms inside a white blood-corpuscle. I have found them in the serum and red cells of the blood of men suffering from beri-beri; and similarly in the serum and red cells of the blood of horses suffering from *sarrah*, in company with Surgeon Hendley, who tells me that he has observed similar bodies in the blood of rats, and of a dog ailing with fever. More numerous and more freely movable than the nucleated spherical bodies, it is only possible to suggest that they may have some relation to the nuclear-like bodies of the latter, although up to the present this has not been traced.

b. The nucleated spherical bodies are of a greenish-yellow tint, circular single contour, brighter than the red corpuscles, and with a highly refractive outline; varying slightly in size, they are about $\frac{1}{4}$ th to $\frac{1}{3}$ th the diameter of a red blood corpuscle (about 1μ to 0.7μ). The nuclear-like body can be easily distinguished inside the sphere, which is often little more than an enclosing capsule. Like the spherical body in which it is enclosed, this nucleus has free rotatory movement.

The nucleated, like the non-nucleated bodies, have movements rotatory and from place to place, though not so freely as the latter; they are also not so numerous, but, like them, are found floating freely in the plasma and stationary in the corpuscles. They usually occur singly in the blood cells, and I have seen them occasionally in the white blood cells as well as in the red. They often occur with the non-nucleated in the same red corpuscle; but I have never found them in corpuscles undergoing the hyaline degeneration. My first acquaintance with these nucleated spherical bodies was in the blood of horses suffering from *sarrah*, where they occur like the non-nucleated. I have not seen them, however, in the blood of beri-beri, where the non-nucleated occur, and in which disease, on two occasions quite recently, I have found a streptococcus, in chains of three cocci each, not very unlike the cocci occurring in *kumri*. The appearance of these nucleated spherical bodies would justify the assumption of their being monococci. I have not yet, however, succeeded in staining them. Accordingly,

without this and cultivation on nutrient media, and the reproduction of the disease from culture, it would be unwise to pronounce as to their nature.

The larger spherical bodies, described by M. Laveran as slightly larger than red blood cells, I have not hitherto seen; but I am inclined to believe that, what are described by him as the larger spheroids are red blood cells invaded by the parasitical elements I have observed. The white blood-corpuscles in malaria are not increased; they are apparently little affected by the disease, being invaded occasionally by the nucleated spheroids; and, when studded with pigment granules, as sometimes occurs, they present the appearance indicated by M. Laveran as the "*leucocytes melanifères*."

THE CHEMICAL INCOMPATIBILITY OF ANTISEPTIC AGENTS.

By ROBERT BOXALL, M.D., M.R.C.P.,

Physician to the General Lying-in and to the Samaritan Free Hospitals.

THE necessity of employing antiseptic agents in solution of definite strength will be, I presume, on all hands conceded; for, if the solution be too attenuated, the object in view will fail in its accomplishment, and, if too concentrated, considerable damage will in many cases be wrought, not only locally on the tissues to which the application is made, but also on the body generally as the result of absorption. The borderland between safety and success is, in many instances, a very narrow one. The possibility of reducing the strength of the solution, or of altering its nature through the chemical incompatibility of the materials employed, has hitherto received but little attention. The important practical bearing which this may exert on their efficiency as antiseptics must prove my apology for drawing attention to the matter.

By way of example, I have selected five of the more important antiseptic agents in general use, and, for ready reference as to the incompatibilities of each, the results of the experiments are presented in a tabular form, showing the action not only of these agents on one another, but also of certain lubricants with which they are frequently combined and brought into contact, and of soap with which they are apt to be contaminated in the process of washing and disinfecting the hands and instruments.

In view of the practical utility of these observations, the experiments were made, not with concentrated materials, but with solutions of the strengths usually employed in practice, and were carried out at temperatures not exceeding that of the body.

	1. Sublimat.	2. Carbolic.	3. Iodine.	4. Salicylic.	5. Condy.	6. Olive Oil.	7. Vaseline.	8. Glycerine.	9. Soap.
1. Corrosive Sublimate Solution (Perchloride of Mercury) ...	—	—	1	—	—	—	—	—	2
2. Carbolic Solution (Phenol) ...	—	—	3	—	4	5	—	—	—
3. Iodine Solution (Iodine and Iodide of Potassium) ...	1	3	—	—	—	—	—	—	6
4. Salicylic Solution (Salicylic Acid) ...	—	—	—	—	7	—	—	—	5
5. Condy's Fluid (Permanganate of Potassium) ...	—	4	—	7	—	9	—	10	11

The following incompatibilities were observed:

1. *Corrosive Sublimate and Iodine*.—No precipitate of mercuric iodide is at any stage of the admixture formed. A small addition of sublimate solution fixes the free iodine, as may be seen by the immediate bleaching of the iodine solution, and confirmed by the subsequent addition of starch paste, which produces no blue coloration. One part by volume of sublimate solution (1 in 1,000) is just sufficient to fix the whole of the free iodine in 4 parts by volume of iodine solution (tr. iod. B.P. 5j in Oj). N.B.—This forms a rough and ready test for the strength of sublimate solutions.

2. *Corrosive Sublimate and Soap*.—An insoluble soap is produced even when a neutral soap solution is used. This is of special importance in consideration of the small admixture with soap which is required to throw down the whole of the mercury from solutions of the strength usually employed.

3. *Carbolic and Iodine*.—An exceedingly small admixture with phenol is sufficient to fix the whole of the free iodine as in (1). One part by volume of carbolic solution (1 in 20) removes the

whole of the free iodine from 2,000 parts by volume of iodine solution of the strength indicated above.

4. *Carbolic and Condy*.—This is perhaps the most generally recognised of these incompatibilities. Admixture with phenol immediately turns permanganate brown.

5. *Carbolic and Olive Oil*.—This is of importance and of special interest when taken in conjunction with the researches of Koch, of Berlin, who has shown that bacillus spores are capable of living and developing after having been immersed in carbolised oil (1 in 20) for 4 months. The oil appears to enter into some combination with and to fix the phenol. If a drop of tr. ferri perchlor. B.P. be shaken up in a test tube with carbolised oil (1 in 20) no change is found to have been produced in the iron as it gravitates to the bottom. Moreover, if carbolised oil be shaken up with a few drops of water, the water allowed to separate out at the bottom of the tube and a drop of iron solution conveyed into it, the characteristic purple coloration with phenol is not produced unless the shaking has been very prolonged and energetic, and then only to a slight degree. By strongly heating the carbolised oil phenol is again set free, and the above reaction can then be obtained.

6. *Iodine and Soap*.—No action is produced by a neutral soap solution, but ordinary soap, which contains an excess of alkali, at once removes the free iodine.

7. *Salicylic Acid and Condy*.—A very dilute salicylic acid solution (1 in 800) slowly removes the colour from permanganate.

8. *Salicylic Acid and Soap*.—A drop of dilute salicylic acid solution gives a white precipitate even when a neutral soap solution is employed.

9. *Condy and Olive Oil*.—When permanganate solution is shaken up with olive oil its violet colour is changed to brown.

10. *Condy and Glycerine*.—When permanganate solution is added to glycerine its colour slowly changes.

11. *Condy and Soap*.—This incompatibility is also generally recognised. Soap, even when a neutral solution is employed, readily turns permanganate brown.

I do not pretend to any precise knowledge of the bodies produced, some of which may, for all I know, possess powerful antiseptic properties. But until this point is settled by direct observation, when chemical incompatibility exists, the antiseptic properties of the original solution must be regarded as weakened if not wholly destroyed.

The moral conveyed by the above experiments is obvious; avoid as far as possible the admixture of antiseptic agents and their contamination with lubricants and with soap when incompatibility exists. For instance, in employing corrosive sublimate it is advisable to use the same solution for disinfecting the hands (carefully avoiding contamination with soap) and for cleansing instruments as for irrigating the parts, to employ a mercurialised lubricant and to use alembroth dressings. If for any reason it becomes requisite to substitute one antiseptic agent for another, second should be chosen which is not incompatible with the first and the same precautions should be observed throughout the series.

The above observations deal with one phase only of the subject. I am content to leave to more able hands the elaboration of further details. The second question—the chemical nature of the bodies produced—is for the chemist to answer; the third point—the antiseptic value of these bodies—still remains for the germ culturist to determine. When these points have been settled and acted upon, less scepticism as to the value of antiseptic agents may be looked for. The fault lies not so much with the antiseptics themselves as with the unscientific method in which they are often employed.

¹ Here, again, a caution is requisite, for copper and steel, unless nickel plated are apt to decompose the solution and to cause precipitation of the mercury as a free state.

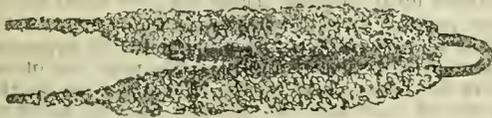
TESTIMONIAL.—Dr. Williams, who was recently compelled resign his appointment of medical superintendent of the Sussex Lunatic Asylum at Hayward's Heath in consequence of ill-health has been presented by upwards of one hundred members of the staff of that institution with an illuminated address in the form of an album as an expression of their appreciation and regard.

At a meeting of the Committee of the Home and Infirmary for Sick Children, Lower Sydenham, S.E., on April 2nd, a unanimous vote of thanks was passed to Dr. Spencer Smyth, F.R.C.S., for valuable services rendered to the institution for so long a time. Honorary Surgeon and Consulting Surgeon. Dr. Smyth has gone to reside at Bournemouth.

SURGICAL MEMORANDA.

REMOVAL OF HAIRPIN FROM THE FEMALE BLADDER.

On June 22nd, 1887, I was asked to see E. P., a domestic servant, aged 25, who, about three weeks previously, whilst assisting in spring cleaning, strained herself, and had since suffered from constant pain in the bladder and womb, with a frequent desire to pass urine, the urine being offensive, and containing a quantity of thick tenacious sediment. Standing or sitting aggravated the pain and discomfort. She had been seen and prescribed for by another medical man, but, getting no relief, she came home. A digital examination revealed nothing wrong. Subsequently, being informed by her mother that the girl had confided to her that, at the time of straining herself, she felt "something come down," which she tried to replace with a hairpin, that the hairpin had slipped out of her reach and had not since been seen by her, I decided to pass a catheter into the bladder, when, almost immediately, I felt it impinge upon a hard, roughened substance. The nature of the case was now evident; accordingly, I determined to dilate the urethra with sponge-tents, with a view to removing the foreign body. Before proceeding, however, I introduced a fine urethral forceps, and, to my great satisfaction, succeeded in grasping the object, which I was able to remove without much difficulty, and with but slight pain to the patient, who, the following day, was up and about, apparently perfectly well. The foreign body proved to be an ordinary black, japanned hairpin, as shown in the accompanying sketch. It was coated with a thick deposit of gravel



and, from the manner of the coating, it was evident that the position of the pin must have been reversed soon after its introduction to the bladder, the thicker and heavier deposit being towards the curved end. The absence of deposit at the head, or curve, is accounted for by the pressure of the forceps in its removal. The pin, with its coating, weighed forty-eight grains, and measured two and a half inches in length by half an inch in its greatest width. A microscopical examination of the deposit showed it to consist chiefly of crystals of uric acid, triple phosphates, cystine, with numerous epithelial casts.

TREVOR FOWLER, L.K.Q.C.P.I., L.M., and L.R.C.S.J.

Epping.

RUPTURE OF MIDDLE MENINGEAL ARTERY.

C. D. aged 10 years, a small boy, received about noon, Saturday, October 8th, 1887, a blow from a stone. There was no complaint of pain or illness during the remainder of the day, nor did the blow cause any immediate symptoms.

On October 9th there was slight tenderness behind the left ear, and slight headache, but no mention was made by the patient to his parents of any blow. On October 10th the lad went to school as usual, and in the evening was rather noisy and more than usually cheerful and mischievous. He went to bed at about 10 o'clock. At 12 o'clock his father was called to him, he was crying with headache and was very sick. The father stayed with him until he appeared more quiet and went to sleep(?).

Early on October 11th I was sent for to see the child. He was quite unconscious, both pupils were widely dilated, not acting to light, and he was sick. The extent of paralysis could not be recognised as there was complete insensibility. The bowels and bladder had been emptied unconsciously during the night. The pulse was very feeble; the temperature was below normal. At his time I did not know of any injury. He continued in the same condition until noon, when he died.

Necropsy.—There was a slight bruise over the left temporal region; behind the ear the squamous portion of the temporal bone was very thin, not thicker than a sheet of brown paper. The anterior branch of the middle meningeal artery was ruptured, the dura mater was separated from the skull, and there was a large clot the size of the palm of the hand, between the skull and the dura mater. All the other organs were healthy.

REMARKS.—In this case there was an interval of sixty hours between the injury and any acute symptoms. The boy had eaten a

considerable number of acorns on Monday, and it seems just possible to me that the artery may have been only bruised in the first instance, and subsequently ruptured by the sudden straining of the vessels caused by the sickness, which perhaps was due to the acorns, and at this time not to active cerebral mischief. Of course there may have been slow hæmorrhage during the whole time.

Redhill.

H. W. EWEN.

A CASE OF TRAUMATIC PERICHONDRITIS OF THE LARYNX.

THE following case is of interest, first as an example of a somewhat rare accident, and secondly as confirmatory of my contention that caries is not a necessary sequence of perichondrial inflammation, as is held by most authors, for in not a few cases the inflammation terminates in resolution with more or less thickening and functional impairment, but without caries or separation of any portion of the cartilages. I take this opportunity also of saying that I have long held the opinion, as is evidenced in my published writings, that perichondritis may arise independently of any specific dyscrasia, syphilitic, tuberculous, or cancerous.

Mr. J. R. J., lieutenant in the Royal Navy, consulted me on February 26th, 1888, stating that he had received a blow from the elbow on the left side of the pomum Adami, in the previous October, while playing football.

There was no visible bruise, but there was considerable pain with slight external swelling. His voice was entirely lost for forty-eight hours, and was afterwards husky for some days. The further effect on his voice was peculiar; for even after recovery of phonation, he experienced the greatest difficulty in controlling his speaking voice, and especially in giving the word of command, which was attended with more than ordinary difficulty, he being engaged in gunnery experiments. He had formerly pitched his voice for this purpose in a rather higher tone, but this he found himself now unable to do. Before his accident he had a fine singing voice, with a range of fully two octaves from E to E, and even to F. On recovery of his speaking voice, he attempted to sing, but found that he had lost five or six notes, his limit then being G, in the fourth space of the bass clef. His lower notes had remained unaltered.

On laryngoscopic examination I found that there was swelling and redness of the left arytenoid cartilage, and slight congestion of the cartilaginous portion of the vocal cords. There was also distinct tenderness on palpation of the left side of the larynx. At no time had there been any pain on swallowing.

Treatment has consisted in complete vocal rest, the nightly use of a wet compress over the larynx, and the application by means of a compressed air spray of a solution of iodide of zinc, ten grains to the ounce. The patient may now be considered well, and will immediately resume duty, but he reports that he has only regained one note and a half of his singing voice, and that after vocal exertion in even ordinary conversation his throat becomes painful.

LENNOX BROWNE, F.R.C.S.Ed.

Weymouth Street, Portland Place, W.

TREATMENT OF CARBUNCLE.

I AM quite at one with Dr. Henry Lowndes, of Liverpool, in the treatment of carbuncle. I have seen nearly all the various methods of treating carbuncle tried, and I am decidedly in favour of sulphide of calcium with carbonate of iron, generous diet, and locally cleanliness with linseed meal poulticing as occasion demands. I have, without exception, had good results, and now in all cases I never think of using the lancet. The old method of resorting to the knife in all cases of carbuncle I think is to be deprecated.

Glasgow.

QUINTIN McLENNAN, M.B., C.M.

In the report of a lecture by Mr. Page in the JOURNAL of March 24th, in speaking of the treatment of carbuncle by potassa fusa, he says: "Others think the separation of the slough may be hastened by pushing small pieces of potassa fusa through the skin holes into the gangrenous tissue beneath." From this expression it is sufficiently obvious that he has no knowledge or experience of this plan of treatment. I made it the subject of the surgical address when our Association met in Bristol, under the presidency of the late Dr. Symonds, in 1863, and since that time I have always used the caustic, and with unfailing success, in my own cases and in consultation.

A deep central circular slough, which may include some of the apertures, if any, that are already formed, must be made by the

application of the caustic, and its size must vary with the size of the carbuncle, meaning perhaps the third or fourth of its diameter; and when I entered the profession we had frequently to make caustic issues near the joints or on the arm or any other part, and we learnt that to form a slough involving the whole thickness of the cutis will require the continued application of the potash for ten minutes or a quarter of an hour.

When the slough has been formed the patient is at once relieved of the pain, and pressure, and tension of the disease, which from this time ceases to extend, and as a rule the recovery is uninterrupted.

I have never employed the method of scraping, having complete faith in the caustic treatment. I agree, however, in one particular with Mr. Page, namely, in hoping that he will not have a carbuncle.

AUGUSTIN PRICHARD, F.R.C.S.

Clifton, Bristol.

IN the JOURNAL for March 3rd, 1883, p. 417, Mr. H. B. Hewetson, of Leeds, gives an account of a case of carbuncle successfully treated, in which he employed both scoop and scissors for the free removal of all dead and doubtful tissues.

Following Mr. Hewetson's lead, I have similarly treated three cases:—

1. T. L., aged 60, admitted April 3rd, 1883, ill two weeks with carbuncle four inches in diameter, situated on the back of the right chest, and suppurating through several small openings on its surface. Under ether the diseased tissues were freely removed by scoop and curved scissors. Iodoform powder was used as dressing for a few days. Recovery was complete on May 25th, having been delayed by large size of sore.

2. M. B., aged 60, admitted in January, 1884, with very large carbuncle on the back of the neck, treated as last case; recovery in six weeks.

3. M. A., aged 49, admitted on December 3rd, 1885, with carbuncle two inches in diameter, situated behind the right ear; ill twelve days; entirely removed at once as before; recovery in five weeks.

In all the cases pain, previously intense, was immediately removed, and the site of the carbuncle was in a very short time converted into a healthy sore.

Mr. Rushton Parker, on page 691 of this year's JOURNAL, insists on the free removal of carbuncle; in this he was anticipated by Mr. Hewetson. Mr. Parker recommends the knife in addition to the scoop, while Mr. Hewetson recommended scissors, a more serviceable instrument for the purpose.

Mr. Teale's description of the removal of carbuncle by scraping errs in not advocating a free enough removal of the diseased tissues; it is impossible to satisfactorily deal with a carbuncle by the scoop alone.

JAMES ALLAN, M.A., M.D., Leeds Union Infirmary.

NOVEL METHOD OF APPLYING TAXIS.

A FEW days ago a native presented himself at the dispensary of this hospital with a right large scrotal hernia, which had been down for some months. The man was placed on his back, and the tumour manipulated. The coverings were fairly tense. Before attempting reduction I casually asked the patient if the tumour ever got smaller; he replied "Yes," and proceeded to give me a demonstration in taxis which I had not previously heard of, and which will probably be new to many readers of the JOURNAL. Lifting up the tumour with his left hand, he placed his right thigh on his abdomen, then crossed it over to the left side, catching the tumour between the pubes and thigh, then applying pressure. The hernia disappeared with a gurgle and a snap before I had time to call the attention of the students to this novel procedure. The reduction was complete.

G. JAMESON, M.B., I.M.S.,

Resident Surgeon, Medical College Hospital, Calcutta.

ABDOMINAL PUNCTURE IN TYMPANITES.

SIR,—Having resorted to abdominal puncture in tympanites several times during the last thirteen years, I have read with interest your report of Dr. Kyle's case (JOURNAL, April 14th, p. 79).

I first adopted this method in the year 1875 under the following circumstances:—A gentleman, aged 30, was suffering from peritonitis, resulting from a chill, and on or about the eighth day the tympanites gave rise to great distress, and all the usual methods

adopted in such cases failed to give relief. On the morning of the tenth day I was called up at 3 A.M., as the nurse thought the patient was dying, and on my arrival I found him in a most critical condition. The pulse was almost imperceptible at the wrist, the breathing was quick and shallow, the heart's action was alarmingly tumultuous and rapid, and the countenance was pinched, with a cold, clammy forehead. It was evident that unless the tympanic distension was diminished a fatal result would occur, and I, therefore, decided to puncture the most resonant part, and did so with a hypodermic needle. It was most gratifying to notice that in a few minutes the breathing became deeper and the heart's pulsations steadier. The patient after this progressed favourably, and is still alive and well.

In all the other cases in which I have punctured much benefit has resulted, and in no case has any unfavourable symptom arisen from the procedure.

When I adopted the plan in 1875 I had not heard of it being used or even suggested, and I certainly consider that it is a procedure which might be adopted very frequently.

AUBURN WILKINSON, M.B., F.R.C.S. Eng.

Tynemouth.

A CASE OF INTESTINAL OBSTRUCTION, WITH RUPTURE OF THE BOWEL: OPERATION: RECOVERY.

W. V., a grocer's assistant, aged about 29, sent for me early one morning in July, 1885. He stated that on the previous evening, when chopping up firewood, he felt a pain in the stomach, which had continued until morning. There had been slight sickness, but the bowels had not acted for twelve or fourteen hours. I found the patient in bed, complaining of pain in the hypogastric and right inguinal and lumbar regions. The pain was increased by pressure in the hypogastric region. There was no marked dullness or tumour. An aperient pill and dose of castor-oil were given, but both were rejected with vomited food. The castor-oil was repeated, and one pill of opium (half a grain) and belladonna (quarter of a grain) given every three hours. In the night vomiting was distinctly greenish and sour. As there was no action of the bowels, an injection of soapy warm water, castor-oil, and turpentine was given. This succeeded in clearing out the colon, and it was followed in six hours by a very slight action. Vomiting continued every few hours. The abdomen was increasingly tender, and there was dullness over an area of four or five square inches to the right of the umbilicus, and three inches below. There was slight tympanites. No improvement followed, and the patient having been removed to the hospital, it was decided at midnight (four days after first symptoms) to operate. The patient was almost moribund, the abdomen was greatly distended, temperature 104.5°; pulse 135, and quite characteristic; respiration was short, rapid, and laboured. The A.C.E. mixture was administered. The usual median incision was made through the abdominal wall, and afterwards carried two inches above the umbilicus. (By the courtesy of the surgeon of the hospital, I was asked to assist in the operation.) The peritoneum was carefully divided on a grooved director. No sooner was the abdominal cavity thus laid open, than out there gushed a large volume of horrible faecal gas, followed by a copious outflow of thin yellow greenish fluid, containing a quantity of flakes of lymph, and bits of faecal matter. The small intestines were distended with gas. The peritoneum was intensely injected. We bled out the abdominal cavity with a teacup. Then slight bilateral pressure caused a small fountain to well up from the deep part of the abdominal cavity. Taking this fountain for my guide, I passed the index finger of my right hand through the aperture into the bowel, upwards and downwards. I strongly advocated resection, but was overruled, and consequently sewed up the parietal wound. The man to all appearance seemed on the point of expiring. The wir sutures all in turn gave way, quantities of faecal matter and fluid continued to escape from this wound for several weeks. The ruptured bowel became disengaged, and rose to the surface of the parietal (operation) wound. The latter became agglutinated in mass of granulations. The abdominal cavity was once more restored. Faeces passed *per anum*, and the patient, passing through a long convalescence, escaped with a very small fistula, the size of a hempened, and is now otherwise in the enjoyment of perfect health and strength.

THOS. P. HARVEY, M.D., L.R.C.P. Lond., M.R.C.S. Eng., etc.,
St. Leonard's-on-Sea.

THERAPEUTIC MEMORANDA.

JAMBUL IN DIABETES.

A LADY, aged 65, has been a diabetic since 1876, and under a restricted diet has, with the exception of some physical weakness and failing sight, enjoyed pretty fair health until about twelve months ago, when she commenced to urinate much more frequently, to suffer from excoriation of the vulva, and to be so weak that walking alone became impossible. These symptoms were quickly relieved by codeia, alternated with sodium salicylate and occasionally Bethesda water, and she rapidly came to her usual state of passing four or five pints of urine daily, specific gravity 1030, and containing about 10 grains per ounce of sugar. A friend in London, also a diabetic, recently recommended her to try jambul seeds, and sent a supply in tablets, one of which was to be taken three or four times daily. Under less than a fortnight of this treatment the urine became more than trebled in quantity, specific gravity 1045, 40 grains of sugar per ounce. Patient got intensely thirsty and extremely weak, but in spite of this persevered as long as she possibly could with the jambul, having remembered that codeia had disagreed with her at first. Now, after ten days' cessation of jambul and resumption of codeia, she is much stronger, passing five or six pints of urine a day, containing 17 grains per ounce, of sugar, and specific gravity 1030.

I may mention that the tablets were procured from a first-rate London chemist. In the friend mentioned above as also suffering from diabetes, the jambul effected no improvement whatever.

Peel, Isle of Man. J. M. COATES COLE, L.K.Q.C.P.I.

STROPHANTHUS.

RECENTLY I have tried strophanthus in two cases, one mitral regurgitation, the other aortic valvular disease. The first case, a young man aged 23, had been ill for six months; he had taken digitalis for some weeks, and, as he expressed it latterly, the medicine had done him no good. One evening I was sent for; he was propped up in bed; had a quick, thready pulse; face and extremities cold from venous congestion; respiration 46. I was afraid he was sinking, and so I expressed myself to his friends. I ordered one-drop doses of Burroughs's tincture of strophanthus very hour for six hours, then the dose to be repeated every two hours. What was my surprise in about twelve hours after to find him much better; pulse slower and fuller; the congestion disappearing; free perspiration and diuresis. Eventually he got out of doors, and has been better for nine months. In the other case, I gave tincture of strophanthus as soon as I commenced attending the case, and was puzzled at the uncertain effect. I tried fresh infusion of digitalis, which had a marked beneficial effect for three or four weeks; soon afterwards the patient had an attack of congestion of the lungs, which left his trunk and legs much swollen and oedematous, his urine albuminous. I got a fresh supply of tincture of strophanthus from London, which had a similar effect as in the mitral case, and now I am glad to say the man is much better, able to do light work, not having taken any of the medicine for ten weeks. Combined with iron and quinine, I have found strophanthus beneficial in functional derangement of the heart.

THOMAS JACKSON, M.D.

Hull.

PHENACETINE.

URING the past three weeks I have been using this drug as an antipyretic, and I can confirm Dr. Bell's statement as to its efficacy. I find that it is quite equal to antipyrin, but it is not nearly so powerful as antifebrin.

Phenacetine in moderate doses is not followed by any disagreeable after effects. Antifebrin, on the other hand, causes profuse respiration accompanied with great depression and should be given with care, not more than five grains at a time to an adult. Rigors occur after both antipyrin and antifebrin, but I have not observed them after phenacetine.

From five to ten grains of phenacetine may be safely given to an adult and frequently repeated. It reduces the temperature considerably in two or three hours, but the reduction is a very transient one, lasting a few hours only.

I consider sponging with tepid or cold water to be far more effective and agreeable than any of the antipyretic drugs, and it not only reduces the temperature but it relieves thirst, induces sleep, and is agreeable to the patient.

Birmingham. C. W. SUCKLING, M.D.

COCAINE IN ACUTE TONSILLITIS.

RECENTLY I began to suffer from a very sharp attack of acute tonsillitis of the right side, with a considerable injection of the surrounding parts. Two days after I experienced the most excruciating pain in swallowing, also severe pain in the right ear, and I could only with great difficulty speak. In the afternoon of this day my friend Mr. Thomas swabbed out my throat three or four times with a 4 per cent. solution of cocaine, and poured a few drops of the same into my ear. The relief which I experienced was so great that I could soon after speak fairly easily, and swallow with very much less difficulty. I continued to apply the cocaine every two hours during the day with continued success for five days, then a day in the country put me right.

Cardiff. P. RHYB GRIFFITHS, B.S., M.B.Lond.

CLINICAL MEMORANDA.

ANALYSIS IN AUSCULTATION.

WILL you allow me to suggest to those who are specially interested in the study of cardiac murmurs and *bruits*, and morbid sounds generally, a mode of examination and an arrangement of stethoscopic apparatus, which I have found of very great service? The principle of procedure is to collect the sounds produced by the respective valves, or at several points, and to bring them to the ear together; which, obviously, facilitates the formation of a correct judgment of their comparative intensities; and then to suddenly eliminate one or another set of sounds, thereby rendering the determination of what belongs to each severally a matter of far greater ease than the same discrimination when the valves, etc., are examined separately; while the accurate placing of such sounds as the early, middle, and late diastolic (presystolic) murmurs involves little difficulty. The method is *analytical*; the aggregate sound, or sounds, produced by the movement of the blood-current or the several parts of the cardiac or pulmonary organs being, so to say, taken to pieces under the ear of the auscultator, thus enabling him to appreciate with clearness the part played by each in the production of the whole.

The stethoscopic arrangement consists in connecting two or more ordinary elastic tubes of suitable lengths, by means of an X piece, to the distal ends of a binaural instrument, in such manner that the chest-pieces may be applied at pleasure over distant areas simultaneously, and each instantly lifted so as to step out all sound that arises from any particular region at will. The arrangement is so simple, and at the same time so effective, that I think it desirable to call attention to the matter. It differs from that of the ordinary differential stethoscope in that the sounds are brought to the two ears simultaneously, and the whole of the auditory power is, therefore, at work on the same subject, which, as I have said, is analysed, by a process of exclusion, to the very great advantage and ease of the listener in forming his judgment. The arrangement can be carried out by any medical instrument maker.

J. MORTIMER GRANVILLE, M.D.

14, Hanover Square, W.

OBSTETRIC MEMORANDA.

RUPTURE OF THE UTERUS.

Mrs. D., aged 35 years, was the mother of four children, the youngest of whom is 4 years old. Since its birth she has had six abortions.

Pregnancy had advanced to the eighth month. The head presented in the first position, and the delivery of the fœtus passed off naturally, the first stage lasting about four hours, and the second two. The child had evidently been dead for some time, and its abdomen was distended by ascites. Twenty-five minutes after the fœtus was born there was some contraction of the uterus, when the placenta came partially through the os, but afterwards receded again; the patient, however, did not complain of any excessive pain. Ten minutes later I observed a sudden increase in the rapidity of the pulse, and a collapsed state of the patient, so I at once introduced my hand, which went in with very little resistance; but it passed through a large hole into the cavity of the abdomen, which evidently contained a large quantity of blood. I found the placenta to be adherent above, and separated it without much difficulty; but, after removing it, I found another large mass in the vagina, which I also removed.

It proved, on examination, to be a fibroid thickening of the uterus, forming a tumour weighing over two pounds. I kept up compression of the abdominal aorta all the time, but the patient was in a very collapsed state, and died shortly afterwards. Dr. Tresilian kindly made a *post-mortem* examination for me, which revealed the following conditions.

The cavity of the peritoneum was full of blood. There was a large perforation of the uterus; in fact, the upper and anterior wall had come away, evidently containing a large intramural fibroid tumour.

The point of interest of this case seems to be the fact that the rupture probably took place after the fetus was born, though at what time exactly I am unable to say.

Ebbw Vale, Mon. ALEX. S. PATTON, M.B., B.Ch., Univ. Dub.

AFTER-TREATMENT OF ABORTION.

I HAVE read with great interest Dr. Murdoch Cameron's article on the Pathology of Abortion, in Relation to Treatment, in the JOURNAL of March 31st, and cite briefly two cases which have come under my own notice.

CASE I.—Mrs. B., on my arrival, I found suffering from severe hæmorrhage from the uterus; a fetus of the third month having been expelled. The placenta was within reach of the finger, but apparently detached. The os was pretty dilatable but very slightly dilated. After several attempts at removal, which proved futile, I was on the point of sending for assistance when, to my great surprise and pleasure, on another attempt with two fingers, while pressing on the fundus uteri, through the abdominal wall, the placenta slipped through the os. The hæmorrhage ceased, and the patient made a good recovery.

CASE II.—Mrs. G., complained of hæmorrhage and severe pain, chiefly located in the lumbar and hypogastric regions. She had not menstruated for three months. A soft mass was easily felt within the uterus. All attempts at removal with the fingers were fruitless. I plugged with pieces of cotton wadding, tied to a piece of string, at intervals of about six or seven inches, dipped in a carbolic solution (1 to 40). This method of plugging was approved of and recommended by Dr. W. L. Reid, and greatly facilitated removal afterwards. The plugs were left in about twelve hours; on their removal the soft mass was still *in situ*, and adherent. I introduced my hand into the vagina without administering chloroform, and with little difficulty scraped away and removed what afterwards proved to be a true mole. In this case chloroform should have been used. This patient is under my care now. She has not menstruated for four months. She presents symptoms of threatened abortion, otherwise she is comparatively well.

I can thoroughly endorse the opinion of Dr. Murphy (Sunderland), that chloroform and fingers are to be preferred to any kind of mechanical instrument for removal of retained placenta after abortion. In every case, pressure over the fundus uteri through the abdominal wall greatly helps in the operation.

Newmilns, Ayrshire.

T. C. DUNLOP.

CURIOUS DEFORMITY IN A TWIN.

I WAS called by a midwife to a patient who had been delivered of a well-developed, eight months' infant three-quarters of an hour before my arrival. The patient, a 7-para, was found to have considerable hydramnios, and a second child was found presenting in the R.O.P. position. I ruptured the membranes, turned and expelled the child by suprapubic pressure. The single, large, placental mass was expressed, and was found to have the cord of the first child attached centrally; that of the second was an "insertio velamentosa." This latter insertion, although not as a rule directly hindering the development of the fetus, may affect its life: (1) from the fact that the branches of the umbilical vessels may be pressed on during labour; or (2) from the circumstance that the membranes may rupture at a part over which one or more of these branches ramify, hence causing hæmorrhage fatal to the fetus. This insertion is frequent in multiple pregnancies.

It is well known that hydramnios and deformities of the fetus (and, curiously enough, often of the last born of the two) are frequently associated with twin pregnancies. In this case the second child was the subject of the following deformity: The right hand was articulated to the lower and outer surface of the radius, about one inch from its lower extremity, and the movement of this anomalous joint was good as regards flexion and extension, but lateral movements, as might be expected, were impossible. The radial and ulnar inferior extremities were

pointed, and no articular surface was to be felt. The entire thumb was wanting, neither a rudiment of the first metacarpal nor any traces of the thenar eminence being present. No contracture or paralysis of the radial group of muscles was discovered. The opposite limb was normal, and the child was well-nourished but smaller than the first. It died on the third day after its birth, and, as I was at the time from home, neither the cause nor mode of death was ascertainable further than that "it gradually sank." The probable cause was asthenia produced by hæmorrhage induced by either of the accidents incidental to the velamentous insertion of the cord. No necropsy was permitted, which I much regret, as the arrangement of tendons, vessels, and articulations would have completed the record of a most singular deformity.

CHARLES H. BEDFORD, M.B., C.M. Edin.,

Resident Medical Officer to the Gesto Hospital, Skye.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF INTESTINAL OBSTRUCTION: LOCALISED PERITONEAL SUPPURATION; INCISION, WASHING OUT, AND DRAINAGE: RECOVERY.

(Under the care of Mr. WALSHAM.)

[From notes by Mr. C. M. POWELL, Dresser of the Case.]

R. D., aged 32, was admitted on January 20th, 1888, under the care of Mr. Walsham, to whom he had been sent on the recommendation of Mr. T. H. Evans.

On the evening of January 18th, while sitting still after an ordinary meal, he was seized with great pain in both inguinal and umbilical regions, accompanied by swelling and tension of the lower part of the abdomen and rumbling flatus, followed by retching and sickness. The vomit began to be stercoraceous on the morning of January 19th. He had suffered from inguinal hernia on the right side since he was two years old, and wore a truss till he was seven. During youth and ever since he had been troubled with occasional attacks of giddiness and vomiting until about six or seven years ago, when they gave place to attacks of abdominal pain, centering in the umbilical region, transient in character, and unattended by intestinal obstruction. The hernia had frequently descended, but had never become strangulated, and had always been replaced, though often with difficulty. No blood had ever passed *per anum*. Four months ago, he was seized with pain and swelling in the abdomen, with inability to pass motions; this condition was preceded by motions of small calibre for about two days; it lasted ten days, during which salines were given, and then a drastic purge. The illness left him very weak. The motions had since been no thicker than his little finger, and passed generally twice a day. He had repeatedly of late tried to do his work, which was laborious, but was always disabled by increase of pain in the abdomen. His family history was good.

When admitted, the patient looked pale and ill, but said he had always had great muscular strength. There was moderate distension of the abdomen, with some muscular tension, equal on both sides, but with slight fulness over Poupart's ligament on the right side. On percussion, there was comparative dullness in the right inguinal region. The pain was also greatest there, but was generally everywhere below the umbilicus on the slightest pressure; there was dull pain at all times. The rectum was normal. No hernia could be felt, and the external ring was enlarged. The vomit of the previous night (small in quantity) was thin and bile-stained. No feces had passed at all during this illness, but a little flatus after an enema. The breathing was shallow and mainly thoracic. The temperature was 98°, rising to 100.4° at 1 P.M.; pulse 108; respiration 24; urine acid, specific gravity 1035, slight albumen. The abdominal organs could not be examined owing to tenderness of the abdomen. Tongue fairly clean. Opium and belladonna were given; small quantity of ice to suck; no food.

From this date up to January 27th, the abdomen continued in much the same condition, the tenderness and swelling, however, becoming more localised to the right iliac fossa, and the skin in this region appearing mottled-red and very slightly oedematous.

After an enema, given on January 24th, a scanty motion was passed; and, from this date till the 27th, several motions were passed daily. He was given at first only half a pint of whey a day, but subsequently half a pint of milk was added to the whey, and still later increased to a pint, as the vomiting did not return. The temperature never rose above 101°, and varied from day to day between this and normal. The pulse continued of fair volume, and varied from 88 to 112.

January 27th. After a consultation with Mr. Willett and Mr. Baker, Mr. Walsham decided to explore the abdomen in the right inguinal region. An incision was made, beginning half an inch above the middle of Poupart's ligament, and running parallel to it outwards for two inches. The abdominal muscles having been severally divided, the peritoneal cavity was carefully opened, and about a pint of dirty yellow pus, with a strong faecal odour, was let out. The cavity was irrigated with a solution of iodine, decolorised with carbolic acid, till the fluid flowed away perfectly clear. It was then found that the cavity was bounded by highly inflamed and matted-together coils of intestines. The cavity extended towards the middle line, but in a downward direction further than the finger could reach, and into this the irrigating tube was passed for about eight inches. A similar sinus, between coils of adherent intestine, also extended in an upward and inward direction, and further than the finger could reach. A large-sized drainage tube was placed in the cavity, and the wound sprinkled abundantly with iodoform, and dressed with iodoform gauze and wool. On the morning after the operation, the temperature had fallen to 98°, and the pulse was 100, of fair volume and strength. Locally the wound appeared quiet, and the washings from the cavity were clear. There was no pain nor tenderness, the patient expressed himself as feeling very comfortable, and was in excellent spirits. From this date he made a progressive and uninterrupted recovery. The tube was gradually shortened as the cavity slowly closed from the bottom.

On February 1st, slop diet was changed for fish, which was on the 3rd replaced by meat diet. On the 15th the wound had healed, and the patient was discharged in excellent health and spirits to the Convalescent Home at Swanley.

REMARKS BY MR. WALSHAM.—The cause, I believe, of the obstruction was inflammation in and around the cæcum; and, from the frequency with which, on *post-mortem* examination, such recurring attacks of typhlitis have been shown to depend on mischief of some kind in the vermiform appendix, it is probable that his might be the primary cause. On the patient's admission, the question of opening the peritoneal cavity in the region of the cæcum and exploring the condition of the parts was raised; but, in the whole it was considered, at a consultation that was held, that it would be better to wait for a few hours. As, under the influence of belladonna and opium, and the total abstinence from all nourishment, the acuteness of the symptoms subsided, the vomiting ceased, and the bowels were relieved, while the general pain and tenderness over the abdomen became less, the exploratory incision was put off till it became fairly clear that suppuration had occurred. From the condition of the cavity when the peritoneum was opened, and the length of the sinuses extending amongst the inflamed intestines, it was evident that there was extensive peritonitis, involving more or less the lower half of the abdomen. In one direction the irrigating tube was passed fully eight inches into the peritoneal cavity amongst the intestines, and the lower portion of the peritoneal cavity was thoroughly washed out. The case was clearly more than one of a mere localised peritoneal collection around the cæcum; and although the inflammation undoubtedly started at this spot, it had extended, as manifested both by the symptoms and the state of the parts found at the operation, more or less over the whole of the lower half of the abdomen. This case in many respects appears similar to those described by Mr. Treves, Mr. Marsh, and others, and is, I think, another example of what may be accomplished by washing out in suppurative peritonitis.

On two other occasions I have opened the abdomen for peritonitis, and attempted washing out. In neither of these cases was there suppuration. I found the sticking together of the coils by the lymph prevented the free passage of the irrigating fluid amongst them, and in no sense could a thorough washing out of the peritoneum be said to have been accomplished. The condition of the patients was too serious to permit of any extensive exposure with a view of supplementing irrigation by sponging. Both cases ended fatally. In such cases, I fear, little can be expected from this procedure.

QUEEN'S HOSPITAL, BIRMINGHAM.

THREE CONSECUTIVE SUCCESSFUL CASES OF TREPHINING.

(By AUGUSTUS CLAY, Senior Casualty Surgeon, Queen's Hospital, Birmingham.)

CASE I.—J. G., aged 6, was brought to the hospital on September 6th, in a semiconscious condition, having fallen out of a window, a distance of about twelve feet; upon examining his head, a simple depressed fracture of the vault of the skull was discovered. The precise situation of the depression was the right parietal bone, a little behind the coronal suture and about three-quarters of an inch from the median line—thus corresponding to the upper part of the ascending frontal convolution. The patient became unconscious, and violent twitchings of the leg, arm, and face of the left side soon occurred. The right pupil was dilated and inactive. Pulse slow, but not particularly full. When I saw the child, there was complete paralysis of the arm and leg, although the twitchings still continued in the face. The breathing was stertorous, very slow and shallow—so much so that it was feared it would cease altogether. The sphincters had relaxed. Trephining was decided upon, and he was hurriedly taken into the operating theatre, where the operation was commenced by the usual crucial incision. It was then seen that a part of the bone, the size of half-a-crown, was simply depressed, with the exception of a linear fracture (half an inch long) situated at the anterior edge of the circular depression. A three-quarter-inch trephine was applied, and a disc of bone (just taking in the fracture) was quickly removed, the surrounding bone being then easily elevated. There was a little hæmorrhage, which was allowed to continue to relieve the venous congestion; after which the wound was syringed with corrosive sublimate lotion (1 in 2,000), a drainage-tube inserted, and the edges brought together by silver sutures. Dressings of absorbent tissue, moistened with boroglyceride, were used. Almost immediately after the bone had been raised, the left arm and leg became convulsed, and the twitchings already existing in the face became more marked. In about a couple of minutes all the epileptiform convulsions had entirely ceased, and the pulse and respiration improved considerably. The operation was performed without chloroform, and, before all the sutures could be introduced, consciousness had so far returned that the boy cried with the pain and raised his hand to his head. Three-quarters of an hour after, the patient answered questions, and in an hour he asked for some water to drink. On the second night the little patient woke up suddenly, and complained bitterly of pain in his head; however, he soon went to sleep again, and was quite lively and playing with some toys next morning. On the fifth day his bowels were obstinate, and there was a slight elevation in his temperature, which was otherwise normal throughout.

The head was dressed daily with iodoform gauze, and the drainage-tube removed on the fourth day. The patient made a rapid and uninterrupted recovery; but, on account of his inordinate appetite and his "rumbustical" nature, he was not discharged until six weeks after the operation.

CASE II.—E. B., aged 26, was admitted on July 10th, 1887, about an hour after having received a blow on the head with a stick. At the time he was struck he did not appear to be very badly injured, as he was able to walk some distance to a neighbouring surgeon; but on reaching the house he fainted, and was forthwith sent to the hospital. On examination, there was found, slightly above and external to the left frontal eminence, a vertical linear wound, one inch in length, which led down to a depressed and comminuted fracture. The patient was very drowsy, but could be roused by speaking loudly to him. His statements and answers were incoherent, and he only desired to curl himself up and sleep. There was no paralysis nor monospasms; but before the arrangements for the operation could be completed, he became somewhat comatose. The original wound was enlarged and intersected by another at right angles, when it was found that a fragment of bone, one inch by three-quarters (consisting of both tables) was driven into the skull. This aperture was conveniently enlarged by a chisel, and the piece of bone above referred to, with several comminutions of the inner table—sufficient to cover a florin—were removed. The dura mater was perforated, the brain contused, and covered with blood at the seat of the injury. Perchloride of mercury lotion (1 in 2,000) was used; a drainage-tube inserted; stitches being put in the scalp only. Absorbent gauze, moistened with boroglyceride and covered with gutta-percha tissue, was the dressing employed. A saline purge was administered six hours after the operation. The diet consisted for ten

days of milk and soda-water, after which fish was allowed. The head was dressed daily. The wound healed primarily, with the exception of the part in contact with the tube, which was shortened at each dressing, and finally removed on the fifth day. On the eighth day the temperature, which was otherwise normal, rose to 100°; the patient seemed somewhat depressed, and complained of pain in his left eye. The eye was kindly examined by my colleague, Mr. Priestley Smith, who reported it to be healthy. From this date the patient progressed very satisfactorily, and was discharged on the eighteenth day from the injury. I saw him four months later, when he was quite well, and had not experienced a bad symptom since he left the hospital.

CASE III.—J. R., aged 36, was received as an in-patient on October 27th, 1887, having met with an injury to his head. He was quite conscious, and gave the following account of the accident: While at work with a forge-hammer, a pin or bolt required to be readjusted, and he stooped down for that purpose. Unfortunately, he reached too far forwards, and so placed his head partially between the steam hammer (weighing 10 cwt.) and the anvil. The blow was directed obliquely, the force knocking the patient from under the hammer and against another part of the machinery, causing a small scalp wound over the occiput, but not exposing the bone. He was stunned for a while, but soon recovered himself, and walked to one of his fellow-workmen for assistance. On examination there was found a contused wound of the forehead one inch and a half long over the left frontal eminence, and the bone in a corresponding situation was found comminuted and depressed for nearly a similar extent. Hæmorrhage had taken place beneath the conjunctivæ and into the eyelids, which soon became discoloured and so prominent as to obstruct the sight; there was no paralysis of the orbital muscles, nor hæmorrhage from the nose. The patient was placed under chloroform, and an incision one inch long was made at right angles to the original wound, but only intersecting one side of it. The pericranium having been raised, a three-quarter inch trephine applied, and the disc removed, six pieces of bone, varying from one inch and a quarter in length and half an inch wide were then taken away. It was observed that the bone on one side of the cavity was fractured and depressed (after the manner of "gutter fractures"), but was not quite separated. This was, with some difficulty, elevated, and allowed to remain. A linear fracture extended antero-posteriorly for some distance beyond the seat of the depression and the limit of the incision. The dura mater apparently was not injured. The wound was antiseptically treated with lotio hydrarg. perchlor. (1 in 2,000), five silver sutures put in the scalp, and a drainage-tube inserted. Dressings were similar to those used in Case II. The tube was shortened daily, and permanently removed on the sixth day. The patient got up on the fourteenth day of the accident, and was discharged three days later, having made a most uneventful recovery.

REMARKS BY MR. AUGUSTUS CLAY.—Case II is very interesting from a surgical point of view, inasmuch as he was trephined eleven years previously by my colleague, Mr. Wilders. He had a "buffer" injury to his occipital region, causing great comminution and depression. As far as I am able to learn, this case is unique for its double successful trephining.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 24TH, 1888.

Sir E. H. SIEVEKING, M.D., President, in the Chair.

A Further Contribution to the Study of Rheumatoid Arthritis.—Dr. A. E. GARROD read this paper. The study of the nervous theory of rheumatoid arthritis, commenced in a former paper, was continued; the muscular atrophy, deformities, and dystrophies of the skin and nails met with in the course of the disease being examined with a view to seeing whether their occurrence afforded any evidence in support of this theory. The muscular atrophy had been regarded by some as part of the disease itself, by others as merely an example of ordinary arthritic muscular atrophy, and by others again as the result of changes in the peripheral nerves. Evidence was brought forward in favour of the view that the muscular atrophy met with in rheumatoid arthritis was not peculiar to that disease. The result of an examination of the tendon-reflexes in fifty cases was given, and it was shown that, whereas the jerks were usually exaggerated, this was not an invariable

rule, and it was suggested that peripheral neuritis, the presence of which had been demonstrated in such cases, might act as a disturbing factor. This same condition might account for the occasional occurrence of numbness and tingling of the extremities in rheumatoid arthritis, examples of which were given. Where these were met with, the jerks were not found to be increased. Attention was called to the importance of excluding cases in which sensory and motor disturbances were produced by pressure on the nerve-roots, when the disease had attacked the vertebral column. It was pointed out that changes in the joints, indistinguishable from rheumatoid arthritis, were met with in cases in which other nervous phenomena had preceded the articular disease; but these cases were regarded as belonging to a somewhat different category from ordinary examples of the disease. The conclusion was drawn that the ordinary muscular atrophy of rheumatoid arthritis was, as Dr. Charcot believed, a secondary phenomenon, and as such afforded no evidence as to the origin of the primary disease. The deformities due to muscular spasms were also regarded as secondary, the spasm to which they were due being of the same nature as that usually met with in the neighbourhood of diseased joints. These deformities were not peculiar to rheumatoid arthritis; the skin changes were regarded as being probably due to peripheral neuritis, but whether this neuritis was a primary or secondary phenomenon there was not as yet sufficient evidence to show. Some facts seemed to indicate that it was of a primary nature.—Dr. MACLAGAN thought the paper a valuable contribution on an obscure subject, but had not much to say upon it. It tended to confirm his view of the neurotic origin of the disease; but how far it was due to the central or the peripheral nervous system was more than he could at present tell. The coincidence of peripheral neuritis was not likely to be entirely fortuitous; its occasional appearance was very probably the reason of the eccentricity of the reflex phenomena.—Dr. HADDEX considered that there should be much caution in the introduction of peripheral neuritis into the symptoms. The only distinct evidence that had been given was from two or three cases of Pitres and Vaillard. He had himself read a paper on the same subject four years ago to the Clinical Society, and thrown out the same suggestion, but he had had no further distinct confirmation. In one of his cases he had noticed, along with advanced changes in the carpus, patchy anæsthesia in the arms, legs, and face. This was most marked in the legs, where the joints were very little affected; in fact, the nerve changes did not go along with the joint changes. He had examined many old cases in which there was no loss of sensation, and no atrophy beyond what would be accounted for by disuse, and found the reflexes variable, some in excess, some normal. Another patient had been a woman who had had acute rheumatism, a year before, and slight recurrence of rheumatic pain; and along with this recurrence, the typical glossy skin of such states in one hand, with loss of sensation and marked atrophy of nails and of the forearm. It seemed a genuine neuritis; a relapse, in fact, affecting the nerves and not the joints. The increased reflexes he had found very inconstant; ankle clonus he had seen at least three times. Charcot guessed it to be due to change in the cells, not in the peripheral nerves, but in the spinal cord.—Mr. W. A. LANE was sorry to find that, after careful consideration of the nervous theory, and much dissection of affected cases, he was unable to accept it. He found the changes described as those of rheumatoid arthritis in many cases where he could only suppose them the normal consequences of the habits of life as in carpenters, coal-heavers, etc. Beyond such as were due to rheumatism or senile change, he considered the rest due to sudden or habitual pressure.—Dr. HERRINGHAM was anxious to call Dr. Garrod's attention to a possible explanation of the position of the fingers in rheumatoid arthritis. They were turned nearly always to the ulnar side of the hand. If there was any atrophy or weakness of the abductor indicis, as there nearly always was in the disease, it would be found that tension of the extensor muscle pulled the index and, to a less extent, the middle finger over towards the ulnar side of the hand, and this, he thought, was the ordinary beginning of the ulnar deviation of the fingers. One started, it was quickly increased, and the other fingers were pressed out of position.—Dr. A. MONEY could not help expressing the interest he felt in these questions, and hoped they might look for more contributions from Dr. Garrod. There was a long chapter still to be written, he thought, on the phenomena of sweating in rheumatic and rheumatoid disease. He had noticed in perspiration sometimes alkaline, and also oddly distributed over parts where neither tendons nor muscles nor joints were affected.

as if it might possibly be the result of a nervous anomaly. It also came and went, sometimes without apparent reason. In these cases gastric crisis occurred, sometimes in a form quite indistinguishable from that of locomotor ataxy. The gastric secretion which was vomited was extremely acid, and contained both sarcinae and torulae in cases in which there was no sign of pyloric obstruction. The urine showed remarkable changes; there was sometimes transient glycosuria and sometimes rapid transitory changes in the amount of uric acid and urea secreted.—Dr. A. E. GARROD, in reply, said he quite agreed that there must be great caution in assuming neuritis, and that much more observation was necessary. Considering the small amount of *post-mortem* observation possible, he thought it remarkable that MM. Pitres and Vaillard had found it in all their cases. He agreed with Dr. Hadden that joint lesions did not go *pari passu* with nerve lesions. In reply to Mr. Lane's theory that pressure was an efficient cause, he did not see that it sufficed to explain why rheumatoid arthritis was specially a disease of women, and at the menopause why it affected the peripheral joints, and such parts as the temporo-maxillary joint; why it was symmetrical, and why it attacked the Duchess as much as the washerwoman. He was much obliged to Dr. Herringham for his suggestion as to reflection, but was inclined to think no explanation at present completely satisfactory.

Effects in Disease connected with Uric Acid of some Drugs which cause Retention of Uric Acid in Contrast with the Action of Salicylates (as shown in a previous paper).—Dr. ALEXANDER HAIG read this paper. He said a large part of the value of salicylates in uric acid diseases was due to their preventing acids from causing retention of uric acid, as pointed out in a previous paper. Some drugs that had the opposite action of causing retention of uric acids were contrasted with the salicylates and their actions in some diseases compared. The drugs whose action on uric acid excretion was now brought forward were lead, iron, and lithia, and it was shown that they caused retention of uric acid, though lithia produced this effect in an indirect manner. The doubtful value of lithia in gout and as a solvent of uric acid was pointed out. The relation of dyspepsia to the uric acid headache, and the way in which it explained the periodicity of the attacks, was referred to. The effects on the nerve-centres of any causes of depression in headaches and epilepsy were described. Sir A. Garrod's investigations on chronic lead poisoning, the presence of uric acid in the blood of such cases, and the action of lead in precipitating an attack of gout were stated to be in accord with the facts now brought forward. Lead was mentioned as a cause of epilepsy, which could be easily explained if epilepsy was due to uric acid. Iron caused a relapse in gout, and did harm in epilepsy and in uric acid headache. Salicylates were valuable in gout, chiefly in prevention; they did not act promptly in acute gout. Reasons were given for believing that some cases of epilepsy were due to uric acid, just as some cases of headache had been shown to be in previous papers. Recent observations by the writer in the *Neurologisches Centralblatt* were referred to. Attention was called to the close parallel between epilepsy and the headache in question, and also to the close clinical relationship of both to gout. It was suggested that epileptic fits might be prevented by salicylates in place of bromides. Salicylates prevented accumulation of uric acid, and thus stopped fits due to such accumulation. Such cases of epilepsy might probably be cured by the diet which was so useful in the uric acid headache. When alkalis were given along with bromides in epilepsy, less bromides would suffice to keep off the fits. The observations of Dr. Radcliffe on this point were referred to. This result was due to the fact that alkalis (as previously pointed out by the writer) prevented retention and accumulation of uric acid; hence, as there was less of the irritant, less bromide would suffice to stop the fits. Dr. Radcliffe's remarks about iron and diet pointed in the same direction as to the causation of epilepsy by uric acid. The same reasoning was applied to attacks of gout and their prevention by salicylates.—Dr. ORMEROD was glad to hear of any fresh palliative, or possibly curative, treatment for epilepsy. He confessed that the theory he had just listened to seemed to him to be based on very few facts, and inapplicable to the great majority of cases of epilepsy. At any rate, a long clinical testing was required. He had had experience that afternoon of two interesting cases of epilepsy in this connection. One was in a young man who had typical attacks of migraine, beginning with flashes of light in the eyes, and going on to vomiting and headache. The remarkable point was that exactly similar flashes of light in him some-

times led up to epileptic convulsions and biting of the tongue. There was no history of gout. In the other case, a boy 11 years old, there was a strong rheumatic history in the family, and he had prescribed sodium salicylate, 10 grains three times a day. For five weeks there had been no fit, but after that there came a batch of fits as bad as ever.—Dr. LAUDER BRUNTON considered Dr. Haig's paper a valuable attempt to solve one of the most difficult of medical problems—the cause of gout. He thought no sufficient distinction had been made between retention of uric acid and diminished formation. Sir Alfred Garrod had first shown how lead brought on gout in persons who had not inherited it. He had been himself much struck by a case of diarrhoea, in which, after all the vegetable drugs had failed, he had given acetate of lead, and that had brought on rapidly a condition of red and swollen joints. In epilepsy he must beg to insist that there were many factors at work. So, too, in migraine there might be local conditions, such as decayed teeth or anomalies of vision and inequalities of the two eyes, which were shown to be the determining factors, because with their correction the headaches ceased. Defects of vision he had found to affect headache in nearly nine cases out of ten that he saw. In a lady who had come from Massachusetts there was much pain in the back of the neck, which he had at first attributed to some local disease, probably of the bones, and Dr. Ferrier had come to the same conclusion; but nevertheless they found that the pain completely disappeared when her eyes were properly suited with spectacles. In considering the effects of lead, they must not forget that it had a definite effect on the cells of the cerebral cortex. It would be interesting to see if in some cases of epilepsy it could be removed by solvents, and the epilepsy thereby cured. When he had been working at the effects of the bromides, he had noticed that some German observers attributed all results to the potassium, and some to the bromine, and this had led him to try the effect of common salt on a number of epileptics. There were some good results, some failures; and he thought it possible that its use might arise from its causing the patients to drink more and wash out the cells of their brain. Dr. Haig recommended sodium benzoate, and he thought it would be worth while to try that along with potassium bromide.—Dr. W. H. WHITE had noticed in Dr. Haig's tables that iron was represented as causing a greater retention of uric acid than lead. This retention, they were told, was the cause of epilepsy; but were there any cases of iron epilepsy to bring forward? Saturnine epilepsy he admitted was well known, and lunacy was another nervous effect of lead; was that produced by this retention of uric acid? And what effect had potassium bromide on this retention? If epilepsy depended on this poisoning of the system, he was surprised to find its effects beginning generally unilaterally.—Dr. HAIG was much obliged for the favourable reception of his paper, but wished to deprecate any too sanguine expectations from its conclusions. He pointed out that migraine resembled epilepsy in so far that in both at the time of the attack the excretion of uric acid was increased. He had found some good results from the use of salicine in epilepsy. As to retention of uric acid, he considered it would be shown to be separate from diminished formation. The local conditions, such as anomalies of vision, etc., he admitted might cause irritability and susceptibility to the uric acid poison. The effects attributed to lead in the cortex of the brain might, perhaps, be due to combined lead and retained uric acid. In comparing the results of lead and iron, it should be noticed that the amounts of iron taken were much the larger. He had made experiments on the effects of potassium bromide on the retention of uric acid, but found no variation caused by it. Sir Alfred Garrod, twelve years ago, had shown that uric acid was in excess in the blood in epilepsy, and he hoped soon to be in a position to argue more generally from its excess in the urine to its excess in the blood.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 23RD, 1888.

EDMUND OWEN, F.R.C.S., Vice-President, in the Chair.

Intra-muscular Injection of Mercury in the Treatment of Syphilis.—Mr. J. ASTLEY BLOXAM read a paper pointing out that the subject of the injection of mercury into the tissues had received but scant attention in this country, although largely practised abroad, especially in Germany. His attention had been drawn to

the subject in the first instance by the benefit derived by a patient of his, during a stay in Berlin, from the treatment of Dr. Lewin, who used a solution of the perchloride of mercury for injection. He then carried out the method at the Lock Hospital on a large scale. He found that certain precautions were necessary in using the solution, in order to avoid the formation of abscesses. Dr. Lewin used three solutions, containing respectively four, six, and eight grains of the salt to the ounce, the quantity used varying with the frequency of the injection and the condition of the patient. He claimed for the method that it was more prompt in action, enabled the medical man to know exactly what amount of mercury was being absorbed at any given time, and spared the patient the gastric derangement apt to follow the administration of the drug by the mouth. Mr. Bloxam said he had employed the drug in this way in all stages of the disease with uniformly successful results. He had tried the preparation of calomel in glycerine (1 in 10) and calomel in vaseline (1 in 5), but found that both were very painful and prone to give rise to the formation of troublesome abscesses. He gave quotations from textbooks showing how little the subject and the *modus operandi* were understood. His own plan was to inject ten drops of a solution of sal alembroth, containing one-third of a grain of the salt. This he injected deeply into the muscular substance of the buttocks once a week, changing sides at each injection. The pain was but slight, the induration little marked except bleeding took place, and in no instance was followed by abscess. This solution kept well, was clear, and was not liable to fungoid growth or precipitation. The primary sore had generally healed by the second injection, and the secondary symptoms soon cleared up, leaving only the throat and the glands as evidence of the disease. As this stage the injection need be given only once a fortnight, and, still later, only once a month, continuing the treatment thus for a year or eighteen months, some eight or ten grains of the salt sufficing for the whole course of treatment. Mr. Bloxam brought several cases under treatment, showing the effect of the method, and demonstrated the *modus operandi*.—Mr. EDMUND OWEN said he was interested rather than convinced by the paper, but he expressed his intention of giving the method a trial. He asked whether infiltrations were frequent after injection, and as to when Mr. Bloxam would use the injection. Also, did he find the method prevent the occurrence of secondary symptoms, and were relapses more or less frequent? He suggested that the method was one which presented certain difficulties in carrying it out in private practice, especially in respect of women.—Mr. JOHN MORGAN said that Mr. Bloxam had, at any rate, shown how mercury might be safely introduced into the tissues, his results comparing favourably with what he had seen of Sigmund's plan, as carried out in Vienna. He had given the system a trial, but although there had been no bad results, he had not obtained any particularly good ones.—Mr. BERNARD PITTS explained that he had announced Mr. Bloxam's paper in advance by mistake for the previous week. He said he should have to see a good deal more before he could realise that a medicine given once a week could act as well as one given like a food. He pointed out that the results obtained in one of the cases, at any rate, were not better or even as good as those obtainable by the ordinary means. He mentioned that with small doses of grey powder he had succeeded in preventing the secondary symptoms, even in cases of undoubted syphilis.—Dr. HANDFORD mentioned that in Vienna he had usually seen used a combination of the perchloride of mercury with peptones. He himself had used a simple solution of the perchloride, but the pain produced was so great that patients begged that the treatment should not be continued. He had, however, obtained very satisfactory results with it.—Dr. T. OTTERTON WOOD said that the pain attending the injection by Mr. Bloxam was very slight, and patients often asked for it to be repeated oftener than once a week.—Dr. HERON quoted the case of a medical man who had suffered from syphilitic manifestations for upwards of twenty years, who had improved materially under the injection treatment. He (Dr. Heron) had injected himself on one occasion, to test the amount of pain, and found that while the pain at the time of injection was not very great, the subsequent pain was far more considerable. He added that, if any great advantage could be shown to be obtainable by this method, patients would probably be willing to agree to it, though there might be a difficulty with regard to lady patients.—Mr. BLOXAM, in reply, explained that infiltration only occurred when bleeding followed the puncture. He always waited for clear evidence of syphilis before beginning treatment. He did

not believe that it was possible entirely to suppress the secondary symptoms. He employed it in private practice without any difficulty. Relapses were not more common than with the other methods of treatment.

Albuminuria in Enteric Fever.—Dr. HANDFORD gave an account of his observations in 75 successive cases that had been under his care during the past three years in the Nottingham General Hospital. There were 10 deaths, 7 of them due to perforation, giving a mortality of 13.3 per cent. In 8 of the cases a *post-mortem* examination was made, followed by a microscopical examination of the viscera. The account of the lesions in the kidney was based on these and on two or three other cases not included in the series. Murchison gave 549 cases by 10 observers where albuminuria was observed in 157, or 28.6 per cent. In the 75 cases observed by Dr. Handford the urine was examined by himself in every case (save one not included in the tables) several times, and in most daily during the severity of the disease. Albumen was present in 42 and absent in 32: that is to say, it was found in 56 per cent. of the cases. Of the 42 cases with albuminuria 9 died, giving a rate of 21.4 per cent. Among the 32 without albumen there were no deaths. Among the 42 cases there were 3 children, whereas in the 32 there were 14, showing that there is much less liability in children to the albuminuria of enteric fever. The cases of albuminuria were classified under three heads: 1. Those with pre-existing definite kidney disease. These cases seemed very rare. 2. When there was abundant and persistent albuminuria, often to the extent of 0.05 up to 0.1 per cent. Among these the mortality was very high. The most marked change in the kidney in such cases was found to be interstitial or diffuse nephritis, with glomerulitis and hæmorrhage. The nephritis was probably of septic origin, like so many other complications of enteric fever. 3. Where the albumen only existed as a trace, and that only for a short time. Among these the mortality was much less. The renal changes were much less definite, and sometimes scarcely any alteration could be detected. The chief alterations appeared to be vascular engorgement with capillary hæmorrhage, slight cellular infiltration and multiplication of nuclei, and cloudy swelling of the epithelium. Marked parenchymatous nephritis with fatty degeneration of the epithelium was not found, though some degenerative changes were generally present, but difficult to distinguish from alterations which occur so rapidly *post mortem*, especially in death from peritonitis due to perforation. Numerous drawings of microscopic preparations were shown.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, APRIL 19TH, 1888.

WILLIAM SEDGWICK, M.R.C.S., President, in the Chair.

Alopecia Areata.—Dr. ROBINSON read a paper on alopecia areata. He described two varieties, a parasitic and non-parasitic. The former had a relationship to ringworm. He had found life in the open air one of the most efficacious modes of treatment.—Dr. LYLE had not seen alopecia follow ringworm.

Ovarian Tumours in Pregnant Women.—Dr. BRAXTON HICKS read two cases of ovarian tumour, associated with pregnancy, in which the removal of the tumour had been followed by recovery. In the first, labour had continued thirty hours. The tumour came down, and prevented the head being seized with forceps, and turning was tried, and found impossible. The child was finally delivered with long forceps, and was still living. The placenta required removal. The tumour grew rapidly after delivery, and was removed. It was adherent everywhere, and was compound in character, nearly colloid. The patient made an excellent recovery. In the second case there was an ovarian tumour which reached rather above the umbilicus. It was diagnosed to be composed of two cysts. The woman had missed two periods, and it was proposed to wait until after the middle of pregnancy. However, the cyst became tense, with pain, and was removed. The pedicle was found twisted, and the tumour adherent and becoming necrosed. No uterine action came on for two weeks, when an ovum was expelled. The cases showed that when ovarian tumour and pregnancy were concurrent, if the tumour gave signs of irritation, the sooner it was removed the better.—Dr. HANDFIELD-JONES spoke of the rapid growth of ovarian cysts after the uterus had been emptied. He had known them within two months attain enormous size, and contract adhesions. He thought, therefore, that ovarian tumours ought to be removed as soon as possible after delivery.

Venesection.—Dr. FRANKISH then read a paper on venesection.

He had found it of particular benefit in cases of uræmia and cerebral congestion. He had seen puerperal convulsions, in cases where there was albumen in the urine especially benefited by it. In spite of popular prejudices, he thought it ought often to be practised.—Dr. ROBINSON was accustomed to bleed in cases where there was much venous congestion.—Dr. BRAXTON HICKS had considerable experience of bleeding, and had done the opposite, transfusion, eight times. Venesection had been most beneficial in cases of puerperal convulsions.—The PRESIDENT felt that popular opinion rendered venesection difficult to practise, although often beneficial. The older practitioners used to bleed in the early ages of collapse, especially those due to perforation. It was also practised in collapse due to cholera.—Dr. HANFIELD-JONES mentioned a case in which he had bled for amenorrhœa with excellent result.—Dr. FRANKISH replied.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, APRIL 11TH, 1888.

ARTHUR W. EDIS, M.D., F.R.C.P., President, in the Chair.

Ruptured Tubal Pregnancy occurring twice in the same Patient.—Mr. LAWSON TAIT read notes of this case, which will be published in the JOURNAL in full.

Removal of the Uterine Appendages.—Dr. G. GRANVILLE BANCROFT exhibited a number of specimens illustrating many forms of disease to which the uterine appendages are liable: 1. Cirrhosis of the Ovary. The patient, a married woman, aged 29, the mother of two children, had been the subject of most severe dysmenorrhœa, rendering her perfectly incapable of following her usual avocations. The cervix had been dilated with temporary benefit, but the dysmenorrhœa returned in a few months with increased severity, and with the addition of more or less constant pain. At the urgent entreaty of the patient, and on the ground of negative evidence from the absence of any enlargement and inability to feel the ovaries in a favourable subject, which induced him to conclude that the ovaries were cirrhotic, he removed the appendages. The result had been a complete cure, both in the arrest of menstruation and the relief of pain. 2. Salpingitis in association with an Ovarian Tumour with a Twisted Pedicle. In this case the tubes were as large as the index finger, that on the side opposite to the tumour being closely adherent to the posterior aspect of the broad ligament. The patient was a married woman, aged 40, without family. 3. An example of Abscess of the Right Ovary with Salpingitis, and Adhesions and Chronic Salpingo-ovaritis on the left side. The patient was a single woman, aged 36, who had one child some years before. The operation was a very formidable one, owing to adhesions which involved the cæcum, but its success was complete. 4. A recent specimen from a single woman, aged 24, illustrating the conditions of Hæmatosalpinx in the uterine end of the left tube, and Pyosalpinx in the outer portion, in which the contents had undergone caseous degeneration. In the right tube there was pyosalpinx in the same stage, together with almost complete severance of the tube by a constricting band of adhesions. The patient was progressing well. Dr. Bantock stated that in all the cases brought forward he had been able to ascertain by the physical signs that the cases were suitable for operation. Even in the case of cirrhosis he had diagnosed this condition; it was not necessary to make an accurate diagnosis in such cases. It was impossible to diagnose a blood-cyst in one case, or an abscess of the ovary in another, associated as they were with extensive adhesions and enlargement of the tubes. It was sufficient to be able to say that there was disease which nothing but abdominal section could clear up.

Pyosalpinx.—Dr. FANCOURT BARNES exhibited an ovary with the left Fallopian tube, which he had removed six weeks previously from a patient who had been a chronic invalid in consequence of her sufferings. She had left the hospital a fortnight before perfectly relieved. He had not made a differential diagnosis between pyo- and hydrosalpinx in the case; it was sufficient to diagnose one or the other.

Intra-uterine Medication.—Dr. ROBERT BELL (Glasgow) read his paper. He considered the uterus in a large majority of cases as the source of the mischief in a great many of the various affections to which the tubes and ovaries were liable. It was, therefore, by suitable treatment of the uterus that such evils were to be averted. Iodised phenol was the preparation which gave the best results. It was aseptic and antiseptic in the highest degree, and the carbolic acid exercised a powerful anodyne effect on the perimetrium; it possessed also powerful alterative properties.

In treating cases of long-standing endometritis it was necessary to remove the granular condition of the mucous membrane as a preliminary to the strictly medical part of the treatment. This was effected by means of the curette. He had also found intra-uterine medication useful in a class of cases where it was not usually employed—namely, in displacements. Displacements were invariably associated with a softened condition of the uterine walls from a congested condition of the parts. In conjunction with the use of pessaries, intra-uterine medication did much permanently to remove the displacement. The treatment of such cases, as a rule, occupied three to four months.—In the discussion which ensued, Dr. HEYWOOD SMITH, Dr. BANTOCK, Dr. AVELING, Dr. FANCOURT BARNES, Dr. PRIDHAM, Dr. MANSELL MULLIN, and the PRESIDENT took part.—Dr. BELL replied.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, APRIL 4TH, 1888.

ROSS JORDAN, M.R.C.S.E., President, in the Chair.

Lupus Vulgaris.—Dr. KIRBY showed a case of lupus vulgaris, of seven years' duration, on the arm of a girl, aged 14, who was recovering rapidly under treatment by Unna's plaster. There was no history of struma in the family, but several relatives had died of cancer.

Encysted Hydrocele of Epididymis.—Mr. JORDAN LLOYD showed a case of this disease.

Urethral Calculus.—Mr. JORDAN LLOYD also showed a large urethral calculus that had been passed by a boy.

The Davos and Engadine Valleys.—Dr. FOXWELL read a paper on this subject.

Pancreatic Cyst.—Mr. BENNETT MAY reported a case of pancreatic cyst for which he had operated. The operation resulted in the removal of a large gall-stone from the gall-bladder. The cyst had collapsed previous to the operation, but two months before that a quart of fluid was removed by aspiration. The necropsy showed that death was caused by gangrene of the pancreas. The cyst had a large aperture of communication with the duodenum. It appeared probable that it was a retention-cyst (gall-stone in the common orifice), as there was a well-marked history of attacks of severe biliary colic with jaundice.

Vesical Calculi.—Mr. BENNETT MAY also showed a number of vesical calculi.

Drop-wrist and Extensive Muscular Atrophy from Lead-poisoning.—Dr. SUCKLING showed a young woman who had worked as a maker of paper bags four years ago, and who had to give up her work on account of paralysis of the upper extremities. She had suffered from colic and constipation. There was a well-marked blue line on the gums, and double wrist-drop. The supinator longus on each side was much weakened. The thenar and hypothenar muscles on each side were wasted, and the *main en griffe* was present. The muscles of the forearms and shoulders were also much atrophied. The intrinsic muscles of the hands and the extensors of the wrist did not respond to the faradic current.

Senile Chorea.—Dr. SUCKLING showed a woman, aged 62, who had suffered from chorea for nine years. She had suffered from chorea when 12 years of age, but recovered completely from this attack in about three months. She had an attack of rheumatism when she was 45 years of age. There were jerky spontaneous movements of both the upper and lower extremities, and the tongue and lips were especially affected. There was considerable inco-ordination, and the disorderly movements were intensified by emotional disturbance, and ceased during sleep. The intellect was unaffected, there were no sensory disturbances, and no signs of heart disease. The patient attributed her illness to worry and anxiety.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, APRIL 5TH, 1888.

J. HARRIS ROSS, M.D., in the Chair.

Gangrene of Penis.—Dr. J. HARRIS ROSS showed a man who had suffered destruction of the penis from gangrene during an attack of diphtheria.

Adenoid Vegetations of the Naso-Pharynx.—Mr. CRESSWELL BABER showed photographs, before and after operation, of a man, aged 25, from whom a large quantity of these growths was removed under chloroform at one sitting, and drew attention to the improvement in the appearance of the face produced by the restored nose breathing.

Obscure Cerebral Case.—Dr. WHITTLE read notes of the case of a man, aged 20, who had received a blow on the head when a boy, from which permanent deafness resulted. He had had two severe illnesses abroad attributed to sunstroke, and had been subject to vertigo (? aural). He appeared in good health till February 25th, when, after exposure to cold, he was attacked with frontal headache, pain in the right shoulder, and a feeling of weakness. Motor paralysis rapidly developed in the right arm, then extended to the left arm and both legs. He complained of difficulty in breathing. There was loss of superficial reflex, and extensive, but not absolute, sensory paralysis. His mind was clear till within a short time of his death, which occurred on the eleventh day with signs of apnoea. The *post-mortem* examination threw no light on the cause or nature of the disease.

The Principles and Practice of the Local Treatment of Diphtheria.—Mr. R. SANDERSON read a paper on this subject. He argued that, apart from Oertel's elaborate researches, there was sufficient clinical evidence to show that diphtheria was primarily a local disease. The local lesion should be regarded bacteriologically as a "cultivation" upon human mucous membrane; and *cæteris paribus*—that is, assuming a uniform healthiness of organism—the constitutional poisoning was directly proportional to the area occupied by the cultivation. The diphtheritic membranes were a protecting blanket under which and in which this cultivation thrived, and, moreover, were in themselves a mechanical danger, and aided the spread of the cultivation by transplantation and continuity. They should, therefore, be thoroughly dissolved early, and redissolved as soon as reformed. He knew of no solvent better than Finkler's papain, and described the method of applying it. Having thus exposed the cultivation, a germicide should be at once used; he preferred glyc. acid. carbolic. ʒj, glycerine ʒj. He maintained that by taking a case early and treating the local lesion rationally on the above lines, the area and consequently the toxæmia could be controlled, and the danger of invasion of the nose and larynx minimised.—Dr. BLACK thought that the general symptoms were not always proportionate to the local lesion.—Mr. ALFRED SCOTT agreed with Dr. Black. Albuminuria did not in his experience always come on at the commencement.—Mr. ALGERNON HODSON mentioned a series of cases which he had treated with large doses of perchloride of iron.—Dr. PALEY thought that after tracheotomy children still died of suffocation; this happened in at least two-thirds of his cases of tracheotomy. He had found good effects from a spray of papain into the trachea after tracheotomy.—Mr. NICHOLLS and Mr. JENNER VERRALL also made some remarks, and Mr. SANDERSON replied.

PATHOLOGICAL SOCIETY OF MANCHESTER.

WEDNESDAY, APRIL 11TH, 1888.

J. DIXON MANN, M.D., Vice-President, in the Chair.

Case of Diabetes Mellitus in which Acetonæmia was induced by the Shock of a Strangulated Femoral Hernia.—Dr. RAILTON showed sections of various organs from this case, which was that of a woman, aged 56, who had been under treatment for diabetes at the Manchester Clinical Hospital for Women and Children for sixteen months. During that period she never had any symptoms of acetone in the blood, or aceto-acetic acid in the urine. A femoral hernia, from which she had suffered for many years but had failed to mention, became strangulated. Acetonæmia at once ensued, and although herniotomy, with local anaesthesia from cocaine, was performed by Mr. Southam, she became comatose and died. The sections from the cortex of the brain, the medulla, and the cervical cord showed nothing abnormal. The liver presented a general dilatation of the intralobular capillaries, with some slight atrophy of the cells and deposit of pigment; the kidneys showed degeneration of the epithelium of the convoluted tubes, with slight fibrosis, thickening of the intima of arteries and dilatation and engorgement of the capillaries. The heart muscle showed but slight degenerative change—granules at the poles of the nuclei, but no loss of striation. There were no signs of phthisis about the lungs, but a slight amount of broncho-pneumonia existed in the left base. The pancreas was not examined. No trace of peritonitis was discovered, the bowel at the seat of the strangulation being quite healthy. An interesting point about the case was, that the temperature became subnormal at the onset of the acetonæmia, and remained so until death.

Sections of Liver from an Unusual Case of Cirrhosis.—Dr. WILD showed sections of cirrhotic liver, from a girl aged 9 years, who

died after a prolonged illness, the chief characteristics of which were ascites, hæmatemesis, emaciation, and progressive exhaustion, leading to death. No history of alcohol or of congenital syphilis could be obtained. The liver was harder than normal, the surface uneven but not "hobnailed." On section, polygonal areas of yellow liver tissue were seen, surrounded by white lines—the new-formed fibrous tissue. Microscopically the cirrhosis was of the multilobular form, more advanced in some parts than others; the fibrous tissue contained a large number of round cells. There was no marked proliferation of bile-ducts, no thickening of the capsule.

Malignant Disease of Jaws.—Mr. JONES related these cases, and showed the specimens. 1. A man, aged 55, was admitted into the Manchester Royal Infirmary on December 18th, 1887. He noticed swelling on the right side of his nose nine months before, which gradually attained considerable dimensions. The growth, which was painful on pressure, obstructed the nostril, and caused a bulging of the hard palate. There was slight ulceration on the cheek, and a discharge. Beneath the lower jaw and along the sterno-mastoid there was a chain of enlarged glands. The superior maxilla was removed on December 22nd, the enlarged glands being taken away at the same time. The patient recovered sufficiently to be transferred to the Convalescent Home at Cheadle on January 11th, 1888. On his return there were some indications of recurrence of the disease, which was epitheliomatous in character. 2. A man, aged 23, was admitted on January 23rd, 1888. In November, 1886, he had a constant tic in the left cheek; the pain disappeared about July, 1887, when he noticed a small swelling above the gum on the left side of the upper jaw. This swelling increased upwards and inwards, and loosened the premolar teeth, so that he could easily extract them with his fingers. On admission a large ovoid swelling occupied the region of the left cheek, pushing down the angle of the mouth. Its upper limit reached the orbital ridge of the superior maxilla. The hard palate bulged considerably, and in the centre of the bulging was a small ulcer, the edges of which were not undermined or everted. The surface was not raised. No enlarged glands could be detected. The left upper jaw was removed on January 26th. The skin incision readily healed, one-third of the sutures (fine silk) were removed on the 30th, and the remaining ones on February 3rd. When he left for Cheadle on February 7th, very slight disfigurement could be noticed. The disease was spindle-celled sarcoma. 3. A woman, aged 39, first seen in November, 1887. Five years before she had the left lower wisdom tooth extracted for caries, with toothache. For the last three years at least she had always had some discomfort in the situation whence the tooth was removed. Eighteen months ago she noticed a swelling of the gum, and for six weeks she had been unable to take any solid food, owing to the pain at the roots of all the teeth on the left side of the lower jaw. On examination it became evident that the bone was expanded by a tumour centrally situated. The portion of bone implicated was removed on November 12th. The patient made a rapid and complete recovery, very slight deformity being left.

Specimens.—Mr. YOUNG, Dr. HUTTON and others showed various Preparations.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, APRIL 6TH, 1888.

E. ATKINSON, M.R.C.S., President, in the Chair.

Suprapubic Prostatectomy.—The PRESIDENT gave an account of two cases in which he had removed portions of the gland by Mr. McGill's process. In the first case a farmer, aged 66, was admitted to the Leeds Infirmary with a five-years' history of repeated attacks of retention, requiring catheterism, the urine drawn off containing blood. The last attack occurred two days before admission. The bladder was much distended; there was free urethral hæmorrhage, and the prostate was much enlarged. A catheter drew off dark chocolate-coloured urine with numerous clots. The urine was regularly drawn for eight days and the bladder irrigated. The rectum was distended by a bag containing 12 ounces of water, and the bladder injected with 10 ounces of boracic solution, and opened over the pubes. A growth about the size of a cricket-ball was found to spring from the right lobe of the prostate. There were two openings into the bladder, one below and behind the growth, the other, which seemed to be a false passage, through the centre. The mucous membrane being incised, a considerable portion of the growth was enucleated in

veral portions. There was free hæmorrhage, and the patient's condition caused some anxiety for some days after the operation. On account of vomiting, diarrhoea, and great weakness, but he made good recovery, and was discharged well twelve weeks after the operation, passing urine freely by the natural passage. Case II.—A man, aged 71, had had symptoms of enlarged prostate two years and retention for four days before admission. The bladder had not been emptied for two days, and was much distended. A catheter withdrew 50 ounces of deeply blood-stained urine. After six days of regular catheterisation and irrigation of the bladder with astringents without restraining the hæmorrhage, turpentine was administered successfully as regards the hæmorrhage. The bladder was opened, and two large masses were found projecting to the viscous on each side of the urethral orifice. A small undulcated growth, projecting from the mesial surface of the left enlargement, was removed with scissors (this appeared to block the urethral orifice), and the two larger masses were enumerated by the fingers. There was little bleeding. The bladder was as at a later period drained by a long tube into a vessel placed under the bed. The patient did well for a month, and he was allowed to get up. Six days after, however, he was seized with acute pleurisy, of which he died. The local conditions, however, were quite satisfactory.—Mr. JESSOP mentioned a case in which he had performed the operation, the patient dying from acute proctitis. He asked whether enucleation from the rectum might be sometimes be practicable.—Mr. MCGILL said prostatic enlargement might be divided into two classes, according as they grew mainly towards the rectum or towards the bladder. In the latter category he included those in which, without much enlargement, there existed the valvular collar arrangement first described by Mr. B. Brodie. The first class caused no bladder symptoms, and therefore he thought the operation suggested by Mr. Jessop unnecessary. In one case of his own, which proved fatal, there was albuminuria at the time of operation. The patient sank gradually, and *post mortem* the walls of the bladder were found to be very thick, and there was suppuration in the cavity of Retzius. He thought the prognosis better with a thin than with a thick walled bladder. He had recently operated successfully in a case where the portions removed weighed 2 ounces.

Antiseptic Midwifery.—Dr. PURDY maintained that strict antiseptic precautions were impossible in private practice, and said that among the heads of the profession there existed great difference of opinion as to the best methods and the best antiseptic agents. He had seen much harm ensue from the routine washing of the vagina by nurses.—Mr. WM. HALL thought we must not lose sight of the fact that there was a serious and highly infectious malady in puerperal fever, and there could not be a too careful disinfection of the person of the obstetrician.—Mr. C. J. RIGHT pointed out that the adoption of strict antiseptic precautions had lowered the mortality in lying-in hospitals from 7 per cent. to less than 1 per cent., but that by antiseptic midwifery he understood every precaution which ensured complete cleanliness, not merely the use of a particular disinfectant.—Dr. MILLER and Dr. BRAITHWAITE also made some remarks.

Pathological Specimens.—Dr. ALLAN: 1. Tibia, three months after comminuted fracture. 2. Extreme Granular (Gouty) Kidneys.—Mr. TURNER: Microscopic Sections of (1) Mammary Tumours; (2) Interstitial Hepatitis.

Cases.—Dr. BARRS showed three cases of Myxœdema.—Mr. ATKINSON showed a patient on whom Thiersch's operation for removal of the Genitals had been performed.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, MARCH 2ND, 1888.

H. STEAR, M.R.C.S., President, in the Chair.

Congenital Malformation of the Pulmonary Valves simulating aneurysm of Arch of Aorta.—Dr. WM. COLLIER (Oxford) showed the heart and large vessels of a woman, aged 33. She had enjoyed good health until the age of 18, when she had rheumatic fever, followed by constant pain over the upper half of the left side of the chest, and dyspnoea. She was believed to be suffering from aortic aneurysm, and after treatment by rest and diet for twelve months, Mr. T. Holmes tied the left common carotid, the operation being followed by marked relief to the symptoms. Thirteen years later the patient died of phthisis in Oxford, when a *post-mortem* examination showed that all the symptoms were due to a congenital malformation of the pulmonary valves, and that an aortic aneurysm had never existed. The case is fully reported in vol. ix, 114, of the *Clinical Society's Transactions*.

A Case of Charcot's Disease of the Knee-Joint (specimen shown).—Dr. WM. COLLIER referred to the discussion on Charcot's disease at the Clinical Society, as to whether the disease was a form of rheumatic arthritis altered by locomotor ataxy, or whether it was a special disease in no way connected with rheumatic arthritis. He thought the history of his own case pointed to its being a special disease. The knee-joint shown was that of the woman, aged 41, who had first come under observation 2½ years previously with marked locomotor ataxy, with a strong history of syphilis, but none of either gout or rheumatism. Twelve months before her death the left limb was noticed to be swollen, but no change could be found in the joint, with the exception of fluid effusion. For the sixteen months previous to this she had been practically bedridden, as the ataxy had been so severe as to prevent her standing without support on either side. Six months later it was found that in the space of six months the joint had become totally disorganised; the bones were freely movable in every direction; there was very marked grating, but no pain. After death it was found that enormous loss of tissue had occurred, the crucial ligaments had entirely disappeared, the external condyle had gone, and yet, as he had stated elsewhere, a large amount of new bone had been formed in the immediate neighbourhood of the destruction.

Thoracic Tumour; Recovery whilst taking Chian Turpentine.—Dr. BRADBURY related the case of H. J., aged 39, widower, admitted into Addenbrooke's Hospital on November 26th. There was a history of cancer in two sisters, and his father had died of "tumour." The patient had had several attacks of severe epistaxis since boyhood. When 19 years old he had some disease in the left lung, and lately had had several attacks of hæmoptysis. The present illness began with cough and pain in the right side of the chest and shoulder, blood-stained expectoration, and night-sweats. On examining the chest there was a smooth elevation as large as the palm of the hand, extending from the clavicle down to the third rib, just to the right of the sternum. No pulsation was felt, and there was no enlargement of the superficial veins. Percussion was impaired over this region and caused some pain, and respiration was feeble there, with occasional rhonchus. No murmur was audible over the swelling, and the heart sounds were normal. There were no signs of aneurysm, and the lymphatic glands were not enlarged. The swelling increased in size and became more prominent, causing pain and slight fulness of the right arm. On several occasions he had epistaxis. He was given five-grain doses of iodide of potassium for a few days, and on December 11th he was ordered fifteen minims of ethereal solution of Chian turpentine three times a day. The swelling continued up to December 25th, and then gradually diminished, so that on December 31st there was no prominence and only some hardness, the physical signs also clearing up. He still had attacks of epistaxis. He was discharged, well, having gained 22 pounds in weight.—In the discussion which ensued as to the nature of the tumour, the probability of hæmatoma was raised, associated with the tendency to epistaxis.—Dr. BRADBURY, in reply, thought the situation was unusual for hæmatoma, and the history was quite as much in favour of cancer. Its origin might possibly be inflammatory.

Intussusception in an Infant.—Dr. EASBY said on February 17th he was asked to see H. W. F., aged 7 months, a male. On his arrival he found he was suffering from well-marked symptoms of intussusception, the first appearance of which had been noticed on the 14th. On rectal examination a sausage-like tumour, four inches in length, was found high up. The child was placed under chloroform, and with a seamless Higginson's enema syringe he commenced to inflate. In about two minutes there was a rush of air past the nozzle, the distension of the abdomen subsided, and on introducing the finger the sausage-like tumour had gone. Minim doses of *tr. opii* were ordered, and, for food, lime water and milk. On the 18th a good motion was passed, and on the 24th the child was well.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, APRIL 12TH, 1888.

M. M. DE BARTOLOMÉ, M.D., President, in the Chair.

Extra-uterine Fœtation.—Dr. MARTIN showed the uterus and appendages from a patient, in the Jessop Hospital, who had died from rupture of the sac. The woman, aged 23, was married; had three children, the last four years ago. She had suffered from endocervicitis and endometritis. The fœtation was tubal, in the right side, the fœtus being about three months' growth; a large

rent was seen in the posterior part of the foetal sac. Dr. Martin remarked on the difficulties attending a diagnosis in this case.

Diabetes Treated by Codeia.—Dr. STOKES related a case occurring in a man, aged 65, exemplifying the value of this drug.

Fracture of Olecranon by Indirect Violence.—Dr. SYMES (Chesterfield) related this case. The patient, a man, had, whilst working in the pit, put out his hand to stop a coal tub, and he immediately felt something give way. He was admitted into the Chesterfield Hospital on the third day after the accident. The olecranon process was then found detached, and could be readily moved from side to side. The fragment was not much displaced upwards. There was great swelling of the joint. The result was good.

Cancer of Breast.—Mr. H. JACKSON read a paper entitled *Carcinoma of the Breast; its Treatment.*

Urinary Calculi.—Mr. FAVELL showed a calculus, weighing nearly five ounces, which he had removed by lateral lithotomy from a patient a few days previously. The man had done well. —Mr. BALDWIN showed a calculus, weighing fifteen grains, which he had removed from the urethra. —Dr. MORTON exhibited a calculus, weighing ten grains, which he had extracted from the urethra of a girl, aged 6.

Specimens.—Dr. STOKES showed an Aneurysm of the first part of Arch of Aorta. —Dr. SYMES exhibited the Tibia and Fibula from a limb which he had amputated. They were both thickened, and were handed over for careful examination.

REVIEWS AND NOTICES.

MEDICAL LECTURES AND ESSAYS. By GEORGE JOHNSON, M.D., F.R.C.P., F.R.S., Emeritus Professor of Clinical Medicine, and Consulting Physician to King's College Hospital, etc. London: J. and A. Churchill. 1887.

THERE is certainly no lack of books in every department of medicine and surgery, written by young men who write to live; admirable as many of these books are, learned, elaborate, and complete as are some of the best of them, the disappearance of the majority would not perhaps be a serious loss, for their places would presently be supplied by the next generation of industrious and ambitious young men. On the other hand, it is a fair matter of complaint against too large a proportion of the senior and leading members of the profession, against physicians of such standing especially, that they do not sufficiently often, or sufficiently fully, give to the world the result of their ripe experience. The portly volume, therefore, which contains the latest and most matured opinions of a past-master like Dr. GEORGE JOHNSON, on such subjects as the various forms of Bright's disease, the relation of membranous croup to diphtheria, the proximate cause of epileptiform convulsions, the nervous disorders that result from overwork and anxiety, and on thoracic and abdominal aneurysm, to mention only a few of its leading topics, is sure of a respectful welcome.

Most readers will be disposed to turn first to Chapter XLV, which is in fact a new edition revised, and in part re-written of the author's *Lectures on Bright's Disease*; it is a long chapter, perhaps the longest in medical literature, but interesting and instructive from the first to the hundred-and-sixtieth page. Dr. Johnson summarises his views in five "propositions," which in aim amount to this, that chronic Bright's disease is a constitutional malady, characterised by a morbid state of the blood, which leads first to changes in the secreting cells of the kidney, and secondly to alterations in the blood-vessels of the kidneys and other organs. It will be at once seen that the objections to this theory which will have to be met are, the alleged existence of primary interstitial nephritis, and the alleged occurrence of primary arterio-capillary fibrosis. Dr. Johnson naturally and properly lays stress on the indisputable connection between acute nephritis and certain acute general diseases, of which scarlet fever is the most typical example; in these there is at least very strong presumptive evidence that the connecting link is the morbid state of the blood, the kidney cells being damaged by the poisonous bodies which they endeavour to excrete. The researches of Klebs and Klein must not be overlooked in this connection, because they tend to prove that the stress of the disease falls equally upon the glomeruli and arterioles, and upon the excreting

epithelium, if indeed the latter do not suffer less than the former. Dr. Johnson finds in the granular kidney intrinsic evidence in support of his position: "it is called," he says, "and correctly called, the small red granular kidney," for it retains, even in the most advanced stage, some of its vascularity, and consequently of its red colour, and he argues that if the change were primarily intertubular the result would be early anemia and consequent pallor. Microscopically he finds the intratubular changes far advanced while vascular changes are still absent or little marked, and he urges that if there were much interstitial growth of connective tissue, the intertubular capillaries would be compressed and the Malpighian capillaries in consequence engorged, a condition which would lead to early and copious albuminuria and hæmorrhage, whereas, as is well known, albumen is less copious than in any other form of Bright's disease. In the advanced stage the granular kidney undoubtedly contains an amount of connective tissue, that is to say, non-secreting tissue, out of all proportion to the quantity in the healthy kidney; this excess is partly due to actual overgrowth of connective tissue due to perverted nutrition, but the justice of Dr. Johnson's views as to the origin of the greater part will probably be generally recognised. "When a granular kidney," he writes, "has been reduced to the half or one-third of its normal size and weight, there can be no question that this is mainly due to the destruction and disappearance of the gland cells, and that in what remains of the wasted organs, there must be an enormous relative excess of fibroid tissue composed of fibrillated basement-membrane, thickened Malpighian capsules, and bloodless capillaries." This view is adopted in the well-known *Lectures on Pathological Anatomy*, by Drs. Wilks and Moxon, and it is not easy to see how its force can be diminished by any arguments founded on microscopical appearances, since the question in dispute is not whether there is an excess of fibroid tissue, but how large a proportion of admitted excess is derived from fibrous basement-membranes which have persisted after the secreting cells are destroyed. It would seem that pathologists have been rather led away by the supposed analogy between granular kidney and cirrhosis of the liver, whereas the essential difference between the functions of the organs ought to have prevented any attempt to explain the morbid anatomy of the one by direct reference to the other.

Upon this view of the pathology the thickening of the arterioles remains to be accounted for. In the renal arterioles this thickening occurs in the intima, the connective tissue which exists between the endothelium and the elastic lamina becoming very greatly increased in bulk. There are at least three theories to account for this overgrowth. One which Dr. Johnson sets in the forefront to demolish would attribute it to endarteritis; and although it is, we take it, almost certain that an inflammatory process is the initial lesion in the kidney, or at least accompanies that lesion, we are not aware that it has ever been given an application universal either in extent or time. Another theory is that the overgrowth is mainly degenerative, involving a replacement of highly-specialised by lowly-specialised tissue—a process with which we are familiar in a variety of chronic maladies. The third theory—that advocated by Dr. Johnson—is that the thickening is "a physiological overgrowth having a conservative purpose and tendency," which, by strengthening the arterioles in their longitudinal direction, enables them the better to resist the strain and the resulting tendency to elongation to which they are subjected by the impulse from the greatly-hypertrophied ventricle. This view is ably defended by arguments drawn from the morbid appearances as well as by general pathological considerations. It is stated that the thickening is always associated with "hypertrophy of the muscular coat, and bears a constant relation to it; that the structural character of the thickening is remarkably uniform; that every artery in the kidney is affected to a uniform degree; and that the thickening is strictly limited to the intima. Some very striking drawings, from preparations made by Dr. Heneg Gibbes, are given to illustrate these points; but it may be doubted whether the statements can be received in this absolute form without certain limitations. As has been already said, Dr. Johnson looks to a modified condition of blood associated with gout, dyspepsia, or some other derangement of the general health as the immediate cause of initial renal changes. The morbid condition of the blood leads to morbid nutrition of the excretory cells, which in time decay and are disintegrated, the basement membrane of the tubules subsequently thickening and contracting. The secreting tissue of the gland being thus very greatly diminished, it requires less blood, and the renal arterioles, "unde-

the influence of the vasomotor nerves, now regulate the blood supply in accordance with the diminished requirements of the gland. This regulating action continues and increases month after month, year after year, and the physiological result of this persistent overaction of the minute renal arteries is that their walls become hypertrophied."

The theory is consistent, its parts cohere naturally, and it is argued with great ability and fertility of resource; it supplies a reasonable logical substitute for the somewhat vague statements about a degenerative tendency to fibrous overgrowth—a part of a general decay—which are favourite generalities with some writers, and has this great advantage that it has a very obvious clinical moral; if chronic granular kidney is to be traced to chronic toxæmia due to gout, dyspepsia, or suppression of cutaneous secretions, then we have a rational basis on which to found a method of treatment which may be efficient to check the progress of the disease.

There is a very valuable chapter on the various modes of testing for albumen in the urine. Dr. Johnson considers that picric acid is a more delicate test for minute traces of albumen than either acetic or nitric acid, or than both these tests combined. In order to justify this claim, the picric acid must be used with certain precautions; if very alkaline, the urine ought to be acidulated with acetic or citric acid, although the picric acid solution is itself sufficiently alkaline to dissolve the phosphatic deposit which results from boiling a slightly alkaline urine; a long test tube is used, and into it is poured a column of urine about four inches high, then holding the tube in a slanting position, the picric acid solution is gently poured on to form a column about one inch high, which, owing to its low specific gravity (1.007), will float on the surface of the urine; where the two liquids meet, a rather free intermixture occurs, and, if albumen is present, it is precipitated in this area, and a cloudy ring is produced; if the albumen is in very small quantity, the application of heat to this turbid layer will increase the turbidity. If the specimen of urine which has to be examined is turbid, it must be cleared by filtration before applying the test. Picric acid, like nitric acid, will produce an immediate turbidity, due to precipitation of urates in urine containing an abundance of these salts, but this turbidity disappears with heat. It is, however, desirable in every case to let the urine cool before making an examination: the excess of urates separates in the cold, and may be filtered off; the liability to this source of fallacy is thus greatly diminished. A more real objection is, that in a few urines picric acid will cause a precipitate of uric acid crystals, and thus produce an opacity which is not removed by heat, and can only be recognised on microscopical examination. Peptones, also, it ought to be remembered, give a precipitate, but this is dissolved by boiling; by making use of this fact, Dr. Johnson has found it easy to detect and separate peptones in albuminous urine. On adding the saturated solution of picric acid in the cold to such urine both these proteids are precipitated, but the peptones are dissolved up on heating, and, if the liquid is filtered hot, will pass through the filter in solution, and separate out in the filtrate on cooling. A caution must be added against the use of acetic or citric acid to acidify the urine, unless that fluid be very alkaline; in any case, if one of these acids be added, it is safest to filter, in order to get rid of the mucin.

Some excellent observations are made on the proper mode of searching for albuminuria. Most readers are now alive to the fallacies involved in examining the morning urine only, but a new heresy appears to be springing up; so much has been written of the necessity, in diabetes, and in the so-called renal inadequacy, of obtaining a specimen from the whole bulk of the day's urine, that a disposition is shown to extend the recommendation to cases of suspected albuminuria also. Of course, if it is desired to obtain a quantitative estimation, this is right; but in the cases now referred to it is the existence of albumen which has to be established. For instance, in the slight albuminuria which so often persists for some weeks or months after scarlatinal nephritis, the abnormal constituent may only be present after food and exercise, and when looking for albumen in such a case the obvious and reasonable course is to examine the urine passed after food and exercise. If a trace is present, then it has, as is generally believed—and we are glad to see that Dr. Johnson fully endorses the opinion—a serious clinical significance; by diluting this specimen of urine, which contains the clue to the whole position, with all the urine of the twenty-four hours, we are digging a pit into which to fall.

Another valuable monograph contained in this volume is that on the pathology and treatment of epidemic cholera; it extends to 112 pages, and is a powerful exposition of the principles upon which the evacuant treatment of cholera has been founded. A careful perusal leaves upon the mind a very strong impression of the validity of the arguments advanced; that during an attack of cholera there is a morbid material actually in the blood has been rendered more than ever probable by recent researches, and that this material is in some way intimately associated with morbid changes occurring in the intestines can hardly be disputed. The tone in which the subject is discussed is unnecessarily polemical; it is probably because cholera is so terrible a disease to witness that every difference of opinion as to its nature or treatment leads to an embittered controversy. Men are terribly in earnest about it, and it is not easy to be tolerant.

The evacuant treatment of cholera consists in the administration of some laxative—calomel, according to the older Indian writers, castor oil, according to Dr. Johnson—in frequent doses, with the object of emptying the intestines of the morbid material, solid as well as liquid, which they contain. The theory as generally understood is that the alarming symptoms of the algid stage are due to the presence of a peculiar poison in the blood. The modern theory, which has been especially favoured by Koch and his fellow-workers, is that, whether the disease is primarily intestinal or not, the morbid process is kept up by the intestinal derangement; that, in fact, the intestines are the laboratory in which the poison, ptomaine or whatever it may be, is manufactured. Dr. Johnson fights against this theory, if we understand him aright, with unnecessary vehemence.

A fairly extensive acquaintance with the literature of cholera fails to afford an instance of a writer who has given so philosophical an explanation of the symptoms of the algid stage. Dr. Johnson is right in insisting that it is not a mere form of ordinary collapse. There is good reason to believe that it is a toxæmia, and Dr. Johnson makes out a strong case for the theory that the cholera poison is a lung (asphyxiating) poison. But a distinction must be drawn between the cholera poison—which may, for the sake of argument, be assumed to be a ptomaine—and the cholera virus; the latter is capable, the former incapable, of self-multiplication. Although the view is nowhere specifically stated, Dr. Johnson appears to hold that the symptoms of cholera are produced by a single dose of the cholera poison, and that cholera is therefore directly analogous to poisoning by—to quote instances mentioned by him in illustration of his arguments—muscain or tinned meats. The current theory is that the virus of cholera, at a certain period of its evolution, finding its way into the intestines while they are in a favourable state, therein multiplies, giving rise to a poisonous body or bodies, which produce systemic poisoning evidenced by the algid state, and also cause the peculiar flux. The evacuant treatment would appear to be indicated upon either theory; on Dr. Johnson's, to remove the ptomaine from the blood by unloading the venous system, and on the other to remove not only the ptomaine from the blood, but also the virus from the intestine. Unfortunately there is a serious conflict of evidence when we come to inquire how the evacuant system works in practice. Dr. Johnson writes very strongly in its favour, and quotes many striking cases; but current Indian opinion is certainly opposed to it. Mr. Macnamara, speaking in the debate at the Royal Medical and Chirurgical Society in 1885, said that he had gone out to India a thorough believer in the evacuant treatment, but had soon been led to abandon it. In this state of doubt this question must be, for the present, left; but we would strongly recommend all medical practitioners, civil or military, who may be called upon to treat cholera, to study this monograph; it contains a great deal of information and the results of much thought, and its perusal will have the further important effect of stimulating thought.

Though so much space has been devoted to these two important essays, it must not be supposed that the volume does not contain many other shorter essays of great value. For instance, in a lecture on hysteria which forms the eleventh chapter of the volume, there are some interesting observations on globus and on laryngeal spasm, a subject which is further elaborated in a clinical lecture founded on a remarkable case of hysterical spasm, and in a paper on the laryngeal symptoms resulting from pressure on the vagus and recurrent. From the fact that the inhalation of chloroform immediately arrested the stridor of hysterical spasm, Dr. Johnson was led to give chloral internally, and with great success. He states that the drug is also of great value in laryngismus

stridulus, and suggests that it will probably be found useful as a palliative in spasm excited by pressure on the pneumogastric. The production of bilateral spasm or palsy by pressure of an aneurysm or other tumour on the trunk of the vagus on one side is discussed at length, and the development of the conviction that it was due to morbid changes induced in the vagus centres by irritation of the afferent fibres is traced. This view has been accepted by Sir Morell Mackenzie in his work on Diseases of the Larynx, and its correctness is now, we believe, generally admitted. There is also a whole series of essays on other subjects, more or less nearly connected with laryngology. Special mention may be made of those on croup and diphtheria, and of an interesting anecdotal chapter on foreign bodies in the throat and air passages.

There is another series of lectures and essays on diseases of the heart and aneurysms of the aorta containing many valuable clinical observations, and numerous illustrative cases. There are also a number of lectures and essays on detached subjects, among which a particularly valuable paper on latent peritonitis, and a paper containing a series of cases of poisoning by the homeopathic tincture of camphor may be specially mentioned on account of their direct clinical bearing.

The volume is a remarkable monument to the industry, the extensive experience, and the wide range of reading of its author. If it stood alone it would represent a life's work of which any man might well be proud, but we are glad to remember that Dr. Johnson is still with us in the full vigour of his faculties, and still hard at work, as is evidenced by the suggestive essay on "Albuminuria a frequent Result of Sewage Poisoning," published in these pages since the volume now reviewed was issued from the press.

MEDICAL HISTORY OF THE MEATH HOSPITAL AND CO. DUBLIN INFIRMARY. By LAMBERT HEPENSTAL ORMSBY, A.B., M.D. Univ. Dub., F.R.C.S., Member of the King and Queen's College of Physicians, Ireland, Surgeon to the Meath Hospital, etc. Dublin: Fannin and Co. London: Baillière, Tindall, and Cox.

THERE is scarcely one of the medical and surgical institutions connected with the Dublin School that has acquired so great, and we will add so deserved, a reputation as the Meath Hospital and Co. Dublin Infirmary. This it has gained from its having been the arena for the labours of so many worthies who have shed lustre on the Dublin School, among whom may be mentioned among others, Crampton, Porter, Rynd, Smyly, Macnamara, Graves, and Stokes. It is gratifying to note that the same zeal and energy that characterised the staff in the past are still apparent in its present members. Among these Mr. ORMSBY has been conspicuous for his untiring energy, and no small amount of the high state of efficiency that at present characterises the Meath Hospital is unquestionably due to his steady determination to make it, especially as regards the nursing and general management, second to no other similar institution in the United Kingdom.

We congratulate Mr. Ormsby on the satisfactory completion of the medical history of the Meath Hospital, and sincerely hope that the good example he has shown may be promptly followed by the medical officers of our other hospitals.

The motto that has been affixed to the official seal of the hospital, "Que regio in terris nostri non plena laboris?" we think very appropriate, and feel confident that the many pupils of the "old Meath" now practising in the British islands, in the East and far West, will gladly welcome and become possessed of Mr. Ormsby's most interesting book, in which their names appear, as it will give them ample opportunity of reviving many pleasant reminiscences of their student days.

As regards the printing, paper, and illustrations, with which latter the volume abounds, we have little to say save in the way of praise.

A JUNIOR COURSE OF PRACTICAL ZOOLOGY. By Professor MILNES MARSHALL, M.D., F.R.S., etc., and Mr. C. H. HURST. London: Smith, Elder and Co. 1887.

THIS useful manual for dissection met with so much approval on its appearance last year, that we are glad to hear that a second edition will shortly be issued. The book deals with all those animal-types required for the Preliminary Science Examination (M.B.) of the London University, together with some other equally important types, amongst these being *Amphioxus*. This is the

first concise and accurate description, in English, of this interesting vertebrate, and is accompanied by five excellent woodcuts. A description of the life-history of the liver fluke also makes its appearance for the first time in a students' manual.

The arrangement of the types follows that which is found in the first edition of Huxley and Martin's *Practical Biology*, commencing with *Amaba*, and advancing through the more complex forms to the mammal. The bird-type, however, is dealt with after the rabbit—a course which is, in many respects, convenient although not strictly scientific. In fact, it appears to us a great pity that the London University does not require the *Amphioxus*, in place of the much less important bird.

The instructions for dissection are preceded in each case by a short life-history of the animal under discussion; the various organs are treated systematically, instead of topographically; and the woodcuts have the great advantage that they do not take the place of sketches which should be made by the student, but are in most cases longitudinal or transverse sections, more or less diagrammatically represented, and are of considerable aid in teaching. The book is clearly printed on good paper, the names of organs being in thick type; the woodcuts are most carefully executed; and at the end is a useful list of reagents, together with the methods of preparing them. The manual will be found most handy alike by teachers of zoology and by students.

THE COMPARATIVE ANATOMY OF DOMESTICATED ANIMALS.

Part I.—OSTEOLOGY. By J. McFADYNEAN, M.B., etc. Edinburgh: W. and A. K. Johnston.

THE book is written, nominally, for students preparing for the veterinary examinations, and deals with the skeletons of the horse, cow, sheep, pig, dog, cat, and fowl.

The skeleton of the first animal is described in great detail, the description being in large type, the names of bones and their parts being in thick type; the description of the skeletons of the other animals is in small type, and is, of course, less detailed. A large number of woodcuts accompany the letterpress, and these would in some cases (for example, Fig. 57) have been rendered considerably more useful and distinct if less shading had been introduced. Moreover, it appears to us advisable to give references to the figures in the letterpress, although the woodcuts are themselves sufficiently explained.

Preceding the more special part is a short chapter on the histology of bone, and the mode of development of "cartilage bone" and "membrane bone," the value of which would have been enhanced by the introduction of woodcuts representing the process. The mode of development follows the description of each bone. It is a pity that the old plan has been retained of employing the terms "anterior" and "posterior" for those surfaces of a skull which, to the comparative anatomist, are known as dorsal and ventral; also "superior" and "inferior" for the posterior and anterior surfaces. Again, "inferior maxilla" is retained for the mandible, "squamous temporal" for squamosal, and so on, although, in most cases, the zoological terms are mentioned in the text.

In speaking of the fowl, the statement as to the number of vertebrae is different from what is given in other textbooks; for example, the cervical region of the domestic fowl is said to consist of twelve vertebrae, whereas in reality there are fourteen, without counting the two hindermost, which carry freely articulating ribs.

The book, on the whole, will be found very useful to veterinary and medical students, as well as to zoologists.

NOTES ON BOOKS.

Guide to the Administration of Anæsthetics. By HENRY DAVIS, M.R.C.S. (London: H. K. Lewis. 1887).—The literature descriptive of anæsthesia has received no additions of any importance for many years past, that is to say, no volume has been published in England of any note. Fugitive papers there have been, dealing with matters germane to the subject, and some of considerable importance, but no attempt has been made to gather these fragments into one compact whole. Mr. Davis has not attempted to treat his subject from a scientific point of view, aiming at giving in "a concise form, the chief details which are requisite for the safe administration of the various anæsthetic

gents throughout the civilised world." The account given of these various agents, although very scanty, is fairly accurate, but in some instances is not up to the knowledge of the time. In speaking of chloroform, the writer does not enforce its dangers with sufficient emphasis, while, in dealing with the A.C.E. mixture, Mr. Davis is much too brief. He dismisses the subject in three lines, neglecting to mention how to administer it, its undoubted advantages in many cases, and its dangers and peculiarities. The same brevity characterises his treatment of all the less usual æsthetics. Mr. Davis's style is easy, if not polished, but he is not always accurate. On page 16 the figure given is not, as it is stated, that of a Junker's inhaler, but a modification due to Dr. Dudley Buxton, and described in the *Lancet* some years ago. Simsby's inhaler is further described as having been invented to overcome inconveniences, if such there be, of Clover's instruments, a statement not borne out by history, as Clover's apparatus was chronologically the second. Mr. Davis's book will doubtless prove useful to many, and he has certainly done his best, and taken great pains to compress into a very small space a good deal of useful information.

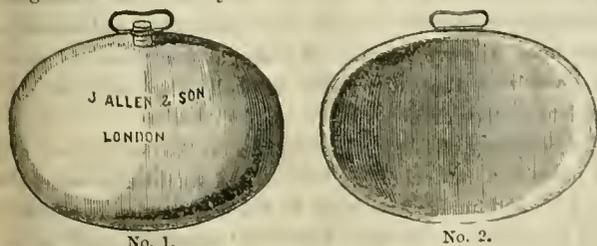
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS,
IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

THE RANELAGH PORTABLE GYMNASIUM.

We have received from Messrs. Walkley and Co., 5, Strand, W.C., one of the Ranelagh Pocket Gymnasiums (F. Milne's patent), of which they are the agents. It is claimed for this simple machine that it produces a high form of healthy bodily development, with perfect safety, and that it establishes and maintains a vigorous tone in the whole muscular system; the series of india-rubber bands (which govern the strength) being so constructed as to prevent any jerk in the motion; and that, therefore, it is superior to either Indian clubs, dumb bells, or other heavy weights, and is equally suited to the most delicate child and the strongest man. It consists of a series of six india-rubber strands, with handles attached by means of cords working on a system of pulleys. It is fixed to a hook in the wall, and can be pulled out to any desired extent by the user making a forward movement. We have tested it and have formed the opinion that it is undoubtedly a useful invention, and may be recommended also on account of its great stability and moderate cost. It occupies, when packed, about 14 1/2 by a foot square. It is made in various degrees of strength: No. 1, suitable for ladies or children, can be procured for half-a-crown; No. 2, for gentlemen, at 14s. 6d.; while they can supply the same of extra strength at 18s. 6d. This is by far the most portable gymnasium we have seen.

ALLEN'S HOT-WATER AND ICE BOTTLES.

We have received from Messrs. J. Allen and Son, 21 and 23, Arylebone Lane, specimens of their improved hot-water and ice bottles in white polished metal, which are vastly superior to anything of the kind we remember before to have seen both in shape, construction, and general adaptability. Being made in two pieces instead of four, and put together in a form which renders the same stronger and more durable, there is far less danger of leakage than with many of the old forms of bottle. Another



No. 1.

No. 2.

noticeable feature is the comparative lightness of the improved bottle, being neither so heavy or cumbersome, and possessing a more shapely appearance, with fewer angles than met with in many of the bottles in use. All the stomach warmers have

rounded edges, rendering injury to the patient impossible, and being convex on the upper and concave on the under surfaces. They will fit that part of the body for which they are intended (see Figs. 1 and 2).

The ice bottles for the chest, stomach (see Figs. 3 and 4) head, and knee (see Figs. 5, 6, 7) are equally well adapted for their



No. 3.

No. 4.

No. 5.

No. 6.

No. 7.

several uses, and are fitted with large filling screws for facilitating the filling with broken ice, but this of course does not prevent their being utilised when required as hot-water bottles. They are moderate in price, and can be procured in tin at 3s. and 5s., or in copper at 6s. or 7s. each.

ROYAL COLLEGE OF PHYSICIANS.

An ordinary meeting of the College was held on Thursday, April 26th; Sir ANDREW CLARK, Bart., the new President, in the chair.

On the motion of Sir ALFRED GARROD, seconded by Dr. QUAIN, a vote of thanks to the retiring President, Sir William Jenner, Bart., K.C.B., was unanimously adopted by the College.

The following gentlemen were admitted Members of the College: John Duff, M.D.Glas.; Henry John Tylden, M.B.Oxon.; Henry Waldo, M.D.Aberd.; Joseph Wigglesworth, M.D.Lond.; and Arthur Thomas Wilkinson, M.D.Lond.

Licences to practise were granted to seventy-four gentlemen, who had passed the required examinations.

The examiners for the Murchison Scholarship reported that six candidates had been examined, and that all had done well.

The scholarship was awarded to Mr. Henry John Tylden, M.B. Oxon., of St. Bartholomew's Hospital. The examiners added that Mr. Starling and Mr. Fenwick were also deserving of honourable mention.

The annual election of Fellows was then proceeded with. The names of those on the list nominated by the Council having been submitted one by one to the judgment of the College, they were all elected, namely: Thomas Cole, M.D.Lond.; George Blundell Longstaff, M.B.Oxon.; Richard Caton, M.D.Edin.; Frederick G. D. Drewitt, M.D.Oxon.; Walter Baugh Hadden, M.D.Lond.; Howard Henry Tooth, M.B.Camb.; Charles Edward Beevor, M.D.Lond.; James F. Parry McConnell, M.D.Aberd.; William Hale White, M.D.Lond.

Communications were received from the Board of Trade and from the Colonial Office.

A letter was received from Dr. Curnow resigning his appointment as Examiner in Anatomy.

The quarterly report of the Finance Committee and a report from the Committee of Management were received and adopted.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

 The British Medical Journal.

SATURDAY, APRIL 28TH, 1888.

THE ARMY MEDICAL RESERVE OF OFFICERS.

WHEN the Warrant seeking to create a reserve from medical officers of the auxiliary forces was issued about two months ago, we offered a few friendly criticisms on its provisions, although we confess to having had grave misgivings about it as a whole. Further consideration, in the light of many hostile criticisms which have reached us, now strengthens the opinion that the scheme is not likely to come to much, for the simple reason that it has, in truth, no substantial element of success in it.

We fail to find in the April *Army List* even a beginning of the Auxiliary Reserve List; but we hear some have actually joined, as against several volunteer surgeons who hastily sent in their names, but withdrew them equally quickly. We are not surprised; rightly read the scheme is wholly in favour of the War Office, at the expense of those who are expected to embrace it. Its authors must have curious notions as to who the great bulk of the auxiliary medical officers are, and how they get a living. Is it imagined they are idle medical gentlemen, anxious to serve for practically nothing, provided they can air their names prominently in the *Army List*? They are, indeed, mostly hard-working civilians, with large private interests wholly dependent on their individual exertions. What are they asked to do? They are invited to place—without retaining fee or any adequate prospective pecuniary advantage—their personal independence, their practice, patients, and private interests entirely on one side, and, with unheard-of disinterestedness, give their individual professional services at the cheapest rate whenever the War Office finds it convenient—or necessary, in a medical sense—to declare “national emergency.”

This is asking too much! We doubt not our medical volunteers are quite prepared to make great personal sacrifices alongside of the volunteers of all ranks when real national danger unfortunately comes about; but it is entirely another matter to ask them to risk private professional ruin when the emergency may be not national at all, but only medical and artificially brought about by reckless docking of the regular medical vote.

Many things indicate that Finance is at the bottom of this reserve scheme. It was, for instance, lately naively remarked

by one of the “Service” papers that the scheme would, at all events, be agreeable to the “taxpayers”! From this it appears that, although medical men of course pay taxes like other citizens, they are further coolly expected to tax themselves doubly by rendering military services at a personal loss in order to please the general taxpayer! Medical men, indeed, have too often to sacrifice themselves in civil life; but why should “doctors” alone be asked [to offer themselves meekly on the altar of public economy? Lawyers, engineers, traders, and workmen are not asked to do so.

We before pointed out that the scheme was crude and unstatesmanlike, because it tried to stop a gap while actually creating another and a bigger one. The auxiliary forces will be in want of their own medical officers when real national emergency arises; they could not spare them to do duty with regular troops. This reflection forces the conclusion that the authors of the scheme could hardly have had a national, but only a factitious, “medical emergency” in view. The idea was less to support than, if difficulties arose with the medical profession, to altogether supplant the regular medical service. It was no doubt foreseen that, if the regular medical service be recklessly cut down at the bidding of one-eyed economists, our first small war will inevitably bring about a medical emergency, and full terms, under pressure, would then have to be made with civilian practitioners; so, it was meanwhile desired, under the conditions of a reserve, to secure the obligatory services of certain medical men on cheap terms which will prove wholly ruinous to those with even the smallest private practices. Very few men will risk such conditions. Volunteer medical officers, moreover, will not allow themselves to be played off so palpably against their regular brethren to merely help political financiers to starve the medical vote.

If no trace of the auxiliary reserve is to be found in the April *Army List*, we do find in it a change for the better in the reorganisation of the regular medical reserve. The list of retired officers in reserve used to be headed “retired medical officers eligible for temporary employment;” it is now worded “retired medical officers liable to be recalled to service.” This is a distinct improvement, exhibiting those officers in the true light of a genuine reserve, and more in accordance with the wording of the Warrant under which they have liability; but we think the words should have been added “under Article 23 of the Royal Warrant, December 2nd, 1879.”

The article runs thus: “23. Any officer of Class A who shall voluntarily retire before the age of 55 years shall be liable to be called upon to serve, in a case of national emergency, in a rank not lower than that from which he shall retire until he shall complete the age of 55.”

The Secretary of State’s instructions on the article are: “3. The name of a medical officer who retired voluntarily before the age of 55, and, under Article 23, is liable until then to be called upon to serve in any case of national emergency, will be retained in italics in the *Army List* with those of effective officers.”

We find the number of retired officers liable to be recalled, in the April *Army List* (whose names, however, are not in italics)

tated at 133, of whom twenty-three are now actually temporarily employed. Now, this is a very valuable and true reserve; are fully experienced and highly trained; not a few of them well known as among the ablest men in the Department. Numbers will constantly vary no doubt, from death, illness, and attainment of 55, but others will yearly be added. When an agitation was lately attempted against the early retirement of medical officers, not a word was said about the existence of this most valuable and reliable reserve; it was carelessly concealed from the public that the early retirements alone enabled this great reserve to be formed. The change in the *Army List* indicates that the authorities now mean that the Reserve List shall be clearly shown. Let them cultivate it; it will stop a gap in a *bona fide* manner during emergency, and not the auxiliary forces of their proper medical officers.

There are one or two points connected with this regular medical reserve we should like to see cleared up. Are retired medical officers liable to be recalled for service outside the United Kingdom? We see nothing in the articles quoted to show they are, although it is universally understood they are only liable for service at home.

Then, why are some retired medical officers, apparently equally able and liable with the others, not put in the Reserve List, but shunted altogether away on the "Non-effective List"? This no doubt be satisfactorily explained, but we cannot think of a reason in certain individual cases.

THE LAW OF ANTAGONISM.

The Friday discourse delivered at the Royal Institution on the 20th on War in Nature has a special interest for us, because Sir William Grove, who before he earned distinction as a lawyer and a judge had gained lasting fame as a physicist, approached the subject from the physical side. The lecturer, whose most valuable contribution to science in the past was his exposition of the theory of the conservation of energy, set himself last week to show that the universality of antagonism had not received the attention it deserved, the element of force having been mainly taken into account, and too little stress having been laid on the element of resistance. Some aspects of the problem involved in the doctrine of antagonism have been appreciated by medicine from the earliest times, and to the biologist the idea has been familiar long before the phrases "struggle for existence" and "survival of the fittest" came into vogue.

We may observe at least three forms of antagonism between man and the rest of the living world: the antagonism with other individuals of the same species—the wars of earlier, the keen intellectual competitions of later ages—the antagonism with other species of the higher mammals, which species man either seeks to exterminate or to bend under his yoke; and lastly, the somewhat one-sided antagonism in which a vastly inferior species attacks a superior, where the superior can gain nothing beyond a mere perpetuation of individual life, while the inferior—bacterium or helminthic parasite—not only sustains its life, but perpetuates its species at the expense of the higher.

There is no medical saw more hackneyed than that which speaks of the *vis medicatrix nature*; it expresses a well-grounded confidence in the result of the conflict between the forces of the body and the external forces which have put it in peril. Socrates in the *Republic* (Book III), quotes from the *Iliad* that when Menelaus had been wounded by the spear of Pandarus, the sons of Asclepius "sucking the blood from the gash, laid mild simples upon it," knowing, says Socrates, "that the simples were sufficient to cure men who before receiving the wounds were healthy." The physician, in fact, played the part of Lord Palmerston's "judicious bottle-holder," believing that if he could afford a fair field and no favour, the "war of Nature" would end favourably to his client. This is, in fact, the attitude of the scientific physician in every age. Much of the advanced surgery of the day is based on a profound conviction of the greatness of the *vis medicatrix nature*. Take, for instance, the operation of abdominal section for purulent peritonitis. The cells of the peritoneum have been defeated in their conflict with the forces of disorganisation; by removing the accumulated morbid secretions the surgeon seeks to equalise the battle, and, by diminishing the number of their enemies, to give the cells a fresh chance of destroying those which remain. An eminent ovariotomist has suggested that the plan of washing out the peritoneum with large quantities of tepid water was successful because it broke up the dead tissue, which might become the seat of decomposition, into microscopic scraps, which the active peritoneal cells could destroy. The surgeon relies upon the power of resistance of the peritoneum, and thus affords a practical illustration of the advantages which may be gained by leaving the principle of antagonism to work itself out.

Man, in common with all other living—and, Sir William Grove would add, inanimate—things, has to contend also with the forces of inanimate Nature, and it is in this conflict that the good results of antagonism, not altogether beyond recognition in the other conflict, are most easily perceived. It might not have been easy to foresee that the conditions of life on these islands should have been so peculiarly favourable to the development of the human race; yet they have produced the dominant race of the world, at an epoch when the struggle for supremacy is the keenest.

There is, in fact, a mean between the external conditions belonging to the class generally reckoned unfavourable and the internal powers of resistance, which gives as a resultant a state of health and energy of mind and body far better for the individual and for the race than that produced under conditions at first sight more favourable. A question of surpassing interest is, why under the most favourable circumstances this balance cannot be long maintained, and why the period for which it can be maintained is approximately the same in each individual of the same species, though so widely different in different species? Why do we grow old, but not even Professor Humphry can tell us why. The conditions which govern the duration of life in various species have never been

made out; the bulk of the animal may have some influence, since a large animal will, *cæteris paribus*, require a longer time to secure the surplus of nutriment required for reproduction, and the degree of structural complication will also tend to fix a minimum time, because it also will have a share in determining the time at which reproductive power is attained. It is no explanation to say that Nature takes no thought of the individual, but merely provides for the perpetuation of the species; this is merely to express the facts in anthropomorphic terms. We are driven to adopt the colourless view that the duration of the life of the individual is determined by its innate power of resistance to external forces. Where the external conditions are extremely unfavourable, the reproductive powers diminish, and so contribute to the disappearance of the species; where external conditions are so favourable that the species not only continues, but increases, still the individuals succumb to the antagonistic forces; the only conclusion to be drawn is, as has been recently pointed out by Weismann and others, that, in the words of a writer in *Nature*, "the occurrence of death at all is a provision to secure the greatest possible number of individuals of full strength. Death makes room for new complete individuals."

THE LOCAL GOVERNMENT BILL.

ALTHOUGH the Local Government Bill has been read a second time in the House of Commons without a division, it was not until many of its provisions had been severely criticised, both from the Conservative and from the Liberal benches. No serious opposition to the main features of the measure has, however, developed, and the Government have thus been encouraged to use their best efforts to pass it into law during the present session.

The defects which have been discovered in the Bill will be more seriously discussed in Committee, and doubtless remedies for many of them will then be strenuously pressed upon the acceptance of the Government. By no means the least important of these flaws, not only from the point of view of the medical profession, but from that of the ratepayer who desires to secure wholesome surroundings and good sanitation throughout the country, is the proposal relating to the appointment and tenure of office of medical officers of health. We have on several occasions recently called attention to this matter, and on the 13th instant the question was ably discussed in the House of Commons by Sir Lyon Playfair, when he advocated the vesting of the appointment of health officers in the new County Authorities, instead of in the District Councils as proposed by the Bill. But unless Mr. E. Stanhope's criticisms are to be taken as indicating the views of Mr. Ritchie, no official statement has been made as to the attitude of the Government towards the question. We feel sure that Mr. Ritchie will give careful consideration to the weighty arguments in favour of Sir L. Playfair's contention.

Mr. Stanhope is of opinion that a medical officer of health appointed by a local board would in many cases have more in-

fluence with that board than would any person imposed upon them from headquarters. But as the health-officer acts simply in an advisory capacity we do not regard this objection as a serious one. It is of the first importance that every District Council should have properly-qualified and fearless advice. Whether that advice is acted upon or not, is a matter for them to decide and to settle with their constituents. Moreover, the supreme County Council appointing the officer will themselves have been directly elected by the ratepayers on the same franchise as the District Councils; and it is further worth noting that, although the coercive powers of the Public Health Act are to be transferred to the County Councils, Mr. Ritchie's Bill does not propose that the Councils shall have the power of the duty of providing themselves with the advice of a skilled medical officer.

There are undoubtedly many very conscientious health-officers in our rural districts who have performed their duties with great efficiency for a merely nominal remuneration. But, on the other hand, there are many who have no special qualification to advise on sanitary matters, and who act on the principle that their slender salary is to pay them for doing nothing. It cannot be denied that the best work has been accomplished in those areas where the medical officer of health gives his whole time to the duties, and is specially qualified to advise in preventive medicine. As long ago as 1855 the General Board of Health, in their instructional minute relative to the duties and qualifications of officers of health, expressed the opinion that, "where possible, it will be well to debar the officer from the private practice of his profession—first, because the claim of such practice would be constantly adverse to those of his public appointment, the duties of which (especially at times of epidemic disease, when his official activity would be most needed) private practice could scarcely fail to interrupt an embarrass; secondly, because the personal relations of private practice might render it difficult for him to fulfil with impartiality his frequent functions of complainant; and, thirdly, because with a view to the cordial goodwill and co-operation of his medical brethren, it is of paramount importance that the officer of health should not be their rival in practice, and that his opportunities of admonitory intercourse with sick families should not even be liable to abuse for the purposes of professional competition." The same opinion applies at the present day. In small districts, however, the whole time of a health officer would be an unnecessary extravagance, unless several districts are combined for the joint employment of the same officer. But experience has shown that voluntary combination in such cases is not to be relied upon, whilst compulsory combination is obviously objectionable.

The further argument advanced by Mr. Stanhope—that, if the appointment of health-officers be vested in the County Council those bodies will be saddled at their formation with an enormous expenditure—is untenable on close examination. Fewer officers—probably not more than 200—would be needed for the whole country, and the united cost of this staff of special-

and officers would very slightly, if at all, exceed the united number of the 1,300 officers at present holding appointments. The question of compensating those officers who would be superseded would very seldom arise, as the appointments are at present mostly made for a year only.

It is to be hoped that Mr. Ritchie will see his way to adopt the suggestion that the officers of health should be appointed by County Councils instead of by the District Councils. The result would undoubtedly be a more efficient sanitary service and administration throughout the country, and a consequent diminution of sickness, with its attendant misery and loss.

THE LONDON UNIVERSITY AND METROPOLITAN MEDICAL STUDENTS.

An opinion is entertained in some quarters that the University of London might still, by reforming its regulations, and in some directions relaxing their rigidity, solve the problem of providing the expansion of the higher education in London, by constituting itself a true University for the metropolis. Those who hold this opinion have given evidence of their sincerity by proposing a great variety of reforms, and we learn that the Committee appointed by the Senate to report on the regulations for degrees in medicine has drawn up a report conceived in a very liberal spirit.

Whatever reception this report may meet with from the Senate it is possible to foresee, though that body is evidently more alarmed at the dangers which threaten the University from all sides, and not from the medical alone, than was the case a few years ago. Meanwhile it may not be amiss to indicate some of the reforms that are most urgently needed. Regulations for the pass and honours examinations at the Intermediate Examination in Medicine, which came into force last year, have been universally condemned, and, we apprehend, cannot be continued; the old regulations, with, perhaps, some slight modifications, which would have the effect of allowing the candidates who had done well in the pass examination to proceed to the honours examination, would be far more satisfactory. The regulations for the preliminary scientific examination also stand in great need of amendment; as the present framed they have too little regard to the real requirements of the medical profession, and are too tender to the susceptibilities of the professors. A strict limitation of the examination to subjects which afford an education really preliminary to the strictly professional subjects would be an immense gain; and if candidates were to be permitted to take the subjects *seriatim*, the rigidity which is now so much complained of would be diminished.

It may be hoped, however, that the rumour which credits some members of the Senate with a disposition to increase the rigidity of the matriculation examination may turn out to be unfounded. That examination is already almost encyclopædic in extent, and has probably done more than any one other circumstance to deter students from becoming members of the Uni-

versity. It is no doubt true, as has often been urged, that a great many of the failures to pass or to attempt the examination are due to the fact that students of medicine are often not aware of the advantages conferred by matriculation until after they have entered at the medical schools, and are thus more or less committed to the curriculum of the Conjoint Board. But it is also true that the examination as a mere test, preliminary to entering on a university education, is absurdly severe. It is so severe owing to the immense number of subjects which must be passed simultaneously; if the University is ever to become a popular institution, ever to do the work which it was created to do, and might do, this examination will have to be revised. At present the educational enthusiasts on the Senate will hold up their hands in pious horror at the proposal to allow the Matriculation Examination to be passed in two parts, but every proposed reform has thrown them into the same attitude for a time. We firmly believe that a relaxation of the present hard and fast rules would add to the honour and dignity, as well as to the popularity, of the University, and would have the most beneficial effect on the higher education. A letter from the officers of the medical school of the Middlesex Hospital, which is printed at page 928, will show how hardly some of these regulations bear on men whom it would be to the advantage of the University to enrol among its members, and the fact that this reasonable request was not immediately acceded to will show how strong are the forces of obstruction within the Senate.

The University, moreover, might well do more than this for the medical profession. It must be remembered that the medical Faculty in this, as in other universities, has a closer relation with the life of a great profession than is the case with any other Faculty. The circumstances, moreover, of the medical student are different from those of the student of any other Faculty, because the curriculum is stringently prescribed by the General Medical Council acting in the interests of the public. Yet it is in this Faculty alone that the University of London, with that curious inability to march with the times which characterised its counsels until within the last year or two, has imposed a rigid curriculum. The time has now come when the degrees in Medicine may safely be given on the same terms as those in Science or in Arts. The University will give a degree in these Faculties to any undergraduate who can pass the necessary examination. Thus the degrees of B.A. or of B.Sc. can be obtained in less than two years from matriculation, and the candidate may be engaged—as, indeed, many are engaged during this period—in the exercise of a calling, as, for instance, that of a school teacher, by which he maintains himself.

We can conceive no sound objection to applying this precedent to degrees in medicine. There is a certain gratification in being able to quote a precedent, because thereby the party of obstruction is hoist with its own petard. Though the University is only half a century old, some of its Fellows speak as though all its regulations were sacred and inviolable. The University owes its existence to the crass obstinacy of the older universities in failing to move with the times, yet now

that these venerable bodies have begun to move, with, it may be, unexpected speed, there are some who desire to make the younger body stand still apparently as a protest.

The University of London might not only make this concession, but it might do much more; it might arrange to grant its degrees after proper examination to registered medical practitioners of a certain standing; there are many men who would gladly avail themselves of such an opportunity to gain a degree in medicine upon equitable terms, and we have reason to believe that a proposal of this nature will shortly be considered by the Senate. If the University discovers any serious desire to reform itself, it will undoubtedly be much strengthened when it goes before the Royal Commission which is about to be nominated. But if it is really to fill the place of a university for London it will have heartily to consent finally to lay aside the policy of immobility, which has governed it too long.

MR. RICHARD MIDDLEMORE has given £1,000 to the Birmingham and Midland Eye Hospital for the endowment of a lectureship.

WE understand that the differences at the Cancer Hospital are likely to be brought before a court of law, Mr. Jennings being the plaintiff in an action against Dr. Herbert Snow for alleged libel.

ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON.

LORD SELBORNE, who as Sir Roundell Palmer was for many years standing counsel for the Royal College of Physicians, will, we understand, be chairman of this Commission. The Commission will consist of seven members, and will not, we believe, include any member of the medical profession.

SIR HENRY ACLAND.

THE members of the General Medical Council proposed to invite Sir Henry Acland to a banquet in testimony of their sense of his past services as Chairman. Considerations of health connected with his recent ophthalmic operation have, we regret to learn, compelled him to decline the invitation.

STUDENTS OF GERMAN-SPEAKING UNIVERSITIES.

THE number of medical students in the following universities in the winter session just elapsed is:—In Vienna, 2,287; Munich, 1,369; Berlin, 1,316; Würzburg, 956; Leipzig, 794; Prague, 566; Graz, 501; Griefswald, 471; Breslau, 382; Freiburg, 350; Halle, 293; Bonn, 291; Zürich, 265; Marburg, 256; Erlangen, 255; Strasburg, 253; Königsberg, 243; Innsbruck, 243; Tübingen, 242; Berne, 233; Göttingen, 221; Kiel, 214; Heidelberg, 212; Jena, 201; Rostock, 136; Giessen, 134; Basle, 122.

BOLDIN, A NEW HYPNOTIC.

BOLDIN is the glucoside obtained from boldo leaves, and Dr. Junanville highly praises it in a recent number of the *Progress Médical*, as a hypnotic "far exceeding opium and chloral." This is saying a good deal for it. We are told also that boldin is not disagreeable to take, has no unpleasant effects, increases the appetite, and has a "strengthening" influence on the patient. Between 5 and 10 grammes were given daily to various patients. The sleep induced by this substance is of a natural kind, and the

breathing is regular and tranquil. Boldo leaves contain about 3 per cent. of boldin. It may be given in capsules in doses of 0.2 grammes (three grains), repeated as necessary, or (diluted 1 in 20 in water) subcutaneously.

THE GREAT INSURANCE FRAUDS.

FOR the credit of the "cloth" it ought to be known that "Dr. Henri Castelnau, who is now on his trial for having conspired with Scheurer and others to defraud certain insurance offices has no legal right to that learned prefix. He was educated for the medical profession, and had a fairly distinguished career as a student, having even held the much-coveted post of *interne*; but for some reason or other he never took his degree. Though a man of considerable ability, his whole life seems to be a record of failure, or worse. As a journalist, he is said to have used his opportunities of "candid friendship" to levy blackmail from prominent members of the profession. Nélaton, who had the misfortune to have been a fellow-student of his, was a favourite object of these polite attentions. Whenever Castelnau's funds were low, a gross personal attack on Nélaton was sure to appear in some journal, and the great surgeon was weak enough—more from good nature, it is supposed, than from any fear of awkward revelations—to stop his scurrilous mouth with money.

A LAW DISPENSARY.

THE boast of the medical profession that it alone of all the learned professions gives its services absolutely free to the deserving poor would appear to have excited the rivalry of some lawyers in New York, for it is reported that a "Law Dispensary" has been established in that city "under the auspices of reputable lawyers in connection with the Rev. Mr. Goss's People's Mission." This is a hint for the committee of lawyers in this country who call themselves the Society for the Preservation of Personal Rights, or so such name, and whose public appearances have reflected more honour on their forensic erudition than their common sense. The *Boston Medical and Surgical Journal*, in which we read this piece of news, truly observes: "It is to be hoped, however, that in the dearth of opportunity to give away advice on 'real property,' 'contracts,' 'wills,' and similar subjects, the philanthropic law-dispensers will not devote themselves to giving instruction as to actions of tort to such of their patrons as are also constant attendants at the multitudinous medical dispensaries. Too much of such advice has been given by lawyers in the past, and it is better dispensed with than dispensed."

THE TITHING OF MINT AND CUMMIN IN INDIA.

WE have had to notice, not with approbation, the style and frequency of the circulars issued from the office of the Surgeon-General at Simla to medical officers under his orders, as well as their too often vexatious and trivial nature. We are glad to learn that these Simla "circular showers" are more intermittent than they were. This is something; but we must be allowed to question whether the Surgeon-General cannot see his way to consult his own dignity and that of his profession, and the *amour propre* of his officers better than by (presumably at the suggestion of the apothecary it pleases him to substitute for the commissary secretary supplied by the State) issuing a circular on the breach of a hospital saltcellar, value some three farthings! We do not expect the apothecary-secretary to be familiar with the oft-quoted law maxim, *De minimis non curat lex*, but surely it cannot be strange to a man in the responsible position of the Chief Medical Officer of the army of India. When we reflect on the serious matters that should fill the minds of the Medical Staff of the army, it is with something more akin to sorrow than mere surprise that we see this highly-placed official thus taking "titling mint and cummin." The impression throughout both me-

vices in India is that the tours of the Surgeon-General and his thecary-secretary are more costly to the State than profitable to the sick, to say nothing of the irritation awakened in the minds of his highly-competent deputies, by this petty interference. If they cannot be trusted with the small details of hospital administration, on what principle can their pay, position, and authority be justified?

THE BRAZILIAN POISONING MYTH.

A appalling tale of wholesale poisoning of natives in Brazil which has gone the round of the press this week has now been officially contradicted. The story was, on the face of it, so grotesquely improbable that we are surprised it should have been believed for a moment. There was an epic completeness about the catastrophe which was in itself a highly suspicious feature. Granting that Senhor Joaquin Bueno (surely a most inconspicuous name in this connection) might have "conceived such a plan of campaign," it is difficult to see how it could have succeeded. Strychnine, as is well known, is most intensely bitter, and corrosive sublimate has a taste the reverse of agreeable. It is hardly credible that any large number of persons should have taken a poisonous dose of either of these substances at the same time; and in the case of strychnine, at least, the symptoms, both subjective and objective, are sufficiently pronounced to be at once ascertained even by ignorant people to their real cause. The first to eat the poisoned food or drink would no doubt perish, but the rest of their sufferings would effectually deter the survivors from following their example. On the whole, therefore, we cannot see that the tale of horror had even the merit of being well told.

MEDICAL CONGRESS IN SPAIN.

Independencia Medica states that a Medical Congress will be held at Barcelona from the 9th to the 15th of September, in connection with the Universal Exhibition which is shortly to be opened there. Among the subjects down for discussion we observe the following, which will suffice to show that our Spanish brethren are well abreast of the medicine and surgery of the day: Measures to be taken by the State for the prevention and cure of blindness; for the improvement of the condition of the blind in Spain; present state of leprosy in Spain, and how to prevent it from spreading; indications for surgical interference in intestinal obstruction; identity or difference of scrofula and tubercle; localisation of lesions in diseases of nervous centres; application of hypnosis and "suggestion" to the treatment of nervous affections; micro-organisms in mineral waters, their influence on the chemical constitution and therapeutic effects thereof; laparotomy as an exploratory measure in penetrating wounds of the abdomen (more especially gunshot wounds); antiseptic midwifery; etiology and prophylaxis of cholera and yellow fever. A Pharmaceutical Congress will meet at the same time.

THE PAY SYSTEM IN HOSPITALS.

A REPORTER on "The Pay System in Hospitals" was read by Mr. E. Lett Coultts, M.P., at a meeting held under the auspices of the Hospitals Association, at St. Thomas's Hospital, on Wednesday, April 25th, in which the opinion was expressed that, if a proper pay system were adopted in both the out-patient and in-patient departments, the extraordinary deficiency would be made up by the payments of patients. There was a great blot in the present system. Of charity there was enough; but, under the present system, what might be called the incidence of charity was wrong, those who could help themselves wholly or in part were helped entirely from charity, and those who could not help themselves were, therefore, pushed to a certain extent into the cold. Every man should, he advocated, pay what he could; and there should

be, where possible, a remunerative ward, such as St. Thomas's Home. He referred to the working of the pay system in the provinces, abroad, and particularly in America, as illustrating the advantages that might be expected from its adoption; and suggested a fixed scale of graduated payment, according to the class of ward occupied. Sir E. Hay Currie and Sir S. Waterlow thought it would be an injustice if the pay system were introduced at the expense of the provident system. If they could begin *de novo*, Sir S. Waterlow observed, he would like to see pay and free hospitals kept entirely distinct. Mr. Carr Gomm, Chairman of the London Hospital, thought the pay system would be an injustice and injury to the medical men in the district. The discussion on the paper was adjourned until June 20th.

THE EMPEROR OF GERMANY.

A SPECIAL telegram from Charlottenburg, received as we go to press, states that the Emperor is now able to take solid food with hearty appetite. The highest temperature on Wednesday was 102.3° F.; the lowest on Thursday morning 99.3° F. Less pus is discharged. The august patient feels better, but is rather weaker and thinner, as the result of fever and suppuration. This report agrees with those which have been published during the last two or three days, and may be looked upon as relatively favourable. It will, of course, be understood that it refers only to the incidental complications which have recently arisen, and not to the essential disease, which appears to make steady progress, though with alternations of quiescence and activity which have already on several occasions given rise to delusive hopes, followed by paroxysms of somewhat exaggerated alarm. We regret to see that the suspension of hostilities—diplomatic rather than based on any real "unanimity" though it may have been—agreed upon among the Emperor's medical advisers at San Remo, has come to a premature end. We think it due to Sir Morell Mackenzie and Mr. Hovell to point out that all the evidence shows that the truce was not broken by them. They were attacked in so grossly personal a manner by certain German newspapers, that they have been compelled to invoke the aid of the law. Actions for libel have already been instituted against the *Kölnische Zeitung* and the *Kreuz-Zeitung* for publishing definite accusations of professional incompetence which, we understand, have no shadow of foundation. From information we have received from a trustworthy source we have reason to believe that a false passage was made in replacing the tracheotomy tube, as this operation was followed by considerable hæmorrhage; but it can, we are informed, be clearly proved that neither of the Emperor's English medical attendants is responsible for this unfortunate occurrence.

TEACHING STUDENTS TO THINK.

It is often a subject of regret to teachers in our medical schools that the work of the first two years is so soon forgotten; a man who has passed his preliminary examinations frequently so far forgets his scientific subjects in six months as to be unable when in the hospital wards to give a description of the cerebral supply to parts of the body, the convolutions of the brain, and the cranial nerves, or the minute anatomy of the kidney and liver; still, such students may have dissected diligently, attended lectures, and read at night, but they have not learnt to think or are not trained to think systematically and correctly. This defect is, we suspect, not entirely the fault of the students, but is also in part due to defects in teaching. When observing students under examination, both for University degrees and on the lower examinations, it has often been obvious that failure to pass the standard may depend upon inaccurate methods of thinking and speaking—or upon no previous thinking—quite as much as from ignorance of the subject matter. Observing the objects of study

in the dissecting room does not necessarily teach thinking; to observe is to receive impressions, thinking may or may not follow observing. We have no intention of suggesting formal teaching of the laws of thought in the form of logic, though this useful science used to be one of the extra subjects in the Arts examination of the Apothecaries' Society. It does, however, seem needful to call attention to the importance of educating students to think as well as to observe facts; the scientific subjects and the teaching of medicine afford plenty of scope for both. The student is generally interested in the application of scientific knowledge to practice, and to show him such connections early in his career stimulates thinking. The constant application of anatomy, physiology, chemistry, comparative anatomy, and the principles and facts of vegetable biology, to what is seen in patients, produces an expansion of the subjects of thought, and engenders habits of correct thinking. To follow well made analogies, and to answer questions which exercise the imagination in a scientific manner, as in describing the minute conditions of circulation and the cause of nerve-currents in reflex actions, necessitates correct thinking. A student will often say that he hears a systolic mitral *bruit*, and is satisfied with his achievement, without understanding that the sound heard suggests an hypothesis which requires to be fully worked out before he can know the condition of the patient. A man well trained, not only in observation but also in rapid and correct thinking, will get through much more good work in practice than one less thoughtful. Thought, preceding action, guides him rapidly to make the necessary observations in the case before him, till thinking becomes automatic, and his opinions are rapidly formed upon brief observations, and what is ill termed "clinical instinct." In making these remarks we by no means wish to depreciate the necessity of thorough and systematic examination of all the organs as a matter of primary necessity.

LOCAL GOVERNMENT BILL.

THERE is one aspect of the working of the new Local Government Bill, in respect to its 11th clause, which has not yet received the attention it deserves, and unless that clause be modified it will undoubtedly have the effect of creating a new monopoly, to the detriment of the public, and to the benefit of landlords, wine merchants, and publicans. At present the granting of "off" licences, that is, of licences for wines, etc., sold in sealed vessels in given quantities, and not to be consumed on the premises, is limited only by certain conditions of a formal character, intended to ensure respectability on the part of the vender. The provision has worked exceedingly well, and as a Committee of the House of Lords ascertained, and as we have always contended, it has a two-fold advantage. It has secured to the middle classes a supply in every small district of wines, etc., which they desire to use in their own homes, of good quality, and at moderate price, and by reducing the value of the monopoly of the publican and the temptation to drink in public-houses, has worked in every way for the public good. If now on the operation of the Bill this, too, becomes a monopoly in a few hands, the first effect will be to give an immense bonus to landlords, who will at once raise rentals. It is known that this effect is already beginning to operate, and that renewals of leases are only being made under conditions of increased rental if this clause should become law. It is the force of the vested interests, and the immense accumulated fund created by the monopoly in the beer and spirit trade, which has made that question so difficult and so costly to deal with; and it is much to be hoped, in the interests of the general public, that such a mistake will not be committed in the present legislation. The great object should be, while satisfying all legitimate requirements of those who wish to consume alcoholic liquors, whether in the form of wines or spirits, in their houses, to diminish the temptation for drinking in public-houses, and to avoid adding to the value of the

existing monopoly of landlords and publicans. Clause 11, although no doubt framed with the best intentions, will really, as the Bill at present stands, have no other effect than to present a magnificent bonus to both these classes, with the immediate result of adding to the cost of the wine used by the middle classes, for it is the holders of the "off" licences who practically supply the wine cellars. To cut off arbitrarily the trade of the holders of "off" licences who have held them in many instances for twenty-five years, without any corresponding advantage to the public but really to the public detriment, would be an act of confiscation which has nothing to justify it. If all licences were to be confiscated without compensation, we should have no objection to make, but the class of traders whose trade is the most blameless and least open to abuse ought not to be made to suffer alone.

THE VIVISECTION ACT AND THE INOCULATION OF ANIMALS.

THE President of the Privy Council (Lord Cranbrook) and the Home Secretary (Mr. Matthews) received a deputation from the Royal Agricultural Society and the Royal Veterinary College on Tuesday last to urge that the Vivisection Act should be amended so as to allow of inoculation of animals and prevention of disease. Lord Egerton of Tatten, and Professor Brown having spoken, the Home Secretary said that the difficulty all arose from the use of the word "experiment" in the Act. The Act did not define the word, and he was bound therefore to apply it. Professor Brown agreed with his own interpretation; but the professor suggested that there should be this addition made, not a belief that the operation performed would produce good results, in which case it would become treatment and be exempted under the Act, but that if there was a *bona fide* desire to benefit the animal without a belief or knowledge one way or the other whether it would benefit the animal or not, that that should be taken out of the class of experiment and put into the class of treatment. But such a case as that would come perilously near to the experimental stage. Mr. M. W. Ridley said Professor Brown had been carrying on experiments for two years with reference to swine fever, and he had come to the conclusion that a certain injection into the skin of the pig would most probably protect from swine fever not only the particular pig operated upon, but the whole tribe of pigs. He was allowed to have this performed by competent veterinary surgeons all over the country. Lord Cranbrook thought it was pity that they had not the decision of a court of law upon the subject; and if that should be against them, then they might get remedied by Parliament. The Home Secretary observed that unless some action of this kind were taken he was afraid they would not get the House of Commons to amend the Act. The deputation then withdrew.

NURSE-REGISTRATION.

WHETHER nursing is to be regarded as a trade or profession, there can be little doubt that its claims to public sympathy have won for it a place in public esteem very different from that which was thought possible to attain a few years ago. Many cases have contributed to this result. Perhaps the most influential of all can be traced to the establishment of nurse training schools in most of the large and in some of the smaller hospitals where young women of good character and antecedents, as well as gentlewomen are initiated to the work. With its progressive development, it is not surprising that there should be a desire expressed to regulate the employment, by instituting an educational curriculum to which all nurses should be subject. Upwards of a year ago a movement was set on foot by the Hospitals Association having this object in view, as well as to consider the expediency of establishing a collective register for qualified nurses, since there is every reason to expect that at no distant date the whole subject

their educational training and the practice of their art might be considered worthy of legal supervision. From inquiries made at the chief hospital centres it appears very doubtful whether the matter is ripe for adjustment, nor is there any agreement among the authorities consulted as to the body to whom such a power should be delegated. The whole question is bristling with difficulties, not likely to be lessened by the ardour of the enthusiasts who are now loudly clamouring for legislation on their behalf, without giving a thought of the dangers in their path. We have the greatest possible sympathy with the women and their work, but we are not prepared to follow the lead of any association which professes to represent the vocation, far less to promote legislation in its behalf, without first ascertaining from an exhaustive inquiry what are the needs and wishes of the many. The heterogeneous character of the class now following nursing as a means of livelihood, and the various branches of the art practised in town and country, render it very inadvisable that it should be placed under an exclusive jurisdiction. The important interests involved, ranging from those of the cultured lady-superintendent to the nurse who dispenses her medical comforts to the village poor, are numerous and conflicting; nor is it the technical knowledge or hospital experience, however valuable, which renders the nurse best fitted for her work. Too little account is taken of those natural gifts of temper, tact, and disposition, which cannot be registered, but which after all contribute more essentially than anything else to the formation of character in a nurse. Nor is it to be supposed that the midwife, the monthly nurse, and the masseuse or other specialist can take common ground with the certificated hospital nurse, who has spent some of the best years of her life at a small remuneration, that she may arrive at a supposed standard of efficiency, or, rather, that she may conform to the exigencies of the hospital in which her lot is cast. It is but fair that the distinctive terms "binding" and "training," which in practice are almost synonymous, should be better understood. The binding renders the probationer subject to a moral contract to continuous employment for periods varying from two to three or more years, and may prove advantageous to herself, as it certainly does to the hospital which receives her services, but it hardly meets the approval of charitable and other agencies, which must be at the cost of training their own nurses in separate institutions, for the special duties they will afterwards be called on to perform. Co-operation is, no doubt, a good thing when it can be managed without friction, but, in the face of the great diversity of opinion which exists on the subject, coupled with the manifest obstacles to harmonious action inherent in a novel organisation, the question of collective nurse-registration is not ripe for solution. Let each hospital and training school look well to its own register, and to the educational facilities afforded to its nurses, so that it may be possible in the course of time to adopt one uniform basis which would be acceptable alike to the leading hospitals, the profession, and the public.

SCOTLAND.

We are informed that Professor Rutherford has returned to Edinburgh, and will resume his duties on May 1st. It ought to have been stated in a paragraph published a fortnight ago that Dr. J. Berry Haycraft, who has conducted the course of Physiology during the last winter, took an equal share in the recent Second Professional Examination with Dr. Caton and Dr. Paton.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

At the meeting of the Obstetrical Section, Dr. Stirten read notes of forty cases of uterine fibroids, treated by Apostoli's method. About one-half of the cases had been benefited by the treatment.

The harder and more encapsuled the tumour, the less was the effect produced; while the more rapidly growing tumours, and especially those endangering life by profuse hæmorrhage, were most amenable to the treatment.

GLASGOW SOUTHERN MEDICAL SOCIETY.

Dr. ARCHIBALD JOHNSTONE showed an interesting case of extroversion of the bladder in a child aged 4½ months. Dr. Gilmour also showed drawings of a similar deformity in a boy aged 10 who had formerly been under his care, and described the nature of the defect in development and the treatment of such cases.

GLASGOW UNIVERSITY UNION.

A LITTLE more than three years ago it was resolved, at a largely attended meeting of the students and graduates of Glasgow University, to establish a University Union, and a Committee was appointed to carry this resolution into effect. This Committee had just commenced its duties when it was announced that a gentleman, whose name was not at first disclosed, but who is now known to be Dr. John McIntyre, Odiham, Hants, had offered to the Senate the sum of £5,000 for the purpose of providing the necessary building. The offer was promptly accepted, and a suitable building has now been erected on the University grounds, and is almost ready for occupation. The building contains a large hall for debates, a spacious library and reading room, a dining room, smoking room, several committee rooms, porter's house, and other accommodation. To provide the funds necessary for its furnishing and for a sufficient endowment for its maintenance, it is proposed to hold a fancy fair early next year.

THE UNIVERSITIES (SCOTLAND) BILL.

THE Senate of the Glasgow University have forwarded to the Secretary for Scotland a memorandum setting forth their views in regard to university legislation. The Senate approve generally of the new Bill, but strongly object to the affiliation clauses, as introducing a principle of an altogether novel and unprecedented character, and involving fundamental changes in the Scotch university system. The subject of affiliation is not one on which public opinion is ripe, and is surrounded by difficulties and complications which have not been considered in the drafting of the Bill, or which it makes no attempt to solve. These clauses should therefore be deleted from the Bill, and the Commissioners be instructed to take the whole matter into their careful consideration, and report to the Queen in Council. The Senate also object to the great diminution of their powers, and their altered relations to the University Court. They hold it to be essential that the Senate should retain the whole of the educational functions they have hitherto exercised, and that if any power of initiation in such matters be granted to the Court, it should be exercised only after reference to, and report by, the Senate. At the usual monthly meeting the governors of Glasgow Technical College resolved, after discussion, to approve the Bill as a whole; while desirous that in any new system arrangements be made for enabling the teachers of the College to qualify in part for university degrees, they considered it essential that the governing bodies of colleges thus affiliated should retain full control over their own finances and internal arrangements. They were therefore strongly opposed to the provisions of the Bill by which affiliated colleges would be brought under the control of the University Court, and resolved to petition in favour of the Bill as a whole, reserving the subject of affiliation for the consideration of the Commissioners.

ST. MUNGO'S COLLEGE BILL.

A SPECIAL general meeting of the Merchant's House was held on April 19th to consider the Universities Bill and the St. Mungo College Bill. The Chairman, Lord Dean of Exild, moved "that this meeting express approval of the intent and principles of the

Universities (Scotland) Bill, and generally of its provisions, but strenuously object to the proposal contained in Clause 14 (1) to transfer the patronage of bursaries now vested in private individuals, or corporate or other bodies, to the University Court, and are of opinion (1) that more full provision should be made in the Bill for the recognition by university courts of the certificates of extra-mural teachers as qualifying students for examination for university degrees; and (2) providing for such examinations being conducted by persons other than teachers of the students applying for examination." This very remarkable resolution, showing how thoroughly some of the gentlemen of the Merchant's House understand medical affairs in Glasgow, was carried unanimously. Thereafter, on the motion of Mr. William Macewen, it was unanimously resolved to petition Parliament in favour of the St. Mungo's College Bill, and the Chairman, ex-Lord Provost Ure, and Mr. Macewen were appointed a committee to proceed to London, if necessary, in the interests of the Merchant's House to promote the passing of the Bill. The University Club, of which Mr. J. S. Campbell, M.P., is Honorary President, has petitioned against the Bill. Ayr Town Council, at a special meeting on April 20th, after hearing a deputation consisting of Dr. McVail, Sir James Bain, and Mr. George Gibson, also unanimously agreed to petition in favour of the Bill.

THE PRIVILEGES OF THE ROYAL COLLEGES OF EDINBURGH.

THE privileges of the Fellows of the Royal Colleges of Physicians and Surgeons of Edinburgh, in respect of hospital and other similar appointments, have just been called in question. Dr. John Haddon recently raised the question in the General Council of Edinburgh University, and moved a resolution bringing before the University Court the gross injustice and great hardships to medical men in Edinburgh that the degree of Doctor of Medicine of Edinburgh University was not recognised by the rules of any of the medical charities in Edinburgh, and asking that steps be taken to obtain that all Doctors of Medicine should be fully qualified to hold appointments in these charities. Dr. Haddon drew especial attention to the Royal Infirmary, where the only acknowledged qualification was the Fellowship of the Royal College of Physicians. Dr. Peel Ritchie, President of the Royal College of Physicians, deprecated the transmission of the motion on the grounds of inexpediency, inasmuch as the University and the Royal Colleges were acting in perfect harmony. Discussing the merits of the question, he drew attention, in a historical sketch, to the position which the Royal College of Physicians occupied as the founders of the Royal Infirmary. Dr. Cadell moved a direct negative to Dr. Haddon's proposal. Ultimately, on the motion of the Rev. Professor Flint, it was agreed by a majority to transmit Dr. Haddon's motion to the University Court, without expressing any judgment on it.

IRELAND.

OUTBREAK OF MEASLES IN DROGHEDA UNION.

DR. CALLAN, medical officer of the union, has reported that an epidemic of measles has broken out in his district; also sporadic cases of German measles. No cases, so far, have resulted fatally and precautions have been taken to prevent the disease from spreading.

THE VACANT INSPECTORSHIP, LOCAL GOVERNMENT BOARD.

DR. EDWARD THOMPSON, surgeon to the Omagh Infirmary, has been selected as inspector under the Local Government Board, in room of Dr. O'Farrell, appointed to the Prisons Board. The probability of this appointment has been already referred to in the

JOURNAL. There is much dissatisfaction because so many other excellent candidates, who had the advantage of being trained in the service, have been passed over.

A MEDICAL PRACTITIONER SENT TO PRISON.

AT the Armagh Quarter Sessions, held recently, Dr. Arthur McKeown was sentenced to three months' imprisonment with hard labour for having assaulted a bailiff last February. As Dr. McKeown has offered to give compensation to the bailiff, a memorial will be forwarded to the Lord-Lieutenant that the sentence be reduced.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS, IRELAND.

THE Council of the College of Surgeons has just issued revised rules in reference to the Fellowship. From and after October, 1888, candidates will be examined in the months of January, May, and November. There will still be two grades—candidates under ten years' standing, and candidates of more than ten years' standing. For the first grade there will be a written examination in anatomy, physiology, and surgery, extending over six hours. Second day, oral surgery, one hour; surgical pathology, half an hour. Third day, clinical surgery, one hour; histology (laboratory), one hour; dissections, half an hour; oral, anatomy, one hour; physiology, half an hour. Fourth day, operative surgery, one hour. Grade II.—First day, papers: surgical anatomy, three hours; surgery, three hours. Second day, oral surgery, three-quarters of an hour; morbid anatomy, quarter of an hour; clinical surgery, one hour. Third day, operative surgery, one hour; surgical anatomy, half an hour. A gross total of 60 per cent. shall be considered the passing mark. A candidate who has scored less than 60 per cent. but more than 30 per cent. in a particular subject or subjects other than anatomy and surgery, shall be passed or rejected by the majority's vote of the whole Court. Licentiates of the College will be permitted to present themselves for the primary part of the examination at any period after their admission as Licentiates.

UNIVERSITY OF LONDON: APPOINTMENT OF EXAMINERS.—At the meeting of the Senate, held on April 25th, the following gentlemen were appointed examiners for the ensuing year in the Faculty of Medicine: Dr. Cayley and Professor F. T. Roberts, in Medicine; Mr. Marrant Baker and Professor Christopher Heath, in Surgery; Professor Curnow and Dr. Alexander Macalister, in Anatomy; Professor Schäfer and Mr. J. N. Langley, in Physiology; Dr. Champneys and Professor John Williams, in Obstetric Medicine; Dr. Bruce and Dr. Frederick Taylor, in Materia Medica and Pharmaceutical Chemistry; Professor Poore and Dr. Stevenson, in Forensic Medicine.

PROVIDENT SURGICAL APPLIANCE SOCIETY.—This Society, of which the sixteenth anniversary festival was held last week, has since 1872 been doing a useful work in supplying patients of small means with surgical appliances or artificial limbs of the best manufacture at nominal prices, or on a provident system of payment. Since its foundation 42,000 articles have in this way been issued by the Society; and with the object of extending the usefulness of this Society, a branch has this year been successfully opened at Norwich.

MEDICAL MAGISTRATE.—Dr. Thomas Allan Wotherspoon, of Brampton, has been placed on the Commission of the Peace for the County of Cumberland.

THE Committee on Pleuro-pneumonia and Tuberculosis, appointed by the Agricultural Department of the Privy Council, have chosen Mr. Jacob Wilson as Chairman; Mr. Victor Horsley is a member of the Committee.

ARRANGEMENTS for holding an international exhibition at Carlsbad, during the summer season of 1889, have been definitively made.

THE prizes in the Faculty of Medicine of University College will be distributed by Mr. John Marshall, President of the General Medical Council, on May 17th, at 3 P.M.

LIST OF AUTHORS AND OTHERS WHO HAVE PRESENTED BOOKS TO THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

Presented by J. S. BARTNUM, Esq., Bath.

EMAN (Thomas). On Cutaneous Diseases. 1813.
 EYNE (John). On Hydrocephalus. 1808.
 FER (S.). First Lines of Surgery. 1836.
 FITES (J. W.). On Urinary Deposits. 1843.
 LLER (J.). Elements of Physiology. 2 vols. 1842.
 TIGREW (J. B.). The Physiology of Circulation. 1874.
 TCHARD (A.). Cases in Operative Surgery. 1863.
 ASBOTTOM (J.). On Midwifery. 1821.
 D AND BOWMAN. Physiological Anatomy. 2 vols. 1855.
 GNER (R.). Elements of Physiology. 1844.
 TSON. Principles and Practice of Physic. 2 vols. 1848.
 ST (Charles.). Diseases of Infancy and Childhood. 1852.
 SON (Erasmus.). Diseases of the Skin. 1863.

Presented by ALFRED CARPENTER, M.D., Croydon.
 cel. 94 vols. 1823-70.

Presented by Messrs. CASSELL & Co.

ical Manuals. 12 vols.
 uals for Students of Medicine. 12 vols.

Presented by ALEXANDER HENRY, M.D., London.

HAUS (Julius). A Treatise on Medical Electricity.
 DIE (Sir R. C.). Lectures on Diseases of the Urinary Organs.
 MEL (A. F.). Leçons de Cliniques Médicales. 1834.
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 DIE (Andrew). Physiology and Digestion. 1836.
 SMACK (Sir J. Rose). Clinical Studies in Hospital and Private Practice.
 vols. 1878.
 FERGIE. Médecine Légale. 2 vols. 1840.
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 RKHAM (W. O.). Diseases of the Heart. 1860.
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 Cause of the Coagulation of the Blood. 1858.
 The Hygienic Treatment of Pulmonary Consumption. 1857.

BOND (L. J. R. A.). De l'Influence de l'Estomac sur la Production de l'Apoplexie. 1824.
 LAIBROLES (J.). Recherches d'Anatomie et de Physiologie Pathologique. 1826.

DENHAM SOCIETY'S PUBLICATIONS. 66 vols. 1859-79
 TERS (A. T. H.). The Anatomy of the Human Lung. 1860.
 LLIAMS (C. J. B.). Principles of Medicine. 1843.
 Therapeutics. 2nd edition. 1848.

Presented by ERNEST HART, Esq., London.

ADEMY OF MEDICINE IN IRELAND (Transactions of). 4 vols. 1883-86.
 KEN (Sir Wm.). The Growth of the Recruit. 1887.
 HAUS (Julius). On Sclerosis of the Spinal Cord. 1886.
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 ARK (Sir James). Memoirs of John Conolly. 1869.
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THE SANITARY CONDITION OF HAILEYBURY COLLEGE, HERTFORD.

Owing to several cases of diphtheria suddenly breaking out at Haileybury College during last term, which resulted in the death of one boy, the illness of five others, and the consequent breaking up of the school before the Easter vacation, we instructed our Special Commissioner to visit the College and investigate its sanitary condition, so as to enable us, if possible, to allay the anxiety which has arisen amongst the parents and friends of the boys owing to the sudden breaking up of the school; and to point out if possible, to the governing Council any existing flaws in the sanitary arrangements for the advantage of the future.

Our Commissioner, Mr. E. Bailey-Denton, visited Haileybury on April 7th, and reports as follows:—
 "I carefully inspected Haileybury College, in company with the College Steward, on Saturday, April 7th, with the ready permission of the Rev. James Robertson, the Head Master, who kindly consented to my inspecting everything in and about the place, so that I might the more accurately discover and realise its sanitary condition.

For the sake of clearness and distinction, I purpose dividing my remarks under three heads: I. General Sanitation; II. Water Supply; and III. Milk Supply.

I.—SANITATION.

The College is situated about two miles from Hertford, on a hill and in a position as naturally conducive to health as would be a peer possible.

External Arrangements.—The liquid refuse of Haileybury College is conveyed by 15-inch pipes to a small sewage farm situated at a distance of about one-third of a mile from the building, where it is applied to eleven acres of land by means of surface irrigation. The position of the farm is isolated, and its condition, though perhaps not showing the tidiness which ought to distinguish sewage farms, is certainly not such as to be in any way prejudicial to health. There are no tanks for the deposition of solid matter, and consequently no concentration of bad smells; the fresh sewage is applied to the land without any treatment, and the effluent, after passing over it, flows into a brook in an unobjectionable condition, though not critically pure. The outfall sewer from the College to the farm is well ventilated, has a good gradient, and is effectually disconnected from the College at the upper end. It is, therefore, next to impossible for any gases generated along its course to find their way into the school building to disseminate disease. All the rain-water and other pipes are disconnected from the sewer, and discharge their contents into traps, whilst all junction chambers have ventilating shafts carried up to the roof of the College, out of the way of the upper window.

There are no water-closets upon the premises, either for the use of the boys or servants, and only two in the Master's house. Earth closets, which are kept very clean and attended to daily, are adopted throughout. The earth before use is carefully dried and sifted, and after use is kept in open sheds, mixed with cinders, and utilised on a garden specially reserved for the purpose. When the manurial properties have been extracted, the earth is again used, and thus the system is regularly maintained. The urinals are

pt filled with sawdust, which is removed daily and utilised on the land.

The laundry and bakery attached to the College are both exceptionally clean and perfectly disconnected with the sewers, and the swimming bath and gymnasium are all that could be desired.

Internal Arrangements.—The kitchens, sculleries, and pantries are clean and sweet, showing clearly that the upper servants are true to their responsibility and duties. The dormitory slop-sinks and baths, which are sufficiently numerous for all purposes, and amply supplied with hot and cold water, are disconnected from the sewers. One earth closet is fixed and attached to each dormitory for night use.

The air space allotted to the boys throughout the dormitories is good, being 800 cubic feet in the older and about 1,000 cubic feet in the modern rooms. The ventilation, however, is not so satisfactory as it should be, although there is nothing connected with it which could be called a factor for the propagation of disease. The method adopted of allowing the foul air of the lower dormitories to escape by openings in the ceilings, and, after mixture with fresh air brought in from the outside between the dormitories, to enter the upper dormitories at the floor level, is wrong in principle, and should be certainly remedied. The medical officer of health, indeed, allows that this method of ventilation is faulty, and he states that it has, in consequence, been condemned. In his annual report to the Council for 1887, he states, "The system of ventilation cannot be considered satisfactory." In my opinion, it could be easily improved, at a small outlay, without any material alteration of the buildings, and, no doubt, the governing body will sanction the improvement without further delay. The "Tobin tubes" in the "sick house" are not placed at a proper level to secure ventilation without discomfort to the inmates.

The arrangements for sick boys at Haileybury have been well considered, and are satisfactorily carried out. Those suffering from temporary disorders of a non-contagious character are kept in the "sick house," which is a part of the College itself; whilst those suffering from contagious complaints are relegated to the "sanatorium," which is a spacious building standing well away from the college, where the best possible medical attention and care are bestowed on them.

It will be seen by the above remarks that the sanitation of Haileybury is decidedly good, and, indeed, I believe there are few public schools in the kingdom which can compare with it; it is, therefore, all the more necessary that the authorities should remove the only flaw in its character—that is, the dormitory ventilation. One more remark only is necessary under the head of aerial sanitation, and that is, that the state of the ditches in Little Wymondley, a village close to the College, where the boys constantly play, is objectionable. These ditches apparently contain sewage matter, and in the summer must emit effluvia of a malarial character. The College authorities should bring pressure to bear to remedy this evil.

II.—WATER SUPPLY.

The water supply is derived from a deep well under the building, passing through the clay to a depth of about 50 feet into the chalk, the total depth to the bottom of the well being 228 feet. The water is pumped up from this well by a $7\frac{1}{2}$ h-p. steam engine to a tank at the top of a water tower, whence it is distributed, after undergoing Porter Clarke's water-softening process, to the various cisterns throughout the College.

There is no doubt whatever that the position of the well is inviting to pollution, which no amount of steining and clay puddling can prevent. The very reason which the late Dr. de Chaumont gave, when he was called upon to report on an outbreak of typhoid fever which occurred at Haileybury in 1881, "that the water cannot be contaminated because it passes through clay before reaching the chalk," appears to prove the reverse; for the water comes discoloured with clayey material. It would appear, therefore, that some disturbing influence causes this discoloration, which, if it has not already been proved so, turn out to be pollution. It is not within the province of a civil engineer to analyse water, especially as I understand that Dr. Stevenson, of Guy's Hospital, has been lately supplied with a sample for analysis, which will probably throw some light on its present quality. The public will anxiously await his verdict; but, in the meantime, I should fail in my duty if I did not state that the proximity of the well, notwithstanding its depth and its steining, to the urinals and various gulleys down which sewage is thrown, suggests dan-

ger. Any well in close proximity to a large establishment, and immediately under the foundations of the building, receives by ordinary gravitation the oozing wetness of the ground, and in time allows polluting matter to descend with it to the water level by imperceptible passage, either inside or outside the brickwork with which such well may be steined; and the fact that the water does at certain seasons become discoloured, as I myself saw, proves that the views I have expressed cannot be far fetched.

It would be impossible to say that any of the cases of diphtheria which recently occurred are in any way traceable to the drinking of polluted water from the well in question, for none of the other 478 boys, or any of the masters, their children or servants, who all drank of the same water, and who practically breathed the same air, suffered in like manner, whilst the previous analysis made by Dr. Stevenson showed the water to be "pure." The last samples handed to him contained, I am told, yellowish vegetable matter, which, the authorities aver, enters the well at the bottom after percolating laterally from the Lea, through the chalk and clay, and must, therefore, be innocuous. Many people will probably decline to accept this conclusion; and as no expert can decide the case on the present premises, it may be well to consider if the presence of vegetable matter is not due to imperceptible soakage from the surface immediately above the well.

III.—MILK SUPPLY.

The milk supply for both masters and boys is derived from a farm at Hertingfordbury, about five miles distant from Haileybury, in the occupation of Mr. Wells, who has supplied the College for some few years. The dairy and cowhouses at this farm are healthy and good, and all the dairy utensils were upon the day of my visit, which was quite unexpected, clean and sweet.

The water for cooling the milk and general washing purposes is obtained from a well sunk in the chalk in proximity to the farm buildings, whence it is pumped into a tank over the cow-house. It is here that I consider that there is a serious defect in arrangement. This tank is placed in the roof of the cow-house itself, with the cooling apparatus beneath it. There can be no doubt that this is open to much objection; for the fœtid impurities of the air, due to the emanations from twenty-one cows, standing in one building, especially when confined at night time, must to a certain extent be absorbed by the water. I have no hesitation, therefore, in saying that the College authorities should require the removal of this tank to a more suitable and healthy position.

Summary.—Having thus reviewed in detail the sanitary arrangements of the College, with a view, if possible, to trace the cause of the late outbreak of diphtheria, I admit that I cannot directly connect it with anything associated with that establishment.

The history of the outbreak is briefly this: Two new boys, who were inseparable companions, went for their *evreat* together on March 5th, returning to the school on March 7th, and were admitted to the sanatorium on March 19th and 20th, suffering from diphtheria. Between the 22nd and 28th of the same month, four more cases were admitted—the first two were severe cases, resulting in one death; and the remaining four were mild in character.

The cause of the outbreak, therefore, must, in my opinion, be sought in the first-mentioned case; and, in fairness to the College authorities, who, in conjunction with their medical officer, Dr. Shelly, are most anxious to discover the origin, I would add that, until the patient who is now on the road to recovery is sufficiently well to be questioned as to where he and his friend went, what they did, and what they drank on their way to and from their homes on the occasion of their *evreat*, all judgment should be suspended.

Under any circumstances, I am of opinion that, in order to place Haileybury where it ought to be, in the foremost rank of public schools *quâ* health, and to avoid the suspicion attached to the well, the school authorities should consider whether they might not advantageously change its position; for the subterranean source of supply would be the same in any case; and in like manner they would do well immediately to perfect the dormitory ventilation, and remedy the faulty arrangements at the farm at Hertingfordbury, whence the milk supply is obtained.

BEQUESTS.—The trustees of the late Mr. D. Maclure, lithographer, of Glasgow, have ordered payment of the following legacies, among others, free of duty:—Royal and Western Infirmary, each £25; Eye Infirmary, £10; Lock Hospital and Home for Incurables, £10.

THE SOCIETY OF MEDICAL OFFICERS OF HEALTH AND THE LOCAL GOVERNMENT BILL.

THE provisions of the Local Government Bill as affecting sanitary administration were discussed at some length by the Society of Medical Officers of Health at a meeting held on Friday, April 20th, at the Scottish Corporation Hall, Crane Court, Fleet Street, Dr. ALFRED HILL, President, in the chair.

The CHAIRMAN reported that the subject had already been under the consideration of the Council, who suggested the opinion "that the interests of the public would be best served by the appointment of medical officers being entirely vested in the County Councils, instead of in the District Councils, as arranged in the Local Government Bill." The Chairman reported that a meeting had been held an hour before, convened by some of the principal medical officers of combined districts in the country, who were most nearly interested in the matter, and he was pleased to say there seemed to be a very common feeling that the propositions submitted by those gentlemen were acceptable to the general body of medical officers. In fact their first resolution, passed without the knowledge of the Council, was very much the same in effect as the resolution of the Council, and he hoped in general meeting they would be able to fix on some form which should meet the views of gentlemen of combined districts as well as of the meeting generally.

Dr. WILSON proposed, and it was seconded and carried, "That the report of the Council be adopted."

The following resolution, passed at the informal meeting, was now read:—"That as the Bill proposes to transfer to the County Councils the powers for uniting sanitary districts for the appointment of medical officers which are now vested in the Local Government Board, it is desirable in the interests of increased efficiency and economy that these powers should be generally exercised as regards all urban and small rural districts, and that the appointment of medical officers of health should be entirely vested in the County Councils, instead of being primarily in the District Councils, as at present provided by the Bill."

Dr. WILSON'S opinion was, when he read the notice on the agenda paper that it hardly went far enough, and that some definite opinion should be expressed as to the impossibility of medical officers of health holding appointments in rural and small urban districts and still being allowed to practise. He thought it impossible that these gentlemen could discharge their duties satisfactorily to the public and to their private patients. They wished, if possible, for some expression of opinion from the Council as regards the doing away of appointments in some small urban and rural districts.

Dr. ARMISTEAD (Cambridge) proposed as an amendment words identical with the words of the resolution of the Council given above. He thought it would be a mistake to go beyond that, and that all that Dr. Wilson desired would follow as a matter of course. If the appointments were vested entirely in the County Councils, it was not likely for their own sake they would have more medical advisers than they could possibly avoid. The counties of Rutland, Huntingdon, and Bedford, were contrasted with Liverpool with its population of 550,000, Manchester with something like 300,000, each managed by one medical officer. Why, he asked, should a County Council, with only a population of 5,000, require more than one medical officer? And the same with the county of Rutland. They might safely say every county with a population of less than 100,000 would not require more than one medical officer; a county with 200,000 would probably require two. The larger counties, such as Yorkshire and Lancashire, would have their numbers diminished by the creation of the new counties.

A MEMBER asked what compensation would be given to members who were squeezed out?

Dr. ARMISTEAD replied by asking what compensation could be given to medical officers who were at present engaged in private practice, and who only held their certificates for one year, at the end of which they would have to be reappointed by the County Councils instead of the District Councils, and they would not appoint more than they could possibly avoid. There was Essex with twenty-four medical officers, and the county of Cheshire with thirty-four. Of this number thirty-two were appointed to one-tenth of the county, and the other two medical officers were responsible for the rest.

Dr. ARMSTRONG (Newcastle) said Dr. Robinson had spoken of

advisers to the Council. He should very much like to see some thing introduced into the Bill referring to a larger set of officers than mere officers of what he would call combined districts. If thought they were limiting themselves to a body whose income would average something like £600 to £700 a year, and that it was detrimental to the public service and themselves as a whole. There should be a larger set of officers than those whose income would average £600 or £700 a year—a superintending officer appointed as adviser to one, or possibly to two, County Councils. It would, he thought, raise their status, and Mr. Stanhope's speech of the previous evening tended, he thought, to underrate the position of the medical officer.

Dr. BOND (Gloucester) agreed that they should look upon the matter from the broadest possible point of view. He thought they would have no *locus standi* either with Mr. Ritchie or the Government if they were not prepared to show that any recommendations they made were made in the interests of the public. He thought it desirable that they should not introduce details more than absolutely necessary, and that they should limit their recommendations as far as possible to matters of prime urgency. There were, it seemed to him, two great blots in the Bill. One was that it perpetuated a system by which medical officers of health in rural and small urban districts were primarily elected by what would be the local District Councils, and the other was that although the Bill imposed upon the County Councils very large and important supervisory functions, it made no provision whatever for attaching to these Councils any competent advice or assistance—such assistance as was provided by the Local Government Board at the present time (from whom there was to be a large devolution of powers), such as was possessed by the smaller sanitary authority. He thought if they saw their way to meet those two essential blots, they would accomplish all they wished to achieve. The only other matter to which he wished to refer was the blot referred to by Sir Lyon Playfair in his admirable speech, and that was that all reports and returns were to be made according to the Bill as at present drafted, directly to the Local Government Board without the County Councils having any means of acquainting themselves with the contents of these documents, and therefore of being adequately acquainted with the sanitary condition of their district. The Government, it appeared, had recognised the blot, and Mr. Stanhope, referring to Sir Lyon Playfair's criticism, said "there was no reason why copies of these reports should not be furnished to the County Councils. That could obviously be effected in one of two ways, either by the Local Government Board sending down to report, or what seemed to be a more simple way, that all reports should be first transmitted to the County Councils, and then to the Local Government Board. They might assume that that deficiency in the Bill would certainly be rectified. They had before them at the present time only the consideration of the first—namely, the desirability of transferring to the County Councils the appointment of medical officers of health, and he thought that was a position which could be amply justified on the grounds both of increased efficiency and economy. He thought it was sufficiently recognised that, at any rate, it was desirable to make the areas supervised by medical officers of health large rather than small; and that was admitted, it followed as a matter of course the principle of combination must be adopted in some shape or form, or might be entirely superseded by the fact that the County Councils, having the appointment of all medical officers of health, would practically make combinations of their own by either appointing one officer for the whole county, or one officer for each section of a county, as they might consider it advisable in the interests of the public. He thought confidence should be shown by giving the County Councils the largest possible powers to do what they considered right in the public interest. It had been asked what did they propose to do with all the medical officers of health now in existence? Did they propose to supersede them all at once? He neither proposed nor suggested it. He thought it exceedingly undesirable to make violent or sudden changes in their organisation. What they had got to do was to look at existing facts as existing facts, and to make the best of them, but to take care in the future they would effect improvement gradually as opportunity arose. He thought if that fact was distinctly impressed upon the President of the Local Government Board, and if it could in any way be incorporated in the Bill, it would answer every reasonable objection. If the County Councils could have it statutorily imposed upon them to effect combinations, or rather to avail themselves, as opportunity

y occurred, of enlarging the areas of sanitary supervision, he thought they would have laid the foundation for what would ultimately be the most desirable arrangement—the enlargement of the areas of sanitary supervision by the medical officer of health to the largest extent compatible with efficient work. He (Dr. Bond) and Dr. Wilson had drafted a modification of the proposal of the Council, in which it was suggested that the principle of combination should be carried out as opportunity arose. He did not wish to enforce that modification if it was not considered advisable. He hoped they would have an opportunity of submitting their view to the President of the Local Government Board, and it would be sufficient then to be prepared, if he raised an objection, to meet it by admitting that they did not desire a violent disturbance of the existing system of things; all they suggested was that the County Councils should be invested with the largest possible powers in regard to the appointment of all medical officers of health, and then that it should be left to them to consolidate, when and as they might see it desirable to do so in the interests of the public.

Dr. TATHAM said that, having carefully considered the Bill in relation to sanitary administration, it struck him that if the suggestion made could be adopted, the President of the Local Government Board would be simply extending to the counties the principle which he admitted worked so well in the boroughs. He did not know of any borough in England in which the duties of that borough appointed a medical officer separately, and Dr. Ritchie would not be inconsistent if he applied the same principle to the County Councils. He agreed with Dr. Bond on the question of what was to be done with the present medical officers. He knew it to be the fact that there was a large number of badly paid officers who would be exceedingly glad to be relieved of their present duties; as regards the other men who took up public health work because they liked it, he thought there would be no means easily found for extending their work and giving them more to do; and they might trust to the process of evolution to take matters right.

Dr. HIME said reference had been made to the possibility of the services of gentlemen being cut off, and their means of livelihood, and the action of the Bill. He did not think their sufferings would be very great in the case of gentlemen who received the munificent sum of £3 a year for devoting scientific energies to an area of 1000 acres, and including many thousands of individuals. Referring to points in the Bill as to which he thought representations could be made and pressed upon the Government, Dr. Hime spoke of the unsatisfactory character of the vaccination clauses in the Bill. He thought it by no means a foregone conclusion at the County Councils when appointed under the Bill would amalgamate districts; the experience of the past and the present had been just the opposite. He did not think there was any reason to suppose the County Councils would act differently. So far as he could judge, the County Councils would be elected by the same franchise as the Borough Councils and local boards, and he could not see that they were to anticipate that the County Councils would consist of men of a superior type to the existing ones. He thought their representations should go into some detail, and that the adoption of large areas should be put forward as a very important factor in the successful administration of the health of the country. The Society ought, he thought, to express a strong opinion as to the absolute necessity of appointing scientific advisers not only to the County Councils but to the central body in London—such should exist for the benefit of the country at large. He suggested that a subcommittee should be appointed to draft such recommendations as they might think desirable.

The CHAIRMAN said no doubt a great deal that Dr. Hime had said as regards matters of detail would be acted upon; they would not be introduced into a resolution, but could be submitted to the President of the Local Government Board, when the discussion waited upon him.

Dr. SYKES thought that it would be seen by those who tried to follow out in imagination the working of the Bill that the County Councils would have a number of sanitary duties to perform which would necessitate their calling in skilled opinion, and at the conference required would necessitate amalgamation. One-half of the fees was to be paid by the County Council, which he did not suppose they would amicably do without having some voice in the appointment.

Dr. SEATON, referring to the subject of the extent of the area most suitable for the supervision of the medical officer of health, thought a district with a population of 100,000, as suggested by

Sir Lyon Playfair, much too small. If they wanted a good sanitary service they must have something like prizes in the profession; in districts of only 100,000, he took it, there would be none.

Dr. FOSBROKE, speaking in favour of large areas, said of course a medical officer could supervise a much larger population in a thickly populated town than where the population was distributed over a large area.

The following resolution, proposed by Dr. ARMISTEAD, and seconded by Dr. TATHAM, was unanimously carried:

“That the interests of the public in regard to efficiency and economy would be best served by the appointment of the medical officer of health being entirely vested in the County Councils instead of as arranged in the Local Government Bill.”

The next resolution put from the chair was the following, proposed by Dr. BOND, and seconded by Dr. ARMISTEAD, which was also carried unanimously:—

“That as no provision is made in the Bill for furnishing the County Councils with the sanitary advice and assistance which is essential to enable them to carry out properly the responsible duties of supervision with which it is proposed to entrust them, it is desirable that such provision should be made, and that this object will be promoted by the foregoing resolution, which will enable the Council to arrange the sanitary service of their districts so as to secure for themselves such advice and assistance, and to adopt in its fullest degree the principle of consolidating the areas supervised by medical officers of health which experience has shown to work satisfactorily.”

Dr. HIME proposed the following resolution:—
“That in the interests of the public health of the country it is desirable that skilled medical officers be appointed as advisers of County and District Councils, who shall not be engaged in the private practice of the profession.”

Dr. WILSON seconded it.

It being evident from various expressions of opinion that Dr. Hime's resolution did not meet with the unanimous approval of the meeting, he ultimately withdrew it as a matter of expediency.

It was decided to circulate the above resolutions among medical and other members of Parliament.

Mr. SHIRLEY MURPHY read a letter from Mr. Ernest Hart, the Chairman of the Parliamentary Bills Committee of the British Medical Association, stating that at the last meeting of that body a resolution was passed favouring the attachment of medical officers of health to the County Councils, and that a subcommittee had been appointed to carry out that object; that it was resolved to seek the co-operation of the Society of Medical Officers of Health in the matter. It was, Mr. Hart said, proposed to approach Mr. Stansfeld as the author of the Public Health Act, the President of the Local Government Board, Sir John Lubbock, and Sir Lyon Playfair. Mr. Stansfeld was willing to have a private conference with them any morning, and he wished to know whether they were willing to co-operate.

It was decided to accept the invitation of the Parliamentary Bills Committee of the British Medical Association, and to appoint a committee for the purpose; and, as soon as the exact amendments were thought out, to go before Mr. Ritchie as President of the Local Government Board, and state the result of the conference with Mr. Stansfeld.

The following committee was appointed: Dr. Alfred Hill (Birmingham), Dr. Bond (Gloucester), Dr. Corfield (London), Mr. Shirley Murphy (London), Dr. Armistead (Cambridge), Dr. Tatham (Salisbury), Dr. Woodforde (Reading), Dr. Hime (Bradford), Mr. Armstrong, M.R.C.S. (Newcastle-on-Tyne), Dr. Seaton (London), Dr. G. Wilson (Leamington), Mr. G. Fosbrooke, M.R.C.S. (Bideford), Dr. Thursfield (Shrewsbury), Mr. G. Turner (London).

At the close of the meeting Dr. CORFIELD referred to the death of Professor de Chaumont, to whose eminence as a sanitarian and kindness of disposition he paid a well-deserved tribute, and proposed that a letter of condolence should be sent to his widow and family.—Dr. BOND, as one who had enjoyed his professional acquaintance for twenty-five years, seconded the motion, which was carried *nem. con.*

DONATIONS.—The Clothworkers' Company have given £250 (additional) to the Charing Cross Hospital, and £50 to the Royal National Hospital for Consumption and Diseases of the Chest at Ventnor.—The Vestry of the Parish of St. Martin-in-the-Fields have given 200 guineas to the Jubilee Fund of the Charing Cross Hospital.—The Hon. Algeron G. Tollemache has given £100 to the Charing Cross Hospital, and £100 to St. Mary's Hospital.

THE LONDON UNIVERSITY AND METROPOLITAN MEDICAL STUDENTS.

The following letter was read at the last meeting of the Senate of the University of London:

The Middlesex Hospital, W., April 14th, 1888.

We, the medical officers and lecturers of the Middlesex Hospital, beg leave to represent to the Senate of the University of London that, in our belief, it not infrequently happens that students and medical practitioners otherwise well qualified are prevented from taking degrees in medicine at the University because they have not passed the matriculation examination before commencing their medical studies. Afterwards, when they would be glad to have an opportunity of presenting themselves for examination, they are debarred because they would be required again to go through the whole of their medical curriculum.

We believe it would facilitate the obtaining of degrees in medicine by many capable students and practitioners if the Senate would, under certain circumstances, so far relax the existing regulations as to accept attendance at lectures and hospital practice before passing the matriculation examination, and to admit such candidates to the examinations without requiring them again to go through their curriculum.

Signed on behalf of the medical officers and lecturers,

J. W. MULKE, Chairman.
W. CAYLEY, Treasurer.
A. PEARCE GOULD, Dean.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887 will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The spring meeting of this Branch will be held at Cookermouth on Friday, May 4th. The chair will be taken by Dr. McLeod, at 3.15 P.M. The following papers will be read: Dr. Campbell (Garlands): On Three Cases of Recovery after a Lengthened Duration of Insanity, with remarks. Dr. Hight (Workington): Notes on a Case of Puerperal Eclampsia. Dr. Black (Keswick): Notes on a Case of Suppurative Peritonitis. Dr. Hight will open a discussion on the subject of Fees Paid to Witnesses. The Secretary will be glad to receive intimation of papers for reading or specimens for showing prior to the 25th.—H. A. LEDIARD, 41, Lowther Street, Carlisle, Honorary Secretary.

SOUTH WALES AND MONMOUTH BRANCH.

The spring meeting of this Branch was held at Pontypridd on April 13th. Present: J. ADAMS RAWLINGS, M.R.C.P.Ed., President, in the chair, and about thirty-five members.

New Members.—D. R. Bowen (Morriston), J. Barrie, M.B. (Car-

diff), Ivor H. Davies (Porth), A. N. Loveridge (Newport), D. Lloyd (Newcastle Emlyn), T. H. Morris (Aberdare), were elected members of the Association and Branch; and W. W. David (Tonypandy) and Dr. Walford (Cardiff) members of the Branch.

President-Elect.—Dr. C. T. Vachell, of Cardiff, was unanimously elected.

Papers.—Mr. J. ARNALLT JONES (Aberavon) read notes of a curious case of Oedema of the Hand, for which he had performed amputation above the wrist, and showed the specimen.—TATHAM THOMPSON, M.B. (Cardiff), read a paper on Detachment of the Retina, and showed specimens and drawings.—Mr. E. STANLEY WOOD (Pontypool) read notes of a case of Griggs's amputation at the Knee-joint, and showed a plaster cast of the resulting stump.—Mr. H. N. DAVIES (Cymer) showed a boy in whom Pirogoff's amputation in the right foot and Chopart's in the left foot had been done eight years before. The resulting stumps were very good, and he could get about without trouble.

Congenital Absence of Both Patellae.—Mr. T. W. PARRY (Ferdale) showed a patient having congenital absence of both patellae, with a deformity at each elbow, consisting of a surplus amount of bone. The patient had ten children, all healthy, except that, in the fourth child, exactly similar deformities were reproduced.

Biliary Calculi.—Dr. TAYLOR (Cardiff) showed a number of biliary calculi. The patient was a woman, aged 38. During a course of four months she had paroxysms of severe pain, with attacks of jaundice, and passed about twenty angular-shaped stones. The pain was much relieved by hypodermic injections of morphine on each occasion.—Mr. H. N. DAVIES mentioned a case where 200 were passed; and Mr. EVAN JONES one in which a much larger number came away.—Mr. WOOD referred to the value of chloride of ammonium in possibly preventing their formation, and referred to an illustrative case.

Suggestion as to Meetings.—Mr. A. P. FIDDIAN, M.B. (Cardiff), read a paper, urging the more frequent holding of district meetings for working purposes only, and a committee was nominated to consider the matter.

Petitions.—Petitions were adopted: (1) Against the Horse Tax; (2) In favour of the Architects, Engineers, and Surveyors Registration Bill; (3) In favour of a Welsh Centre in connection with the proposed Nursing Institute; (4) On Fees paid to Medical Witnesses.

Dinner.—The members and friends afterwards partook of an excellent dinner at the New Inn Hotel.

SOUTH AUSTRALIAN BRANCH.

The monthly meeting of this Branch was held at the Adelaide Hospital, on February 23rd. Present: The President (Dr. Davies Thomas), Drs. Lendon, Mitchell, Poulton, Symonds, Todd; Messrs Aitken, A. A. Hamilton, Hayward, and the Honorary Secretary, Mr. Cleland).

The minutes of the meeting held on January 26th were read and confirmed.

New Members.—A. E. Wigg, M.D., M.R.C.S., was elected a member of the British Medical Association, and of its South Australian Branch.

Pterygium.—Dr. SYMONS read some notes on pterygium occurring in South Australia.

Laparotomy.—Dr. GÜRGER's paper on laparotomy, and notes on cases was taken as read, owing to the writer's unavoidable absence. Any discussion thereon, or of the subject, was postponed until the March meeting.

Treatment of Polyuria.—Mr. CLELAND read a paper on his experience of the action of a preparation of hamamelis virginica in a case of polyuria, and the subsequent employment of codeia, in which the latter failed to produce any effect in diminishing the quantity of urine.

ABSTRACT OF PROCEEDINGS OF COUNCIL.

At a numerously attended meeting of the Council, held in the Council Room at the offices of the Association, 429, Strand, W.C. on Wednesday, April, 13th, 1888, Dr. BRIDGWATER, President of the Council, in the Chair, it was

Resolved: That the financial statement for the year ending December 31st, 1887, as certified by the auditors, be approved and published in the JOURNAL, in accordance with By-Law 26.

The remainder of the proceedings of the Council will appear in next week's JOURNAL.

BRITISH MEDICAL ASSOCIATION.
FINANCIAL STATEMENT FOR THE YEAR ENDING DECEMBER 31st, 1887.

BALANCE SHEET.

LIABILITIES.		£ s. d.	ASSETS.		£ s. d.	£ s. d.
DR.	Subscriptions paid in advance	561 17 8	CR.	By Subscriptions—Amount due	560 6 6	
	Advertisements ditto	433 5 10		Advertisements—Amount due	3,127 8 5	
	Publishing ditto	1 6 0		Sundry Sales—Amount due	214 7 4	
	Contributors	541 10 4		Due from Hastings Memorial Fund	8 15 0	
	Reporting	22 4 6		Lease	4,500 0 0	
	Engraving	28 14 0		Alterations to Premises	3,580 5 4	
	Printing Journal	307 4 9		Furniture, and Fixtures at cost	1,491 16 4	
	Paper for Journal	595 17 3		Plant and Type at cost	5,072 1 8	
	Postage of Journal	6 6 10		Interest due on Investments	1,519 7 8	
	Miscellaneous Printing	30 1 1		Taxes—Amount to be refunded	252 2 4	
	Habitual Drunkards Committee	12 8 0			86 13 4	
	Stationery	35 14 11		INVESTMENTS, viz. :—	£ s. d.	
	Architect's Charges	50 2 6		£2000 L. & N. W. Railway 4 per cent. Debenture Stock at cost	2,231 7 0	
	Coal and Coke	3 9 0		£1780 Midland Railway 4 per cent. Debenture Stock at cost	2,013 1 6	
	Alterations	18 14 6		£1767 Great Western Railway 4 per cent. Debenture Stock at cost	1,991 6 3	
	Legal Charges, &c.	17 0 8		£1845 L. & S. W. Railway 4 per cent. Debenture Stock at cost	2,143 13 6	
	Furniture	72 14 4		£1743 North-Eastern Railway 4 per cent. Debenture Stock at cost	2,016 18 7	
	Wood Fund	25 0 0		£1623 Great Northern Railway 4 per cent. Debenture Stock at cost	1,868 9 0	
	Rent, Taxes, and Insurance	72 7 6		£2000 Lancashire and Yorkshire 4 per cent. Debenture Stock at cost	2,309 9 6	
	Plant and Type	40 18 5		£2000 Newcastle 3½ per cent. Corporation Stock at cost	1,992 10 0	
	Sundries	5 18 6		£338 18s. 8d. Bank Stock at cost	1,000 0 0	17,566 15
	TOTAL LIABILITIES	2,882 16 7				
	Depreciation—	£ s. d.				
	Lease, 18 years, one-eighteenth of	4,500 0 0 = 250 0 0				
	Alterations, do., do.	3,580 5 4 = 198 17 9				
	Furniture, 15% on	1,491 16 4 = 223 15 5				
		672 13 2				
	Plant Depreciation and Renewal Fund as at December 31st, 1886	870 17 3				
	Surplus Account, viz. :—	£ s. d.				
	Balance on January 1st, 1887	28,904 17 1				
	Profit brought from Revenue Account	2,619 2 7				
	BALANCE, being total of excess of assets over liabilities	31,523 19 8				
		£35,950 6 8				£35,950 6 8

Revenue or Profit and Loss Account for Year ending 31st December, 1887.

	£ s. d.		£ s. d.
Editorial Expenses	3,739 13 9	Subscriptions	12,767 4 5
Expenses of Printing Journal	12,288 3 8	do. former years	68 18 6
Office Expenses	2,666 12 5	Advertisements	13,362 17 6
Office Salaries and Wages	1,590 12 6	Sundry Sales of Journal	1,189 2 5
Association Expenses—Committees, Scientific Grants, } Scholarships, Collective Investigation, etc. }	2,078 9 6	Collective Investigation Record Sales } and amount of Grant unexpended }	77 17 4
Amount of Alteration of Premises, Lease of Pre- } mises, and Furniture and Fittings written off }	672 13 2	Sundries—Reading and Binding Covers	68 14 1
		Reprints	129 9 11
		Interest on Investments	614 8 0
		Scientific Grants unused and returned	22 3 10
		Sale of Waste	17 17 3
Subscription Losses from death	23,036 5 0	Discount on Printing, Paper, &c. (and amounts unclaimed)	368 7 0
Accounts and Allowances	432 14 1		
	2,591 18 7		
	26,060 17 8		
Profit for Year carried to Balance Sheet	9,619 2 7		
	£28,680 0 3		£28,680 0 3

STEWART FUND.

70 invested in 4 per cent. Caledonian Railway Debenture Stock, in the name of the British Medical Association.

	£ s. d.
1887.	
1. 1. To Balance brought down	43 4 1
1. 31. „ Interest one year on £579	22 8 11
	£70 13 0
1887.	
1. 31. By Balance carried down	70 13 0
	£70 13 0

MIDDLEMORE FUND.

100 invested in 4 per cent. North British Railway Debenture Stock, in the name of the British Medical Association.

	£ s. d.
1887.	
1. 1. To Balance brought down	35 4 4
1. 31. „ Interest one year on £500	19 7 8
	£54 12 0
1887.	
1. 31. By Balance carried down	54 12 0
	£54 12 0

HASTINGS FUND.

£477 invested in 4 per cent. London and North Western Railway Debenture Stock, in the name of the British Medical Association.

	£ s. d.
1887.	
Dec. 31. To Interest one year on £477	18 10 6
„ Balance carried down	39 7 4
	£57 17 10
1887.	
Jan. 1. By Balance	57 17 10
	£57 17 10

We have examined the foregoing Accounts with the Books and Vouchers of the Association, and find the same to be correct.

PRICE, WATERHOUSE & CO.

22nd March, 1888.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

The fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc.(Hon.), F.K.Q.C.P.I., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate.

An Address in Medicine will be delivered by Thomas Clifford Allbutt, M.D., Consulting Physician, Leeds General Infirmary.

An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

A Special Address on his "Recent Investigations in Surgery" will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

A. MEDICINE.—*President,* T. McCall Anderson, M.D. *Vice-Presidents,* W. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries,* J. McGregor Robertson, M.D., 400, Great Western Road, Glasgow; Robert M. Simon, M.D., 27, Newhall Street, Birmingham.

B. SURGERY.—*President,* George Buchanan, M.D. *Vice-Presidents,* James Dunlop, M.D.; Charles Robert Bell Keetley, F.R.C.S. *Honorary Secretaries,* David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pye, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

C. OBSTETRIC MEDICINE.—*President,* Thomas More Madden, M.D. *Vice-Presidents,* William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries,* William Walter, M.D., 20, St. John Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

D. PUBLIC MEDICINE.—*President,* Henry Duncan Littlejohn, M.D. *Vice-Presidents,* James Christie, M.D.; D. Page, M.D. *Honorary Secretaries,* Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

E. PSYCHOLOGY.—*President,* James C. Howden, M.D. *Vice-Presidents,* James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries,* A. R. Urquhart, M.D., Murray House, Perth; Alex. Newton, M.D., Ticehurst, Sussex.

F. ANATOMY AND PHYSIOLOGY.—*President,* John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents,* R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries,* John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

G. PATHOLOGY.—*President,* Sir William Aitken, M.D., F.R.S., K.C.B. *Vice-Presidents,* Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries,* G. Sims Woodhead, M.D., 6, Marchhall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

H. OPHTHALMOLOGY.—*President,* Thomas Reid, M.D. *Vice-Presidents,* J. R. Wolfe, M.D.; C. E. Glascott, M.D. *Honorary Secretaries,* Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Freeland Fergus, M.B., 41, Elmbank Street, Glasgow.

I. OTOTOLOGY.—*President,* Thomas Barr, M.D. *Vice-Presidents,* John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries,* Johnstone Macfie, M.D., 23, Ashton Terrace, Glasgow; James Black, F.R.C.S., 16, Wimpole Street, London.

J. DISEASES OF CHILDREN.—*President,* Walter Butler Chadde, M.D. *Vice-Presidents,* James Finlayson, M.D.; Henry Ashby, M.D. *Honorary Secretaries,* George S. Middleton, M.D., 23, Sandyford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

K. PHARMACOLOGY AND THERAPEUTICS.—*President,* James Morton, M.D. *Vice-Presidents,* John Dougall, M.D.; Theodore Cash, M.D., F.R.S. *Honorary Secretaries,* Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

L. LARYNGOLOGY AND RHINOLOGY.—*President,* Felix Semon, M.D. *Vice-Presidents,* George Hunter Mackenzie, M.D.; Peter

McBride, M.D. *Honorary Secretaries,* D. Newman, M.D., 18, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

Honorary Local Secretaries, John G. McKendrick, M.D., F.R.S., 45, Westbourne Gardens, Glasgow; James Christie, M.D., Hillhead Glasgow; John Glaister, M.D., 4, Grafton Place, Glasgow.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

9.30 A.M.—Meeting of 1887-1888 Council.

11.30 A.M.—First General Meeting. Report of Council. Reports of Committees. Service in the Cathedral.

8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address.

WEDNESDAY, AUGUST 8TH, 1888.

9.30 A.M.—Meeting of 1888-89 Council.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Second General Meeting. Address in Medicine by

Thomas Clifford Allbutt, M.D., F.R.S.

THURSDAY, AUGUST 9TH, 1888.

9.30 A.M.—Address on his Recent Surgical Investigations by William Macewen, M.D.

11 A.M.—Meeting of Council.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Third General Meeting. Address in Surgery by Sir

George H. B. Macleod, M.D.

7 P.M.—Public Dinner.

FRIDAY, AUGUST 10TH, 1888.

10.30 A.M. to 1.30 P.M.—Sectional Meetings.

3 P.M.—Concluding General Meeting. Address in Physiology

by John G. McKendrick, M.D., F.R.S.

SATURDAY, AUGUST 11TH, 1888.

Excursions.

April 18th, 1888.

FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Test for Hydrochloric Acid in the Gastric Secretion.—Erythrophlovin.—*Electricity of the Human Body.*—*Telepathic Remedies.*—*Oxide of Zinc in Infantile Diarrhœa.*—*Contagious Pneumonia in Pigs.*—*Antipyrin in Labour.*—*Relation of Erysipelas to Puerperal Fever.*—*Diphtheria in Man and Animals.*—*Treatment of Gunshot Wounds of the Abdomen.*—*An Ambulance Service for Paris.*

At a meeting of the Academy on January 17th, Professor G. S. communicated the results which he had obtained by the use of Gungshot's test for hydrochloric acid in the gastric secretion of dyspeptic patients by means of a solution of phloroglycine vanillin. In order to obtain the secretion M. Sée gives the patient hard boiled white of egg and a glass of water. An hour later he extracts a portion of what the stomach contains, and examines with the reagent just mentioned. In certain cases he perceives a red colouring, which proves the presence of an inorganic acid, which M. Sée says is chlorhydric acid. M. Faucher, who has repeated M. Sée's experiments, finds that the test is an extremely delicate one; in the presence of sulphuric acid, nitric acid, hydrochloric acid, etc., it produced a red colouring, while inorganic acid chemically pure, such as lactic acid, tartaric acid, etc., produced no effect. M. Faucher then took eggs of various degrees of freshness, and after having them boiled hard he took an equal weight of their whites, and triturated them with a given weight of distilled water. He then tried the reagent (phloroglycine vanillin) upon the liquids separately. The new-laid egg showed no definite reaction; the egg five days old became rose-coloured; three eggs of doubtful freshness gave an intense dark red colour; in short the intensity of the reaction was in proportion to the amount of the egg, which is explained by the increasing quantity of sulphuric acid. It has also been proved that a drop of sulphuretted hydrogen, prepared by the help of well purified gas, phosphate of soda, and tribasic phosphate of lime also produced a red colouring. These experiments have been frequently repeated, and always with the same results. M. Faucher therefore concludes that it is impossible to prove the presence of hydrochloric acid in the products of digestion by the use of phloroglycine vanillin.

Dr. Trousseau has made some experiments with erythropleth with the following results. After from five to ten minutes the eye was complete anaesthesia of the cornea, not extending to the conjunctiva or to the eyelids, but limited to the transparent membrane; its duration varied from half an hour to an hour

Trousseau performed the operation for cataract on three eyes after injecting erythrophloëin. There was no pain, but cornea remained clouded for some time after the operation. Inflamed eyes the agent had no effect. On the whole he finds erythrophloëin has less effect on the conjunctiva than aine, and that it is a much less powerful local anæsthetic.

M. Charles Féré publishes in the *Compte Rendu des Séances de Société de Biologie* for January 20th, 1888, some interesting remarks on the electricity of the human body. It is well known that certain individuals become charged with electricity in dry, cold weather, especially in hard frost. Sparks or flashes of light appear, especially from the hair when combed, with a dry crackling sound. M. Féré relates the following case, which came under his own notice some years ago. Madame X., of a neurotic stock, amongst other troubles suffered from nervous anorexia, which had lasted since childhood. She had (at least temporarily) ovarian peræsthesia on the left side, and sensory anæsthesia on the same side. When about 15 she noticed crepitation in her hair in frosty weather, and flashes of light in the dark. At the age of 27 this electricity manifested itself with greater intensity. Madame X.'s fingers attracted light bodies, such as fragments of paper, ribbon, &c. Her hair not only gave forth sparks, but became rebellious and difficult to keep smooth. When her clothes touched her body luminous crepitation was produced, and her clothes adhered to her body. The luminous crepitation was increased by friction, by pressing the comb repeatedly through her hair. Under the influence of moral emotions, also, the electric tension and the manifestations increased. After Madame X. had been listening to music the crepitation was highly exaggerated, and a disagreeable pricking sensation was felt, especially in the legs. In 1884 Madame X. had œdema of the legs; her skin became so dry that it chapped on the least exposure to cold, even in the parts of the legs not affected by the œdema. M. Féré ordered her to wear black clothes, and to powder her skin with lycopodium, in order to moderate the electric phenomena. He also prescribed daily baths of static electricity. Since this treatment has been pursued her health has been better, although the electric phenomena have persisted. Madame X. has a son eleven years of age who for three years has suffered from nervous anorexia, hysterical phenomena, excessive sensibility of the left testicle, left hemianæsthesia, spinal pains, hyperæsthesia of the scalp, and dyæsthesia of the sole of the foot. For the last few months he has so presented electric phenomena under the same circumstances as his mother. Examined with the aid of a hygrometer, both presented extreme dryness of the skin, especially on the left side. The electrometer showed that Madame X. produced a slight deviation to the right, which was increased when the left hand was in contact with the apparatus (75 to 100 volts). After friction of the hands, both patients caused a deviation to the right—the mother 40 volts, and the son 500 volts. Under the influence of peripheral stimulation, a deviation to the right (125 volts) was caused by Madame X. when she looked through a blue glass. The deviation reached 700 volts when a bottle of ether was held near the patient. M. Féré thinks that the existence of these electric phenomena may give the key to phenomena of transfer, polarisation, electric sensibility, and the effect of certain substances at a distance.

M. Dujardin-Beaumetz's report, on behalf of the commission appointed by the Academy to investigate M. Luys's observations on the therapeutic effects of telepathic remedies on hypnotised patients effectively disposes of all the fanciful notions that have been entertained on this matter. The commission found that empty tubes had more effect on the patients than those filled with active substances, and the same drugs could be made to produce diametrically opposite effects when tested on the same patient at intervals of a few days. The report proves the utility of putting faith in any phenomena caused by the unconscious freaks of "hysterical" patients.

M. Dupré stated at the Société Médicale de Reims that oxide of zinc is by far the most effectual remedy in infantile diarrhoea. It could be prepared as follows:—R Sublimed oxide of zinc, 3.50 grammes; bicarbonate of soda, 1.50 grammes; tincture of krameria, 3 drops; plain syrup, 30 drops. A teaspoonful of this preparation is given every half hour until vomiting and diarrhoea have ceased. The first teaspoonful stops the vomiting, and the third or fourth of diarrhoea. In the few cases in which this treatment fails in entirely checking the disease, it gives great relief and prevents complications. From 1884 234 cases, all of which occurred during the months of July, August, and September, were treated by

oxide of zinc, and among these only eight deaths were registered, the death-rate being thus only 4.7 per 100.

At a recent meeting of the Académie des Sciences, an essay by M. Fouque (of Marseilles) on the development and progress of contagious pneumonia in pigs in the South of France was read. The following is a summary of its conclusions:—1. That the epidemic of contagious pneumonia which broke out in 1887, and in a few months caused the death of more than 20,000 pigs in the Bouches du Rhône department alone, was imported by Algerian pigs from the province of Oran. 2. That young pigs, from eight to nine months old, English (Yorkshire and Berkshire) as well as Russian and Marseilles mixed breed, are more exposed to the contagion of that distemper than the African and fat pork. 3. That fifty young pigs, from two to three months old, from the Haute Garonne, were removed to Gignac about two months ago, and placed in a badly disinfected pen. They have remained in good health, while more than one hundred cases of pneumonia were contracted in the same sty. 4. The cause of this natural immunity from distemper presented by the Haute Garonne pigs, which seems to resemble that attributed by M. Chauveau, some years ago, to Algerian sheep against bacterial anthrax, is being inquired into.

At a meeting of the Académie de Médecine on March 13th a letter was read from M. Queirel (of Marseilles), on the use of antipyrin in labour. He gave subcutaneous injections of twenty-five centigrammes to twenty patients. The head presented in all the cases. Fifteen out of the twenty had perfect anæsthesia, and all felt a remarkable diminution of pain. The antipyrin did not seem to interfere in any way with the normal course of the labour.

At the same meeting a communication from Dr. Doyen, of Rheims, was read on the affinity of erysipelas and puerperal fever. Dr. Doyen has always found, both in mild and severe cases of puerperal fever, a streptococcus similar to the streptococcus of Rosenbach and the streptococcus of Fehleisen, the streptococcus pyogenes, and the streptococcus aureus. The cultivations of this microbe are similar to those of the streptococcus of erysipelas, the streptococcus pyogenes, and the streptococcus aureus. M. Doyen made some inoculations, in order to determine the relationship of these streptococci. The streptococcus of puerperal fever caused erysipelas, and the streptococcus of erysipelas developed puerperal fever. A number of clinical facts also demonstrate the analogy of these affections, and prove that the streptococcus pyogenes sometimes causes puerperal fever, and that the streptococcus of puerperal fever may cause erysipelas. Dr. Doyen believes that the microbe of puerperal fever is the same as that of erysipelas.

M. Paulinis published an interesting article in the *Bulletin Médical* of January 22nd, on the relation of human diphtheria to that of domestic birds. In 1878 and 1879 Nicati, of Marseilles, observed facts tending to prove that diphtheria can be conveyed from fowls to children. Mégnin, supported by numerous cases of non-contagion and microscopic examinations, denied the identity of the two affections. Since then bacteriology has made great progress, and almost identical bacilli have been found in the diphtheritic false membranes of birds and children, but proof of the transmission of the disease from the one to the other has been wanting. In 1881 M. Menziès published an essay on diphtheria, in which he maintains that the disease is caused by the excrements of birds. He cites a case of diphtheria which came under his notice at Posilippo, near Naples. Four children in one family were attacked by diphtheria, and died. M. Menziès attributes the epidemic, which spread among the inhabitants of the neighbouring houses, to the patients having drunk the water from a well, into which the excrements of numerous fowls and pigeons had been washed by the rain. All who had drunk the water were attacked, and the brother of the four children above mentioned escaped, because he never drank the water. Dr. Paulinis relates an epidemic in the little island of Skiatos, of which the climate is very salubrious, and where, until 1884, diphtheria had never been known. In June, 1884, Dr. Paulinis was called in to a little girl who had been ill four days. She was feverish, and had sore throat and dysphagia. False membrane was noticed on the tonsils, extending towards the pharynx. The girl died on the following day. The same day Dr. Paulinis was called in to three houses in the same quarter of the town to sick children. The seven children were ill with diphtheria, and five died. As they were all ill at the same time, it could not be supposed that diphtheritic virus had been transmitted from one to the other. The epidemic spread amongst the inhabitants of the town; it lasted five

months, and, out of the 125 attacked by it, 36 died. At the beginning of the epidemic, Dr. Paulinis was informed that some turkeys, which had been brought over from Salonica, were ill in a garden belonging to their owner, to the north of the town. Two were ill when landed, and died in the garden after three days' illness. The others fell ill, and, when examined by Dr. Paulinis, presented all the symptoms of human diphtheria. The north wind, which blows periodically in the island, passed over the garden to the neighbouring houses. The temperature (20° C.) at that time of year facilitated the development of the diphtheritic virus, which was conveyed by the wind to the neighbouring quarter, where the first victim of the disease actually lived. From these facts Dr. Paulinis draws the following conclusions: 1. That turkeys are subject to a kind of diphtheria resembling that of human beings in its symptoms, evolution, and severity. 2. That its virus can be transmitted by the atmosphere to man, give him the disease, and develop an epidemic. Furthermore, when the epidemic was over, germs of diphtheria remained in the island, which from time to time became developed, like those of erysipelas, carbuncle, puerperal fever, and tetanus. Diphtheria is now endemic in the island, which before was totally free from this disease. Dr. Delthil, of Nogent, publishes, in the *Journal de Médecine*, the following remarks on the affinity of human diphtheria with that of animals: The different theories regarding the transmissibility of the affection and its principal agents are as follows. 1. Some authorities believe that the inhalation of the surrounding atmosphere is the only means of infection. 2. Others, admitting that the air is the chief agent of transmission, believe in direct contagion, either by the application of a surface denuded of its epithelial layer to a diphtheritic centre, or inversely by applying diphtheritic matter to a part deprived of its integumentary covering. 3. A few authors affirm that contagion is possible at a distance without direct contact. Dr. Delthil himself transmitted the disease from a person in Paris to a patient at Nogent. 4. For the last few years a certain number of authorities have made observations tending to prove that the diphtheria of human beings and that of animals is identical, and may be transmitted from one to the other. Trendelenburg inoculated sixty-six rabbits after tracheotomy, introducing diphtheritic false membrane into the trachea; eleven cases resulted in death from diphtheria. He afterwards performed tracheotomy on other rabbits, and introduced foreign bodies, skin, india-rubber, etc., into the trachea; no cases of diphtheria resulted. Oertel introduced into the trachea of twelve rabbits, after tracheotomy, fragments of diphtheritic exudations; five rabbits died after the development of false membranes. Zahn, Gerhardt, Labadie-Lagrave, and Francotte made experiments on rabbits, all tending to prove that human diphtheria may be transmitted to animals. On the other hand, many high authorities, such as Trousseau, Raynal, Bouley, etc., opposed this doctrine. Loeffler and Cornil found in the diphtheritic exudations of birds micrococci very similar to those found in the false membranes of human beings; the discovery did not, however, convince them of the identity of fowl and human diphtheria. It must be remembered that, in order to obtain a perfect result, the place chosen must be acid, in order to aid diphtheritic proliferation; the time between making the wound and inoculation must be long enough to allow of the necessary fermentative inflammation; and the diphtheritic matter must be applied to an extensive wound. Dr. Delthil concludes, from many cases attended by him, that the frequency of diphtheritic affections in and near Paris is owing to the presence of badly kept poultry yards.

The Congrès Français de Chirurgie discussed on Tuesday, March 13th, the treatment of gunshot wounds of the viscera. Most of the communications related to wounds of the abdomen. M. Chauvel maintained that it is necessary to intervene in all cases on account of the dangers of fecal extravasation and septic peritonitis. M. Reclus replied that intestinal perforations are not nearly so grave as M. Chauvel supposes, and that laparotomy is not so infallibly efficacious as M. Chauvel says. M. Reclus has observed, in experiments made on dogs, a great many perforations, which were cured without the least intestinal trouble. He concludes that men have been cured also in many cases where perforation was indicated by hæmatemesis and melæna. These experiments with dogs were far from convincing MM. Chauvel and Trélat. M. Chauvel pointed out that no comparison could be made between the dogs which were purged and gorged with opium before being wounded and soldiers whose stomachs and intestines were full. M. Trélat remarked that the intestine and stomach are quite different in a human being and a

dog. Besides, after peritonitis has declared itself, there is no hope of operating successfully. The surgeon must operate without loss of time in cases of hæmorrhage or fecal extravasation.

It is announced that ambulances are to be established for use in the city of Paris itself. The idea was started by M. Nachtel. Special telephones will connect the St. Louis Hospital with chemists and police stations in twenty-seven different quarters of Paris; an ambulance wagon is to be kept always ready to start from the St. Louis Hospital; on the alarm being given by the telephone it will set off with a house-surgeon to the scene of accident. Help will thus be forthcoming in ten minutes at most. It is hoped that this method of giving succour will prove so effectual that the citizens of Paris may later on be induced to provide funds for its maintenance.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

A Case of Laparotomy.—Tubercular Disease of the Ear.

At a recent meeting of the Imperial Royal Society of Physicians of Vienna, Professor von Dittel related a case in which he had recently performed laparotomy on a woman aged 24, who had suffered from acute cystitis for two years. In the autumn of last year the patient for the first time noticed blood in her urine, and a swelling developed above Poupart's ligament on the right side. Examination revealed a tumour about the size of a man's fist, and closely resembling a kidney in shape. Hæmaturia was also present at the time, but it could not be decided whether the blood came from the bladder or the kidney. The diagnosis which seemed most probable was that of movable kidney, the hæmorrhage being supposed to be due to torsion of the renal pedicle. Laparotomy was resorted to; the swelling was found to be covered by omentum, which contained many dilated veins. This was detached, and the rosy colour of the capsule of the tumour at once showed that it was not a kidney. In the meanwhile, and before the operation was completed, the patient was attacked with severe syncope, and died in spite of repeated and long-continued artificial respiration. The operation lasted about three-quarters of an hour, and not more than 10 grammes of chloroform were used. Dr. Zemann then described the result of the *post-mortem* examination. On raising the epiploön, a tumour became visible, from which a cord was prolonged towards the fundus of the stomach. This tumour was the spleen, enlarged to eight times its normal size. The bladder was small and thickened; the surrounding tissue was very tough. The right kidney was almost entirely destroyed, owing to pyelo-nephritis, and the left one was in a condition of advanced amyloid degeneration, so that the patient in any case could have lived only for a short time. Professor von Dittel went on to point out that the mistake in diagnosis was due to the fact that movable kidneys were met with very frequently, whereas movable spleens were observed only very rarely; moreover, movable spleens were, according to Rokitan'sky, who had described three such cases, always situated on the left side; in the present case, however, it was found on the right side. Professor Kundrat mentioned other cases of movable spleen with twisted pedicle, and said that in all cases of movable spleen this organ was to be found on the right side.

Dr. Habermann recently made a communication on tubercular disease of the ear to the Verein Deutscher Aerzte of Prague. He had seen eighteen patients affected with tuberculosis who suffered from hardness of hearing and otorrhœa. In nine of these cases he detected the presence of tuberculosis of the auditory apparatus; in seven, purulent otitis media; and in two catarrhal swelling of the mucous membrane of the middle ear was present. He described two of these cases in detail. In a child aged 1½ year, there was tuberculosis of the mucous membrane of the middle ear, beginning at the isthmus tubæ and reaching as far as the antrum mastoideum. There was no perforation of the membrana tympani. This case was remarkable on account of the localisation of the affection. Various parts of the mucous membrane of the middle ear were found to be affected with tuberculosis, and evidence was thus given of the spread of the disease in the middle ear by infection from contact. The possibility of infection of the ear taking place through the Eustachian tube was, by such observations, rendered more probable. By way of illustrating infection by contact in such cases Dr. Habermann showed the membrana tympani of a man, age 31, which presented a large perforation at the anterior part, and three small perforations at the posterior one; the latter were due

the fact that the membrana tympani was attached at that point to the mucous membrane of the promontory, which was affected with advanced tuberculosis. The second case which he described, particularly referred to the condition of the internal ear, as the middle ear had already been completely destroyed by the disease. The disease, in this case, had supervened in the middle ear, a year and a half before the patient's death; later on it gave rise to perforation of the wall of the labyrinth, and to extension of the disease into the internal ear. Proof of this was afforded by the fact that the morbid process in the internal ear had already, in part, undergone retrogressive metamorphosis, when the progressing carious process of the bone led to a new affection and destruction of the structures of the internal ear.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

The Emperor's Illness.—Olive Oil in the Treatment of Gall-stones.—Electrolysis in Enlarged Prostate.

It is almost impossible now to obtain trustworthy information as to the present state of health of His Majesty the Emperor. The Emperor has again become a subject of violent controversy among the different political parties. One newspaper states that there is a great difference of opinion between the German and the English physicians, and alludes to intrigues carried on by both parties. Another, again, maintains that there is perfect unanimity of opinion among the doctors, and that their personal relations are of the most millennial character. One party makes Dr. Mackenzie and Hovell responsible for the present situation; the other abuses von Bergmann. The "English" party affects a useful frame of mind; the "German" one already speaks of the Emperor in the aorist tense. The general public does not know what to believe in such a vortex of contradictory stories, all told with equal confidence. In my last letter I told you that the original cannula had been replaced by a longer one. The night before it was changed His Majesty's attendant, Beerbaum, was dismissed. He had observed that the Emperor's breathing was more frequent than usual, so he woke Mr. Hovell, who saw at once that there was no dyspnoea, but only some quickness of respiration. He therefore went back to bed. Beerbaum, however, summoned the physician in ordinary, Generalarzt Dr. Wegner, who also found no cause for anxiety. In spite of this, the Emperor was again twice asked the Emperor if he felt any difficulty in breathing. This alarmed His Majesty, who complained about the matter in the morning, and Beerbaum was dismissed. The *Deutsche Zeitung* recently stated that Mr. Hovell had irritated the Emperor's wound in attempting to replace the tube. Mr. Hovell has written to that journal flatly denying this. He asserts that there is no bleeding till Professor von Bergmann vainly tried to introduce the new cannula—an operation which had finally to be performed by his assistant, Dr. Bramann. As Dr. von Bergmann has contradicted this statement, it may be accepted as true. Immediately after the introduction of the new tube the Emperor's temperature became raised, and there was a purulent discharge from the wound. For two days it was feared that pyæmia would ensue. Professors Leyden and Senator, who were called in, agreed that the lungs were not affected. Since then no authentic news has been published. The official bulletins tell little or nothing of any real importance. The fever is believed to be due to some accumulation of pus in the neighbourhood of the trachea. One thing is unfortunately too clear, namely, that the illness is rapidly tending to a fatal issue.

Dr. Rosenberg lately presented to the Berlin Medical Society a case of gall-stones cured by large quantities of olive-oil, a method which has been recommended by some American physicians. The lady had been ill for five years. No treatment had done any good, not even the Carlsbad waters. The weight of the lady had diminished to an extraordinary degree. She had lost all appetite, and suffered from almost continual sleeplessness. She took 820 grammes of oil in five doses, and in her stools there were 629 stones, from the size of a hazel nut to that of a pin's head. It is probable, however, that there were at least 200 stones more, which have not been found. The liver, which was much enlarged, cannot now be felt. Appetite and sleep have returned, though she still feels a little pain. This proves that there are still more stones in the gall-bladder.

Dr. Leopold Casper reported to the same Society on a new method of curing hypertrophy of the prostate by electrolysis. He had used it in four cases, with good results in two.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Menthol in Surgical Practice.—Menthol in Anorexia.—Hydrofluoric Acid in Pulmonary Phthisis.—Cocaine in Sea-Sickness.—Saline Transfusion in Acute Anæmia.—"Spontaneous Resection" of the Small Bowel.—A Bit of Family Medicine.—Dental Inspection at the Aarau Cantonal School.—Winter Swimming-Baths for School Children at Zurich and Berne; Professor Adolf Tegt and School Hygiene at Berne.

At a meeting of the Medicinisch Pharmaceutischer Bezirksverein von Bern, Dr. Girard read a paper on the use of menthol in surgical practice. Good results obtained lately by some practitioners from the internal administration of the drug in pulmonary tuberculosis had induced the author to try a mixture of equal parts of menthol and iodoform, in the form of a dry powder, in fourteen cases of scraping out and resection of tuberculous bones and soft parts, the wound being either rubbed or plugged with the powder. In every instance the wound healed more rapidly and kindly, and generally the whole course of the case seemed to be more favourable than in another series of similar cases where iodoform alone was employed. As far as Dr. Girard's personal experience goes, menthol causes but trifling local irritation and pain, while it is said to be the best deodoriser in regard to iodoform.

During a discussion on Dr. Girard's paper, Dr. de Giacomi stated that he had employed a 20 per cent solution of menthol in a case of lupus of the ear with most satisfactory results. On the other hand, Dr. de Giacomi was disappointed with the internal administration of menthol in one-gramme doses as a remedy for anorexia. The latter observation was endorsed by Dr. Daetwyler, who gave the drug in daily doses varying from three to five grammes in several cases of anorexia, the remedy causing nausea instead of improving appetite.

As is known, some time ago Drs. Seiler and Garcin published a remarkable paper on the treatment of pulmonary tuberculosis by inhalation of hydrofluoric acid. According to their statements, out of 100 patients under their care who were treated by this method, as many as 35 were cured, and 41 showed a more or less considerable improvement, while 14 remained unbenefited, and 10 died. In favourable cases the authors observed a very rapid improvement both in point of appetite and sleep, and a marked diminution of fever, night-sweats, and dyspnoea, while expectoration became scanty and less viscid, the tubercle bacilli gradually disappearing. Being struck with these results, Dr. de Giacomi, of Berne (*Correspondenz-Blatt für Schweizer Aerzte*, March 1st, 1888, p. 142), proceeded without delay to test the treatment in eight advanced cases of his own. He simplified the Seiler-Garcin method in so far that a mixture of 100 grammes of fluorine hydrogen with 300 grammes of water was heated in an open leaden vessel by means of a spirit-lamp. The patients sat around the vessel and inhaled the vapours for an hour daily. Dr. de Giacomi's experience was not so favourable as that of the French observers. In six of the eight patients the result was absolutely negative; in a seventh some temporary improvement of appetite and decrease of dyspnoea were observed; in the remaining case a striking relief of all symptoms ensued after the very first sitting. The author, however, reasonably enough, hesitates to attribute such an extraordinary and sudden change to the treatment employed; the improvement might have been purely accidental. At all events, he thinks that the method deserves a further and more extensive trial. The inhalation does not cause any discomfort to the patient. The only drawback which he mentions is that window-panes gradually become opaque under the influence of hydrofluoric vapours. As the acid has a violent caustic action on the skin, Dr. de Giacomi recommends the utmost caution in manipulations with the solution. Dr. Collon employed the method in two cases of advanced tuberculosis with high fever and extreme emaciation, and did not see any good beyond some amelioration in respect of sleep.

Dr. Dufour, of Lausanne, says that, while suffering from seasickness, he successfully employed cocaine in doses of one decigramme every half hour. Drs. Rogivue and Denuéville obtained very satisfactory results even with doses five or ten times smaller.

In the *Revue Médicale de la Suisse Romande*, January, 1888, p. 40, Dr. C. Morel, of Lausanne, records a successful case of acute anæmia treated by the transfusion of a saline solution. The patient, a woman, aged 39, when in the fifth month of her eleventh

pregnancy, fell ill with violent gastritis, associated with high fever (40.5° C). The latter soon caused abortion, followed by profuse uterine hemorrhage and uncontrollable vomiting. Ergot and stimulants were returned immediately after being swallowed. The woman's state rapidly growing worse, one litre and a half of a saline solution (a 6 per cent. solution of common kitchen salt in distilled water, heated to 37° C.) was injected into the central portion of the left median cephalic vein. The apparatus consisted of a simple glass vessel, to which a piece of india-rubber tubing, with a metal cannula, was attached. The improvement was immediate. The pulse, which had been irregular and almost imperceptible before the operation, became stronger and steadier during the transfusion. Referring to Professor Demitry Ott's researches (see *London Medical Record*, February, 1886, p. 60-76), and to numerous similar successful cases published during the last four years, Dr. Morel expresses a hope that the transfusion of saline fluids will gradually supersede that of blood, which is far more dangerous and less advantageous than the former (see also the *JOURNAL*, September 25th, 1886, p. 601).

At a meeting of the Société Vaudoise de Médecine, Dr. Krafft communicated an interesting case of "spontaneous resection" of the small intestine. The patient, aged 28, was admitted on account of chronic tuberculous ostitis of the head of the tibia. Some time after his admission he began to complain of agonising abdominal pain, and violent diarrhoea supervened, which persisted in spite of bismuth, opium, codeia, etc. Nothing abnormal could be made out on careful examination of the abdomen. Only nausea, but no vomiting, was present, while the motions remained free from blood and pus. Two days after the onset of the symptoms (the seventh day after resection of the diseased knee-joint) there was found in the stools a complete piece of the intestinal tube measuring sixty centimètres in length, with all its three coats complete, but gangrenous at several points. The patient was very much exhausted after the evacuation of the slough, but his appetite remained good and the abdominal pain disappeared. The surgical wound, however, did not show any sign of healing, while about the fifth day after the passing of the slough, acute pyrexia came on, which induced Dr. Krafft, without further delay, to perform amputation of the thigh, some distance above the knee. This wound rapidly healed by first intention. At the date of the report (nine days after the discharge of the intestinal slough), the man's general state was good, the only morbid symptom being diarrhoea, with an occasional slight admixture of pus and blood.

An extraordinary instance of domestic medical practice was lately published by the *Enmenthaler Volksblatt* (March 10th, 1888). An inhabitant of Coeuve, whose little daughter was suffering from lice, attempted a radical cure by pouring petroleum over the unhappy child's head, and then lighting it. The child was in a hopeless state at the date of the paragraph quoted, and probably has died long ago from extensive burns.

According to the *Berner Zeitung* (March 14th, 1888) Professor Muehlberg has lately examined the teeth of 125 pupils of the Aarau Cantonal School (*Kantonschule*). The outcome of his investigation is by no means very comforting. His interesting table shows that only 4 pupils had a perfectly sound set of teeth. In 37, though the full number was present, many of the teeth were already more or less carious. In the remaining 84 children the set was incomplete, either from spontaneous falling out or owing to removal for disease. The total number of teeth extracted up to the date of Professor Muehlberg's inspection was 204, that of the teeth found more or less diseased was 512.

The *Bund* (March 16th, 1888) says that the Züricher Hygienischer Verein has decided to establish a permanent winter swimming bath for school children. The bath, which will be opened in the course of next autumn, will be the second of its kind in Switzerland. The first was established two years ago at Berne, by the local Society of Public Hygiene and Social Aspirations, on the initiative of the indefatigable Professor Adolf Vogt (see the *JOURNAL*, June 18th, 1887, p. 1359), who is always sure to be at the head of every movement promoting the health and comfort of the community. The Bernese children are indebted to his energetic agitation for their having obtained last winter a gratuitous skating rink at Holligen, arranged and kept up at the expense of the Commune (*Gemeinde*) and several District Aid Committees (*Leiste*). About three years ago, on the initiative of the same philanthropic professor, a *Knabenbund* (Boys' Union) was organised, chiefly for the purpose of supplying the Berne school-boys with a common playground, of a most suitable kind, and organising their games, etc., in the best way.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Glasgow University Council Association.—*Glasgow and Ayrshire Missions to the Deaf and Dumb.*—*Port Glasgow Ambulance Class.*—*The Measles Epidemic in Port Glasgow.*—*Glasgow University Extension Board.*

THE annual general meeting of the Glasgow University Council Association was held on April 19th in Glasgow. In a letter of apology for absence, Mr. J. G. Baird, M.P., said he regarded the affiliation clauses as among the most important in the Bill, and he hoped the Association would affirm the general principle of affiliation. The report contrasted the inadequate reform offered in the last Bill, which the Association resolutely opposed, with the much more thorough-going character of the new proposals. The committee of the Association believed that the Bill was in all essentials adequate to the ends of a great reform. In discussing the constitution of the University Court, the Committee pointed out that the number of members who might be thought of as independent of academic party fell short of that representing the Senate, instead of being, as it ought rather to have been, if unequal at all, in excess. It was objected, also, that the assessor nominated by the Chancellor might be in the future, as he had always been in the past, a person suggested by the Senate, and apt to be guided by its influence, and that the assessors nominated by the Crown might be in the same position, unless it was explicitly enacted that they should be chosen from among the heads of local public bodies. In spite of such serious objections, the Committee advised the Association to accept the constitution as it stands, in consideration of the whole scope of the Bill, provided no attempt was made by the Senate to alter the character of the Bill for the worse, from the Association's point of view. The provision for the Council electing an assessor every year was emphatically approved of, and the Committee extended a similar approval to the provisions dealing with the powers of the Court, Senate, etc., observing that no power proposed to be conferred upon the Commissioners involved the possibility of greater or more beneficial issues than the power to affiliate duly incorporated and endowed colleges. The report also discussed St. Mungo's College Bill, and the Committee declared that, having taken the Bill and relative statements into consideration, they were of opinion that the case for the establishment of a college in the east end of the city was completely made out. They reserved judgment on the details of the Bill, but they approved in general of its provisions, as quite in the line of the Association's aim. In reference to the whole question of the means of University extension provided for in the Bill, the Committee expressed the opinion that "no previous Universities Bill has come near the present one in the breadth of view and the grasp of facts with which it approaches the problem of reform." The Rev. Dr. Watt moved the adoption of the report as printed, with the addition of a paragraph which admitted that the provisions of the Bill seemed open to objection on the ground of their giving affiliated colleges or incorporated colleges a share in the direct administration of the original college, while the original college had apparently no share in their management. Dr. Watt expressed the opinion that the attack on the Bill would be delivered by the University authorities on the affiliation clause, and asked the Association to affirm that the removal of that clause would compel them to oppose the Bill. The motion was seconded by the Rev. J. W. King. Professor Edward Caird moved the following amendment: "That the whole section in the report relating to St. Mungo's College Bill should be deleted, and that the following words should be substituted: 'That this Association regrets the publication by the executive of a report which contains an approval of St. Mungo's College Bill, seeing that that Bill goes against the principle recognised by the Association, and seeing further that the Bill is an attempt to anticipate the decision of the Commissioners as to the conditions on which colleges should be affiliated.'" Professor Caird took occasion to object strongly to the personal references made to him in the report, and to the tendency to represent him as in any way representing the views of the Senate. He pointed out that the paragraph in reference to St. Mungo's College Bill committed the Association to a new principle, which did not fall under that adopted by the Association last year. He objected to the Bill because it tried to anticipate the general method of dealing with the question of affiliation by the Commissioners, and to force a new college into the University before the conditions of the new system—a system

which was a new thing in Scotland, and which, in the exact form proposed, was not exemplified, in any other country—had been carefully considered and impartially determined by the Commissioners. He was not opposed to the adoption of a method by which the teaching of the Royal Infirmary should be brought within the system of the University. But he contended that the methods and conditions of the affiliation of colleges should be determined before any individual case was considered. Mr. Dyer opposed the amendment. The discussion was engaged in among others by Dr. McVail, who, in the course of his remarks, referred to the recent extraordinary appointment by the University Court of an Edinburgh graduate of two years' standing as an examiner in Medicine. On a division 55 voted for the motion and 12 for the amendment. Professor Caird then resigned his membership of the Association, and withdrew from the meeting. Subsequently it was unanimously agreed to petition Parliament in favour of the Universities Bill, and the Committee was empowered to take such steps in connection with the progress of the Bill through Parliament as seemed expedient in furtherance of the objects of the Association.

By means of the Glasgow and Ayrshire Missions to the Deaf and Dumb, 104 afflicted persons belonging to Glasgow and the rest of Scotland have been attended to during the past year. Of a total number aided, 51 were children, who were maintained and educated. The report of the Glasgow organisation states that not a poor deaf and dumb person had been left unattended. Donations had been secured for 41, of whom 28 were men. The Ayrshire Mission had expended in its work nearly £600, and its total receipts had been £738.

The ambulance class, taught by Dr. Crawford, of Port Glasgow, as examined on April 18th by Dr. Wallace Anderson, of Glasgow. There were thirty-five members present, and at the close of the examination Dr. Anderson expressed his satisfaction with the proficiency displayed, and congratulated Dr. Crawford on his successful teaching.

The outbreak of measles in Port Glasgow is now on the decline. One of the public schools has been closed for four weeks, nearly 50 of the scholars having been attacked. It has now, however, been reopened.

A meeting of the Glasgow University Extension Board was held at Glasgow on April 23rd, presided over by the Lord Provost. Ratification was expressed at the favourable reception which the extension scheme had met with from the press and the public, and it was intimated that tentative steps had been entered upon at Paisley, Kilmarnock, Dumbarton, Ayr, Stirling, Ardrossan, and other places. An interim list of lectures was announced, in which, among others, the names of Mr. Patrick Geddes and Mr. Somerville appear as lecturers on Botany and Zoology; those of Drs. Mackay and Bruce Young as lecturers on Anatomy; Dr. McGregor Robertson and William Snodgrass on Physiology; Mr. G. Henderson, B.Sc., on Chemistry and Mineralogy; Mr. David Forsyth, B.Sc., on Physiography; and Mr. J. H. Fullarton, B.Sc., on Zoology and Geology.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

The Registration of Plumbers.—Birkenhead Borough Hospital.—Orange-peel on the Streets.—Salt Water for watering the Streets.

WITH reference to the question of sanitary plumbing and the registration of plumbers, it is true that, as stated in the JOURNAL of April 21st, the medical officer of health for this city brought the matter before the Health Committee. Dr. G. Walter Reeves, the medical officer of health for Toxteth, struck by the fact that Liverpool seemed to be behindhand in the subject, determined first of all to bring it under the notice of the profession, and also to make the movement known in other directions. To this end he has been working hard for several weeks past, and until now a general interest appears to have been excited. On April 12th Dr. Steeves delivered an admirable address at the Liverpool Medical Institution. He first of all gave a concise history of the movement; next alluded to the steps that had been taken in other cities; and concluded by enumerating the conditions under which plumbers are admitted to the Register of the London Plumbers Company, and mentioned the mode of working of the "district councils." Dr. Steeves then moved the following resolution: "That the members of this institution are

strongly of opinion that an organised and efficient system of registration of plumbers should be put in force in Liverpool and district." This was seconded by Dr. Hope, the assistant medical officer of health to the city. It was also warmly supported by the President, Dr. Carter, in a most able and telling speech, and by Dr. Harvey, the medical officer of health for Wavertree, and being put to the meeting, was unanimously carried. The following motion was afterwards proposed, seconded, and carried: "That copies of the resolution be sent to the chairman of the Liverpool Health Committee, and also to the chairmen of the various local boards throughout the district." At the meeting of the Architectural Society on April 16th, Dr. Vacher's paper proved an admirable pivot on which to hang a resolution. Accordingly, a resolution similar to the one passed at the medical meeting was put before this meeting also.

At the end of the last financial year the Birkenhead Borough Hospital was in debt to the extent of £200. A very successful ball was held on April 18th in the new town hall, and it is confidently expected that the surplus proceeds will be sufficient to clear off the debt.

Throwing orange-peel on the pavement is being dealt with sternly in St. Helen's. A Liverpool paper gave a full account of the action of the chief constable of that borough, suggesting that the same course should be taken here. This newspaper article has had the effect of setting a local antiquary to work. It appears that there is a very comprehensive local enactment on the subject, contained in the Liverpool Improvement Act of 1842, Section 149. It is sincerely to be hoped that the magistrates will do their duty in the matter here, where accidents occur weekly from orange-peel, etc., lying on the pavements.

The corporation have taken definite action to avail themselves of a supply of water from the river in watering the streets.

CORRESPONDENCE.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

SIR,—I cannot allow Dr. Philpot's letter in the JOURNAL of April 14th to pass unnoticed. He states that the facts which he gives "differ entirely from those related in Dr. Carpenter's letter." In this he seems to me mistaken, his facts being supplementary, but not contradictory, to the facts given by Dr. Carpenter. I have carefully read Dr. Carpenter's letter, and, if for "town clerk" he substituted "Town Council," I do not see that his statement of facts requires any modification.

I regret that any suggestion of personal feeling, as existing, or likely to arise, should have been made. The town clerk acted throughout with perfect courtesy and consideration, and with the medical officer of health I had no communication, either private or official, regarding the case in question. My difference is with the Town Council as a body, and has arisen solely because it seeks to exercise its powers under the Notification of Infectious Diseases Act in a way that seems to me to be unfair and in a manner not intended when the Act was passed. The object of the Council in taking proceedings was apparently to coerce me into compliance with its mode of working the Act. In this it failed, and so gained nothing but, as Dr. Carpenter puts it, revenge.

Both the town clerk and medical officer of health were, I believe, unpleasantly surprised when they found I would not accept the terms offered, and that they had to carry on the proceedings.

Dr. Philpot is mistaken in supposing that I relied on upsetting the proceedings on technical grounds, and I distinctly stated, after raising the question whether the death certificate was admissible as evidence (bearing, as it does, a distinct statement that it is intended solely for the use of the registrar, and a caution from the Registrar-General to all persons against using it for any other purpose whatever), that I was quite prepared to answer the summons on other grounds. My answer was as follows:

1. That the Corporation did not exercise its powers fairly and justly; the Act requiring dual notification, the Corporation ignoring those sections which relate to the infectious persons and householders, and only seeking to obtain notification by the medical attendant, thereby placing him in the position of informer.

2. That information had been given by the householder of the previous existence of scarlatina in his house, and that in this particular case he had given information within forty-eight hours of

the time when I first saw the patient, and about or quite as soon as I could myself have given definite information as to the nature of the disease.

3. That as the Corporation is satisfied with one notification when given by the medical attendant, and never in such case takes proceedings against the householder, so the Corporation ought in fairness to be satisfied with one notification when made by the householder, and not take proceedings against the medical attendant.

4. That the spirit of the Act having been so fully complied with in this case, the Corporation had really no valid reason for setting the law in action.

The householder had no less than three times informed the sanitary authority of the existence of scarlatina in his house; twice when he applied for disinfection of rooms and bedding, and once in intentional compliance with Section I of the Act. This latter notice, given at my instigation, was not sent direct to the medical officer of health, but to the office of his subordinate officials, and, therefore, is called by Dr. Philpot informal; it no doubt was so, but this was simply from oversight. No record of it had been made, and the books of the sanitary authority were so badly kept as to the entry of dates and other particulars that I could not establish from them, as I had expected to be able to do, several points, and more especially the fact that information reached the officials two days after I first saw the case, and that they disinfected the room the next day. Although I have refused to notify in the manner wished for by the Corporation, I have frequently given information personally to the medical officer of health, and in most instances the occurrence of infectious disease amongst my patients has been made known to him in one way or another. Dr. Philpot made the statement in court that in his opinion the Act was working satisfactorily, and that I was the only practitioner in the borough of Croydon who failed to notify. After the threat of proceedings was made, I asked some of the other practitioners what they did with regard to notification. Five, like myself, habitually neglect to do so, and two who generally notify admitted that in some cases they did not. Such being the result of a very limited inquiry, I cannot but think that a more extended one would show that in concentrating its attention on myself, the Corporation has been straining at a gnat and swallowing a camel.

The Corporation of Croydon has hitherto evaded the difficulty of getting its burgesses to notify infectious diseases, but, as the public has been taught its duty as to the registration of births, and, more onerous still, its duty to report the amount of annual income, it would surely not be a hopeless task to try and teach it to report the occurrence of infectious disease. When the Corporation of Croydon honestly takes this task in hand, they will have my sympathy and co-operation.—I am, etc.,

B. N. DALTON.
South Norwood, April 17th, 1888.

SIR,—I would not trouble you on this subject had not Dr. Philpot, in the JOURNAL of April 14th, endeavoured to justify the prosecution of Dr. Dalton for refusing to inform the Croydon sanitary authority of a case of scarlatina which had been attended by him.

Dr. Dalton deserves the thanks of the medical profession for his determined stand in refusing to be constituted a private detective and public informer, and he evidently is one who feels that whatever a medical man learns in the discharge of his private professional duties should be treated as private and confidential.

Dr. Philpot says that the Act of Parliament was "obtained with considerable trouble," and that they "were bound to take proceedings to enforce it." Is it not unfortunate that those who introduced the Act to Croydon did not experience even more trouble and fail in the attempt, and thus save Dr. Dalton the indignity of a prosecution? Some years ago "considerable trouble" was also taken here to force the Act upon us, but a strong protest was made by the profession, which prevented such a calamity. One medical man, who could not attend our meeting, wrote to me to say that, "rather than be compelled to be informer, I would decline to attend a case of fever;" and we fully endorsed his sentiments.

All interested in the subject would do well to read Dr. Alfred Carpenter's letter in the JOURNAL of April 7th, in which he clearly gives a few reasons why a medical man should not be compelled to give information regarding his patients. Notice particularly objections 1 and 2, page 767.

Most medical men recognise the importance of requiring the householder or person in charge to inform the sanitary authority of all cases of fever, and I never find much difficulty in getting my patients to give the necessary information when such cases occur in their homes; indeed, they sometimes authorise me to do so for them. I then feel free to act.—I am, etc.,

T. M. WILLS.
Bootle, Liverpool, April 16th, 1888.

SCARLATINA AND PUERPERAL SEPTICÆMIA.

SIR,—I very much fear that the interesting discussion on this subject at the last meeting of the Obstetrical Society may tend to diminish the wholesome dread of carrying scarlet fever to lying-in patients which has hitherto so powerfully influenced the conduct of obstetrical practitioners. That the infection of scarlatina is capable of producing a virulent form of septicæmia, generally unattended with local symptoms, I have not the smallest doubt. In April, 1863, I was called in to see a case of this kind occurring in a primipara. She was attacked about five days after delivery, and on the day following her husband was attacked with scarlet fever. He recovered very well, but she died after four days' illness. Her case was a typical one of what used to be called malignant puerperal fever. She had no rash of any kind, and no marked abdominal tenderness. We made a *post-mortem* examination, but found no uterine lesion and no sign of abdominal inflammation; but decomposition had set in most rapidly. In fact it was a case of blood-poisoning of the worst kind.

About fifteen years ago a medical practitioner (who has since left Bristol) called me in to a patient he had attended in her confinement about four days previously, but who was attacked in a similar way to the case just mentioned, except that there was some abdominal tenderness. She died on the ninth day after delivery. About three days before she died her husband was attacked with scarlatina, but ultimately recovered. On making strict inquiry of the medical practitioner who attended her, he acknowledged that at the time when the husband came to fetch him to his wife his own children were lying ill of scarlatina.

There can be no doubt that in each case the husband and wife were infected from the same source—in the first instance, I believe, from a servant; and in the second from the medical attendant himself. I have seen many similar cases to these, but not of so well-marked a character. We know that people who have once had scarlatina are generally protected against a second attack, but yet that, if they are again exposed to infection, they may get troublesome sore throats in consequence. In the same way I believe that a puerperal woman who has had scarlatina before may get a sufficient amount of the poison to induce fatal septicæmia—unaccompanied, however, with the rash or other characteristic signs of scarlatina. The poison of scarlatina is so subtle a character, and creeps in through so many channels that ordinary antiseptic treatment is of little avail against it. In fact, the longer I live and the more experience I gain, the more determined I am to keep clear of scarlatina in any shape or form.—I am, etc.,

JOSEPH GRIFFITHS SWAYNE.

74, Pembroke Road, Clifton, Bristol.

PERICHONDRITIS OF THE LARYNX.

SIR,—In Dr. Norris Wolfenden's paper on Perichondritis of the Larynx, and in respect of the first case he mentions, he tells us that on November 1st the patient became suddenly worse and that on December 19th he coughed up a piece of bone. Would it be trespassing too far on Dr. Wolfenden's goodness to ask him—1. Where the bone is supposed to have come from originally? 2. How long it was in the larynx? 3. Is it not reasonable to suppose that it (the bone) was the cause of the laryngeal trouble?—am, etc.,

GEORGE STOKER.

14, Hertford Street, Park Lane, W.

DENTAL DEPARTMENTS OF HOSPITALS.

SIR,—I was glad to see Mr. Henry Sewill's letter on the subject of my paper, in the JOURNAL of April 14th, and I quite agree with him that there is no reason that each Medical School should not eventually include a Dental School. At the present time, however, I am recommending all dental students to go to the Dental Hospital in Leicester Square, for the reason that, as things stand, they can obtain far better training there than we could offer them at Guy's. But the two dental hospitals in London, as Mr. Sewill points out, will soon be unable to accept more students, and it will then become necessary to found another special hospital, or undertake dental education at the medical schools. This desirable transfer

ould be made easy by the immediate development of the existing dental departments of our hospitals. I could mention numerous metropolitan general hospitals which applied for and received from the College of Surgeons recognition of their dental departments as schools where students might obtain the two years' dental practice required from candidates for the L.D.S. diploma. Dental surgeons connected with these hospitals should feel and to do their best to approximate the calibre of their teaching and practice to the standard of the special hospitals. By diminishing the impression that there is anything in dentistry that cannot be done and shown in a general hospital, we shall remove the chief impediment to the restoration of the specialty to its proper educational sphere.—I am, etc.,

F. NEWLAND PEDLEY, F.R.C.S. and L.D.S.
Devonshire Place, Portland Place, W.

PERINEAL CYSTOSCOPY; OR, THE CONJUNCTION OF THE NEW ELECTRIC CYSTOSCOPE WITH THE BOUTONNIÈRE OPERATION.

SIR,—The JOURNAL of April 7th contains a description by Mr. Walter Whitehead of the first departure from the size and the projected use of the original incandescent lamp cystoscope (JOURNAL, February 4th). This consists in employing a No. 40 French sized instrument for the electric illumination of the urinary bladder through a perineal incision, instead of a No. 22 gauge by the urethral route.

Now, although Mr. Whitehead's innovation traverses the very *raison d'être* of the electric cystoscope, the small size and adaptability of which causes it to rank immediately before, and partially to supersede, digital exploration of the bladder in the diagnosis of obscure vesical disease, yet it is none the less valuable. Even from a very limited experience of this large-sized perineal cystoscope, I may safely predict its utility in three directions.

In that class of case in which digital exploration fails because the finger cannot reach the bladder by reason of certain mechanical obstacles (*vide* Whitehead and Pollard, *Lancet*, 1883, October 6th, 1883). As an example, a case under Dittel of sacculated stone with enlarged prostate may be cited (Schustter *Wien. Med. Woch.*, 1886, No. 13). The finger could not reach the bladder through the perineal route, and the Nitze-Leiter cystoscope revealed the calculus in a diverticulum.

In cases of subvilloid papillomatous growth in the bladder that is, a carpeting of the mucous membrane with stunted villi like the pile of velvet), the exploring finger sometimes does not possess sufficient tactile delicacy to detect the disease which the perineal cystoscope would immediately reveal. This case is well illustrated by a patient who came under the care of me, of New York, after having had cystotomy twice previously performed without the discovery of an existent subvilloid condition (*Journal of Genito-Urinary Diseases*, July, 1887, p. 247).

To regulate the complete removal of vesical growths by the perineal route, just as a dentist would control the burring of a vicious tooth by means of a mirror preparatory to stopping it.—I am, etc.,

E. HURRY FENWICK.
Old Burlington Street.

NAVAL AND MILITARY MEDICAL SERVICES.

THE ESTIMATES COMMITTEE.

Mr. Knox, the able and impartial Accountant-General, underwent examination before the Estimates Committee a few days ago. On the 4th Vote 4, "Medical Establishments." In reply to Mr. Brodrick he said that while it was a "moot point" whether it was necessary to give medical officers £1 a day retirement after twenty years' service, "it was a bargain with the medical profession in order to get competent men to serve in the army."

This is a plain fact well known to all the War Office permanent officials; and as a bargain it has been readily forthcoming. It has been honourably adhered to. To another question by Mr. Fowler he prudently refrained from committing himself to the suggestion that "the whole (medical) expenditure is on too high a scale, and could be reduced without impairing the efficiency;" he simply said, that while the number of officers employed does appear large, "they have multifarious duties to perform, and abroad it is necessary to be prepared for emergencies." Mr. Knox here clearly recognises another plain fact, that medical attendance on the sick

is but a part of a multitude of military duties and responsibilities which devolve upon the army medical officer.

Mr. Knox so far was on safe ground, but when closely pressed by Mr. Fowler on the question, "As permanent financial head of the department (Accountant-General), in the public interest do you think this branch (medical) of the service could be managed more economically?" he replied, "I think the number of medical officers certainly might be reduced." This was probably the answer such a stern economist as Mr. Fowler wanted to extract, but we fear it is an admission Mr. Knox will have some difficulty in demonstrating. Mere reduction of numbers is a very rough and ready method of practising economy in a public department, but it too often leads to lavish expenditure afterwards. How does Mr. Knox propose to meet "emergencies abroad" and carry on the "multifarious duties" everywhere with a diminished Medical Staff? We are presuming that up to this hour the responsible advisers of the War Office have not needlessly kept up a redundant number of medical officers. It would be possible no doubt by making medical officers do double work, and by increasing their spells of foreign service, to diminish their numbers; but that would not meet such "emergencies" as the sudden mobilisation of an army corps, or of even a division or two to carry on some of our small wars in unhealthy countries.

We fear that Mr. Knox, able as he is, is not in a position to be oracular on such a purely military question as the organisation of an army corps, or the medical necessities of our world-spread army; these are hardly questions for a civilian to determine.

We notice that Mr. Fowler embalms in his question that now venerable phrase of the Manchester school of economists, "the public interest," as against an army, or navy, or civil service interest. As if there could in these days be any such divided interests in the nation! It is vital to the "public interest" that the public services should be maintained in efficiency; there can be no antagonism; mere blind economy is often directly against the "public interest."

CLASS BLACKBALLING.

SIR,—The following notice has been put up at the Junior United Service Club, Charles Street, St. James's.

"Notice is hereby given that an extraordinary general meeting of the Club will be held on Monday, 7th May, 1888, at 2.30 P.M., to consider the following motion of the Committee: 'That the undermentioned candidates, who were rejected at the ballot on 7th instant, being in every way eligible, and their rejection constituting class blackballing, they be elected members of the club.'" (Here follow the names of two army medical officers, one officer of Militia, and one officer of the Commissariat and Transport Staff.)

From correspondence in your columns your readers will remember that certain officers, particularly army medical officers, have been lately blackballed at this Club; and the Club Committee have very properly now taken up the question, which is prejudicial to the interests, and contrary, it is believed, to the wishes, of the majority of the members; and when it is remembered that one black ball in ten excludes, you will easily understand how a few narrow-minded men can operate against a particular class of officers. Through your columns I wish to ask such of your readers as are members of the Club to be present, if possible, on May 7th, and endeavour to break down the influence of a "clique."—I am, etc.,

A CORRESPONDENT.

THE ARMY MEDICAL RESERVE.

RESERVE writes: I have read the last Warrant, and the Secretary of State's instructions thereon, also your editorial comments, etc., in the JOURNAL of March 17th. Precisely as it appears to me you have clearly and consistently and justly upheld the cause of the officers of the Medical Staff in the grave questions at issue between them and the War Office; so now, by the caution you inculcate upon medical officers of the reserve forces as to accepting the terms of the new Warrant, it is apparent that your views on this, the last, move of the authorities are sound and worthy of universal adoption by all whom it may concern.

At all army stations it is the custom to prepare a list of all medical officers in the district. This list is arranged in order of precedence, and whenever help has been needed it has been readily forthcoming. The help to which I allude is that described under Article (2) of the Warrant, and further detailed under Articles (5) and (6) of the "Instructions." Such help I can personally attest is given at great individual disadvantage to the civilian practitioner, and is not of a remunerative character. If any practitioner doubts this, let him try for himself when occasion offers, and he will soon be convinced.

Yet this is the only bait held out as an inducement to make a display of cheap patriotism on our part. I venture to assert that if we yield to the temptation we shall incur the charge of preferring our own superficial and unreal advantage to the interests of our medical brethren on the regular Medical Staff.

Pressing emergency at the present time there is none. "Grave national emergency" is a phrase that requires definition. We are all animated, by patriotic sentiments, else why should we give our time and trouble as we do for nothing? In the hour of danger and trial we are all ready to do our best for the country, but whilst the atmosphere is serene let us not forget the obligations of professional brotherhood. If only we can act unanimously in declining to help Mr. Stanhope out of a scrape, we need fear no reproaches from any quarter save from the unseem but not unfelt advisers of that right hon. gentleman, who seem to pursue the unfortunate officers of Her Majesty's Medical Staff with unremitting spite and malignity.

THE QUEEN has been pleased to give and grant unto Surgeon William Henry Phillips Lewis, Army Medical Staff, Her Majesty's royal licence and authority to accept and wear the insignia of the Order of the Osmanieh of the Fourth Class, conferred upon him by His Highness the Khedive of Egypt, authorised by His Imperial Majesty the Sultan.

VOLUNTEER AMBULANCE SCHOOL OF INSTRUCTION.

A COURSE of six lectures will be delivered in the headquarters of the London Scottish Rifle Volunteers, commencing Monday, April 23rd, at 7.30, by Leslie Ogilvie, M.B., and Walter Pearce, M.D., Acting Surgeon Artists Rifle Volunteers, of which the following is the syllabus: 1. The Air we Breathe: Breathing Space and Ventilation. 2. The Water we Drink: Bathing and Personal Cleanliness. 3. The Food of the Soldier: Cooking: the True Value of Alcohol. 4. The Clothing and Equipment of the Soldier: Climate. 5. Exercise. 6. Training. Diseases liable to occur in field service will be described, with their probable causes and methods of prevention.

THE RANK OF MEDICAL OFFICERS.

"JUSTICE" suggests that the pamphlet issued from the office of this JOURNAL on the rank question should be more freely circulated by medical officers to those friends who are working to secure the just recognition of the status of the medical profession in the army. Those good friends should have their hands in every way strengthened.

A CORRESPONDENT sends us a letter cut from the *Irish Times* disclosing the following: After a recent Castle levée the medical officers who attended were grouped together in the official lists simply as "Surgeons" at the tail end of everything; not only was their army rank and precedence absolutely ignored, but even their departmental rating among themselves was treated with contemptuous indifference, as the Principal Medical Officer figured well down the list below the latest joined surgeon from Netley. This is the last outcome of the persistent endeavours to civilise the department. Ireland used to furnish a large proportion of medical recruits to the services; we wonder what the proportion will be in the future?

PENSIONS TO ARMY MEDICAL OFFICERS.

AN INTERESTED ONE writes: Should the intention of the Government of not allowing medical officers to retire on a pension after twenty years' service be carried out, it will be most unfair and a breach of agreement to the great number who came into the service under the Royal Warrant of November, 1879, and who entered solely for the privilege of being able to retire after twenty years' service. I would recommend that a vigorous protest be at once set on foot.

THE NAVY.

THE following appointments have been made at the Admiralty: R. B. BRAY, Surgeon, to the *Duke of Wellington*; J. L. AHERNE, Surgeon, to the *Fernon*; W. M. CRAIG, Surgeon, to the *Invincible*; G. A. DRAPPER and G. H. FOOT, M.D., Surgeons, to the *Sultan*; J. J. McDONNELL, Surgeon, to the *Agincourt*; R. B. RIDDULPH, Surgeon, to the *Téméraire*; C. S. WOODWRIGHT, Surgeon, to the *Boscaven*.

Surgeon W. O. SPILLER, who entered the service August 20th, 1856, has been placed on the retired list of his rank with a gratuity.

THE MEDICAL STAFF.

SURGEONS-MAJOR G. E. DONSON, M.B., F.R.S.; E. V. McSWINEY, M.D.; A. H. L'ESTRANGE, P. T. FRAZER, and F. A. L'ESTRANGE have been granted retired pay. The commissions of all these gentlemen were contemporaneous, namely: Assistant-Surgeon, March 31st, 1868; Surgeon, March 1st, 1873; and Surgeon-Major, March 31st, 1880. Surgeon-Major Donson served in India and in the Zulu campaign of 1879 (medal). He is well known as a distinguished zoologist and comparative anatomist, and graduated B.A.T.C.D. 1869 (1st gold medal in Experimental and Natural Science at the Degree Examination and 1st Senior Moderator); M.B. and Ch.M. 1867; and M.A. 1875. He is a Fellow of the Royal, Linnæan, and Zoological Societies, a member of the Senate of the University of Dublin, and author of numerous contributions to various scientific journals, and of separate works, among which may be noted *Essay on the Diagnosis and Pathology of the Injuries and Diseases of the Shoulder-joint* (awarded gold medal of Pathological Society of Dublin); *Medical Hints to Travellers* (published by the Royal Geographical Society); *Catalogue of Chiroptera in the British Museum; Monograph of the Insectivora, Systematic and Anatomical*, 4to, 1832-33; "Insectivora," "Chiroptera," "Rodentia," in article *Mammalia*, *Encyc. Britan.*, 1883; and articles "Mole," "Shrew," and "Vampire," in the same publication. Surgeon-Major A. H. L'Estrange was engaged in the operations in the Malay Peninsula in 1875-76 (medal with clasp). Surgeon-Major Frazer was in the Afghan war in 1879-80, first in medical charge of Royal Artillery at Lund Kotal during the occupation of the Khyber Pass, and afterwards with the 13th Hussars at Candahar and with the Southern Afghanistan Field Force until the evacuation of the country in 1881 (medal). Surgeon-Major P. A. L'Estrange had medical charge of the 1st West India Regiment during the Ashantee war in 1873-74, and was at the battle of Amoaful and the capture of Coomassie, and was afterwards Transport Medical Officer for the embarkation of the sick and wounded (medal with clasp); he also served with the Nile Ex-

pedition in 1884-85, (medal with clasp and Egyptian bronze star). Surgeon-Major McSwiney has no war record.

Surgeon-Major H. H. PITCHING has been recorded for service with the Egyptian army.

Surgeon J. DONALDSON, who is serving in the Madras command, is directed to report himself to the Principal Medical Officer, Upper Burma, Mandalay for orders.

Surgeon-Major W. OREYK, serving in Bengal, has leave of absence on private affairs pending retirement from the service.

Surgeon-Major R. M. CHATEL, serving in the Bombay command, having returned from field service in Burma, is posted to general duty in the Presidency district.

ARMY MEDICAL RESERVE.

THE undermentioned officers are appointed Surgeons-Major (ranking as 1st Lieutenant-Colonels) in the Army Medical Reserve of officers: Surgeon-Major C. L. CRAWFORD, M.D., 3rd Battalion North Staffordshire Regiment (late the 2nd King's Own Stafford Militia); Surgeon-Major C. M. MACQUIBBAN, M.D., 3rd Battalion Gordon Highlanders (late the Aberdeen Militia); Surgeon and Honorary Surgeon-Major MATTHEW BAINES, M.D., 1st Middlesex Engineer Volunteers.

The following are appointed Surgeons (ranking as Captains): Surgeon F. J. MANBY, 3rd Volunteer Battalion South Staffordshire Regiment (late the 4th Stafford Volunteers); Surgeon R. J. COLLE, M.D., 3rd Volunteer Battalion Durham Light Infantry (late the 3rd Durham); Surgeon C. S. YOUNG, 3rd Volunteer Battalion Black Watch (late the 3rd Forfar); Surgeon F. H. APPLEBY, 4th Volunteer Battalion Derbyshire Regiment (late the 2nd Notts); and Acting-Surgeon C. A. MACMURDO, 3rd Volunteer Battalion South Staffordshire Regiment (late the 4th Stafford).

THE INDIAN MEDICAL SERVICE.

SURGEON W. L. PRICE, M.B., Bengal Establishment, is appointed to the medical charge of the 23rd Pioneers, vice Surgeon H. Hamilton, who has been transferred to the 5th Bengal Cavalry. Surgeon G. F. W. BRADY, Bengal Establishment, takes the officiating medical charge of the regiment, pending the return of Surgeon Price from Upper Burma.

Surgeon W. VOST, Bengal Establishment, is appointed to the medical charge of the 25th Punjab Infantry, vice Surgeon-Major G. H. Beevor, ordered on leave of absence.

Surgeon D. PRIN, Bengal Establishment, Curator of the Herbarium, Cuttack Botanic Gardens, is appointed to act as Superintendent of the Botanic Gardens.

Surgeon D. BASU, Bengal Establishment, Civil Surgeon of Furruckpore, directed to act as Civil Surgeon at Mymensingh.

Surgeon H. A. F. NAILER, M.B., District Surgeon at Chingleport, has leave of absence for one year on medical certificate.

Surgeon H. P. JERVIS, Bombay Establishment, in medical charge of the Native Infantry, is granted leave out of India on private affairs for one year.

Surgeon M. A. KER, Bengal Establishment, is appointed to the officiating medical charge of the 31st Pioneers, vice Surgeon-Major C. W. S. DEAK appointed officiating Medical Storekeeper at Meer Meer.

Surgeon G. JAMESON, Bengal Establishment, is appointed Acting Resident Surgeon at the Eden Hospital, Calcutta.

The undermentioned probationers for the Indian Medical Service, having completed a course of instruction at the Army Medical School, and being reported qualified, have been appointed Surgeons on the Madras Establishment: W. M. INGRAM, F. J. DEWES, J. O. PINTO, P. C. H. STRICKLAND, and T. STEWART.

Surgeon-Major T. C. H. SPENCER, Madras Establishment, is appointed to the officiating medical charge of the 4th Light Cavalry, vice Surgeon-Major S. Dobie.

THE VOLUNTEERS.

ACTING-SURGEON C. B. RENDLE, of the 1st Volunteer Battalion Suffolk Regiment (late the 1st Suffolk), has resigned his commission, which bore date October 25th, 1876.

Mr. T. G. HALL is appointed Acting-Surgeon to the 1st Volunteer Battalion West Riding Regiment (late the 4th West Riding).

Mr. D'ARCY POWER, M.B., is appointed to the London Division of the Volunteer Medical Staff Corps, and Mr. DR BURGH BIRCH, M.D., Surgeon to the London Division.

MEDICO-LEGAL AND MEDICO-ETHICAL.

A QUESTION OF CHARGING.

VIATOR writes: I have been attending a gentleman for nearly two months, suffering from a "Pott's fracture" of the leg. The gentleman in question (qualified L.S.A.) about thirty years ago, but never practised at all, and at present speculates in stocks. His being a man of some means was I expect the reason for his not entering into the work of his profession. Would it be right for me to send in my bill in the ordinary course, just as I would to any ordinary patient?

"* * Under the exceptional circumstances related by "Viator," there can we think, be a doubt that he will be fully justified in charging "L.S.A." as an ordinary patient (the general rule of the profession to the contrary notwithstanding), inasmuch as, although he qualified some thirty years ago as an apothecary, he has never practised as such, and in our opinion therefore is not entitled to the gratuitous services of the profession.

ETIQUETTE OF SUBSTITUTES.

A. is attending a labour close to B.'s house, and he leaves it to go to a distant party at a distance. B. is suddenly sent for, as "the child is born." He completes the case (placenta, bandage, etc.), and departs, leaving his

illments to A. The next day A. calls on B., who is out, and leaves a polite message of thanks. So far, good; but is B. entitled to something more, namely, half the fee; and, if so, what does he do to get it? Does he write to remind A.; or does he ask it of the patient?

* * * The following rule, extracted from the *Code of Medical Ethics*, page 71, applicable to the case of A. and B.:

"When a practitioner is called in or otherwise requested to attend at an accouchement for another, and completes the delivery, or is detained for a considerable time, he is entitled by custom (except in the case of illness, etc., provided for by Rule 3) to one-half of the fee; but, on the completion of the delivery, or on the arrival of the pre-engaged accoucheur, he should resign the further management of the case. In a case, however, which gives rise to unusual fatigue, anxiety, and responsibility, it is right that the accoucheur in attendance should receive the entire fee. Note.—In either event, when the officiating accoucheur is a stranger, or a non-acquaintance of the family doctor, the full fee should be tendered to him."

COSTS OF PARTNERSHIP DEEDS.

WOMEN would be glad to know, in a question of partnership where money has been paid over, which of the partners should pay for the stamps on the deed.

* * * If the partnership deed is prepared in duplicate, the better course is for the parties to send them to Somerset House and have one stamped with the full duty (*ad valorem*), and the other as a duplicate copy. By this means the parties have to pay half the duty otherwise paid (that is, if they are stamped separately, full duty is charged on each). The costs would then, of course, be divided equally between the parties.

CONTRACTS BY TELEGRAM.

DOM TENENS received a telegram at 8.30 P.M. to go at once and take charge of a practice on account of sudden illness of incumbent. He wired that he was coming. On arrival by train he was met by a person who informed him that another locum tenens, who had been sent by an office, arrived before him. It was too late to return by train, so he stayed at an hotel for the night, and charged for hotel and travelling expenses and one week's salary, 33s. Can he recover it?

* * * A contract may be made by telegram. Whether it was so made in the present case must depend on the wording of the telegram. If it contained a definite offer of an engagement, the intending locum tenens would be entitled to recover damages for the breach of contract and the expenses which he incurred in consequence.

FEE FOR INSURANCE CERTIFICATE OF CAUSE OF DEATH.

THE fee is no legally recognised scale of fees in such cases. The fee recoverable would therefore be what is reasonable. The issue of an action to recover the excess beyond the 10s. 6d. paid would be very doubtful, and clear evidence that a guinea is the fee usually charged would be necessary in order to win. In such cases a practitioner is under no obligation to give a certificate, and the best course is to decline to part with it until the proper fee is paid.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, April 23rd.

The Royal College of Surgeons.—In reply to Lord SUDELEY, scout CRANBROOK said that he did not think that the petition of the Royal College of Surgeons for a supplementary charter, though it raised points of some importance, could be properly referred to the Commission which was about to be appointed to consider the question of a new university.

HOUSE OF COMMONS.—Thursday, April 19th.

Medical Officers of Health and the new Local Government Bill. Mr. E. STANHOPE, in the course of the discussion on the Local Government Bill, referred to Sir Lyon Playfair's speech, in which he dealt with the subject of public health. The right hon. gentleman, he said, was perhaps the greatest authority in that House on such a question as that, and it was with much diffidence that he ventured to criticise some of his observations. By the 14th section of the Bill the powers of existing sanitary authorities were transferred to the District Councils, while certain powers of the Local Government Board were transferred to the County Councils. The right hon. gentleman complained that the Local Government Board would still retain the power of prescribing the duties of the medical officers of health, although the County Councils would have the power to make regulations with regard to their appointments and with regard to certain of their functions. The object of certain powers over the medical officers of health being retained by the Local Government Board was to secure uniformity of action throughout the country by means of general orders and instructions, which could not be secured if the whole control were handed over to the different County Councils. The right hon. gentleman had also complained that the medical officers of health were to make their reports to the Local Government Board instead of to the County Councils, but there

was no reason why copies of those reports relating to their districts should not be furnished to the County Councils. If the Bill required amending upon this point, no objection would be raised on the part of the Government when the measure reached the committee stage. The right hon. gentleman had proposed a scheme dealing with large sanitary areas under which the number of officers of health would be reduced from 1,200 to 180, each of whom would receive £600 a year. This, however, would leave 1,000 existing medical officers unprovided for, and he was afraid that the result would be to start the County Councils with an enormous expenditure, while many medical officers who had learnt their duties, and had discharged them with great efficiency and industry, would be deprived of their posts. He believed that a medical officer appointed by a Board would have, in many cases, more influence with them than any person imposed upon them from headquarters.

The Spread of Infectious Diseases.—In reply to Mr. BRUNNER, Mr. RITCHIE said his attention had been called to the report of the Medical Officer of Health to the Northwich Rural Sanitary Authority, and he might state that the Government hoped to be able to introduce a Bill to deal with the compulsory notification of infectious disease.

Friday, April 20th.

Cremation.—Dr. CAMERON asked the Secretary of State for the Home Department whether he had yet considered the application of Mrs. Eichbaum for a permit to remove, for the purpose of cremation, the remains of her daughter from the churchyard in which they were recently interred, and whether he proposed to treat the application in any way differently from one for permission to exhume a body for the purpose of reinterment.—Mr. MATTHEWS replied that the application of Mrs. Eichbaum had been under his consideration. He was advised that cremation was not necessarily illegal, and he should not therefore take upon himself to refuse leave to exhume a body merely because the relations intended to cremate instead of reinterring it. In Mrs. Eichbaum's case he had referred the matter back to the inspector, because so long a time had elapsed since her daughter's death that he thought it required consideration whether the body could properly be exhumed for any purpose, or whether special conditions would have to be prescribed.

Monday, April 23rd.

Telegraph Clerks and Infectious Diseases.—Mr. CAREW asked the POSTMASTER-GENERAL whether clerks employed at the Central Telegraph Office were compelled to absent themselves from duty when there was an infectious disease in their homes; whether they were allowed full pay during their enforced absence, whether, if the clerk suffered from an infectious disease himself, one-third of his pay was deducted, and whether he would grant full pay in both cases.—Sir H. MAXWELL, on behalf of Mr. RAIKES, said that the hon. member had stated the practice correctly. Telegraphists at whose homes there were infectious diseases were required to absent themselves; and this absence being not for their own sake, but for the sake of others, it appeared only fair that their pay should continue. But when telegraphists were themselves ill, they became subject to the deduction common to all officers of similar rank.

Prison Surgeons and Chaplains.—Dr. CLARK asked whether it was the case that prison surgeons in the principal prisons in England were appointed at a salary of £400 per annum, increasing to £500 per annum, while the prison surgeons in the principal prisons in Scotland were appointed at £200 per annum, increasing to £300 per annum; whether the prison surgeons in the principal Irish prisons began at £350 per annum, and increased to £400 per annum; whether the prisoners in the principal Scotch prisons were as numerous as in the English and Irish ones; whether the assistant surgeons in England began at £250 per annum, increasing to £300 per annum; whether the prison chaplains in England began at £350 per annum, and increased to £450, while the prison chaplains in Scotland began at £200 and increased to £300; whether the assistant chaplains in England began at £250, increasing to £300; why Scotland was treated in this way; and whether the Treasury intended to level up the Scottish officers or to reduce the English and Irish ones.—Mr. JACKSON said it would not be possible within the limits of an answer to follow the hon. member into elaborate comparisons of salaries in the three kingdoms, though he must not be understood to admit the accuracy of his statements. His whole argument rested on the supposition that the prisoners in the larger Scotch prisons were as numerous as those in England, and that was not a fact. Several first-class prisons in

England contained over 1,000 prisoners, whereas the largest Scotch prison contained only 735 prisoners, and the next two contained 550 and 450 respectively. It must be borne in mind that several of the largest English and Irish prisons, unlike those in Scotland, contained convicts.

Tuesday, April 24th.

Medical Officers in India.—Sir WALTER FOSTER asked the Under Secretary of State for India, whether it was the case that an executive officer of the Medical Staff in India, who officiated for less than one month as deputy surgeon-general, in the absence of the deputy surgeon-general on sick leave or furlough, received no allowances for the period, although he performed the duties in addition to his other duties; whether, in such instance, the "half-staff" of the appointment reverted to the State? Whether the acting officer would be held pecuniarily liable in the event of loss of stores, or other mistakes; whether officers officiating on the Military (Combatant) Staff, in a similar way, would draw the "half-staff" for broken periods; and why the difference was made in the case of the medical officers.—Sir J. GORST said he had been informed that if an officer were regularly appointed to officiate as deputy surgeon-general he would receive pay as such; but if he were merely appointed to take charge of current routine, for instance, the clerical duty of the office, and not its really administrative duties, he would not receive any extra allowance for temporary work. The answer to the second question was "yes." The answer to the third question was that the Government of India reported that he would be liable, but he imagined only to the extent to which he was personally responsible. As to the fourth and fifth questions, he had been informed that there was no parallel between the two cases, the reason given being the one was an administrative department, and the other an executive one.

Contagious Diseases Acts in India.—In reply to Mr. J. STUART, Sir J. GORST said that he had already stated that the Secretary of State would not apply to the Government of India for any reports and papers until the full report promised by the Government of India on the whole question, of which lock hospitals were a part, had been received, considered, and a decision founded thereon.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

PUBLIC HEALTH ADMINISTRATION IN BRADFORD.

ONE of the greatest obstacles in the way of the sanitary improvement of districts is the tendency of combinations to fall to pieces and to lose the advantage of the continuous services of a competent medical officer of health. The large towns are free from this difficulty, but some of them, nevertheless, have adopted the method of appointing their sanitary adviser for a short term of years. This custom is unfortunate, for it is very difficult for any officer who faithfully performs his duties not to offend one or more members of his authority, and a town suffers considerable loss if such a circumstance should lead the officer not to seek re-election. We must quote Bradford as a town which has appointed its health officers for five years, and which has acquired a high reputation for its administration during this period. Happily, there appears no likelihood that it will lose the services of so highly qualified a man as Dr. Ilime, for there seems to be a general wish that he should remain in office for a further period. Memorials, we learn from the local journal, are being largely signed by the medical men engaged in practice in the town and by merchants, and artisans in favour of Dr. Ilime's re-election at the conclusion of his five years of office, a course which the profession, as a whole, will endorse. Bradford is credited with being further sighted than some other towns, and we think it would best maintain its credit in this respect if the Town Council were to put an end to temporary service. If these gentlemen understand the value of public health work they will elect their present medical officer for life, and terminate once for all the uncertainty that must always remain where the appointment is for a fixed period. Any other course will weaken his influence for good, and encourage a less satisfactory service than a town like Bradford has a right to expect.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated popu-

lation of 9,398,273 persons, 5,862 births and 3,585 deaths were registered during the week ending Saturday, April 21st. The annual rate of mortality, which had been 19.9 and 21.9 per 1,000 in the two preceding weeks, declined again during the week under notice to 19.9. The rates in the several towns ranged from 15.7 in Brighton and in Derby, and 16.2 in Sunderland to 24.7 in Halifax, 25.4 in Blackburn, 29.1 in Oldham, and 29.6 in Plymouth. In the twenty-seven provincial towns the mean death-rate was 20.7 per 1,000, and exceeded by 1.8 the rate recorded in London, which was 18.9 per 1,000. The 3,585 deaths registered during the week under notice in the twenty-eight towns included 151 which were referred to whooping-cough, 48 to scarlet fever, 44 to diarrhoea, 40 to "fever" (principally enteric), 37 to measles, 25 to diphtheria, and 19 to small-pox; in all, 364 deaths resulted from these principal zymotic diseases, against 371 and 358 in the two preceding weeks. These 364 deaths were equal to an annual rate of 2.0 per 1,000; in London the zymotic death-rate was 2.2, while it averaged 1.9 per 1,000 in the twenty-seven provincial towns, and ranged from 0.0 in Halifax and in Cardiff, and 0.5 in Derby and in Birkenhead to 3.2 in Salford and in Sheffield, and 3.7 in Bolton. Measles caused the highest proportional fatality in Bristol and Nottingham; scarlet fever in Oldham and Blackburn; whooping-cough in Salford, Bolton, and Blackburn; and "fever" in Preston. Of the 25 deaths from diphtheria recorded during the week under notice in the twenty-eight towns, 10 occurred in London and 3 in Brighton. The 18 fatal cases of small-pox included 12 in Sheffield, 3 in Hull, 2 in Oldham, and 1 in Manchester. The number of small-pox patients in the Metropolitan Asylums Hospitals on Saturday, April 21st, was 21, of whom 6 had been admitted during the week. These hospitals also contained 961 scarlet fever patients on the same date, which showed a further decline from the numbers in recent weeks; 91 cases were admitted during the week, against 62 and 92 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 4.4 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, April 21st, 812 births and 535 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had declined from 23.7 to 20.8 per 1,000 in the three preceding weeks, rose again to 21.2 during the week under notice, and exceeded by 1.3 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Greenock and Aberdeen, and the highest in Perth and Paisley. The 535 deaths in these towns during the week under notice included 52 which were referred to the principal zymotic diseases, equal to an annual rate of 2.5 per 1,000, which exceeded by 0.5 the mean rate during the same period in the twenty-eight large English towns. The highest zymotic rates were recorded in Glasgow and Perth. The largest proportional fatality of whooping-cough occurred in Glasgow and Leith; and 8 deaths from diphtheria were recorded in Glasgow. The mortality from diseases of the respiratory organs in these Scotch towns was equal to 5.0 per 1,000, against 4.4 in London.

HEALTH OF DUBLIN.—The 168 deaths registered in Dublin during the week ending Saturday, April 21st, were equal to an annual rate of 24.8 per 1,000 (against 27.8 and 27.6 in the two preceding weeks), the rate for the same period being only 18.9 in London, and 20.1 in Edinburgh. The 168 deaths included 12 which resulted from the principal zymotic diseases (equal to an annual rate of 1.8 per 1,000), of which 5 resulted from whooping-cough, 3 from scarlet fever, 2 from "fever," 1 from diphtheria, and 3 from diarrhoea.

OBITUARY.

FRANCIS S. B. F. DE CHAUMONT, M.D., F.R.S.,
Professor of Military Hygiene in the Army Medical School,
Netley.

IN our last issue we announced the lamented death of this distinguished man, cut off at the comparatively early age of 51. Dr. de Chaumont was, as his name indicates, of French extraction on his father's side; his mother was a Scottish lady. He was

in Edinburgh, and educated in the High School and University of that city. After passing through the arts and medical sciences with distinction, he obtained his degree with honours, and entered the medical service of the army, serving in the Rifle Brigade in the Crimea. On the removal of the Army Medical School from Chatham to Netley, Dr. de Chaumont was appointed Assistant Professor of Military Hygiene, under the late Dr. Parkes. In this position he not only assisted his principal in the laborious duty of teaching in the laboratory of the School, but did an immense amount of extra work for Government in the way of analysis, reporting on hospitals and barracks, contributing to the Departmental Blue Book, and papers to scientific journals on health questions. He was also appointed to give instruction to young officers of the Royal Engineers at the School of Military Engineering at Chatham on military hygiene, so far as concerned health arrangements and construction of military buildings, such like matters—instruction which was highly valued, not only by the young officers, but by their seniors also.

On the lamented death of Professor Parkes, Dr. de Chaumont, with the hearty concurrence of the other professors and the War Office, appointed his successor. It is with regret we have to add that the late Professor felt aggrieved with the terms of his appointment. He felt that the Government had driven a hard bargain with him, ignoring his previous military service, exacting much and giving little. Into this unpleasant subject it is vain to enter. Suffice it to say that what Dr. de Chaumont considered unjust treatment was keenly felt by him to the last, and must be regarded as one more example of the little appreciation by the Government of the day—and of all days—in this country, of scientific merit, particularly in the ranks of the medical departments of the public service.

From this time until his health completely broke down, the subject of this notice led a laborious life. In addition to the heavy and responsible duties of his chair, conscientiously discharged, he did an immense amount of work, taking an active part in congresses at home and abroad; inspecting and reporting on hospitals, barracks, and public buildings; giving addresses on health questions to various societies; and, above all, editing the great work of Parkes on *Practical Hygiene*, two editions of which he published, bringing the work up to the latest developments of the science with conspicuous ability, and in such a reverent spirit to the work of his great master as to be highly appreciated by Dr. Parkes's old pupils and friends and the profession generally.

Dr. de Chaumont was elected a Fellow of the Royal Society. It is not possible for us to give in this brief obituary notice a list of his numerous contributions to science; that will be done fully in the *Transactions* of that Society in the usual course. Meanwhile it must suffice to say that the late Professor was *facile princeps* in his own department, and was acknowledged to be so throughout Europe, and in the United States of America more particularly. His scientific knowledge, far from being confined to his own branch, was large and accurate; he delighted in the mathematical science, in which he excelled, and in which, if his other pressing duties and pursuits had permitted, he was capable of greatly distinguishing himself. He was an accomplished linguist, familiar with all the modern languages, and a master of logic, a study very congenial to him. He delighted in music, and a knowledge of its principles that would have been creditable to a professed musician, and far beyond that of amateurs; if time had allowed, he would have excelled as an executant; as it was, some years ago he could "attack" the compositions of the great masters of the piano in a manner not often attempted by amateurs. Like most men of intellectual power, he had a caulay-like tenacity of memory; whatever he read he remembered, and stored in his mind with such order and method that it was available with unflinching readiness at a moment's notice. With all his acquirements he was the most modest of men; all his knowledge was at the service of his friends; he possessed a generous and equal temper, had not a trace of literary jealousy in his nature, and was a loyal colleague.

Into the melancholy details of the ailments that cut short this useful life we do not propose to enter; cardiac failure, the outcome of diabetes and occasional albuminuria, attended of late by profound mental depression, closed the scene. It was too silent to his friends that his life's work was done, and they felt that under the sad circumstances he was fortunate in his death.

His *ultima linea rerum* est.
He was buried in the cemetery of St. Mary's Extra, near

his own residence, Woolston, Southampton. Although rain fell in torrents throughout the day, with a bitter north-east wind, it was attended by the whole of the staff at Netley Hospital, the professors and the surgeons on probation in the Army Medical School, many members of the Southampton Literary and Philosophical Society, of which he was President, the Council of the Hartley Institution, of which he had, until a few days before his death, been a member, and representatives from other public institutions in Southampton, and by a large number of the gentry and medical practitioners in the neighbourhood.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

THE following degrees were conferred at the Congregation on Thursday:—M.B. Degree: Chichester Gould May, B.A., Trinity; E. Hunt Cook, M.A., St. John's; Thomas Brushfield, B.A., Caius. B.C. Degree: E. Hunt Cooke, M.A., St. John's.

A grace proposing to put Bachelors of Medicine into the *status pupillaris* was rejected.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following Vacancies are announced:

- ANCOATS HOSPITAL, Manchester.—Junior Visiting Surgeon. Salary, £60 per annum. Applications to the Honorary Secretary.
- BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150, and £30 extra for cab hire. Applications by May 10th to A. Forrest, Esq., Secretary.
- BIRMINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Residence, board, etc. Applications by April 28th, to the House Governor.
- BIRMINGHAM GENERAL HOSPITAL.—Resident Surgical Officer. Salary, £130 per annum, with board and residence. Applications by April 30th to the House Governor.
- BOROUGH OF BRIGHTON.—Medical Officer of Health. Salary, £500 per annum. Applications by May 2nd to F. J. Tillstone, Esq., Town Clerk.
- BRISTOL ROYAL INFIRMARY.—Honorary Assistant Physician (to out-patients). Applications by May 5th to the Secretary.
- BURY DISPENSARY HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum, with board and residence. Applications by May 5th to the Honorary Secretary.
- CALLAN UNION.—Medical Officer, Ballygarry Dispensary. Salary, £120 per annum and fees. Applications to Mr. William Bryan, Honorary Secretary. Election on May 3rd.
- CROYDON GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence, increasing to £120. Applications by May 11th to the Honorary Secretary.
- DURHAM COUNTY HOSPITAL.—Honorary Surgeon. Applications by April 30th to the Secretary.
- DURHAM COUNTY HOSPITAL.—Honorary Surgeon-Dentist. Applications by April 30th to the Secretary.
- HERTFORD BRITISH HOSPITAL, Paris.—House-Surgeon. Applications to the Secretary, Rue de Villiers, Levallois, Paris.
- HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—House-Physician. Salary, £50 per annum, with board and residence. Applications by April 30th to B. Burford Rawlings, Esq., Secretary-Director.
- HULL ROYAL INFIRMARY.—Junior Assistant House-Surgeon. Salary, £50 per annum, with board and lodging. Applications by April 30th to the Chairman, House Committee.
- LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House-Surgeon. Board and residence. Applications by May 2nd to the Honorary Secretary.
- LONDON SKIN HOSPITAL, 47, Cranbourn Street, W.C.—Assistant Medical Officer. Applications by May 1st to the Secretary.
- LONDON TEMPERANCE HOSPITAL.—Registrar and Chloroformist. Salary, £50 per annum. Applications by May 5th to the Secretary.
- LONDON THROAT HOSPITAL, Great Portland Street, W.—Surgeon. Applications by May 1st to W. H. H. Stewart, Esq., Honorary Secretary of Medical Committee.
- MONKWEARMOUTH DISPENSARY AND ACCIDENT HOME.—House-Surgeon. Salary, £50 per annum, with board and lodging. Applications by May 5th to T. R. Blumer, Esq., Honorary Secretary, Avenue House, Monkwearmouth, Sunderland.
- NEWPORT AND COUNTY INFIRMARY.—House-Surgeon. Salary, £100 per annum with board and residence. Applications to J. K. Stone, Esq., The Infirmary, Newport, Mon.
- NORTH-WEST LONDON HOSPITAL, Kentish Town Road.—Senior Resident Medical Officer. Applications by May 7th to the Secretary.

PARISH OF LOCHS, Stornoway.—Medical Officer. Salary, £140 per annum; with free house. Applications by May 16th to Mr. H. M. L. Ross, Inspector of Poor, Lochs and Barvas.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Assistant Physician. Applications by May 16th to the Secretary.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Assistant Surgeon. Applications by May 16th to the Secretary.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Junior House-Physician. Salary, £50 per annum, with board and lodging. Applications by May 19th to the Secretary.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant to House-Surgeon. Board and residence. Applications by May 5th to Dr. Thomas, Anglesea Place, Southampton.

SEAMAN'S HOSPITAL SOCIETY.—Visiting Physician. Applications by May 5th to P. Michelli, Secretary, Seaman's Hospital, Greenwich, S.E.

WARWICK COUNTY LUNATIC ASYLUM, Hatton, near Warwick.—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications to the Superintendent.

WESTPORT UNION.—Medical Officer. Achill and Ballycrocy Dispensary. Salary, £117 per annum and fees. Applications to Mr. John Corrigan, Honorary Secretary. Election on May 8th.

MEDICAL APPOINTMENTS.

BARON, Barclay J., M.B. Edin., appointed Lecturer on Pathology and Morbid Anatomy in the Bristol Medical School.

BRETT, W. T., M.R.C.S., appointed Resident Clinical Assistant to the East London Hospital for Children, vice N. Lewis, M.R.C.S., resigned.

BROWN, F. L. Harman, M.B., appointed Assistant Medical Officer to the Bristol Asylum, Stapleton.

HINKELL, J. S., M.R.C.S. Eng., L.S.A., appointed Junior House-Surgeon to the Royal London Ophthalmic Hospital, vice E. T. Collins, L.R.C.P. Lond., M.R.C.S. Eng.

KAUFFMANN, Otto, M.B., M.R.C.S., appointed Resident Clinical Assistant to the Hospital for Consumption, Brompton.

LEK, M. J., L.R.C.P., L.R.C.S. Edin., appointed Medical Officer to the Cloonbur No. 2 Dispensary, Oughterard Union, vice John Gorham, L.R.C.P., L.R.C.S. Edin., resigned.

MORTON, T., M.B., B.S., appointed Medical Officer to the Durham Union Workhouse, vice Edward Jepson, M.R.C.S., L.S.A., resigned.

PEDLEY, George Aston, M.R.C.S. Eng., L.R.O.P. Lond., L.S.A., appointed Deputy Superintendent of Vaccination for Mandalay, Upper Burma.

RAINES, Alwyn, M.B., C.M., appointed Medical Officer to the York Rural Sanitary Authority.

SOMERS, Noble L. U., L.R.C.S.I., L.M., appointed Medical Officer to the Lettermore Dispensary, Galway.

STEDMAN, F. Osmond, M.B., B.S. Lond., appointed Surgical Registrar to Charing Cross Hospital, vice W. J. Roedel, resigned.

WALKER, C. H., M.R.C.S., appointed Senior House-Surgeon to the Royal London Ophthalmic Hospital, Moorfields.

WEIR, G. W., M.D., C.M., appointed Medical Officer to the Liddell Provident Dispensary, Jarrow-on-Tyne, vice J. Johnstone Weir, M.B., O.M., resigned.

WREFOED, J., L.R.C.P. Lond., M.R.C.S. Eng., appointed Junior Assistant Medical Officer to the Norfolk County Asylum, Thorpe, vice F. L. Harman Brown, M.B., C.M. Edin., resigned.

WYNER, W. B., F.R.C.S. Eng., L.R.C.P., appointed Resident Clinical Assistant to the Hospital for Consumption, Brompton.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—At the quarterly court of Directors of the Society, three new members were elected, and the deaths of three announced. The deaths of three widows in receipt of grants were reported. A fresh application for relief was read from a widow for herself and five children, and a grant was made her. Applications for a renewal of their grants were made by sixty-one widows, seven orphans, and three orphans on the Copeland Fund, and a sum of £1,389 10s. was recommended for distribution at the next court. The expenses of the quarter were £57 14s. A legacy from the executors of Mrs. Elizabeth Douglas of £900 was announced. The following gentlemen were recommended for election as directors at the annual general meeting, in the place of those who retire: Dr. Matthews Duncan, Dr. Buzzard, Dr. Glover, Dr. Hett, Mr. Brailey, and Mr. Spencer Watson. The annual general meeting was fixed to be held on May 18th, at 5 p.m. The centenary dinner will be on October 29th.

THE QUINN BEQUEST.—Mr. Henry Quinn bequeathed £50,000 to the charities of London and the neighbourhood, out of which Mr. W. M. Hepper, the executor, has given £5,000 to the Building Fund of the Great Northern Central Hospital (with the condition that a ward in the new building shall be named "The Henry Quinn Ward"); £1,200 to King's College Hospital; £1,200 to the Charing Cross Hospital; £1,000 to University College Hospital; £1,000 to the Richmond Hospital; £500 to the Royal Hospital for Diseases of the Chest; £500 to the National Hospital for Consumption, Ventnor; £400 to the Victoria Hospital for Children, Chelsea; £300 to the Metropolitan Convalescent Institution; £300 to the London Temperance Hospital; £200 to the Royal Hospital for Children and Women; and £200 to the Surgical Aid Society; all less duty.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL: PRIZES AND SCHOLARSHIPS (1887-88).—1st Winter: J. H. Fisher, the William Tite Scholarship, £30; A. Banks, £20; C. S. Wallace, £5; C. S. Jaffe, £5 (College prizes). 2nd Winter: C. P. Lovell, the Peacock Scholarship (40 guineas); W. P. Umney, College prize (£20); H. Burden, College prize (£10). 3rd Winter: A. F. Stabb, second tenure of Musgrove Scholarship (40 guineas) and College prize (£20); S. G. Toller, College prize (£15); W. G. G. Stokes, College prize (£10). The "Mead" Médal for Practical Medicine: H. G. Turney; Messrs. W. H. L. Copeland, T. P. Cowen, and P. C. Thomas were specially mentioned, and obtained marks qualifying for the medal. The "Cheselden" Médal for Surgery and Surgical Anatomy: F. C. Abbott; Messrs. A. N. Boycott and H. H. Hulbert obtained marks qualifying for the medal.

A PROMISING STUDENT.—Complaint is often enough heard that the portals of the medical profession are not guarded with sufficient jealousy against the intrusion of persons of defective education, and examiners, no doubt, often have the delicate adjustments of their higher cerebral centres rudely shaken by the phonetic spelling and ataxic composition of the embryo Jenner, and Pagets who come before them. With all our deficiencies, however, it is doubtful whether even the most hopeless "chronic" could match the following (authentic) specimen of a clinical report which we take from an American contemporary:—"History of Present Illness.—Stranded himself and spit of a brittle red color. Present Condition.—'Have you any fever or nite sweats?' 'No.' Very little expansion of scapular in rite. Physical Examination.—Exaggerated breathing, herd friction sounds, herd snore valves (this statement much puzzled the examiners; ultimately they concluded the candidate referred to 'sonorous râles'). Prognosis.—Can't be cured, but can be sent to Mexico."

PRESTON MEDICO-ETHICAL SOCIETY.—At a meeting of the Society, held on April 5th, a resolution was proposed by Dr. Chas. Rigby, seconded by Dr. Dunn, and carried, expressing the view of the meeting that the necessity imposed upon medical men to keep horses for professional purposes, altogether apart from pleasure should cause them to be exempt from the proposed horse tax. Letters having been read from the local agent of the National Medical Aid Society, it was resolved: "That the members of the Society be recommended to adhere to the resolution of October 1884, counselling them not to become medical officers to any private society started to provide medical attendance to families at a fixed rate." The following officers were elected: Dr. Louis President; Dr. James A. Rigby, Vice-President; Drs. Garner, Smith, Green, Rayner, Charles Rigby, and Anderson, Committee; M. Walmesly, Treasurer; Dr. Sellers, Clinical Secretary; Drs. Kim and Kerr, Auditors; and Drs. Holden and Byrne, General Secretaries.

The *Sydney Morning Herald*, of February 24th, states that Mr. W. H. Paling, of George Street, has most munificently offered to Lord Carrington his estate at Camden, consisting of 450 acres with the entire plant and stock, with the sum of £10,000, for the purpose of establishing and endowing a hospital for convalescents. The hospital is intended as a memorial of the centenary of the colony, and is to bear the name of the present governor. Lord Carrington has been requested to take the necessary steps to carry out Mr. Paling's wish. The property, which is within short distance of Camden, is said to be admirably suited for the purpose intended. A provisional committee is to be formed, and the scheme is to be brought before the public with a view to obtaining additional subscriptions to supplement this magnificent gift.

DEATH OF A FRENCH MEDICAL JOURNALIST.—Dr. Broch, editor of the *Gazette des Hôpitaux*, died recently at an advanced age. For nearly half a century he had held a leading place among medical journalists in France, and he may be said to have ended his life in harness. He was a man of great literary and professional ability, and of singular integrity of character.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Clinical evening. The President (Sir William Mac Cormac): Case of Osteo-plastic Resection of the Foot (Method of Mikulicz). Mr. Edmund Owen: Case of Reducible Lumbar Hernia cured by Operation. Dr. Hugh Case of Echinopsia Nutans. Dr. Herringham: Case of obstructive Jaundice, with Enlarged Gall-bladder. Cases by Dr. Heron and others.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Ordinary Specimens: Mr. Dorn: Primary Cancer of Fallopiian Tube. Mr. Bruce Clarke: Sloughing of Bladder following Cystitis. Mr. Silcock: Cystic Disease in Testis. Mr. J. Hutchinsin, jun.: Dupuytren's Fracture. Dr. M. Murray: Congenital Disease of Heart in Adult. Dr. N. Moore: Examples of several forms of New Growth. Dr. Coats: 1. Multiple Cancer of Brain, Lungs, Bones, etc. 2. Primary Cancer of Brain. Dr. Crooke: Primary Cancer of Liver. Dr. Turner: Extreme Contraction of Orifices of Coronary Arteries. Dr. Pease: Advanced Surgical Kidneys. Mr. Bland Sutton: Mamme in Dermoid Cysts. Card Specimens: Dr. Crooke: Perihepatitis with Cirrhosis of Liver. Dr. H. Habershon: Malformation of Heart and Kidney. Mr. Dunn: Cerebral Tumour. Mr. Shattock: 1. Cyst in Corpus Luteum. 2. Two Specimens of Hammer Toe. Mr. Luun: Pemphigus of Larynx. Mr. Mansell Moullin: 1. Osteoma of Skin. 2. Bladder with Vesical and Prostatic Calculi. Mr. J. H. Morgan: Ulceration of Bladder.

WEDNESDAY.

GYNÆCOLOGICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown. Dr. Cullingworth: Cyst connected with the Uterus, and simulating Enlargement of that Organ. Mr. Bland Sutton: The Glands of the Fallopiian Tubes and their Function. Dr. Scougal: A Case of Hemiplegia after Parturition.

COLLEGE OF STATE MEDICINE, Burlington House, 4 P.M.—Mr. R. Brudenell Carter: The Aims and Objects of State Medicine.

PSYCHOLOGICAL ASSOCIATION, Bethlem Hospital, 4 P.M.—Dr. Maudsley: "Some Remarks on Crime and Criminals." A meeting of the Council will be held at 3 P.M.

THURSDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Living and Card Specimens at 8 P.M.—Mr. W. J. Collis: 1. Rare Affections of the Eyelids—Photographs and Drawings. 2. Case of Paralysis of Fifth Nerve with Cataract. Mr. J. B. Lawford: Pathological Specimens. Mr. S. H. A. Stephenson: Case of Optic Neuritis after Measles. Papers: Mr. Charles Higgins: On a Case of Melanotic Sarcoma of Eyeball. Mr. M. McHardy: 1. Primary Tuberculosis of Choroid treated by Enucleation; Recovery. 2. On a Simple Expedient for Enhancing the Cosmetic Effect of Artificial Eyes. Dr. Hill Griffith: Eye Symptoms in Hysteria and Allied Conditions.

OBSTETRIC SOCIETY OF LONDON, 8.30 P.M.—Mr. Watson Cheyne: The Treatment of Spinal Abscess. Mr. C. J. Symonds: On some Obscure Cases of Painful Feet.

ANTHROPOLOGICAL MUSEUM OF HYGIENE, 5 P.M.—Professor T. Hayter Lewis: On Ancient and Mediæval Towns.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, 8 P.M.—Pathological Specimens: Mr. Percy Dunn: 1. Rectum, adjacent parts and portion of Sigmoid Flexure, the seat of large Scirrhus growth. 2. Caseous Deposit in Lung of Child 18 months old. 3. Large Hernial Sac and Testis, placed abnormally in the Groin and removed during Life. Clinical Cases: Mr. Bruce Clarke: A Case of Multiple Exostoses in three members of the same family. Mr. Van Buren: A Case of Nævoid Growth in the Lower Jaw of a Child. Mr. Swinford Edwards: A Case illustrating one cause of Failure in the Operation for Fistula in Ano. Mr. Percy Dunn: A Case of Complete Irideremia. Mr. W. Lang: A Series of Cases of Disease of the Conjunctiva and Cornea. Mr. Jonathan Hutchinson, F.R.S., will communicate matter of clinical interest. Papers: Mr. Swinford Edwards: On the Treatment of Piles by Injection. The President (Mr. Keetley): On a Case of Wound (Intra-peritoneal) of the Urinary Bladder treated by Suture.

SATURDAY.

PATHOLOGICAL SOCIETY OF LONDON, Physiological Laboratory, University College, 4.30 P.M.—Professor Schafer: On the Visual Area of the Cerebral Cortex. Mr. E. P. France: A modified Weigert Staining Process. Degenerations following Lesions of the Marginal Gyrus. Dr. Beavor: Sections of Brain stained by Pal's modification of Weigert's method.

BIRTHS, MARRIAGES, AND DEATHS.

Charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

WIMBORNE.—April 19th, at Southend, Essex, the wife of Robert G. Dempster, surgeon, of a daughter, prematurely.

WIMBORNE.—At Guernsey, on the 22nd April, the wife of R. L. Lovc, M.D., Surgeon Army Medical Staff, of a son, premature, stillborn.

MARRIAGES.

WIMBORNE.—On March 1st, at Melbourne, Victoria. J. W. Dunbar Hooper, L.R.C.P. and S.Ed., to Mathilde, daughter of the late Antoine Hegmann, of Neuchâtel, Switzerland.

WIMBORNE.—April 19th, at Trinity Church, Horwich, Bolton-le-Moors, by the Rev. H. S. Pigot, M.A., Vicar, James Paul McGeagh, M.D., M.Ch., of Stoneycroft, Liverpool, to Mary, eldest daughter of William Howarth, Wallsuches, Horwich.

DEATHS.

WIMBORNE.—April 21st, at Southend, Essex, Dorothy, the infant daughter of Robert and Kate B. Siddieley Dempster.

WIMBORNE.—On the 13th instant, at 16, Deane Road, Fairfield, Liverpool, after a very short illness, James Johnstone Luce, M.D., L.R.C.P., M.R.C.S. Deeply regretted.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

MEMBER would feel much obliged if any gentleman would kindly give him a few particulars about a drug called "havena" or "avena" used in epilepsy.

CONGENITAL SYPHILIS.

HERMES asks for advice in the treatment of the following case: Mrs. S. is nearly three months pregnant; six months before her impregnation Mrs. S. contracted true syphilis—i.e., indurated chancre, followed by copious eruption—and has been treated throughout by mercury. The impregnation took place in the belief that the husband was well; he has now, however, marked "reminders" present. Will the child of necessity be syphilitic? Ought the mother to take mercury? Is it justifiable to procure abortion or induce premature labour?

PERSISTENT YAWNING.

UNIQUE asks for advice as to the cause, prognosis, and treatment of a lady, middle-aged, in fair general health, who suffers from constant and intolerable fits of "yawning;" they do not appear to be due to fatigue or any special debility; beyond slight dyspepsia and constipation, the bodily health is good. The yawning begins in the morning after a good night, and continues at intervals all day. Tonics, alteratives, attention to digestion, etc., have been tried without removing this somewhat unpleasant affection.

ANSWERS.

A. D. asks to be recommended the best recent books on gonorrhoea, acute and chronic, also those on syphilis.

** *Syphilis and Local Contagious Disorders*, by Hill and Cooper; or *Veneral Diseases*, by Bumstead and Taylor. The most recent work on syphilis only is that by Mr. Hutchinson in Cassell's series.

"THE INIQUITOUS TAX ON INDUSTRY."

T. G. S. writes: I started in practice nearly two years ago, and during that time have purchased instruments and surgical apparatus, whenever required, to the extent of £40. The surveyor of income tax from the district claims that this sum of money is "capital," and must not be included among expenses. My predecessor always reckoned such payments as expenses, and so do the other practitioners in the neighbourhood. The tax surveyor is probably making a dead set at me as a newcomer.

** In answer to the above, the Income Tax Repayment Agency, 25, Colville Terrace, Powis Square, London, W., write: "One of the great mistakes in the present system of assessing professional incomes is that there is no uniformity; all depends on the dicta of the surveyor of taxes. We know of cases where no demur is made about allowing the cost of instruments and books; in others the purchase is looked upon as an expenditure of capital. When this is done, the person assessed should put down every year a part of the purchase money as depreciation; for instruments and books decrease very rapidly in value. The tax overpaid would thus be gradually paid back. We would have all medical men recollect that now is the time for claiming repayment of tax on over-assessed incomes."

NOTES, LETTERS, ETC.

PLACENTA PREVIA.

W. F. writes: The successful treatment of a case of the above (left to Nature) recorded by Dr. G. B. Fuller, induces me to send you an experience I have lately had of a much less pleasant nature.

I saw, on Friday, April 6th, at 4 P.M., M. L., aged 40, in her twelfth confinement. During the previous six weeks she had had two attacks of severe hæmorrhage, treated by a midwife. She had been flooding from 2 A.M. on the day I saw her, and had had five or six fainting fits previous to my visit. She was perfectly blanched and pulseless. The vagina was full of clots, and the bedclothing soaked with blood. Having given brandy and beef-tea, and encouraged the countenance of a friend, I brought down a foot very easily, enquired the countenance of a friend, I brought down a foot very easily, enquired the countenance of a friend, I brought down a foot very easily, enquired the countenance of the slight dilatation of the os. In spite of every precaution, on account of the slight dilatation of the os. In spite of every precaution, on account of the slight dilatation of the os. In spite of every precaution, on the fifth day from acute pyæmia.

My first and last experiences of this disease have been unfortunate. The former, in a woman of about the same age, I did not see for several hours

after the onset of the hæmorrhage, and treated by stripping off the placenta from the lower zone (Barnes), and waiting. Sir died on the third day from exhaustion. During the intervening period embraced by these experiences I have had four (complete) cases to deal with, all seen early, all treated by turning, and all successful. This is the method adopted by all the experienced obstetricians in this quarter I have talked to on the subject, and has many things to commend it. Barnes's bags one may or may not have, but one's fingers and the skill they contain are always possessors. I commend to students of this subject the following, from Lusk's admirable book: "In this disease the result depends in a large measure upon the personal qualities of the physician. A self-possessed man, cool and resolute, will, if summoned in season, apparently deprive even placenta previa of a good share of its terrors. This is my own experience, and the way to do it is by turning."

COCAINE AS A LOCAL APPLICATION IN GOUT.

DR. ROBERT BELL (Glasgow) writes: During the past few weeks I have treated several cases of gout by the local application of a 5 per cent. solution of cocaine by means of lint saturated with the lotion and afterwards covered with oil silk to prevent evaporation. In every instance the acute pain has disappeared within a few minutes, and the attack has run a much shorter course than on previous occasions in the same individual. It is only necessary to renew the compress night and morning to insure continuous freedom from pain.

NEALE'S "DIGEST."

H. M. D. writes: Not from any unworthy motive did I write in praise of Neale's Medical Digest, nor do I regret having done so, for it is a most useful work to the busy practitioner in cases of emergency and for deliberate reference. One far greater than myself, Sir James Paget, gave his testimony to the same effect in one of his recent addresses. Many years ago Dr. Parkes expressed his approval of the plan of the work, and it was selected by the New Sydenham Society for publication as early as 1877. The Digest is the outcome of some forty years' labour. I regret that I did not meet with it while I was in arduous general practice. One hint is necessary to purchasers of the work; they must learn how to use this more than "index," that is, spend a few minutes over the directions for its employment and in the perusal of the introduction with a reference to some cases that have cropped up in the course of daily practice.

A great composer headed one of his difficult compositions with these words: "Before you condemn me, learn to play me." In a similar spirit do I reply to "A Member's," note at page 886 of the JOURNAL of April 21st.

THE CLIFTON LYNACY CASE.

MR. W. H. HARSANT (Clifton) writes: Will you be kind enough to give publicity to the following additional list of subscriptions to the Marshall and Shaw fund?

Mr. W. R. Ackland's subscription of £2 2s. was inadvertently acknowledged as £1 1s. in the last list.

Amount already acknowledged	£	s.	d.	Jenner, Sir W., Bart., K.C.B.	£	s.	d.
Buzzard, Thomas, M.D.	252	6	6	Luffman, W. C.	5	0	0
Bright, J. M., M.D. (Forest Hill)	5	0	0	Manning, H. J. (Salisbury)	1	1	0
Blacker, A. E.	1	1	0	Mason, F. (Bath)	2	2	0
Begbie, Frank W.	1	1	0	Melford, J. Seymour	2	2	0
Bartlett, T. G. L.	1	1	0	Rawson, George	3	3	0
Carbould, G. G.	3	3	0	Ridge, C. K.	1	1	0
Duncan, W. H.	0	10	6	Ruddock, R. B.	2	2	0
Fairbanks, W., M.D. (Wells)	0	10	6	Rowley, Professor	1	1	0
Greenwell, Rev. A.	5	0	0	Stansfeld, G. M.	2	2	0
Holling, H. E.	1	1	0	Sheppard, E. J.	1	1	0
				Smith, Thomas	3	3	0
				Wathen, J. Hancock	2	2	0

AN APPEAL.

DR. R. FARQUHARSON, M.P. (Migvie Lodge, Porchester Gardens) writes: Kindly acknowledge receipt of the undermentioned subscriptions towards the appeal.

Second List of Donations.

	£	s.	d.	Mr. Swain Scriven	£	s.	d.
Thos. Smith, Esq.	5	0	0	K.	1	1	0
A Sympathiser	10	0	0	Sir Prescott Hewitt, Bart.	0	10	6
Dr. Vacher	1	1	0	Miss Skirrow	2	2	0
Mr. Henry, Stear	2	2	0		5	0	0

IDIOSYCRASY TO QUININE.

DR. HENRY H. VERNON (Southport) writes: Some years ago I had a patient who was always attacked by erythema on taking quinine. The first time I gave it to him he recognised the drug, and said he expected in a day or two the rash would come out, and come out it did, and was followed by prœling. On a former occasion another practitioner had given him full doses, and the result was acute erythema, followed by free desquamation in large patches, especially from the palms of the hands. Many years later I ventured upon quinine again, hoping that time might have modified the idiosyncrasy, but the same result followed, though in a less degree, as the dose had been comparatively small. Is this so-called idiosyncrasy an inflex of something which occurs in all cases where quinine is taken, but which in only a few runs on to the extreme phenomena of erythema? If so, does this occasionally violent action of quinine throw any light upon its well known curative effect upon erythema nodosum, or suggest anything as to the action of quinine upon the skin generally?

TREATMENT OF CARUNCLE.

DR. HERBERT SNOW (Bayswater, W.) writes: May I be permitted to endorse Mr. Lowndes's very moderate-voiced condemnation (in the JOURNAL of April 7th) of some recent papers on this topic? However effective and how-ever easy to practise in hospitals, erosion is an unnecessarily severe measure. Patients naturally dread anything which they term an "operation," and the surgeon who in private practice is too fond of resorting to heroic treatment usually gains a somewhat unenviable notoriety.

My own method is very similar to Mr. Lowndes's. I paint the central slough from day to day with liquid carbolic acid, and the surrounding area of inflammation with liniment of iodine, keeping on a linseed poultice. All cases, including very severe ones in aged people—three on the face—have done well under this simple procedure.

COMMUNICATIONS, LETTERS, etc., have been received from

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Treatise on Alcohol, By Thomas Stevenson, M.D. Second edition. London: Gourney and Jackson. 1888.
A Manual of Operations of Surgery, Illustrated, By Joseph Bell, M.D., F.R.C.S. Sixth edition, revised and enlarged. Edinburgh, Oliver and Boyd: London: Simpkin, Marshall, and Co. 1888.

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NOTES

ON

A VISIT TO PISTYÁN.

By SIR T. SPENCER WELLS, BART., F.R.C.S.

Consulting Surgeon to the Samaritan Hospital for Women and Children.

I HAD heard occasionally for many years past of remarkable recoveries of patients crippled by gout or rheumatism, or by chronic diseases of joints; also of great benefit derived in many paralytic cases, after a course of the baths at Pistyán, in Hungary; and last September, before attending the Hygienic Congress at Vienna, I determined to visit the place. I could find very little about it in any of the guidebooks, or in works on bathing-places. Bradshaw's *Dictionary* says it is on the route from Vienna to Pesth, which it is not, but on a branch line which turns up northwards at Pressburg. In Baedeker's *Southern Germany*, in the account of the railway route from Pressburg along the valley of the Waag, it is correctly stated that at fifty miles from Pressburg we reach Pistyán, "with the favourite baths of that name, used as a remedy for gout and rheumatism, on an island in the Waag. On the 26th of July, 1599, the Turks attacked the baths when attended by numerous patients, massacred the men and carried away the women as prisoners." This is all that I could learn from books, but fortunately I found an old friend there, a former "opérateur" of Professor Albert's clinic in Vienna, who had been practising there during the summer, and who had been so favourably impressed by what he had observed that he had decided to return there next season. From him, Dr. Wilhelm von Vragassy, I received even more favourable reports of the efficacy of the treatment carried out at Pistyán than I had heard in England; and the few notes I made on the spot may interest practitioners who are consulted as to the choice of a Continental bathing place by patients who desire—in addition to rest and the change of air, scene, diet, and mind to be obtained at almost any of the well-known places of resort—something more decidedly curative in cases of serious chronic disease. The well-known Vienna surgeon, the late Professor von Dumreicher, some thirty years ago recovered from very obstinate sequelæ of blood-poisoning most unexpectedly, and continued to send patients to Pistyán every year until his death. He poisoned the middle finger of his right hand during an operation, and long after danger ceased stiffness of the finger and hand disabled him from operating until he recovered at Pistyán. And Duchenne has spoken of the great use of both the baths, the water taken internally, and the sulphurous mud, in cases of severe sciatica.

The town or village (in the Hungarian language Pöstyén) has about 150 houses and about 1,000 resident inhabitants. There are about 800 furnished rooms for visitors, a comfortable hotel, a *cur-park*, or pleasant public walk on the banks of the river, with a theatre and the usual music and amusements of a German bathing place. All this, at present, is on a small scale, but it is expected that before long a society of neighbouring proprietors will unite in the endeavour to rival Vichy, Homburg, and Carlsbad. The bathhouse is on an island in the park, formed by a division of the Waag into two branches. The season opens on May 1st, and closes on September 30th. In one bathhouse there are about twenty private bathrooms, and one so-called mirror-bath, about 4 feet deep, in which patients may sit or swim. In another house there is a public bath, about 4 feet deep, the water at a temperature of 98° to 104° F., where patients of both sexes in bathing costumes take their baths in company. In the private baths the temperature of the water is usually from 86° to 98°. In this second house there is also the mud bath, 2½ to 3 feet deep, the temperature of the mud varying from 100° to 105°. Here the natural warm water springs up in different places amid the mud, which is the only foundation of the baths. In this building there are also forty cabins for the local application of the mud to joints only or to some special region. Close by are the springs of the mineral water for drinking. The temperature of the water in the springs varies between 45° and 51° Réaumur (132° and 147° F.). It is quite transparent and colourless, has a slight odour of sulphuretted hydrogen, rather a pleasant taste, and slightly reddens

litmus paper. Analysis shows that it contains rather more than a drachm of sulphurous acid in 16 ounces, a little carbonic acid, and some lime, soda, potash, and magnesia, with a trace of phosphate of iron. Another analysis gives rather more than 3 cubic inches of free carbonic acid, and half a cubic inch of free sulphuretted hydrogen to the pound of water. The mud (*Schlamm*) which is found as a foundation wherever the hot water springs up, is of a greyish-green colour, and of the consistence of soft butter. It is much hotter than the water and cools more slowly. This mud is the real *specialité* of Pistyán. It has a much stronger odour of sulphuretted hydrogen than the water. In 100 parts of the mud there are said to be some 65 of silicious earth, 13 chalk, 6 oxide of iron, 14 clay, and a little phosphoric acid with magnesia, and some organic substance.

I took one of the water baths at about 95° for twenty minutes, simply as an experiment. On getting out of the bath an attendant carefully covers up the bather in linen sheets and woollen coverlet, and leaves him to repose and perspire for half an hour or more. In many cases the perspiration is kept up for a definite time, and the patients are not allowed to walk to their apartments, but are taken in a sedan chair or small carriage. Bronchial catarrhs, uterine and bladder catarrhs, and chronic intestinal catarrhs, are all greatly benefited by a course of these baths, and children with whooping-cough are said to be very soon cured by staying in a room which contains the vapours from the Pistyán water. Constipation, hæmorrhoids, and amenorrhœa are also relieved, probably by the continuous free action of the skin lessening venous congestion, restoring the contractility or tone of the relaxed or dilated veins, and leading to increased appetite and better assimilation of food.

But the most remarkable effect of the Pistyán treatment as a whole—baths, water, and mud—is the removal of chronic exudations, especially those about joints and tendons, which have caused the so-called "spurious ankylosis." Patients thus crippled, with more or less evidence of peripheral paralysis, and some where paralytic and neuralgic conditions are evidently associated with, or follow, some serious change in the central nervous system, are among the most numerous and the most successful of the cases which have kept up the reputation of Pistyán. Many inveterate cases of sciatica have been completely cured. In one sentence it may be said (using the words of the late Dr. Scherer, who wrote on the combination of electricity and massage, with the Pistyán treatment) that this combination "stimulates and increases the vital functions of the skin, the mucous membrane, the nervous and circulatory systems, and consequently leads to absorption of pathological products." The last effect is greatly promoted by the mud baths, sometimes used for the whole body, but more often for one joint or limb, either immersed in some suitable vessel, or used like a poultice.

It is evident, therefore, that the Pistyán treatment is resorted to in a great number of different conditions, the chief of them being those which are loosely called "gouty," and which lead to more or less swelling, stiffness, and deformity of the joints, and are associated with the uric acid diathesis. Next to the gouty come the rheumatic affections of muscles and joints, ankylosis, and neuralgias, especially sciatica. Sufferers from chronic rheumatism soon experience remarkable benefit; and so do many with chronic periostitis, whether a sign of tertiary syphilis or not, and many paralytic cases, especially hemiplegia which has followed an apoplectic attack or some wound or injury, or lead or mercurial poisoning. I also heard of some remarkable cures of facial paralysis, and of relief to the pains of locomotor ataxy. These are the cases where electricity and massage are principally employed in addition to the other treatment with a rational surgical and orthopædic treatment on the principles of modern surgery. After the last war a great many wounded men who had suffered from simple and compound fractures of bones, or chronic exudations after other injuries, or neuralgia after amputations or resections, recovered rapidly at Pistyán. And so with other chronic inflammatory swellings of glands, pelvic exudations, metritis, and its results, uterine fibroma and hæmorrhoids. Such are the cases where, as is well known, sulphur baths at Ischia and other places have been the great popular remedy. But at Pistyán we have, perhaps, the best of the sulphur baths hitherto made use of, more powerful and less disagreeable than any of the others.

I can scarcely doubt if the Government, or some powerful association of scientific and moneyed men, carry out a plan which has been proposed for developing Pistyán after the fashion of

better known watering-places which are far inferior in real therapeutic power, that this Hungarian spring will become of far greater use than it has been to suffering humanity, and will be resorted to by invalids, not only from Europe and America, but from India and our colonies, and amply repay the enterprising minister or financier who provides what is required by the invalid traveller in search of health, and by the relatives or friends who accompany him.

REMARKS

ON

DIABETES MELLITUS, AND ITS TREATMENT WITH THE MINERAL WATERS OF CARLSBAD.

By B. HOFMEISTER, M.D.,
Carlsbad.

ABOUT a century has passed since Carlsbad waters began to be used in diabetes mellitus. At that time, when the number of watering places was very small, all patients with chronic, hardly curable diseases, were sent there as a last resource; when it became known that some diabetic patients had derived benefit from its waters, Carlsbad was for a time regarded as a specific. At the present time the number of health-resorts has enormously increased, and some of them boast of the same efficacy in diabetes as Carlsbad; pamphlets have been issued denying that Carlsbad has any efficacy, and various methods of treating the disease have been invented; yet the sufferers from that disease mostly prefer the Carlsbad waters, and the number of them who visit it increases every year. That this reputation is fully justified will be shown in the course of this paper.

I do not propose to discuss the multifarious theories as to the etiology of diabetes which have been propounded by Claude Bernard and so many others, up to the present time; I will only refer to Ebstein's recent hypothesis, which has some relation to the Carlsbad treatment.

Whilst most authors seek the origin of diabetes in a disorder of one organ of the body—the liver, stomach, pancreas, kidney or brain—Ebstein places its seat in the protoplasm of nearly all the cells of the body; but he denies that the presence of sugar in the urine is the result of a deficient combustion of the normal amount of sugar into carbonic acid and water, and refers it to an over-formation of sugar, occasioned by the want of a sufficient amount of carbonic acid in the protoplasm of the cells. By a series of chemical experiments he has found that the capacity of diastatic ferments to decompose hydrocarbon is much restricted by the presence of a certain amount of CO_2 ; when this is lessened, the glycogen in the human tissues, he says, will easily be transformed into sugar. He thus looks upon diabetes as a chemical disorder, due to an anomalous nervous influence, the nature of which, however, he is at a loss to explain.

According to this theory—the truth or falsity of which has still to be established—the direct introduction of CO_2 into the protoplasm by the blood would be a rational method of treating diabetes; Ebstein goes so far as to recommend injections of CO_2 into the rectum. Now, it is certain that alkaline waters containing a large quantity of free carbonic acid, especially those of Carlsbad, tend to lower the amount of sugar in the urine, and consequently somewhat to improve the health; but, on the other hand, it cannot be denied that their curative action is but slight, compared with that of a proper antidiabetic diet, consisting in the main in avoiding sweet and farinaceous food. The combination of both these plans must still be regarded as the best method of treating diabetes; therein all Carlsbad physicians are agreed. They differ only in one point, namely, as to the significance which is to be attached to the quantity of sugar to be found in urine, in regard to the prognosis and treatment of diabetes.

As is well known, two forms of diabetes are usually distinguished; (1) the slight form, the amount of sugar being directly proportioned to that of starch matters taken by the patient, and accordingly entirely disappearing if they are only abstained from;

(2) the severe form, in which more or less sugar is present in the urine, in spite of the strictest antidiabetic regimen, and in which therefore sugar is formed also from albuminates. This classification however, which cannot be applied to each individual case, and does not comprise all cases, has been much criticised of late, and will probably soon be abandoned.

As a guide in treatment, I venture to propose a practical division of diabetes into three large groups.

(a) *Sugar in Proportion to the Severity of the Disease.*—A great many of the most conspicuous symptoms (sugar in the urine from 1 to 7 per cent, polyuria, polydipsia, emaciation, languor, impotence, etc.) were present. This form is by far the most common of all, and, as it can never fail to be clearly recognised, we may call it "diabetes manifestus."

(b) *Much Sugar, with Slight Diabetic Symptoms.*—In patients of this group we may find from 1 to 5 per cent. of sugar, and even more, and yet with such slight diabetic symptoms that they escape the notice both of the patient and the physician. Here we mostly observe disorders of the stomach and intestines, sometimes of the nervous system. The diagnosis is incidentally made by an examination of the urine. This form is more frequently met with than might be supposed, and is rightly called "diabetes decipiens."

CASE I.—T. B., lawyer, middle-aged, had always enjoyed good health. In the year 1887 he first complained of *malaise* and irritability of temper, which he was inclined to ascribe to slight dyspepsia with constipation. Having formerly been of a cheerful disposition, he gradually became moody and irascible, and in August, 1887, he went to Switzerland, thinking that rest and change of scene would do him good. At Geneva he consulted a physician, who accidentally sat at the same *table d'hôte* with him, and thus had the opportunity of observing the patient's inordinate fondness for sugar and sweets. Out of mere curiosity he analysed B.'s urine, and was surprised to find 5.5 per cent. of sugar two hours after dinner, and about 3 per cent. at different hours on the subsequent days.

At the end of August B. came to Carlsbad. Here I could detect no symptom pointing to diabetes beyond a certain degree of nervousness manifesting itself, particularly in headache and insomnia. At first I was inclined to look upon the case as one of simple glycosuria, due to the vast amount of sugar consumed by the patient, although in normal constitutions we find at most very slight traces of sugar from this cause. I soon became convinced, however, that I had to deal with a real diabetes mellitus, for, though the patient abstained entirely from sweet matters, from 2 to 3 per cent. of sugar was still found in the first week of the treatment; the following week it gradually decreased, and in a fortnight it had wholly disappeared. With the cessation of sugar-excretion the patient greatly improved, the headache and insomnia left him, and he regained his natural cheerfulness. The last week he was allowed to take a moderate amount of farinaceous food (80 grammes of white bread in the day), of all sorts of vegetables, and of uncooked fruits, without the sugar reappearing. During the following three years his health remained excellent. When suddenly, without any evident cause, a relapse occurred in July, 1887, which was again cured by the Carlsbad treatment.

CASE II.—B. P., aged 42, was sent in 1886 to Carlsbad for habitual constipation of very long standing. Many remedies had previously been tried in vain. The patient's habits were not sedentary; he did not suffer from hæmorrhoids; his appetite was pretty good; there was no apparent disorder in any other organ. His urine was found to contain 4.6 per cent. of sugar. On being closely questioned he remembered having sometimes felt dryness of the tongue, and he had become somewhat thinner of late. He had always drunk beer very freely, and was not conscious of greater thirst than heretofore. After four weeks of treatment he left Carlsbad without a trace of sugar. Next year, 1887, he came again, but this time only "to show himself," for he had not been troubled with dryness of the tongue, and his bowels acted regularly; in short, he felt perfectly well. I was the more surprised to find again 3.2 per cent. of sugar; he had kept at home on stricter diet only for some weeks, and then, feeling quite well, indulged in ordinary food, like other people. Three weeks of Carlsbad treatment sufficed this time to remove all trace of sugar; the patient on leaving was advised to diet himself strictly for a whole year.

I am of opinion that all forms of diabetes decipiens exist only for a certain time as such, for one year or two at most, after

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which the more conspicuous symptoms of diabetes slowly appear; he cases are a contrast to diabetes acutissimus.

(c) *Little Sugar and Severe Symptoms*.—Patients of this group suffer from severe disturbances in various parts of the system, or a general nutrition, and yet have a minimum of sugar in their urine, not only in the beginning, but sometimes also during a very long period, so that it can be found only by a most careful and thorough examination of the urine by special methods. The direct contrast which this group offers to the preceding one (b) is obvious. From its resemblance in this respect to the form of fever known as "intermittens larvata," in which the characteristic paroxysms are replaced by quite different symptoms, this form may be called "diabetes larvatus."

CASE III.—K. D., merchant, aged 52, who had always been healthy, first became aware of gradual emaciation in the spring of 1885; otherwise, he felt quite well. Some time later a dyspepsia nervosa occurred with loss of appetite; this having been cured by medicine, the emaciation nevertheless progressed in such a measure that his weight fell from 85 to 72 kilogrammes (187 to 158½ English pounds) within eight months. The first analysis of the urine, which was made on November 10th, 1886, showed 0.7 per cent. of sugar. He kept to antidiabetic diet during the whole winter; the sugar disappeared, and his weight increased to 75 kilogrammes (165 pounds). In April, 1887, he returned to ordinary food, when he again began to lose flesh; there was, however, no thirst, no polyuria, no impotence, no skin affection. At the end of May he began to suffer from great nervous irritability, without any apparent cause. He was sent to the seaside, where several, probably superficial, examinations of the urine gave no evidence of sugar. Feeling no better, the patient came to Carlsbad on August 19th, 1887. On the day of his arrival I could discover distinct traces of sugar. I persuaded the patient to live in a strictly antidiabetic manner, and ordered him two tumblersful of Mühlbrunn daily. In two weeks he had gained two kilogrammes (4½ pounds), felt pretty well, and no sugar was to be found. By way of experiment, I then allowed a moderate use of starchy matters for three days, when small traces of sugar were again detected. I therefore recommended him to keep to the strictest diet for a whole year. This patient, whom I accidentally met a short time ago, had followed my advice strictly, and is now much better as regards his nervousness; his nutrition has likewise improved, his weight being 80 kilogrammes (176 pounds).

This case clearly proves that the severe disorders of nutrition—namely, the emaciation in diabetes—is not the consequence of an overformation of sugar from glycogen, nor of its loss by passing out of the body, but that it is as important a symptom of diabetes as the excretion of sugar itself, although there may be no causal connection between them.

CASE IV.—Mrs. G. C., aged 38, who three years before had been plump and rosy, now somewhat thin and pale, had never had any serious illness; four children; menstruation perfectly regular. In 1884 she began to be troubled with such intense itching in the vulva and the surrounding parts that she could not help frequently scratching herself. In this way her sleep was disturbed every night; by-and-by she lost appetite, and fell into a state of melancholy and despair. She could not make up her mind to seek medical advice till the end of 1885, when both her thighs and the lower half of the abdomen were covered with eczema from scratching. She was treated with various plasters and ointments for nearly two years, but all in vain. For a short time she would seem to improve, but this was always followed by relapse. The urine was examined several times, but either a very small quantity of sugar, or none at all was found. I could not learn what method of examination had been used. The patient came to Carlsbad on July 27th, 1887. An immediate examination of the urine showed 0.5 per cent. of sugar. She was then treated like Case III. After one week the itching had nearly subsided, and the eczema had much improved without any local treatment, while sleep was no longer disturbed. In the second week the patient, thinking that she need not keep strictly to the diet I had prescribed, took two rolls of white bread daily at dinner, and in two days was again as bad as before, the sugar, which had entirely disappeared, returning to the extent of 0.4 per cent. After that she followed the treatment strictly, and left Carlsbad wholly cured.

Until recently it was the general belief—and the opinion is still held by some—that small quantities of sugar in the urine are of no particular significance, and do not call for treatment. It is indeed true that it is not the loss of this trifling quantity of sugar

which causes such serious symptoms, since we observe large losses of sugar pretty well tolerated by the system (Group b); but it is, and I lay much stress upon this point, a highly important piece of evidence in the diagnosis and treatment of a series of cases, in which no treatment but the strictest antidiabetic regimen will be of the least benefit. The greater or less amount of sugar in urine—within certain limits—will therefore never give us a reliable ground for prognosis, inasmuch as in some cases it is in inverse ratio to the severity and danger of the disease. Thus, when we meet with various maladies, like neurasthenia, dyspepsia, emaciation, eczema, retinitis, cataract, boils, etc., and in connection with them an excretion of even mere traces of sugar (such excretion being not temporary but permanent), we must not hesitate to diagnose diabetes mellitus, and to treat the case accordingly.

Artificial Glycosuria.—The diagnosis of diabetes larvatus is sometimes rendered difficult by its resemblance to the so-called "glycosuria transitoria," or diabetes alternans. It is well known that there are different maladies (gout, rheumatism, typhoid fever, meningitis, epilepsy), in which small quantities of sugar suddenly appear in the urine. We likewise know that an excretion of sugar may be artificially produced by a severe injury, by serious abdominal operations, especially by lesion of the floor of the fourth ventricle or of the medulla oblongata, and by cutting the roots of the spinal nerves. But this kind of glycosuria cannot be regarded as diabetes mellitus; there is an essential difference between them. 1. The artificial and transient glycosuria disappears with the attack which calls it forth, or lasts some days, or at most some weeks after it. 2. It is never followed by serious consequences. 3. A further distinctive feature is its entire independence of starchy food. The risk of confounding them may therefore be easily avoided.

Prognosis of Diabetes Mellitus.—Regarding the prognosis of diabetes mellitus, one point must be discussed in the first place, namely, whether diabetes is curable or not. In pulmonary phthisis we unhesitatingly make an unfavourable prognosis, and yet there are *post-mortem* evidences enough in old persons of tubercular cavities which have perfectly cicatrised. Is this the case with diabetes? Has a *restitutio ad integrum* ever been observed in true diabetes in the sense that persons who once have suffered from it cease to be compelled to keep to a special diet, without risk of relapse? Such cases have been mentioned by some renowned authors, as well as by old Carlsbad practitioners: for my part, I confess that I am very sceptical, for I have not been so fortunate as to find one case of perfect cure out of eighty-six cases which I have observed since the beginning of my twenty-five years of practice. On this point I entirely agree with Professor Ebstein, who absolutely denies that diabetes mellitus is curable, and only concedes that cases may occur in which a somewhat larger amount of starch and even sugar is well tolerated, diabetes appearing again as soon as these limits are transgressed. There is always, therefore, liability to relapse. On the other hand, it cannot be denied that there are a great many patients who prolong their lives by judicious conduct. I myself know a case of diabetes of almost fifteen years' standing.

CASE V.—In November, 1874, I was consulted by K. F. for chronic dyspepsia, the origin of which I could not easily discover. After some weeks of fruitless hydropathic treatment, diabetic symptoms suddenly came on; analysis of the urine showed 4.5 per cent. of sugar. I immediately recommended him Carlsbad waters, together with antidiabetic diet; since then he has regularly visited Carlsbad for four weeks every year. Whilst there he keeps to the strictest diet, but during the rest of the year he takes a moderate amount of farinaceous food, only avoiding sweet substances. Leaving Carlsbad each time with only small traces of sugar, he yearly returns there with from 2 to 4 per cent. of sugar. With the exception of emaciation (his weight having fallen from 198 pounds to 150 pounds between 1874 and 1887) he feels no illness or discomfort, and can attend to his business as well as ever.

Such cases, however, are exceptional. On an average, the vast majority of cases end fatally in a far shorter time, mostly within from two to five years, the immediate cause of death being some intercurrent disease—such as pneumonia, tuberculosis, cerebral apoplexy, and, lastly, diabetic coma.

Significance of the Quantity of Sugar.—There are no absolutely trustworthy signs which enable us to distinguish the severe cases from the milder ones; in general such cases are to be regarded as bad ones, in which, in spite of medication and strict antidiabetic

diet, sugar persists above 1 per cent. There are, however, exceptions to this rule. In former times great significance was attached to the complication of sugar with acetone or diacetic acid in the urine, but this has proved false, severe and mild cases having been equally observed with and without acetonuria. My experience of late years has taught me to regard the complication with nervousness, especially restlessness, irritability, and sleeplessness, as very serious. The quantity of sugar in itself is, as has already been mentioned, of no great influence upon the prognosis: the largest amount may disappear in the shortest time by proper treatment, while the smallest quantities, as can be gathered from Cases III and IV, are sometimes associated with serious disorders of the system, and cannot be got rid of by any means at our disposal.

Estimation of Sugar in the Urine.—Owing to this fact, it may not be superfluous to add some words about the recent introduction of more accurate methods for the detection of the smallest traces of sugar present in the urine; but from want of space I can only mention those which, from their simplicity, are most available for the ordinary practitioner.

1. *Fehling's Method Modified by Seegen.*—The urine is filtered through a thick layer of animal charcoal (of blood), which absorbs the whole of the sugar; the charcoal is washed out with distilled water, which dissolves out the sugar, which may be tested with Fehling's solution; traces of sugar will be found in the second, and even in the third and fourth washing. This method is mostly used by the chemists of Carlsbad.

2. *Penzoldt's Method.*—Some drops of a solution of acetate of lead, mixed with some drops of ammonia, are poured into a testing tube half filled with urine. If sugar be present, the precipitate will be rose-coloured; if not, white. This is a pretty good and sensitive test.

3. *Johnson's Method.*—Some drops of picric acid are added to the urine, which is then mixed with a solution of potash slightly heated. A light red colour appears in normal urine; the presence of sugar makes the colour deep red. As the difference between the two is only a difference in shade and not in colour, the observer is naturally exposed to optical mistakes, a matter which impairs the value of the test. It can, nevertheless, be recommended for its other good qualities.

4. *E. Fischer's Method Modified by Jaksch.*—This method is highly to be recommended in every respect. It is based on the power of phenylhydrazine to unite with grape sugar and form characteristic crystals. To a measuring beaker half full of water, two drachms of hydrochloric phenylhydrazine and three of sodium acetate are added; the compound having been heated a little, the same quantity of urine is added, and placed in a vessel of boiling water for fifteen minutes; it is then quickly put in very cold water. After standing for some minutes a yellow sediment slowly falls, in which crystals of phenylglucosazon are always to be found if the least quantity of grape sugar be present in the urine. These yellow crystals have the shape of long rods, terminating at each end in round balls or bunches.

5. *Molisch's Method.*—The recently invented double method of Molisch ([1] a naphthol and [2] thymol, both with sulphuric acid) is worthy of mention, as it will detect the presence of even 0.0001 per cent. of grape sugar; it is, however, entirely useless for our purpose, as it produces exactly the same reaction with cane sugar, maltose, and all dissolved albuminates.

Treatment.—There is no general rule for the treatment of diabetes mellitus; each case must be dealt with according to its individual features. It would be a great mistake to allow every patient passing only a trifling quantity of sugar a greater amount of starch; on the other hand, it would be wrong to be too rigorous towards every patient with 5 per cent. and above. The first indication is to improve the general health, remove the most urgent symptoms, and give tone to the nervous and muscular system. We certainly succeed in Carlsbad in some cases in lowering the amount of sugar from 5 per cent. to a mere trace solely by strict diet. This may be done in a very short time, frequently within twenty-four hours; but the patient derives no benefit from the loss of his sugar; on the contrary, he feels daily worse, he declines rapidly, so that we are compelled again to allow him a certain quantity of amylaceous food, with the certainty of increasing the excretion of sugar, but, at the same time, of improving the condition of his health. In like manner we sometimes observe that patients of the c group, with 0.5 per cent., or still less, will not get better as long as this small quantity of sugar is not wholly got rid of by means of the strictest diet (Cantani's).

Yet, setting aside the question of idiosyncrasy, there remains a series of hygienic and therapeutic rules equally suitable for all sufferers from diabetes. Although these are generally enough known, they are of such essential importance that I may be allowed to summarise them.

1. The dietetic and hygienic regimen ought not to be totally changed in a sudden way. Sweet things must be at once forbidden; the amylaceous food should at first be confined to vegetables of all kinds, except the leguminous ones, and bread, 100 grammes of which may be allowed, this quantity being gradually reduced to 60 grammes, and so on.

2. Pure fat and fatty meats are highly to be recommended for their great efficacy against congenital predisposition to diabetes; 150-200 grammes may be allowed daily.

3. An exclusive meat diet (Banting treatment) is rather dangerous in diabetes, because it strongly promotes the disintegration of albumen, that is to say, emaciation.

4. All substitutes for bread are objectionable, partly because they contain a considerable amount of starch, and partly because they are all more or less indigestible. Fürbringer's gum bread (*Kleberbrot*), manufactured by Basserman, at Manheim, seems to be the least injurious of these.

5. Diabetics ought to masticate perfectly each bit of food, eating slowly, in order to mix the food completely with the mucus of the mouth.

6. In all cases in which a somewhat larger indulgence with regard to the diet is admissible, all sorts of vegetables, including the sweet ones (turnips, carrots, cabbages, etc.), only excluding the leguminous (peas, beans, and lentils) are permitted, likewise raw kernel fruits and berries.

7. Milk and wine should be allowed only in small quantities, even in mild cases; half a pint of each daily should be looked upon as the maximum dose. All sorts of beer must be forbidden under all circumstances.

8. Exercise is much indicated, especially as long as farinaceous food is partly allowed. The best time for it is immediately after dinner, and it should be continued for at least two hours. Riding on horseback and hill climbing (if the ascent is not too steep) is certainly preferable to gymnastic movements indoors; but when outdoor exercise cannot be taken we are now in possession of a good substitute, I mean the "ergostat" recently invented by Professor Gärtner, of Vienna (see *JOURNAL*, January 7th, 1888, p. 35). Patients, who, in any stage of the disease, are easily fatigued by the least muscular exertion, will derive great benefit from daily massage of the whole body for twenty minutes (Finkler).

9. Warm baths, as the best means of keeping the function of the skin in order, are very beneficial to sufferers from diabetes, provided that they are used at a temperature of 93° to 94° for fifteen minutes not oftener than twice a week.

10. The mineral waters of Carlsbad are undoubtedly of the greatest use in the dietetic and medical treatment of diabetes; their effect is mostly due to the alkaline salts they contain. Although there are several alkaline springs in Germany and elsewhere which have similar ingredients, though in different proportions, and which boast of still better climatic conditions than Carlsbad, yet in their efficacy against diabetes they are far inferior to Carlsbad.

According to the theory of Ebstein, referred to at the beginning of this paper, the efficacy of alkaline waters in general would be clearly explained by the direct supply of carbonic salts and free carbonic acid to the protoplasm of cells of the whole system; but the question why any other mineral water with as much carbonic acid is not to be compared to those of Carlsbad in efficacy against diabetes remains unanswered. Pfeiffer, of Wiesbaden, attributes to Carlsbad waters the capacity of restraining the organic disintegration, and hence their beneficial influence in diabetes accompanied by emaciation. The quantity to be taken in diabetes is not different from that indicated in other diseases. It is continued till the urine becomes alkaline, or other symptoms of saturation appear.

In severer cases the treatment should be carried out twice a year—in the spring and in the autumn. That drinking the water at Carlsbad itself is of much greater value than drinking it at home is so well known that I need not dwell on that point.

11. Among the innumerable drugs recommended for diabetes, there are but few worth mentioning. In the first place there is opium, the tolerance of which by diabetic patients is remarkable and inexplicable. Opium makes the sugar disappear; it diminishes

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normal tissue-waste, and consequently increases the weight of the body; it causes neither narcosis nor constipation in doses which would be positively dangerous if given in other diseases. Still more efficacious is morphine, in doses of from 1 to 3 grains daily. The beneficial effect of these drugs, however, does not last very long; after three or four months they lose their effect, and here is, moreover, the risk of the opium-habit becoming confirmed. They should, therefore, be taken only at long intervals, and under strict medical supervision. Salicylic acid, phenol, and salicylate of sodium, are far less useful.

In conclusion, I venture to lay down the following propositions, as summing up the results of my studies and observations:

1. We are still in total ignorance as to the etiology of diabetes mellitus.
2. The quantity of sugar found in the urine is of no significance at all in judging of the severity and danger of any particular case of diabetes.
3. The smallest traces of sugar, found only by most careful chemical examination of the urine, are of considerable importance in a great many cases, so that they cannot be left out of account in trying to arrive at a correct diagnosis and prognosis.
4. The dietetic treatment must be adapted to the special requirements of each case, as there are cases in which, without regard to the amount of sugar excreted, complete abstinence from starchy matters is not only useless, but directly injurious.
5. According to the present knowledge, strict antidiabetic diet, combined with the use of the mineral waters of Carlsbad, is the best method of treating diabetes mellitus.

ON DIABETES AND ITS CONNECTION WITH HEART DISEASE.

By JACQUES MAYER, M.D.,
Carlsbad.

A GLANCE at the literature of diabetes, which, more especially since the remarkable discoveries of Claude Bernard, has attained very large proportions, shows us that singularly little is as yet known about certain affections of the heart and blood-vessels which are apt to occur in the course of that disease. This may perhaps be accounted for by the circumstance that those who have occupied themselves with investigating the pathology of diabetes seem to have given their chief attention to the examination of those organs which experimental physiology had shown to be more particularly involved in its production. Thus Seegen, Cantani, Senator, and other authors hardly mention this point at all; while Donkin, Schmitz, Leyden, and others only casually allude to it. Nine years ago I published a paper (*Berliner Klinische Wochenschrift*, 1879, Nos. 21, 31, and 32) on certain symptoms which I had observed in cases of diabetes complicated with obesity. These patients were apt to be suddenly taken with dyspnoea; they complained of pain and oppression in the cardiac region; the pulso was abnormally quick, beating at the rate of 120 to 140 in the minute, with marked want of rhythm (delirium cordis). The pain sometimes spread from the heart to the shoulder or to the left arm. In fact the symptoms were analogous to those of angina pectoris.

Attacks of this kind have come under my notice in the initial stage as well as in the further progress of the disease, but more frequently at an advanced period, after the obesity had more or less subsided; and the physical examination of the heart showed mostly dilatation of the ventricles.

I did not then think that there existed an etiological connection between these symptoms and the diabetic process, or, more strictly speaking, the saccharine blood; more especially so because the same cardiac symptoms and physical state of the heart on which Leyden has thrown a flood of light have also been frequently observed in cases of obesity without diabetes.

Subsequently, however, I discovered similar symptoms in diabetes uncomplicated with obesity, and I then thought it would be important to ascertain accurately, as far as possible, from the very beginning of the disease, the physical condition of the heart in every single instance which came under my observation. I expected to arrive at some interesting results in this matter, as the waters of Carlsbad attract year after year a very large number of

patients suffering from diabetes, who belong to all classes of society, and the cases being in all the various degrees of intensity. I am fully aware that observations of this kind cannot claim the same degree of accuracy as those made in hospital practice, but I have been anxious to atone for this want as far as possible by written notes taken at the time. The number of cases being comparatively large, some degree of value may perhaps be attached to these observations.

From 1879 to 1888 I have had under my care 350 cases of diabetes, of which 266 occurred in males and 114 in females; in the large majority of these cases, namely, 248, occurred between the ages of 40 and 60; 337 cases were in the first, and 43 in the second stage of the disease.

In this, as in previous papers on the subject, I prefer speaking of "stages" rather than of a "mild and severe form;" as experience has shown me that the former classification meets the facts of the case far better than the latter. Out of 43 cases of the second degree, 26 merged, as it were under my eyes, from the first into the second stage.

If we leave out of sight for the present the degree of intensity of the malady, and direct our attention to the general appearance of the patients, we notice certain distinctive features in them, which, though they are not absolutely constant, are yet sufficiently characteristic to enable us to distinguish three well-marked types of diabetic patients.

We have to do then: 1. With patients of a feeble and delicate constitution, a more or less pale complexion, and a timid and anxious expression.

2. With patients who, on the contrary, have a vigorous and healthy appearance, a florid complexion, and a lively and animated expression.

3. With obese patients, some of whom are pale and sallow, while others have either a ruddy or a livid complexion.

In the beginning of the complaint, or soon after it has commenced, the physical examination of the heart and vessels hardly ever shows in any case belonging to the three types just mentioned, that the sugar which is circulating with the blood, or any increased production of urea which may have occurred, have had an unfavourable influence upon the cardiac muscle. Auscultation and percussion reveal the same signs as in patients of similar condition who are not subject to diabetes.

After the malady has, however, lasted for some time, the physical signs undergo certain changes which come on sooner or later according to the individual case. To these I now proceed to direct attention.

In cases belonging to the first type, that is in those of a more or less anæmic and feeble constitution, I have occasionally seen endocarditis supervene after some little time, as described by Lecorché (*Archives Générales*, etc., April, 1882, p. 385), but much less frequently than this author, and not so much in patients of an advanced age.

In other cases of the same type the well-known symptoms of cardiac debility came on suddenly, while the physical signs found on examination of the heart did not show that any morbid changes had occurred either in the endocardium or in the muscular substance of the organ. In these we may however conclude from the quality of the pulse, which is very easily compressible and of varying frequency, as well as from the weakness of the heart's sounds and the occasional presence of the so-called "galloping murmur," that the functional power of the heart is lessened, and that this is owing either to atrophy or to retrogressive changes in the muscular fibres, that is, fatty degeneration.

In a further number of cases the physical examination of the heart, which had in the beginning shown nothing abnormal, revealed as time went on dilatation of the organ, which for a period did not seem to lead to any very striking symptoms, but which was, as soon as an exciting cause of some sort had acted, followed by severe dyspnoea and delirium cordis.

Cases of this kind are analogous to those of over-strain of the heart having a protracted course, in which Leyden (*Die Herzkrankheiten*, etc., Berlin, 1886, p. 34) has, with Da Costa, distinguished a first stage of functional disturbance of the heart's action, and a second period of organic lesion with dilatation of the ventricles.

With regard to diabetic patients of the second type, I have found in the majority of cases, after the malady had lasted for a variable time, a well-marked group of symptoms pointing to the development of cardiac hypertrophy. The complexion becomes reddish, the mucous membrane of the mouth and the conjunctiva

are congested, the eyes are lustrous, and the carotids pulsate strongly as soon as there is the slightest emotional excitement. Vertigo, headache, and ringing in the ears are frequently complained of. The first signs of shortness of breath appear habitually after a somewhat abundant repast; walking exercise after meals causes discomfort; there is pain in the stomach and belching, and the action of the bowels becomes irregular; sleep is broken, and often disturbed by a dry cough. The pulse is full and strong, but does not show unduly high tension. It is regular and not accelerated, but, on the contrary, sometimes rather retarded.

The physical examination of the heart shows a strong impulse, which extends over several intercostal spaces. The apex-beat is either within or without the mamillary line towards the left side, mostly in the fifth or sixth intercostal space. Percussion shows an enlarged sphere of dulness upwards and downwards, and less so in the transverse direction. The heart's sounds are loud and normal. In short, we have to do with idiopathic hypertrophy of the left ventricle, which has become gradually developed.

Further observations have shown me that this condition of the heart may persist for a number of years without producing much systemic disturbance, provided the patient avoids over-exertion and emotional excitement, is temperate in his habits, more especially in regard to alcoholic stimulants, and is careful to take regular exercise. On the other hand, where there is impaired nutrition; where, as is sooner or later always the case in diabetes, the food taken does not suffice to supply the wants of the system; where, therefore, the structure of the organs themselves is called upon for the maintenance of work, or where sedentary habits of life promote arterio-sclerosis, then the functional activity of the heart becomes lessened. The cardiac muscle is then relaxed and dilated, or sooner or later severe symptoms of disturbed balance of power make their appearance. Signs of cardiac debility, in fact, are then of cardinal importance for the further progress of the disease.

In a considerable number of cases of diabetes, therefore, hypertrophy and dilatation of the heart become developed without there being any morbid changes in other organs, such as the kidneys, arteries, etc., which so frequently lead to these affections. They must therefore be owing to chemical irritation of the heart by the sugar and urea which are circulating in the blood. Diabetic patients eliminate more urea, other things being equal, than healthy persons; cases are on record where from three to five times the average quantity of urea has been excreted. The quantity of sugar contained in the blood in this disease likewise far exceeds that which is found in the normal blood, and it may therefore act as an irritant on the heart's structure.

This abnormal condition of the blood leads to polyuria, glycosuria, and agoturia, which are known to have a prejudicial influence on the kidneys by causing hypertrophy and hyperplasia of those organs. In connection with this I may here refer to the experiments of Gravitz and Israel (Virchow's *Archiv*, vol. 86, p. 299), who have produced hypertrophy of the heart in rabbits, first, by causing chronic nephritis, and, secondly, by removing one kidney. These observers explain the increased cardiac function which took place in their experiments by the partial loss of renal function, and conclude that the matters which are excreted from the blood by the kidneys constitute an irritant for the heart leading to increased function, and eventually to increased volume.

Israel has, in another series of experiments, arrived at results which afford a considerable amount of support for the views which I have been led to form with regard to heart affections being the sequelæ of diabetes. He fed rabbits with large doses of urea, and found, after a few weeks, that hypertrophy of the heart came on, which was preceded by hypertrophy of the kidneys, showing that the system gradually gets accustomed to increased claims on the functional activity of the organs, as no serious deviation from health occurred in these animals. A similar result occurred after the introduction of nitrate of sodium, while grape sugar did not appear suitable for prolonged administration. If, however, injections of a concentrated solution of one or two grammes of this substance were made, either into the veins or into the peritoneum, it could be shown with a kymographion that increased blood-pressure was the result.

From these experiments Israel has drawn the conclusion that healthy kidneys will, to a very great extent, answer the increased calls made on their power, but that, in extreme cases, such as diabetes and feeding with urea, they eventually become insufficient, and this sooner or later, according to individual circum-

stances. This insufficiency is then met by increased action of the heart, which, if persisting for a considerable time, leads to hypertrophy of that organ.

It is in this sense that I wish to be understood to account for the hypertrophy and dilation of the heart which is so frequently found in diabetes.

It is well known that the kidneys are often found after death in a state of hypertrophy and hyperplasia; and while the results of necropsies of such cases which are hitherto recorded do not seem to confirm my theory, I would point to the fact that these *post-mortem* examinations have been made on hospital patients, who are generally admitted for more or less acute diabetes, which is connected with rapid wasting of the substance of the organs.

The cardiac muscle in such cases behaves much the same as other muscles when they have to do more work, yet do not become hypertrophied if they are badly nourished.

A very telling analogous instance is furnished by pernicious anemia, where the small quantity of oxydisable constituents of the blood, and the necessity of supplying the system with oxygen, act as irritants on the heart, and would lead to hypertrophy, provided the heart were well nourished; but as such is not the case, and the heart is called upon for undue efforts, fatty degeneration will, on the contrary, be the result.

We may therefore take it for granted that the anatomical lesions to be found in diabetic patients of a better class would differ, so far as the heart is concerned, from those to be met with in average hospital patients.

Considering the fact that of the former class of cases hardly anything is known in this respect, I thought it all the more important to go carefully through the records of the Pathological Institute of Berlin, in order to ascertain any anatomical changes in the latter class, more especially as Israel had already found in 10 per cent. of diabetic cases which had proved fatal in the Charité hypertrophy of the heart without valvular disease, and without affections of the arteries and kidneys.

Professor Virchow was kind enough to allow me to peruse these records from 1856 to 1887. I gave special attention to the stated condition of the heart, blood-vessels, and kidneys, and found that the percentage of hypertrophy and dilatation of the heart was 13.0, while in the cases observed by myself it amounted to 21.6 (82 out of 380).

Want of space prevents me from giving the details of the *post-mortem* records of the Pathological Institute, but I may say that most of them show simultaneous severe affection of the lungs, and nearly all of them morbid changes in the brain; while in my own 82 cases no organic disease could be discovered, either by clinical symptoms or physical examination. The percentage of 13.0 must therefore be looked upon as considerable. I will not omit to mention that in a number of the other *post-mortem* records, hypertrophy of the heart with chronic endo-aortitis, as well as endo-arteritis and hypertrophy, were the primary affections.

While therefore heart disease in diabetes has only quite recently been described, and that by a very few authors, the occurrence of arterio-sclerosis in that disease has been much more fully dwelt upon, more especially by Frerichs. Those who leave out of account the increased functional activity of the heart have to look to the chemical alteration of the blood as the cause of the vascular disease.

We have seen above that the accumulation of sugar and urea in the blood is not proportionate to the quantity of these substances which is eliminated, but that, on the contrary, in consequence of increased cardiac activity, a compensatory elimination takes place in the urine, which is partly owing to enlarged kidneys and partly to changes in the heart's structure. The dilatation of the blood-vessels which occurs subsequently is simply owing to the increased work of the heart, which throws more blood into the vascular system in a unit of time. Vascular disease is the consequence of permanent mechanical irritation.

Sir William Gull's and Dr. Sutton's "arterio-capillary fibrosis" as occurring in nephritis, and Dr. Ewald's "muscular hypertrophy of the arterioles" must be looked upon as secondary consequences of the cardiac disease. In the same way, the occurrence of arterio-sclerosis in diabetes has to be traced to the mechanical influence of cardiac changes.

I hope to have rendered it evident that the cases of cardiac disease which I have observed in patients suffering from diabetes have to be traced to morbid changes of metabolism. My argument is, moreover, well supported by the observations of several authors, such as R. Schmitz, who have apparently found fatty

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degeneration of the heart in a large percentage of cases of diabetes.

If we read such statements by the side of the anatomical records which I have mentioned, it will be seen that they have to be taken for what they are worth; for neither fatty metamorphosis nor infiltration of fat has been at all commonly met with *post mortem*. On the other hand, such observations have a clinical value, since, as far as symptoms are concerned, fatty degeneration, infiltration of fat, brown atrophy, dilatation, and other anatomical lesions of the heart may show at times the same clinical aspect, namely, that of cardiac asthenia, which latter appears to me due to the claims made upon the heart by the diabetic change of metabolism. Compensation under these circumstances must always be temporary, more especially where the nutrition of the system in general suffers at an early period, and where the formation of urea and sugar exceeds that limit within which well-nourished kidneys and a well-nourished heart are able to eliminate these substances.

As far as treatment is concerned, it appears from the foregoing that everything should be avoided that may impair the action of the heart and kidneys; for we know that organs which are in a state of hyperactivity easily become diseased. I may here refer to the frequent occurrence of valvular disease in nephritis, and of nephritis in diabetes. The latter I have found recorded in 30 out of 66 cases contained in the records of the Pathological Institute of Berlin. Stokvis has forcibly drawn attention to the same point in his able paper on diabetes read before the late Medical Congress at Wiesbaden, while I have seen nephritis in 64 out of 180 cases, although not frequently in the form of granular contracted kidney.

The principle of sparing the suffering organs as much as possible has, in my opinion, to be carried out particularly as regards diet. In many cases a rigid nitrogenous diet cannot be enforced. I have, on this account, during the last few years, frequently added milk to the diabetic diet, and can fully corroborate the favourable testimony which Hoffmann gave on this point before the late Medical Congress.

ON THE INDICATIONS FOR THE USE OF THE KREUZNACH WATERS IN STRUMOUS DISEASE.

By DR. HEUSNER,
Kreuznach.

THE motive which leads me to publish this article is the fact that patients are frequently sent from England to Kreuznach suffering from diseases for which the waters of this place are not suitable, while, on the other hand, many persons, for whose successful cure reasonable hopes might be entertained, are not ordered to Kreuznach at all.

General Treatment of Struma.—In the treatment of strumous diseases it is pre-eminently necessary to bring about an improvement in the constitution. The treatment of local affections, though frequently indispensable and very beneficial to the constitution, is seldom in itself sufficient, and will certainly be facilitated and rendered more efficient by the adoption of a suitable general regimen.

Kreuznach Treatment.—The question which I propose to answer is whether a course of the Kreuznach waters is beneficial in all cases of struma, and under what circumstances their use is contra-indicated. I am unable to answer this question by quoting statistical data, partly because a physician practising at a watering-place is apt to lose sight of the majority of the patients after too short a time, and partly because it is extremely difficult to give a decided opinion as to whether the strumous taint is definitely and totally eradicated. In many cases one cannot speak with certainty of a cure, but only of a general improvement. The result of my observations goes to prove that this improvement of the constitution has been attained, with very few exceptions, in nearly all cases after a steady and persevering course of the Kreuznach waters. In many cases the local symptoms so greatly predominate over the constitutional that the improvement of the former directly indicates the degree of constitutional amelioration. The favourable climate, and the possibility of exactly regulating the desired curative action, make a visit to Kreuznach advisable for individuals of the most opposite and varying constitutions. In some

cases, however, the hopes entertained with regard to Kreuznach have been doomed to disappointment, simply because people imagine that a single stay—and that often of very short duration—is sufficient to effect a cure. It is, however, only in very slight cases that a single course of treatment suffices; deep-rooted constitutional affections cannot be so easily eradicated; they necessitate not only repeated and lengthened visits to Kreuznach, but also continuous and careful dietetic treatment; while a subsequent stay at the seaside, or in the mountains, etc., is frequently indispensable.

Contra-indications of the Kreuznach Treatment.—Some complications of strumous disease make a course of Kreuznach waters futile, while others render it objectionable. For instance, I consider it distinctly contra-indicated in decided tubercular disease of the lungs; also in disease of the kidneys at an advanced stage, and in any chronic state of feverishness, from whatever cause. But when slight manifestations of fever are kept up by a strumous affection which, from its very nature, seems to point to Kreuznach as a place where an improvement is to be hoped for, a trial may fairly be made—more especially when it is impossible to attack the disease at its seat, as is the case, for instance, with caries of the vertebrae. Particular care should be exercised with patients suffering from valvular disease of the heart, or from degeneration of the heart-muscle, as the Kreuznach baths often unfavourably influence these complaints. Nor does the warm, dry climate which generally exercises such a beneficial influence on strumous persons, always suit patients suffering from asthma. I have not witnessed any favourable results from the use of the Kreuznach waters in cases of leucæmia or malignant lymphomata (pseudo-leucæmia, Hodgkin's disease, *adénie*), nor in cases of cancer or sarcoma.

The Kreuznach Treatment in Glandular Enlargements.—The obstinacy with which glandular affections resist any treatment is well known, and the question arises whether it is not advisable to extirpate the diseased glands at once before seeking other remedies. A source of tuberculosis is thus removed that might endanger the general health. My opinion is that, as long as the glands do not show decided signs of suppuration, weighty reasons may be urged against their extirpation, one frequent obstacle being the impossibility of removing all the diseased glands. Besides which, the scars of the operation are permanent. A still weightier reason against the operation is, that an outbreak of general tuberculosis has been known, in some cases, to follow immediately on the extirpation of the glands. Even glands that are already softened are capable of reabsorption, as well as the hard tumours mentioned in the preceding sentence. When suppuration has commenced, however—especially if accompanied by feverish symptoms of a more serious kind—surgical treatment undoubtedly affords better prospects of a rapid cure with small cicatrices than any other treatment. But, among the non-surgical curative methods, the treatment pursued at Kreuznach is certainly that most adapted to cause indolent glandular swellings to decrease in size, and even to be entirely reabsorbed. In order to put a stop quickly to suppuration, when it has become established, and to promote cicatrization, a course of Kreuznach waters is frequently a most valuable addition to the surgical treatment. The above remark also applies to cold abscesses, not originating from glandular disease, from which scrofulous people often suffer.

In Skin Disease.—As to eczema and other superficial skin diseases of a strumous nature, they are cured with surprising rapidity by a course of Kreuznach waters. In lupus vulgaris success is more doubtful, though I am of opinion that a relapse may be considerably retarded by a course of Kreuznach. But as, in this insidious disease, no one is secure from the danger of a relapse even after several years, I do not venture to assert that the cure is definitive and permanent.

In Catarrh.—Chronic catarrhs of the various mucous membranes, the obstinate nature of which is well known, are, without exception, favourably influenced by the Kreuznach waters, though of course deeply degenerated mucous membranes cannot be restored to their normal state. This has special reference to the almost unavoidable coryza of strumous patients. In the various catarrhs of the pharynx and fauces, the effects of Kreuznach treatment are most favourable. Adenoid vegetations of any considerable size are not, it is true, diminished by its use to any noticeable degree; but small lymphatic follicles may disappear from the back wall of the fauces. Hypertrophy of the tonsils, it may as well be mentioned here, is but seldom cured or even notably decreased.

In Ophthalmia.—The success attending the treatment of stru-

mous affections of the eyes is particularly striking when the object is to prevent the endless relapses of keratitis. Although the opinion of a considerable part of the medical profession is opposed to the use of Kreuznach waters in florid inflammations and ulcerations, nothing in my experience justifies the laying down of such a contra-indication.

In Ear Disease.—The effects obtained in diseases of the ear are less striking. Catarrh of the middle ear often leads to deep degeneration, shrivelling, adhesions of the mucous membrane, etc., which render all hope of a cure futile. Nevertheless some of the dangerous suppurations of the middle ear, whether connected with an affection of the bone or not, have actually been cured at Kreuznach.

In Bone and Joint Disease.—In speaking of affections of the joints and bones the difficulty is to define the limit beyond which a surgical operation becomes necessary. We have certainly seen several cases cured at Kreuznach in which most surgeons of the present day would have advised an operation. In other cases the removal of the bone, whether desirable or not, is impossible. On the whole I incline to the belief that it is safer, especially when the joints are involved, to operate a little too soon rather than to delay too long. This particularly applies to adults. Among the advantages of such a course we may mention that the transfer of the invalid to Kreuznach, in order to have his strumous ailments attended to after an operation, is generally attended by less difficulty. Besides, should an operation become necessary during the course of treatment, it causes a very unpleasant interruption of the cure. For the definitive and final healing of wounds and ulcerations, the waters of Kreuznach have always proved excellent. Kidney diseases, such as are associated with suppuration of the bones, I have also seen cured when attacked in the beginning, but not after having been allowed to develop fully. Though I have by no means exhausted the list of strumous diseases, nevertheless I think that the foregoing considerations will suffice to determine in each particular case the desirability of a course of the Kreuznach waters.

THE MINERAL WATERS OF BRIDES-LES-BAINS AND SALINS-MOUTIERS.

By P. DELASTRE, M.D.,

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BRIDES is a charming little village, situated in one of the most picturesque parts of Savoy, five kilometres and a half from Moutiers, the chief town in the prefecture. The village stands at an altitude of 1,800 feet above the level of the sea. Situated in a valley, it is sheltered particularly from the east, west, and north winds; yet the pure air of surrounding mountains and glaciers of the Tarantaise is invigorating and refreshing to the most delicate constitutions. The country around is remarkable for its picturesque beauty and the variety of its scenery. Brides is accessible from Paris, in about fourteen hours, by the Lyons and Mediterranean Railway. The season is from the middle of May to October. The hotel, lodging, and bath accommodation is excellent.

The springs supply abundant water, at a temperature of 95° F.; they are alkaline, and powerfully diuretic and slightly aperient, containing, as the chief ingredients, sodium chloride, sodium sulphate, magnesium sulphate, with smaller proportions of the alkalies, carbonates, and free carbonic acid, which imparts to them a limpid and slightly sparkling character. The water presents many of the qualities of the famous Carlsbad springs, and, besides possessing valuable diuretic and aperient action, is also tonic and invigorating in debilitated constitutions. Its effects will be found to be especially serviceable in the various forms of functional derangement of the gastro-intestinal tract, especially when associated with abdominal plethora depending on chronic gastro-intestinal catarrh, and congestion of the liver or spleen with constipation. Cases of biliary colic, lithiasis, and functional derangement of the liver, the result of prolonged residence in India and other tropical countries, are almost invariably benefited by their use. In a brochure which I lately published, termed *Etudes sur les Eaux Minérales de Brides-les-Bains et Salins-Moutiers*, I have treated specially of the physiological and therapeutic properties of the various springs. Their action is remarkable in assisting to restore healthy nutrition, and particularly in favouring the elaboration of cholesterine in the liver, and also the elimination of the

products of urea and of phosphatic salts by the kidneys. The use would seem also to favour oxygenation of the blood and the formation of hæmoglobin, at the same time diminishing the tendency to obesity in those so disposed. In gout generally, and specially in atonic cases, the effects are often remarkable. I have found diabetic patients also improve very much under treatment.

The springs of Salins-Moutiers, the natural temperature of which is about 96° F., are rich in sodium chloride, and also contain iron and arsenic. Their properties are even more marked than those of many other waters which possess a similar action, such as Kreuznach, Homburg, Mannheim, and Kissingen. The springs are less than two miles distant from those of Brides. Their use is of great value in children of rachitic or scrofulous constitution, in anæmic chlorosis, and other debilitating conditions in women. In affections of the uterus and appendages, they are of much service. In disordered menstruation, amenorrhœa, dysmenorrhœa, and leucorrhœa, and in fibroid tumours of the uterus, with uterine engorgement, their use is attended with marked benefit. These waters are often of service in conjunction with the use of those of the neighbouring springs of Brides. Dr. Hermann Weber, in his chapter on Climate and Health-resort in the *Book of Health*, refers to Brides and Salins-Moutiers as "among the best summer health-resorts, not only for its springs, but for its delightful salubrious air."

Were the valuable properties of these springs more widely known, as well as the natural charms of the district in which they are situated, I feel sure they would be largely taken advantage of.

OBSERVATIONS ON THE USE OF THE EFFERVESCING CHALYBEATE WATER OF STRATHPEFFER SPA.

By FORTESCUE FOX, M.D. LOND.,
Strathpeffer.

STRATHPEFFER in Scotland and Harrogate in England are commonly associated with sulphur treatment, that it may not be out of place to recall the fact that iron waters, of greater or less value, are almost invariably found in the neighbourhood of sulphuretted springs. At the first-named spa there is, for example, a chalybeate spring to which attention has been lately directed on account of its unusual character. It has been conveyed to the pump-room, where it issues as a water, richly carbonated and aerated in the summer months. Here it is drunk, hot or cold, in a state of cloudy effervescence.

Thus it is usually possible at sulphur spas not only by the use of iron to supplement with advantage the alterative effects of sulphur, but also in an entirely different class of cases to provide a treatment founded on the tonic waters alone. The object of the present observations is to illustrate this latter or primary use of the effervescing chalybeate at Strathpeffer. The cases which appear to have benefited the most by its use tend to fall, on the review of four years, into the following groups, examples of which are appended.

Group I.—Debilitated men of advancing age, with (probably or certainly) renal and vascular lesions, with or without gout.

CASE I.—A gentleman, aged 71, had lost health rapidly during the past twelve months. There was no obvious disease in any organ. The pulse was small and weak; urine normal. He was very anæmic and rather sallow, showing some œdema of the face and hands. The chalybeate was commenced in small doses, and afterward increased to 60 ounces daily. Under this treatment, with judicious dieting, strength and colour returned in a very remarkable manner. This gentleman died in the following year.

CASE II.—A lawyer, aged 54, suffered from overwork and worry under which he completely broke down. He had two passing attacks of aphasia, which led to the discovery of albuminuria after which he was laid by and put upon a milk diet. He arrived at Strathpeffer a few weeks later, complaining much of headache, poor sleep, and great nervousness and lassitude. The chalybeate was persevered in for five weeks, given always in small doses, at short intervals, before breakfast and again at noon, and altogether with the best results. The only remaining symptom was a urine faintly albuminous, but the specific gravity had increased from 1013 to 1018 (or, on the average of 58 ounces in twenty-four hours, 1017).

CASE III.—A gentleman, aged 57, stated (in 1885) that he had

ffered from gout in the feet for about four years. In that year he took for four weeks the strongest sulphur water and baths. In the following season (1886) he returned, having had two very slight attacks of gout during the spring. The general condition was, however, changed for the worse. He was anæmic and anæmic; the urine was very albuminous, although the skin still shed freely. After a few days of sulphur treatment the chalybeate was resorted to with benefit. The next year (1887) he reported himself as moderately well, but he had had several gouty attacks in the feet and knees. One of these had been "brought in by a course of steel." The effervescing chalybeate was taken for three weeks, and he left the spa without gouty symptoms, and much better in every respect, and able to walk several miles a stretch. The urine remained faintly albuminous.

It is thus evident that a sparkling iron water of moderate strength (a third of a grain to the pint) may be useful in gouty cases; or, rather, it may be proper to disregard the gout and treat in this manner the more serious maladies to which it has given rise. But whether gouty or otherwise, a condition exists of pre-ature senility of the tissues, with anæmia (perhaps hydræmia), and often with signs of renal failure, in which carbonate of iron, freely diluted, is beneficial. And thus if Leamington, with its fine chalybeate, is excellent in the anæmia of the young, so no less Strathpeffer, with its effervescing carbonated chalybeate, may be regarded as congenial to the anæmia with debility of the aged.

Group II.—Dyspepsia in middle life, due to nervous prostration and overwork.

CASE IV.—A lady of nearly 60, after severe domestic trial, began to complain of "rheumatic" pains, indigestion, and loss of strength and colour. She was recommended spinal douches and the chalybeate water, taken hot at noon. The quantity was soon increased to about forty ounces daily, divided into small doses. After a fortnight she left the spa, not without much improvement in health. In this class of cases the peculiarly stimulating effect of effervescing waters is often noticed, exhilaration and even giddiness following their use by delicate stomachs.

Group III.—Chronic malarial affections.

CASE V.—A lady, aged about 45, after much mental strain and daily illness (dysentery and "fevers") in tropical South America, returned home in ailing health, subject to recurring "internal chills," diarrhoea, and general weakness. She was stout, very anæmic, nervous, with frequent indigestion, headaches, and flying pains. For nearly four weeks this lady took the chalybeate, usually hot, and latterly to the extent of forty-five ounces daily. With this were combined occasional douches, sulphur baths, and massage, which no doubt contributed to a striking improvement in nervous, muscular, and digestive tone. For cases of this kind very prolonged use of the water is to be recommended, repeated from year to year, where benefit has been once derived.

The pure or carbonated chalybeates, more especially those of a light and digestible quality, will probably be accorded a wider therapeutic range when they have been systematically put to the test. That the iron is actually absorbed would seem to be certain not only from the fact that the evacuations are hardly ever discoloured, but also from the rapid and obvious tonic effects in many instances.

FACTS AND FIGURES IN CONNECTION WITH THE CLIMATE OF CALIFORNIA.

By JAMES H. PARKINSON, L.R.C.S.I.,
Sacramento, California.

The beauty and grandeur of scenery California is unsurpassed, and there is good railroad communication throughout the State; the hotel accommodation is quite equal to that which people who travel are wont to find away from home. Those who wish to reside permanently will find many places which will perfectly meet the needs of everyday life.

There is, perhaps, no other region where one can travel for hundreds of miles in so equitable a climate as that of the Sacramento and San Joaquin valleys. From Red Bluff in the north to Yuma in the south is 400 miles, and throughout that expanse of country what is true of one portion holds good for all. Northward and southward the surface is more broken, and the climate of different localities varies with the situation.

In order that some idea may be obtained of the relative position

of stations in the following tables, I append the latitude, longitude, and height above sea-level of seven towns in the State.¹

TABLE I.

Stations.	Latitude.	Longitude.	Above Sea-level.
Los Angeles	34° 04' N.	118° 14' W.	334 feet
Oakland	37° 48' N.	122° 17' W.	25 "
Red Bluff	40° 11' N.	122° 15' W.	307 "
Sacramento	38° 35' N.	121° 30' W.	35 "
San Francisco	37° 48' N.	122° 25' W.	60 "
Santa Barbara	34° 25' N.	119° 42' W.	30 "
San Diego	32° 44' N.	117° 10' W.	40 "

The comparative temperatures are well shown in the following table. Those for Europe are taken from Dr. J. H. Bennet's work, *Winter and Spring on the Shores of the Mediterranean*. The temperatures for California are from the Signal Service records and some independent observers, and represent an average of from seven to ten years.

TABLE II.

	Average winter Temp.	Average spring Temp.	Average summer Temp.	Average fall Temp.	Average annual Temp.	Highest Temp.	Lowest Temp.	Above Sea-level.
Florence	44.3	56.0	74.0	60.7	58.8	*	*	Feet.
Mentone	49.0	58.3	73.9	62.5	60.9	85	23	—
San Remo	48.9	57.3	72.4	61.9	60.1	85	25	—
Nice	47.8	56.2	72.3	61.6	59.5	*	*	—
Cannes	49.6	57.4	73.0	61.0	60.2	85	20	—
San Diego	54.6	59.1	66.8	62.6	60.5	101	32	40
Los Angeles... ..	53.6	58.4	67.8	62.7	60.6	112	28	334
Santa Barbara	54.3	59.4	67.7	63.1	61.0	102	31	30
Santa Cruz	51.8	57.7	62.2	59.6	57.8	98	30	25
Monterey	50.9	56.7	61.6	57.1	56.6	90	25	42
San Francisco	51.3	54.6	58.5	58.2	55.7	95	33	60
Sacramento... ..	48.3	59.5	71.7	61.5	60.2	106	19	35
Oroville	52.9	64.5	78.8	64.3	65.1	102	29	205
Red Bluff	46.8	59.8	79.7	63.2	62.4	110	19	307
Anburn	46.2	56.4	74.3	61.7	59.7	106	18	1,363

* No Record.

It will be seen that the average winter temperatures, except that of Sacramento, are much higher in California. The spring temperatures are about the same in both places. In the summer temperatures California is several degrees cooler, while again in the autumn the temperatures equalise.

In connection with the highest temperature columns it may be stated generally that such elevations are exceptional. High temperatures in California are not oppressive. During the summer months, when harvesting is in active progress, men and animals work throughout the long days under the cloudless skies, with the thermometer at 110° or 120° (in the sun), yet sunstroke is almost unknown. I do not think that this peculiarity has been satisfactorily explained. Many ascribe it to the dryness of the atmosphere, and there would seem to be a foundation for this belief in the history of cases which have occurred in Sacramento.

For the invalid or convalescent a fact of great importance is the universal prevalence of cool nights. During the afternoon the south breeze commences to blow, and very soon the air is pleasantly cool. This breeze arrives at different hours, according to locality: in the coast towns, early in the afternoon; at Los Angeles, about 3 P.M.; at Sacramento, usually about 5 P.M., and continues to blow during the night. It is but rarely, in an ordinary well-ventilated room, that bedclothes can be dispensed with; in fact, during a constant residence of almost five years in this city I can remember just four occasions that I slept without cover.

Table No. III gives some idea of the number of fine days which can be relied on. The figures indicating the days on which rain fell for five of the stations were not at hand. Clear, fair, and cloudy days are estimated on the Signal Service basis, a clear day being one on which cloudiness is three or less in a scale of 10. Sacramento, with 240 clear days, leads every town in the United States at which an observer for the Signal Corps is stationed. I regret that the number of days on which rain fell is not given for all stations, as this is a matter of considerable importance for the invalid.

¹ I am indebted to Sergeant James A. Barwick, the Signal Corps observer at Sacramento, for compiling the tables contained in this article.

TABLE III.

Stations.	Average Annual Number of Days Rain Fell.	Average Seasonal Rainfall.	Average Annual Number of Clear Days.	Average Annual Number of Fair Days.	Average Annual Number of Cloudy Days.
		Inches.			
Los Angeles	—	17.63	171.3	142.4	51.6
Oakland	68.0	24.54	263.9*	—	101.4
Red Bluff	—	27.46	227.7	81.7	55.3
Sacramento	69.6	19.94	240.0	74.9	50.4
San Francisco	—	24.25	146.7	139.0	79.6
Santa Barbara	—	16.92	No record	No record	No record
San Diego	—	11.01	122.3	157.6	85.4

* Clear and fair days combined; they are not recorded separately.

The following table is self explanatory:

TABLE IV.—Average Direction from which the prevailing Winds have been observed to blow. The Averages are from 7 to 15 Years; those in San Diego and San Francisco are Averages from 1871 to 1884, while Los Angeles, Sacramento, and Red Bluff are from 1877 to 1884.

Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
San Diego	NE	NW	W	W	W	W	W	W	NW	NW	NW	NE
Los Angeles	NE	NE	W	W	W	W	W	W	W	W	NE	NE
San Francisco	N	W	W	W	W	SW	SW	SW	SW	SW	NW	N
Sacramento	SE	SE	S	S	SW	S	S	S	S	S	N	SE
Red Bluff	N	N	S	S	S	S	S	S	N	N	N	N
Cape Mendocino	NW	NW	SE	NW	NW	NW	NW	N	N	N	SE	NW

The velocity of the wind is not given, but I may say that in the interior of the State what sailors call a "moderate gale" is practically unknown. I have but seldom seen even a "stiff breeze" in the capital city.

These facts and figures are submitted without extended comment. We who live in the Far West are, perhaps, too apt to boast of our "glorious climate," but those only who have existed for years in less hospitable regions can appreciate what it truly is. For persons of comfortable or ample means California is easy of access, and can be reached in eighteen days from any point of departure in the United Kingdom. The journey can be made in comfort and even luxury. By the Royal Mail and Pacific Mail the trip can be made almost wholly by sea, and for good sailors it is the easiest way to travel.

A CASE OF OSTEO-PLASTIC RESECTION OF THE FOOT BY THE METHOD OF MICKULICZ.

By SIR WILLIAM MACCORMAC, F.R.C.S.
Surgeon, St. Thomas's Hospital.

THE lad whose case I wish to bring before the Society this evening is now 16 years old. On March 12th, 1887, I performed the operation introduced by Mickulicz, of Prague, and Wladimiroff, of Kasan. So far as I know it has not been previously performed in England, and as now more than a year has elapsed since the date of the operation, the Fellows of the Society will be able to estimate the amount of usefulness attained in the limb. The notes were taken by Mr. C. H. James, dresser of the case.

W. B., aged 15, a clerk, much emaciated, with a pasty face and dull, suffering expression, was admitted to St. Thomas's Hospital January 29th, 1887. There is no history of phthisis, and both parents are alive and well. Six months before the boy fell downstairs and sprained his left ankle. He was treated as an out-patient with strapping and plaster-of-Paris splints without improvement. One abscess had formed behind the inner malleolus, which was opened, and another in the sole of the foot. The swelling was very prominent on each side of the tendo Achillis. The sinuses led down to diseased bone, and it was evident the

joint between the astragalus and os calcis was extensively diseased. Two further abscesses presently formed, and the general condition of the patient became much worse. There was now evident that disease was beginning in the ankle-joint. The parents reluctantly consented to an operation, stipulating, however, that the foot must not be amputated. The soft parts covering the bone were much infiltrated and riddled with sinuses, but considering the disease to be limited to the os calcis and astragalus, and involving secondarily the joints adjacent, Sir William decided to perform the following operation.

The patient was placed in the prone position. If it be the right foot, the knife is introduced on the inner border of the foot just in front of the scaphoid tubercle, and a transverse incision extending to the bone is made across the sole of the foot to a point a little behind the tuberosity of the fifth metatarsal bone. On the left foot the direction of this incision will, of course, be reversed.

From the inner and outer extremities of the wound incisions are prolonged upwards and backwards over the corresponding malleolus and their extremities (Fig. 1), united by a transverse

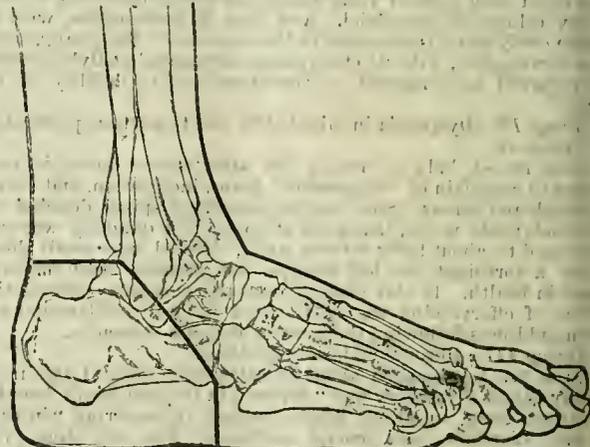


Fig. 1.—Direction of the incisions: Mickulicz's operation.

across the back of the leg, made down to the bone, at the level which it is to be sawn, usually immediately above the joint surface of the tibia. In cases where a larger removal of the tibia or fibula is required, the lateral incisions must be more oblique, and the posterior transverse cut made at a higher level.

The ankle-joint is now opened from behind, the disarticulation completed, and, after flexing the foot, the soft parts are carefully separated in front until the medio-tarsal joint is reached, when disarticulation is effected, as in Chopart's operation. The posterior portion of the foot—consisting of the astragalus, os calcis, and the soft parts covering them—is thus removed. The articular surfaces of the tibia and fibula, with the malleoli, are now sawn off as well as those of the cuboid and scaphoid bones (Fig. 2). The

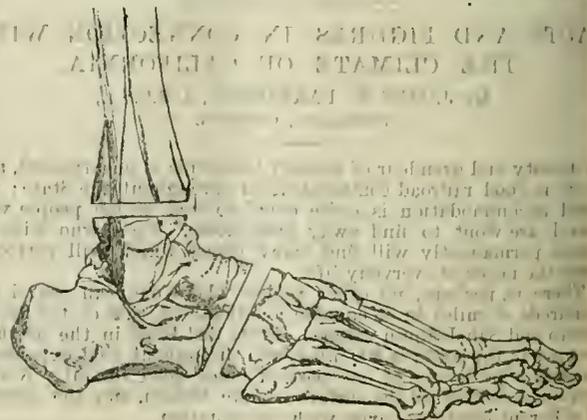


Fig. 2.—Line of section of the bones.

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anterior portion of the foot remains connected with the leg by a loose bridge of soft parts. The blood-supply appears to be ample, or almost directly after the operation blood issued freely from the distal ends of the divided plantar arteries.

All hæmorrhage having been arrested, the foot was brought into a straight line with the leg, and the cut surfaces of bone were sutured together with kangaroo tendon. The attempt to discover and unite the divided ends of the posterior tibial nerve failed on account of the sodden condition of the soft parts. Suitable dressings and a plaster-of-Paris splint were applied, the toes being brought into a position of complete dorsal flexion.

I need not detail the after-treatment; the boy made an excellent recovery, and a firm bony union eventually took place. Sensibility began to return in the sole of the foot in about a month, and this gradually became more complete. In December the boy returned to the hospital to be fitted for the boot he now wears. (Fig. 3.) He can stand or walk with ease and comfort. The left limb is half an inch longer than the right. (Fig. 4.)

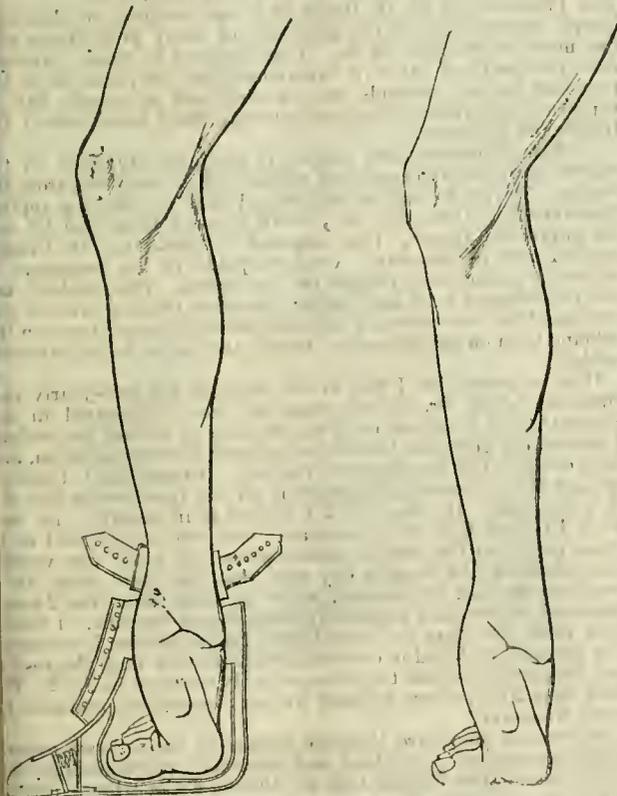


Fig. 3.—Foot fitted with boot. Fig. 4.—Stump after Mickulicz's operation.

The sensibility of the left foot appears to be perfect, showing that the divided nerve must have united. The toes are mobile. I regarded such a result as this, obtained under very unfavourable circumstances, as an exceedingly satisfactory proof of the utility of the operation.

Wladimiroff, of Kasan, in 1872, appears to have been the first to perform the operation, but Mickulicz first published an account of it in Langenbeck's *Archiv*, 1881.

The functional result, as I think this case will show, is an admirable one. An artificial *pes equinus* is procured, the object being to preserve the toes and metatarsal bones, which are sacrificed in other amputations of the foot; these are brought into a straight line with the leg, and the toes bent at a right angle, so that the patient walks on the ends of the metatarsal bones, covered by the thick pads of tissue which invest them (Fig. 4). A broader surface of support is provided than is afforded after either Syme's or Pirogoff's amputation, and there is some elasticity of foot left. In ordinary cases the limb will be longer by nearly an inch, which can be readily compensated for by a thicker sole on the other boot.

As regards indications, it may be at once conceded that the operation will prove better adapted to cases of injury—gunshot

injury more especially—than for those of disease. My experience of this case, however, would tempt me to adopt the procedure again in any case where the bones of the heel and soft parts covering them were extensively damaged or diseased, the anterior half of the foot remaining healthy.

The patient, when shown to the Medical Society, walked with the greatest facility up and down the room, both with and without the boot. There was perfect union at the line of section, and he was evidently very proud of his power to walk so well, and with such ease.

OBSTETRIC MEMORANDA.

CASE OF LABOUR, WITH DOUBLE UTERUS AND VAGINA.

MRS. C., aged 23, sent for Dr. Culpin on September 17th, 1883. Previous to her marriage, she had always had good health, never having had occasion to seek medical advice. Neither the patient nor her husband had ever suspected any abnormality. She had been married sixteen months, and had had one miscarriage when three months pregnant. She now believed herself at the full term of pregnancy. Labour pains were first felt at 2 A.M. on September 17th, and soon after the membranes ruptured. At 10 A.M. Dr. Culpin was sent for. He found a double vagina. The two canals were about equal in size, and the finger entered one as readily as the other. At the end of the right vagina, the os uteri was found dilating, and a foot presenting. At the end of the left was an undilated cervix uteri, and to the right of this the presenting foot could be easily distinguished through the septum, which was entire throughout the whole length of the vagina. There was not any unusual obliquity of the uterus. A sound could be passed into the left cervical canal. Dr. Herman subsequently saw the patient with Dr. Culpin, and confirmed the existence of the state of things described. Delivery was left to Nature until the pelvic extremity of the child had been born, which happened about midday on the 18th. The delivery of the shoulders and head was then accelerated in the usual way; but presented difficulties greater than would have been expected from the size of the child. After delivery, the upper half of the vaginal septum was found to have been torn through. The child was stillborn. Nothing abnormal was noticed about the third stage of labour, or the lying-in. Nothing like a decidua was noticed in the discharges. The patient was delivered of her second child on February 27th, 1888, Mr. Plaister being in attendance. She believed herself to have gone the full term of pregnancy. Mr. Plaister was not sent for until the head had descended well down into the vagina, and was pressing on the vaginal septum. This he pushed to the left side. In the intervals between the pains, he could distinctly feel the left os uteri, and, after delivery, he ascertained that the child had been born from the right uterus. The child was a male, living, weighed 5 lb. 10 oz., and measured 19 inches in length. The labour was a quick one. On March 3rd, Dr. Culpin and Mr. Plaister examined the patient together. The sound entered the left uterus two inches. No decidua was seen by them, or noticed by the nurse. The left cervix uteri had the appearance of that of an unimpregnated uterus. On April 16th, Dr. Herman examined the patient with Mr. Plaister. By bimanual examination the two uteri could be distinctly felt; they moved together. The left uterine body was smaller, rounder, and harder than the right. The sound entered the right uterus for three inches. The vaginal septum had been completely torn through.

In this case the kind of abnormality present was that known as uterus bicornis duplex. There were two distinct uteri, each with its own cervix and vagina, but the two cervixes were united. The researches of Küssmaul show that some abnormality in labour was met with in about half of the cases with this formation. But, as in easy labours an anatomical peculiarity is likely to be overlooked, he thinks this proportion too high to represent the truth, although high enough to show that the occurrence of difficulty is more than a coincidence. The more common sources of difficulty are those exemplified by the first labour in this case: first, that the vaginal septum offers resistance to dilatation, a resistance overcome in this case by spontaneous tearing of the septum, which was partly destroyed in the first labour, completely in the second. Secondly, that the fault in the development of the uterus is apt to lead to irregularity or weakness of pains, and so to protraction of

1 Von der Mangel der Verkümmernng und Verstopfung der Gebärmutter. Würzburg, 1858.

labour. The first labour in this case was lingering, owing to feebleness of pains; and to this cause, and the unfavourable position of the child, with the premature escape of the liquor amnii, the death of the child appeared to be due. Both pregnancies were in the right uterus, and the left uterus did not appear, so far as may be inferred from its condition after delivery, to have at all shared in the development during pregnancy of its fellow. In some cases, the unimpregnated uterus was enlarged during the pregnancy of its fellow; but Cruveilhier saw a case in which, as in this, the unimpregnated uterus remained small and hard.

MILLICE CULPIN, L.R.C.P.ED.

W. H. PLAISTER, M.R.C.S.

G. ERNEST HERMAN, M.B., F.R.C.P.

A CASE OF PUERPERAL CONVULSIONS TREATED BY CHLOROFORM.

ON November 23rd, 1887, I was called to see Mrs. G., a young woman about eight months advanced in pregnancy for the first time. She was then in an unconscious condition, having just had a convulsion. She had great œdema of the lower extremities, and passed only a small quantity of blood-stained urine. I went home and fetched some chloroform, and during the time I was gone she had a convulsion about every hour, and stronger than the one before. I at once commenced giving inhalations of chloroform (6 P.M.), not heavily, except when a fit threatened, at which time I gave it freely. She had a strong convulsion at 6.30, the right side being chiefly affected, but the convulsion was cut short by increasing the chloroform. From 6 P.M. to 10 P.M. I kept her under chloroform, only the above mentioned convulsion taking place. At 10 I went home for some more chloroform, and whilst gone she had a convulsion. From 10.30 to 4.30 I gave chloroform without intermission, at which time the child (stillborn) having been born I ceased, there having been no convulsion in that time, nor after I ceased giving it.

When I stopped the inhalation the patient was quite unconscious, and she continued in that state the rest of that night, all next day, and the following night, and recovered consciousness the second morning after the attack. She made a good recovery under ordinary treatment, and is now quite well.

I think this case interesting, from the ready manner in which the chloroform stopped the convulsions, the length of time the patient was under the anæsthetic, namely, ten hours, and the time she was totally unconscious, namely, about forty hours.

Bourton, Dorset.

B. POPE BARTLETT, M.R.C.S.

TETANUS AFTER MISCARRIAGE.

THE patient, a married woman, aged 27, was small, thin and delicate, having suffered from painful ovaries; she had had two children and four miscarriages.

On September 25th, 1887, a miscarriage at three months took place; all went well for three days, when the temperature rose to 102° F. at night; this was found to be due to the presence of a small portion of very adherent placenta, partially decomposed, in the uterus. Under chloroform it was removed, the os having to be dilated by the fingers; the temperature that evening rose to 104°, but was normal the next morning. On October 2nd, two days after its removal, stiffness of the back of the neck was complained of; next day the teeth could only be slightly separated, the masseters being hard and contracted. Spasms on drinking, slight opisthotonos, and the risus sardonius succeeded in the order mentioned; severe and painful spasmodic contractions of the muscles of the back occurred frequently; the patient could swallow only while under the partial influence of chloroform, but later on even this was impossible.

On October 4th a severe general spasm occurred, followed by others; the temperature rose to 102°, and death soon followed. No necropsy could be obtained. Treatment: chloral hydrate gr. 20 every three hours; frequent inhalation of chloroform, and nutrient enemata.

Aylesbury.

T. G. PARNOTT, M.R.C.S., L.R.C.P.Lond.

CLINICAL MEMORANDA.

CIRRHOSIS OF THE LIVER.

DR. DRUMMOND'S case of cirrhosis of the liver, described in the JOURNAL of February 4th, is of especial interest to me, because I now have a patient, suffering from that disease, who has mani-

festated nervous symptoms, similar in character though not so intense in degree. The history is shortly as follows:—

T. P., a labourer, aged 48, formerly addicted to drink, consulted me in January 1887 for jaundice, etc. He got gradually worse and in March kept his bed. Soon after ascites appeared, he became very restless, and sleep entirely left him. He had delusions and at times got very excited. He lost his memory, and talked in a very rambling manner; his speech became slow and drawing. He remained in bed about two months, when he began to improve. The ascites disappeared, a fact which seems to bear on the remarks of Dr. Wilks in the JOURNAL of February 11th. The delusions left him and he now talks rationally. He can go about a little, but his gait is unsteady and staggering. His memory continues defective, and his speech slow and drawing.

Oswestry.

JAMES T. NEECH, L.R.C.P.E.

THE PROPOSED METHOD OF OBTAINING VACCINE LYMPH WITHOUT PUNCTURING THE VESICLES.

THE introduction by Dr. Grigg of a new method of obtaining lymph entitles him to the gratitude of every practitioner who has much vaccinating to do. I am disposed to think, however, from the results of my own experience, that the rationale of the proposed method depends, not on exosmosis of lymph, but on rupture of the vesicles, and consequently direct admixture of the lymph and glycerine.

A characteristic vaccine vesicle, if carefully examined on the eighth day, is seen to consist of minute ridges, radiating from the centre. Now, it is easy to understand that any friction applied transversely to these lines may break through them and let out the imprisoned lymph, I am disposed to think that Dr. Grigg's method acts in this way. A salient point in his procedure is rubbing a globule of glycerine on the vesicle. The result of my few experiments leads me to infer that this rubbing is a *sine qua non*, and that the success of the new method depends more on the rubbing than on the glycerine, though the latter is an excellent vehicle.

It so happened that I was in the midst of my half-yearly vaccinations when Dr. Grigg's valuable article appeared in the JOURNAL, and I had an early opportunity of testing his method. I applied the glycerine to vesicles on three different children, and in so doing varied the degree of rubbing. In case No. 1, I merely applied the glycerine and spread it on the vesicle with the end of a director. In case No. 2 I rubbed it in gently. In case No. 3 I rubbed it in with moderate force, but not so hard as to cause pain; in this case a minute streak of blood was visible. The result on the seventh day was that the fluid from No. 1 produced no sign of vaccinia, while the fluid from Nos. 2 and 3 produced redness and apparently commencing vaccinia. I would infer from this that to obtain fertile lymph friction is essential. The presence of blood in one case, No. 3, showed that the vesicle had been ruptured, and the same probably occurred in No. 2. The fluid from No. 1, where rubbing was not employed, produced no effect whatever.

Of course, I am aware that the results of one or two experiments are very apt to mislead, and practically prove nothing; but at the same time I think that we should not attribute certain results to such intangible causes as exosmosis and endosmosis, if those results can be explained on merely mechanical grounds. It is difficult to conceive how glycerine could have such an effect on the dense and horny cuticle as to allow the lymph to diffuse through it in a few minutes, unless the glycerine produced actual disintegration of the cuticular structures.

At all events, whatever the way in which Dr. Grigg's method acts, there can be only one opinion as to the great value of his suggestion, and it will without doubt prove a real boon to those who hold the thankless and troublesome office of public vaccinator. FITZJAMES MOLONY, L.K.Q.C.P.I., Public Vaccinator.

Porlock, Somerset.

THE AMERICAN MEDICAL ASSOCIATION.—The meeting of the American Medical Association will begin on May 8th, under the presidency of Professor A. Y. P. Garnett, of Washington, at Cincinnati. An address on General Medicine will be given on the following day by Professor Bartholow, of Philadelphia; an address on General Surgery by Dr. E. M. Moore, of Rochester, on May 10th, and address on State Medicine by Dr. H. P. Walcott, of Boston. The eight sections, which include a "Section on Dental and Oral Surgery," will meet on each of the four days during which the Congress lasts.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF
GREAT BRITAIN, IRELAND, AND THE COLONIES.

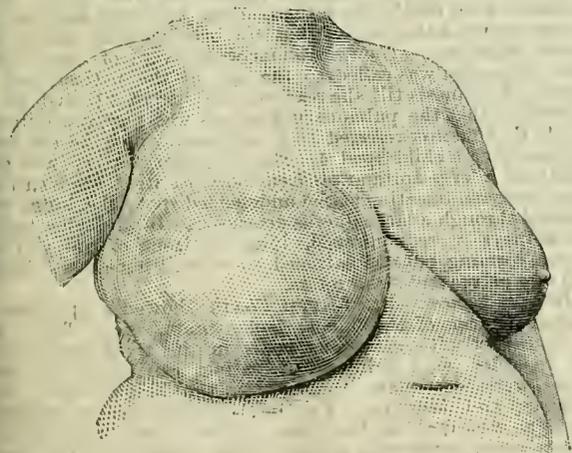
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL
HOSPITAL.

VERY LARGE SARCOMATOUS TUMOUR OF THE RIGHT BREAST OF
A FEMALE: SUCCESSFUL REMOVAL.

(Under the care of Mr. VINCENT JACKSON.)

M. E., aged 44, unmarried, was admitted on September 25th, 1887. Her previous personal and family history was unimportant, negative, and barren of causal origin. Eighteen months since the right breast began to enlarge, and it gradually continued to do so until the mamma attained its present unusual dimensions, and it was in consequence of the unsightliness produced thereby, as well as of the weight and dragging of the organ, that she felt constrained to apply for surgical relief.

To the eye there appeared to be a general enlargement of the whole of the right breast; the nipple was not interfered with either in size, appearance, or position. The subcutaneous veins being enlarged were visible, and they arboresced in various directions. With this exception the skin uniformly appeared quite normal, everywhere free and of natural tint, and in no part elevated by underlying bosses.



The weight of the breast was very much added to; this was specially appreciated when with the same hand first the left and then the right mamma was lifted. To the feel all over the impression conveyed was one of semi-elasticity, although here and there a greater resistance to finger pressure was undoubted; the breast moved easily over the underlying thoracic structures. The axilla was void of any enlargement of the axillary glands. The following measurements were taken:

	Right Breast.	Left Breast.
Horizontal ...	15½ inches	10 inches
Vertical ...	14 "	8 "

September 30th. Ether having been given, amputation of the whole breast was performed, the weight, after removal, being 5 lbs. 1 oz.

October 12th. The wound having quite healed, the patient returned to her home. The length of the linear cicatrix by measurement is 11 inches.

REMARKS BY MR. VINCENT JACKSON.—The above case is one of considerable interest, both on account of the large size of the growth involving the right breast and its somewhat doubtful histological character. For a mammary tumour to weigh six pounds is rare, although, of course, not at all a unique circumstance, for Dr. S. Gross records in a foot-note in his work on *Tumours of the Mammary Gland*, that a case is narrated from the practice of Dr. Kremer in which the tumour weighed twenty-two pounds. The growth of the tumour appears to have been

fairly regular from the time it was first observed. Although sarcomata are generally admitted to become in time the most bulky of the mammary tumours, yet they seem frequently to run an irregular course, starting and then growing a little, stopping awhile, then growing again, once more quiescent, and finally, as if with increased energy, rapidly enlarging to a bulk which apparently is only limited by the life of the unfortunate sufferer. The surface temperature of the two breasts to the bare hand was not perceptibly different, but the test of the thermometer was not resorted to.

Dr. Heneage Gibbes on this occasion, as on many previous occasions he has done similar work for me, examined microscopically a portion of the tumour, and I quote as follows from his written report: "I find the morbid growth is of a fibrous character. In some parts it resembles myxomatous growth, in others a homogeneous tissue of a fibrous character is formed. The appearance of cysts is caused by the new growth surrounding the gland acini having absorbed the major portion, leaving only a larger or smaller space, which is lined by epithelium identical with that in a normal gland. I think the growth is of a sarcomatous nature, as it resembles some I have which show a distinct sarcomatous change in parts; but, at the same time, I have similar growths which have been removed from the breast without any recurrence." The illustration taken from a photograph will assist in explaining the previous description.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

LUMBAR HERNIA; RADICAL OPERATION; RECOVERY.

(Under the care of Mr. EDMUND OWEN.)

[Reported by the late Registrar, Dr. PENROSE.]

ALICE J., aged 5½ years, fell down six steps in the autumn of 1886, and soon afterwards complained of pain in the small of the back and in the right foot. She was kept from school, and whilst staying with some friends in the country during the succeeding December an abscess broke above the left hip-bone. After this the child walked better, but the sinus continued to discharge for three months, then the wound closed. Six weeks before her admission into the hospital, the date of which was November 18th, 1887, a painless lump had appeared where the original abscess broke; it was for this that treatment was sought.

On examination it was found that the back was stiff, and that while the dorsal region of the column was unusually straight, some of the lumbar spinous processes were prominent. The lump, which was about the size of a small orange, was just above the left iliac crest, in the interval between the anterior border of the latissimus dorsi and the posterior border of the external oblique—the triangle of Petit. The tumour was resonant on percussion, and its contents could be completely returned into the abdominal cavity; they slipped back spontaneously, moreover, when the child lay on the right side. The sac being emptied, the finger could be invaginated into the abdominal cavity, and at the same time could clearly define the margins of the abnormal aperture, which was about as large as the end of one's thumb. A cough or strain would at once drive the bowel again into the sac, and another cough would still further distend the coverings of the hernia and stretch the painless white scar upon its surface, which marked the spot at which the abscess had burst. The emigrant bowel was probably part of the colon, for hardish masses, which were taken to be faecal, could be felt in it.

Operation.—On January 18th last, chloroform being administered by Mr. Priestley, Mr. Owen made an incision over the tumour until he reached what he thought was the transversalis fascia; he then thrust the sac and its contents within the abdominal cavity without making a special examination of them, and approximated the edges of the latissimus dorsi and external oblique by three deep sutures of strong catgut. The sutures were then cut short; the wound was closed and dressed with blue wool. The child was much collapsed after the operation, but she made an uninterrupted and perfect recovery. Before leaving the hospital she was allowed to run about the ward without a truss or pad being placed over the wound. The hernia is now soundly cured, though there is still some fulness, not to say weakness, in that region.

REMARKS BY MR. OWEN.—A chronic abscess in the situation referred to is of common occurrence, so that, when a surgeon sees a soft, rounded tumour above the back of the iliac crest, and

notices at the same time that there is a stiffness or a curvature of the spine, he is apt to conclude that the tumour is an abscess. Indeed, that error had been committed in this very case. Should the swelling be incised in mistake for abscess, however, the result might be disastrous. Lumbar hernia is rarely met with, at any rate in such a definite form as that in the case just recorded, and I apprehend that an operation undertaken for the cure of a reducible lumbar hernia is quite an exceptional procedure; at any rate, I can find no reference to a similar case.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 1ST, 1888.

J. HUGHLINGS JACKSON, M.D., F.R.S., Vice-President, in the Chair.

Primary Cancer of the Fallopian Tube.—Mr. ALBAN DORAN exhibited a right Fallopian tube and ovary. The tube was dropsical, and its walls were invaded by a cancerous growth. The ovary was small, but completely converted into new growth. The patient was a married woman, aged 48. For three years she had been subject to a clear vaginal discharge, which sometimes contained membranous fragments. In January, 1887, Dr. Amand Reuth scraped out the interior of the uterus, removing a quantity of red fungous growth. An attack of pelvic inflammation followed, and during the patient's recovery a tumour was detected, rising to the right above the pubes. The tumour grew slowly larger, and the patient lost flesh; fragments of solid matter came away in the discharge. On March 1st, 1888, Mr. Knowsley Thornton removed the tube and ovary; the patient recovered. The uterus was free from malignant disease. A series of sections of the new growth were also exhibited. The tumour-substance was made up of collections of large polymorphous cells, surrounded by trabeculae which were infiltrated with small cells. A few tubules lined with ciliated epithelium were to be seen; they were surrounded by a wide area of large flat cells. The tubules and their surroundings suggested the glands which, as Hennig and Bland Sutton had demonstrated, existed in the Fallopian tube, and further indicated that the cancer originated in those glands. The same collections of large cells (with wide oval spaces caused by vacuolation) and trabeculae, showing small cell infiltration, were to be seen in sections from the ovary. The history of the case, and the small size of the infected ovary compared with the large proportions of the growths in the tube, would appear to prove that the tube was the primary seat of cancer. A cancerous ovary grew very rapidly, and seldom infected the tube till it had become a large tumour. Only three cases of primary malignant disease of the tube had been described. The first, Scanzoni's, was doubtful; in the second, Dr. Senger's, of Breslau, the tumour was sarcomatous; the third occurred in Dr. Martin's practice, and was described by Dr. Orthmann as an instance of truly cancerous papilloma. In the specimen exhibited by Mr. Doran, malignant degeneration of previously innocent papillomatous growths might have taken place; but in any case he believed that the cancer was histologically of glandular origin.

Cystic Disease of the Testis.—Mr. QUARRY SILCOCK showed a specimen of cystic disease of the testis. The body of the testis was the seat of an interstitial fibroid overgrowth, apparently radiating from the mediastinum testis, with an accompanying progressive cystic dilatation of the seminiferous tubules. The cysts, to the naked eye, varied in size from a pin's head to a pigeon's egg, but, microscopically, every stage between a well formed seminiferous tubule and the fully developed cyst was observable. A scrotal tumour was thus formed, which consisted almost wholly of tough-walled cysts, some of these having ruptured, owing apparently to absorption of the intermediate fibrous tissue, so giving rise to multilocular cystic cavities of considerable size. The cystic contents varied, being a clear hydrocele-like fluid in the larger cysts, and a thick glairy fluid or caseous material in the smallest. The specimen was removed from the body of a middle-aged man who died in the medical wards of St. Mary's Hospital, and no history attached to it. The disease appeared to be analogous to some cases of cystic disease of the breast, with general dilatation of the ducts, and to pure cystic disease of the kidney. There was no evidence to the naked eye, or microscopically, that it was in any way connected with the formation of a neoplasm, such as an adenoma or fibroma. The vas deferens appeared to be permeable and healthy. The vesiculæ seminales were not examined.

Congenital Heart Disease in Adults.—Specimens from two

cases of congenital cardiac malformation in adult women were shown by Dr. MONTAGU MURRAY. The first specimen was an example of patent ductus arteriosus, in a woman who died at the age of 26, of malignant endocarditis. During life there was systolic thrill over the pulmonary cartilage, and a systolic murmur loudest over the same place. The patient died with ordinary symptoms of ulcerative endocarditis. She had never been cyanosed, and there had not been any clubbing of the finger-end. At the necropsy the heart weighed 18 ounces; the hypertrophy chiefly affected the left side; vegetations were found on all the valves; the ductus arteriosus was patent, about three-eighths of an inch in length, and large enough to admit a quill. A large mass of vegetation was found in the pulmonary artery, near the opening of the duct. This condition occurring in the adult was rare. The position of the mass of vegetations, the dilatation of the pulmonary artery, the absence of cyanosis and the position of the murmur and thrill seemed to show that blood passed from the aorta into the pulmonary artery, while the absence of any marked hypertrophy of the right ventricle was evidence that there could have been but little obstruction caused in the pulmonary artery by the entrance of the blood. In the second case the aorta arose from both ventricles; the interventricular septum was incomplete; there was stenosis of the pulmonary artery; phthisis and tubercular meningitis were present. The patient was quite well until she reached the age of 21 years, when she had rheumatism and perhaps heart disease. This was followed by attacks of cardiac failure with persistent cyanosis. A systolic murmur was heard at the apex, base, pulmonary and aortic cartilages, in the great vessels, and at the scapula, the patient finally dying of phthisis followed by meningitis; vegetations were found on all the valves after death; the infundibulum was small and the pulmonary valves adherent, so that the opening only measured a quarter of an inch. The ventricular walls were of equal thickness. Attention was called to the age of the patient, and the absence of cyanosis till she reached the age of 21, and to the probability that the pulmonary stenosis was partly acquired. Dr. H. HABERSON referred to a specimen which he exhibited obtained from a child aged 4. The pulmonary artery was atrophied, and a large aorta arose from both cavities, the ventricle being in communication at the undefended spot; the lungs were supplied through a large ductus arteriosus. In the same patient the kidneys were conjoined, lying in front of the vertebral column, forming but one flattened, so-called "horseshoe," kidney with two pelves and two ureters.

Multiple Cancer.—Dr. JOSEPH COATS showed a specimen of multiple cancer of the lungs, bones, brain, etc. There was an old cavity with cancerous walls in the right lung, which was regarded as a primary ulcerating cancer of the lung. There were secondary tumours in the lungs, bones, liver, pancreas, and kidneys. The most extraordinary condition, however, was that in the brain. Here there were cysts of various sizes, numbering no less than twenty-four, the largest about two inches in diameter and the smallest about a quarter of an inch. There was only one instance of a consistent tumour in the brain, and even this was soft and evidently to a large extent cystic. Microscopic examination showed in the lung tumours typically cancerous structure. The tumour which was regarded as the primary one, owing to its size and apparent age, and to the bronchial glands being the only glands affected, showed alveoli resembling in size and shape the normal lung alveoli, but occupied by epithelial cells, the peripheral ones of which had a regular cylindrical shape. In the secondary tumours in the lung the alveoli were less regular in size and shape, and they showed a tendency to cystic development, apparently by colloid metamorphosis of the cells. In the bones it was found that the expanded ends of the femur were largely occupied by cysts in various stages of development, from simple collections of epithelium to large spaces filled with colloid material. The bone was greatly atrophied, being only represented by narrow trabeculae. In the brain the cysts had a definite lining of epithelium. In the case of the semi-solid tumour cysts in various stages of development were visible, much resembling those in the bone. It was regarded as very extraordinary that in the bones and in the brain the secondary tumours should have shown this cystic character. The clinical history of the case was given from notes by Professor Gairdner. P. H., aged 17, was affected with various nervous symptoms, of which the chief were amaurosis, squinting, and nystagmus, but without any definite paralysis or loss of intelligence. In the course of the

[May 5, 1888.]

ase tumours in the bones were observed. The case ended with pulsions.

Primary Cancer of Brain.—Dr. JOSEPH COATS also showed an example of Primary Cancer of the Brain. The tumour was oval in shape, and measured about an inch and a half in diameter. It was situated above the pons and peduncles, apparently growing from the aqueduct of Sylvius, distending it and projecting into the fourth ventricle. The anterior part of the aqueduct was unaffected, the third ventricle normal. Under the microscope the principal constituents were cylindrical epithelium cells arranged in rows and enclosing spaces. Dr. Coats suggested the origin of the tumour from the epithelium of the aqueduct. The clinical history given by Professor Gairdner showed the principal symptoms to have been "weak turns," pain in the head, vomiting, and rigidity of the head. She gradually became very lethargic, and it was difficult to arouse. She underwent progressive emaciation up to death.

Primary Carcinoma of Liver.—Dr. CROOKE (Birmingham) exhibited specimens from a case of primary growth of the liver. The patient was a painter, aged 65, who had been under the care of Dr. Walter Foster and Dr. Simon. The liver, when the patient was under treatment, was uniformly enlarged; there was some jaundice and distinct jaundice. After systematic examination the diagnosis of primary cancer of the liver was given. At the autopsy this diagnosis was confirmed; no other organ or part of the body was affected. The liver, which was uniformly enlarged, weighed 104 ounces; its general shape was unaltered, but its surface was covered by round nodules. On section the growth was diffused in the central part of the right lobe, the central colour being greyish-white, but streaked by lines of fatty degeneration. Throughout the whole of the left and the extremity of the right lobe there was discrete nodular infiltration. Microscopical examination of the growth revealed appearances which illustrated one mode of origin of primary growths in the liver, namely, from proliferation of the liver-cells. Groups of cells were to be met with in the advancing part of the growth, which had very large nuclei, some of which might be observed to be dividing; in other parts a more active division of nuclei might be observed, and the various stages of karyokinesis. With this clear division, vacuolation, and even division of the liver-cells themselves occurred, and thus at the margin of the small nodules of growth columns of liver-cells were formed in which both processes were going on. The bridges between the vacuoles finally became absorbed, while the nuclei became arranged at the periphery; in this way a column of liver-cells was converted into a tubule lined by a highly nucleated protoplasmic border or even filled with proliferating epithelioid cells; a tubule thus formed sprouted in all directions, the nuclei at the same time rapidly proliferating, and thus the adenoid structure was obtained. The stroma of the growth was, Dr. Crooke believed, derived from the peribulbar and intercellular connective tissue. Well-defined blood-vessels were present only in the larger nodules, involving several lobules here Glisson's capsule entered considerably into the formation of the stroma.—Dr. COATS thought the prevalent notion of the growth of secondary tumours was that a cell was transplanted, but if Dr. Crooke's view was correct it would afford a powerful confirmation of the theory that cancer was disseminated by some specific agent.—Dr. CROOKE briefly replied.

Contraction of Orifices of Coronary Arteries.—Dr. TURNER showed the heart of a man aged 52, who had been found dying. The cause of death had been extreme contraction of the orifices of the coronary arteries from atheroma at the commencement of the aorta. The left ventricle was somewhat hypertrophied; the muscles firm and of healthy appearance. Referring to similar specimens previously shown to the Society, and to other cases in which a similar lesion had been the cause of sudden death in cases of angina pectoris, he argued that stenosis of the coronary arteries caused death in all cases by interference with the blood supply to the myocardium, and not indirectly through interference with the nutrition of the nerves, as had been suggested by Dr. Dickinson. He regarded the pain and anxiety of the anginous attack as tending to the recovery of the sufferer by arresting all movement, and thus aiding a restoration of nutritive equilibrium in the heart wall.

Mamma in Dermoid Cysts.—Mr. BLAND SUTTON said that it was by no means uncommon to find in the interior of an ovarian dermoid cyst tags of skin resembling a nipple. Such tags might be associated with a more or less rounded projection, recalling in a striking manner the shrunken mamma of a woman who had

suckled many children. The surfaces of such mammae occurring in ovarian dermoids were dotted over with numerous small pits, indicating the orifices of sebaceous glands, and a crop of hairs usually sprouted from the skin-covered surface. This condition was well illustrated by a specimen preserved in the museum of the Royal College of Surgeons. Standing beside it, in the same collection, was another ovarian dermoid, presenting a mamma of the size of a walnut, furnished with a nipple growing from the cyst wall. The surface was covered with dark-coloured fine hairs; it was made up of fat, covered with skin containing sebaceous and sudoriferous glands. In the museum of the Middlesex Hospital there was an ovarian dermoid cyst of the size of an orange. Standing out from its wall was a mass of fat, covered with skin, and furnished with a nipple. The mamma itself was supported upon a piece of skin-covered bone, lodging three teeth. On section, the interior of the mamma was seen to be occupied by a series of ducts leading to a glandular mass at its base. This specimen had been put up long ago, and the histological features were not well preserved. A recent ovarian dermoid cyst, removed by Dr. Bantock, contained a mamma with a nipple passing from each side to join the cyst wall. The mamma was of the size of a Tangerine orange, and made up chiefly of fat. Lying in the midst of this fat was a series of tubules leading to a glandular mass at the base of the mamma; above, these tubes passed directly into the nipples. When recent, the nipples were widely distended with a fluid resembling very poor milk, but rather more viscid. Under the microscope this fluid had all the characters of milk, and presented even colostrum globules. The microscopical characters of the glandular tissue resembled that of the normal mamma in the arrangement of the ducts and acini, but differed from it in lacking the regular layer of cubical epithelium. These observations were interesting in affording support to the view that mammary glands were modifications of sebaceous glands.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 27TH, 1888.

Sir W. MAC CORMAC, F.R.C.S., Vice-President, in the Chair.

A Case Illustrating the Advantage of Early Incision with Drainage as Opposed to Excision of Joints.—Mr. WAINWRIGHT described the case. The patient, a boy, aged 3, was admitted to the West London Hospital about two years ago with a large abscess superficial to the periosteum, covering almost the whole of the outer aspect of the left thigh, which was said to have resulted from a fall a fortnight previously. This was treated by antiseptic incision and drainage. A fortnight later, before the incision was quite healed, the right hip began to inflame, and, at the end of another month, distinct fluctuation being detected in four of his joints, it was incised, and a quantity of pus evacuated. Carious bone was then found in the anterior part of the neck of the femur, which was removed by scraping, the joint being otherwise healthy. An antiseptic dressing was applied, and the wound healed in another month, leaving a perfectly movable joint. Meanwhile some thickening, which had existed about the left knee from the commencement, became more pronounced, and that joint became tender and painful—so that, shortly after the right hip had healed, the left knee was freely incised, and the cartilaginous surfaces freed from an overgrowth of synovial membrane, by which they were completely covered, by means of a sharp spoon and scissors. Antiseptic dressing and drainage were used, and the child left the hospital about six weeks later, with a plaster splint on the left knee, the wound having healed. He was admitted about seven months later, and a small exfoliation of bone was removed from a granulation cavity just above the left knee. The sinus then healed, but the knee had become partially flexed, from the splint having been removed by the parents against orders. An effort had since been made to correct this by extension and another plaster splint, but considerable deformity still existed. The knee was now nearly immovable, but all the movements of the right hip were perfect.—Mr. BENNETT said it would be interesting if Mr. Wainwright could say whence the scales came which he described as having been removed from the side of the knee. He thought, on the whole, it was a sort of case by no means rare. The abscess described was such a one as followed inflammation due to injury. In such a case the suppuration in the right hip while the child was lying quiet might be explained on the ground of pyæmia. This was a matter of some importance. He expressed himself as misled by the title of the paper, seeing

that the advantage gained by the operation performed on the knee-joint was the removal of the fungous material rather than simple drainage of the joint. On the whole he questioned whether the condition of the joint which Mr. Wainwright had described was better than would have followed excision. He asked what was the present condition as regarded locomotion.—Mr. LUCAS mentioned a case in which three joints had been affected in succession and required excision. He thought that so far as the hip was concerned he would agree with what Mr. Wainwright had advocated, namely, incision, examination, and removal of any carious bone in the neighbourhood. With regard to the other operation, he felt with Mr. Bennett that the title of the paper was misleading, and he thought that the joint might have done as well with excision. Excision as at present practised was a very different operation from what it used to be. He always clipped away the pulpy material and the synovial membrane as much as could be seen before proceeding to remove the bone. Did the exfoliation come from the neighbouring abscess or the erased joint?—Mr. HOWARD MARSH thought the paper turned on the question as to whether the disease of the joint was tubercular or pyæmic. He had often seen good results, with perfect movement, follow Mr. Wainwright's treatment in pyæmic abscesses in joints in children, but doubted whether this would be the case in tubercular disease. He thought excision was destined to become more rare than heretofore. He himself had been very disappointed with the results obtained from excision of the knee in children; often no bony union followed, and the leg remained flexed and useless.—Mr. PARKER hoped that the possibly misleading title would not be allowed to detract from the excellent results of the arthrectomy carried out by Mr. Wainwright. He himself had not obtained such good movement of the joint after drainage alone.—Mr. BENNETT asked whether Mr. Parker considered multiple abscesses evidence of tubercular disease.—Mr. PARKER said they did not absolutely prove the existence of tubercular disease, but if a child had multiple abscesses, and then disease of the knee, the evidence was in favour of struma.—Mr. SYMONDS said he had examined the child, and thought it was a brilliant result. At the same time he thought that the child was not suffering from tubercular disease. He suggested that the hip disease was due to extension upwards. His own experience was decidedly in favour of the operation. There were, however, a number of cases in which excision was the only operation. The after-results of excision of the knee were very good, and the union often quite solid.—Sir WILLIAM MAC CORMAC said the knee was evidently the seat of strumous synovitis, which Mr. Wainwright had erased with arthrectomy.—Mr. WAINWRIGHT, in reply, said that the title of his paper should have been "early incision with drainage and scraping." What he had done to the knee was an erosion, but not to the hip. The bone removed from the thigh was not carious; it came from about an inch and a half above the knee, and was caused by superficial necrosis of the femur in a granulation cavity. As to the question of pyæmia, the child's temperature never exceeded 101° F., and was usually normal, even when the suppuration started in the hip. It would be strange if such a condition could be compatible with pyæmia being set up in the opposite hip. Probably the knee had been injured at the same time as the hip, and the injury had caused pulpy degeneration of the knee, and necrosis of the femur. He had scraped away a pit from the front of the neck of the femur. The pus was sero-pus, not foetid. As to the result with the knee, probably it would have been as good had excision been performed. The paper was read more for the hip than the knee, and the bad result to the knee was probably due to the fact that the parents took off the splint without permission.

Perihepatitis.—Dr. HALE WHITE began by giving an account of a man, aged 29, in whom the abdomen had been tapped 35 times for ascites, and from whom 790 pints of clear fluid had been drawn off. The tapplings extended over a period of about 20 months, and at times the fluid re-collected at the rate of 2 pints a day. On one occasion 31½ pints were drawn off at one time. The patient had been abroad a great deal, and had had ague, dysentery, rheumatic fever, typhoid, and probably syphilis. He gradually sank from diarrhoea, and at the necropsy it was found that he had general larvaceous disease, granular kidneys, and universal perihepatitis, perisplenitis, and chronic peritonitis. There was never any jaundice, nor was there any evidence of dilatation of the portal vein. For these reasons, and because of the extreme rapidity with which the fluid re-collected, Dr. Hale White maintained that neither pressure on the whole liver nor on

the portal vein could explain the ascites. He examined 40 cases in the Guy's Records, of which 22 were cases of universal and 18 of partial perihepatitis; of the latter, 6 were examples of malignant or tubercular peritonitis. The conclusions at which he had arrived were that universal perihepatitis was, in the great majority of cases, part of a general disease consisting of chronic peritonitis and universal capsulitis of spleen and liver. It was almost invariably associated with granular kidneys, and frequently with gout, syphilis, over-indulgence in alcohol, or disease of the heart or lungs, causing backward pressure. That the cause of the ascites was the general chronic peritonitis seemed proved by the fact that there was no ascites in the very rare cases in which chronic peritonitis was absent. There was never any evidence that the disease could remain latent, or that it tended to recover, so that the prognosis was bad. The cases of partial were probably distinct from those of universal perihepatitis. In the former the thick capsule would not peel off; there was no folding of the anterior edge; the capsulitis of the spleen was not universal, and there was but rarely any peritonitis or ascites. It appeared probable that the universal perihepatitis began equally over the liver, and that the partial was never converted into the universal form. The average age at death of cases of universal perihepatitis was 47½ years, the oldest being 60, the youngest 29. There were 13 males to 8 females. It was suggested that if the author's contention that universal perihepatitis was only part of more general disease turned out to be correct, it would be better to have a new name for that disease. Dr. KINGSTON FOWLER said he had very frequently demonstrated the presence of this membrane on the surface of the liver in cases of ascites of long standing. The same thing was found on the peritoneum elsewhere in cases of chronic peritonitis. He attributed the membrane in some cases to the peritonitis set up by repeated tapping. If peeled off, the membrane was found to be fenestrated. A very similar condition was seen in the pleural cavity when dropsical fluid had been long present, and it was this membrane which often prevented expansion of the lung after the withdrawal of pleuritic fluid by tapping.—Dr. SIDNEY PHILLIPS said he had often remarked how very rapidly the abdomen refilled after tapping in cases of perihepatitis. He said that several varieties had been described, and designated three which occurred. He mentioned the case of a man under his care at St. Mary's Hospital who had jaundice a long time without ascites, but in whom the ascites was very acute a month before death. Being tapped the abdomen quickly refilled. At the *post-mortem* examination a thick band was found blocking up the portal vein. He agreed in discarding the theory that the liver was constricted by the membrane; it was usually enlarged.—Dr. LONGHURST inquired how far the condition described might be due to climatic influence and asked where the patient was when the disease first showed itself.—Mr. LUCAS quoted two cases. The first was one under Dr. Pyle-Smith, in which the abdomen rapidly filled up after repeated tapplings. The patient was a youth with a peculiarly blue complexion, and he diagnosed pericarditis with perihepatitis. In the case there was an inguinal hernia, and they had attempted to drain the peritoneum through the patent tunica vaginalis. This proved unsuccessful in consequence of the blocking of the tube, and the closure of the opening by lymph. The diagnosis was confirmed at the *post-mortem* examination, at which was found an adherent pericardium, with perihepatitis, and a thick membrane was found binding down the lungs. The second case was under Dr. Goodhart. In that case he made an oblique incision through the linea alba for the purpose of drainage, and it succeeded admirably. The patient went out cured, as the fluid did not re-collect. For months it was possible to turn him on his side, and when the wound had nearly closed if a probe was passed in large quantities of fluid escaped. If a tube were kept in, such wound always quickly closed.—Mr. SYMONDS quoted another case under Dr. Goodhart in which an unsuccessful attempt was made to drain the peritoneum, as the tubes became quickly blocked with lymph. He said that they could not wipe over the whole peritoneum with carbolic acid, and nothing short of that would be of use. He was of opinion that surgical treatment in such cases was useless. Possibly Mr. Lucas's successful case was not similar to the one quoted by Dr. Hale White.—Dr. HALE WHITE, in reply, said there might be a general cause at work, but what it was could not be made out. Climatic influence could not be traced.

A Case of Tumour of the Right Ovary in a Child aged 7. Associated with Precocious Puberty.—Mr. R. CLEMENT LUCAS read a paper on this case. The patient was admitted into the Eveling

hospital in December, 1884, for a tumour of the abdomen, and the mother had noticed some time before that the child at times had a dark-stained vaginal discharge. Other signs of puberty were also present, namely, firm breasts as large as oranges, and a mons veneris covered with hair an inch in length. The tumour was firm and slightly lobulated. This extended from the right iliac region within two fingers' breadth of the left anterior superior spine, and from the pubes upwards to one inch above the umbilicus. The child menstruated while under observation on January 7th, and again on January 25th, 1885. Mr. Lucas performed ovariectomy on February 4th, 1885. The tumour was a solid, round-celled sarcoma. The child menstruated again on February 6th, two days after the operation, but from this time it ceased. The signs of puberty also gradually receded, and the breasts again became flat. The child made an excellent recovery, and when seen two years and nine months after the operation was in perfect health, and showed no signs of recurrence.—Mr. HOWARD MARSH said it was not always the case that growing ovarian tumours in children hastened the advent of puberty. Some years ago he performed ovariectomy on a child aged 8, in whom no precocity existed. He thought that this point might be settled by looking up the records of such cases, which were not rare. The nature of the tumour in Mr. Lucas's case as sarcoma, not dermoid, as were most of the cases of ovarian disease in young children.—Mr. MEREDITH mentioned a case to prove that these tumours were not always accompanied by sexual precocity. The patient was a little girl aged 7, from whom he had assisted to remove a dermoid growth of the ovary. She had no sign of precocity. On the other hand, the stimulating effects of ovarian growths on the sexual functions were well marked when they occurred in women after the menopause; in such patients there was often a return of the menstrual discharge.—Dr. ANGEL MONEY said that negative evidence went for nothing in such cases. Other abdominal tumours in children sometimes accompanied similar precocity. He mentioned the case of sarcomatous growth of the suprarenal body in a little girl aged 3, who exhibited many signs of puberty. A similar case had also been recorded by Dr. Dickinson.—Mr. HOWARD MARSH said that it would be interesting to collect a number of cases of precocious puberty, of which he had seen a large number.—Mr. BENNETT asked whether any other members of the child's family had exhibited similar precocity.—Sir WILLIAM MAC CORMAC approved of Mr. Marsh's suggestion, and thought the case pointed to some such association as that indicated.—Mr. WILBERFORCE SMITH asked whether the subsidence of the mammae had still persisted.—Mr. LUCAS, in reply, said that the mammae had since remained small. There was no history of any similar precocity in the other members of the family.

MEDICAL SOCIETY OF LONDON.

MONDAY, APRIL 30TH, 1888.

Sir WILLIAM MAC CORMAC, F.R.C.S., President, in the Chair.
CLINICAL EVENING.

Eclampsia Rotans.—Dr. HADDEN showed two children suffering from eclampsia rotans. The patient with eclampsia nutans whom he intended to show had not come. The first child was nine months old—never had fits, but two of the family died of convulsions. Although the child never had fits, it often looked strange. In the two other cases, there had been nystagmus corresponding to the movements of the head. In the case he was to have shown there was nystagmus, but in a vertical direction. In the child then before the Society there was nystagmus of the one eye only. The movements began ten weeks before the child was seen by him.—Dr. OUTTENSON WOOD asked whether it could be traced to any injury, as was often the case.—Dr. HERRINGHAM pointed out the interesting analogy between these cases and the movements in old age (paralysis agitans), which was also of two kinds. He mentioned the case of an old man who, in addition to tremors of the hands at the rate of five per minute, had a peculiar movement of the head, two and a half per minute, due to an affection of one splenius muscle.—Dr. HADDEN, in reply, said that no history of injury was obtainable. He criticised the designation "eclampsia nutans," and said that the word "nystagmus," signifying to nod, would have been preferable.

Post-Mediastinal Tumour.—Dr. HERON showed a man, aged 50, who, for fourteen years past, had been in perfect health. He now complained of severe pain, radiating from the right clavicle to the level of the tenth rib, in front and behind. For four months past all solid food was vomited, but liquid food could be retained with comfort. No vomiting of blood. Bowels regular; urine

normal. Had been losing flesh since about two months. Distended veins on right side of chest; pupil permanently contracted, with slight ptosis on the same side. Never any difficulty of breathing. Dulness, on percussion, under right clavicle. No history of syphilis.—Dr. FORTESCUE FOX asked if there were any history of strain, or any cardiac symptoms.—Mr. BOWREMAN JESSETT said the history of the case and the interference with the circulation were too rapid to lead one to think of an aneurysm. He suggested sarcoma of the mediastinum.—Mr. TURNER mentioned a somewhat similar case, but the pressure was symmetrical. He summed up the evidence in favour of a neoplasm.—Mr. ADAMS FROST said he could detect no impairment of the movements of the eye, and said that the ptosis, if present, was probably due to pressure on the sympathetic, bearing in mind the condition of the pupil.—Dr. BEEVOY said that, in monkeys, the nerves to the pupil came off with the second dorsal nerve, and suggested that the disease was in that neighbourhood.—Dr. HERON, in reply, said that the eye movement was not impaired, and mentioned that the patient had told him that the drooping of the eye existed when he was a child.

Reduceible Lumbar Hernia Cured by Operation.—Mr. BERNARD PITTS, in the absence of Mr. EDMUND OWEN, showed a child who had been successfully operated upon for lumbar hernia, the details of which are published on page 957.

Osteo-Plastic Resection of the Foot (Method of Mickulicz).—Sir WILLIAM MAC CORMAC showed a patient upon whom he had operated for carious disease of the calcaneo-astragaloid joint, involving the ankle-joint, the details of which are published on page 954.—Mr. BERNARD PITTS said that he had looked upon the operation as the pious observation of a promise not to amputate, but seeing the highly successful result, it was evidently a great deal more.—Mr. BOWREMAN JESSETT asked Sir William what condition he expected to find when the growth of the bone was complete. He mentioned a case of disease of the astragalus and calcaneum, in which he had obtained an extremely satisfactory cure by gouging out the diseased bone, leaving merely a shell.—Sir WILLIAM MAC CORMAC, in reply, said it was not so much in the body of the os calcis as between that bone and the astragalus that the disease was. The operated limb was fully an inch longer than the other, so that there was room for growth.

Functional Contraction of the Right Hand.—Dr. BEEVOY showed a lad who had contused his hand in May last. Five days later he noticed a tendency to closure of the hand, and this shortly became permanently flexed. The flexion was followed by total anaesthesia up to the shoulder, with loss of muscular sense. The movements of the arm and forearm were however intact. He considered it to be purely functional, but had never heard of a similar case in this country as following injury.—Sir WILLIAM MAC CORMAC mentioned that M. Charcot had shown him a case of anaesthesia of both superficial and deep structures following injury.—Dr. HADDEN inquired whether there was any defect of vision, and mentioned an exactly similar case as having been admitted to St. Thomas's Hospital some years ago. Such cases were generally preceded by loss of sensibility. He then alluded to the medico-legal interest of such cases in connection with railway accidents.—Dr. BEEVOY, in reply, said that after the shock of a railway accident the patient might be able to walk home, the symptoms developing subsequently.

Obstructive Jaundice with Enlarged Gall-Bladder.—Dr. HERRINGHAM showed a man, aged 68, healthy and temperate, who was attacked in the second week of March with violent pain in the abdomen. Jaundice followed ten days later. When seen he was deeply jaundiced. The liver projected one inch and a half below the ribs, and the gall-bladder could be felt as a rounded tumour reaching to the level of the umbilicus. The liver was tender. The gall-bladder felt elastic, and there was an indistinct crepitation, suggesting gallstones when it was pressed. No stones have been passed since he came under treatment. The principal complaint is of intense itching, preventing sleep. The diagnosis was obstruction of the bile-duct by a gall-stone. Treatment consisted in opium pills to relieve attacks of pain, a draught of tartrate of soda internally, and lotions, none of which proved of great benefit, for the itching.

Curvature of Spine and Kyphosis.—Dr. HERRINGHAM showed a boy, aged 17, much affected with rheumatism, and possessing a systolic cardiac murmur. His back presented a long kyphotic curve, beginning about the tenth dorsal and ending at the third lumbar. The boy maintains that he has had it ever since he can remember, but his history is probably not very

trustworthy as to this, though it is certain that he has had it for two years. Before that he had had for three years to carry two heavy milk-cans. The case was shown for diagnosis. Dr. Herringham thought the choice lay between rheumatic arthritis, and kyphosis, from the pressure of the weight, and was inclined to the latter.

Tracheotomy for Syphilitic Disease of the Larynx.—Mr. BOWREMAN JESSETT showed a man on whom he had performed tracheotomy five years ago for syphilitic disease of the larynx. He subsequently had to scrape away a large quantity of papillomatous growths, since which time the voice had returned and continued good.—Sir WILLIAM MAC CORMAC asked what had been done to prevent blood trickling into the trachea.—Mr. BERNARD PITTS asked whether tubage had been attempted.—Mr. JESSETT, in reply, said he had used tampons to prevent hæmorrhage as far as possible.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

FRIDAY, APRIL 6TH, 1888.

C. F. MOORE, M.D., President, in the Chair.

Distribution of Enteric Fever in the City of Dublin.—Dr. GRIMSHAW, Registrar-General for Ireland, in conjunction with Sir CHARLES CAMERON, Medical Officer of Public Health for the city of Dublin, brought before the Section a paper on the distribution of enteric fever in the city of Dublin. The authors stated that their attention had been especially directed to the subject in connection with an inquiry which they had recently conducted into the prevalence of enteric fever in the Royal Barracks, and part of the information utilised for their paper had been compiled with the view of throwing light on the barracks inquiry. They showed that while typhus fever had steadily diminished in Dublin for many years, and relapsing fever had been almost absent, enteric fever had remained stationary as to prevalence, not showing any marked tendency to increase or diminish. The death-rates from typhus and enteric fever, and from zymotic diseases generally, had been at the following rates per 1,000 of the population of Dublin during the past eight years:

	1881.	1882	1883	1884	1885	1886	1887
Typhus	0.70	0.30	0.52	0.30	0.18	0.11	0.07
Enteric	0.35	0.40	0.37	0.42	0.42	0.38	0.38
Principal zymotics	2.80	0.81	3.52	3.57	3.47	2.22	5.12

It was also shown that enteric fever was not evenly distributed among the populations of the city and various townships of Dublin—the average death-rate per 10,000 for the whole district being 3.7, which varied from 1.8 in Finglas and Glasnevin district to 3.9 in the city itself. It was pointed out that while the death-rate from enteric fever in England and Wales was 0.25 per 10,000 of the population, and in London only 0.23, or nearly the same, in Ireland the rate was only 0.17 per 10,000. In the Dublin district, however, it was 0.47, or nearly three times the amount. Thus, Dublin, situated in a country with a low enteric fever death-rate, had a higher rate, relatively, than London, situated in a country with a higher rate. It was clear, therefore, that enteric fever had found in Dublin favourable conditions for its spread. The question was, What were these conditions? The greater portion of the Dublin district was supplied by the excellent Vartry water; but it was a remarkable fact that in the only division outside the city where there was not a Vartry water supply, namely, Rathmines, during the past eight years, the enteric fever death-rate was 3.7, or equal to the average for the whole district, and exceeded all the divisions of the district, except the city. Although Rathmines and the adjacent district of Donnybrook were provided with an excellent system of main drainage, such as did not exist in any other portion of the Dublin district, Blackrock and Kingstown, inhabited by the same classes, and supplied with Vartry water, had extremely low enteric fever death-rates. There were also varieties in the geological nature of the Dublin district which had an important influence on the prevalence of enteric fever. Many portions of it were situated on pervious, others on impervious, strata, and enteric fever prevailed most (except in the case of Rathmines, which had a bad water supply) on the pervious strata. The rate of prevalence of enteric fever among the population situated on the pervious stratum was 6.82 per 10,000, while on the impervious stratum it was only 4.6 per 10,000. In the case of the deaths it was found that the enteric fever death-rate on the pervious stratum was at the rate of 1 in 365 of the inhabitants,

while on the impervious stratum it was only 1 in 531. This pervious stratum consisted of a sand and gravel bed formed by an old raised sea-beach, which occupied the centre of the city on both sides of the river Liffey, into which was discharged all city sewage. This gravel bed lay in clay and rock, so that it retained all the fluid filth cast upon it or soaked into its pores in the river, and might be considered to be like a basin of water placed in the middle of the city, over which houses built inhabited by about 80,000 people. The authors believed it to be the great ground for the propagation of enteric fever in Dublin, and pointed out that the only remedies were to be directed towards the prevention of the saturation of the gravel bed with sewage, and the complete isolation of the houses from the foul air contained therein. This must be done by improved drainage, the abolition of privies and cesspits, and the concreting of the basements of all the houses situated in the gravel.—A discussion ensued, in which Dr. J. W. MOORE, the PRESIDENT, LITTLE, and Sir C. CAMERON took part, and Dr. GRIMSHAW replied.

Hypnotism.—Mr. G. M. FOX read a paper in which he traced the history of hypnotism from the days of the notorious Irish Valentine Greatrux, who was specially commissioned by Charles as a "Stroker," and gave an account of the wonderful boy "Keller," Duncan Campbell, the Scotch lad, who had De Foe for biographer, and was the subject of some of Dick Steele's papers in the *Spectator*, up to the advent of Mesmer. Mr. James Br examination of the claims of Mesmerism was detailed, and the fact that many surgical operations of a severe nature were successfully performed by Esdaill, Cloquet, and others was mentioned, together with the views held on the subject by Heinhain, Tuke, Carpenter, and others. The practical question "What therapeutic use can medicine make of hypnotism" awaited an answer, and the author did not much favour the use of the remedy, as it was attended with many dangers, and was not always reliable in its action. Hypnotic sleep had, however, given rest when ordinary remedies had failed, and in the case of a very hysterical woman it not only diminished the pains of labour but also protected the lives of both mother and child, which were endangered by the wildness of the patient's acts. In cases where heart or lung troubles precluded the ordinary anaesthetics, hypnotism might fairly claim a trial, but such cases were few. On the whole, the remedy could not, in our present insufficiency of knowledge of psychology, look for support from scientific medicine.

Glengarriff as a Winter Health-resort.—Mr. EDGAR FLINN, Glengarriff supplied a want long felt in Ireland, where the patient recovering from a long, tedious illness might find a climate mild, equable, and yet invigorating—a climate similar, and many respects preferable, to that of Torquay, Bournemouth, the Isle of Wight—a locality now more easily arrived at, and completely sheltered from the east, north, and north-west winds. There could be no question of the suitability of Glengarriff as a residence for sufferers from bronchial affections, consumptive, and asthmatic patients specially deriving great benefit and relief from a sojourn there. Rheumatic and gouty patients requiring a moderate temperature and a minimum of variability of weather would derive considerable relief during the winter months from a visit to Glengarriff. In February of the present year, when the thermometer at Glengarriff, the thermometer at mid-day in the sun registered as high as 76° F., and in the afternoon never went below 58°, and so mild was the climate in the evenings that persons were enabled to sit in the open air without feeling the slightest discomfort or chilliness.—Dr. JAMES LITTLE, from personal observation, expressed his entire concurrence with Mr. Flinn. Glengarriff compared very favourably, as far as climate and health accommodation were concerned, with the English seaside health resorts, including Torquay, Bournemouth, and Ventnor. Indeed, he thought, making a contrast with Continental resorts also, that Glengarriff lacked the coldness, dampness, gloom, and rain which prevailed during a great part of the year at Pau.—Sir CHARLES CAMERON considered the worst feature of Glengarriff, from a health point of view, was the large rainfall, between 40 and 50 inches. The discomfort of Buxton was the frequent rainfall; it was nothing to that which prevailed at Glengarriff, if the return given was authentic. It would be of great value that meteorological statistics should be accurately known, giving the average number of rainy days, the mean temperature, and the extreme each month.—Dr. J. W. MOORE regretted that there was no meteorological station at Glengarriff, and until there was such a station the place would never be known outside Ireland. It

the establishment of climatological stations that certain places in the South of England came to be known and frequented. The nearest stations to Glengarriff were those at Killarney and Malinbeg. It appeared that the bulk of the rainfall descended in the late summer, throughout the autumn, and in the early winter. Therefore, at the season that Glengarriff was most frequented as a health-resort—namely, spring—the climate must be especially delightful. There was a moderate rainfall, the sky was clear, and the wind, though easterly, was deprived of all its harshness by passing over a considerable extent of water surface. The desirability of establishing a station at Glengarriff should be brought under the notice of the Council of the Meteorological Society, and some suitable person in the neighbourhood ought to be induced to take the observations.—Dr. COSGRAVE said that a patient of his, who had been for the last four weeks at Glengarriff, had written to him, stating that he had been out from morning till night during the whole period without feeling the slightest inconvenience, though when he left Dublin the apex of one lung was affected, and he had great difficulty in breathing. In addition to the advantage of having such a desirable climate within easy reach of Dublin, there was also the advantage that Glengarriff was an exceedingly cheap place, the hotels charging only from £2 to £2 10s. per week for bed and board.—The PRESIDENT remarked that it was also an important fact in favour of Glengarriff that no such violent and sudden changes of weather from east to cold occurred there as in Southern Europe along the Mediterranean shore.—Mr. R. MONTGOMERY said the great drawback to Glengarriff was the difficulty of access and the want of amusements to supplement the picturesque scenery and balmy air.—Mr. G. CLARKE and Mr. J. J. MURPHY made some remarks, and Mr. FLINN, in reply, said he had called the attention of the proprietors of the two hotels at Glengarriff to the necessity of having a regular system of meteorological observation, and they had said they had applied for it five or six years ago, but their request was refused. The rainfall at Torquay was 40 inches in the year, which came very near to that at Glengarriff. Wherever there was a rich scenery, mountainous especially, there was sure to be excessive rainfall.

NORTH OF IRELAND BRANCH.

THURSDAY, APRIL 19TH, 1888.

J. MANSERGH PALMER, F.R.C.S.I., President, in the Chair.

Cases.—Dr. WHITLA showed a case of abdominal aneurysm; Dr. NEILL two children on whom he had operated for congenital guinea-scrotal hernia (radical cure); Dr. J. A. LINDSAY a patient suffering from paralysis agitans.

Specimens.—Dr. O'NEILL exhibited an ovarian tumour successfully removed; Dr. JOHN W. BYERS a multilocular cystoma of the ovary successfully removed; Dr. BURDEN a series of microscopic preparations of tumours.

Injection of Carbolic Acid in Hydrocele.—Dr. ESLEB presented communication on this subject.

Jejunal Enterectomy.—Professor SINCLAIR brought forward a successful case of jejunal enterectomy for the cure of an artificial anus in the right groin, the result of sloughing in a femoral hernia thirteen months previously. About four inches of bowel were removed, and a single row of Lembert's peritoneo-muscular stitches reduced. No wedge of intestine was excised. The specimen was exhibited, and the patient reported as having returned to his work.

Turpentine in Whooping Cough.—Dr. JOHN STRAHAN read a paper on turpentine in whooping cough and some other affections, which he drew attention to the great value of this drug. He regarded it as one of the best stimulants, and his rule was to give under much the same circumstances that hospital physicians prescribed brandy and whisky.—Professor CUMING, Dr. MURPHY, Dr. GREY (Castlewellan), Dr. BYERS, Dr. LINDSAY, Dr. SCOTT, Dr. BURDEN, and the PRESIDENT took part in the discussion on the paper.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, APRIL 18TH, 1888.

Dr. SMITH, President, in the Chair.

Case of Uterine Fibroid Complicating Labour.—Dr. AYMER, in a paper, contributed notes of a case of labour obstructed by a fibroid tumour of the uterus in the pelvis. The patient, aged 39, and married for four years, was delivered of a stillborn child

three years previously, miscarried at the second month in December, 1881, and January, 1883; and in February, 1884, was in labour at full term. The posterior vaginal wall was pushed so far forward by a round, hard body about the size of a fetal head, that the examining finger could not reach the os. Rectal examination showed it to occupy Douglas's pouch and completely to block up the pelvis. An attempt was made under chloroform to push up the tumour, but without avail. It was then punctured *per rectum* with negative result. The os was now reached, and the head found presenting in the first position. The hand was introduced, and with great difficulty insinuated past the tumour into the uterus, and first one and then another foot seized and turning effected. After steady traction for an hour and a half, a stillborn child was delivered. Opiates internally and regular antiseptic uterine douches were ordered, and the patient got up twelve days after delivery. Since then pregnancy had not again taken place, but the tumour now occupied the whole abdomen, extending four inches above the umbilicus, and having an umbilical circumference of thirty-eight inches. Menstruation was regular every three weeks, lasted four days, and was not excessive. For the past year she had suffered from frequent severe neuralgic attacks in the right iliac region, which were relieved only by hypodermic injections of morphine. Last January the patient was sent to Dr. Thomas Keith, of Edinburgh, who considered the case unsuitable for operation on account of the fixed mass in the pelvis, but suggested electrical treatment.

Specimens and Casts of Cirrhotic Lungs.—Dr. GIBSON showed the lungs removed from a man, aged 32, and zinc-gelatine casts of the same. There was a history of hæmoptysis of two months' duration. The left lung was in a state of chronic interstitial pneumonia and bronchiectasy, while the right showed well-marked compensating hypertrophy. Save the kidneys, which were slightly cirrhotic, the other organs were healthy.

Specimen of "Hammer-toe."—Dr. MACKENZIE BOOTH showed a strongly-marked specimen of "hammer-toe," which he had removed from a teacher of gymnastics, aged 36. The deformity, which was due to contraction of the flexor tendons and the lateral ligaments, had begun twelve years previously after an awkward fall from the horizontal bar, and was operated on nine years ago by subcutaneous division of the flexor tendons, and continued extension. A short time after the operation the contraction recurred, and soon became worse than before, the patient walking on the tip instead of the plantar surface of the third phalanx, and a painful corn resulting on the tip of the toe in addition to that previously existing at the junction of the first and second phalanges. Removal of the toe laterly became necessary on account of the pain and interference with the patient's occupation.

SOUTH-EAST HANTS MEDICAL SOCIETY.

WEDNESDAY, APRIL 18TH, 1888.

JAMES WATSON, M.D., President, in the Chair.

Sacculated Kidney.—Mr. JAMES GREEN exhibited a large sacculated kidney, in which all traces of renal structure had disappeared. A concretion occupied the pelvis. During life the patient had not suffered from any marked symptoms of renal calculus.

Round-celled Sarcoma of Kidney.—Dr. J. O'CONNOR exhibited the specimen. The patient was admitted into the Royal Portsmouth Hospital, suffering from extreme dyspnoea from rapid effusion into the right pleural cavity. The removal of two pints of bloody serum was followed by temporary relief. After death the primary growth was found to occupy the right kidney, and secondary deposits were discovered in the lungs, liver, and peritoneum.

Spindle-celled Sarcoma.—Dr. J. O'CONNOR showed a large nodular growth which had been removed by Dr. Ward Cousins at the Royal Portsmouth Hospital. It covered half the sternum, and extended into the lower part of the neck. It was a recurrent growth, the primary tumour having been removed two years before. The cellular tissue and skin were extensively involved. The wound was nearly closed by freely detaching the skin subcutaneously over the pectoral regions. The patient made a good recovery.

Nephro-Pyelitis and Stone in the Bladder.—Dr. J. O'CONNOR also exhibited the kidneys removed from a boy, aged 10 years, who had been admitted into the hospital for stone in the bladder. A few hours before the time fixed for the operation, he was attacked with all

the symptoms of acute peritonitis, constant vomiting, and almost entire suppression of urine. Renal suppuration was suspected. The abdomen was greatly distended, but there were no localising symptoms. At the necropsy an old abscess was found in the left kidney, the ureter was dilated, and the structure of the entire organ was destroyed. The right kidney was large and much congested. Dr. WARD COUSINS remarked that the patient succumbed from acute septic disturbance. If lithotomy had been performed before the onset of the attack, the operation would probably have been fatal from the advanced disease of the left kidney. At the time of admission the stone in the bladder was found on examination, and the condition of the patient appeared favourable for surgical treatment. The vesical symptoms were not urgent, and the urine contained only a little mucus.

Large Round-celled Sarcoma of Ovary.—Dr. WARD COUSINS exhibited the specimen. The patient was 17 years of age, and the tumour had developed with great rapidity. The first symptom observed was œdema of the right leg. The abdomen measured thirty-five inches in circumference below the umbilicus. The mass was solid, nodulated, and immovable, and appeared continuous with the upper border of the ilium on the right side. The uterus appeared healthy, but firmly fixed to the base of the tumour. After death the right iliac vessels were found much involved in the growth, and they had a very circuitous course through the fibrous structures which fixed it to the pelvis. Secondary nodules were present in many of the abdominal organs, and were scattered also over the peritoneum.

Chronic Phthisis with Atlanto-axoid Disease.—Dr. WARD COUSINS exhibited the specimen. The patient had been many months under treatment with all the characteristic signs of the disease of the upper cervical vertebrae. He could only rest with the head carefully fixed and inclined to the right side. Once only he complained of dysphagia. Deep-seated tenderness was present, but no swelling of the neck. Physical examination of the chest clearly indicated old disease of the lungs, but the thoracic symptoms were only occasionally troublesome. At the *post-mortem* examination the atlas and axis were found in many parts extensively softened and disintegrated. The odontoid process was rough, completely denuded, and surrounded by purulent fluid. A thin collection of pus existed in the anterior surfaces of the three upper vertebrae. Dr. Ward Cousins remarked that the secondary disease of the cervical spine was the result of purulent infection. The extensive disease of the apices of the lungs was of long standing, and the exciting cause of the pyæmic earies.

Calculi Removed by Suprapubic Lithotomy.—The patient, aged 60, was under the care of Dr. WARD COUSINS, in the Royal Portsmouth Hospital, labouring under urgent symptoms of stone in the bladder, attended with fœtid cystitis. On examination a concretion was readily detected, apparently impacted in the vesical wall. There was no history of hæmorrhage. The lithotrite was introduced, but the attempt to seize the stone was unsuccessful. Three calculi were then removed by the suprapubic method. They were detached by the point of the finger from the wall of the bladder, which was very thick and vascular. The patient died on the fourteenth day after the operation. The necropsy revealed old renal disease, with dilated ureters, and also the presence of a new growth involving the bladder around the ureteral orifices.—The report on the nature of the growth was postponed until the next meeting.

Early Diagnosis of Typhoid Fever.—Dr. AXFORD made some remarks on the difficulty attending the diagnosis in the early stages of some cases of typhoid, especially instancing cases of typhoid simulating intermittent fever. He then read notes of a case which to all appearance was metritis and parametritis, but which ultimately showed itself to be in reality enteric fever. Miss W., aged 33, had suffered from dysmenorrhœa. Commencing to menstruate on Sunday, November 20th, she was exposed to severe cold on the following day; the flow ceased at once, and severe pain in the uterine and left ovarian region came on, and there was a patch of dulness in this part. There was acute pain of a spasmodic character in the lower part of the abdomen, and the attacks of pain were accompanied by retching. A vaginal examination caused most acute suffering. The os was swollen harder than usual, and very tender, and pushed somewhat forward. On pressing upwards towards the left ovary there was some swelling to be felt, and very great pain was produced. At first the bowels were confined, but early in December there was diarrhœa for a few days, but this was never severe. Typhoid spots were seen about the fourteenth day. The patient was treated by hot fomentations

and poultices, with laudanum and quinine internally. The temperature on the fifth day was 104° F.; it generally ranged from 101° to 103°. In the early stages there was little difference between the morning and evening temperature. Convalescence was established by the twenty-eighth day, and resulted in complete recovery.

Ovarian Tumour and Ascites.—Dr. H. L. K. HACKMAN stated that the first symptom complained of by the patient was a constant desire to micturate. Early in 1887 the left leg became swollen, with tenderness along the femoral vein, and indurated in the left iliac region. The bladder symptoms continued, and soon after marked ascites followed. After careful examination an ovarian cyst was diagnosed, surrounded by peritoneal fluid. The patient refused to undergo any surgical operation. The abdomen was tapped to relieve the distension, and then a well-defined tumour was readily detected. The operation was repeated several times, and the patient at length died from exhaustion. Only a very imperfect *post-mortem* examination was permitted. The abdominal viscera were matted together by adhesions. The cyst was brittle and evidently undergone necrotic changes. It was firmly adherent everywhere, and contained a dirty fluid and much cheesy-looking material. Hackman said that he considered tapping in ovarian disease a dangerous treatment, and he thought the case favourable for abdominal section, but it was impossible to persuade the patient to submit to it.

Aural Inflator and Evacuator.—Dr. WARD COUSINS exhibited an aural inflator and evacuator especially adapted for the Eustachian catheter. By this apparatus the treatment of alternate injection and evacuation of air could be applied to one ear only.

Microscopic Sections.—Dr. F. J. DRIVER exhibited: 1. Round-celled Sarcoma of Kidney. 2. Sections of Heart-Muscle and Kidney in a Case of Phosphorus Poisoning. 3. Sections of Lung and Trachea affected with Chronic Syphilitic Induration.

New President.—Mr. H. B. Norman was unanimously elected President of the Society for the ensuing year.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, APRIL 18TH, 1888.

W. ROSS JORDAN, M.R.C.S.Eng., President, in the Chair.

Ataxia in a Brassworker.—Dr. HODGEN exhibited a case of ataxia, occurring in a man, aged 31, who was a brassworker. The patient came to the out-patient room at the Queen's Hospital 7 years ago, complaining of tremors and weakness in the legs. There was the green discoloration of the teeth characteristic of his occupation. His gait was staggering, and he suffered much from static ataxia, being quite unable to walk in the dark, or to stand with his eyes closed. On examination, his muscular sense was found to be much impaired in the lower extremities; there was no loss of sensation. The patellar tendon reflex was exaggerated, and ankle clonus present. His pupils responded to light and accommodation, and the fundus oculi appeared healthy. There was no history of syphilis, nor of gastric or other crises. The patient had continued under observation for two years without much progress for better or for worse.

Specimens.—Mr. LAWSON TAIT exhibited the following specimens: a Sarcomatous Kidney, weighing one pound two ounces removed from a child three years of age; a Dermoid Tumour of Ovary, with a long twisted pedicle, and adherent to the ascending colon; a large Cystic Kidney, removed from a woman aged 52. Mr. E. L. FREER showed a case of Dupuytren's Contraction in a man successfully treated by multiple incisions.

Treatment of Spinal Curvature.—Mr. FREER also read a paper on "The Treatment of Curvature of the Spine," and demonstrated the mode of applying the divided plaster cuirass.

PRESENTATIONS.—Mr. William L. Thomas, M.R.C.S.Eng., has been presented with a purse of money and an address, on retiring as Medical Officer to the Weald of Sussex Lodge of Odd Fellows. Mr. Robert Francis Symmons, M.R.C.S.Eng., of Colchester, has been presented with a purse, containing upwards of £100, by his patients and friends, as a mark of esteem and goodwill.—At the presentation of certificates to the successful lady members of the Pontpool Ambulance Class by Dr. Lawrence, of Usk, Dr. E. Stanbury Wood, who had conducted the class, was asked to accept a valuable gold pencil case, bearing a suitable inscription, from the twenty-one members of his class.

REVIEWS AND NOTICES.

FUNCTIONAL NERVOUS DISEASES; THEIR CAUSES AND THEIR TREATMENT. By GEORGE T. STEVENS, M.D., Ph.D., formerly Professor of Ophthalmology and Physiology in the Albany Medical College. New York: D. Appleton and Co. 1887.

In this book there is a great deal of what is good mixed up with the products of a specialist's exaggeration. Its thesis is thus expressed by the author: "Difficulties attending the functions of accommodating and of adjusting the eyes in the act of vision, irritation arising from the nerves involved in these processes, among the most prolific sources of nervous disturbances, and more frequently than other conditions, constitute a neuropathic tendency."

All physicians and ophthalmologists will agree with the author that headache, migraine, and facial neuralgia are very frequently caused by disorders of accommodation, and especially by hypermetropia and insufficiency of the ocular muscles.

The chapters relating to these functional nervous disturbances are the best in the book. The author, taking consecutive cases of migraine, shows that, by correcting disorders of vision, 83.6 per cent. were cured, 12.4 per cent. improved, and 4 per cent. not red. Similar results were obtained in cases of neuralgia. If the author had stopped here he would have written a very instructive and practical treatise, but he goes much farther. He asserts that sciatica and lumbago are also occasionally due to ocular disturbance. He shows that the majority of cases of chorea occur in children who have hypermetropia or other disorder of accommodation. This may be so in America, but, even taken with the successful cases of the author who cured the chorea by correcting the vision, it by no means proves that "chorea is emphatically a nervous trouble...depending upon ocular conditions" (100).

Similarly epilepsy and insanity are believed to be associated with derangements of accommodation, and to be curable by attention to the visual disturbance.

In spite of the author's imposing array of 2,692 cases, and even making considerable allowance for the fact that functional neuroses are more common in America than in England, we do not agree with him in his conclusions.

We will add one more quotation, p. 130: "1. In such families (with high degree of refractive errors) there is an extraordinary prevalence of nervous disorders, including migraine, neuralgia, insanity, and organic lesions, such as apoplexy and paralysis. 2. Consumption and Bright's disease are rife in these families. 3. The higher the grade of refractive anomalies, the greater is the proportion of these last-named diseases."

The author is clearly an expert ophthalmologist, and the supplement to his book, giving the methods of detecting and treating functional disorders of the eyes, is an excellent summary.

The account of the work which we have given will serve to show into what errors of judgment too great specialism may occasionally lead an otherwise able observer. It is right we should state that, in spite of what we judge to be its faults, the memoir received the highest honours from the Académie Royale de Médecine of Belgium in 1883.

THE NEW JUDGMENT OF PARIS. A Novel in two volumes. By PHILIP LEFARQUE. London: Macmillan and Co. 1888.

Medical men, like other hard-worked folks, are none the worse sometimes for a little intellectual as well as physical recreation. Those of them, therefore, who desire agreeably to divert their attention for a few hours from the routine of duty, will find in the perusal of the volumes under notice a congenial and refreshing pastime. To any of our professional brethren who are wearied and jaded by professional work, we can confidently recommend a course of PHILIP LEFARQUE as a tonic and stimulant. They in turn may safely prescribe it to their patients as a wholesome and efficacious restorative in cases of weariness or depression of spirits.

A medical journal is scarcely the place in which to give an exhaustive or critical review of a novel. We, however, gladly spare a brief space in our columns for the notice of this book, as we have good reason for knowing that it is the production of one of our own cloth, and we believe that it is the maiden effort

in the direction of romance of a physician well known and respected for his literary and artistic attainments.

That there are many cultured medical men is a fact which cannot be denied, and although there are numerous isolated instances of talented doctors who have distinguished themselves by their contributions to general literature, it must be confessed that our calling as a profession is not famed for its imaginative or romantic productions. Whether this is due to want of leisure, or to the intrinsically engrossing nature of its duties, or to the practical and materialistic line of thought which it entails, it is needless at present to discuss. The fact remains that doctors, as a rule, are not novel-writers. This is perhaps to be regretted as medical men in reality have opportunities of observing and studying human nature under varied aspects, and of coming in contact with incidents and scenes which should provide them with a rich soil for the cultivation of romantic and imaginative works, and which, if properly utilised, might provide us with more wholesome and intelligent reading than the insipid publications so frequently met with.

Of the details of this book we do not propose to speak. We can only express our opinion that it is cleverly written, that the literary style leaves nothing to be desired, and that the characters and incidents of the story will be found to be interesting and psychologically instructive. There is nothing strictly medical in the book unless it be that one of the chief personages is a fashionable doctor, whose character is admirably drawn. He represents a type, unfortunately too common, of man whose style of practice we deplore but are helpless to prevent. Dr. Bland is the astute, worldly-minded individual, who, without being criminally culpable, or even placing himself beyond the pale of the profession, sails close to the wind and succeeds in gaining the confidence and money of the public in greater abundance than the respect of his own colleagues.

NOTES ON BOOKS.

Shepherd's First Aid to the Injured. Revised and Rearranged by ROBERT BRUCE, M.R.C.S.—This shilling handbook of the St. John Ambulance Association has been carefully revised and much improved. The illustrations will very greatly assist the reader in following the practical descriptions of improvised splints and stretchers. A very useful chapter on Conveying Injured, by Mr. John Furley, will be found invaluable by those lecturers who are instructing ambulance classes of men engaged in factories and mines. No manual can be found equal to this for the purpose for which it is intended, that is, to give some plain rules to non-professional persons, which will enable them to render immediate aid in many of the cases of accident and illness which occur in our daily life.

Royal University of Ireland. The Calendar for the Year 1888.—Examination Papers, 1887. A Supplement to the University Calendar for the Year 1888. (Dublin: Printed for the Royal University by Alexander Thom and Co. 1888.)—The Royal University of Ireland has this year published the Calendar proper and the examination papers in separate volumes. The innovation will be a great convenience to students preparing for its examinations, who will find in the bulky volume of 560 pages, which contains all the papers set during 1887, matters of absorbing interest.

The Calendar of the Pharmaceutical Society of Great Britain, 1888. (London: Printed for the Society.)—The new volume of the Calendar of the Pharmaceutical Society contains the usual classified lists of members, associates and apprentices, and abstracts of Acts of Parliament affecting the interests of pharmaceutical chemists and others engaged in the drug trade.

JAMBUL FROM THE DUTCH INDIES.—Dr. J. A. Quanker, of Amsterdam, records in the *Weekblad* a case of diabetes in which he administered an infusion of jambul with great success. The specimen employed was imported from Dutch India, where the plant, *Syzygium jambolona*, is called by the natives *Dioctet*, and is to be found everywhere in the gardens. The drug appeared to exert so beneficial an effect that the strict diabetic diet was relaxed without increasing the sugar. It is not clear whether this is the same plant as *Eugenia jambolana*.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 5TH, 1888.

THE DUTIES AND THE DIFFICULTIES OF EDUCATIONAL WORK.

We have often urged in these columns the necessity of providing special classes or day schools for those children whose feeble constitution or low brain-power renders them unfit for education in the ordinary classes of our public elementary schools. This subject is ably discussed in the last two numbers of the *Journal of Mental Science*, and reference is there made to the auxiliary schools which have been established in several of the more important German towns, mainly through the efforts of Herr Kielhorn, these schools being intended for children who are unable to bear the strain of the ordinary curriculum. Those children who after two years' trial have been shown to be quite unable to follow the instruction given in the classes of the national schools are drafted into these special schools, where, all the pupils being on about the same intellectual level, it becomes possible to place them under the charge of a specially trained teacher, who instructs them in classes not exceeding twenty members, so that some care may be devoted to their individual capacity and requirements. This withdrawal of the feeble and more backward children from the national schools enables more care to be given than to the ordinary children working in the curriculum, a heavy incubus and tax upon the teachers' time being thus removed. It is manifestly unwise in the interests of society, and unjust to the weakly children to leave them practically uneducated, allowing them to be sent out into the world to meet the many dangers which await the weaker members of the community, tending to draw them towards pauperism or criminality if left untrained and unprepared. Dr. Shuttleworth, of the Royal Albert Asylum, Lancaster, advocates the introduction of a similar system in this country. No systematic effort has thus far been made among us for the special training of those children whose weak mental capacity renders it impossible for them to keep pace with the requirements of "the code."

A similar movement has been made in Norway, where it is said that the ratio of the "abnormal" children in public elementary schools bears a ratio to the ordinary school children of 0.4 per cent. This ratio appears much

lower than that suggested by our own experience in England. The requisite funds are provided through the School Board, and the annual cost is about £6 15s. each pupil. Such auxiliary schools are at work both in Christiania and in Bergen. Dr. Shuttleworth has suggested that an experiment might be made with some central school or special department of a school for exceptional children. Such school department would have a distinct sphere of usefulness, apart alike from the common school and the imbecile institution. An important hiatus in our English educational system is thus pointed out. The subject is ripe for practical consideration and action. A satisfactory solution of the problem has been found by our Continental neighbours, and we must be prepared to do likewise. It is not fair to throw ordinary National Schools, which have to depend for their success in a large degree upon the results obtained at examinations, that they should be burdened by a number of feeble children, and it is unjust to neglect such children. Sufficient scientific knowledge exists among us for the selection of the "special children" by those whose studies have led them to overlook children with care. It seems to us unnecessary to wait two years' failure in school has demonstrated the feeble brain-power of the children. Selection might be made by the occasional visit of a medical inspector, acting in conjunction with the opinion of the teacher and managers. The subject is within the scope of the Royal Commission on the blind, dumb, and deaf, who, from exceptional circumstances, require special methods of education. We believe they have already received some evidence as to this class of children.

A very temperate article in the current number of the *Educational Times* refers to what sounds something like a declaration of war between the National Union of Elementary Teachers and the Education Department. The causes of quarrel are principally two—payment by "results," and the "cast-iron system" which ignores every consideration of humanity." Two heavy indictments, but of different significance. They both, however, have some foundation in certain points within the cognisance of our profession. Results of education, as the bellicose schoolmaster points out, are not simply to be tested by scholastic examination, but partly by results seen in appearance, in conduct, in accuracy and quickness of brain-action. Some tangible results of education must be looked for; let the schoolmasters say what in their opinion are the visible results of their best work. Members of our profession often have to work long and hard without reward or recognition, contented that good always follows good work. A medical practitioner does not take as the standard of his work the amount of money it will bring him, but is bound to do the best he can in the discharge of his professional duties. We cannot echo the sentiment contained in a letter from the President of the Teachers' Union, as quoted in the article we have noticed, when he says: "I advise the teachers of the country to leave overt acts as to the moral training of our children to their parents, their ministers, and the magistrates. Neither of them have to enter in a punishment book the deterrent good they do to their own disparagement."

5, 1888.]

this advice seems very shocking; still, I hold it to be policy." We cannot ourselves recommend that a "safe" be placed before loyalty to the honourable traditions of the profession. We greatly sympathise with elementary teachers in the unwise attempts of certain magistrates to the power of maintaining discipline in schools by means of corporal punishment; children may not like it, the remedy is not to be used. As long as such means are found necessary in higher schools and in families, it is only just that moderate and reasonable means of punishment be left in the hands of teachers. We agree with the *Educational Times* in their opinion that "more stringent discipline is needed in an elementary school than in a higher school." There is too much laxity nowadays about corporal punishment.

IRISH PRISON SURGEONS AND CONSULTANTS.

Arbitrary conduct of the Irish Prisons Board towards, and interference with the powers and duties of, prison surgeons, has obliged us more than once to comment on its proceedings. In the inquiry and report of the Royal Commission on Prison Discipline, better relations appeared to have been established, and it was hoped that further attempts to curtail the independence of the medical officers of prisons would not have been

The question asked by Mr. Murphy in the House of Commons on April 17th—which, with Mr. Balfour's reply, was noted in the *JOURNAL* of April 21st—shows that such hopes were vain, and that the Board is again endeavouring *ultra vires* to interfere with the rights of the medical officers.

It appears that the Prisons Board issued a circular to governors of prisons, directing them, after consultation with the medical officers, to forward a list of medical practitioners—regarding qualification and religion—to be called in from time to time in consultation.

It was asked whether the power to call in additional medical assistance was not given by the 105th Rule of Local Prisons Regulations. This was a mistake—and a very natural one—for the 105th Rule professes to give the power. But the 105th Rule is a verbatim extract from the 53rd Section of the 40 and 41 Chap. 49 (the Prisons Ireland Act), so that the power of calling in a consultant is statuteable, and necessarily involves the choice by the person on whom it is conferred of the consultant to be called in.

In England, the mistake of confounding the provisions of an Act of Parliament with the rules made by the Prison Commissioners could not occur, because, in the rules for local prisons, the provisions taken from the Acts are printed in Roman characters, and the rules in script type. In the Irish rules, however, the provisions from the Acts and the rules made by the Board are printed in similar type, numbered consecutively, and presented to the world as made by the Board and approved by the Lord-Lieutenant.

Advantage of the mistake was taken to furnish Mr. Balfour with his reply; and the only explanation of his answer which we can arrive at is, that his informant confused the appointment of wardens with that of medical officers, so that a specious reason might be given for an autocratic action on the part of the Board.

Mr. Balfour is reported to have replied that "The appointment of medical officers required the sanction of the authorities, and it seemed to him to be certainly within the spirit of the rules that some effective control should be exercised as to the election of consulting physicians."

There is a grave error in the first statement: the appointment of medical officers does not require the sanction of the authorities; the latter part is a mere *sequitur*; and, finally, there is no such office as that of consulting physician, nor any election thereto.

As it stands the reply is incomprehensible, but what is intended to be expressed appears to be that the power of calling in consultation being conferred by the Board, it is natural that the authority giving that power should also have the right of controlling the exercise of it. But, as the power is not given by the Board, that body has no more right to control or to interfere with its *bonâ fide* exercise than the junior clerk in its office has.

The Act of Parliament is specific. Section 53 says: "He (the medical officer) "may in any case of danger or difficulty, which appears to him to require it, call in additional medical assistance; and no serious operation shall be performed without previous consultation being held with another medical practitioner, except under circumstances not admitting of delay, to be recorded in his journal." Now it is clear not only that the medical officer may call in additional medical assistance, but that he is constituted the sole judge of when it is requisite; and it is a recognised principle of law that a power conferred carries with it, unless expressly stated to the contrary, a discretion to the person so empowered as to when and how and by whose means he shall exercise that power.

The effort of the Board to regulate or assume an authority to approve of the practitioners to be called in may seem a small thing to cavil at; but when it is remembered that there is in existence an uncancelled circular of the Board directing, in distinct opposition to the provision of the Act, that additional advice is not to be obtained, except in urgent cases, without the sanction of the Board, and that the Board has taken it on itself to specifically order that certain practitioners are not to be called in again because they have refused to accept a fee of one guinea in place of the ordinary consultation fee of two guineas, or because they have compelled the Board to pay money legally and equitably due, or for other trivial reasons, the matter assumes larger proportions.

But the real objection lies in its being only one of a number of persistent attempts to take away the independence deliberately conferred on the prison medical officers by the Acts of Parliament. The medical officer is intended and ought to stand independent between the prisoners and the discipline authorities.

His duty to the Government requires that he should himself obey the rules, and not suffer them to be relaxed on medical grounds, unless the health of a prisoner is suffering or is likely to suffer. His duty towards the prisoners is not merely to treat them when sick, but to see that neither their lives are endangered or their healths injured by discipline, diet, labour, or confinement. If he fails in either he is liable to punishment, but to discharge his duties efficiently he must be to a great extent independent.

The tendency of modern prison legislation has been towards more humane treatment and greater care of prisoners, both mentally and physically; and with this object in view the Prisons Act has removed the appointment of medical officers from boards of superintendence and the Prisons Board, vesting it in the Lord Lieutenant; and they have conferred much more extensive powers directly on the medical officer. Thus, in addition to the duties imposed by 7 Geo. IV, c. 74, *sec.* 72, the Prisons (Ireland) Act increases his duties and defines them more clearly, and then it places the health of the prison in his charge; makes him responsible for its sanitary condition, warmth, ventilation, quality of provisions, etc.; authorises him to give such directions as he may think proper for the treatment, not of the insane alone, but for that of any prisoner whose mind is likely to be injuriously affected by the discipline; and in case of death of a prisoner, directs him to report particulars of the illness, etc., "together with any special remarks that appear to him requisite."

At any time to reduce the medical officers to a position of subservience to the Board would be a policy most detrimental to the best interest of the service and the welfare of the prisoners. But at the present it is singularly inopportune. Wild charges are made of an intention on the part of the Government to destroy the health and lives of prisoners claimed to be political. So long as the prisons are served by independent medical men, who can, without fear or favour, exercise the powers conferred in the Act, it is felt that such charges are absurd and incapable of fulfilment. But once let the medical officer become the mere servant of a department, then public confidence is shaken, and the possibility, nay the probability, of a prisoner being done to death will be entertained. That, even in case of such subserviency any intentional cruelty or injury would be sanctioned or permitted, we do not for a moment believe, but the position of a medical officer would become intolerable. He dare not act without orders: he would be liable to censure for this, blame for that; precious time would inevitably be lost in ascertaining the will of the Board, and in many cases irretrievable injury would be done, and even fatal mischief have resulted, before the opinion or permission of the Board could be obtained.

The grounds, therefore, of objection to the illegal action of the Board are not even primarily the injustice or hardship of interfering with and curtailing the statutable rights of the medical officer; they lie chiefly in the interests of the public, and enormously so in the interests of the prisoner.

It would be difficult to conceive why the Board should seek to deprive the doctors of their rights, were it not that the Board appears to mistrust its officers, and more especially the medical ones. It probably suspects that they give a preference to those medical gentlemen who discharge their duties when absent. There is no evidence that this is the case; but even if it were, we see nothing objectionable in it; on the contrary, the man who has some experience of the peculiar circumstances of prison life, from having acted as the medical officer's substitute, is the one best suited to appreciate the relaxations of discipline or changes in diet requisite in particular cases.

We trust the matter may not be allowed to rest, and that members of Parliament will closely watch the action of the Board, and prevent by gradual encroachments its acquiring supreme authority.

Nor is there any need for such encroachment. The work of the Irish prison surgeon has been well done. The reports of the Board, year after year, show a remarkably small mortality, which is mainly owing to the medical officers' attention to the sanitary state of the prisons and their care of the sick prisoners; on the other hand, discharged prisoners testify publicly to their efficient discharge of duty.

With such testimony from both parties, it seems particularly hard that these officers, whose responsibilities are serious, whose work is arduous, and whose salaries are inadequate, should have been publicly slighted by being twice passed over for promotion; and that now injury should be added to insult.

It would be far better for all parties concerned if the Prisons Board adopted the sensible policy of trusting their medical officers. If their powers are large, they must act with a full sense of the heavy responsibility such powers involve; for no good cause to try and curtail those powers, lowers the sense of responsibility; and when the conviction of being distrusted is added, all heart for or interest in their work is taken away. Were the Board capable of appreciating advice, we would say: Trust your officers fully, and do not hamper them in the discharge of their duty. If an officer is proved unfaithful or careless or negligent by all means apply to the Lord Lieutenant to get rid of him; but until he is so proved unfit for confidence, trust him fully; and we venture to say on behalf of the medical officers that they are not and will not be found unworthy of such confidence.

A CONVERSAZIONE will be given by the Medical Society at its rooms, 11, Chandos Street, Cavendish Square, on Monday May 7th, after the annual oration, to be delivered by Sir Joseph Payrer, M.D., K.C.S.I., at 8.30.

At the meeting of Convocation of the University of London on Tuesday next (May 8th), a resolution will be moved, at the instance of the annual Committee, empowering it, in conjunction with the Committee appointed at the instance of Sir Philip Magnus in 1885, to take steps to represent by suitable witnesses the views of Convocation to the Royal Commission appointed to inquire into the condition of the higher education in London.

May 5, 1888.]

LORD RANDOLPH CHURCHILL, M.P., will preside at a Special Festival Dinner, to be held at the Hôtel Métropole on May 12th, in aid of the scheme for the extension of St. Mary's Hospital, mentioned in the JOURNAL on April 21st (p. 865).

H.R.H. THE DUCHESS OF ALBANY has graciously consented to distribute the certificates to ladies who have passed the examination allowing the lectures on Domestic Hygiene, by Dr. A. T. Schofield, at the Parkes Museum, Margaret Street. The ceremony will take place at 3 P.M. this day (Saturday).

THE SIR GEORGE BURROWS MEMORIAL PORTRAIT. We are asked to state that the subscription list for this portrait will be closed on May 15th. Intending contributors are, therefore, requested to send their subscriptions without delay to any member of the committee, or to the hon. treasurer, Sir Dyce Duckworth, M.D., 11, Grafton Street, Piccadilly, W.

THE SOCIETY OF APOTHECARIES.

MISS MACDONALD has obtained the diploma of the Society of Apothecaries. Subsequent to the admission of Miss Garrett in 1865, regulations were adopted by the Society which had, up to this date, prevented the further admission of ladies to this examination. These, it will be seen, have now been relaxed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE surgical lectures to be delivered by Mr. Thomas Bryant at the College will be three in number, and will be given in June. The hour for their delivery has been, as our readers should note, altered to 5 P.M. The subject of two of the lectures will be the Causes, Effects, and Treatment of Tension in Surgical Cases, and that of the third lecture will be the Surgical Treatment of Injuries of the Cranium.

THE CROONIAN LECTURE.

THE Croonian Lecture of the Royal Society will, as we have previously stated, be delivered this year by Dr. Kühne, Professor of Physiological Chemistry in the University of Heidelberg, on May 28th, in the theatre of the Royal Institution, Albemarle Street. Professor Kühne, who will speak in German, has chosen for the title of his lecture "*Ueber die Entstehung der vitalen Bewegung* (On the Source of Vital Movement)."

ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON.

WE are enabled to announce that the Earl of Selborne will be the Chairman of the Royal Commission on University Education in London, and that the other members of the Commission will be the Right Hon. J. T. Ball, lately Lord Chancellor of Ireland; the Right Hon. Sir James Hannen; the Hon. George Brodrick, Warden of Merton College, Oxford; Dr. Weldon, Head Master of Harrow; Professor Stokes, M.P., President of the Royal Society; and Sir William Thomson, LL.D., F.R.S., with John Leyburn Goddard, barrister-at-law, as Secretary. The Commission will be signed by the Queen at the next Council meeting.

DONDERS MEMORIAL FUND.

As the subscription list to this fund must shortly be closed, it is requested that all who still wish to subscribe will send in their names to the Honorary Secretaries, Messrs. Gerald Yeo and Brailey, on or before Monday, May 14th. It is to be hoped that some of our countrymen may be able to attend the ceremony at Utrecht on May 28th. Donders's 70th birthday falls upon the day pre-

vious, but since that is Sunday, the ceremonial of presentation is deferred until Monday. It is needless to say that all who can attend from this country will be most heartily welcomed. It is expected that the total amount of the fund will exceed £2,000, of which some £250 will be from this side of the Channel. A programme of the ceremony will be published.

THE GERMAN EMPEROR.

As we go to press, we are glad to learn, by special telegram from Charlottenburg, that His Majesty is daily gaining strength. The highest temperature on Wednesday night (the 2nd instant) was 101.4° F., the lowest on Thursday morning was 99° F. There is still an abundant purulent discharge. The local condition is unchanged.

RABBITS IN AUSTRALIA.

THE *Australasian Medical Gazette* states that the Minister for Lands in New South Wales, in whose department the administration of matters relating to rabbits has recently been placed, has communicated with the Governments of the other colonies, asking whether they will co-operate with the mother colony in the appointment of a Commission to advise on the subject. Considerable doubt was felt as to whether it would be possible to constitute a Committee which would command general respect, since the inquiry would involve much travelling to make investigations on the spot, and a consequent expenditure of much time. Our contemporary suggests that a more effective body might be constituted by appointing a Committee consisting of a human pathologist recommended by the Council of the Royal College of Physicians, London, a veterinary surgeon by the governing body of the Royal Veterinary College of London, a pupil of Pasteur, and one educated under Drs. Virchow and Koch.

MEDICAL SELF-HELP.

THE quarterly report which we published on April 21st of the Medical Sickness, Annuity, and Life Insurance Society shows in bright colours the excellent results of mutual co-operation among medical men to secure for themselves provision against sickness, accident, or temporary or permanent disablement from those maladies, accidents, and misfortunes which so often strike down practising medical men unexpectedly, and deprive them for a time at least of the means of continuing to earn an income. This Society provides for each subscriber a claim to weekly payments of from £2 2s. to £4 4s. a week, in addition to lifelong maintenance payments in case of permanent disablement or in old age. The last quarterly report states that the Society, although only four years in existence, has now 855 members, and an annual income of about £10,000, exclusive of interest on its invested funds, which already amount to upwards of £22,000. It is paying out upwards of £1,500 a year to members who have suffered from sickness or accident, and two insurance claims have fallen in, and during the year been promptly met. All the departments of the fund show a handsome surplus, and the singular and indeed altogether unprecedented economy of the management is shown by the fact that although in view of the wholly mutual character of the organisation, and the honorary services of its Council, only 10 per cent. had been reserved for management (which is about half the usual estimate), the actual outlay for the year has been 3½ per cent. of the premium income. The investments are all in the hands of trustees, and the first-class securities show an improvement of about 10 per cent. since the date of investment. The success and prosperity of this fund has been continuous and unflinching from the first. It is proving of the utmost benefit to a great number of professional men, not only by affording them the means of securing themselves from inconvenience at times when

income ceases and expenses increase, but by relieving them of anxiety of mind and of the sense of insecurity which so often darkens long years of professional life. Reports and forms of proposal for this Society may be obtained from the Secretary, Mr. Radley, 26, Wynne Road, Brixton, London. S.W.

MALIGNANT SYPHILIS.

DR. KOPP states in the *Münchener Medizinische Wochenschrift* that, out of nearly thirteen thousand cases of skin and venereal disease under his own observation, he only detected four cases of malignant syphilis. This form he recognised as manifesting itself by very early and regular development of what, in ordinary syphilis, would be considered as tertiary symptoms, especially in the skin, with severe constitutional disturbance. In these characteristics the variety in question resembled the great epidemic at the end of the fifteenth century. As the phenomena in the latter case indicated that syphilis, when it appeared in countries and amongst races where it was hitherto unknown, always assumed a severe type, so Dr. Kopp concludes that malignant syphilis in a European in the nineteenth century implies that the patient's ancestors happen to have been free from that disease. He advised great care in the administration of mercury, and found that the cases did best under a course of quinine and iron, nourishing diet, and plenty of fresh air, iodide of potassium being administered when the patient showed distinct signs of improvement.

IDIOPATHIC NEPHRITIS IN CHILDREN.

DR. STEPHEN MIRCOLI states, in the *Centralblatt für d. Med. Wissenschaften*, No. 40, 1887, that between August and September, 1885, he observed fourteen cases of primary nephritis amongst children between the ages of 3 and 10, in a town of 3,000 inhabitants. The illness began with high fever, which disappeared at the end of the third or fourth day; then very firm œdema developed. Convalescence began in the majority of cases at the end of the second week. Three children died. In the kidneys from one of these fatal cases Dr. Mircoli discovered the appearances seen in diffused acute nephritis, and also numerous little specks, which, when strongly magnified, appeared of an elongated oval form, and consisted of collections of germs resembling groups of pneumococci. The germs were arranged either in balls or in chains, and were most abundant in the outer part of the cortex, then in the glomeruli, then in the midst of the blood-vessels around the tubuli uriniferi, and most sparingly in the tubuli themselves. The germs had caused the formation of thrombi in the vessels of the cortical and medullary part of the kidney, causing either obliteration of the lumen or dilatation of the vessel. Dr. Mircoli could not explain the nature of the micro-organisms, and he most rightly took care to note in his report of these cases that he could find no germs in the kidneys of the two other fatal cases. At the time of this epidemic of nephritis in children, none of the zymotic diseases which most frequently cause inflammation of the kidney were prevailing in the same district.

PROFESSOR SEEGEN ON DIABETES MELLITUS.

PROFESSOR SEEGEN'S paper, "On Diabetes Mellitus in regard to recently acquired knowledge regarding Sugar-formation in Animals," is to be found in the *Zeitschrift für Klin. Medicin.*, Bd. xiii. The chief results of his investigations are formulated in the following theses: 1. The formation of sugar is a normal process, going on in the liver uninterruptedly. 2. The daily amount of sugar formed in the liver is very considerable. 3. This sugar is continually "converted" in the body; but where and in what way this occurs has not hitherto been explained. 4. Sugar or carbohydrate taken as nourishment do not participate in the formation of sugar within the liver. 5. Albumen and fat are the materials from which the liver forms sugar. 6. The formation of glycogen,

in contrast to liver-sugar, is intimately related to the kind of nourishment taken, and is greatest when cane-sugar is taken. How do these facts agree with those derived from clinical observation of diabetes mellitus? The latter occurs in two forms; in the first of these (the light form), the patients are usually well-nourished, belong to the middle period of life, and voracity, thirst, and polyuria are only seldom excessive; in the second, or severe, form the patients are usually young, lose flesh rapidly, and have great voracity and thirst, with an excessive amount of urine. The main distinction between these two forms lies in this, that patients of the first class only excrete sugar when they take sugar or carbohydrates in their food; the symptoms of diabetes cease when these are discontinued. In the second class of patients, the sugar excretion is scarcely influenced by the avoidance of carbohydrates in the food. Seegen is of opinion that these two different forms represent two distinct pathological processes. In the first, the excreted sugar is derived undoubtedly from the sugar ingested, and the diabetes must be regarded as the result of incapacity of the liver cells to dispose of the carbohydrates in the normal manner. In the second form, it must be assumed that the normally formed liver-sugar is excreted. The whole body, or more or less of its elements, has not the capacity to "convert" the sugar conveyed in the blood; hence the graver prognosis in this form than in the other. The ultimate cause of diabetes is still unknown, but the author is of opinion that nervous derangements very frequently underlie this disease.

CHLOROFORM-WATER AS AN ANTISEPTIC.

PROFESSOR E. SALKOWSKI has an article on this subject in the current issue of the *Deutsche Medicinische Wochenschrift*. He has used chloroform for some years to preserve urine from decomposition (a few drops added to a specimen preserve its acid reaction apparently for any length of time), and has lately examined the action of chloroform-water upon former ferments, and on some pathogenic bacteria. Chloroform well shaken up with water, in the proportion of 1 to 200, dissolves perfectly at the ordinary temperature, and it was found that such a solution prevents the occurrence of all fermentations which are dependent on the vitality of micro-organisms; for example, alcoholic fermentation, ammoniacal urine-fermentation, the fermentative decomposition of hippuric acid, lactic acid fermentation, and the bacterial decomposition of albumen; while it has no influence upon unorganised soluble ferments (enzymes), and therefore does not affect the action of ptyalin, pepsin, trypsin, invertin, diastase, etc. The latter fact was known already. Of course, in this use of chloroform, care must be taken that it does not escape by evaporation; the bottle should be well corked or stoppered. Thus used chloroform is convenient for revealing the presence of minimal quantities of ferments, the actions of which are only developed after some months; for the observation may be continued as long as desirable, without the intervention of any micro-organisms, and chloroform, while it can be removed from a liquid when desirable, does not injure the nutrient substratum. This is well shown in milk shaken up with a little chloroform and kept in a closed vessel. After some months the casein and fat separate, but a clear albuminous fluid remains, just as in sterilised milk. Solutions of cane or grape sugar shaken up with yeast do not ferment, but the sugar is inverted by next day, the inverting ferment of yeast being a soluble ferment, and therefore unaffected by chloroform. Albuminous liquids are sterile with chloroform-water, and even meat in small pieces may be thus preserved without essential alteration, though a certain degree of rancidity may be perceived after a time from the gradual oxidation of fat. But chloroform has a powerful disinfectant and destructive action upon bacteria already present. A putrid meat infusion is rendered sterile by it

a few hours; and the same destructive action is exerted upon the bacillus anthracis (though not on the spore-form) and on the comma bacillus. The chief use of chloroform as a disinfectant probably lies in the preservation of solutions of the soluble salts, the action of the latter not being influenced by it, but various other uses suggest themselves, both pharmaceutical and therapeutic. Chloroform-water is well tolerated by the system. In a supplementary note Professor Salkowsky writes to the effect that most of the ethylic chlorine compounds possess antiseptic properties, and that chloroform, from its superior volatility, is the best as a respiratory antiseptic.

ORBITAL SYPHILIS.

Dr. MACERK observes, in the *Wiener Klinik*, that orbital syphilis is rare, but may be observed in the inherited as well as the acquired form of the disease. It usually begins in the roof of the orbit, being first recognised by severe pains, which are constant, but worst in the evening and at night. The lid swells, and the eyeball may become unusually prominent. Symptoms of paralysis of the recti or oblique often appear. These symptoms develop slowly, and are of long duration; as a rule, a clear history of syphilis, or symptoms of that disease in other parts of the patient's body, is at hand. Orbital syphilis must be promptly treated, as the eyeball may suddenly become involved, or the process, which is essentially periostitis of the bony boundaries of the orbit, may extend into the cranial cavity, attacking the meninges and the brain itself. The cure, which consists in the administration of the ordinary antisymphilitic drugs, is always slow. Dr. Macerk intends to publish a complete series of histories of cases of orbital syphilis which have come under his observation and treatment.

ABDOMINAL SECTION FOR RUPTURED UTERUS.

Dr. GARRIGUES, of New York, performed abdominal section for rupture of the uterus, last January, and contributed a paper on the subject to a medical society, which is published in the *Philadelphia Medical News*, March 3rd. The patient was a multipara, aged 35. She fell in labour at term, a few days after a bad fall. About twelve hours after the pains began her medical attendant, Dr. McCauley, reduced an extreme left lateral obliquity of the uterus. Four hours later the waters broke, but the head did not advance. An hour later crampy pains occurred, without shock, and the vagina was found full of clots. Abdominal section was performed; the placenta was free in the peritoneal cavity, with a quart of dark blood and lumps of meconium. The child was large, dead, and ensanguined. The rent comprised the whole anterior wall and part of the posterior; it went down too low to allow of Perro's operation. The rent was sewed up on Schröder's principle, by thirty-seven antisepticised silk ligatures, deep and superficial. The abdominal cavity was washed out with warm water, the uterine cavity with a hot solution of bichloride of mercury (1 in 5,000). Unfortunately the patient lived in a lodging-house of very low grade, and was badly nursed, being allowed on one occasion to get out of bed. She died of peritonitis four days after the operation.

INFANTILE OPHTHALMIA AND SUBSEQUENT BLINDNESS.

It has been calculated that at least 30 per cent. of the cases of total blindness existing in the United Kingdom (that is to say, about 7,000 of the 22,000 blind persons enumerated at the last census) have resulted from the neglect of purulent ophthalmia in infancy. The Ophthalmological Society of the United Kingdom, about three years ago, appointed a deputation, comprising Mr. Nathaniel Hutchinson, Sir W. Bowman, Mr. J. Tweedy, Dr. McKeown, Dr. Abercrombie, and others, which waited upon the Registrar-General and the Local Government Board, and urged

that registrars when registering births, and relieving officers when issuing orders for the parish midwife, should, at the same time, issue a printed slip containing the necessary warning. The Registrar-General did not, however, see his way to imposing on registrars this additional duty. Another, but unfortunately equally unsuccessful, effort has recently been made by the Committee of the Bradford Eye and Ear Hospital to enlist the co-operation of the central authorities. The Committee deserve great credit for their efforts to spread the warning in their own town, and the local registrars deserve thanks for their voluntary co-operation in distributing the printed slips. Taking 1,000,000, as a rough estimate of the number of births annually in the United Kingdom, about £30 would be sufficient to defray the cost of printing the same number of the slips already referred to.

ABDOMINAL SECTION ON A NEW-BORN CHILD.

The *Journal of the American Medical Association* for January 14th describes a singular case of what may be termed radical cure of congenital umbilical hernia in a new-born child. Dr. Dunlap, of Springfield, Ohio, attended on October 2nd, 1887, at the birth of a healthy female child. There was a large umbilical hernia, which included the intestinal canal from close below the duodenum to the sigmoid flexure and the great omentum. The sac was formed by the tissues of the umbilical cord; its neck was so narrow that the hernia was irreducible. Dr. Dunlap therefore enlarged the neck of the sac by incision. A fresh difficulty was then encountered. Owing to the absence of the intestines from their normal position, the abdominal cavity was so contracted that they still could not be properly reduced. "I therefore," writes Dr. Dunlap, "made an opening commencing in the umbilicus, running up two inches, and then began stretching the walls of the abdomen with my fingers; then catching portions of the bowels and forcing them down into the cavity, while assistants, with hooks passed through the cut edges of the walls of the abdomen, held them firmly up. In about twenty minutes I succeeded in forcing them in and closing the wound with five sutures and ligatures to the cord close up to the natural skin." No anæsthetic was used. The child neither struggled nor screamed, nor did any signs of shock follow the operation. A small teaspoonful of castor oil was given, and the bowels afterwards acted freely. Ten days later, when Dr. Dunlap read the case before the Medical Society of the District of Columbia, the child was suckling and sleeping well, the stitches were out, and the cord was separating in a satisfactory manner. The earliest age at which ovariectomy has ever been performed is one year and a half, on patients at which tender period of their existence Dr. Schwartz and Dr. Küster have successfully operated.

MICRO-ORGANISMS IN THE FEMALE GENITAL TRACT.

MUCH has recently been written about gonococci and streptococci in the vagina, uterus, and Fallopian tubes. Professor Bumm claims to have established pathological laws of high importance, relating to the infection of these parts by micro-organisms. He states that the gonococcus does not in itself cause suppuration, but by damaging the epithelium facilitates the admission of pyogenic streptococci. This is seen in inflammation of Cowper's gland in gonorrhœa, which ends in resolution or in cystic degeneration of the gland when gonococci alone have entered its duct; but should streptococci enter the gland, suppuration becomes certain. Gonococci, Bumm declares, readily ascend as high as the tubes, whilst the pyogenic micro-organisms are slow to follow; hence the comparative rarity of pyosalpinx in proportion to the frequency of gonorrhœa. Superficial observers have detected hosts of micro-organisms in the normal tract, after death. But Dr. Winter has made a series of careful experiments in this direc-

tion, embodied in a communication to the current number of the *Zeitschrift für Geburtshilfe und Gynäkologie*. He concludes, first, that the normal tube contains no micro-organisms, and, as a rule, no contents of any kind. Secondly, the uterine cavity in health contains no micro-organisms, and in half the cases which he examined, no germs were found in the neighbourhood of the os internum. The cervical secretion of every healthy woman abounds in micro-organisms, and so does the vagina. In short, the genital canal of a healthy woman contains micro-organisms in the vagina and cervix, from which the uterus is free, and the boundary between the part bearing and the part free from germs lies about the os internum.

ERGOT IN SUBINVOLUTION.

SOME very interesting observations were recently made by Dr. Emile Blanc on the effect of ergot in involution of the uterus after labour. A fairly large number of women who had gone through normal labour were divided into three categories. Forty of them were left to Nature; forty were treated with daily hypodermic injections of Yvon's solution of ergotine (1 cc. = 1 gramme of ergot) during the first five days after delivery; and the remaining twelve were similarly treated for ten days. Daily external measurements were then made in all the cases to ascertain the size of the uterus, and on the fifth and tenth days its internal measurement was taken by means of the uterine sound. It was found that the administration of ergot during the first five or ten days failed to produce any favourable effect in hastening the process of involution, but that, on the contrary, it seemed to delay the normal retraction of the uterus. Ergot is nevertheless an exceedingly useful agent in the treatment of secondary hæmorrhage, and its action is more marked the less the interval of time that has elapsed since the confinement.

COCAINE IN LITHOTRITY.

IN a case in which an attempt to perform lithotripsy proved futile on account of the extreme irritability of the bladder and the prostrate condition of the patient, Dr. Philip injected into the bladder sixteen grains of cocaine dissolved in twelve fluid ounces of water at a suitable temperature. After a few minutes, during which the patient was moved into different positions to ensure the anæsthetic coming into contact with all parts of the wall of the bladder, it was found possible to proceed. The patient felt no pain whatever, and the surgeon was enabled to do his work quietly and completely. The anæsthetic condition of the bladder lasted about twenty minutes. The experiment, having proved so successful, was repeated on five subsequent occasions with the same happy result. It was noticed, however, that the effect produced by the last two injections was less marked and did not last as long as after the others. No untoward symptoms followed at any time, but it is recommended to adapt the dose of the drug to the degree of vesical irritation, and never to use the higher strength before trying the effect of a weaker one.

THE EFFECT OF OPIUM ON THE FÆTUS IN UTERO.

IT is a curious fact that while therapeutists are thoroughly alive to the danger of giving opium to young infants, they have not apparently considered what effect is likely to be produced on the unborn fœtus by its administration to the mother. Dr. Ruth, of Muscatine (Iowa), has recently investigated the subject, and has arrived at the conclusion that it not infrequently causes convulsions in the fœtus analogous to those produced in the infant. Bartholow states that opium kills by paralysis of the respiratory muscles, and more rarely by paralysis of the heart. The fœtus has, of course, for the time, no respiratory function, and this may account for the small number of deaths from administering opium to pregnant women when labour is not threatened or in progress; will also account for the relaxed condition and feeble hold upon

life that children have when born while the mother is under the influence of an opiate. Given what we know of the effect of opium on infants, it is obvious that the moment a child is born whose blood is charged with opium, so soon do the influences of paralysis of the respiratory muscles manifest themselves. Opium is the stoek remedy in cases of threatened abortion, but it probably does more to bring about the very contingency that it is sought to avert, while it seriously imperils the infant's chances of a separate existence. The foregoing observations may possibly afford an explanation of the preference which has of late been given to chloral in cases of threatened abortion.

SCOTLAND.

LECTURESHIP OF BOTANY, UNIVERSITY COLLEGE, DUNDEE.

MR. PATRICK GEDDES, F.R.S.E., late Assistant to the Professor of Botany in Edinburgh University, has, at the request of the authorities at University College, Dundee, consented to deliver the summer course of lectures on botany in the College.

GLASGOW MATERNITY HOSPITAL.

WE are glad to be able to record what is said to be the first completely successful case of Cæsarean section performed in Glasgow. The operation was performed at the Maternity Hospital by Dr. Murdoch Cameron nearly three weeks ago. Both mother and son are alive and well, and the latter has been appropriately christened "Cæsar Cameron."

GLASGOW EAR HOSPITAL.

AT the annual meeting of the subscribers of the Ear Hospital, the medical report was read, and showed that the hospital was in a flourishing condition and increasing in popularity. In the out-door department there were 789 new patients, an increase of 83 patients over the previous year; and in the indoor department there were 57 admissions, an increase of 5. As a means of diffusing knowledge of ear disease among students and practitioners the hospital had been utilised during the past year, to an unprecedented extent. At the last annual meeting it was reported that 13 students attended Dr. Barr's course of lectures. During the past year 75 names were enrolled, including medical men from both town and country.

INTERNATIONAL EXHIBITION, GLASGOW.

THIS exhibition, which is to be opened on May 8th by their Royal Highnesses the Prince and Princess of Wales, promises to be one of the most interesting as it is the largest exhibition of recent years. It will doubtless form a special attraction to members of the Association at the forthcoming Glasgow meeting in August next. The press view of the exhibition took place on April 21st when over one hundred journalists, representing the daily press of the United Kingdom and also some Continental and American papers, came to Glasgow and visited the buildings. They were hospitably entertained by the executive, and fortunately were favoured with beautiful weather. They were evidently much impressed with the architectural beauty of the buildings, their magnificent situation, and the interesting nature of the exhibits. Not the least interesting feature of the exhibition to professional men will be the large and magnificent display of historical and archaeological treasures now being arranged in the Bishop's Palace on the slope of Gilmorehill.

GRADUATION CEREMONY, UNIVERSITY OF GLASGOW.

THE graduation ceremony took place on April 27th in the Butcher's Hall, the Vice-Chancellor presiding. There was a large attendance of students and their friends. Besides the honorary and other

degrees conferred, the general University prizes were awarded, and then the Vice-Chancellor delivered an eloquent address on the general idea of knowledge and of the higher education on which such an institution as a University is based. The idea was that there was not only no discord, but no hard and fast distinction, between the various departments of human knowledge; that each department upon and could be rightly apprehended only in its organic relation to the rest. Although limitation was the necessary condition of success in either study or work, there was no incompatibility between knowing a wide range of subjects in their leading features and some one subject with the completeness of those who make it their principal occupation. It was this combination which created a truly cultured mind and an enlightened, educated public.

FAITH HEALING.

At the last monthly meeting of the Parochial Board of Dunoon, a sad case of insanity was reported. A woman, who, some time ago, was delivered of her fourth child, had since been affected with puerperal mania. It was stated that a local clergyman, with one of his sons, visited the woman, and prescribed the faith-healing cure. The woman was accordingly prayed over, and anointed. The cure, however, failed, and the poor woman went mad, and is now an inmate of Lochgilphead Asylum, suffering from religious mania. The case was severely commented on by several members of the Board, and a committee was appointed to investigate the matter, and report to a future meeting.

EDINBURGH ROYAL INFIRMARY.

Last week this admirable institution was subjected to a wholly unwarranted attack in regard to a case admitted to its wards. A woman who had been sent in from the country to be treated for supposed ovarian disease, very shortly after her arrival was delivered of triplets. This fact was made the basis of a highly-colored descriptive article in a local newspaper, which detailed all the circumstances of the case in a manner that is unusual in the lay press. It is not as yet generally known who has been the guilty party in producing so sensational a version of a very simple incident, and in giving his *canard* so successful a flight.

EDINBURGH MUSEUM OF SCIENCE AND ART.

The original design of the Edinburgh Museum of Science and Art, so inseparably associated with the name of its distinguished founder, the late Professor George Wilson, has at length, after the lapse of many years, been fully carried out. The new addition consists of a large west wing, which completes the symmetry of the building externally, and gives it additional internal accommodation amounting to at least a third of its previous area. The new galleries it provides are to be dedicated in part to works of art, chiefly from Italy, to a collection illustrating the arts and manufactures of savage races, and to maps and model sections showing the results of the geological survey of Scotland.

EDINBURGH UNIVERSITY.

The summer session commenced on Tuesday, May 1st, when the various professors and teachers who hold summer courses met their classes, and delivered introductory lectures. In the Botany Department, at the large lecture hall in the Botanical Gardens, a great gathering of students and teachers assembled to listen to Professor Bayley Balfour's inaugural address, on his induction into the duties of the Chair. The new Professor was very heartily received, and listened to with great attention by his large audience. In the department of Physiology, Professor Rutherford delivered a short address introductory to the work of the practical physiology courses that are held during the summer session. In his address he adverted to the fact of his absence for twelve

months from the post of duty, and to the satisfaction with which he again met his students, completely restored by his visit to a southern climate. He also referred to the ability and conscientious thoroughness with which his teaching duties had been performed in his absence by his friend and former assistant, Professor Hayercraft, of Birmingham. In all the departments, and in the wards of the Royal Infirmary, the opening lectures were attended by a plethora of students, from which it would appear that the new session shows no falling off in the numbers coming forward for the Edinburgh degree.

THE SANITARY WORK OF A GREAT CITY.

In the course of a lecture delivered on this subject to the Philosophical Society by Mr. Peter Fyfe, sanitary inspector, some of the provisions of the Burgh Police and Health Bill were discussed. Glasgow, it was stated, was supplied from the country with about 35,000 gallons of milk daily from 1,175 farms, many of which were dangerous to the community from defects of structure and the nature of their water supply, yet all that could be done by the sanitary officials of the city was whenever a case of infectious disease was known to exist at any of the farms, at once to stop the milk supply from that farm. The new Bill provided no such central authority as medical and scientific inspectors as England had possessed for years. The Bill only applied to burghs and populous places, while the country was left to feed the towns from amid insanitary conditions which, through ignorance and carelessness combined, many of its landlords or farmers would not remove. The lecturer insisted that, besides compulsory notification of infectious diseases by medical men, there should be more power in the hands of local authorities of removal and isolation. This would entail great expense and difficulty from the want of hospital accommodation and the increased work of disinfection. There should also be more summary power of compelling landlords to remove nuisances. But the most difficult problem of all was what was to be done for the people who were condemned to live in such conditions as were pictured by the words "348 to the acre." Such a state of things went on from day to day in some districts of the city. Nay, during the night little knots of humanity were found huddling together at the rate of 4,400 to the acre, or 10 persons in 11 square yards. To give some idea of the atmosphere in which many of the population nightly sleep, he had caused two samples of air to be taken for analysis. No. 1 was taken at 3.40 A.M. from a single apartment house measuring 700 cubic feet, and in which four adults and three children were sleeping; the amount of carbonic acid gas was certified by Dr. Wallace to be 21.9 in 10,000 volumes of air. No. 2, taken in somewhat similar conditions, contained 14.1 in 10,000 volumes. In the first case the carbonic acid gas was five times and a half, and in the second case three times and a half, what it should be. What could the sanitarian do to decrease the chances of disease in such homes?

SCARLATINA AND COW DISEASE.

DR. J. B. RUSSELL, Medical Officer of Health for Glasgow, has issued a report on the outbreak of scarlatina at Garnethill. After a careful house-to-house visitation of the district he found that there were ninety-five cases in all, and that each of these cases obtained milk from the one dairy. All the cases had fallen ill since March 15th. The milk was, therefore, the obvious medium of infection. Further investigation led to the suspicion that the milk in this dairy had come from a farm at which there had been a case of scarlet fever. The son of the farmer who brought in the milk was seized on March 23rd with the first symptoms, and the byreman on March 24th was seized with sore throat. No other person had been ill. With the view of answering the question, Did the milk derive its infection from the cow? as in the Hendon case in 1886, Dr.

Russell and Mr. McCall, veterinary surgeon, carefully inspected the stock. Two cows were found with scabbed sores on the teats. One of these was miserably thin and mangy-looking, casting its hair and skin; the other was in good condition, not casting its hair, and the sores on the teats bled freely. These cows were removed to the Veterinary College for observation on March 31st. Owing to the state of the law no inoculation experiments were possible, and consequently the field of observation was much restricted. This much, however, Dr. Russell says, is certain: a calf fed on the milk from these cows was almost at once seized with a highly febrile illness, which nearly killed it, but from which it is now recovering with loss of hair and copious casting of the skin. The cow which was not casting hair or skin when removed is now doing so freely. Dr. Russell's object in making the present report is not to draw premature inferences or make rash statements, but to show that he has in hand a question of immense importance both to the consumer and producer of milk, and to obtain permission of the local authority to buy these cows and otherwise make a certain expenditure of money on the question.

IRELAND.

HOW DISEASES ARE SPREAD.

A MAN named Sproule having died at Athlone recently from fever, his wife was cautioned against holding a "wake" over the remains. She however persisted in doing so, and ten persons were found "waking" the deceased. A summons has been issued against Mrs. Sproule by order of the guardians.

NATIONAL LYING-IN HOSPITAL, HOLLES STREET, DUBLIN.

At a meeting of the President and Council of the Royal College of Surgeons in Ireland, held on April 19th, it was resolved, on the recommendation of the committee of inspection, to accept from candidates for the diplomas of the College the certificates issued by this hospital.

WOMEN'S AND CHILDREN'S HOSPITAL, CORK.

THE work done at the hospital during the past year has been much greater than in any previous year since its foundation, and this has been carried out at a greatly reduced averaged cost. The system of sending out nurses to private cases, inaugurated in 1886, has been carried out during the past year with marked success, and the probationer nurses have in all cases given the greatest satisfaction. In addition to the public wards there are private rooms attached to the hospital, which have been largely availed of by many ladies resident in the country. During the close of the year the severe epidemic of measles which universally prevailed in the South of Ireland materially interfered with the work of the hospital. The disease having found its way into the wards, it was deemed necessary during the continuance of the epidemic to close the children's ward, so as to limit as far as possible the spread of the disease.

THE SANITARY CONDITION OF CORK.

THE prevalence of infectious diseases in Cork has been for a number of years a matter of anxiety to the corporation, and it has been shown that the existence of enteric fever and some other zymotic diseases is, in a great measure, traceable to the defective sanitary condition of the sewers in consequence of the want of ventilation. The medical officer of health, Dr. Donovan, and the City engineer have recently furnished a report to the Public Health Committee on this subject, which states that sewers several miles in extent are in almost all cases unprovided with ventila-

tors of any kind, for the ordinary street gullies are trapped, as in the words of Dr. MacCabe in a report made in 1877 on the prevalence of enteric fever in Cork during that year, "Here he says, "we have conditions all favourable to the development of enteric fever—unventilated main sewers, trapped gullies, tide pressure twice a day, compressed sewer gas, with no possible outlet except through faulty drains, and sink-traps within the houses, and faulty traps and valves of water-closet basins." Even if the traps and valves of water-closet basins are constructed what may be termed scientific plumbing principles, yet the tide and atmospheric pressure at the mouths of the sewers will, many instances, force the gas through those traps and valves in the interiors of the dwelling houses, where, mingling with the confined air of the room, it frequently becomes dangerous, if not fatal in its effects. Dr. O'Farrell, late inspector of the Local Government Board, in December, 1886, among other suggestions recommended that all the main sewers should be ventilated to their highest levels, and that they be provided with side entrance man-holes, and not less than twenty ventilators for each mile of sewers; but financial difficulties prevented the matter being carried out. What is known as the "open grid" system is thought to be the best of the kind; and it has been resolved that a sum of £750 shall be borrowed from the Government for the purpose of carrying into effect a complete system of sewerage ventilation throughout the city.

DWELLINGS FOR THE POOR IN DUBLIN.

THE Dublin Corporation, whatever shortcomings may be charged against it, has done a great public service. It has built and about to let dwellings for the poorer classes, which will accommodate 730 individuals. The work in this direction has hitherto been done by a public company, which, with the aid of the Corporation, has taken possession of squalid corners, and built up there its suitable homes for those who could only pay small weekly rents. The undertaking, besides conferring a great benefit on the poor and on the general community by the removal of horrid rookeries, has proved a marked financial success. Now the Corporation itself has followed the example, and we hope it will continue to pursue it. In 1881 the leases of some old tenements, one of the worst streets in the city fell in; and it was determined to clear away the tumble-down houses, to erect new buildings, to open a new street, and to erect tenement blocks. These blocks are substantially built in red brick. The total accommodation provided is as follows:—5 shops, 9 treble-roomed dwellings, 6 double-roomed dwellings, 65 single-roomed dwellings, and 10 beds for casual lodgers, making in all habitations for about 700 persons. All the rooms are 9 feet high, except the basement rooms, which have a height of 11 feet. The length and width vary from 12 by 20 to 14 by 13 feet. Each floor is supplied with water supply, scullery trough, and dust receptacle, whence the contents pass into the yard bins, which are emptied by the servants of the Corporation. The roofs are flat and asphalted, and give a surface of 16,250 feet. They are to be used as playgrounds, and they are of course, properly protected. One of the blocks is set apart for lodgers, who will be accommodated at 4d. a night each, and provided with a bath for an additional penny. There is a supply room 32 by 11 feet, and 13 feet high. The rents will vary from 1s. 6d. to 2s. per week for a single room; from 3s. to 4s. for two rooms; and from 4s. 9d. to 5s. for three rooms. The whole cost of the buildings has been £25,000. Sir Charles Cameron, the superintendent medical officer of health, has carried out the scheme with characteristic energy, and it is certain that it will prove remunerative. The Corporation deserves the highest credit for this enterprise. If it only continues in the same path, it will do much to improve the physical and moral health of the Irish metropolis.

PARLIAMENTARY BILLS COMMITTEE.

NOTIFICATION OF INFECTIOUS DISEASES.

At a meeting, on Thursday, April 26th, of the Subcommittee appointed to draw up reasons for opposing the compulsory notification clauses in the Public Health Prevention of Infectious Diseases (Hastings) Bill—present, the Chairman (Mr. Ernest Hart), Mr. Bridgwater, Dr. Alfred Carpenter, Dr. Grigg—Dr. Carpenter handed in the following returns:—

Voluntary Notification.

Town.	Population.	Zymotic Death-rate.	Zymotic Deaths.	Scarlet Fever.	Non-certified.
1883.	—	2.6	2,426	789	3.46
Brighton.....	112,954	1.7	197	29	3.0
Cardiff.....	93,463	4.8	456	122	4.4
Hull.....	181,225	3.5	654	45	5.6
Leeds.....	327,324	4.9	1,476	487	2.3
Lymouth.....	75,509	2.0	153	2	1.6
Wolverhampton.....	78,307	3.3	304	40	2.4
1884.	868,847	3.85	3,240	725	3.2
Brighton.....	118,186	2.2	260	10	3.1
Cardiff.....	104,580	2.3	263	20	2.2
Hull.....	196,855	2.5	558	67	4.4
Leeds.....	345,090	2.7	925	115	1.7
Lymouth.....	77,125	2.8	174	14	1.2
Wolverhampton.....	80,847	2.5	202	16	1.5
1887.	922,673	2.5	2,382	242	2.3

Dual Notification.

Town.	Population.	Zymotic Death-rate.	Zymotic Deaths.	Scarlet Fever.	Non-certified.
1883.	—	2.3	1,941	262	3.1
Birkenhead.....	90,870	2.2	204	10	4.6
Bolton.....	108,068	4.3	378	15	2.4
Blackburn.....	110,498	3.1	363	48	4.3
Bradford.....	209,564	2.4	518	33	2.6
Leicester.....	132,773	4.0	544	62	2.0
Salford.....	197,153	4.2	843	139	4.7
1884.	618,926	3.36	2,850	307	3.4
Birkenhead.....	97,703	3.2	311	88	2.2
Bolton.....	112,354	3.2	359	37	2.4
Blackburn.....	116,844	4.4	509	158	3.1
Bradford.....	224,517	2.9	640	98	2.8
Leicester.....	143,153	3.1	153	5	2.5
Salford.....	218,668	4.4	969	156	4.0
1887.	913,229	3.5	2,941	542	2.1

DR. CARPENTER observed, in commenting on the above:—It is said that, where dual notification has been in existence for a certain number of years, there has been a marked decrease in the amount of zymotic disease in those towns; that the death-rate has gone down; that the number of deaths has materially diminished in consequence of dual notification; and that, in consequence of that diminution of the zymotic death-rate, it is only right that dual notification should be extended all over the country. I have (he continued) examined the returns published by the Registrar-General; and in those thirty-eight towns which he publishes there are six towns where there is no dual notification—namely, Brighton, Cardiff, Hull, Leeds, Lymouth, and Wolverhampton. Those six towns have a population of 922,000 people. In 1884 those six towns had a zymotic death-rate of 3.85. Taking the 900,000 people in them, they had 2,400 deaths from zymotic disease, and 725 of those from scarlet fever. In 1887 the number of zymotic deaths had fallen from 2,400 to 2,382, and the zymotic death-rate from 3.85 to 2.5, without dual notification. The scarlet fever cases had gone down from 725 to 242. Another point in connection with the return is that the non-certified deaths had fallen from 2 to 2.3. Those are the facts with regard to the only six towns where dual notification is not in existence. Now take out of the same list six towns that correspond in numbers

and population as near as I can to those I have just mentioned. Instead of having a population of 922,000 these six towns have a population of 913,000. They are: Birkenhead, Bolton, Blackburn, Bradford, Leicester, and Salford. The first four are the first in the list, then I have to pick out two others to get them near to the population. Now what is the case with regard to the zymotic death-rate in those six towns in 1884 (and the other years correspond)? In that year it was 3.36. In the non-notification towns it had in 1887 come down to 2.5, but in these towns it has risen to 3.5. The number of deaths from zymotic disease in the dual notification towns in 1884 was 2,850, and in 1887 there were 2,941; there is an increase of zymotic deaths, not a decrease, as in the voluntary notification towns. The number of scarlet fever cases had gone up from 307 in 1884 to 542 in 1887. Then I come to a town like London. London in 1880 had a population of 3,644,000. The zymotic death-rate in London in 1880 was 3.73; in 1887 it had come down to 3. Then I take Kensington, a large district in London, where they have no notification except that which is voluntary, and it is very well looked after. I find in Kensington in 1880 the zymotic death-rate was 2.9; that of 467 deaths 105 were from scarlet fever. In 1886 the zymotic death-rate had come down to 1.6, and that of 280 deaths (against 467 in 1880) 11 only were from scarlet fever (against 105 in 1880). What inference do I draw from these facts? A very important town is Edinburgh. It is said in Edinburgh the success of the principle has been most marked, but what do I find in Edinburgh with regard to scarlet fever? In 1884 in Edinburgh there were reported 1,205 scarlet fever cases, with 42 deaths. In 1887 (three years afterwards) when the system is said to be working so excellently well, there were reported 2,487 cases, with 145 deaths. In the very place which is quoted against us as being the one which ought to recommend it to other towns, actually the number of deaths and the number of cases of scarlet fever have risen year by year. It is the same in Dundee and Aberdeen with regard to the spread of scarlet fever. What is the reason for that? The reason is that in those towns there are individuals who are now perfectly aware that if scarlet fever is in their shop, in their lodging house, in their public-house, in their business as a tailor or whatever it may be, and it is communicated to the authority, there is a tendency to close that place of business, and the result is just this, that the disease, when it is not likely to be fatal, is not treated by a medical man. They do not employ a medical man (in my own neighbourhood I know it to be so), and the consequence is these mild cases of scarlet fever (which are such a source of danger) distribute the disease more abroad, and, as a consequence, there is a spread of disease from dual notification, and not a repression. Well, then, I argue that our object is not notification, it is prevention; and that it is not so much disclosure that is required as it is to prevent the spread of the mischief; and that if a person, say a shopkeeper, has got scarlet fever in his premises, and that shopkeeper's children are taken care of by a qualified medical man, who will advise him how to isolate them, you are very much less likely to have an extension of the disease than in having these mild cases treated by herbalists and druggists, by which means the disease is spread much more generally than before. Now you will say, Have you any other grounds to support it? Yes, I have. In some of the towns I have got evidence from, one finds that the number of deaths that are reported show, in those towns, a high mortality compared with the number of cases reported. That means to me that the cases are not all reported, and that where you have in other towns a possibility of getting at any information, as in Kensington, as to the number of cases, you find the mortality is not so high as it is reported to be from Edinburgh and Aberdeen. Here is an argument that I hold against the notification being thrown upon the medical man. I have another argument, and, to my mind, it is a very strong one. Our great object is to get the people themselves to take measures for the purpose of repression; but in towns where this dual notification is in existence, the people do not have anything to do with it. It is supposed to be all on the shoulders of the inspector for the local authority, and the result is that there is nothing done by the people themselves. Our great object is to bring it home to the people, and to spread a knowledge of sanitary matters amongst them. If we do not get the notification given by the people themselves, they think it has nothing to do with them. I want to know by what right an Act of Parliament is to be set aside in the way that the dual notification Act is? In no case do they summon the other party—the occupier. But why should the medical man, as in Croydon, be singled out as the one man who had failed to comply

with a certain Act of Parliament, while 99 other persons who do not comply are left alone? It seems to me a wrong principle.

The following document was then discussed, and ordered to be circulated as amended:—

MEMORANDUM OF REASONS

Why the British Medical Association objects to the Penal Clause against Medical Men as proposed in the Notification of Infectious Diseases Bill, 1888.

The promoters and objectors agree upon some of its principles, namely, the necessity for the enactment of compulsory notification which shall equally apply to the whole of the kingdom.

They agree that when a medical practitioner is employed to treat a case of infectious disease, it is his duty to make its nature clearly known to his employer, or to the person legally in charge of the case.

They are agreed that this information should be conveyed to the local authority for use by the State.

They are agreed that the information, if conveyed by the medical attendant, should entitle the latter to a fee from the local authority.

They disagree as to the means whereby that information shall reach the local authority. The objectors base their objections to the independent action of the medical attendant upon its being the establishment of a new crime, if failure to perform the duty is to be penal that it is an interference between the relations of employer and employed, which the State has no right to claim.

Medical men object to doing an invidious duty which ought by law to devolve upon the employers, and them alone. They do not object to disclose the facts if the law takes proceedings against the true defaulter, and they do not object to act as the employer's agent, when the latter requests the medical attendant to do so.

They believe that repression and prevention can only be effective by the act of the people themselves; that to relieve them of the duty of notification either by themselves or their agent is to lead them to believe that the doctor is the person to secure repression, although this effect can only be produced by the proper disinfection and isolation, which must be carried out by the householder himself, and not by the doctor.

The proposed plan is encouraging the people to think that it is a question for the doctor and for the local authority, but not for themselves, by which course sanitary knowledge among the people is impeded.

That it proposes to enact a clause which past experience has shown will be a dead letter as to one part of its dual action, namely, that which imposes a duty on the householder. That such legislation is contrary to the principles of justice, and is likely to lead the people to think they can set aside the clauses of an Act of Parliament when it suits their convenience to do so; that there is no moral or legal obligation on their part to conform to it, and that in this view they are upheld by the act of the local authority—a vicious course which must be contrary to equity and good government. Although so-called dual notification is at present enacted in forty-six towns, the obligation upon the householder is, it is alleged and believed, nowhere enforced.

The objectors believe that a penal medical clause defeats the object sought for, inasmuch as it leads to the employment of irregular, unqualified, and non-registered practitioners for the treatment of mild cases of an infectious character; and so the disease is spread because skilled aid is not sought. It should be remembered that such mild cases are apt to be the most potent and efficient agents in the spreading of epidemic disease. The skilled adviser would advise efficient methods of personal disinfection and isolation. Thus hotelkeepers, innkeepers, dressmakers, tailors, some retail tradesmen, lodging-house keepers and others, who would be seriously injured in their business by the visits of official persons, and their businesses possibly put a stop to for a time, avoid such visits and altogether evade such notification by employing quacks and herbalists instead of legally qualified medical practitioners, upon whom alone the responsibility of notification at present really virtually falls under the operation of the dual clauses. The objectors believe that there is no harm in secrecy if proper measures are taken to repress disease, and to ensure that it does not spread to other people, discovery being used only to avoid extension.

The penal clause as drafted in this Bill can only reach the carc-

less, and will not reach those who dishonestly fail to notify. The careless will be equally reached by the clauses proposed by the British Medical Association.

It is not shown that zymotic disease is materially lessened in districts in which it is penal against the doctor if he does not notify; but statistics indicate that these diseases are as prevalent in those districts as in others in which notification is voluntary. It is contended that the plan proposed by the British Medical Association would be more efficacious, though possibly giving little more trouble to the medical officer of health.

The British Medical Association proposes that notification shall be compulsory on the householder or person in charge of the patient, but that he may employ the medical attendant as his agent, and that when so employed the latter should be entitled to a fee from the local authority for the certificate given.

The British Medical Association contends that the enactment of this clause would procure much more satisfactory results than that in the proposed Bill. The compulsory clause puts the whole profession in a false position.

That, until medical officers of health are forbidden to engage in general practice, it may easily cause friction as placing the reputation of practitioners at the mercy of a professional rival, inasmuch as an error on the part of the ordinary medical attendant might be used for malicious purposes under the cloak of zeal for the public good, whereas diagnosis is especially difficult in some forms of infectious disease.

For these reasons, the British Medical Association urges upon the Government the propriety of not assenting to the proposed penal clauses against medical men.

On the notice of the CHAIRMAN, seconded by Dr. BRIDGWATER, it was agreed to forward copies to the promoters of the Bill, to the President of the Local Government Board (Mr. Ritchie), and to other members of Parliament.

PUBLIC HEALTH CLAUSES OF THE LOCAL GOVERNMENT BILL.

A SUBCOMMITTEE of the Parliamentary Bills Committee of the British Medical Association and a delegation from the Society of Medical Officers of Health appointed to consider the public health clauses of the Local Government Bill, met at the offices of the British Medical Association on Wednesday, May 2nd.

Present: Mr. Ernest Hart in the chair; Mr. W. H. Michael, Q.C., Dr. Alfred Carpenter (Croydon), Dr. Woodforde (Reading); Dr. Wilson (Leamington), Dr. Fosbroke (Bidford), Dr. Armistead (Shelford, Cambridge), Mr. Shirley Murphy (London), and Mr. George Turner (London).

The CHAIRMAN stated that he was informed that all were agreed as to the general principles and objects to be attained, which were to secure that the County Councils to be constituted by the new Local Government Bill should have attached to them medical officers of health, and that the necessary powers for making such appointments efficient should be transferred from the existing health authorities.

The Chairman laid on the table the following documents: (1) A Report, dated August, 1871, of the joint committee of the British Medical and Social Science Associations, adopted at the annual meeting of the British Medical Association at Plymouth, in which the reasons for desiring the establishment of County Councils, and the appointment thereto of medical officers of health of adequate skill, having authority over large areas, were laid down in detail. He thought it desirable that this document should now be reprinted, in order to point out that the Association had consistently urged upon successive Governments, from that date, the creation of such an organisation as that which was now the subject of impending legislation, together with the creation of medical officers of health in connection with such councils. It was to him a matter of melancholy recollection that this report was drawn up partly by himself, with the aid of Dr. Stokes, Dr. Rumsey, Dr. William Farre, Dr. Sibson, Dr. A. P. Stewart, and others of hardly less eminence and weight in the Association, few of whom now survived to see the fruit of their labours recognised as of legislative imminence. (2) There were also laid on the table Two Reports prepared by Dr. F. Bond, medical officer of health for the Gloucestershire combined district, headed "The Local Government Board in its relation to Medical Officers of Health and Sanitary Organisation in general;" and (3) on behalf of the Parliamentary

s Committee, the following Draft Memorandum, due to the kindness of Mr. W. H. Michael, Q.C., in which the object in view and the reasons in support of it are briefly condensed:

DRAFT MEMORANDUM.

In order to secure efficiency in local government administration, to obtain the greatest public advantage it is essential that qualified medical officers of health should form part of the staff of all sanitary authorities.

The great advance made of late years in the knowledge of medical hygiene is mainly due to the special training of medical officers who have devoted themselves to the study of the causes and the best means of arresting the spread of preventable diseases. It is only by securing the services of such highly-trained and experienced officers that adequate skill can be obtained in order to carry out the provisions of public health statutes.

Under the Local Government Bill there is at present no adequate provision to insure such appointments. These can only be secured by making the area of the appointment of a medical officer of health sufficiently large to justify the payment of an adequate salary in return for the devotion of the whole of the time of a highly trained officer to the exclusion of private medical and surgical practice.

However competent, the full value of the service of a medical officer of health cannot be obtained without the cordial co-operation of the members of the medical profession practising in the district to which he is appointed.

Medical officers of health should be attached to and appointed to County Councils, for districts large enough in area, population, and rateable value to occupy their whole time and attention, and to superintending inspectors should be, as at present, appointed to the Local Government Board.

Where one County Council is self-contained, the medical officer of health would report to and be exclusively occupied by the care of the district under the government of such Council.

Where a County Council contains within its area several District Councils, one or more medical officers of health should be appointed by such County Council. In such a case all medical officers of health so appointed should, in addition to reporting to the County Council from which they received their appointment, report also as to all work required to be done or executed within the area of a District Council to such District Council. Should such reports not receive proper attention, or sanitary work remain unattended to, power should be given to the County Council, upon the report of the medical officer of health, to execute such works and recover their cost from the defaulting District Council.

A letter was read from Mr. Finch Heneage, M.P., giving the wording of an amendment which he proposed to move to Clause 3, page 37, as follows:

"The appointment, control, and dismissal of medical officers of health, and the power to unite two or more sanitary districts under one officer of health, together with any other powers now vested in the Local Government Board under the Public Health Act of 1875."

The amendments on the same subject proposed by Dr. BOND are as follows:

15*. "There shall be transferred to the Council of each county, on and after the appointed day, the powers at present vested in the urban and rural authorities of such county for the appointment, remuneration, and removal of medical officers of health, such powers being in addition to those relating to the same matters which are hereinbefore transferred to County Councils from the Local Government Board; and the County Council shall, in the execution of such powers, have full authority to determine the number of medical officers of health which it may consider necessary for the efficient sanitary supervision of the district under its control, and to assign to them severally such duties and relative positions as they may deem necessary."

Add to Section 45 (E) "the power given to urban and rural sanitary authorities respectively by Sections 189 and 190 of the Public Health Act shall not be transferred to District Councils but to County Councils as hereinbefore provided."

Add to Section 118 (7) "except in the case of medical officers of health, who shall become officers of the Council of the county in which the sanitary authorities to whom they are severally attached exercise their jurisdiction."

Mr. W. H. MICHAEL, Q.C., suggested amendments as follow:—
"Sections 189, 190, 191. Power to prescribe the qualification of

medical officers of health, to appoint such officers, to sanction the appointment of the same person as medical officer of health for two or more districts, and to prescribe the amounts to be paid by each district towards the expenses, salary, and charges of such officer of health."

The above amendments were discussed and ultimately adopted.

A delegation, consisting of the above gentlemen, with the addition of Mr. Sibley, subsequently waited on Mr. Stansfeld, M.P. (the author of the Public Health Act), and discussed the subject with him prior to official proceedings of a more formal character.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887 will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held in the Bell Library and Medical Institute, Cleveland Road, Wolverhampton, on Thursday, May 31st. The chair will be taken by the President, Mr. W. D. Spanton, at 3 o'clock in the afternoon. The following papers will be read:—Dr. C. A. McMunn: Excretion of Reduction Products of Hamatin in Disease. Dr. Alfred H. Carter: Observations on the Practical Management of Chronic Diseases of the Heart. Mr. E. Hurry Fenwick, London: The Electric Illumination of the Bladder and Urethra, and its Value in the Diagnosis and Treatment of Obscure Vesico-Urethral Diseases. Dr. McMunn will show a simple method of adapting a photographic camera to the microscope.—T. VINCENT JACKSON, Wolverhampton.

SOUTH EASTERN BRANCH.—A meeting of the Executive Council of this Branch will be held at the Bridge House Hotel, London Bridge, on Thursday, May 10th, at 3.15 P.M.—CHARLES PARSONS, M.D., Honorary Secretary, 2, St. James's Street, Dover.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of the above District will be held at Canterbury, on Thursday, May 24th, at 8 P.M., in the chair. Anyone wishing to send papers, etc., should communicate at once with the Honorary Secretary, W. J. TYSON, Folkestone.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting will be held at the Infirmary, Hull, on Wednesday, May 30th, at 1.30 p.m. Gentlemen who intend to make any communication, or to propose any resolution, are requested to inform the Secretary not later than May 20th.—B. P. HARDEY, Honorary Secretary, 80, Spring Bank, Hull.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The annual meeting will be held at Bethlem Royal Hospital, St. George's Road, S.E., on Tuesday, May 8th, at 5.30 P.M. The chair will be taken by Dr. Frederick Taylor, Vice-President of the District. Business: To read the minutes of the last meeting. Election of Vice-President, representative member of Council. Com.

mittee, and Secretary for the ensuing year. All the present officers are eligible for re-election. Dr. Savage, Resident Physician to Bethlem Hospital, will give a demonstration on Cases of Insanity in the Wards of the Hospital. All medical practitioners will be welcomed. There will be a Committee meeting at the same place at 5 P.M. Gentlemen desirous of reading papers, exhibiting specimens, etc., at future meetings, are requested to communicate with R. PERCY SMITH, Honorary Secretary, Bethlem Royal Hospital, S.E.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, May 10th, at 7 P.M. T. A. Richardson, Esq., of Croydon, in the chair. Dinner at 6 P.M.; charge 7s., exclusive of wine. The following papers have been promised. Dr. Goodhart: On Certain Innominate Febrile Conditions and Antipyretics. Mr. Bruce Clarke: On the Treatment of Stricture by Electrolysis. Dr. Philpot: On the Local Treatment of Eczema. Members desirous of contributing papers will please communicate with the Honorary Secretary, P. T. DUNCAN, M.D., Croydon.

NORTH OF ENGLAND BRANCH.

The spring meeting was held at the Infirmary, Sunderland, on April 25th.

Cases.—Mr. MORGAN showed a little girl who had suffered from a severe attack of cancrum oris, resulting in great destruction of the cheek, and distortion of the mouth.—After some remarks by Dr. LAWRENCE and Dr. EMBLETON, Mr. MORGAN said that he intended to repair the deformity by operation.—Dr. HUME showed a patient on whom he had performed the operation of inguinal colotomy with a good result.—Dr. MURPHY showed a man on whom he had performed the operation of gastrostomy about seven months ago. The patient's condition improved so much after the operation that there was a hope that the original diagnosis of cancer might be given up.—Drs. WATSON, GIBSON, and EMBLETON discussed these cases, and Drs. HUME and MURPHY replied.—Dr. MURPHY showed a girl with closure of the jaws from cicatrix, caused by accidentally inhaling flame. It was suggested in the discussion (Mr. MORGAN and Dr. HUME) that if the adhesions did not give way on stretching under chloroform, that they should be divided, and, if necessary, the strong bands of scar dissected out, and also a piece of fresh mucous membrane might be transplanted to the surface of the wound.

Specimens.—Mr. MORGAN showed some of the parts from a case of tubercular peritonitis simulating cystic disease of the ovary. The case raised a discussion on the question of diagnosis and treatment, the surgeons thinking it desirable to explore the abdomen in doubtful cases, and, as far as possible, cleanse the peritoneum, whilst Dr. DRUMMOND, as a physician, urged the advantage of general and local medicinal treatment.—Dr. DRUMMOND showed a tumour of the brain, removed after death. The interesting feature of the case was that there was no optic neuritis, although other symptoms were present which established the diagnosis.—Dr. DRUMMOND also showed the parts from a case of intestinal obstruction, in which there were pendulous growths of the structure of a cylindroma. He also exhibited a spleen with many infarcts of uncommon appearance, and a liver full of adenomatous growth.

Congenital Gastric Fistula.—Dr. HUME read notes of a case of congenital fistula of the stomach cured by operation.

Quack Advertisements.—Mr. MORGAN moved the following resolution on quack advertisements, which was seconded by Dr. EASTWOOD, and carried: "1. That inasmuch as the evidence is before us that the newspaper notices, the pamphlets, books, and handbills issued by advertising quacks on the subjects of 'Nervous Debility,' 'Courtship and Marriage,' 'The Philosophy of Life,' and such like, are most injurious in their effect and most debasing in their moral tendency, suggestive of impurity, and giving false notions of health, it is the duty of this meeting of the North of England Branch of the British Medical Association to warn the public, and especially the young, against those who pretend, under the garb of philanthropy and religion, to minister in some secret way to the physical and moral well-being of their fellow men. And further, to point out that 'health, energy, and manly vigour' are best maintained, and if lost through vicious habits, best recovered, by self-restraint and purity of life. 2. That this resolution be printed, and a copy sent to each of the mayors in the district which our Branch covers, asking him to take such steps as he may deem right and practicable to have these advertisements suppressed within his jurisdiction; and also to the chairman of each bench of magistrates with the same request; and, secondly, to each newspaper proprietor in the said district, drawing his attention to the evil, and asking him, as a respectable journalist, to refuse insertion of such advertisements; and, thirdly, to allow such resolution to be publicly advertised, as our warning to the public against this baneful thing."

Over sixty members were present at the meeting.

Dinner.—Afterwards the members and their friends dined together at the Queen's Hotel, Sunderland.

JAMAICA BRANCH.

The usual bi-monthly meeting was held at the Public Library on April 4th, the Hon. J. C. PHILIPPO, president, in the chair. There were ten members present.

Multiple Mammary Tumours.—Dr. J. LESLIE COX read a paper on a case of Multiple Mammary Tumours. The patient was shown.

Removal of Foreign Body from Male Bladder.—Dr. T. H. SAUNDERS read a paper on the removal of a pipe-stem from the bladder of a man.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The April meeting of this branch was held in 198, Union Street, Aberdeen, on Wednesday, April 18th, at 8 P.M., the president, Dr. SMITH, of Kinnairdy, being in the chair.

New Member.—The minutes of last meeting having been read and approved, Dr. James Crevie, Newburgh, was balloted for and admitted a member of the Branch.

Petition against Proposed Horse and Carriage Tax.—Dr. WIGHT moved that the Branch petition the House of Commons against the taxation of horses of medical practitioners, as proposed by Mr. Goschen in the Budget, and recommend individual members to use their influence with members of Parliament to attain the above object. Dr. Wight further proposed that the petition should take the form suggested by Mr. Ernest Hart at page 761 of the current volume of the JOURNAL.—This motion was seconded by the PRESIDENT, and unanimously adopted by the meeting.

Post-Graduate Course.—Dr. EDMOND, the convener of last year's Post-Graduate Course Committee, made a statement regarding the advisability of a course for 1888, and wished to elicit the feeling of the Branch on the matter.—Dr. GARDEN proposed that a year should be missed, and no counter motion having been proposed, the motion was declared to be carried.

GLOUCESTERSHIRE BRANCH.

An ordinary meeting was held at the Gloucester Infirmary on April 17th, 1888, at 7.30 P.M., under the presidency of Dr. CURRIE.

The minutes of the last meeting were read and confirmed.

Next Meeting.—It was proposed by Dr. BATEN, and seconded by Mr. WADDY: "That the half-yearly meeting be held in June at Gloucester." Carried.

Therapeutical Society.—It was proposed by Mr. WADDY, and seconded by Dr. SOUTAR: "The Branch having heard the offer of Dr. Percy Wilde, of Bath, to bring the subject of the aims and object of the Therapeutical Society before this Association, this Branch accepts his offer." Carried.

Communications.—Dr. SOUTAR read a paper on Epilepsy.—Dr. BROWN showed the Temperature Charts of a Case of Hysterical Pyrexia.

BATH AND BRISTOL BRANCH.

The fifth ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday evening, April 19th, Dr. G. F. BURBER, President, in the chair. There were also present thirty members.

New Members.—The following gentlemen were elected members of the Association and the Branch:—Messrs. B. R. T. Trevelyan, M.R.C.S.E., Bristol General Hospital; W. R. Ackland, M.R.C.S., L.D.S., Rodney Cottage, Clifton; and A. Pring, L.R.C.P., 4, Arlington Place, Clifton.

Diphtheria.—The evening was devoted to a discussion on Diphtheria, which was opened by a short, practical paper by Dr. A. B. BRABAZON, medical officer of health for Bath, who pointed out the lines on which the discussion should be developed. He was followed by Drs. CROSSMAN, DAVIES, J. BROOM, STOCKWELL, BONVILLE FOX, and E. FIELD, and Messrs. TUCKETT, HINTON, WAUGH, POLLARD, and R. J. H. SCOTT, who spoke severally on the etiology, the distinctive features, and the treatment of the disease.

SOME of the medical societies in the United States, following the lead of the Georgia State Medical Society, are agitating for the removal of all customs duties now levied on surgical instruments and medical apparatus and supplies.

PROCEEDINGS OF COUNCIL.

a meeting of the Council, held in the Council Room of the Association, 429, Strand, London, on Wednesday, April 18th, 1888; sent:—

- Dr. T. BRIDGWATER, President of the Council, in the chair,
 C. Holman, Reigate, Treasurer
 J. W. Baker, Southport
 H. Barnes, Carlisle
 G. B. Barron, Southport
 J. S. Bristowe, F.R.S., London
 H. T. Butlin, London
 A. Carpenter, Croydon
 Surgeon-General W. R. Cornish, London
 J. Ward Cousins, Portsmouth
 G. W. Crowe, Worcester
 A. Davidson, Liverpool
 J. L. H. Down, London
 George Eastes, London
 J. H. Galton, Upper Norwood
 Bruce Goff, Bothwell
 O. Grant, Inverness
 W. C. Grigg, London
 T. W. Grimshaw, Carrick-ines
 James Hardie, Manchester

- Mr. T. R. Jessop, Leeds
 Mr. H. R. Ker, Halesowen
 Dr. W. G. V. Lush, Weymouth
 Dr. J. McIntyre, Odiham
 Mr. F. Mason, Bath
 Dr. W. W. Moore, Brighton
 Mr. W. Jones-Morris, Portmadoc
 Dr. F. Needham, Gloucester
 Dr. C. Parsons, Dover
 Dr. R. Saundby, Birmingham
 Dr. A. Sheen, Cardiff
 Mr. S. W. Sibley, London
 Dr. W. Strange, Worcester
 Mr. T. Sympton, Lincoln
 Mr. J. Taylor, Chester
 Dr. T. W. Trend, Southampton
 Mr. F. Wallace, London
 Dr. E. Waters, Chester
 Mr. C. G. Wheelhouse, Leeds.
 Mr. A. Winkfield, Oxford

the minutes of the last meeting having been printed and circulated, and no objection having been raised, were put and confirmed. Read letters from the Registrar-General, of which the following copies:

February 29th, 1888. Sir,—I am directed by the Registrar-General to acknowledge the receipt of your letter of the 1st instant, and to state that he regrets that, for the reasons fully stated in his former communication of November 19th, 1887, he is unable to comply with your request that tabulation of causes of death shall be extended in the way proposed by you. regards the suggestion made by the Registrar-General that the information you wish for could probably be obtained by you from the hospitals of the country; this was, of course, no more than a passing suggestion, and the Registrar-General regrets that it should have been one which, as it appears, did not in your judgment meet the case. I am, Sir, your obedient servant,
 W. OGLE, M.D., Superintendent of Statistical Department.—The General Secretary, British Medical Association, 429, Strand, W.C.

February 29th, 1888. Sir,—Enclosed in the letter forwarded by you to the Registrar-General, which has been answered officially, was a letter addressed to me personally inviting me to have an interview with the signatories of that communication. Will you be so good as to say that I shall be happy to receive a gentleman who wishes to see me, at any convenient time, and to convey to the Registrar-General any remarks which he may wish to make on the subject which the letter refers. I take it, however, that the object of such an interview would be to insist upon the importance, from a medical point of view, of information asked for. As, however, the Registrar-General does not in the contest this value, of which, of course, the medical signatories are far more competent judges than himself, but has based his refusal to extend his tabulation of causes of death upon perfectly different grounds, I hardly think the proposed interview and discussion would be of much service. I am, Sir, your obedient servant, W. OGLE, M.D., Superintendent of Statistical Department.—The General Secretary, British Medical Association, 429, Strand, W.C.
 Resolved: That a reply be sent to the Registrar-General in the following words:

To the Registrar-General of Births, Deaths, and Marriages in England.
 Sir,—We are desired by the Council of the British Medical Association to acknowledge and thank you for your communications, dated February 29th, signed by Dr. William Ogle.

We understand that you are unable to comply with our request on account of the necessity of avoiding any increased expenditure in your department, and we refrain from pressing the matter at the present moment. But we sincerely trust that the time is not far distant when you may see your way to providing the detailed statistics of cancer which we have suggested.—We are, Sir, your obedient servants.

Resolved: That the proposed by-laws of the Perthshire Branch, in recognition of that Branch as a Branch of the British Medical Association be and it is hereby confirmed by this Council; that in notifying this resolution the Council of the Association desire to express to the Perthshire Branch their high sense of the mutual benefits that this union should necessarily insure.

Resolved: That the 319 candidates, whose names appear on the circular convening the meeting, be and they are hereby elected members of the British Medical Association.

Resolved: That the Financial Statement for the year ending December 31st, 1887, as certified by the auditors as correct, be received and approved, and published in the JOURNAL in accordance with By-law 26.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain the accounts for the quarter ending March 31st, amounting to £5,979 16s. 3d. Report of the auditors for the quarter, and a recommendation that the Editor's salary be increased by £250, the Manager's by £150, and the Assistant Secretary's by £100, and an honorarium of £100 to the Manager.

The Treasurer reported the investment of £2,000 in Nottingham Corporation 3 per cent. inscribed Stock.

Resolved: That the President of Council, the Treasurer, and the General Secretary be empowered to seal power of attorney authorising the London and Westminster Bank to receive the dividends.

Resolved: That the minutes of the Premises Committee of April 17th be received and approved, and that the recommendations contained therein be carried into effect.

The minutes of the Premises Committee contain communications from the Hunterian Society, stating that, in consequence of new arrangements by the London Institution, their medical library would remain there.

The President of the Council placed before the Council letters from Dr. Prosser James and Dr. McDonell.

Read minutes of the Committee appointed to consider the subject of Relative Rank.

The minutes of the Committee appointed to consider the subject of Relative Rank, contain the reply of the Secretary of State for War to the communication of the President of Council on behalf of the Association.

Resolved: That the correspondence be referred to the Parliamentary Bills Committee, and that Surgeon-General Cornish be added to the Parliamentary Bills Committee.

Resolved: That the minutes of the Branch Organisation Committee of April 17th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Branch Organisation Committee contain recommendations that copies be struck off of the map of the Branches, and one sent to each Honorary Branch Secretary.

Resolved: That the minutes of the Scientific Grants Committee of April 17th be received and approved, and the recommendations contained therein carried into effect.

The minutes of the Scientific Grants Committee contain particulars of seventeen applications for the scholarship vacated by Mr. Watson Cheyne, and a recommendation that Dr. Ralph Stockman, Edinburgh, be appointed to the vacancy for one year.

Resolved: That the President of Council, the Treasurer, and Mr. Sibley be a Committee to draw up the Annual Report.

Resolved: That the arrangements for the Annual Meeting be approved and confirmed.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

"Phthisiogenic" Pleurisy.—Vaginal Antiseptics.—Orthosyphon Stamineus.—Treatment of Typhlitis.—Telepathic Remedies.

In a clinical lecture at the Hôpital de la Pitié, Professor Jaccoud recently made some interesting remarks on a case of dry diaphragmatic pleurisy, and on the possible connection of such cases with tubercular phthisis. The case was extremely severe at the outset, and the patient breathed with great difficulty, and suffered much pain. On examination, it was found that the affection was localised at the postero-lateral part of the left side of the chest in communication with the diaphragm. The severe symptoms soon gave way to local treatment, and recovery was rapid. At the end of eight days the only traces left of the pleural inflammation consisted in a slight fibrinous exudation indicated by some want of resonance, harshness of breath-sounds, and retraction of the two intercostal spaces in the lower posterior part of the chest in inspiration. Dr. Jaccoud attaches special importance to the persistence of this exudation after apparent recovery, as it may lead to pleuritic adhesions, and, on account of the close connection between pleurisy and pulmonary phthisis. It is generally supposed that only pleurisy of the apex can lead to tuberculosis of the lungs. This is quite a mistake. Any pleurisy, no matter where located, may precede and pave the way for tubercles. Moreover, as Dr. Jaccoud already stated in 1882, the essential character of "phthisiogenic" pleurisy is that it occupies the lower region of the pleura at its antero-lateral part, and generally on the right side. In a case of pleurisy of this description the patient recovers rapidly, with, perhaps, some loss of strength; this is the first stage. But after some weeks, or perhaps months, he again falls ill; a pneumonic patch is discovered at the seat of the pleuritic adhesions, and the patient is obliged to take to his bed. The pneumonic patch soon breaks down, and leads to what is

known as caseous pneumonia. This is the second stage. Lastly, should the patient survive for a few months there may be a third stage, represented by more or less generalised pulmonary tuberculosis. Dr. Jaccoud thinks that the connection between these pleuritis ending in adhesions and the formation of a pneumonic focus, which is, after all, tuberculous, may be explained by the fact that the portion of lung bound by the adhesions to the chest-wall has lost its power of expansion, and participates little or not at all in the respiratory process. On the other hand, the blood circulates perfectly in this region of the pulmonary parenchyma, the vessels are compressed by the pleuro-costal adhesions, stasis becomes frequent; consequently there is a diminution of the nutritive action, extremely favourable to the multiplication of the bacilli, which have already taken up their abode in this part of the lung, while direct examination of the apices shows that these are still quite free from microbes. Dr. Jaccoud draws the following practical conclusions from the above facts: Pleurisy may as readily lead to pulmonary phthisis when it affects the lower parts of the pleural cavity as when it is in the apex. This is particularly the case as regards dry pleuritis ending in adhesions situated in the antero-lateral parts on the left side, such pleuritis being more often "phthisiogenic" than any other. On the appearance of such symptoms active measures must be taken notwithstanding their apparent mildness and the rapid recovery of the patient. Every effort must be made to prevent the formation of adhesions, particularly by extensive blistering of the side of the chest. This will often succeed. The inhalation of compressed air is also very useful if it is continued during several weeks.

The *France Médicale* of March 3rd publishes an article by Dr. F. Verchère on vaginal antiseptics, of which the following is an abstract:—Vaginal and uterine cleanliness is one of the greatest achievements of modern times, and, thanks to it, gynecology has become surgical and effective. For a few days before operation or childbirth vaginal aseptics must be established and maintained. The author passes in review the various liquids employed to obtain vaginal aseptics, carbolic acid, boric acid, bichloride or biniodide of mercury, etc. Carbolic acid, in order to be efficacious, must be used at a strength of 40 in 1,000, when it becomes too irritating to the mucous membrane of the vagina and uterus; boric acid, on the contrary, is not energetic enough. There remain the mercurial solutions, which are the best; above all Van Swieten's solution. For vaginal injections it may be used pure, but for intra-uterine injections it is better to employ a weak solution of about one-third of the liquid to two-thirds of water. The surgeon or accoucheur should not trust to the patient, but should give the injections himself twice a day for four or five days before the confinement or operation. Between the injections occlusion must be maintained by means of a pad of iodoform wool, which should remain *in situ* night and day. Should the odour of iodoform be disagreeable to the patient, ground coffee, Tonka bean, etc., should be used to disguise it. After operation, the antiseptic measures must be continued with the same care until healing is complete. After delivery, the iodoform pad is not necessary, and may be replaced by iodoform gauze.

Dr. Frochard recommends, in the *Gazette des Hôpitaux*, of March 1st, a powerful diuretic, *orthosiphon stamineus*, in the form of Java tea, in treating gravel and arthritis. He records the following cases. I. H., aged 60, had passed gravel in his urine for a year. An infusion of Java tea (five grammes to the litre) was prescribed daily. The urine gradually became clear and abundant. II. F., aged 52, for six months had suffered every three weeks from nephritic colic, followed by the expulsion of large calculi. Java tea was prescribed in the same way as in Case I. In the next two months he had only one attack, and during the five months which had since elapsed he had not suffered at all. III. M., aged 46, had suffered since 1883 from ascites due to cirrhosis of the liver. For a month he took Java tea, at first five grammes, and then ten grammes in a litre of water. The abdomen diminished in size several centimètres weekly. The drug is perfectly harmless. Dr. Frochard has only used it in the form of Java tea, and pills obtained direct from the importer, M. Périnelle.

M. Bouchard recommends the following treatment for typhlitis: Sootie pain by a morphine injection, if very sharp at first; if not, a thick layer of Neapolitan ointment with belladonna, covered by a large, very hot poultice. Aseptic rectal injections twice a day, with at least one litre of water, to which are added five grammes of borate of soda, and two or three teaspoonfuls of tincture of benzoin, mixed with camphorated alcohol. The injections must

be given very slowly. Absolute rest is indispensable. No purgatives, or, if any, only those of the mildest kind, such as magnesia in water, etc. Only the lightest diet, which will leave no deposit for intestinal fermentation, should be allowed. Milk and alkaline drinks may be given in small quantities at a time; later on, milk thickened with yolks of eggs. If at the end of a fortnight some thickening can still be felt round the cæcum, a small blister should be applied.

Professor Bernheim, of Nancy, writing in the *Revue Hypnotique* observes that, since recent experiments have led the medical profession to believe in remedies which can act at a distance, experiments on that subject should be made in a more serious and conscientious manner. Substances having a definite action should be chosen and enclosed in numbered tubes by a person not present at the experiments, the names of each being put in sealed envelopes bearing corresponding numbers with those on the tubes. New substances should be chosen for subjects who have already been submitted to those experiments, in order to prevent their first impressions being recalled. The various phenomena should be noted immediately after they are observed. The envelopes should be opened only after the experiments are terminated and the subject has gone away. If, after all these precautions have been taken the effects produced agree with the known action of the drug, the presence of something more than the influence of suggestion in telepathic medicine will be proved. Professor Bernheim's own experiments on a young girl considered susceptible to the action of telepathic medicine have given negative results.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Acute Quinine Poisoning.—Rare Form of Congenital Syphilis.

DR. L. ROSENBUSCH, of Lemberg, in a recent number of the *Przeglad Lekarski*, reports a case of acute quinine poisoning which he had observed in the hospital of that city. After the administration of a gramme of the sulphate of quinine, the patient was attacked with shivering, tinnitus aurium, severe headache, cold and pains in the extremities, palpitations, and vomiting, with great prostration. An hour later the patient became unconscious, the temperature rose to 39.7° C., the pulse was 158 and compressible the pupils contracted, but reacting to light, the tongue dry. The skin of the face and the whole body presented a uniform redness resembling that of scarlet fever, and composed of many small confluent patches. The likeness to scarlet fever eruption was the more striking as the neck and the thighs were very deeply coloured. Respiration was difficult. Castor-oil, caffeine, and cold compresses to the head and the cardiac region were ordered. On the following day the temperature was only 36.5 C., the pulse 108, with considerable arterial tension. The patient had a restless night and was delirious; the bowels acted towards the morning the rash became paler, the pupils regained their normal size, the tongue became red and coated with yellow patches. Sensation of tearing and trembling in the extremities were complained of. Bromide of sodium was given. The rash and all the other symptoms just described disappeared in two days, and only a slight pigmentation of the skin remained. The patient had stated that, five years ago, he had a similar attack after taking two powders, each containing half a gramme of sulphate of quinine. On that occasion the rash disappeared the next day. Dr. Rosenbusch points out that this case is specially interesting by reason of the high temperature (39.7° C.), which had never before exceeded 38.7° C.; also on account of the great resemblance of the rash to that of scarlet fever, from which at first it could hardly be distinguished. The absence of throat symptoms and the sudden occurrence of a diffuse and uniform blush over the whole body were the chief features which differentiated the affection from scarlet fever.

At a recent meeting of the Royal Society of Physicians of Buda Pesth, Dr. Róna showed a baby two months old which was affected with congenital syphilis of a particularly interesting type. Some days previously Dr. Róna had observed the following symptoms in the child: coryza (which had already been present in the first week after birth); mucous patches on the lips; a papule as large as a pea on the left cheek; broad condylomata and ulcers around the anus; pseudo-paralysis of the two upper and right lower extremities, due to considerable swelling of the lower ends of both the arms, the ulnæ and radii, and the lower end of the right femur. The metatarsal bones and the first phalanges of the middle fingers were swollen to such a degree that the palm of the hand was as convex as the back. The spleen was enlarged; the liver and

ts unaffected. Hence in this case the skin, the bones, as well as the spleen, were the sites of syphilitic affection. The syphilitic affection of the epiphyses and the enlarged spleen were quite common symptoms of congenital syphilis, but the rare and interesting feature in the case was the periostitis of the small ulnar bones, an occurrence quite unknown even to the most experienced pædiatric specialists. After five mercurial inunctions the symptoms began to disappear. The child is the tenth of its parents. The father acquired syphilis in 1879-80, and the mother presented the first syphilitic symptoms in 1885.

BERLIN.

[FROM AN OCCASIONAL CORRESPONDENT.]

Health of the Emperor.—The Withdrawal of Professor von Bergmann.

The condition of our Emperor-King continues to occupy men's minds here to the exclusion of almost everything else. The official reports—meagre and somewhat Sphinx-like as they are—are eagerly scanned, and in the absence of any information as to the essential points of the situation, we try, though with indifferent success, to comfort ourselves with slight falls in the illustrious Emperor's temperature and passing improvements in his general condition. Even those who professed to share the optimistic views of the foreign physicians no longer blind themselves to the fact that the present reign is too surely destined to be very short. In the meantime, His Imperial Majesty is considerably better, and eats fairly well, taking solid food with hearty relish. Dr. Leyden takes a great point of his taking grape instead of cane sugar as the reason for this injunction the Professor appears to serve *in petto*. The morning temperature is now out normal, but in the evening it has risen to 102° F. since April 25th inclusive. Before that the evening temperature had been 103° on several occasions, and once reached 104°. The temperature is always taken in the mouth with a "half-minute" thermometer, which was given

Sir Morell Mackenzie by an eminent surgeon during his last visit to England. The instrument which is generally used here is a rather coarse affair, which has to be kept in for ten minutes before a trustworthy register of the temperature can be got. When the Emperor returned to Berlin, Dr. Wegner, who is rather what the French call *perruque* in his ideas, insisted—either to the annoyance of the august patient—on using the ordinary German thermometer to which he was accustomed instead of the new-fangled English importation. It was only after repeated trials with the two instruments—one being kept in the mouth for half a minute and the other in the axilla for ten minutes—and finding that they invariably registered the same temperature, that the Leibartz would give way on this point. All the physicians are now, however, unanimous in their approval of the "short time" thermometer, and it alone is used in the case.

You have already learned, no doubt, that a few days ago the prolonged "tension" among the Kaiser's medical advisers came to a crisis, which ended in Professor von Bergmann withdrawing from the case. He has been replaced by Professor Bardeleben, the head of the surgical staff of the Charité, whose name, I am given to understand, much better known in England than that of von Bergmann. Bardeleben, who is considerably the senior of his brother professor, is a man of great judgment and experience, and it has been a matter of some surprise that his advice was not asked before. At the stage which the case has now reached, however, the change of surgeons is of very little practical consequence. The event has, I need hardly say, made an immense sensation here, not only in professional circles, but among the general public. I hardly think, however, that much sympathy will be felt in England for Dr. von Bergmann, who, though he may possibly have good grounds for complaint against Sir Morell Mackenzie, has, in this particular instance at least, put himself out of court by the aggressive attitude which he took up, apparently without any special provocation on the part of his English colleague. I do not mean to imply that he is personally responsible for the scandalous attacks on Mackenzie and Hovell, which appeared in certain ultra-patriotic German papers, but if he did not directly inspire them he has never, so far as I know, disowned them. Considering that these attacks did not concern matters of opinion, but were statements of concrete facts the truth or falsehood of which was within Dr. von Bergmann's knowledge, this reticence on the part of the distinguished surgeon can only be interpreted as an endorsement of the charges there

made. When the alleged facts are absolutely denied in the most public manner by the persons accused, Professor von Bergmann has no right to shelter himself behind a *soldisant* superior code of professional ethics, and refuse to take up the challenge thus openly given.

It is a somewhat suspicious circumstance, moreover, that this virtuous resolution of the Professor should be announced just at this particular time. He did not appear to be so scrupulous a few weeks ago, when, at the Langenbeck Memorial Festival here, his speech was understood to contain a covert attack on Sir Morell Mackenzie, which was received with the fullest appreciation by the audience. I happen to know also that, whether he has "inspired" the press or not, he has been in frequent communication for a long time back with the Berlin correspondent of a powerful English newspaper, whose "candid friendship" towards the English specialist has been obvious to the most casual reader.

I dare say there have been faults on both sides, but when the whole miserable business comes fully before the medical world, as it is sure to do one of these days, I think it will be seen that Sir Morell Mackenzie has had such an amount of provocation that, after all, he may well, like Lord Clive, "stand astonished at his own moderation."

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Meeting of Glasgow University Council.—Opposition of the University Authorities to the Universities Bill.—Queen Margaret College.—Typhus Fever in "Tinkler" Wigwams.—St. Mary's Industrial School Epidemic.—The Scotch Education Department and Leaving Certificates for Secondary Schools.

THE annual meeting of the University Council was held on April 25th, and was characterised by the largest attendance for very many years. It soon became evident, however, that the expected discussion on the Universities Bill was not the cause of the unusual attendance, but that the large number was the result of the beating up for votes on the part of indefatigable candidates for the vacant clerkship of the Council. Three candidates were put forward, one by the University Council Association, but his name and that of another were withdrawn after the first vote, as soon as the enormous majority was evident in favour of a strictly non-party man, Mr. Arch. Craig, LL.B., for whom 392 voted. As soon as this vote was over, two-thirds of the meeting trooped away. On the question of approving the arrangements made by the University Extension Board for the extension of university teaching, Dr. McVail expressed a strong objection to the scheme. He maintained it was completely inadequate because the university element in the certificate proposed to be granted would be reduced to a minimum, and there was no provision for accepting any of such certificates as qualifying for the degree in the University. He refrained from proposing an amendment because he hoped that they would soon find themselves working under a new Universities Act, with a different University Court, and a Senate reduced from its position of dictation and universal control. In the discussion that followed on the Universities Bill there was nothing of marked importance elicited. The Committee of Council had suggested that general approval of the Bill should be expressed, coupled with a desire for a fuller definition of the meaning and conditions of affiliation, and for an increased grant. An attempt was made, on a motion moved by Principal Douglas, seconded by Sir William Thomson, to get the Council to express an opinion in favour of restricting the Commissioners to investigation and report on the question of affiliation with a view to legislation, on the ground that the subject had not yet been sufficiently matured by discussion. This however was defeated by a majority of 81 against 63. The falling off, however, in the attendance from between 450 and 500, when a small piece of patronage came up for disposal, to less than 150, when the reform of the University was under discussion, is not a favourable comment on the claim of the Council for increased power in the administration of the University. Subsequently a motion was carried objecting to the interference with the patronage of bursaries as proposed in the Bill. Owing to the lateness of the hour two motions by Dr. J. R. Wolfe were postponed to next meeting. They proposed that a representation be made to the University Court to consider, with the managers of the Royal Infirmary, how, by endowing chairs of clinical medicine and otherwise, the clinique of that institution might be utilised for the University, and to consider the disadvantageous position of extra-mural teachers in

medicine, in respect that they are not represented among the Examiners for Degrees, and to report in which way this disadvantage can best be removed. Should it be necessary when next meeting comes round for these motions to be brought up, considerable support is promised for them.

The authorities of Glasgow University are directing all the force of their attack on the new Bill to the affiliation clauses, and to the proposal to give the Court power to review, *ex proprio motu*, the decisions of the Senate. These are the portions of the Bill to which the University Court itself, at a recent meeting, took strong exception. They also expressed the opinion that the Court, as proposed, was too large for business purposes, and recommended that only one assessor, instead of two, should be appointed by the Crown, on whom the title of Dean of Faculties should be conferred, with a view to maintaining that historical office. The deep dislike entertained to the Bill by many of the Senate is shown in a letter addressed by Professor Dickson to the University member of Parliament, Mr. J. A. Campbell. Professor Dickson offers a most uncompromising criticism to the whole Bill, objecting to the proposals bearing on the General Council, because "they are understood to have emanated from a self-constituted association," formed of scarcely one-fifth of the whole body of graduates, and representing those mainly resident in Glasgow and vicinity, because they limit the freedom of choice of the Council in its representatives, and because of the proposal for a Standing Committee of Council. He objects to the size of the proposed Court and to its extended powers of review, and speaks of affiliation as "an unknown quantity under a metaphorical name," finally characterising the Bill as "legislation at haphazard," and as "a perilous experiment." There is no doubt that the Senate will use all its influence to have all the affiliation clauses removed from the Bill, and the question referred to the Commissioners simply for consideration and report; and the Senatorial breast is animated with no little hope that in this attempt they will be successful.

Queen Margaret College closed its fifth session on April 30th, when the prizes were distributed by Sir J. N. Cuthbertson. The total number of students was 242.

Dr. Russell gives another example, in his latest report on the health of Glasgow, of the conditions which maintain typhus. It is that of a one-apartment house from which five cases were removed. The house was inhabited by two families, consisting of fourteen persons. The parents of the first family were 44 and 41 years of age, and they had a family of four girls, of ages 16, 11, 9, and 7 years, and three boys, of ages 13 and 3 years, and 16 months. The parents of the second family were 35 and 24 years of age, and had two children, one a boy of 4 years and a second boy of 5 days. The mother of this family was a daughter of the first. Her age is 24, and her mother's 41, and both were suckling infants. There was besides an illegitimate child, aged 2 years, of a grown-up daughter of the first family. The people belonged to a class known in Scotland as "tinklers." They had no furniture but a table and some soap-boxes, one bed and shakedown, and a very scanty supply of cooking or feeding utensils. The complicated indecencies of life in these circumstances, Dr. Russell remarks, may be evolved by anyone's imagination. The existence of such circumstances depends in this case on the will of the parents who choose to revert to the savage state. Ought the habits of the wigwam, he asks, to be permitted in the midst of a city? If they are, the smallest penalty is the expense of treating typhus and maintaining people in the reception-house.

St. Mary's Industrial School remains free of disease, and only five of its patients remain in hospital. A total of 310 cases are at present in Belvidere, of which 168 are cases of scarlet fever, 52 of enteric fever, 34 of measles, 25 of typhus, 19 of whooping-cough, 6 of erysipelas, and 5 undefined. There is also a solitary case of small-pox—that of an actor, who left Sheffield on April 1st, remained in Edinburgh fulfilling an engagement till the 8th, and then came on to Glasgow. It is a mild case. A fortnight ago the total number of cases of fever in hospital was 344, and at the corresponding period of last year they were only 254.

The Scotch Education department has now offered to secondary schools placed under their inspection leaving certificates of three grades: one aiming at the standard maintained in the senior local examinations of the university, or the examination preparatory to the three years' course; a second corresponding to the junior local examination or the medical preliminary; and an honours certificate for the benefit of such schools as aim at still higher standards. The examinations will be held in the third week of June.

CORRESPONDENCE.

TO CORRESPONDENTS.

OUR correspondents are reminded that prolixity is a great bar to publication, and, with the constant pressure upon every department of the JOURNAL, brevity of style and conciseness of statement greatly facilitate early insertion. We are compelled to return and hold over a great number of communications chiefly by reason of their unnecessary length.

THE SANITARY CONDITION OF HAILEYBURY COLLEGE

SIR,—I trust that you will allow me space for a few remarks under this head, and for the statement of some facts which do not appear in your commissioner's report, in fairness to the authorities of the College and to the parents of the many boys at school there. For the sake of clearness I shall follow the order of Mr. Bailey Denton's report.

1. *Sanitation: External Arrangements.*—There are no water closets "in the Master's house;" there are two in houses "Assistant Masters." This correction may appear a mere quibble, but it will be appreciated by those who know Haileybury and are acquainted with the relative position of its several buildings.

Internal Arrangements.—Dormitory ventilation. In fairness to the College, it should be known that the method of ventilation referred to was originally adopted as one which then held a position of considerable prestige, and only after its adoption had been commended by a sanitary authority of acknowledged position. Although now somewhat discredited, it may still be regarded a fair "system," as anyone who examines the dormitories under conditions would, after noting the low percentage of carbon dioxide present in the air of all the rooms, admit. But the advantage originally claimed for the "system," namely, that practically converted each set of dormitories into one large apartment, and ventilated them as such, constitutes its essential drawback; because it the more readily admits of the conveyance of infection (should there be such in one dormitory) to the rooms above. [As a matter of fact, none of the recent cases held such relationship to any of the others as would be explicable on this hypothesis.]

It was on account of this special feature in the ventilation that I, as medical officer of the school (not "the medical officer of health") stated in my report to the Council for 1887—in which Mr. Bailey Denton gives partly as mine and partly as my own—"The system of ventilation which exists in most of the school dormitories cannot be considered as satisfactory, or as accordance with the otherwise good system of sanitation obtaining in the school. I believe that it could be greatly improved but a small outlay, and that without any material alteration of the buildings. I hope shortly to be able to draw up a detailed memorandum on the subject." In the same letter (dated April 9th, 1888) in which I supplied Mr. Bailey Denton with this information, I added that the Council had, immediately on receiving this presentment, agreed to the undertaking of such alterations in this respect as were recommended; and that the actual carrying out of these changes was now held over only in order to await the detailed report of the sanitary authority to whom the question had been committed in connection with an investigation into the recent cases of diphtheria.

In the same letter I also stated to Mr. Denton that, on my representation, it was, some time ago—and quite independently of the late illness—arranged that the Tobin's tubes in the school house should be heightened, and that this work had been postponed until the Easter holidays simply in order that it might be carried out in conjunction with other structural alterations and repairs which were due at that time. This work, with other minor details, has been completed; but, in justice to parents and others interested in the College, these facts should, I think, have been made public simultaneously with the criticisms referred to.

As regards the condition of some of the ditches between Hford Heath and Haileybury, it should be known that these will become pure as soon as the new sewage farm, now in process of arrangement for this district, is completed. Many of the boys at Haileybury must often pass these ditches, as, at times, they go others for miles round; but, it is not the case that they "constantly play" in Little Amwell. It may be added that the College has, in successive years, spent very considerable sums in acquiring property in its immediate neighbourhood, simply in order that it might improve and have control of the drainage, etc.

II. *Water-supply*.—The present position of the well may not exactly such as would be chosen were it now proposed to sink new well for the College. Whether its contents are, or ever have been, prejudicially affected by its position is another matter. On this head it should be noted that:—

1. Not only does the well for a large part of its depth pass through a dense and practically impermeable clay, which would naturally allow impurities to be washed away over its sloping surface more readily than to penetrate its mass, but that all the evidence of repeated examinations, made under the most various conditions, at all times of the year, at short intervals, and, again, after pumping the well dry, is quite against the entrance of fluid to it, except from the one point, at the very bottom, whence the water issues from the chalk. As a result of the numberless examinations made during the last quarter of a century there has never been found the slightest trace of soakage through any part of its walls.

2. There is certainly no permanent contamination of the well-water, from sewage or otherwise. In such a case, successive analyses could not have given such results as “a phenomenally pure water,” “a most excellent water,” “of the highest degree of purity.” In his last report, dated April 24th, 1888, Dr. Stevenson again describes the water as “of the highest degree of purity.”

3. After long-continued heavy rain the well-water is apt to become yellow in colour. Examinations of the well under these conditions prove that there is no leakage through the well-walls. Other chalk wells in the district exhibit a similar phenomenon, and the conclusion is that this yellow matter enters at the bottom of the well after percolating the chalk and thick superjacent strata, the filtration through the chalk being naturally less rapid and less effectual under the pressure resulting from a heavy and long-continued rainfall. [I do not know the “authorities” who aver that this vegetable matter percolates “laterally from the sea.” Inasmuch as the Ordnance data show that the bottom of the well is some sixty feet above the level of the river Lea, such lateral percolation from this source is obviously impossible.] Analyses of the water at these times show the yellow matter to be a vegetable, and peaty in character. Dr. Stevenson, for example, analysing the darkest sample which could be collected after awaiting very heavy rainfall for the purpose, states that the organic matter “is of a peaty character, and does not appear to be due to sewage matters”—a conclusion obvious from the figures disclosed by the analysis. This would rebut the suggestion that surface contamination (due to the proximity of “urinals and various gulleys down which sewage is thrown”) was the cause of the irruption of organic matter referred to. Moreover, after flooding all the drains with carbolic acid and other substances, no trace of contamination has been obtainable in or about the well.

It should also be noted (as showing that the authorities were not blind to the possibility of risk, nor careless as to its prevention) that Messrs. Allen and Hanburys, analysing similar (discoloured) samples of water in February, 1886 (again after heavy rain), state that “the softening process” [which is applied to all the well-water before distribution] “has reduced the vegetable organic matter to a very small amount. It is now a satisfactory water, and is fit for drinking and domestic purposes.”

I think it will be admitted, therefore, that

(a) There is no permanent contamination of the usually “most excellent” well-water.

(b) That the occasional discoloration noticed after heavy rain is not derived from surface contamination of the well, or from lateral soakage into it. That it is due to a temporary irruption of vegetable organic matter, and is not dependent on sewage pollution. That the College authorities were justified in relying on the analyses which showed that this vegetable matter, when it did find its way into the well-water, was effectually removed by the Porter-Clark softening process, before the water was distributed throughout the College; and

(c) That the authorities have taken every reasonable precaution—by frequent examinations of the well itself, and by regularly-repeated analyses of its water (both before and after softening, always under various conditions—to keep themselves posted as to the state of the water-supply, and forewarned with respect to any possible impairment of its quality.

III. *Milk-supply*.—The Council will doubtless take action in the direction suggested by your commissioner, if they are not anticipated in this matter by Mr. Wells himself. Of course, as regards the recent cases of diphtheria, the same argument which Mr. Bailey Denton quotes, from my letter to him, as opposed to

the idea of the water-supply being the *fons et origo mali*, applies with at least equal force to the milk also. I prefer not to commit myself to any theory with respect to the origin of the diphtheria until we have all the facts obtainable at our command. These are being very patiently and thoroughly collated by Dr. G. Turner, to whom the investigation of the subject was entrusted by the Council at my suggestion. His full report will, I hope, be completed shortly. Meanwhile, I can conscientiously state that all the evidence before us unites in exonerating the College from the suspicion of any such local defect in sanitation as could be considered responsible for an outbreak of epidemic disease.—I am, etc.,

CHAS. EDWD. SHELLY, M.B. Cantab.,

Medical Officer to Haileybury College.

** The above letter appears to us to be somewhat of an admission of the facts described in our commissioner's report, although Dr. Shelly apparently does not concur in the remarks made therein as to the possibility of the College well being or becoming polluted owing to its position. The best way for Dr. Shelly to strengthen his case as to the immunity of the well from suspicion will be to send us for publication Dr. Stevenson's last analysis, with his notes and remarks thereon, which, we presume, are by this time in the possession of the College authorities. We will gladly publish them.

THE NATIONAL PENSION FUND FOR NURSES.

SIR,—Now that the subject of the Pension Fund is under discussion, there are many nurses who would be glad to have their own opinion on the matter made public, and who would be grateful to you if you would make it known through your paper.

In the first place, surely the word “pension” is misleading; the dictionaries define it as “an allowance made without an equivalent.” Of course, no nurse would be so unreasonable as to expect her services to be so rewarded, but there certainly is a very widely spread feeling of disappointment that the terms of the Pension Fund are such as to render it almost an impossibility for nurses to join it.

So much has been written in the *Hospital* about the “duty of making provision for the noble women who are devoting their lives to the nursing of the sick,” that the first feeling on receiving the prospectus was one of surprise that the provision was to be made almost entirely by themselves.

It is true that very young nurses will find the terms comparatively easy, but the vast number, who have already spent many years of their lives in this work, will find it difficult, if not impossible, to spare regularly from £20 to £40 per annum out of a salary which, in the case of nurses, never exceeds £40, and is in most instances considerably less.—I am, etc.,

A NURSE.

** We believe that self-help and self-respect will be found to be the dominant principles by which the great body of nurses are animated. At the discussion at the Society of Arts in October last, when the Fund was first instituted, the founder emphatically stated that the Pension Fund was one of providence, and was not eleemosynary. Nurses were then, and are now, wanted to join the fund by paying into it at least one-eighth of their earnings year by year. All who do this may, we believe, rest assured that those who have already shown so much liberality and interest in the cause of nurses by promoting this Fund will take steps to conserve the best interests of every nurse who entrusts her savings to their care. There are necessarily a large number of nurses who have already devoted many years of their lives to nursing, and who have no reserve, who will, as our correspondent points out, “find it difficult, if not impossible, to spare regularly from £20 to £40 per annum out of a salary which, in the case of nurses, never exceeds £40, and is in most instances considerably less.” The managers of the fund, with the object of meeting such cases, we believe notified that nurses so placed, and who are desirous of being assisted to help themselves should apply to the Secretary, 38, Old Jewry, E.C., for a special form of application to be filled up and returned with as little delay as possible. With reference to some statements which have been published, and are being circulated, intimating that the payments required are from an actuarial point of view excessive, it is right to say that they are effectually refuted by the report of Mr. King, the well-known actuary, and that the comparisons therein made are based on palpable error.

THE LOCAL GOVERNMENT BILL AND SANITARY ADMINISTRATION.

SIR,—In a leading article in the JOURNAL of April 28th you have pointed out a defect of the most dangerous kind in the Local Government Bill, namely, the careless provisions made for the appointment, tenure, and duties of the medical officer of health. It may seem from the Bill itself that little attention has been given to this department, and that old provisions have been inconsiderately thrown into the new Bill to take their chance there.

I sincerely hope that the medical profession will make its voice plainly heard on this matter, for I am sure that we should carry the public with us; indeed, I can scarcely doubt that when the attention of the Government is drawn to their defects the clauses in question will be fully reconsidered. Sir Lyon Playfair's speech on this subject on the second reading displayed his usual ability and knowledge, and must do good service; other speeches, I trust, will follow his lead. It was my intention to secure an opinion on this subject at the recent special meeting of the West Riding Quarter Sessions, but we did not reach the sanitary clauses. The Quarter Sessions stand adjourned for May 8th, but time presses, and it is possible that even then these clauses may not be reached. Our chairman, Colonel Spencer Stanhope, has, however, expressed his own opinion to me in the terms of the enclosed letter, which he permits me to publish, and which I therefore now enclose for that purpose.

The views which we hold could not be better or more tersely expressed.—I am, etc.,
T. CLIFFORD ALLBUTT.
Athenæum Club, Pall Mall, S.W., May 1st.

"DEAR DR. CLIFFORD ALLBUTT,—As you suppose, the Quarter Sessions did not find time to discuss the sanitary question. I think the adjourned session of May 8th will have to be adjourned again, as I believe the deputation to Mr. Ritchie will be later than that.

"I think that sanitary matters will fare worse under the Bill than they do at present, and I think medical men should raise an independent protest against Part III (Sir Lyon Playfair has, I see, spoken on the second reading).

"The proposal is that sanitary work shall be done by a District Council, which will be elected by the cottagers in rural sanitary districts, divided into wards for the purpose of election of one councillor.

"Practically speaking all ratepayers rated above £4 per annum will thus be disfranchised, as they will have a vast majority of smaller ratepayers to outweigh them. I do not think it would be possible to have a more ignorant council than that which will probably result from this proposal, and I should think that vaccination and all compulsory sanitation will in most cases be opposed by them.

"It is these clauses to which, in my opinion, public attention should be directed. The powers of the County Council can be increased after they have come into action.—Yours very truly,

"W. SPENCER STANHOPE.

"Cannon Hall, Barnsley, April 24th."

** The views here urged are those first brought forward by the State Medicine Committee of the British Medical Association, and forcibly urged by them upon the Royal Sanitary Commission and the Government, when the resulting Public Health Act was framed. It will be seen that the Parliamentary Bills Committee, acting in concert with the Society of Medical Officers of Health, whose co-operation they have courted, are now engaged in framing clauses to carry out the object stated (see report, p. 276). The Memorandum of the State Medicine Committee in 1871—a most valuable document, drawn up with the aid of Dr. Stokes, Dr. Farre, Dr. Rumsey, Dr. Sibson, and Mr. W. H. Michael, Q.C.—has been reprinted; and further memoranda on the existing situation have been prepared by the Parliamentary Bills Committee, with the aid of Mr. W. H. Michael, Q.C., and of Dr. Bond, of Gloucester. Medical officers of health and others interested in this highly important question are invited to apply for such copies of these documents as they may require for their own use and that of members of Parliament and others. They will be forwarded post free. Communications on the subject, by way of criticism or suggestion, should be addressed to Ernest Hart, Esq., Chairman of the Joint Subcommittee on the Public Health Clauses of the Local Government Bill, at the offices of the Association.

RESECTION OF THE PYLORUS FOR CANCER.

SIR,—A mortality of 70 per cent. of cases in which pylorectomy has been performed—to say nothing of the number of cases of cancer of the pylorus in which surgeons have commenced to operate with a view of resecting the pylorus, but have had to abandon the operation for some more expeditious method of relieving symptoms (such as duodenostomy or jejunostomy) from which the patients suffer—is more than sufficient reason for classing this procedure among the most severe and fatal operations in surgery. The reasons for this high rate of mortality are not far to seek. First, patients are rarely seen until the disease has existed so long that they are reduced to a state of approaching inanition or starvation, and the neighbouring mesenteric glands are more or less affected; and, secondly, the length of time occupied in performing the operation is such that the patients, who are invariably in condition not well adapted for prolonged operations, run great risks of immediate death due to shock, the result of the operation, or more remote death from exposure to infection. These dangers may be diminished in proportion to the shortening of the time consumed in the operation, and by inducing patients to submit to operation at as early a stage of the disease as possible.

Dr. Senn, of Milwaukee, in his admirable address entitled *Experimental Contribution to Intestinal Surgery*, with Special Reference to the Treatment of Intestinal Obstruction, read in the Surgical Section of the Ninth International Medical Congress at Washington last year, has given us the results of numerous experiments made by him on dogs and cats; and although, so far as I know, he has not published any experiments of resection of the pylorus on these animals, yet, from his description of operations such as gastro-enterostomy and resections of portions of the intestines, I think a great deal can be learnt which may enable us to reduce the time occupied in the performance of pylorectomy very considerably.

In reading Dr. Senn's very able paper, I was at once struck by the simplicity of the operations he suggested, and I can see the reason why, with some slight modifications, the same method should not be adopted for uniting the duodenum and stomach after excision of the pylorus.

I would suggest, then, supposing the preliminary steps of the operation to have been performed, and the cancerous pylorus with a portion of the stomach and duodenum to be brought out of the abdomen in the usual way, that the incision for the removal of the cancerous mass from the stomach should be somewhat of the shape: ~, so as to allow the end being fashioned to fit into the duodenum. Two plates of decalcified bone, of the same shape and about a quarter of an inch in width should be prepared, as recommended by Dr. Senn, with double holes in them or four places, about an inch apart, through which loops of aseptic silk should be passed through and tied so as to form loops on the back; then long threads of silk or carbolised catgut with needles corresponding in number to the loops, should be tied together and fastened securely to the loops on the bone. Each plate of bone being accurately adapted to the mucous lining of the stomach along the cut edges, the needles are passed through the entire thickness of the stomach walls, and the edges inverted so as to bring the two plates covered with the stomach walls accurately together. The corresponding sutures on the two plates are then tied; in tying the sutures, the centre one should be tied first, then the end ones, and finally the intervening threads.

The end of the stomach, which is to become the intussusceptum, is to be lined with a soft pliable rubber ring, made of a rubber band transformed into a ring by fastening the ends together with catgut sutures. This ring must be the length of the circumference of the end of the stomach, and about half an inch wide; the lower margin is stitched by a continuous catgut suture to the lower end of the stomach, which effectually prevents the bulging of the mucous membrane. Then a few carbolised catgut sutures are threaded, each with two needles. The needles are passed from within outwards, transfixing the upper portion of the rubber ring and the entire thickness of the wall of the stomach, and equidistant from one another. The cancerous pylorus should now be removed with scissors from the duodenum, all bleeding points being caught up and ligatured with fine catgut. The needles which are attached to the threads passing through the rubber ring and wall of the stomach are now passed through the peritoneal, muscular, and connective tissue coats of the duodenum at corresponding points about one-third of an inch from the margin, and when all the needles have been passed, an assistant makes equal traction

e threads, and the operator assists invagination, by turning in the margins of the end of the duodenum evenly with a director, and by gently pushing the end of the stomach completely into the duodenum. The invagination accurately made, the catgut sutures are tied only with sufficient firmness to prevent disinvagination, and vomiting occurs.

The invagination effects accurate, almost hermetical, sealing of the visceral wound. After a few days the rubber ring becomes detached and passes by the bowel, and the decalcified bone becomes absorbed.

The importance of this subject must be my excuse for the length of this communication, but it will be evident if the above method of performing the operation can be carried out with equal safety and efficiency as by the adoption of the Czerny-Lembert suture, there must be a material saving of time, with a proportionate less risk to the patient.—I am, etc.

16, Upper Wimpole Street.

FRED. B. JESSETT.

TEA AND TEETH.

SIR,—Having seen in a recent number of the JOURNAL an article on the old question of the harm in excess of tea-drinking, I write to allude to a point that does not appear to be touched upon. Some years since, when on duty at recruiting stations in the north of England, I took observation on the great amount of disease and loss of the teeth existing amongst the class of men suffering themselves. It became a cause of rejection of itself in great numbers. As far as my inquiries went I was led to trace it to the excessive tea-drinking indulged in by the working classes in the manufacturing towns, and this went on all through the day, whether with food or not. In fact, instead of five o'clock tea being the invention of the upper classes, it was found to exist to an injurious extent in the working classes long before that time. Tea seems to have a peculiar tendency to cause hyperemia in the tooth-sacs, leading to inflammation and, eventually, abscess of the fang, with, of course, dentalgia at every stage. Whether this special tendency was due to theine or tannin having an elective affinity for dentine it is not possible for me to say. It would be curious to know if medical men, practising in such manufacturing districts, had observed the deterioration of the teeth to be coincident with tea-drinking.

W. T. BLACK, F.R.C.S.E., Surgeon-Major.

CHIANTURPENTINE IN CANCER.

SIR,—I observe that in his lecture on diseases of the tongue, reported in your issue of April 21st, Mr. Christopher Heath refers to the treatment of cancer by the use of Chian turpentine, and says that he has employed the drug as an adjuvant to surgical treatment, but without having seen any benefit from it. In illustration of this opinion Mr. Heath mentions the case of a patient who came to me after having been operated upon by him, and who after operation had a return of the disease. The patient, Mr. Heath adds, died under the treatment, and in about the same time, without having received the slightest benefit.

Will you permit me to say that when this patient came to me he did not look as if he could live more than three or four weeks, instead of three or four months, the period for which he did live? The case was a hopeless one. It was one of recurrent cancer of the stump of the tongue and the floor of the mouth, the growth filling the mouth up to the level of the teeth. As Mr. Heath did not see the patient after I saw him, I cannot think him justified in contending that the sufferer received no benefit, and I am sure he will admit this when I say that after treatment by Chian turpentine there was an evident arrest of the growth, and a large portion of it sloughed away, so that the gums and the root of the tongue could be seen; and, as I have often observed in such cases, after taking the Chian turpentine for some time the enlarged submaxillary gland broke up and discharged freely. The immediate cause of death was hæmorrhage; a slough, separating from the stump of the tongue, exposed an artery which during one night bled to the extent of twenty ounces, the patient refusing to allow medical assistance to be obtained for the purpose of arresting the hæmorrhage.

Out of regard for your space I will not now discuss the general use of Chian turpentine as a palliative, and in some instances a remedial agent in cases of cancer. I will only say that generally speaking recourse is had to this agent only when the disease portends a fatal issue, and not at the commencement, when, as my own practice and the experience of others convince me, a bene-

ficial effect is capable of being produced. Even when the use of the knife is clearly desirable, the drug might be concurrently employed; indeed, in cases of the tongue and mouth I know that it is not useless, as I have seen several cases of cure, some of them recurrent cancer after operation.—I am, etc.,

Birmingham.

JOHN CLAY.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL DEFENCE FUND.

SIR,—In the JOURNAL of April 14th you say that the time has come when the medical officers of the army will have to offer, in the defence of their own interests, the most strenuous opposition to the changes which are now in contemplation. In order to do this effectually I would suggest the formation of an Army Medical Defence Fund, with a paid secretary, and a committee formed of pensioned officers of the department, the officers now in the service subscribing a small sum for the purposes of the committee.

The committee would endeavour to interest members of Parliament, issue printed letters and circulars setting forth the grievances of medical officers, and endeavouring to induce editors of professional as well as non-professional journals and newspapers to bring the subject before their readers.

One of the most effective ways of bringing pressure to bear on the authorities is to stop the supply of candidates, and this may be done by issuing a notice of the grievances of the department, which should be posted in every medical school in Great Britain and Ireland, setting forth that the service is not worth entering till the grievances complained of are redressed. I was a member of the Indian Medical Defence Fund, and we issued such a notice to every medical school in the kingdom, with the result that the number of candidates fell off to such an extent that at one or more of the competitions there were not men qualified to fill the vacancies which were before eagerly sought after. After this very great concessions were made and the status of the service was greatly improved, the committee being told that, but for their interference, all this would have been granted long before. This, of course, we believed!

If this idea meets with approval, I shall be very glad to give any information I can as to the mode of working the agitation. I need hardly say that the names of subscribers to the fund would be known to the committee and secretary only, and that merely a small sum of money would be necessary, which might be obtained by the secretary issuing a circular to every member of the service, setting forth the object of the committee and the amount required.—I am, etc.,

JAMES IRVING, M.D., Surgeon-General
Fowey, Cornwall, April 16th. Bengal Army, retired.

CHAIN OF RESPONSIBILITY IN MILITARY HOSPITALS.

REFERRING to a late instance in which the chain of responsibility for an incorrect diagnosis in a military hospital was stretched to its utmost, a correspondent points out that the said chain is very clearly and fairly laid down in paragraph 111 of the Army Medical Regulations, defining the duties of medical officers in hospitals as follows:—"They will invariably draw the attention of the medical officer in charge to all serious and important cases in their wards, immediately on such coming under their observation; and will, in all cases of professional doubt and difficulty, seek his advice, and consult with him as to the course to be pursued, but it must be clearly understood that each medical officer will be held personally responsible for the proper treatment of patients under his care."

This judicious regulation is, with reference to the fact that, while the medical officer in charge diagnoses, as far as possible, the nature of each case on admission, such diagnosis is necessarily subject to revision on a fuller investigation in the wards. Consultation by the whole hospital staff is often necessary in obscure cases, and should always be carried out, both for the patients' sake and for the mutual support and safety of the medical officers.

AIDE-TOI, LE CIEL T'AIDERA" takes exception to the action of an "Administrative Officer" in the appeal of two medical officers who had to sign on a mixed board in India under their juniors in the army. Instead of saying "Don't kick up a row," the "Administrative Officer" ought to have taken up the cudgels on behalf of those under him against the unjust Indian order. He contrasts this *laissez-faire* attitude with the vigorous action under similar circumstances of, say, a Commanding Royal Engineer. The Medical Department must learn to fight: its own battles or submit to be sat upon.

THE NAVY.

SURGEON H. J. GORDON has been appointed to the *Ganges*.

THE MEDICAL STAFF.

BRIGADE-SURGEON THOMAS RUDD, M.D., is promoted to be Deputy Surgeon-General (ranking as Colonel), *vice* R. W. Clifton, retired. Dr. Rudd's previous commissions are thus dated: Assistant-Surgeon, August 1st, 1857; Surgeon, November 18th, 1871; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, March 13th, 1883. He served with the 8th Hussars during the Indian mutiny in 1857-58, and was present at the capture of Kotah, battle of Kotaria and Koolahana (mentioned in despatches, medal with clasp). He also served in the Afghan war of 1878-80 (medal).

Surgeon-Major G. W. McNalty, M.D., F.R.C.S.I., is promoted to be Brigade-Surgeon (ranking as Lieutenant-Colonel), *vice* T. Rudd. He entered as Assistant-Surgeon, April 14th, 1863; became Surgeon, March 1st, 1873; and Surgeon-Major, April 1st, 1874. He was (says *Army List*) with the British Ambulance, B Division, during the Franco-German war from October, 1870, to March, 1871, and was present at the siege of Paris; accompanied the 22nd Prussian Division in the operations before Chartres and Orleans, and was present at several engagements (received the thanks of General von Wittsch, commanding the Division, for attending wounded on the field, German steel war medal). He subsequently proceeded to Le Mans and Connerre (French bronze cross for anaesthetising wounded French). Served in the Ashantee war in 1873-74. Was in medical charge of the Headquarters Staff, and present at the battle of Amoaful, battle of Ordahsu, and capture of Coomassie (mentioned in despatches, promoted Surgeon-Major, medal with clasp). Was Chief Surgeon and Commissioner of the National Aid Society in the Russo-Turkish war in 1876-77, and was present at the siege of Plevna. Served in the Afghan war of 1878-80, and was present with the expedition into the Lughman valley and in the engagement at Saiddabad; accompanied Sir Frederick Roberts in the march to Candahar, and was present at the battle of Candahar (mentioned in despatches, medal with clasp, and bronze decoration). Served in the Egyptian war of 1882 as personal assistant to the Principal Medical Officer with the Indian Contingent, and was present at the battle of Tel-el-Kebir (medal with clasp, 4th Class of the Osmanieh, and Khedive's star).

Surgeon-General JOHN IRVINE, M.D., Honorary Physician to the Queen, has been granted retired pay. His commissions are dated: Assistant-Surgeon, March 15th, 1850; Surgeon, October 2nd, 1857; Surgeon-Major, November 16th, 1859; Deputy Surgeon-General, November 8th, 1876; and Surgeon-General, June 1st, 1883. He served throughout the operations with Havelock's column in 1857 in medical charge of the Royal Artillery (Maude's), including the actions of Futtehpoore, Aoung, Pandoo Nuddee, Cawnpore, Oonao, Buserut Gunge, Mangawarra, and Alumbagh, relief and defence of the Residency at Lucknow (mentioned in despatches); with Outram's force in the Alumbagh from November, 1857, to March, 1858, and at the siege and capture of Lucknow by Lord Clyde (medal with two clasps, and a year's service).

Deputy Surgeon-General JOHN TULLOCH, M.D., is also granted retired pay. He entered as Assistant-Surgeon, June 7th, 1854; became Surgeon, February 13th, 1866; Surgeon-Major, March 1st, 1873; Brigade-Surgeon, November 27th, 1879; and Deputy Surgeon-General, May 2nd, 1883. He served with the 10th Regiment in the Indian campaign of 1857-58, including the suppression of the mutiny at Benares, capture of Atrawlea, advance to Lucknow, and actions at Chanda, Umeerpore, Sultampur, and Douraha, siege and capture of Lucknow, relief of Azimgurh, and operations near Jugdespore (medal with clasp).

Brigade-Surgeon W. J. WILSON, M.D., is granted retired pay. His commissions bear date: Assistant-Surgeon, April 1st, 1861; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1876; and Brigade-Surgeon, March 28th, 1887. Dr. Wilson was with the Southern Afghanistan Field Force during the war in 1880-81, and during the campaign in the Soudan in 1885 he was in command of a bearer company (medal with clasp, and Egyptian bronze star).

Surgeon-Major S. G. WHITE, M.D., also has retired; having applied prior to January 1st last, he is granted the honorary rank of Brigade-Surgeon. He entered the service as Assistant-Surgeon, October 1st, 1860; became Surgeon, March 1st, 1873; and Surgeon-Major, November 2nd, 1875. He served with the Royal Artillery in the Hazara campaign of 1868, including the expedition against the tribes on the Black Mountain (medal with clasp). He was also in the Afghan war of 1878-80, and was present in the engagements at Ahmed Kheyl and Urzoo near Ghuznee (medal with clasp).

ARMY MEDICAL RESERVE.

THE undermentioned Surgeons-Major to be Surgeons-Major (ranking as Lieutenant-Colonels): FRANCIS BONNEY, 3rd Battalion East Surrey Regiment (late the 1st Surrey Militia); E. A. RAWSON, 8th Battalion King's Royal Rifles (late the Carlow Militia); O. B. STONEY, M.B., 3rd Battalion Prince of Wales's Lincaster Regiment (late the Klog's County Militia).

THE undermentioned Surgeons to be Surgeons-Major (ranking as Majors): ANDREW CLARK, 4th Middlesex Volunteers; WILLIAM HALL, F.R.C.S.E., 5th Lancashire Artillery Volunteers.

THE undermentioned Officers to be Surgeons (ranking as Captains): SURGEON W. H. B. CROCKWELL, Manchester Division Volunteer Medical Staff; SURGEON T. W. RICHARDSON, 1st Volunteer Battalion Norfolk Regiment (late the 1st Norfolk Volunteers); Acting-Surgeon R. B. PORTER, M.D., 2nd Lancashire Volunteers; Acting-Surgeon R. T. A. O'CALLAGHAN, 1st Flintshire Engineer Volunteers; Acting-Surgeon F. J. WALKER, M.B., 1st Volunteer Battalion Lincoln Regiment (late the 1st Lincoln Volunteers); Surgeon A. D. MACDONALD, M.D., 3rd Volunteer Battalion King's Own Scottish Borderers (late the 1st Dumfriess); Acting-Surgeon JAMES TURTON, 1st Volunteer Battalion Royal Sussex Regiment (late the 1st Sussex); and Acting-Surgeon J. A. MACKENZIE, M.B., 4th Lancashire Volunteers.

THE INDIAN MEDICAL SERVICE.

SURGEONS-MAJOR H. DE TATHAM, M.D., Bombay Establishment, has been allowed to retire. He entered the service as Assistant-Surgeon April 1st, 1867, and became Surgeon-Major twelve years thereafter. He was engaged in the Abyssinian war in 1867-68, and has the medal granted for that campaign.

The retirement of Brigade-Surgeon EMANUEL BONAVIA, M.D., Bengal Establishment, already announced in the *JOURNAL*, has received the sanction of the Queen.

Surgeon G. B. IRVINE, Bengal Establishment, has passed the examination in Hindustani by the lower standard.

THE VOLUNTEERS.

THE undermentioned gentlemen have been appointed Acting-Surgeons in the regiments specified: ROBERT DENMAN, 2nd Volunteer Brigade Southern Division Royal Artillery (late the 1st Dorset); Acting-Surgeon J. W. BEATTIE from the 1st Northumberland Artillery to the 1st (late 5th) Durham; and J. M. WHYTE, M.B., 1st Volunteer Battalion Royal Highlanders (late the 1st Perth).

MEDICO-LEGAL AND MEDICO-ETHICAL.

A HARD CASE.

AN appeal is being made to the profession on behalf of Mr. H. C. Bayfield, L.R.C.P., who has been subjected to heavy cost (amounting to £106) in defending an unfounded charge brought against him under the following circumstances: On February 26th, 1886, an attempt was made to poison his wife's mother by introducing landanum in tea prepared for her use. The police made exhaustive inquiries, and on their own responsibility, and entirely in opposition to Mr. Bayfield's wish, took the parlourmaid into custody on the charge. Fully persuaded in his own mind that the girl was not guilty, Mr. Bayfield supplied her with legal assistance. As may be remembered, the cook confessed to the crime. The parlourmaid, who was acquitted, then brought an action against Mr. Bayfield for £200 damages for false imprisonment. The case, of course, was decided in Mr. Bayfield's favour but the plaintiff having no means he was left to pay his own costs, which, as we have stated, amount to £106 on the solicitor's bill alone, to say nothing of the very heavy incidental expenses.

The following subscriptions have been received:—

	£ s. d.		£ s. d.
Henry James, 31, Sisters Avenue	3 3 0	J. Ince, M.D., Parntingham, Kent	1 1
Mr. Bellamy, 17, Wimpole Street	2 2 0	T. C. Hayes, M.D., 17, Clarges Street	1 1
J. Williams, M.D., 11, Queen Anne Street	2 2 0	Professor Chiene, Edinburgh	2 2
Mr. Pitts	1 1 0		
Hy. Whiting, Esq., Lavender Hill, S.W.	2 2 0		14 14

Subscriptions will be received by Ed. Bellamy, F.R.C.S., 17 Wimpole Street; R. F. Frazer, L.K.Q.C.P., etc., Lavender Hill; Tandy, L.R.C.P.Ed., 43, Cedars Road, Clapham; Joseph Sutcliffe, L.R.C.P.Ed., 641, Wandsworth Road; Fredk. Hunter, L.R.C.P., Haycroft House, Lavender Hill.

THE LAW AS TO INFECTION.

TAYLOR v. SPALDING.

THIS case, tried before Mr. Baron Huddleston and a special jury raised some important questions of public health law interesting to medical practitioners and the public. It was an action brought by a lodging-house keeper at a seaside resort to recover damage on the ground that the defendant, who had on June 16th, 1887, taken rooms in her house for herself and four children, had imported the infection of scarlet fever into it, and so caused the house to be shut up for a considerable time. In May the defendant's cook had an illness resembling scarlet fever, but attributed to drain-poisoning. The children were, however, sent away, but the day after their return developed sore throat. The medical man did not consider that the children had scarlet fever, and looked upon the disease as diphtheritic. The children quickly regained their health, and it was not until June 25th that one of the sons, who had not been previously ill, sickened with scarlet fever. The defendant's family left the house which was shut up for six weeks, disinfected, and re-papered, but scarlet fever again broke out among fresh visitors.

Mr. BARON HUDDLESTON said that the questions which he should leave to the jury would be: 1. Did the infection which communicated the scarlet fever to the son originate in connection with the sickness in defendant's house? 2. Did the defendant know or ought she to have known, that there was any danger of infection from any of her children at the time she answered the question of the plaintiff's daughter on that subject? 3. Was there on the part of the defendant a wilful concealment of the risk of infection? If the learned judge said, the first question was answered in the negative there would be an end to the plaintiff's case; if, however, in the affirmative, then the question arose as to whether there was at law an implied warranty on part of a person taking lodgings that he was free from infectious or contagious illness. Upon that he had no hesitation in holding that there was no such

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and warranty in cases where the person taking lodgings was aware of the danger of infection, and even in cases where *scienter* was clear, he had his doubts unless there was evidence of fraudulent concealment of the fact. In cases of express warranty, however, there would be no doubt, but here there was a plea in the statement of claim. The judge considered that the parties ought to come to terms, and the case was settled out of court upon terms which did not require.

MEDICO-PARLIAMENTARY.

THE HORSE TAX.

Our last announcement of the following petitions have been lodged by 11 men against this tax: By Mr. H. Bass, from Great Haywood and Sany Mr. Yerburch, from Chester; by Sir H. Fletcher, from Shoreham, and Southwick; by Sir E. Lechmere, from the president and members of the Worcestershire and Herefordshire Branch of the British Medical Association; by Mr. L. Fry, from Walter E. Horland and others; by Mr. A. Reynolds, from members of the profession in the district of Alton; by Mr. J. Lands, from Aberayron and Lampeter; by Mr. Stanley Leighton, from Wrexham; by Mr. A. Egerton, from Eccles, Swinton, Pendlebury, and Walkers; by Sir W. Lawson, from Maryport; by Mr. Haldane, from Haddington; by Mr. J. Kennaway, from Dr. Southcott, Axmouth; and by Mr. W. Lowther, from Kirkby Stephen.

HOUSE OF COMMONS.—Monday, April 30th.

Medical Officers.—Sir H. FLETCHER asked the Secretary of State whether it had been customary to grant medals, gratuities, and other rewards, to the medical officers and establishments employed on board hospital ships in time of war; and whether it was the case that the medical officers who served on board hospital ships in the Abyssinian, Ashantee, Egyptian, and Soudan campaigns received medals, including those who served on board the Indian hospital ship *Cesarewitch* at Suakim.—Mr. E. STANHOPE replied to both questions in the affirmative.

Epidemic of Pneumonia in Fermoy Barracks.—In reply to Dr. STANHOPE, Mr. E. STANHOPE said that, probably on account of the variable weather, lung disease had been rather prevalent in the barracks of Ireland, and, in the weekly return to April 20th from the 1st Dragoon Regiment at Fermoy, it was shown that there had been thirteen admissions for pneumonia, and one death. The general state of the barracks was reported to be satisfactory, and no other than the weather had been assigned for the outbreak. Further inquiry had, however, been ordered.

Tuesday, May 1st.

Vaccination of Infants.—Mr. RITCHIE, in answer to Mr. W. STANHOPE, said his attention had been drawn to the two inquests referred to by the hon. member. As regards the case of the child in the Greenwich Infirmary, the verdict of the jury at the inquest was not that the child died from being vaccinated when six days old, as stated in the question, but from being accidentally suffocated while at the mother's breast. The child died in the infirmary thirteen days after the vaccination, and, according to the statement of the medical officer of the guardians, was perfectly healthy at the time of the vaccination and at the time of being brought to the infirmary. A *post-mortem* examination showed, however, that the child had one lung in a state of collapse, probably at the time of birth, and had other congenital malformations; the jury, having this evidence before them, added to their verdict a rider to the effect that the child was, in their opinion, in an exceptionally delicate state of health, and that its vaccination was much to be regretted. As he had already stated, however, the cause of death was accidental suffocation. As regards the case of the child born at Queen Charlotte's Hospital, it was vaccinated when five days old, as was the practice in that hospital unless the mother objected. In this case the mother was aware of the rule, and did not object. The child, when discharged from the hospital, was certified by the physician to be in good health. The child died when just over a month old. The coroner stated that death was not due to the vaccination, but to injury to the vaccination wound, followed by inflammation, which was probably of an erysipelatous character.

Small-pox at Sheffield.—Mr. RITCHIE, in answer to Mr. PICTON, made an exhaustive inquiry into the circumstances of the epidemic of small-pox at Sheffield by one of the Board's medical inspectors still in progress, and added, in reply to Mr. VINCENT, that the epidemic had been so far suppressed that the town could be said to be clear of small-pox.

Employment of Retired Officers M.S.—Mr. E. STANHOPE, in

reply to Dr. TANNER, said retired medical officers would be employed from time to time as their services became necessary. When so re-employed their remuneration was limited by the Royal Warrant to a sum of £150 a year beyond their retired pay, and their service did not count towards increase of retired pay. He might add that this re-employment during peace was entirely at the option of the retired officer. If a retired officer were called out for service in a time of national emergency, the conditions of employment would be altogether different.

Wednesday, May 2nd.

The Early Closing Bill.—Sir WALTER FOSTER, in seconding the motion for the second reading of the Bill on general grounds, with reference to the effect on the health of the population, referred to the public health question involved. As long ago as 1845 the Commissioners reported that the health of those persons who were compelled to work in the vitiated atmosphere of shops and private dwellings was greatly injured. Twenty years ago he himself had undertaken an inquiry into this subject, and he had ascertained that confinement in factories and workshops largely tended to the increase of lung-disease among the persons, especially the females, employed in them. The decennial report of the Registrar-General showed that while the death-rate among the agricultural class was as 644, that among the shopkeeping class was as 877. In the same report it was shown that, taking the death-rate of fishermen, who lived in the purest air, at 198, that of agricultural labourers was 237, that of persons employed in grocers' shops was 283, and that of persons employed in drapers' shops was 430. No figures could be more eloquent than these, which showed the necessity of this Bill for the purpose of securing the health of the population.—After a lengthy discussion the House divided, and the Bill was lost by a majority of 183.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

At the congregation on Thursday, Edwin Cooper Perry, M.A., late Fellow of King's College, Senior Classic 1880, assistant physician at Guy's Hospital, was admitted to the degree of M.D. A grace proposing the purchase of the site of the Perse School, adjoining the new Chemical Laboratory, was carried.

GLASGOW UNIVERSITY.

EXTENSION BOARD.—This Board has appointed the following lecturers on scientific subjects:—Magnus Maclean and John G. Kerr, M.A., on Natural Philosophy and Mathematics. Patrick Geddes and A. Somerville, B.Sc., on Botany and Zoology. Yule Mackay, M.D., and Bruce Young, M.B., on Anatomy. J. McGregor Robertson, M.D., and W. Snodgrass, M.B., on Physiology. G. G. Henderson, M.A., B.Sc., on Chemistry or Mineralogy. D. Forsyth, M.A., B.Sc., on Physical Geography. J. H. Fullerton, M.A., B.Sc., on Geology. It has been further intimated that each course of lectures will cost about £50, but where there may be difficulty in raising this sum, the Board will endeavour to meet the requirements of each case as far as possible.

UNIVERSITY OF DURHAM.

FACULTY OF MEDICINE.

EXAMINATION FOR Degrees in Medicine and Surgery, Easter Term, 1888.—At the First Examination for the Degree of Bachelor in Medicine, the following candidates satisfied the examiners:

In Elementary Anatomy, Elementary Physiology, Chemistry and Chemical Physics, Botany and Medical Botany.

A. W. Latimer, College of Medicine, Newcastle-upon-Tyne; W. Turnbull, College of Medicine, Newcastle-upon-Tyne; J. D. Wardale, College of Medicine, Newcastle-upon-Tyne.

In Elementary Anatomy and Elementary Physiology.

A. C. Baea, St. Bartholomew's Hospital; R. C. Brown, College of Medicine, Newcastle-upon-Tyne; A. J. Dale, College of Medicine, Newcastle-upon-Tyne; W. M. Davison, College of Medicine, Newcastle-upon-Tyne; J. P. Iredale, College of Medicine, Newcastle-upon-Tyne; E. W. Kirkman, Sheffield School of Medicine; F. W. Standish, College of Medicine, Newcastle-upon-Tyne.

In Chemistry with Chemical Physics, Botany with Medical Botany.

F. H. Alderson, Middlesex Hospital; H. A. Claridge, Queen's College, Birmingham; C. V. Dingle, College of Medicine, Newcastle-upon-Tyne; E. W. Diver, University College; C. P. Felvus, College of Medicine, Newcastle-upon-Tyne; F. E. France, College of Medicine, Newcastle-upon-Tyne.

Tyne; E. Gane, St. Bartholomew's Hospital; R. McCoull, College of Medicine, Newcastle-upon-Tyne; J. P. Molyneux, Owens College; A. B. Wear, College of Medicine, Newcastle-upon-Tyne; G. E. M. Wood, Guy's Hospital; J. Wood, Owens College.

In Chemistry with Chemical Physics.

T. A. Collinson, M.R.C.S., L.S.A., College of Medicine, Newcastle-upon-Tyne; A. Jervis, L.R.C.P., M.R.C.S., St. George's Hospital; J. S. Tew, M.R.C.S., L.S.A., University College; A. A. D. Townsend, Queen's College, Birmingham.

Old Regulations. Botany only.

L. A. Baine, College of Medicine, Newcastle-upon-Tyne.

Chemistry only.

W. J. Burleigh-Robinson, London Hospital, and College of Medicine, Newcastle-upon-Tyne; N. Raw, College of Medicine, Newcastle-upon-Tyne.

At the Second Examination for the Degree of Bachelor in Medicine, the following candidates satisfied the examiners.

Second Class Honours.—A. Gane, St. Bartholomew's Hospital.

Pass List.—J. Arnott, College of Medicine, Newcastle-upon-Tyne; R. C. Benington, L.R.C.P., M.R.C.S., L.S.Sc., St. Thomas's Hospital; G. B. S. Darter, St. Thomas's Hospital; A. E. Davis, College of Medicine, Newcastle-upon-Tyne; E. Gane, St. Bartholomew's Hospital; J. L. Joyes, Middlesex Hospital; F. B. Rutter, London Hospital; H. L. Rutter, London Hospital; A. J. Swallow, St. Thomas's Hospital; A. M. Wilson, St. Thomas's Hospital.

At the Examination for the Licence in Sanitary Science, the following candidates satisfied the examiners.

F. Eastes, M.D., M.R.C.S. Eng.; J. P. Williams-Freeman, M.B., M.R.C.S. Eng.

OBITUARY.

HORACE TURNER, M.R.C.S. ENG., L.S.A.

THE death of Mr. Horace Turner, of Norwich, at the age of 39, occurred on March 27th under peculiarly melancholy circumstances, the deceased gentleman having contracted diphtheria whilst attending his patients. He was a student of University College, and formerly house-surgeon at University College Hospital, house-physician at the Middlesex Hospital, and resident medical officer of the Female Lock Hospital. He had been in active practice in Norwich for about fifteen years, where he held some local appointments. He was medical superintendent of the Bethel Asylum and surgeon to the Jenny Lind Infirmary. He was a member of the Norwich Medico-Chirurgical and Meteorological Societies. He leaves a wife and four children.

CHARLES GOODWIN, M.R.C.S. ENG., L.S.A.

NORWICH has lost another of its most respected practitioners in the person of Mr. Charles Goodwin, who died on March 22nd at the age of 76. The deceased, who was the son of a solicitor of that city, studied at St. Bartholomew's Hospital. He was formerly house-surgeon to the Norfolk and Norwich Hospital. Having filled the post of senior surgeon to the Norfolk and Norwich Eye Infirmary, he subsequently held the position of consulting-surgeon to that institution. He was a Justice of the Peace, and occupied many influential positions in connection with local charities, taking a keen interest in all that concerned the welfare of the city.

WILLIAM ALEXANDER, M.D. EDIN.

WE have to announce the death of Dr. William Alexander, who died somewhat suddenly at his residence at Blackwell Lodge, Halifax, on April 13th, at the ripe age of 81. Dr. Alexander was the son of Dr. Gervase Alexander, and grandson of Dr. Robert Alexander, of Hopwood Hall, and for two centuries the Alexanders have practised as medical men in the Halifax district. The deceased gentleman was born in 1806, and educated at Hipperholme Grammar School, and afterwards at the University of Edinburgh. He took his degree of M.D. in 1830, and commenced practice in his native town, where for many years he enjoyed a large and lucrative connection. He was elected a Fellow of the College of Physicians in 1869, was a member of the Council of the University of Edinburgh, honorary physician to the Halifax Infirmary for nearly half a century, and on his retirement two years ago was appointed consulting physician to that institution. He was a member of the magisterial bench. He was the author of several works, including *The Spa Water and Sea-bathing at Scarborough*, *The Adulteration of Food and Drinks, etc.*, *The Sanitary Condition of Halifax, etc.* By Dr. Alexander's death Halifax has lost one of its best known and most respected citizens.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

BELFAST WATER SUPPLY.

THE public mind of Belfast is at present much exercised alarming statements which have been made before some of public boards and in the press regarding the alleged contamination of the water supply by sewage matter, surface water, and other impurities. On April 9th a meeting of the Public Health Committee of the Town Council was held to consider the statement of Councillor Finnegan. This gentleman states that a few weeks ago, as he was walking near one of the reservoirs of the Water Commissioners, he was surprised to see a number of dead fish lying about. Seeking for a cause for this remarkable fact, he examined the sources of the reservoir, and found that a tunnel constructed some time ago for the purpose of draining off polluted water proceeding from the Oldpark Mill and adjoining meadow had become leaky, and was discharging into a watercourse leading to the reservoir. He further stated that at one portion of the waterworks there was a metal pipe carried over the reservoir at a height of only two feet, that this pipe contained sewage matter and that at the time of his examination matter of a foetid and disgusting character was escaping into the reservoir.

These extraordinary statements naturally excited the utmost astonishment and alarm. The question is being thoroughly examined by the Water Commissioners, the public health officer and the borough analyst, and is still under consideration. The results hitherto made public are mainly negative. The public health officers and the borough engineer visited the waterworks and were unable to verify the statements made. They saw dead fish, and deny that sewage matter finds its way into public reservoirs. They decline, however, very properly to press any opinion regarding the quality of the water until they obtain the results of the examination of the borough analyst, whom six specimens have been sent. Mr. Macassey, the engineer of the Water Board, states that the water escaping from one of the culverts, and alleged to be very foul, is only discoloured by a little iron rust. Councillor Stewart, M.D., who took a sample of the leaking matter, finds that it contains nothing worse than face water.

It is also clear that the very high death-rate which has prevailed in Belfast during the past winter is not directly attributable to impurity of water, the chief sources of mortality having been measles and whooping-cough, typhoid fever not having prevailed to any abnormal extent. While we should deprecate public panic until the alleged facts are more thoroughly investigated, the public attention now directed to the water supply of Belfast can hardly fail to exercise a salutary influence. That supply has certainly been inadequate in point of quantity during the recent period of drought, but it is only fair to the Water Commissioners to recognise the efforts which they are now presenting to give the town a thoroughly satisfactory supply. The engineering works at present in progress can, however, be completed for some time, and it is eminently desirable that in the interval which must elapse until then every precaution should be taken to preserve the great and growing population in Belfast from the manifold evils resulting from defective or impure water supply.

NOTIFICATION OF INFECTIOUS DISEASE.

OFFICIAL STATEMENT BY THE CHAIRMAN OF THE SELECT COMMITTEE OF THE HOUSE OF COMMONS.

THE Select Committee of the House of Commons, consisting of Mr. George Hastings (Chairman), Dr. Farquharson, Mr. Harcourt, Mr. Mayne, Mr. Powell, Mr. Sexton, Mr. J. L. Wharton, and Mr. Williams, sat to consider the clauses in the Kingston Improvement Bill, on Wednesday, April 25th, when Dr. Biddle, Dr. Corbet, Dr. Paradise appeared on behalf of eighteen members of the medical profession to oppose the notification clauses, so far as they provide for the compulsory notification of infectious diseases by medical men, and urged the arguments which have already been stated in these columns in favour of the limitation of compulsion to the occupier of the house.

The Chairman stated that it was not necessary for the committee to address the Committee in support of these clauses, but the

tee were anxious that in giving their decision with regard to retention of these clauses in the existing form, he should say few words, for which publicity was desired. He pointed out that the Committee had now sanctioned the insertion of these clauses in many Bills dating from the year 1882, because they believed them to be framed and to have acted for the benefit of the whole community, the medical profession included. After giving some examples of the well-known evils following from the total absence of notification, he proceeded to speak as follows: Zymotic disease is like fire—you can put it out very easily and quickly at its commencement, but allow it to spread, and it very soon gets beyond your control. I venture to say that a very large proportion of zymotic diseases in this country are caused by the absence of notification where the disease breaks out in the locality. According to the statement of the President of the Local Government Board, made in the House of Commons a very few weeks ago, there are upwards of fifty boroughs in the United Kingdom that have this system of notification of disease in force. I ask, what proof is there that in any one of those places any mischief has followed? We have had two instances given to us to-day; one in Croydon where it has been in existence four years, during which time one case of prosecution is recorded; one other in Croydon, where for some reason or other—we know nothing of the facts—a medical man has been convicted for not complying with the Act. I think that really proves the ease for notification. In other towns you have had this Act in force for years, and only two cases for complaint have arisen, which proves that the Act is administered with perfect satisfaction both to the public and the medical profession. In Edinburgh the medical profession stands very high, exercising immense influence in the city and university through their own high attainments. They were at first opposed to the Act, but are now completely reconciled to it, and admit that it does a great deal of good, and according to a statement sent to me by Dr. Littlejohn, there is not a single medical practitioner in the city of Edinburgh who is now in any way opposed to the working of this system of notification. It has been said that all that could equally be done if the duty was left wholly upon the householder. I totally differ from that opinion, and I must act upon my own conscientious conviction in the matter. Is it to be proposed that if a man is gaining his living by keeping a lodging-house he will willingly send notice that infectious disease is in his house? And do we not know that one of the most common causes of the spread of a scarlet fever is through people contracting it in lodging-houses, where its existence has been carefully concealed, and they have gone out from those places and spread it broadcast? To leave it to the occupier to notify is, in my opinion, to do away with the utility of the Act, so much so that if it were left to them I should be in favour of striking out the clause altogether, for that would be simply a delusion and a snare. There is one great town in Great Britain which did adopt that very provision, which is the town of Greenock, where they imposed notification only on the householder, and I have the authority of the medical officer of health of that town for saying that the system of notifying by the householder proved a complete failure. No one notifies unless they want to do so for some reason of their own, and if they do not want to notify they simply leave it alone, and there is no remedy either for the medical officer or the sanitary authority of the borough. He has placed these facts upon record, and has printed them, and no one can doubt the result. I am very well aware that the British Medical Association has expressed an official objection to these clauses, but we all know how these votes are taken. I had the honour of being present at one of the discussions of the Association on this question, and the majority against was exceedingly narrow. I would not do the medical profession at large the dishonour of thinking that they, or purely private reasons of their own, are in favour either of concealment of disease or of the spread of zymotic disease amongst the community. I am quite sure that, when these provisions have been made—as they will be made by Parliament—universal, and applicable to the whole community throughout Great Britain, that the medical profession will within three years themselves acknowledge that no wiser piece of legislation has ever been made.

Mr. Powell: Being connected intimately with the borough of Bradford, where the notification of infectious disease is enforced by these clauses, I wish to bear witness to the salutary operation of the Act in preventing the spread of disease, saving many valuable lives, and giving entire satisfaction to the whole population of that great borough.

The following letter has been addressed to the Right Honourable C. T. Ritchie, Bolton, February 20th, 1888.

SIR.—Some time ago a series of queries, anent the notification of infectious disease, was sent by your Board to medical officers of health. The medical officer of health for Bolton, without consulting either the medical men of Bolton, or the Town Council, forwarded his replies to you. The medical men of Bolton wish you to know that the action of our medical officer of health has been repudiated by vote of the Town Council, and emphatically condemned by 98 per cent. of the medical practitioners in Bolton. The opinion of the latter body is set forth specifically in the subjoined protest, unanimously adopted at a meeting of the profession held on February 2nd, 1888. At that meeting I was instructed to forward this protest to you, and to ask for its careful consideration.—I am, Sir, your obedient servant,

NORMAN MCLISEE.

Query 2. We assert that the removal is carried out most capriciously. In some cases, where isolation is carried out satisfactorily, the patient is nevertheless hustled off to the Fever Hospital. In other cases, where removal was urgently required, the sanitary authorities have refused to take action. In our view a preference in removal is given to persons of the better class, and to persons outside the borough. Moreover, serious hardship is often inflicted on members of the working class. The wives are threatened and terrorised; the husbands are stopped from their work, or they are compelled to find lodgings elsewhere. Thus, the family is either papered or its resources seriously crippled at the hour of its utmost need. All this is done without any compensation whatever.

Query 3. We object to compulsory notification by the medical attendant, as an infringement of the confidential relations which subsist between patient and practitioner. Speaking from an abundant clinical experience, we emphatically assert that compulsory notification does often lead to the concealment of infectious disease; and as the medical officer of health is not, and never has been, in general practice, we hold that his opinion on this question is absolutely worthless.

Query 4. We agree that notification should be compulsory, but that the compulsion ought to rest on the householder. The proposal to provide an isolating hospital we hold to be simply preposterous. It would inevitably lead to the spread of infectious disease.

Query 5. The medical officer of health states that he restrains scarlet fever. In point of fact, the number of deaths from that disease in 1887 was double that of 1888. Again, his percentages are wrong; for in the first half of his favourable decade, many zymotic patients were removed to the workhouse. Some of them died there, and their deaths were registered as deaths occurring out of the borough.

Query 6. The proposal to give the medical officer of health and his inspectors power to enter any house in which infectious disease is believed to exist we characterise as most unwarrantable. We deem it probable that, if such a power were ever attempted to be enforced, it would in most cases be strenuously resisted. It may also be added under this head, that medical men not resident within the borough, as well as illegal practitioners, are not seldom preferred to attend cases of infectious disease in the borough, because they are not required to report. Generally we consider it, in the highest degree doubtful whether the action of medical officers of health, with respect to persons, has any tendency to restrict the spread of infectious disease.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, April 28th, 5,781 births and 3,400 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 21.9 and 19.9 in the two preceding weeks, further declined to 18.9 during the week under notice. The rates in the several towns ranged from 14.7 in Bolton and in Hull, and 16.1 in Brighton and in Newcastle to 24.3 in Wolverhampton, 24.8 in Manchester, and 25.9 in Blackburn. The mean death-rate in the twenty-seven provincial towns was 20.0 per 1,000, and exceeded by 2.5 the rate recorded in London, which was only 17.5 per 1,000. The 3,400 deaths registered during the week under notice in the twenty-eight towns included 328 which were referred to the principal zymotic diseases, against 359 and 364 in the two preceding weeks; of these, 143 resulted from whooping-cough, 48 from scarlet fever, 38 from measles, 35 from diphtheria, 34 from diarrhoea, 23 from "fever" (principally enteric), and 7 from small-pox. These 328 deaths were equal to an annual rate of 1.8 per 1,000; in London the zymotic death-rate was 1.9, while in the twenty-seven provincial towns it averaged 1.7 per 1,000, and ranged from 0.0 in Birkenhead and Preston, and 0.4 in Brighton and in Sunderland to 3.0 in Oldham and 3.4 in Cardiff. Measles caused the highest proportional fatality in Leicester, Bradford, and Bristol; scarlet fever in Oldham, Blackburn, and Cardiff; whooping-cough in Wolverhampton, Halifax, Manchester, and Salford; and "fever" in Leicester. The 35 deaths from diphtheria in the twenty-eight towns included 22 in London and 3 in Oldham. Of the 7 fatal cases of small-pox recorded during the week under notice in the twenty-eight towns, 5 occurred in Sheffield, 1 in London, and 1 in Bristol. The Metropolitan Asylums Hospitals contained 21 small-pox patients on Saturday, April 28th, of which 3 had been admitted during the week. These hospitals also contained 967 scarlet fever patients on the same date, against 1,002 and 961 at the end of the two preceding weeks; there were 79 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 4.2 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 839 births and 530 deaths were registered during the week ending Saturday, April 28th. The annual rate of mortality in these towns, which had been 20.8 and 21.2 per 1,000 in the two preceding weeks, declined again to 21.0 during the week under notice, but exceeded by 2.1 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Greenock, Aberdeen, and Leith, and the highest in Glasgow and Paisley. The 530 deaths in these towns during the week under notice included 49 which were referred to the principal zymotic diseases, equal to an annual rate of 1.9 per 1,000, which slightly exceeded the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Perth and Paisley. The largest proportional fatality of measles occurred in Glasgow, and of whooping-cough in Glasgow and Aberdeen. The 5 deaths from diphtheria recorded in these towns during the week included 4 in Glasgow. The mortality from diseases of the respiratory organs in these towns was equal to 4.5 per 1,000, against 4.2 in London.

THE LOCAL GOVERNMENT BILL: SANITARY ADMINISTRATION.

DR. PAUL Q. KARKEEK (Medical Officer of Health for Torquay and St. Mary's church) writes: I foresee that the proposed new county medical officer may possibly turn out a doubtful blessing. If this officer be chosen by the County Council, there is a probability of all the evils now ascribed to local influences being perpetuated. Some protégé of a local magnate, or a raw boy with a new diploma in sanitary science, or perhaps a difficult man to work with, may get appointed, and turn out to be a round peg in a square hole, or worse.

I venture to suggest that these county medical officers be deputies of the Local Government Board sent into a county or division to work, and answerable to the Board, although advising the County Council. Let them form a "Sanitary Service of the Local Government Board," just as the "Army Medical Department." Such men, if impracticable or unsatisfactory in any way, could be removed by the Board, or admonished, advised, etc., and they would carry more weight from the fact of their being the representatives of the Board. But if the officer be elected by the County Council, he would be then for ever subject to social and other influences, and answerable only to a few local magnates, whom he might keep in with. In fact, he might do what, how, and when he liked. The nearest resemblance I can point out to my idea of a county medical officer is that very active, independent set of men called, I think, surveyors of taxes, though I should be sorry to see the county medical officer so unpopular. If my idea of a Sanitary Service be adopted, very many probable evils will be avoided and many advantages follow.

ROYAL SURGEON writes: With reference to your leading article of April 28th, allow me to suggest that the appointment of sanitary officers should be vested neither in the County nor the District Councils, though the former proposition is obviously the less objectionable; but that such offices should be filled by a competitive examination open to all qualified medical men of a certain age and standing. This course would put an end to the familiar and, too often, successful attempts to secure these appointments for ill-qualified persons, by backstair influence and petty party and religious intrigues. The ratepayers would have the best guarantee that the best man was selected, while aspiring candidates would have an opportunity of gaining the object of their ambition by honourable competition with their fellows, instead of having, hat in hand, to solicit the votes of village magnates, while if successful they would enter on their duties unhampered by obligations to their village patrons.

HUMAN AND CALF LYMPH.

MANCHESTER, judging from the course and similarity of the vesicles obtained from calf lymph to those of humanised lymph (taking as a standard the calf lymph used at the Animal Vaccines Establishment of the Local Government Board), the protection would appear to be almost certainly the same, but there exist no statistics in Great Britain to prove it. With reference to his second question, "Manchester" will find a full account in the Report of the Medical Officer of the Local Government Board for 1882, page 34; also a shorter account in the JOURNAL for June 28th, 1884. As regards the private vendors of lymph mentioned in "Manchester's" letter, we have no opportunity of expressing an opinion.

TEXTBOOKS ON HYGIENE.

H. J. T. will find advice as to books to read for the diploma in Public Health at page 49 and at page 724 of the current volume of the JOURNAL.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having conformed to the by-laws and regulations, and passed the required examinations, were admitted Licentiates of the College on April 26th.

H. P. Ainsworth, Guy's Hospital; **V. Allen**, St. George's Hospital; **J. N. Anwyll**, St. Bartholomew's Hospital; **J. W. Applegate**, St. Bartholomew's Hospital; **J. E. Appleton**, St. Mary's Hospital; **C. H. Ashford**, St. Bartholomew's Hospital; **T. Austen**, Charing Cross Hospital; **H. T. S. Aveline**, Bristol; **J. L. Aymard**, Guy's Hospital; **G. A. Ballingall**, Edinburgh University and St. George's Hospital; **A. M. Barford**, St. Bartholomew's Hospital; **H. Barnett**, Cambridge University and St. Thomas's Hospital; **H. N. Baron**, King's College; **J. C. Barr**, St. Mary's Hospital; **L.**

Beckett, London Hospital; **D. T. Belding**, St. Bartholomew's Hospital; **E. S. Bell**, St. Thomas's Hospital; **R. Bird**, St. Bartholomew's Hospital; **A. H. Blunt**, St. Thomas's Hospital; **S. A. Bontor**, St. Bartholomew Hospital; **R. F. Bour**, University College; **R. W. Boyce**, University College; **G. Braide**, Manchester; **R. J. Braye**, London Hospital; **H. Bristowe**, St. Thomas's Hospital; **E. H. Brock**, Guy's Hospital; **F. Brooke**, St. Mary's Hospital; **J. D. Brown**, St. George's Hospital; **H. Cappe**, University College; **A. E. Chambers**, Manchester; **F. Chand**, Newcastle-upon-Tyne; **R. S. Charsley**, Westminster Hospital; **C. H. Clifton**, University College; **T. Clifford**, Newcastle-upon-Tyne; **J. G. Colby**, St. Bartholomew's Hospital; **C. Collier**, London Hospital; **F. Collins**, University College; **E. Cooper**, Charing Cross Hospital; **F. Corbridge**, London Hospital; **J. K. Couch**, Middlesex Hospital; **J. J. Coulter**, London Hospital; **A. E. Cox**, St. Thomas's Hospital; **H. C. F. Crisp**, London Hospital; **J. D. Cruickshank**, Guy's Hospital; **G. W. B. Dani**, St. George's Hospital; **B. A. Daniell**, Dublin; **C. S. Dowdell**, University College; **C. W. Edwards**, Middlesex Hospital; **W. S. Fenwick**, London Hospital; **H. S. Fremlin**, Westminster Hospital; **O. B. Flux**, King's College; **P. G. Gilmour**, St. Bartholomew's Hospital; **P. D. Goldsmith**, Toronto University, Ontario; **A. Goulston**, St. Thomas's Hospital; **F. Gray**, Charing Cross Hospital; **T. J. Head**, London Hospital; **E. M. Hearn**, Guy's Hospital; **F. Heasman**, St. Bartholomew's Hospital; **S. M. Hewthwaite**, St. Bartholomew's Hospital; **G. A. Heberden**, St. George's Hospital; **W. M. Helsham**, St. Thomas's Hospital; **P. Hicka**, St. Bartholomew's Hospital; **H. Hill**, Bristol; **F. S. D. Hogg**, St. George's Hospital; **W. S. Holford**, St. George's Hospital; **F. K. Holman**, Guy's Hospital; **T. Hudson**, Bristol; **A. H. W. Hunt**, Westminster Hospital; **J. A. Hutcheon**, Middlesex Hospital; **A. W. L. Jones**, St. Bartholomew's Hospital; **R. Jones**, London Hospital; **H. R. Kenwood**, London Hospital; **J. Ker**, St. Thomas's Hospital; **W. B. Lane**, St. Bartholomew's Hospital; **W. Lockyer**, St. Thomas's Hospital; **K. McLaren**, St. Bartholomew's Hospital; **W. J. Maillard**, Guy's Hospital; **W. L. Mathias**, St. Thomas's Hospital; **G. H. Metcalfe**, Guy's Hospital; **S. C. H. Moberly**, St. Bartholomew's Hospital; **J. C. Molson**, London Hospital; **S. G. Moores**, St. Thomas's Hospital; **E. W. Morris**, St. Thomas's Hospital; **E. Moss**, Guy's Hospital; **J. E. Moyses**, Guy's Hospital; **W. B. Nelson**, Middlesex Hospital; **F. O'Kinealy**, St. Bartholomew's Hospital; **F. J. Oxley**, London Hospital; **J. V. Owen**, King's College; **J. P. Parkinson**, University College; **F. G. Parsons**, Middlesex Hospital; **E. V. Pegge**, King's College; **F. F. L. Peano**, University College; **E. V. Phillips**, St. Thomas's Hospital; **A. E. Poolman**, Guy's Hospital; **W. F. Pridham**, St. Mary's Hospital; **Purvis**, Charing Cross Hospital; **W. B. Ransom**, University College; **Richards**, Bristol; **N. C. Ridley**, St. Mary's Hospital; **T. W. Robt**, London Hospital; **J. L. Roberts**, Guy's Hospital; **N. B. Robinson**, St. George's Hospital; **J. W. Sandoe**, Guy's Hospital; **G. H. Seagrave**, University College; **C. E. Seal**, University College; **H. B. Seddon**, St. Thomas's Hospital; **W. S. Sharpe**, St. Mary's Hospital; **G. S. Sims**, St. Thomas's Hospital; **C. J. Stanley**, King's College; **E. A. T. Steele**, Liverpool; **C. H. Stevens**, University College; **W. C. Swayne**, Guy's Hospital; **C. S. Vines**, Westminster Hospital; **H. Wade**, Manchester; **H. Walker**, St. Thomas's Hospital; **W. K. Walls**, Manchester; **E. W. Bristol**; **J. Watson**, Westminster Hospital and Newcastle-upon-Tyne; **E. Whitehead**, St. Bartholomew's Hospital; **H. Williams**, St. Bartholomew's Hospital; **J. P. Williams**, Manchester; **A. E. Wynter**, St. Bartholomew's Hospital; **W. B. Yates**, Manchester.

* Approved by Examining Board.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April sittings of the examiners for the Triple Qualification, held in Glasgow, the following candidates passed respective examinations:

First Examination.

W. P. Lonergan, F. Rawlings, junior, A. J. D. Reid, J. C. Ferguson, W. A. Davies, J. Suley-Wheeler, J. T. Hislop, and J. C. Sturdy, of the Glasgow Medical School; **C. E. Lester**, of the Edinburgh School; **J. McCullor**, of Queen's College, Belfast; **P. B. M'Laughlin** and **P. F. Goldfrey**, of Dublin Medical School; **W. Ramsay**, of the Liverpool School.

Second Examination.

M. M. Campbell, J. Steele, T. McMillan, J. Smith, J. Kerr, of the Glasgow Medical School; **W. E. Toyne**, E. E. Craster, and A. G. Ginders, of Edinburgh Medical School; **J. W. Chapman**, of Queen's College, Belfast; **H. Stedman**, Miami, U.S.A.; **H. C. Pauli**, of the Leeds School; **A. Bull**, of the London School.

Final Examination (and admitted L.R.C.P.Ed., L.R.C.S.Ed., and L.F.P.S.Glasg.)

C. Carruthers, E. Brooks, A. Nicholson, A. F. Criaan, D. Buchanan, J. Brown, J. F. Fergus, M.A., G. A. Bannatyne, R. W. Roberts, J. T. Haworth, Steele, and J. Kelly, all of the Glasgow Medical School; **C. F. de Mell**, Bombay and Glasgow Schools; **E. Carter**, of the London School; **V. Vanderstraaten**, of Ceylon Medical College.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates having passed the Qualifying Examination in Medical Surgery, and Midwifery have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society.

Andrew, Bennet Harvey, 33, Tyrwhitt Road, St. John's, S.E. **Cooke**, Montague Percy, Fern House, Landkey, Barnstaple. **Eyton-Jones**, John Arthur, Wrexham, North Wales. **Goldsmith**, Perry David, Campbellford, Ontario. **Macdonald**, Isabella Macdonald, Windmill House, Arbroath. **Merrall**, Harry, 102, Victoria Terrace, Bury, Lancashire. **Nall**, Joseph, Whaley Bridge, near Stockport. **Reichardt**, Ernest Noel, St. Bartholomew's Hospital. **Valentine**, Thomas Harcourt Ambrose, Green Lane, Adlestone.

The following candidates passed the Surgical portion of the examination.

W. Evans, of St. Bartholomew's Hospital; B. P. Johnson, of the Liverpool School of Medicine; W. De la Motte, of the London Hospital; J. S. Part, of Westminster Hospital; P. de C. Potter, of Owens College, Manchester; J. A. Smith, of the Leeds School of Medicine; O. T. Stephenson, of the Liverpool School of Medicine.

The following candidates passed the Medical portion of the examination.

J. Brown, of the Middlesex Hospital; J. M. Cochrane, Toronto; A. J. De Butte, of St. Mary's Hospital; S. H. Secombe, of Guy's Hospital.

Primary Examination.—The following candidate passed the sole examination.

C. M. Given, of the Liverpool School of Medicine.

The following candidate passed in Anatomy and Physiology.

P. M. Swales, of St. Bartholomew's Hospital.

The following candidates passed in Anatomy only.

P. Cadel, of Guy's Hospital; J. M. Fry, of Westminster Hospital.

The following candidates passed in Chemistry, Botany, and Terrestrial Medicines.

E. Atkins, of St. Bartholomew's Hospital; H. Massingham, of the London Hospital; J. T. R. Miller, of St. Thomas's Hospital; W. L. G. Morgan, of St. Thomas's Hospital; H. B. Shillingford, of Guy's Hospital.

MEDICAL VACANCIES.

The following Vacancies are announced:

COATS HOSPITAL, Manchester.—Junior Visiting Surgeon. Salary, £60 per annum. Applications to the Honorary Secretary.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150, and £30 extra for cab hire. Applications by May 10th to A. Forrest, Esq., Secretary.

DOMSBURY DISPENSARY.—Physician. Applications by May 15th to the Secretary.

STOL ROYAL INFIRMARY.—Honorary Assistant Physician (to out patients). Applications by May 5th to the Secretary.

RY DISPENSARY HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum, with board and residence. Applications by May 5th to the Honorary Secretary.

BYDON GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum, with board and residence, increasing to £120. Applications by May 11th to the Honorary Secretary.

STURFOUR BRITISH HOSPITAL, Paris.—House-Surgeon. Applications to the Secretary, Rue de Villiers, Levallois, Paris.

LYWELL UNION, Whitford District.—Medical Officer and Public Vaccinator. Salary, £42 per annum, and fees. Application by May 10th to P. Harding Roberts, Esq., Union Offices, Holywell.

LYWELL UNION.—Medical Officer to the Workhouse. Salary, £40 per annum. Applications by May 10th to P. Harding Roberts, Esq., Union Offices, Holywell.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square.—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications by May 26th to the Honorary Secretary.

HOSPITAL FOR EPILEPSY AND PARALYSIS, [32, Portland Terrace, Regent's Park.—Assistant Physician and Registrar. Applications by May 14th to H. H. Graham, Esq., Secretary.

LONDON TEMPERANCE HOSPITAL.—Registrar and Chloroformist. Salary, £50 per annum. Applications by May 5th to the Secretary.

MONKWEARMOUTH DISPENSARY AND ACCIDENT HOME.—House-Surgeon. Salary, £80 per annum, with board and lodging. Applications by May 5th to T. R. Blumer, Esq., Honorary Secretary, Avenue House, Monkwearmouth, Sunderland.

NATIONAL LYING-IN HOSPITAL, Holles Street, Dublin.—Two Assistants to the Master. Applications to Dr. Roe, 13, Lower Fitzwilliam Street, or at the Hospital.

NEWPORT AND COUNTY INFIRMARY.—House-Surgeon. Salary, £100 per annum with board and residence. Applications to J. K. Stone, Esq., The Infirmary, Newport, Mon.

STAFFORDSHIRE INFIRMARY.—House Physician. Salary £100, with board, washing, and apartments. Applications by May 23rd to the Secretary.

ST. WEST LONDON HOSPITAL, Kentish Town Road.—Senior Resident Medical Officer. Applications by May 7th to the Secretary.

RISH OF BARNET, ETC.—Medical Officer of Health. Salary, £443 per annum. Applications by May 14th to H. M. Turner, Esq., 66, High Street, Watford.

RISH OF LOCHS, Stornoway.—Medical Officer. Salary, £140 per annum, with free house. Applications by May 16th to Mr. H. M. L. Ross, Inspector of Poor, Lochs and Barvas.

GRAY'S INN FREE HOSPITAL, Gray's Inn Road.—Assistant Physician. Applications by May 16th to the Secretary.

GRAY'S INN FREE HOSPITAL, Gray's Inn Road.—Assistant Surgeon. Applications by May 16th to the Secretary.

CITY HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Junior House-Physician. Salary, £50 per annum, with board and lodging. Applications by May 19th to the Secretary.

SOUTH HANTS INFIRMARY, Southampton.—Assistant to House-Surgeon. Board and residence. Applications by May 5th to Dr. Thomas, Anglesea Place, Southampton.

SEAMAN'S HOSPITAL SOCIETY.—Visiting Physician. Applications by May 5th to P. Michelli, Secretary, Seaman's Hospital, Greenwich, S.R.

WARWICK COUNTY LUNATIC ASYLUM, Hatton, near Warwick.—Assistant Medical Officer. Salary, £100 per annum, with board, etc. Applications to the Superintendent.

WESTPORT UNION.—Medical Officer, Achill and Ballycroy Dispensary. Salary, £117 per annum and fees. Applications to Mr. John Corrigan, Honorary Secretary. Election on May 8th.

MEDICAL APPOINTMENTS.

BAILEY T. Ridley, M.D. Edin., reappointed Medical Officer of Health to the Bilston Urban Sanitary Authority.

FOX, E. L., M.R.C.S., appointed Senior House-Surgeon to the Stanley Hospital, Liverpool, vice G. P. Newbolt, M.B., M.R.C.S.

GIDDINGS, George T., M.B., M.R.C.S., appointed House-Surgeon to the London Hospital, vice G. E. Haslip, M.R.C.S., L.R.C.P.

MANNING, P., M.B., M.R.C.S., appointed Junior House-Surgeon to the Borough Hospital, Birkenhead, vice H. Scurfield, M.B., C.M., resigned.

MCLEAN, C. J. R., M.D. Edin., reappointed Medical Officer of Health to the Yeading Urban Sanitary District.

NEWBOLT, G. P., F.R.C.S. Eng., M.B. Dur., late Senior House-Surgeon, Stanley Hospital, Liverpool, appointed Surgeon, No. 2 District, Manchester Ship Canal.

RYE, W., M.B., C.M. Glas., appointed Medical Officer to the Tarbat Parish, Ross-shire.

SAVERY, Frank, M.R.C.S., L.R.C.P. Lond., appointed Senior Assistant House-Surgeon to the Hull Royal Infirmary, vice W. F. Pedler, resigned.

WILLIAMS, W. G., M.R.C.S., appointed Junior House-Surgeon to the Stanley Hospital, Liverpool, vice A. Wood, M.B., C.M., resigned.

THE NEW LARYNGOLOGICAL SOCIETY.—The proposal to establish a society for the study of diseases of the throat and nose, to which we referred some time ago (JOURNAL, January 21st, p. 149), has been received with favour by members of the profession specially interested in these subjects. A preliminary meeting was held on April 27th, at the rooms of the Medical Society, under the presidency of Dr. McNeill Whistler, to whose initiative, seconded by the indefatigable efforts of Dr. R. A. Hayes, of Dublin, the society owes its existence. The following gentlemen, among others, were present: Drs. Whiphram, Woakes, Prosser James, Dundas Grant, Gordon Holmes, J. W. Bond, Coleman Jewell, and Matheson, and Messrs. Lennox Browne, G. H. Bailey, W. R. H. Stewart, G. Stoker, and Arnold Woakes, of London; Mr. Cresswell Baber, of Brighton; Dr. Hunter Mackenzie, of Edinburgh; and Dr. McIntyre, of Glasgow. Letters of apology were read from Mr. Sydney Jones and Dr. Norris Wolfenden. It was stated that there had already been fifty-one applications for original membership, the list including the names of nearly all the prominent laryngologists in Great Britain and Ireland. It was unanimously resolved, that a "British Laryngological and Rhinological Association" should be established, and the first general meeting for the election of officers was fixed for Friday, June 29th. The acting Secretary, Dr. R. A. Hayes, 56, Merrion Square South, Dublin, will be happy to give every information relative to the Association to any gentleman interested in it.

THE CENTENARY OF THE LINNEAN SOCIETY.—The centenary of the Linnean Society will be celebrated on May 24th. A eulogy will be pronounced on Linnaeus, by Professor Fries, the present occupant of the Chair of Botany at Upsala; eulogies will also be pronounced on Robert Brown and George Bentham, both eminent botanists, by Sir Joseph Hooker and Mr. Thiselton Dyer respectively, and on Charles Darwin by Professor Flower. A Linnean gold medal will in future be presented for eminence in botany and zoology in alternate years. This year two medals will be presented to Sir J. Hooker and Sir Richard Owen respectively.

LONDON SLUMS.—The report of the Mansion House Council on the Dwellings of the People presented at its last monthly meeting showed that action taken respecting several streets in the Shore-ditch parish had been successful, and resulted in the almost entire remedy of the insanitary conditions reported, amounting to over 100. Action was also being instituted in regard to insanitary dwellings at Islington and Holborn. Upwards of £200 had been received in answer to the Lord Mayor's appeal, and it was hoped that the receipt of further donations would enable the operations of the Council to be extended.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Mr. John F. H. Broadbent, of Hertford College, Oxford, has been awarded a scholarship of £50 in classics; Mr. Price, of Pembroke College, Cambridge, a scholarship of £50 in mathematics.

AN OPEN SPACE IN THE CITY.—The gardens skirting the moat of the Tower of London, between one and two acres in extent, have, through the instrumentality of the Metropolitan Public Gardens Association, been thrown open to the public.

THE LATE MR. GEORGE STURGE.—The death is announced of Mr. George Sturge, of Woodthorpe, Sydenham, at the ripe age of ninety years. The deceased gentleman took a warm interest in hospitals, and showed his practical sympathy with them by liberally subscribing to their support. He not long since gave £4,000 to University College Hospital, was a liberal supporter of the London Hospital, and had contributed largely to the North-Eastern Hospital for Children. From its commencement, he substantially assisted the London Temperance Hospital. Two years ago he offered three prizes for the best essays on "The Causes of the Financial Depression in Hospitals." He called attention to the variations in the expenditure on alcohol at the various general hospitals. He was the founder of the "Sturge Convalescent Home" at Folkestone, and was through a course of years engaged in the promotion and continuation of much charitable and philanthropic work. Mr. George Sturge was connected by near relationship with that great philanthropist Joseph Sturge, of Birmingham, and was not distantly related to two or three members of the medical profession. He died, as he had lived, a member of the Society of Friends.

SUTURE OF WOUNDED LIVER.—The *Riforma Medica*, of April 25th, states that Professor Postempski recently stitched up an incised wound of the liver. The operation, which is said to be the first of the kind ever performed, took place in the Ospedale della Consolazione at Rome on April 18th. The abdomen was opened, and the edges of the wound, which was situated in the left lobe, and which was seven centimetres in length and two in depth, were brought together with six catgut sutures, applied by means of extremely fine needles. The hæmorrhage, which had been very free, was at once checked when the wound in the liver-substance was closed. On April 23rd, four days after the operation, the patient's temperature was normal, and he was doing well. Professor Postempski will publish the case in detail in due course.

An attempt to blow up with gunpowder a wooden structure intended for use as an isolation hospital at Trooper's Hill, St. George's, an extensive suburb of Bristol, was made on Sunday night. No patients had yet been sent there, and no great harm was done. There has been, it is stated, a strong prejudice against the use of the site (which was used as a children's playground) for the erection of the building.

DR. CLEMENS LOZIER, of the New York Medical College and Hospital for Women (of which she had been Dean since its establishment in 1863), died recently from angina pectoris. She was the pioneer of the movement in America for the medical education of women, and also a leader in the female suffrage movement.

The *London Gazette* of Tuesday last announces that the Queen has been pleased to direct Letters Patent to be passed under the Great Seal of the United Kingdom of Great Britain and Ireland granting the dignity of a Knight of the said United Kingdom unto John William Tyler, Esq., M.D., F.R.C.S., L.R.C.P., L.M. and L.S.A. Lond., C.I.E.

CLONAKILTY UNION.—The guardians last week passed a resolution allowing £5 a year to the medical officer of the Rosscarbery dispensary district for attending petty sessions at all prosecutions in vaccination and sanitary cases. Dr. Bennett, of Clonakilty district, also receives the same sum for similar services.

MEDICAL HONOURS.—The name of Mr. Charles Williams, J.P. M.R.C.S., of Duffryn, the President of the North Wales Branch appears in the *London Gazette* of April 25th as a Deputy-Lieutenant for the county of Merioneth.

The *Medical Record* (New York) states that a Bill has been passed by the local legislature incorporating an institute for teaching "Christian Science," which appears to be the same craze as faith-healing.

THE VIENNA GENERAL POLICLINIC.—The Minister of Public Instruction of Austria, Dr. v. Gantsch, has given to the Vienna General Polyclinic a subvention of one thousand florins for the year 1888.

At the beginning of the year, there were, according to the *Australian Medical Gazette*, sixty students attending the practice of the Prince Alfred Hospital, Sydney.

At the annual festival of the King's College Hospital, held on Monday, April 30th, subscriptions amounting to £2,200 were announced.

HONOURS TO AN AUSTRIAN PROFESSOR.—The Emperor Austria has conferred on Hofrath Professor E. Brücke, Professor Physiology in the University of Vienna, the Order of the "Ehrenzeichen für Kunst und Wissenschaft." This distinction was created by the Emperor only last year, and has hitherto, far as medical men are concerned, been conferred only on Hyrtl

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 8.30 P.M.—Annual Oration, by Sir Joseph Fayr K.C.S.I.: The Natural History and Epidemiology of Cholera to be followed by a Conversation.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN, 8 P.M.—Dr. Edward Bial On Dental Reflexes and Trophic Changes. Dr. George Cumid ham: On a Statistical Inquiry as to the Results of the Immediate Treatment of Pulpless and Abscessed Teeth.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Dr. C. Theodore Williams: On the Results of the Treatment of Pulmonary Consumption by Residence at High Altitudes, as exemplified by Analysis of 141 Cases. Dr. Percy Kidd and Mr. H. H. Taylor On the Value of the Tubercle Bacillus in Clinical Diagnosis.

WEDNESDAY.

BRITISH GYNÆCOLOGICAL SOCIETY, 8.30 P.M.—Specimens will be exhibited Dr. G. Granville Bantock, Dr. Bedford Fenwick, Mr. Law Tait, and others. Mr. Bland Sutton: On Dermoid Tumour. Dr. Richard T. Smith: Cystic Disease of the Cervix and Uterium.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 P.M.—Election of Office-Bearers. B. A. Whitelegge: Age, Sex, and Season in relation to Sea Fever.

ROYAL MICROSCOPICAL SOCIETY, 8 P.M.—Dr. A. C. Stokes: New Infus Flagellata from American Fresh Waters.

FRIDAY.

CLINICAL SOCIETY OF LONDON, 8 P.M.—Mr. Charters Symonds: Case of Rupture of the Urinary Bladder, in which the Rent was Sutured. de H. Hall: The Local Application of Cocaine in Acute Pseudomembranous Tonsillitis. Dr. Percy Kidd: A Case of Comp Bilateral Paralysis of the Vocal Cords the Result of Ac Laryngitis. Mr. Thomas Nunn: Necrosis of the Great Cornuoid Bone.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. which should be forwarded in stamps with the announcement.

BIRTH.

WALLER.—On April 27th, at Weston Lodge, 16, Grove End Road, the wife of Dr. Augustus Waller, of a son.

MARRIAGES.

HAMILTON-BODINGTON.—On April 10th, at St. James's Church, Vancouver British Columbia, by the Rev. H. Edwardes, Lauchlan Alexander Hamilton D.L.S., of Winnipeg, Manitoba, Land Commissioner of the Canada Pacific Railway, to Constance Eaton, daughter of George Fowler Bodington M.D., M.R.C.P. Lond., F.R.C.S. Eng., of the City of Vancouver, B.C.

PARRY-HOWELL.—On April 19th, at St. Mary's Church, New Walsingham, Norfolk, by the Rev. G. R. Woodward, assisted by the Rev. E. F. H. George Hales Parry, L.R.C.P., M.R.C.S., L.S.A., of Docking, Norfolk, second son of George Parry, M.R.C.S., L.S.A., Docking, to Sarah Florence only daughter of James Howell, Esq., New Walsingham, Norfolk.

SMITH-PICKERING.—On April 27th, at the church of SS. Philip and James Cheltenham, by the Rev. W. H. Hutchingson, rural dean, assisted by Rev. Percival Smith, brother of the bridegroom, Montagu Square, M.R.C.S. Eng., of 26, Park Place, Cheltenham, son of the Rev. T. Smith Holmwood, Weston-super-Mare, to Ethel, youngest daughter of the Rev. Edward Pickering, chaplain of Port Elizabeth, South Africa.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters of an editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, forward us with Duplicate Copies.

QUERIES.

FORMULA WANTED.

ENTRY DOCTOR writes: Would any of your readers be good enough to give me a recipe for an "alkaline mixture," containing sodæ bicarb., ammon. arb., zingiber, etc., concentrated so that an ounce added to seven ounces of water would form an agreeable mixture?

PRACTICE IN SPAIN.

RIPATETIC PHYSICIAN would be glad if any member could give him information with regard to the permission to practise in Spanish possessions. Would he M.B.Lond., and M.R.C.P.Lond., be accepted, or is a Spanish diploma obligatory?

MEDICAL BOOKKEEPING.

B. and C.M. asks to be recommended an easy and simple set of books for medical bookkeeping.

ANSWERS.

I. D.—Quite correct.

AVENA.

W. ASPINALL writes: In answer to a question by a member in the JOURNAL of April 28th, 1888, respecting "Avena," your correspondent will find there are many varieties, the chief of which are: *Avena sativa* alba, white oat; *avena sativa nigra*, or black oat; *avena nuda*, or naked oat; grain formerly used to feed horses. There is another vegetable of the same class, called *avena strigosa*, or thistle-pointed oat, or Spanish oat; an annual sown in corn fields. All these varieties were formerly used amongst the sick, at it is scarcely medicinal. I have never before heard of *avena* being prescribed in epilepsy.

PERSISTENT YAWNING.

HENRY SUTHERLAND (Whitehall) writes: If your correspondent, "Ubique," will consider what yawning is due to, he will not be long in finding remedies for its cure. Yawning is caused by an accumulation of carbonic acid gas in the blood of the lungs, which is the result of neglect on the part of the subject to assist Nature in her efforts to properly oxygenate the vital fluid, hence a reflex and spasmodic attempt by a prolonged but unnatural inspiration to do the work which ought to be done by the respiratory muscles of the chest.

This patient is a middle-aged lady, one of a class and at a time of life when exercise is habitually avoided. If she will take a brisk walk for an hour or so every day, and also make use of free exercises which tend to expand the chest, she will soon cease to complain of this troublesome affection.

MEDICO-PARLIAMENTARY SUBJECTS.

GEORGE CORDWENT (Milverton) writes: Several questions raised and discussed at the recent meeting of the Parliamentary Bills Committee, invite criticism. Permit me space to direct attention to two of them.

In what consists the necessity of a medical coroner appointing a lawyer as his deputy? A coroner and his deputy do not sit at the same inquest. The work of coroner is so little complex in its points of statute law, that a reasonable and cultured mind can have no difficulty, so far as those are involved in such inquiries as come within his office; on the other hand, most of those inquiries present features demanding much pathological knowledge in the coroner, some chemical knowledge also; by these only in occasional cases an essential evidence be brought out before the jury; the causes of death must be inquired into of course by those who best know the laws of organic life. What lawyer, as such, could, as readily as a medical man, cause to be developed essential evidence in death doubtful as caused by apoplexy or inn, or in death attended or preceded by special convulsions? What lawyer would not unfavorably compare with a medical coroner in inquiry as culpable interference or attributed neglect in a case of fatal child-birth? Medical evidence would be called certainly, and may be duplicated, but that the coroner should be as fully able to appreciate the evidence if conflicting, as should a law judge be able to appreciate points of law, and lay his views distinctly and fairly before the jury. In cases of questionable cause of death, will the public be content to depute decision to an individual, will it still be preferred to retain an unimpeachable mode by jury which has retained its public sanction more than one thousand years? And now, where representative elections are more than ever promoted by the Government, and suited to popular taste, will freeholders be content to be deprived their longest traditional right and a nominee of the Crown appoint their migratory magistrate, who ought to be familiar with the habits of the people of his district, and whose duty it is to inquire whether a death among them occurred by fair or felonious means? That *post-mortem* examinations could be more completely done than has been frequent is evident, but as that evil is markedly lessening, it would be insulting to supersede the practitioner in attendance, and injurious to remove from him the stimulus of conscientious liability to be called any day to give precise evidence on a point of pathology. As to "assessors" being added to a coroner's inquiry, the country should never submit for inquests to be burdened with the further expense of an anomaly. How can a medical coroner be other than an "assessor?" A court is a court of inquiry, not of prosecution; he sits to develop competent evidence, or sees that it is done, and is himself essentially an assessor.

I am past any personal interest in this matter, and to that extent have advantage not possessed, I fancy by many experimental legislators. I would add that, in my experience, the attributed want of competence in inquest juries has now become a buffoon tradition; if errors occasionally occur they are not more frequent than those which happen in the higher courts of law, as shown by daily applications for amended trials.

As regards alarmist views as to spread of disease by personal propagation, would it not be of vast individual and commercial service before proceeding therewith an effort towards penalties, if we endeavoured to find out something more definite than our present slipshod acceptance of spread of epidemics by propagation from person to person, by which preconceived admissions we less industriously seek a probably more frequent cause. Till recently cholera was thought infectious, so diphtheria; yet if it be so by possible inhalation, I am certain instances of this must be extremely rare; every case of cholera many I have seen has occurred in childhood or quite young adults, and its origin has clearly been due to intense or continued exposure to privy gas,

if such a phrase may be used for distinction. Is roseola infectious? Is typhoid fever infectious? And if rubella be doubtfully so, the first two cases in a rural district are often miles apart, and this, as other epidemics, often subsides even more quickly than it invades. I have seen several cases of endemic small-pox rearing as it were to propagate. A cosmic cause must give a condition essential to the speed of an epidemic, by intensifying or elaborating pre-existing elements. If this be true or approach a truth, ought we not to modify our views in regard to spread of epidemics by personal propagation.

NOTES, LETTERS, ETC.

HOMŒOPATHIC FORMULARIES.

DR. F. A. CASTLE (Editor of the *American Druggist*, and member of the Committee of Revision and Preparation of the *Pharmacopœia* of the United States of America) writes: In the JOURNAL of March 10th, p. 545, you comment upon a recently published report of The Temperance Hospital, for 1886-87. The existence of this institution has long been known on this side of the ocean, and there has been a justly general desire for information respecting the forms adopted for the administration of medicines which would be consistent with the claim which is made that alcohol is not used.

I have several times addressed letters of inquiry to the hospital, requesting information on this subject but, thus far, have never been favoured with an answer. Can you give any information on this subject?

You are aware, of course, that alcohol is the menstruum for a very large proportion of the drugs used in medicine, and tinctures, fluid extracts, and wines would appear to be almost indispensable. If, however, the managers of the Temperance Hospital have succeeded in preparing a special pharmacopœia or formulary in which alcohol is replaced by something equally serviceable, they would be doing something which would give very general satisfaction in making their formulary more public.

** We believe that the tinctures at the Temperance Hospital are prepared with glycerine instead of alcohol in some such proportion as 1 in 3. As, however, we have no authentic information, we can only agree with Dr. Castle, that an authoritative statement of the precise form of the various non-alcoholic preparations in use at this hospital is greatly to be desired.

A CASE OF DISTRESS.

DONATIONS received since April 17th.

	£ s. d.		£ s. d.
Arthur E. Durham, Esq. ...	5 5 0	G. Kveritt Norton, Esq. ...	1 1 0
Dr. F. de Havilland Hall ...	1 1 0	J. E. Kenyon, Esq., Bradford ...	0 10 0

Further donations towards the relief of the family will be gratefully received by Dr. G. C. Jonson, 16, South Eaton Place, S.W., or by Dr. John M. Bright, Forest Hill, S.E.

THE CLIFTON LUNACY CASE.

	£ s. d.		£ s. d.
Amount already acknowledged ...	299 1 6	Rawson, Miss Hannah ...	2 0 0
Clark, Sir Andrew, Bart. ...	5 5 0	Surrage, Mrs. ...	2 2 0
Edwards, Sir George W. ...	10 10 0	Surrage, Miss ...	2 2 0
G. N. ...	5 0 0	Thorniton, W. Pugin (Canterbury) ...	1 1 0
Heaven, J. C. ...	1 1 0	Treasure, Mrs. ...	1 1 0
McQuade, H., M.B. ...	1 1 0	White, Miss ...	5 0 0
Neal, J. Brward (New Wandsworth) ...	0 10 6	Webster, H. W., M.D. ...	1 1 0
Prowse, A. B., M.D. ...	1 1 0	Welsh, F. F. ...	1 1 0

The list will be closed on Saturday, May 12th.—J. MICHELL CLARKE and W. H. HARSANT, Honorary Secretaries.

PLACENTA PREVIA.

MR. W. M. KNIFE (Melbourne, Derbyshire) writes: The following note of a few cases of placenta previa may be interesting. 1. Primipara, strong pains, violent hæmorrhage, but labour over in a few minutes, the placenta being expelled with child; good recovery. 2. Second labour, patient phthisical, repeated hæmorrhage, turning easily performed, child expelled after three quarters of an hour, and placenta twenty minutes afterwards; atony of uterus and draining hæmorrhage, in spite of every effort, uterus relaxing repeatedly, and death nine hours after the flooding ceased. 3. Multipara, tiring, good recovery. 4. Separation of placenta round cervical zone failed to arrest hæmorrhage and turning, successful recovery. Several cases of partial placenta previa also treated by rupture of membranes. Barnes's bags are very useful before os is dilated.

PROFESSOR VERNEUIL ON THE CAUSATION OF CANCER.

DR. C. R. DREYSDALE, Senior Physician Metropolitan Hospital of London, writes: In a debate upon cancer in the JOURNAL of April 7th, Professor Verneuil is reported to have quoted with approval the results of some statistics collected by M. Reclus, which showed that cancer was all but unknown among persons whose food was exclusively vegetable. He also mentioned that when he was interne in Lisfranc's wards in 1844, there were nothing like the number of cases of cancer in the same number of patients as there are at present in his wards; indeed, that there were four times as many cases of cancer now as there were forty years ago. This Professor Verneuil attributed largely to the carnivorous diet of the present generation.

Everything that falls from the lips of such a distinguished and learned surgeon as M. Verneuil deserves the greatest attention. Is there not, however, another reason why cancer is far more fatal now than it was forty years ago, and another reason why so great a celebrity as M. Verneuil sees more of it in his wards? In 1844, in London the death-rate was 24 per 1,000, and now it is 19.8, and a similar falling off in the death-rate has taken place in France, where the birth-rate now is only 26 per 1,000, against 32 per 1,000 in the United Kingdom. Hence France, in modern days, contains far more elderly people than she did forty years ago; and as cancer is rare in youth, may not this account more easily than the vegetable diet hypothesis for the greater proportion of the cases seen by M. Verneuil than formerly?

Again, the learned professor is so well known and appreciated as the light of French surgery, that, in these days of railways, persons in the provinces can far more easily betake themselves to Paris than they could in former days. France, I have said, has the most adult population in Europe; out of 100,000 of her population there are 14,700 between the ages of 30 and 40,

REMARKS

ON

THE ELECTRICAL TREATMENT OF
DISEASES OF THE UTERUS.*Read before the Brighton and Sussex Medico-Chirurgical Society.*BY SIR T. SPENCER WELLS, BART., F.R.C.S.,
Surgeon to the Queen's Household.

I HAVE had, perhaps, a longer and more varied experience than most men in dealing with uterine diseases, especially those which are characterised by overgrowth. I have so constantly had to regret the inefficacy of medical treatment; and the results of surgical operations, though sometimes brilliant, have often come so short of my desires that I have for many years past fallen into a frame of mind readily disposed to listen to any suggestion of a mode of treatment which offered a reasonable chance of success, and avoided the risks and perils attending the bolder practice. So, when reports reached me from Paris of what Dr. Apostoli was teaching and doing, they came with a welcome ring.

Electro-therapeutics were no novelty to me. More than thirty years ago I had put galvanism to the test, and had gathered in various ways evidence of its potency both in destroying and repairing tissues. What I had learned of the treatment of ulcers by galvanism was published in 1849 by Golding-Bird, and may still be read in an appendix to his book; but his son and Mr. Nunn are the only surgeons, so far as I know, who have made much use of the practice.

Not long afterwards I tried the galvanic stem pessaries of Simpson in amenorrhœa, and have used them until now with occasional good result. I knew also what Radford had done with galvanism in the treatment of uterine hæmorrhage, and what Simpson had taught as to the influence of galvanism on uterine contraction in labour. I have repeatedly made use of the galvanic cautery in various ways, and have very often removed masses of epithelioma, or the cervix uteri itself, by a platinum wire heated by a battery and used as an *écraseur*, with very satisfactory results. Quite recently, with Dr. Goddard, of Highbury, I removed a cervix uteri without the loss of one drop of blood. My attention was later on attracted to the electrical work of the French and American surgeons in reference to fibroid tumours of the uterus. This was so little satisfactory that it dropped out of notice. Our English experiments were not more encouraging, and surgical enterprise seemed destined to throw into the shade all less dazzling endeavours.

In the meantime, taking up the idea of the wonderful influence of galvanism upon the nutrition of tissues, Apostoli was unobtrusively resolving the problem of its right application in the treatment of abnormal growths and exudations. His published observations were so interesting, and the reports of eye-witnesses were so confirmatory, that in the autumn of 1886 I determined to see and judge for myself. I went to Paris, and was received frankly and cordially. Dr. Apostoli explained to me his views, and demonstrated his mode of procedure. He threw open the records of his daily practice, and gave me the opportunity of verifying his diagnosis, and witnessing his treatment of the cases actually under his care. Besides this, he mustered for my inspection about sixty of the patients who had passed through his hands. I heard many of their histories in their own words, and could contrast for myself their actual condition of good health and activity with the symptoms reported in the early notes of their attendance, and the deformity represented in the plaster casts of their bodies, taken before the tumours had been influenced by the galvanic current. I spent many laborious hours in what I may say was a rigidly sceptical examination of the evidence before me, seeking for weak points in the system and the resolution of theoretical objections.

The conviction was irresistible that, though the method might not have reached its point of perfection, the work, so far as it went, was good. If the women were not radically dispossessed of

their tumours, they were symptomatically cured. Nothing but prejudice could have turned the back upon the facts; and it would have been unjust not to put the matter to further proof. This I have unhesitatingly done. If I have hitherto been silent, it was because I did not wish to prejudge the case. But I have not been inactive, for I wished that if the utility of the method could be made as manifest here as elsewhere, it should be advocated impartially, and presented to the profession upon reasonable grounds.

The uterine diseases which come under Dr. Apostoli's care range through all degrees of fibroid development. He has to deal, as we all do, with simple cases of sub-involution, general hypertrophy of the organ, with metritic deposits all round, polypoid excrescences in the cavity, thickening, more or less irregular, of the walls, and sub-peritoneal outgrowths expanding into abdominal tumours. Practically all these cases group themselves into two classes: first, those which give no trouble and may be left alone; and secondly, those which threaten health and life by loss of blood, or, by mechanically interfering with the organic functions, cause a multimiform series of distressing symptoms.

In the treatment of these conditions, instead of scraping and cauterising the cavity with a curette, or caustics, or fire, Apostoli does the same thing with a pole of the galvanic battery. We give ergot, or mercury, or iodine, or bromine in the hope of altering the nutrition of the diseased mass; he sends a disintegrating current through it. We castrate to cut short a woman's sexual existence; he seeks to quiet down neurotic sensibility, and induce regularity of ovarian function. Where we proceed to a root and branch extermination, he proposes a denutritive paralysis of the uterine substance. Time will show whether, and how far, he surpasses us in his results.

But the novelty at present is not so much in the fact of electricity being used, as in the mode of using it. Others have tried the same means, but not in the same way; former methods were uncertain, dangerous, and insufficient. The point that Dr. Apostoli has arrived at is this: he has studied the effect that certain currents will produce, he measures the intensity of those currents, and he has found the means of safely directing them, of proper force, through the diseased tissues, to ensure the partial if not complete disorganisation of these tissues with the desired coincident relief of suffering, and often with restoration of general health.

It is the continuous galvanic current which is generally brought into action. For this purpose the operator must be provided with an apparatus which will guarantee him an unflinching current of at least 250 milliamperes, or electro-therapeutic units. I may say, in passing, that it may probably be found convenient to speak of milliamperes as "units" of current strength—10, 20, or 60 milliamperes, for example—would be 10, 20, or 60 units. In practice at the hospital or the surgeon's residence a battery of Leclanché cells answers admirably. It is enduring and easily manageable. For work at the patient's home a portable battery of the bisulphate of mercury is convenient, but it requires great care and frequent renewal. An indispensable accessory is the galvanometer. With a fractional deviation it gives a measure of the intensity of the current passing. The graduation should rise to 250 units or milliamperes, though this intensity is rarely wanted. Before every operation the perfect working order of battery, galvanometer, and conducting wires should be ascertained. As it is a characteristic point in the Apostoli practice that the galvanic current should be carried either into the cavity of the uterus or into the substance of the tumour, appropriate sounds and trocars are essential. To avoid loss of power by action on the metal, the sounds are made of platinum. For punctures with a negative current steel trocars are equally good, but when it is intended to transmit a positive current, a certain length of the sharp end of the trocar must be of gold. All that portion of the sounds and trocars passing through the vagina from the handle of the instrument to the mouth of the uterus or point of puncture must be insulated. Before every examination or operation the closest attention should be given to antiseptic precautions, both as regards the patient, the operator, and the instruments. During the whole course of the treatment vaginal irrigations, with sublimate or phenol, are never to be neglected.

The labours of Apostoli have expanded and given a definiteness to our knowledge of the special power of galvanic currents in the treatment of uterine diseases, and of the mode of applying the currents in a way which I may thus resume.

In the first place, we have learnt from him better to under-

stand the double action of the uninterrupted, continuous, galvanic current. The one action is purely local, and coincident with the flow; the tissues immediately in contact with the pole which delivers it are decomposed; the bases and acids of the substances and fluids acted upon are set free, and, according to their nature, produce cauterisation of the surrounding parts, independent of any thermic influence. This effect is local, immediate, and visible. The second action is due to the interpolary passage of the current. It is a trophic action influencing the nerves, vessels, and lymphatics, followed by molecular changes, so as to modify the nutrition of the tissues through which the current goes, and varying according to the pole employed. The effect of the direct and of the secondary counter-current is durable, and, whatever may be our interpretation of it, it is remedially of far more importance than the mere galvano-chemical cauterisation.

Secondly, though the coagulating power of the current passing from the positive pole was known from the writings of Ciniselli and A. Tripièr, we have had disclosed much more since as to the distinctive character of the action of the currents from the two opposite poles. It was with the positive current that Apostoli began his attack upon uterine fibroids, because of the more striking nature of the hæmorrhagic symptoms, and it was the speedy relief of this grave trouble by the production of a hard, dry eschar, and resisting cicatrix, which encouraged him to persevere. The eschar resulting from the alkaline caustic action at the negative pole is just the contrary, softening and liquefying, and tending to promote discharge and hæmorrhage. Logically enough, its dissolvent powers were applied to the opposite class of cases, where there was no hæmorrhage, and the object was rather to reduce the bulk and solidity of compact masses of fibroid material. Experience has proved this to be as good in practice as in principle. The positive pole is therefore designated as "anti-hæmorrhagic" or "hæmostatic," while the words "hæmorrhagic" or "denutritive" are applied to the negative pole.

Thirdly, Apostoli has taught us a much more satisfactory way of utilising these currents in uterine diseases. His predecessors had used currents which were generally uncalculated and ineffective. They were often not strong enough to do much good, yet at other times sufficient to bring about mischievous results. They were brought into play in an ill-judged fashion, and, when used by means of puncture, the punctures were made through parts which ought to have been left untouched. Now the operation is performed under such control as to be a matter of measurable certainty. A strong and regular current is at command. By means of the galvanometer a knowledge of the exact intensity of the current employed is insured. The dosage can be regulated in proportion to the cauterising and trophic effects considered necessary. A current of high intensity can be made to traverse the fissures offensively, and brought out through the abdominal integuments in a dispersed fashion, without more than a temporary blush, and made to complete the circuit through the cutaneous electrode imbedded in wet clay. Than this clay nothing as yet has been found more effectual. Then, by insisting upon the intra-uterine introduction of the current by means of the uterine sound, or its direct interstitial application through the inattaçable trocar, a certainty of action is obtained which was otherwise out of reach. The whole performance is thus strictly at the will and under the control of the operator, who, granted his mastery, wants no other guide either as to the dosage, direction, or duration of the current than the facial expression of the patient, or her declaration of tolerance.

Fourthly, other important points upon which we have clear and definite information are the modifications which this treatment requires according to the varying nature of the cases, and the successively changing circumstances of each case as the treatment is going on, and the wide range of uterine affections to which it is adaptable. Given a tumour and a current, there is no such thing as reciprocal automatic action. At every step of the process of cure, deliberation, judgment, and promptitude of resource are challenged. One day there is an unaccountable power of endurance, another an exaggerated sensibility, one day a perplexing structural resistance, another an easy flow of current, all which have to be taken cognisance of, and throw an ever-recurring strain upon the mindfulness of the surgeon, enough to baffle book-guided novices, and make inestimably valuable the more than five years' experience to which we can recur for counsel. A field, too, is opened up for exploration among the infinitely multi-form presentations of disease of the female generative organs, untraversable by the limited powers of any one man, but to

which Apostoli has pointed the way. This will be the work of the coming generation.

Lastly, there are several interesting questions upon which the work of Apostoli has thrown a new ray of light, such as the dangers and difficulties of the procedures; their being a cause, or the reverse, of subsequent sterility; the practicability of applying the treatment in cases where the uterus is impenetrable; the permanence of the benefits derived from the treatment in the mitigation of the symptoms and the reduction of the tumours; the relation of the menopause to the production or dispersion of fibroid enlargements. It would take up too much of your time if I were to consider these in detail, and it is needless, as Apostoli himself is here, on the invitation of your President, to give any required information.

But, admit that there may be danger in treating our patients by electricity. Is this a reason for rejecting it? What surgical operation is free from risk? Would common sense sanction our leaving disease alone till science has reached completion and skill infallibility? The danger lies not in the method but with the operator, and the moral is, that no man should undertake this work till he has qualified himself to do it well.

Then, as to the permanence of cure, where cure there has been one can only say that though five years and a half is but a short term to form estimates upon, when we are assured that during that time the return of symptoms, or the necessity for further measures has been quite exceptional, it argues well for the future and the objection of the possibility of relapse becomes of little weight.

Again, when Apostoli tells us that some of his patients now under treatment are women in whom the tumour developed after the menopause, no trace of such a growth having previously existed, what are we to say to the principle of Hegar's operation? To say the least, it would limit castration in the treatment of uterine disease to the cases where loss of blood is the prominent symptom in younger women. I might go on much further, but I think I have said enough to show that whatever may be, or may not be, the merits of Apostoli's method, we have made since he began his work a distinct scientific advance. And coupling this specific information we have thus acquired with our previous diagnostic tact and pathological exactitude, it appears to me that we are in a better position, even supposing that circumstance hinder the personal practice of the method, not only to discuss the abstract principles upon which it is based, but as consultant to pronounce upon its respective applicability to the cases submitted for our opinion.

There are conditions of fibroid tumours in which it would seem to me almost idle to suggest electricity. A polypoid growth from the mucous surface of the uterus projecting into the cavity, or perhaps through the os, can be so easily and expeditiously taken away that I should not think of any slow or gradual process. Neither does it appear very probable that a subperitoneal outgrowth from the body or fundus of the uterus could be in any great degree affected by any current that could be made to reach it. Myotomy would be the work of minutes, and the risk scarcely worth mentioning. Even large solid tumours, the removal of which means the removal of a great part of the uterus have been successfully removed by me and by others, and success has increased with experience. But the risk must be always great, and there are tumours so large, or with such intimate connections, that no prudent surgeon would meddle with them. Here, surely, is the occasion for the electrician to show his power. His method is a new resource for a desperate condition and should be welcomed as such. It has been successful in such cases, if not completely so yet to a degree which has rendered life enjoyable. No weak prejudice should stand in the way of recommending a trial under experienced guidance.

Where the object is mainly to suppress hæmorrhages, electrical treatment has decided advantages over other practices. Should the tumour be growing, but not advanced beyond the limits of reasonable surgical interference, balancing the comparative risk, should be disposed to put the matter to the test; since in case of failure, the more hazardous operation of removal can still be done. In my opinion, with the option before her, it would be neither wise nor charitable to give a patient strong advice in favour of an immediate cutting operation.

Experience seems to show that there is a group of cases, numerous as they are troublesome, of chronic metritis with enlargement and surrounding deposits, which may be cited as pre-eminently eligible for electric treatment. They are, as regards

the patient, painful and exhausting. To the judicious surgeon they are exasperating by their rebelliousness, and in some rash hands they have opened the way to practice more lamentable than the disease. It will be one of the crowning merits of electro-therapeutics if proved to be equal to bring relief to these patients. Recent reports give good reason to hope that this end may be realised by a careful use of the positive galvanopuncture.

We have not, I am inclined to think, taken heed enough of the work of Tripiet and Apostoli in reference to various disordered states of the uterine appendages. The soothing effect of the vaginal or uterine bipolar application of the induced current in some distressing forms of ovarian neuralgia and vaginismus is said to be marvellous and enduring.

As a last word, I may say that we are face to face with an important revival; and though some American surgeons have gone before us in its acceptance, nowhere more than in our own country has there been shown an open-minded readiness to weigh fairly all the evidence which Dr. Apostoli has to set forth in support of his system.

In London we have heard, through the medical journals, of some failures, of one death, and of more than one accident, probably due to the inexperience of the practitioners. But we have far more encouraging reports from Edinburgh: and if some member of this Society who combines sufficient knowledge of electrical science with practical experience of the diagnosis of uterine diseases, and of the treatment by other methods, will carefully put to practical test the conclusions already arrived at by Dr. Apostoli, I am very hopeful that the result will not be disappointing.

THE ELECTROLYSIS OF FIBROIDS.

By W. E. STEAVENSON, M.D. CANTAB., M.R.C.P.,

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WHAT takes place when an electric current is passed through a fibroid tumour? Does any change take place in the substance of the tumour or only at the points of application of the electrodes? An interesting paper on this subject was read by Dr. J. Inglis Parsons before the British Gynecological Society on March 14th and 28th of this year. The human body contains about fifteen elements combined in different proportions to form the several issues. These elements, arranged in an electro-chemical series, are as follows:

Electro-negative.	Electro-positive.
Oxygen	Hydrogen
Sulphur	Iron
Nitrogen	Manganese
Fluorine	Magnesium
Chlorine	Calcium
Phosphorus	Sodium
Carbon	Potassium
Silicon	

But each element in the series is electro-negative to the one which follows it, and electro-positive to the one which precedes it.

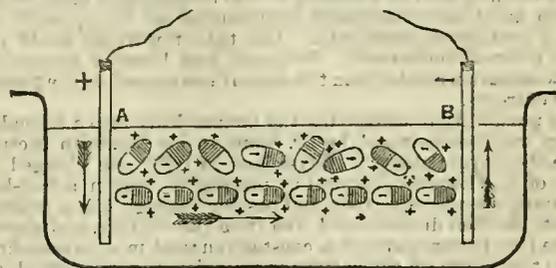
In the electrolysis of animal tissues the electro-negative elements are freed or appear at the positive electrode forming at once new chemical compounds, and the electro-positive elements are liberated or undergo similar recombinations at the negative electrode.

It would require a most accomplished analytical chemist to decide what actual changes take place at the relative poles, but what we know is that oxygen and chlorine are liberated at the positive pole and give an acid reaction; and that potash and soda are formed, and hydrogen liberated, at the negative pole. Some of the most likely bodies to be found in the substance composing fibroid tumour are: Albumen, which contains C H N S O; mucin C 52.2, H 7.0, N 12.6, O 28.2 per cent.; gelatine (C 50.4, H 6.8, N 18.3, S+O 24.5 per cent.); keratin (C 50.3-52.5, H 6.4-7.0, N 16.2-17.7, S 0.7-5.0, O 20.7-25.0 per cent.) (Hermann's *Physiology*), and the saline solutions of the body containing potassium and sodium phosphates. In these compounds "the molecules of the simpler bodies, as OH, CH₃, NH₂, C₆H₅, occur in the most varied and intricate combinations." "Of these complex substances"

which occur in the human body, "only a few can be obtained in a pure condition; the remainder cannot, either because they are too unstable, or because they are not crystallisable; with regard to the majority, we do not therefore know even their composition by weight, much less their constitution. The greater the number of atoms which combine to form a compound, the greater becomes the complexity of its composition, so that elementary analyses are insufficient clearly to indicate its formula. The formulæ of the substances are for this reason unknown to us" (Hermann's *Physiology*).

All we can say with regard to the electrolysis of these bodies is that the oxygen and sulphur have a tendency to be liberated at the positive pole, and the hydrogen and potassium would traverse the space between the two electrodes, and appear upon the surface of the negative electrode.

The fact that elements are only liberated at the surface of the electrodes is explained by the theory of Grotthüss, which is, that the molecules of any electrolyte, under the influence of an electric current, turn themselves so that their electro-negative constituent is directed towards the positive pole of the battery, and their electro-positive constituent towards the negative pole. The molecule nearest to the positive electrode yields up its electro-negative constituent, and it escapes free, but the electro-positive constituent acts upon the next molecule in the direct line between the two electrodes, attracting its electro-negative constituent, and again repelling the electro-positive atom or atoms. This action, continued in each contiguous molecule, forms a direct chain of decompositions and recombinations across the substance being electrolysed, until the negative pole or electrode is reached, and then the last molecule of the chain having yielded up its electro-negative constituent in the direction towards the positive pole, and there remaining no further molecules for the electro-positive element to split up, it is therefore discharged free at the negative pole. Such is the theory of Grotthüss, propounded in 1805, and, as applied to water, it is explained by the accompanying diagram:



A is the positive electrode, and B the negative one. In the upper line the molecules are seen arranging themselves so that the electro-negative element, the oxygen, is turned towards the positive electrode (A). In the lower line the molecules are arranged in a chain across the liquid. The atom of oxygen nearest the positive electrode is then liberated as free gas, and the two atoms of hydrogen combine with the atom of oxygen directed to it in the next molecule, and form a new molecule. This action extends throughout the chain, and ultimately the two atoms of hydrogen of the last molecule, having no further molecules to split up, are liberated as free hydrogen gas at the negative pole (B). Therefore the volume of gas liberated at the negative pole is double that liberated at the positive pole. No appreciable action or change can be seen or detected at any point across the fluid; the gases are liberated only at the points of contact with the electrodes. A similar diagram would explain the electrolysis of hydrochloric acid; only for the oxygen (the electro-negative atom) would have to be substituted one atom of chlorine, and for the two atoms of hydrogen only one would be liberated by the decomposition of each molecule, because chlorine and hydrogen combine in equal volumes to form hydrochloric acid gas. This is the case with a simple compound composed of two elements, and constitutes primary electrolysis. When the compound is more complex, what is called secondary electrolysis takes place. This would be the case in a solution of sodium sulphate Na₂SO₄. We should obtain at the anode, from the splitting up of the water, an equivalent of oxygen O, and also an equivalent of free sulphuric acid H₂SO₄, while at the cathode we do not obtain sodium Na, but we have instead of it hydrogen H, and in the solution we have also caustic soda NaHO. This results also from the secondary splitting up of

the water (Sprague, *Electricity*. 1884). When we are dealing with mixed electrolytes, such as the substances composing animal tissue, the decompositions which take place are still more complicated.

It is difficult, in the present state of our knowledge, to say how many secondary electrolyses take place in the passage of the current through the body. That it meets several elements presenting different states of polarity towards each other is certain, but whether chemical change takes place at the points of junction of each of these heterogeneous bodies it is at present impossible to determine. As a rule, electrolysis does take place between any two substances of different electro-chemical polarity at the point where they touch one another, if they are capable of conducting electricity. If in the treatment of a uterine fibroid we use an external potter's-clay electrode, a water rheostat to regulate the current, and an intra-uterine electrode, we know that electrolysis takes place at four points: (1) in the cells of the battery; (2) in the water in the rheostat; (3) between the clay and the skin of the patient; and (4) at the point where the internal electrode touches the mucous membrane of the uterus.

That electrolysis does take place in the tissues is probable from the fact that storage of electricity takes place in a patient subjected to the electrolytic treatment. The patient becomes a secondary battery, and is capable of giving off a current in an opposite direction to the one used from the battery. We have demonstrated this to be the fact on several occasions at St. Bartholomew's with patients under treatment for uterine fibroids. Immediately after the application of electricity has been discontinued we have disconnected the rheophores from the battery and united them to each other, still keeping them connected to the electrodes in contact with the patient; a reverse current has immediately been shown on the galvanometer, at first about 12 milliamperes, but rapidly decreasing to 8 and 4. No storage of electricity could take place unless some decomposition of the fluids contained in the tissues electrolysed had taken place. The liquids bathing the cell elements of the tissues must have become split up, and their constituents accumulated on the opposite surfaces of contiguous tissue cells. It is this only which could produce a polarisation current. Becquerel and Faraday have shown that polarisation results from the depositions caused by the passage of the currents.

This possibility of converting the human body into a secondary battery was demonstrated by Dr. Stone in his Lumleian Lectures before the Royal College of Physicians in 1886. He charged the porter of St. Thomas's Hospital by placing his feet in a foot-bath containing a leaden electrode, and passing through him a constant current; he then disconnected him from the battery, and showed that he (the porter) gave off a constant current in a reverse direction to that given by the battery from which he was charged, and Dr. Stone asserted that he would continue to give off such a current, gradually diminishing in intensity, for about four hours (see *JOURNAL*, vol. i, 1886, pp. 812, 813).

In the recent discussions on the electrolysis of fibroid tumours it has been asked: If the passage of an electric current has an effect upon the tumour, how is it that the normal structures, such as the bladder, muscles, skin, adipose tissue, etc., which are included between the two electrodes, are not also affected? It is quite possible that they are affected; that in them the normal tissue-changes always in progress are accelerated, and that assimilation or "progressive metamorphosis" is encouraged. This from analogy would appear to be the case; for when a galvanic current is applied frequently to an atrophied and palsied muscle very often its nutrition is improved and its bulk increased; and Dr. Apostoli has drawn attention to the extraordinary increase of subcutaneous adipose tissue which takes place in the abdominal walls of patients subjected to the electrolytic treatment.

Dr. Poore has said,¹ "it is probably impossible to pass a galvanic current through animal tissues without setting up some electrolytic action, and we are unable to say what part such action may play in the ordinary phenomena caused by the galvanic current." I have elsewhere said,² "it is probable that changes are induced in the ultimate tissue cells of a part exposed to a constant current of electricity, analogous to the chemical action produced in the electrolysis of water. If the current is weak, the process does not go so far as splitting up the watery parts of the cells into oxygen and hydrogen, but produces some sort of activity in the

cell not present there before. It increases or alters the character of the secretion of the cells composing secreting glands, as evidenced by the increase of saliva and metallic taste in the mouth, produced by the application of a continuous current of electricity anywhere in the neighbourhood of the salivary glands. This probable increased cellular activity, the quickening of the building up and destruction of cells never ceasingly going on in the living body, is sufficient to account for the increased demand for blood required for these changes, and the resulting increased supply afforded by the dilatation of the capillaries. The capillaries do not dilate by any power possessed by the constant current to cause muscular relaxation, but secondarily through nervous influence excited by the demand produced in the cells for more blood. The action of the constant current upon muscular tissue if anything beyond, besides inducing these probable changes in the ultimate muscular elements leading to increased activity in the ultimate cells, increased nutrition, and therefore increased tone (as it is called), is probably to induce contraction rather than relaxation. In considering these changes in the cellular element of the body and in the blood-supply, the osmotic power of electricity must not be forgotten. It has been found that if two fluids of different densities be divided by a porous diaphragm and an electric current be made to pass through them, osmosis takes place in the direction of the current." That is from the positive to the negative pole. "If the current passes from the lighter to the denser fluid the natural osmotic action is increased; but if the current passes in the reverse direction, the osmotic action is reversed; the denser fluid passing through the diaphragm into the less dense. The osmotic power of electricity probably explains the influence of galvanism in causing the absorption of fluid effused into joints, or serous cavities, when applied in such cases."

The theory suggested by Dr. Inglis Parsons, that the electric current has a modifying influence on the cells of tumours which from their lower vitality could not recuperate themselves so well as the normal cells of the body, is also not altogether improbable. In fact, it may be that in the tumours subjected to a current of electricity a "retrograde metamorphosis" is set up.

The tumours do not disappear so rapidly or so completely as we have been led to expect, or perhaps as British gynecologists suppose would be the case. I do not think that the electrolytic treatment will supplant the necessity for abdominal section or removal of the uterine appendages in such cases as those in which these operations would be appropriate, but I do think that in the use of electricity we have a means of treating fibroid tumour which is superior to any we have formerly employed, short of their entire removal. I have treated a large number of cases, and in nearly all the symptoms have been relieved, in many the tumours have decreased in size, and in some the decrease has been considerable. The hæmorrhage has usually been arrested; the dysmenorrhœa has been relieved; the pain and discomfort have decreased; the rectal and bladder troubles have also been lessened, and the patients able to get about and walk with much less difficulty. All these favourable symptoms are probably due to the relief from pressure caused by a slight diminution in the size of the tumour. Nearly all the patients I have operated upon have expressed themselves as feeling better—better in health and better in spirits. In those whose tumours were accompanied by menorrhagia no doubt the improvement in health was greatly due to the arrest of the hæmorrhage. That adventitious tissue does decrease and get reabsorbed under the electrolytic treatment, I feel sure, and have been able to observe it in several cases of stricture of the urethra.

NOTES OF A CASE OF HYDROSALPINX A NEW MODE OF ELECTRICAL TREATMENT.

By G. APOSTOLI, M.D.,
Paris.

THE case of which I am about to give the particulars seems to me to be of great interest. It opens up a new question in therapeutics, and will serve as a prelude to a complete memoir which shall shortly publish on the electrical treatment of salpingitis. In this paper I confine myself to a full and exact report of the case and a statement of the conclusions that may be drawn from it.

¹ *Electricity in Medicine and Surgery*, by G. V. Poore, M.D., p. 233. 1876.

² *Electricity and its Manner of Working in the Treatment of Disease*, by W. E. Steavenson, M.D., pp. 24, 25. 1884.

SUMMARY OF CASE.

Patient, 25 years old, general good health. Three full natural pregnancies; abortion at two months on September 21st, 1887, twenty days after a violent fall on the back, followed by incessant pain, excessive menorrhagia, general derangement of health, with sharp pains in the right iliac fossa; no antiseptic precautions. Came to clinic on October 27th, 1887, with indications of a threatening pelvic peritonitis. Swelling of the whole upper part of the vagina, with fluctuation on the right side.

On October 27th first galvano-puncture, negative, on the left side, vaginal; 100°; 5 minutes. Remained in bed for forty-eight hours, with some relief on the following days.

November 8th. Second galvano-puncture, negative, vaginal, in the *cul de sac*, right side, one centimètre; 140°; 5 minutes. Two days later spontaneous opening of a cyst, and discharge of fluid, without either pus or blood. Cessation of all pain and diminution of swelling.

November 18th. First appearance of menstruation since abortion; flow continued freely for three days; pain on left side only. Since then local condition has become natural, and all symptoms have disappeared. The periods of December and January natural; health good, and allowing of regular work at the sewing machine.

DETAILS OF CASE.

Mrs. T., domestic, aged 25, came to the clinic of Dr. Apostoli on October 22nd, 1887.

History.—Native of the Vosges, was married when 20, came to Paris a year afterwards, and has lived there since. No account of hereditary disease; no disease during childhood; menstruated at 2 years; no infantile leucorrhœa. Menstruation has since been regular, but painful, the pains preceding the flow, continuing the whole time, and then disappearing; quantity moderate; time three days, and no leucorrhœa. Had no illness before her marriage, and was always able to do her work regularly. Has had three children, with natural labours, at full term, at 21, 22, and 23½ years. Each time kept her bed for ten days after delivery, but had no milk for her children. Menstruation recommenced six weeks after the first two confinements, but not till three months after the last. During the time of marriage menstruation has not deviated from its natural characters, and has been less painful. Her good health has been uninterrupted; she has carried on her work regularly up to the month of July, 1887, has had no leucorrhœa, and conjugal relations have caused no suffering.

In July of 1887 her fourth pregnancy began, and for the first time gave her trouble, from severe pain in the body, though not causing her to give up work. On September 2nd, at the second month of pregnancy, she had a violent fall in the street, on her back, after which she had constant pains in the back and lower parts of the body. This pain increased day by day till September 15th, making her work very difficult. A little discharge of blood was seen on the 19th and 20th, and on the 21st there was an abortion. The patient affirms that there was no other cause for this accident, and it was evidently owing to the fall twenty days before. The pains lasted for three hours. The expulsion of the contents of the uterus was complete, and followed by profuse menorrhage. She had no medical assistance, and took no antiseptic precautions. She kept her bed for eight days, rising only occasionally for a short time, and used injections of warm water. There was a pretty copious bloody discharge for four days, and this was supplanted by profuse leucorrhœa, which lasted for a month. On October 5th she began again to attend to her household duties, and continued them till the 20th. Immediately after a miscarriage, for the first time in her life, she felt a severe pain in the right iliac fossa. This confined her to bed, and prevented her from doing any work for a fortnight. After a short respite the pain became worse, and she was obliged to give up on the 21st. The pain never ceased, but there were moments of exacerbation, brought on especially by sitting down. It spread over the whole of the right hip, but was never felt on the opposite side, nor the lumbar region.

The patient lost flesh, strength, and appetite; her countenance showed how much she endured, and, on October 20th, she was so prostrated that she sought relief at the clinic.

Actual Condition, October 22nd, 1887.—Woman somewhat under medium size, very pale, with a distressed look; walks with difficulty, and complains of severe pain in the right side of the body. Lymphatic temperament, without hysteria. She is in a state of feverish excitement, with high temperature. On eight

successive evenings has had a rigor about bedtime, and lasting for an hour. There is complete sleeplessness, loss of appetite, constipation, and foul tongue.

The abdomen is tender under pressure, especially on the right side, where, in the region of the broad ligament, there is evidently a phlegmonous deposit.

Local Examination.—The uterus is very low down, almost touching the vaginal orifice. The anterior *cul de sac* only is normal, all the others being obliterated, and the parts very tender to the touch. The uterus has on each side a large exudated mass. These encroach upon the posterior *cul de sac*. Though apparently the result of the same inflammatory action, they are in some respects different in character. On the right side the projection into the vaginal space is more marked, more tender, and more elastically resistant than on the left. It has almost the form of a hen's egg, with a rounded surface, the least pressure upon which causes intolerable pain. The evidence of fluctuation on the right side is very clear. The swelling on the left side is less defined, less prominent, and not so painful. It is not so elastic and resisting as the tumour on the right side. Both swellings are amalgamated with the body of the uterus, and the whole mass seems to be adherent to the walls of the pelvis, for no movement can be made of any part.

The condition of the patient is serious, the symptoms indicating the setting up of an acute pelvic peritonitis. I therefore put off any local operative treatment.

October 24th. The patient is worse, and eagerly demands relief. It was, however, decided that we should wait before making any application, but by the 26th the pain was so much increased that the patient had been rolling on the floor; walking was nearly impossible, and it was with difficulty that she was conveyed to the clinic.

October 26th. *Diagnosis.*—There is no sign of general peritonitis being really present, but it seems imminent. Taking into consideration the accession and increase of pain, the local conditions, the manifest renitenency on the right side, together with the unmistakable fluctuation and the high temperature (38.5° C.), there can be no doubt as to the existence of a peri-uterine phlegmonous supuration.

Treatment.—At the urgent request of the patient, I with some hesitation decided upon the treatment by galvano-puncture in its most modified form. Hoping that it was not too late to expect an arrest of the threatening inflammation by this means, I proposed to make the slightest possible tentative puncture on the left side, so that I might judge by the effects there produced whether it would be possible or proper to do the same thing on the right side.

October 27th. After chloroform and a vaginal injection of weak solution of sublimate, I made a vaginal negative galvano-puncture on the most prominent point of the swelling of the left side, in the lateral *cul de sac*, with a very small steel trocar, entering only 1 centimètre, with a current of 100 milliampères, for five minutes. The trocar was one specially made for the purpose, and not larger than the point of a subcutaneous injecting syringe. The puncture caused no bleeding. I again used the antiseptic irrigation, and placed a tampon of iodoform gauze in the vagina. The patient was put to bed at the clinic, and there she remained for two days.

During this time she was in a state of great excitement, almost constantly delirious, moaning incessantly, with green vomiting and a temperature varying between 38 and 39° C. The delirium had all the characteristics of that produced by chloroform, with alternations of agitation and quiet, during which she was scarcely conscious.

By the evening of the 28th, the delirium had all passed away. She slept well during the night, and woke up in the morning of the 29th refreshed and better. There was a complete transformation. She got out of bed without assistance to be examined and dressed, stood up and walked about free from pain and difficulty. The abdomen was much less tender, and bore such pressure as would have been intolerable the day before.

The vaginal tampon was not stained. On examination, no change was found in the state of the right side, but on the left side there was a great change for the better, less tenderness, less swelling, and the space was freer. Contrary to advice, the patient was imprudent enough to return home on foot, a distance of three kilomètres (about two miles). On arrival she was obliged to go to bed, and all the night suffered much pain in the right side. The next morning she was easier and returned to the clinic.

walking with less difficulty. The pain was less, the tampon was clear, and there was no unusual discharge from the vagina. The injections were continued, and for several days she remained under observation, with gradual amelioration.

November 8th. On this day I made a second vaginal galvanopuncture, under chloroform, with the same trocar, to the depth of a centimètre and a half, in the centre of the right *cul de sac*, and used a current of 140° for five minutes. In order to insure the coaptation of the tumour with the wall of the vagina, and to give myself the certainty of making my puncture exact, I caused an assistant, during the whole time of the operation, to press downwards slightly with his hand in the right iliac fossa. There was no escape of fluid after the puncture, and the injection and tampon were used as before.

As on the former occasion, the patient remained in bed for two days at the clinic. There was no delirium, but she suffered some sharp pains in the right iliac region. They were sufficiently bad to prevent sleep, but she could take some nourishment, and was less feverish than before.

November 10th. Since the morning the patient has become more calm, and the shooting pains are less frequent. In making the vaginal toilet, which has not been done since the operation, the tampon was found dry and unstained. The abdominal tenderness has subsided, and there is no trace of distension. Examination shows that structural retrogression is going on; the vaginal sensibility remains much the same. The dressings were replaced as usual.

In spite of remonstrance she persisted in going to her home, and was much fatigued by the journey. Unable to keep about, she was obliged to lie down, and, while quiet in her bed, she suddenly found herself drenched by a fluid, clear and transparent as water, which ran from the vagina, without being accompanied with any pain. The patient says this liquid was without smell, unmixt with blood, somewhat serous, and continued flowing for several minutes without washing away the tampon. From this moment she found complete relief. Her former pains ceased, and she had no more suffering. A good night followed, and in the morning she felt so well that she rose and dressed without fatigue, and was not in any way inconvenienced when driving down to the clinic.

November 12th. There is a great change in her appearance, her complexion is clearer and she declares herself well in all respects. She has no further symptomatic troubles. Locally the transformation is not less remarkable; two facts are especially to be noted. The sensibility of the two *culs de sac* has disappeared to such a point, that this woman, who two days ago could scarcely bear to be touched, particularly on the right side, can now submit to a thorough vaginal examination, accompanied with external pressure, without a word of complaint. The anatomical change is quite as complete, for in place of a resistant tumour as large as a fowl's egg, there is nothing now remaining on the right side but a fibrous substance, a little irregular on its surface, not one third of the original size, unresisting, not at all tender, and fixed to the uterus.

The conditions, both symptomatic and anatomical on the left side, have undergone a similar change. The tampon, which had been in place since the 10th, on being removed before examination, had no blood stains upon it, but was found saturated with about two spoonfuls of serous fluid. A new light was thus thrown upon the question of diagnosis; the tumour, supposed to be a collection of pus, was after all a serous cyst of the Fallopian tube.

November 15th. The patient goes on improving both locally and generally, she walks easily, and all the functions are regular. Absorption has taken place, and the *culs de sac* have their natural depth. The punctures, made on either side on the same horizontal line, are now only to be found near the centre of the posterior *cul de sac*, in consequence of the general contraction of the vaginal mucous membrane. The uterus, although attached behind, is in some measure movable. Same local treatment.

November 17th. The improvement continues; though she cannot resume her full outdoor occupation, she manages to do her household work.

November 24th. Her visits have been suspended because menstruation began on the 18th, for the first time since September 21st. The appearance was preceded by two hours of sharp pain. The flow continued for three days, freer than usual, and the pain lasted all the time. Comparing the present period with those of early years, she finds that instead of having pains all over the abdomen, they are now confined to the left iliac region, with none

on the right side. A feeling of weariness obliged her to lie down occasionally during the three days. But, since the cessation of the period, she finds herself as well as before it began. She thinks she is a trifle fatter, and she looks well. There is some tumefaction of the upper part of the vaginal mucous membrane and the points of puncture have resumed their original place in the lateral *culs de sac*.

November 29th. Much the same; but though her strength is returning, and she is gradually mending, she cannot manage more than her home work.

December 3rd. Examination shows:—1. That the uterus is higher up, and that the neck is slightly turned forward. 2. Diminution of the bilateral peripheral exudation, and complete absence of tenderness under pressure. 3. The two punctures are no longer found on the sides of the uterus, but are actually in the posterior *cul de sac*. 4. The hinder part of the uterus is attached to the sacrum. The sound passes for 6½ centimètres, and causes a little pain.

The patient is completely free from all the symptoms caused by her malady; has no pain, walks well, has no sensation of weight in the body, eats well, digests perfectly, grows fat, and has regained her strength and healthy look.

December 27th. Menstruation came on, for the first time without pain, on the 20th. The duration was five days, and the quantity rather more than usual. She has resumed conjugal relations, interrupted since September 1st, without inconvenience. For the last fortnight she has worked five hours a day at her sewing machine, with one pedal for the right foot; and, though the movement fatigued her, she was not obliged to give it up.

January 15th, 1888. Since the 1st of this month she has worked all day at the machine, and, notwithstanding the extra exertion has not been in any way troubled.

January 27th. This month the period was rather later than usual, but she had no difficulties, and was able to do her machine work regularly, though away from her home in a factory. Menstruation lasted three days, less abundantly and without pain.

February 10th. Since the last report the patient has been free from all troublesome symptoms. Independently of her declaration—and she is generally very truthful—the following fact is a clear proof of her full restoration to health: she has been able to go through her day's work at the machine, from 7 o'clock in the morning till 7 in the evening, regularly and without fatigue or interruption, even during the last two menstrual periods, in December and January. In fact her condition is so satisfactory that she declares herself better than before her last pregnancy, and free from the little miseries which she then had to endure.

Local Condition.—1. No reasonable pressure on the abdomen gives her any pain.

2. The uterus is natural as regards form and consistence, little low down, and retroflexed; the neck of right form and without ulceration.

3. The vagina is everywhere in its natural state, and there is no peri-uterine swelling.

4. The uterus is still adherent by its posterior surface, but admits of some movement.

5. Under strong pressure the sides and back part of the uterus show a little sensibility, especially when the finger touches deep-seated nodule, about the size of an almond, lying to the right side and a little behind the organ. This is probably the tube slightly hypertrophied.

With the finger in the rectum, pressure on the back of the uterus is not painful, and, even in spite of the retroflexion, it is easy to trace the form and the upper border. On either side the tube and ovary may be made out distinctly a little enlarged more so on the right than the left side. Both sides are a trifle more tender than natural. The ovary on the left side is very plainly felt; that on the right side forms a conglomerate mass with the Fallopian tube.

Conclusions and Observations.—Without anticipating the extended memoir which I intend to publish on the electrical treatment of salpingitis, I may sum up in a few words my observation on this case. Other facts, to be produced at a future time, will give full confirmation.

1. In gynaecology fever and inflammation are not to be regarded as absolutely contraindicating the methodical and proper application of the galvanic current.

2. Inflammation of the uterus and its appendages, when not in the stage of suppuration, may be advantageously treated by the galvanic current. This current, though admissible in the first

stages of congestion and inflammation, I consider ought not to be used when suppuration exists, unless it be brought into action in the form of an electrical cauterisation, for the purpose of making a safe and certain outlet for the matter through the vaginal wall.

3. A galvano-caustic puncture is a valuable means by which we may gain two ends: first, to check the outbreak of inflammatory action or to stop its progress; secondly, to give an easy exit to a collection of fluid, by the falling of an eschar, in any case where the cavity containing such fluid is accessible through the upper part of the vaginal wall.

4. Every inflammatory exudation presenting itself in the vaginal *cul de sac* may be treated by means of the galvano-puncture, except under the condition which I shall hereafter mention.

5. This method may be easily and harmlessly employed for the treatment of certain cases of salpingitis and hydrosalpinx, on account of the close relation between the tumours and the vaginal wall.

6. In making every galvano-puncture, all the rules which I have hitherto laid down concerning the seat of the puncture, its depth, the size of the trocar, the antiseptic precautions, the repose of the patient, etc., must be scrupulously observed.

7. Two negative galvano-punctures, vaginal only, were sufficient in one case of hydrosalpinx to bring about very quickly an important anatomical change, and complete symptomatic cure.

A CASE IN WHICH RUPTURED TUBAL PREGNANCY OCCURRED TWICE IN THE SAME PATIENT.

By LAWSON TAIT, F.R.C.S.,

Professor of Gynaecology in Queen's College, Birmingham; President of the Birmingham and Midland Counties Branch.

On May 10th, 1885, Mrs. E. R., aged 25, was sent to me by Mr. W. P. Whitcombe, Victoria Road, Aston, suffering from urgent abdominal symptoms. The history was to the effect that she had been ill from a short time before Christmas. She thought it was pregnancy. Menstruation had been suspended for three months. In April she had a period, and again early in May, and at the latter time she complained of violent pains in the lower abdomen, and on the 9th she had an attack of fainting with vomiting, the pain being referred to the lower abdomen. When I saw her she looked extremely ill and anemic. A large ill-defined mass existed on the right side of the uterus intimately associated with the organ, and the roof of the pelvis was fixed. There was no difficulty in diagnosing the case to be one of ruptured tubal pregnancy. I opened the abdomen on the 11th, and found the belly full of blood-clots and bloody serum. I removed the right Fallopian tube, which was occupied by a pregnancy of about the third month, and in its walls a large rent had occurred, through which the foetus and placenta were partly protruding. Some points of bleeding from the intestine required touching with perchloride of iron. I inserted a drainage-tube, and the patient made an easy and rapid recovery. The case is published in a short paper on Ruptured Tubal Pregnancy, in the JOURNAL of December 19th, 1885.

About eighteen months after this operation, she was confined of a child, at the full term, being attended by a midwife, and there was nothing remarkable about the labour.

About fifteen months after this confinement she again became pregnant, and her husband states that during the period of this pregnancy (which she thought had turned four months), she had no symptoms of note, but only complained at intervals of slight pain in the abdomen, but not sufficiently severe to induce her to call in medical assistance. The only point on which he lays any stress was, that she stated that she felt the child very plainly, more so, it seemed to her, than at the same period in any previous pregnancy.

Mr. Whitcombe was sent for to see her in the forenoon of March 14th, but he being from home, the patient was seen by his assistant shortly before 1 o'clock on that day. She was lying fully dressed in bed, her knees drawn up, and was complaining of great pain in the hypogastrium. She was extremely pale and almost senseless, and had had some vomiting. Mr. Hall was informed at only half an hour before she had been cleaning her fireplace,

and, in the act of stooping, was seized with acute pain and a feeling of faintness. Stimulants were at once administered, and every effort made to restore her without avail, and the patient died shortly after 5 o'clock, clearly from internal hæmorrhage.

Mr. Whitcombe made a *post-mortem* examination, and has been kind enough to give me the following particulars: He found the abdomen full of blood-clots and fluid blood; a large clot was adherent to a portion of the placenta which protruded from the uterine wall, and when this clot was separated it had a quantity of villous placental tissue adherent to it. All the organs were very anæmic, and there could be no doubt that the hæmorrhage was the cause of death. Mr. Whitcombe was good enough to bring me the preparation, and aided by my assistant, Mr. Teichmann, I am enabled to give the following report of the appearances presented.

There can be no doubt that the specimen represents an interstitial tubal pregnancy of the left side. The cavity in which the foetus is situated is separated from the true uterine cavity by a strong septum of uterine tissue springing from each side of the uterine walls. The under surface of this septum and the rest of the uterine cavity is lined by hypertrophied mucous membrane (decidua). The stump of the right Fallopian tube is attached to what appears to be the lower angle of the uterus, but which is really the much displaced upper angle. This displacement, however, is only apparent, and arises from the enormous development of the left cornu of the uterus. A fine probe may be passed from the true uterine cavity into this stump. The left Fallopian tube, on the contrary, communicates with the cavity in which the foetus and placenta lie, and the rupture has taken place in the upper and back part of the left uterine corner. In this case we have the almost incredibly strange instance of a woman suffering from tubal pregnancy twice, with the still stranger fact of her having a normal pregnancy between the two occurrences. From the first of her disasters she was saved by prompt surgical interference, and she might even have been saved the second time, but there can be no doubt that the poor woman's doom was sealed before medical assistance reached her, and there was no time then to effect the interference which was necessary. All the appearances of the preparation point to the fact that the woman's estimate of the period of her pregnancy was correct, and we have therefore an indication that the interstitial form of pregnancy does, as we might have expected it would, take a longer time to arrive at the period of primary rupture than do those cases in which the pregnancy occupies the free part of the tube. In these latter we have no evidence as yet of any instance going beyond the twelfth or thirteenth week before primary rupture. It may be noticed here I am introducing a new phrase in using "primary rupture." I do so because I am becoming convinced that unless we make such a distinction as I am about to indicate we shall still continue some of the elements of confusion which exist about this interesting displacement.

It is perfectly clear that in all cases of tubal pregnancy, when the ovum is growing, the tube must burst, and that it bursts in two directions, either into the peritoneal cavity or into the cavity of the broad ligament. In the free part of the tube this rupture takes place, as I have said, about the twelfth or thirteenth week. In the interstitial form, the case before us shows that the rupture may be deferred to a later date. The primary rupture into the peritoneal cavity seems to be almost necessarily fatal alike to mother and child; but when the rupture occurs into the cavity of the broad ligament, it may be followed by a continuance of the development of the child, and these only are the cases in which the child is permitted to reach a viable period.

In a recent number of the *New York Medical Record*, a case is reported by Dr. Taft as being one in which no rupture had taken place. But the description given makes it perfectly certain that this was a case where the primary rupture had taken place into the cavity of the broad ligament. In this group of cases a secondary rupture at any period is possible, and therefore it is that the adoption of the terms, used strictly to indicate relative dates, will become very useful. This secondary rupture was most clearly demonstrated in Nonat's celebrated case as given by Bernutz, a case which, on account of the occurrence of this secondary rupture, is full of the greatest interest (see my *Ingleby Lectures*, 1887). This secondary rupture probably also explains such an occurrence as that in Jessop's case.

Connected with the case I am now discussing there are many important points worth alluding to, some of which are new, and others, though quite familiar, are worth noticing on account of

the confusion which still seems to exist in the mind of the most recent writers on this subject.

The patient was rather an intelligent woman for her class, who, having undergone the terrible experience involving her first operation, had obtained a fairly full knowledge of the nature of the accident, and what had been the condition as a consequence. Yet, with this dreadful experience, and the knowledge of it when the same condition recurred, so little did she suffer that, up to the moment of rupture, knowing she was pregnant, she never thought of asking for medical assistance, and this was the case also in her first tubal pregnancy. There were no symptoms whatever to draw attention to her state until the rupture occurred; indeed, there were no symptoms even calling for examination.

The strangest thing of all to me is that, in the enormous experience I have now had of tubal pregnancy, I have never but once been called upon to make an examination until the rupture had occurred, and in that case there was neither history nor symptoms which enabled me to do more than determine that there was tubal occlusion; not, indeed, until the rupture occurred and the abdomen was opened was a diagnosis possible. Under these circumstances, I think I may be excused for maintaining a somewhat sceptical attitude concerning the correctness of the diagnoses of those gentlemen who speak so confidently of making certain diagnosis in cases of tubal pregnancy before the period of rupture, and who speak with equal confidence of curing the cases by a puncture either simple, medicated, or electrolytic.

The great bulk of the utterances in these directions may stand very well in "society discussions" or in "library papers," but they will not stand the test of bedside experience. Upon these points I have been much misrepresented, and am glad to have an opportunity of clearly stating my views; but I wish to state that after the period of rupture a diagnosis can be, and has in my own experience been, made correctly in the majority of instances.

Another point in connection with this interesting case is the fact, made abundantly clear by the preparation, that, no matter what the symptoms had been previous to rupture, physical examination could not have permitted any diagnosis other than that of normal pregnancy of about four months and a half.

This is my solitary experience of interstitial tubal pregnancy, but it so closely resembles a number which I have seen in museums that I take it to be quite typical of its class. I am, therefore, disposed to believe that from physical examination interstitial tubal pregnancy could not be diagnosed, and I can imagine no symptoms which would help us to recognise it before rupture.

If we were to assume that in such a case as this a diagnosis could be made, much ingenious speculation might be indulged in as to what would have been best to do for the patient. If a correct estimate of the relation of parts could have been made, clearly what ought to have been done was to dilate the cervix, divide the septum freely, and empty the cornual cavity. To have attempted to destroy the child would not have benefited the patient one bit. The placenta would have gone on growing; and, even if it had not, putrescent material would have been left, which must have burst into the peritoneal cavity. At the time of rupture, if surgical assistance could have reached the woman with sufficient promptitude, she might have been saved by a hysterectomy; and, from the appearances at the *post-mortem* examination, there is no doubt that this could have been easily accomplished.

THE VIENNA MEDICAL FACULTY.—The prospectus of the Vienna Medical Faculty for the summer semester shows that 192 lectures, courses, and demonstrations will be held during this semester by 19 ordinary professors, 36 extraordinary professors, and 70 *dozenten* and assistants. During the past semester, there were 6,157 students in the different faculties, distributed as follows:—(1) Theology, 225 ordinary and 17 extraordinary students; (2) law, 1,927 ordinary and 256 extraordinary students; (3) medicine, 2,287 ordinary and 836 extraordinary students; (4) philosophy, 438 ordinary and 358 extraordinary students. A comparison of these numbers with those of the winter semester of last year shows an excess of students in the law faculty and an increase among the extraordinary medical students. The number of the ordinary medical students, on the other hand, shows a slight decrease. The extraordinary students were this year, for the most part, foreigners, of whom 109 were Americans, 39 Russians, 36 Englishmen, 28 Prussians, 11 Swiss, 16 Roumanians, 12 Belgians, 7 Greeks, 5 Australians, and 4 Turks.

AN ADDRESS ON THE VALUE OF PRACTICAL STUDIES.

Delivered at the opening of the Summer Session in the School of Practical Physiology, Edinburgh, May 1st, 1888.

By WILLIAM RUTHERFORD, M.D., F.R.S.,
Professor of Institutes of Medicine in the University of Edinburgh.

GENTLEMEN,—Before proceeding to the ordinary work of the session, I should like to direct your attention to some ideas regarding the value of Practical Studies. A short discussion of that subject may be of service to you who are still on the threshold of a life of study. It may help you to perceive the principle that has led your teachers to develop methods of practical study, and to extend them in all the departments of natural science and in those of medicine.

We can acquire a knowledge of Nature in two ways: in a direct way by observing Nature by means of our own senses, and in an indirect way by listening to and by reading an account of the observations of others. All natural science springs from the observation of Nature. To assist our observation various instruments have been invented, and various experimental methods devised to induce Nature to reveal her secrets. The facts so discovered and the laws deduced from them have been marshalled in the orderly array that forms the characteristic feature of science.

The first and obvious duty of the student is to gain a knowledge of what is already known. He is not immediately concerned with the advancement of science, but with the attainment of a knowledge of its facts and principles, and the methods by which a scientific knowledge of Nature has been gained. The old method of instruction in too many departments of natural and of medical science consisted in the mere absorption of statements made by lecturers and authors, without production of the necessary evidence of their truth, and with imperfect illustration and explanation of the methods by which the evidence has been obtained. The result of such modes of teaching could not be satisfactory. The student's interest in the subject was not sufficiently awakened. The knowledge he gained was superficial, as, indeed it could not otherwise be on a method so imperfect. The mode of instruction now aimed at in all departments of natural science is to bring the student as directly as possible into contact with Nature, so that he may have not a mere description or exposition such as may be found in a book, but may, as far as possible, study phenomena directly by the use of his own senses, so that when an object is described he may, if possible, see it with his own eyes, touch it with his own hands, listen to it with his own ears, and, if necessary, smell it and taste it. On such a method of instruction the student is not treated as a mere absorber of the statements of others, but as an independent observer, requiring a demonstration of the truth of what is said, expecting that structure will be shown to him, that the properties of things will be revealed by experiment, that methods of observation and experiment will be demonstrated and explained, and that he will, as far as possible, be allowed to observe and experiment for himself. This practical study of Nature is attractive to all, but especially so to young minds. The mind at any age, but especially in youth, is apt to grow weary of abstract statements, and to lose sympathy with a subject so treated. The young mind is enthusiastic, it is eagerly expectant, and keenly on the outlook for new impressions. It is not satisfied with mere descriptions of phenomena. It desires to realise them by direct inspection. Such desire is so natural that one can only wonder why so many years elapsed before a serious effort was made to satisfy it. This method of studying Nature by contact with it inspires a confidence that is not otherwise attainable. The mind feels the solid support given by the direct study of phenomena; it feels itself on solid ground, and can advance with firm step. When by this method the student criticises and tests anew the observations made by others, they become to him living impressions printed on his mind in a way they never can be by merely listening to, and still less by reading descriptions of them. The student soon comes to feel that this practical method of study is the surest way to acquire definite

nd accurate knowledge of scientific facts. But in his eagerness o learn the facts, he is apt to lose sight of another mental process that is being cultivated while his category of facts is growing; he is apt to overlook the fact that a great and leading object a practical studies is to quicken and increase the power of making accurate and independent observations.

To any student of Nature the exercise of such power is important, but it is doubly so to a student of medicine. The practice of medicine largely consists in an exercise of observing power. The correct diagnosis of disease requires this power to be acute and highly trained. It not infrequently happens that the early stage of a disease passes undetected because the physician has failed to observe some symptom that is imperfectly developed, and, therefore, apt to escape attention, unless his power of observation be acute and highly trained. It is often the case that a practitioner does not sufficiently use the ophthalmoscope, the laryngoscope, the microscope, and other appliances which would help him in the diagnosis of disease, but of which he cannot with confidence avail himself, because in his student days he had no opportunity of learning how to make reliable observations with such instruments.

I need scarcely remind you how greatly men differ in their power of observation. If you listen to travellers giving an account of the impressions they have received in the countries and cities they have visited, you will find they vary very much in the sense they have made of their eyes; some men let few things escape their notice, others have only vague impressions of what they have witnessed. Some men have that power of precision which enables them to fix their attention firmly on an object until they have thoroughly scrutinised it, and have obtained from it a deep and lasting impression. Such men apply their minds thoroughly to the subject on hand. They proceed methodically; they avoid flitting rapidly from one subject to another, knowing that by such utterly methodical an abiding impression is not attainable. On the other hand, there are many whose minds have no firm grasp; their eyes are open but they fail to see; their impressions are vague and indefinite; they hesitate to describe what they have seen because they cannot exactly recall the impressions. The usual explanation is that the mind was not firmly fixed on the object, and the mental vision was not steadily turned towards it.

We shall not require to travel very far to have such experience of the difference in men's powers of observation. It is soon obtained when a number of observers put their eyes to the microscope: all may be looking at objects precisely similar, but if the different observers be called upon to describe what they see, we quickly find great differences in observing power. I assure you, gentlemen, that this is a subject of great moment to every one of us—especially great to those who intend to pursue medical science and practice. Your power of observation must be carefully and widely trained. You must strive to fix the mind so firmly on every object your teachers place before you that the power of acute and accurate observation may grow steadily; it is sure to grow steadily if you will only refuse to be satisfied with impressions that are vague and indefinite. The power of precise and accurate observation depends far more on the mind than on the organs of sense. Most men's eyes are good enough, the relative acuteness of their vision is mainly the result of a mental cause.

Again, in relation to the exercise of the power of observation, there is a principle of no small importance from an educational point of view. There are some practical studies which from their nature must be undertaken by the student working in an isolated manner; practical anatomy is one of these. As you know, it is necessary in the dissecting-room for each student to pursue his own way without reference to his fellows. He works out the subject with a book of reference by his side, and with the help of teacher at intervals. There are several other subjects, of which practical physiology and practical pathology are illustrations, in which a collective system of study is adopted. On that system the teacher treats his pupils like a regiment, directing them all to perform the same operations and to observe the same facts at the same time. That system has been to so great an extent originated and developed in this university that it might almost be called the Edinburgh method of practical teaching. This method has now been adopted in a number of other schools, yet I have heard it severely criticised by teachers in the South, who prefer the system of isolated study, on the plea that a student who is quick in thought and movement ought not to be hampered and held back by those less rapid, and that self-reliance is fostered by isolated effort. Well, gentlemen, I believe our regimental system

of practical teaching has for you great advantages that far outweigh any drawbacks. Taking work with the microscope as an illustration, it is for you and still more for the teacher a great saving of time to be collectively told how to prepare an object for the microscope, and how to observe its several characters. You save a great deal of time by keeping your eye at the microscope while information regarding the object is not being sought for in a book, but is reaching you through another organ of sense which more than any other stimulates the mind and keeps it vividly awake.

Microscopic study is apt to proceed very slowly if information is being searched for in a book. But it proceeds smoothly and quickly if the information come through the ear. To you who have so much to acquire in a limited period, any method that economises your time is important. But our regimental system has another great advantage that isolated study never can have; it creates at once a congenial mental atmosphere; each hourly section of our class becomes a miniature scientific world, in which one mind reacts upon another, and stimulates it by sympathetic rivalry. In such an atmosphere the observer is at once thrown on his guard, for he knows that the same object is being looked at by many eyes, and that the accuracy of his description is being keenly scrutinised. Such an atmosphere seems to me of great value to young minds, for we all know that a characteristic feature of youth is desire for sympathy and love of generous rivalry. That mental glow we call "enthusiasm," which in youth is so readily kindled and fanned by the sympathy of other minds, is an invaluable help in study; it lightens labour, it carries the mind up different paths to high attainments, and induces it to forget its fatigues; therefore, it is our duty to do what we can to enable you to foster a spirit so helpful.

At the same time, gentlemen, I must guard myself against misapprehension in thus commending to you what I have termed the regimental system of practical study. That system must not be pushed too far. It is particularly suitable for beginners, and should for them be adopted in all subjects that permit of it. But for the advanced student the method of isolated study is preferable, in subjects characterised by elaborate practical details, requiring much time and thought for their execution, and for the full apprehension of their significance.

But practical studies carry with them another advantage especially important to students of medicine, namely, cultivation of the power of manipulation. You have all, no doubt, felt how rapidly manipulative dexterity is cultivated by the practice of dissection, and you know that, from a surgical point of view, it is nearly as important to acquire a dexterous use of the knife as it is to gain a knowledge of anatomy. Not a few medical practitioners make no use of the laryngoscope, because the use of a mirror at the extremity of a handle and the management of the light thrown upon it require considerable manipulative dexterity. Many a practitioner would refuse to perform such operations on the eye as iridectomy and extraction of the lens because he may have had no opportunity of practising such operations on dead eyes, under the supervision of a teacher. And I have heard not a few medical men bitterly complain that in their student days there were no arrangements by which on suitable models they could acquire the manipulative dexterity so essential in many obstetrical operations. It is a matter of common observation that men differ greatly in manipulative power. Some men are clever with their hands, quick and precise, and delicate in movement, accomplishing a practical result fluently; in others the hands accomplish their task with difficulty, there is lack of precision, and the result may be failure. Such difficulties are always diminished, and sometimes entirely overcome, by practical studies.

The Medical School of Edinburgh can lay claim to no small share in the development of practical teaching. In former years the development was denounced as a needless innovation by those who were victims of the curious popular delusion that the old times were good enough, and required little improvement. Believe me, the Medical School of Edinburgh goes far better now than it did twenty years ago; some of us have often turned the eye back to our student days and have marvelled at the change. Practical teaching has been developed in nearly every department, and every year adds something to its efficiency, for though much has been accomplished, we have to keep in mind that the principles and methods of education are problems full of difficulty and perplexity, and that a perfect system can only grow by degrees. But while pointing out the great development of practical

teaching in Edinburgh, I would not have you suppose that in this respect we stand alone. Many teachers have gone from this to other medical schools and have carried with them our methods, and have planted them there. And indeed all the medical schools of England and Ireland, as well as those of Scotland, have been making rapid progress in the attempt to raise the standard of attainment in every student of medicine by providing him with increased facilities for study in every department. To those of us who are familiar with the results both of the old and of the new systems of medical education, the great benefit of the newer method is apparent.

But although we have taken the right way in bringing the young mind more and more into direct contact with Nature, we must ask you not to fall into the error of supposing that a practical mode of study can ever supersede the older method by means of lectures. It would be impossible for one mind to observe independently all the facts of any science, even if it had all the means at its command. How much more impossible must it be for any one of you to observe independently the great mass of facts in the many sciences you have to learn within a limited period of time. In practical studies salient points have to be selected and many others omitted. The systematic lecture must always remain as a systemised exposition in which facts and principles are arrayed, not in the order that might be necessary for practical study, but in the order required to produce a lucid conception of the subject. Both methods are necessary to enable the mind to gain a definite knowledge of detail, and a sufficiently wide conception of any science that deals with physical nature.

I have now seen a good many years of student life, and have watched the results of a good many educational experiments, and as the result of the experience, the advice I offer you is to attend all the practical classes you can. Give no heed to their being compulsory or non-compulsory, for with their help you can obtain a kind of education which you never can find in books or get from lectures; and when you leave the university and pass into medical practice you will find the opportunity gone.

NOTES OF A CASE OF CHOLECYSTOTOMY: RECOVERY.

By RUTHERFORD MORISON, F.R.C.S., M.D. Edin.,

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H. P., aged 45, married, was the mother of six living children, and had had four miscarriages. The patient was an active, intelligent-looking woman, with nervous complexion and features, black hair and bright brown eyes. She was in good condition, though thinner than formerly. She had been occasionally intemperate. The organs, with the exception mentioned below, were healthy. Menstruation had been irregular lately, and for the last four years profuse. The tongue was furred, appetite poor, and bowels irregular.

She had never felt well since a miscarriage, her last pregnancy, eight years ago, and had had pain in her right side from that date. So far as she could judge, the pain had always been of the same nature as that of which she now complained. The attacks of pain started in the right side over the liver, and extended to the right shoulder and epigastrium. They were accompanied by vomiting and shivering, and made her so ill that she was obliged to stay in bed. Latterly the attacks had increased in number and severity, so that three or four days of each week had been spent in bed. The bad fits always terminated by diarrhoea. Exercise brought on these attacks.

The lump was first discovered by herself four years ago. It was tender then, and had remained so throughout, but was worse sometimes than others. She said that it became decidedly less and not so sensitive after the purging.

Examination discovered a round, hard swelling in the position of the gall-bladder, about the size of an orange, and moving freely up and down with respiration. Puncture with a hypodermic syringe showed its contents to be the ordinary opalescent mucous fluid of a distended gall-bladder.

The operation was performed on February 29th, the tumour being exposed by a vertical incision through the abdominal parietes, immediately over it, from two to three inches long. After placing a couple of small sponges behind the distended gall-bladder, an aspirator needle was introduced at the fundus, and six ounces of opalescent fluid removed. The front wall of the

gall-bladder was now drawn forwards by two pairs of ordinary artery forceps, and opened sufficiently between them to admit easily my forefinger. Between fifty and sixty small round stones the largest being no bigger than a pea, were scooped out with a finger, and washed out with a Higginson's syringe. The gall-bladder was sponged dry, the bile-ducts explored without finding anything, and the sponges removed from the abdominal cavity.

The only serious difficulty in the operation occurred at the time. One of the sponges was lost amongst the intestines, and before I could find it I was obliged to enlarge the incision. In the future the sponges shall be under my control with ligature forceps. The difficulty of finding them has to be experienced and believed. The edges of the thickened gall-bladder were now fixed to the abdominal wall, including the peritoneum, by a continuous suture, the edges of the wound brought together above and below with interrupted sutures, a rubber drainage-tube laid in the bladder, and the wound dressed with carbolic gauze and wood-wool pad. The operation throughout was conducted with antiseptic precautions.

The after-progress was uneventful. The patient got up on the ninth day, and went home some distance by rail on the seventeenth day. The wound was entirely healed at the end of six weeks, and her health is now as good as it ever was, and better than it has been for years.

A CASE OF TRAUMATIC CEPHAL-HYDROCELE

By F. A. SOUTHAM, M.B. Oxon., F.R.C.S.,

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As cases of traumatic cephal-hydrocele—the term now applied to a tumour formed by an accumulation of cerebro-spinal fluid beneath the scalp, occurring as a complication of simple fracture of the vault of the skull—are somewhat rare, the following instance is perhaps worthy of record.

The patient, a male child, aged 6 months, was admitted into the hospital under my colleague, Mr. Heath, on December 28th, 1887, suffering from an injury to the head, the result of a fall down a flight of stairs the previous evening. The mother stated that when taken up the child was in an unconscious state, and



remained so during the night. On admission the following morning he was sensible, though somewhat drowsy; there was right ptosis, with slight conjugate deviation of the eyeballs towards the right side; the pupils were equal, neither contracted nor dilated. On examining the head a fracture was found running obliquely across the parietal and occipital region on the right side, causing a deep oval, gutter-shaped depression, two inches and a half in length, one inch in width. There was no bruising of the skin, and

swelling beyond a little puffiness of the tissues of the scalp over and around the seat of fracture. In the course of a few days the child became bright and lively, the deviation of the eyeballs and the ptosis disappeared, and on January 8th he was discharged from the hospital apparently quite well, no swelling being perceptible in the region of the fracture, the depression of which was still evident.

Four days later, on January 12th, the child was brought to my out-patient room, when I saw him for the first time, and on examining the head a distinct swelling was apparent immediately over the seat of fracture. The swelling was oval in shape, about two inches in length, one inch and a quarter in breadth, and slightly constricted at its middle, its long axis running parallel with the direction of the fracture; it was raised about three-quarters of an inch above the level of the surrounding surface, and was soft and fluctuating; it exhibited distinct pulsation synchronous with that felt at the anterior fontanelle, was partially reducible on pressure, and became fuller and more tense when the child cried; the skin covering it presented a normal appearance. The fracture could be felt beyond the anterior and posterior margins of the tumour, and, after partially emptying the latter by external pressure, the depression of the bone beneath could also be distinguished. The child, though somewhat dull and drowsy, presented no other symptoms. The only treatment adopted consisted in applying moderate pressure over the tumour by means of a pad of lint and bandage.

January 19th. The swelling was somewhat diminished in size, and the pulsation less distinct.

January 24th. The pulsation had quite ceased; the tumour was much smaller and softer; it still became more tense when the child cried, and was only reducible after prolonged pressure.

February 15th. The swelling had entirely disappeared and the child appeared to be enjoying perfect health; there was still a marked depression in the bone along the line of fracture.

The condition, of which the foregoing case is a good illustration, was first fully described by Mr. Clement Lucas, in the *Guy's Hospital Reports* for 1876; since that date other instances have been recorded both by himself and other surgeons. Lucas believes that the cerebro-spinal fluid escaping through the fracture in the vault of the skull comes, not as one would suppose, from the subarachnoid space, but from the lateral ventricle, owing to the laceration of brain substance which accompanies the injury to the head involving the ventricular cavity. In two instances he has been able to verify this opinion by *post-mortem* examination, and in two other recorded cases a similar communication has been found to exist.

The present case, to some extent, supports this view, for the leap in-driving of the bone at the seat of fracture would almost necessarily be accompanied by a wound of the dura mater, while from the nature of the injury and the symptoms which the child afterwards presented, it is probable that some laceration of brain substance was also produced. The fact that the swelling did not appear until after an interval of thirteen days also agrees with the period at which the tumour has first shown itself in other cases, and Lucas suggests that the inflammation which follows the injury to the brain is accompanied by softening of the cerebral substance and increased secretion of cerebro-spinal fluid, "so that pressure from within and yielding of the brain-wall together contribute to the escape of fluid from the ventricle;" it accordingly accumulates beneath the scalp in the form of a distinct tumour, which, owing to its communication with the interior of the cranium, presents the characteristic symptoms already described. The absence of any cerebral symptoms at the time the tumour appeared is accounted for by the very young age of the child, for it is a recognised fact that in infants extensive mischief may be going on in the brain, without producing the same marked symptoms which would usually be present in an adult.

The cessation of the pulsation, and the difficulty in reducing the tumour after the twenty-eighth day, were probably owing to the gradual closure of the fissure in the bone cutting off the communication with the interior of the cranium, and the gradual disappearance of the swelling after that date was the result of absorption of the fluid by natural means, assisted by the application of external pressure.

According to Conner (*American Journal of the Medical Sciences*, July, 1884), the prognosis in traumatic cephalo-hydrocele is very unfavourable, half the recorded cases (which up to 1884 were seventeen in number) having terminated fatally from the superinfection of meningitis. The accompanying sketch illustrates the

shape and situation of the tumour, and its relation to the subjacent fracture, the outline of which is indicated by the dark lines.

A CONTRIBUTION TO THE STATISTICS OF STONE OPERATIONS.

BY JOSEPH PROCHNOV, M.D.,
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Nor long ago the excellent work of Sir Henry Thompson, *On the Surgery of the Urinary Organs*, translated into German by Dr. E. Dupuis (Wiesbaden, 1885), came into my hands, and in the last lecture (p. 149) I read the following lines: "It is the sum total of result obtained by employing the two procedures which is to be regarded as the measure of the surgeon's success. And I think I may say that a list of 782 cases in male adults, the mean of whose united ages exceeds 60 years, with 82 deaths, or 1 in 9½ cases, is a result which will be held to justify the selection and adaptation of the method to the case, which has been adopted throughout this series. I venture to say that it is a result which has not, certainly to my knowledge, hitherto been realised."

Professor Kovács, at Buda-Pesth, has recently published his stone operations. It is true that Sir H. Thompson is able to show larger numbers, but the statistical data of Professor Kovács give a result which is a little better than Sir H. Thompson's.

Sir H. Thompson, on 716 patients, performed altogether 812 operations, with 84 deaths (10.3 per cent.). His cases are divided in the following manner:

- 13 female patients:
 - 10 lithotomies, with 1 death.
 - 3 lithotrities — — —
- 15 children:
 - 12 lithotomies, with 1 death.
 - 3 lithotrities — — —
- 2 extractions.

If these 30 cases are deducted, there remain 782 cases of male adults.

- 110 lithotomies, with 39 deaths, 35 per cent.
- 672 lithotrities " 43 " 6.5 "

Total 82 10.5

At the First Surgical Clinic Professor Kovács, on 233 patients, performed 248 operations, with 21 and 18 deaths respectively (8.5 per cent. and 7.25 per cent.). There were:

- 77 sectio perinealis lateralis, with 4 deaths.
- 2 sectio alta " 1
- 168 lithotrities " 16
- 1 extractio calculorum — —

But it must be remarked that among the cases treated by lithotriety there were 3 who died of intercurrent diseases—namely, one patient of 14 years died of apoplexia cerebelli, one patient of 67 years of cholera Asiatica, and one patient of 48 years of pneumonia. If these cases are deducted, as seems to be reasonable, the mortality becomes less.

The cases of Professor Kovács, classified in the same way as Sir H. Thompson's, give the following result:

- 13 female patients:
 - all 13 lithotrities — —
- 115 children (namely patients under 20 years)
 - 70 lithotomies, with 2 deaths.
 - 75 lithotrities " (4) 3 "
 - 1 extractio calculorum — —
 - and 2 sectio alta " 1

(The two cases of sectio alta are cited separately, because Sir H. Thompson did not mention any cases of sectio alta amongst the lithotomies of male adult patients.)

These 131 cases deducted, there remain 117 male adults treated by lithotomy and lithotriety—namely:

- 7 lithotomies, with 2 deaths, 28.5 per cent.
- 110 lithotrities " (12) 10 " (10.9 per cent.) 9 per cent.

Total 117 (14) 12 (11.9 per cent.) 10.2 per cent.

Consequently, from this combination, it is clear:

1. In the female patients lithotriety was performed without a death.
2. In children—namely, patients under 20 years—lithotomy (sectio perinealis) was performed 70 times, with only 2 deaths;

consequently, 1 death to 35, namely, 2.8 per cent. Lithotripsy was performed 45 times, with 3 deaths, because, if the one that died of apoplexia cerebelli be omitted, the mortality is 6.6 per cent.

3. In the list of male adults—namely, patients over 20 years—there were 7 lithotomies, with 2 deaths, a result which, in spite of the small number of cases, is better than Sir H. Thompson's, the mortality being only 28.5 per cent. Of the 110 lithotripsy cases, 10 died, omitting the two patients who died of intercurrent diseases, giving a mortality of 9 per cent.

Thus lithotomy and lithotripsy were performed on 117 male adults, with 12 deaths—a mortality of 10.2 per cent.; consequently the result is about 0.3 per cent. better than Sir H. Thompson's result, which is 10.5 per cent.

CLINICAL MEMORANDA.

FUGITIVE OEDEMA OF EYELIDS.

A SISTER OF MERCY consulted me on March 1st of this year. Her history was that she had not menstruated for four months. (She was 46 years old.) She had been subject all her life to stomach and head troubles, and she had had many attacks of erysipelas of the face and head; the last attack of erysipelas was six years ago. She had always had a puffiness of the face, often the headache. Her friends often used to say, "Hav'nt you a touch of erysipelas? Your face is so swollen." Her present condition began in December, 1887. The swelling of the eyelids was much worse in the morning, and was sometimes so marked that she could not see out of them until she had bathed them and been about for a time. There was a discharge from the eyes at times, which glued the lids together. The swelling kept coming and going; it generally lasted two or three days, and returned when she got another headache.

She was a big-faced woman, with a large, loose frame. Her face and brow were covered by drops of sweat. There was quite a cushion of oedematous tissue overhanging each upper eyelid. There was nothing which would indicate eczema. She was free from any organic disease of the heart or kidneys. The legs were not swollen.

REMARKS.—Such cases as the one given above are not uncommon. We often find those who are the victims of periodical headaches present a condition of fugitive oedema of the eyelids. In one instance the swelling was limited to one orbit, and looked as if the man had been stung by a wasp. We also find many women during the menopause who have localised swellings of the hands and arms—swellings which are tender, pit on pressure, are preceded by pain, but pass away after a few hours of exercise.

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A CASE OF HIP-JOINT DISEASE WITH PERIPHERAL NEURITIS AND EPILEPSY.

T. C., aged 15, was seen by me on December 20th, 1887. For the last three years he had suffered from disease of right hip-joint. The lower limbs were stretched out at full length in the bed. On the right thigh there were six openings which occasionally discharged pus, three on the outer and three on the inner side. Both feet were "dropped," so that the upper part of each foot was nearly on a straight line with the front of the leg. A rule placed along the left leg and foot lay only half an inch above the surface of the leg. On the sole of the right foot the arch was deep, and on the upper part of this foot there was a slight rounded prominence. He could dorsiflex the toes and feet to a small extent. The skin from the knee down was dry, scaly, and cracked; its condition somewhat resembled ichthyosis. The nails of the feet were kept closely cut to prevent them growing into the flesh, otherwise they presented no trophic changes. The knee-joints were ankylosed. The legs were very hyperæsthetic, so that the boy would not allow them to be washed, and complained of the weight of the bedclothes. His feet could not be bent into their normal position. There was no anæsthesia. Two months before I saw him he had had severe cramps in his legs. The knee-jerks were well marked. The plantar reflex was present on both sides. The peroneal nerves were not tender. There was no difficulty in passing urine or feces; no bedsores. Three months before I saw him he commenced to have "fits." He "screached," lost consciousness, and was convulsed in them. He never bit his tongue or passed his urine in those fits. There was no aura. He died on February 17th, 1888, from exhaustion. There was no necropsy.

REMARKS.—The dropped feet, the trophic changes in the skin and joints, and the hyperæsthesia were due to peripheral neuritis. Dr. Gowers says that nerves near suppurating joints may become inflamed. The nerves on the left side were involved, and this was an instance of "sympathetic neuritis." The nutritive changes in the skin are interesting. Irritative lesions of nerves are specially liable to be followed by trophic changes. It is well known that peripheral irritation sometimes produces epilepsy. Londonderry. E. DONALDSON, B.A.T.C.D., L.R.C.S.I., etc.

THE SIGNIFICANCE OF BLOOD-PRESSURE IN RENAL DISEASE.

WHILE I thoroughly appreciate and agree with the whole tenor of Dr. Broadbent's remarks on the significance of the blood-pressure in acute renal disease, I feel that on one point I must differ from him. After well describing the course of the variations of tension usual in that disease, he points out, what is certainly true, that failure to develop increased tension generally means inability or defect of the heart, and is, therefore, of unfavourable prognostic import. But he goes on further to remark that "the low tension is not always so caused; there is sometimes diminished resistance at the periphery; the capillaries and arterioles are relaxed, and allow the blood to slip through them as in pyrexia, and the pulse is not only weak but short. It is not easy to understand why this should be of bad augury, and it is only by observation that this conclusion has been reached."

The correctness of the observation I can confirm, but the explanation seems both unnecessary and deficient in probability. Putting nerve influence on one side, the three principal factors in the production of arterial tension are heart power, peripheral resistance, and mass of blood to be propelled. With peripheral resistance increased, heart muscle developed, and tissue was going on at nearly normal rate, we have the most typical example of high tension, as seen in men who, although suffering from chronic granular kidneys, are struggling to do the work of health. If, however, as is apt to occur in more acute conditions, the heart does not develop power in proportion to resistance, we find the pulse still persistent but not so hard. Persistency of the pulse, shown by the sphygmogram, commonly spoken of as the trace of high tension, does not necessarily indicate raised tension, nor even absolutely increased peripheral resistance; it only shows that the resistance is increased relatively to the propelling force, and is found not uncommonly to co-exist with great softness or compressibility.

Shortness of pulse is, however, a different affair, and is on seldom found in conjunction with the increased peripheral resistance common to all forms of Bright's disease. Any interference, however, with the mass of blood to be propelled may, at any rate for a time, take away both the tension and the persistence, leaving the pulse both weak and short. We see this after bleeding sometimes after purging, and I think it possible that in Dr. Broadbent's case the course of the disease had so interfered with the mass of the blood as to produce shortness, as well as compressibility, of the pulse, and that the condition may, therefore, be explained without calling on the hypothesis that the capillaries and arterioles were "relaxed." The heart was very weak, and there was increased tissue change to produce excess of excretory matter, and, therefore, of resistance, so that there was no likelihood of any increase of tension, and I suppose that the disturbance, both mass and quality of blood, produced by the large dropsical effusion, and the extreme albuminuria would, like either bleeding or purging, be sufficient to produce the shortness of the pulse. I make this suggestion merely for the sake of putting this case on all fours with others which on any different hypothesis are very difficult to explain.

While compressibility of pulse is not uncommon in the late stages of chronic renal disease, such shortness as to be suggestive of diminished peripheral resistance is chiefly met with in cases in which some intercurrent malady, such as paralysis, has so altered the patient's general condition as to food and waste and blood production, that the mass of blood to be moved is lessened. As a fact, we do see men whose pulses have formerly been so tight as to burst their arteries, leading an invalid semi-vegetable existence, with pulses beating shortly in slack arteries, the peripheral resistance no doubt still being sufficient to oppose the passage of a quantity, but, the quantity being no longer there, the amount propelled is well within that which can be resisted.

This is, I think, the true explanation of these somewhat rare

ases in which the pulse is slack where we should expect it to be persistent, and it may possibly apply to the one so well described by Dr. Broadbent.
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SOLOMON C. SMITH, M.D.

SURGICAL MEMORANDA.

A CASE OF INFANTILE INTESTINAL OBSTRUCTION.

On October 8th, 1888, Mrs. H. gave birth to her first child. Its bowels not acting at the end of twenty-four hours, a dose of castoril was given by the mouth, which was repeated next day, and a small soap suppository inserted. These were repeated on the third day. Afterwards it was discovered that the rectum was all but occluded just above the sphincter. Just before this there was a quantity of most offensive material vomited, which was so very isagreeable that the babe was removed from its mother. Repeated trials failed to force a passage into the bowel. The skin was rapidly changing colour, and collapse seemed to be setting in. On the sixth day I succeeded in passing a small probe through the pex of the inverted cone in the rectum, and afterwards the blades of a small pair of dressing forceps, which were gradually expanded through this opening a No. 10 gum elastic catheter was passed to the extent of four inches. A brass syringe, charged with an emulsion of castor-oil and warm water, was attached to the other end of the catheter, and about two ounces injected. This had the effect of distending the bowel, and allowing the catheter to slip higher up still. By perseverance in this method, the hole of the catheter was passed into the bowel, and the distal end could be felt near the ascending colon. About six ounces of the above emulsion was then injected, and the catheter withdrawn. Eight hours afterwards the babe passed a free motion of feconium. In eight hours more it passed another copious motion, which smelt very strong, and looked dark olive-green. The little patient looked exceedingly ill. The skin was mahogany-tint, and very shrivelled; the bones of the head had sunk; the hands and feet cramped; the lips and tongue dark purple. The nurse then gave it a warm bath, and afterwards wrapped it well up in wadding, and applied it with a bottle of milk and water, which it sucked greedily. It was then carried back to its mother, who had not seen it for sixty-four hours, and never expected to see it again. The babe soon resumed breast-feeding, and for some time did well. I merely bring this case before the profession to show that these cases of infantile occlusion of the rectal end of the bowel are not always so bad as to require colotomy. There was an undoubted stricture of the bowel, about an inch and a half from the anus. This was overcome by, first, a probe, and afterwards dilatation of the blades of a small pair of dressing forceps, and the whole tract of colon distended by enemata introduced through a long gum-elastic catheter, which enabled the latter to slip along to near the ascending colon. Whether the emulsion passed through the ileocolic valve into the ileum, and so released a possible intussusception, I cannot say. Treves says (*Intestinal Obstruction*, page 38) that enemata do not pass this valve.

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THERAPEUTIC MEMORANDA.

THE ACTION OF ANTIPYRIN IN MIGRAINE THAT OF AN ACID.

INCE my paper on the treatment of the paroxysm of migraine by acids appeared in the JOURNAL of January 14th, 1888, I have several times been asked whether I could explain the good effects of antipyrin in the same kind of headache.

I was at first inclined to think that its action as a nerve sedative was sufficient to account for its effects, and that it perhaps acted like bromide potassium; there was, however, some difficulty in accepting this view, for several fellow-sufferers, who, like myself, had found that bromides were of comparatively little use, yet found that antipyrin acted like a charm.

I therefore repeated my experiments with antipyrin, and found that it quickly and decidedly increased the acidity of the urine, a fact which I had overlooked in my previous experiments with acids, probably from taking too small a dose to overcome minor disturbing influences.

I now find that a dose of twenty grains raises the acidity of the urine within the first hour after taking it, and the rise con-

tinues and increases for some four, five, or six hours more, and one drachm taken in three doses causes a very distinct rise in the acidity of the twenty-four hours, and a decided fall in the uric acid excretion. Further, in experiments on myself, antipyrin caused the pleasant feeling of well-being, which I have noticed in my paper on Epilepsy in the *Neurologisches Centralblatt* of March 1st, 1888, as one result of taking acids. I should therefore have no doubt that the rise in acidity it occasions is sufficient to account for the action of antipyrin in curing any case of migraine which is due to uric acid.

Another instance of the same thing is probably to be seen in the good results which some have obtained in these headaches with chloride of sodium (see note in JOURNAL, vol. ii, 1887, p. 528) as this drug also raises acidity, and acts as an acid.

I have not myself made use of antipyrin in the treatment of migraine, for my results with acids are completely satisfactory; and I frequently hear from other people of their obtaining good results. I notice also that somewhat smaller doses of acid than those I have recommended appear often to be sufficient.

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REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

QUEEN'S HOSPITAL, BIRMINGHAM.

CASES OF NERVOUS DISEASE.

(Under the care of Dr. C. W. SUCKLING.)

Tabes Dorsalis, with Rapid Development of Ataxia.—In the following case the ataxia developed so rapidly that the disease in this instance deserves to be called acute. The patient, up to within a fortnight of his admission, was walking about in charge of a team of horses; while, when admitted, he was totally unable to stand. Moreover, the inability to stand came on in a single night. H. B., a carter, aged 33, was admitted in February, 1887, complaining of loss of power in the legs. He stated that five years earlier he had a sore on the penis, but no rash or throat affection. Five months before admission he found that he staggered when standing up and washing his face. Later on he noticed numbness in his feet and a sensation like "walking on wool," with shooting pains at intervals. The symptoms rapidly increased, but he was able to walk by the side of his horses until a fortnight before his admission, when he suddenly found himself unable to stand. He had been out all day, walking perfectly well without any difficulty, but the next morning he was unable to stand, the ataxia thus developing within a few hours. When admitted he was quite unable to stand without support, swaying in all directions. He could move his legs about freely and with considerable force, but could not properly control the movements. There was no vertigo. The muscular sense was greatly deficient, both in the upper and lower extremities. There was a separation of tactile and painful sensations. When pricked with a pin contact was first felt and then pain. The knee-jerk was lost on both sides, the plantar reflexes were also lost; the other reflexes were normal. There was myosis, but the pupils responded to light and accommodation. There was nystagmus when the eyes were directed strongly to the right or left or in an upward or downward direction. Diplopia was also observed when looking upwards. The fundus oculi on both sides was normal. After admission the ataxy rapidly increased, and he soon found that he could not hold his pen to write, and he complained of loss of control over the movements of the little and ring fingers of the right hand, with numbness; his writing was almost illegible. The patient was at first treated with iodide of potassium, but the symptoms increased while he was taking large doses of this drug. Nitrate of silver was therefore given, and in a few days he expressed himself as being better, the numbness and loss of control over the fingers had disappeared, and his writing was much better. The girdle pain and shooting pains in the legs were also relieved, but he still remains unable to stand. There were no crises of any kind.

Hemiplegia with Hemianesthesia due to Cerebral Hemorrhage.—A. P., a woman, aged 59, was admitted in March, 1887, suffering from loss of power on the right side. The only feature of interest

in the family history was that her father suffered from gout, and that one of her brothers is gouty. A few days before admission, while standing, her right arm began to tingle, and in a few minutes she lost all power and feeling in the right leg and arm, and also lost her power of speech. On admission, it was found that the right arm and leg were completely paralysed; the lower facial muscles on the right side were also weak, and the tongue was protruded to the right. There was also complete anaesthesia of the right side of the face, right arm and leg, and of the right half of the trunk to the middle line. No hemianopia or affection of the special senses was observed. There was cardiac hypertrophy with accentuation of the aortic second sound and a hard pulse, the arteries being very atheromatous. The urine contained a trace of albumen, but was otherwise normal.

The patient improved slowly, and in a fortnight could move her leg fairly well, but the arm remained almost completely paralysed. The anaesthesia to some extent had cleared up from above down in the upper extremity, sensation being quite lost on both surfaces of the hand, but having returned slightly in the forearm, and to a still greater extent in the arm. Painful impressions could be easily distinguished, but tactile and thermal sensations were completely lost. The anaesthesia formerly present in the right side of the face had also disappeared, and on the trunk and right leg was much diminished, sensation reappearing in the leg also from above down. The muscular sense was still completely lost in the right upper extremity, but was only slightly impaired in the leg.

On April 14th it was noticed that the anaesthesia of the lower extremity was clearing up rapidly, and remained only along the outer surface of the dorsum of the foot, where she could not feel a pin prick, or a light touch.

On April 19th she complained of pain in the right elbow and wrist joints, which were found to be slightly swollen.

May 15th.—The patient got up, and could walk unaided, but with considerable dragging of the right foot. The power of movement had returned to a considerable extent in the right arm. In the lower extremity she could feel and localise a very light touch, and sensation was now recovered in the right half of the abdomen, but was still impaired in the pectoral region. She was still unable to perceive the exact position of the arm or leg. The recovery of sensation was far in excess of the recovery of motion.

REMARKS BY DR. SUCKLING.—Hemianæsthesia is far more commonly due to hysteria than to coarse organic lesion of the brain. Still, it is not infrequently observed in severe cases of hæmorrhage. The clot in the above case is, in all probability, in the internal capsule, and due to rupture of the lenticulo-striate artery. The sensory fibres of the internal capsule occupying its posterior third are evidently damaged. All forms of sensation were impaired, the loss of muscular sense being very marked. The sensory portion of the internal capsule is supplied by the posterior cerebral artery and not by the middle cerebral, so that, in cases of hemiplegia accompanied by hemianæsthesia due to a vascular lesion, the case is always one of hæmorrhage, obstruction of the middle cerebral artery by a thrombus or an embolus not affecting the sensory portion of the capsule.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF TUMOUR OF THE LOWER JAW: ENUCLEATION: REMOVAL OF THE LEFT HALF OF THE LOWER JAW.

(Under the care of Mr. WALSHAM.)

M. W., a woman, aged 25, was admitted on July 12th, 1881, having been sent to Mr. Walsham by Mr. Harrison, of Braintree. The patient, who appeared in perfect bodily health, stated that about nine years ago, whilst cracking a nut, she broke her second left molar tooth, and about two years afterwards noticed a swelling of the jaw in that region, which then began to be painful. The swelling and pain had gradually increased, and had been attended with a discharge from an ulcerated opening in the gum. On examination there was found on the left side a swelling of the lower jaw, extending from the anterior bicuspid tooth backwards nearly as far as the angle, and downwards to the lower margin of the bone. It projected both externally on the cheek, and internally into the floor of the mouth. In the situation of the second left molar tooth, which was absent, there was an ulcerated opening leading into a cavity extending from that point downwards and forwards towards the bicuspid teeth. A small quantity of puriform fluid

exuded from the opening, and a fleshy granulation was seen at the entrance of the sinus.

On July 16th Mr. Walsham made an exploratory examination under gas, and a piece of the tumour was removed, and appeared on microscopic examination, to have the structure of a sarcoma.

On August 3rd an incision was made through the skin and periosteum, along the lower margin of the jaw, extending from a little to the left of the symphysis nearly as far back as the angle; the periosteum was separated from the outer table, and sufficient of the latter was removed with bone-scissors to expose the tumour which was found expanding the bone around it. The tumour was next enucleated with the aid of a raspator, leaving a smooth-walled cavity in the interior of the jaw. At the situation of the second molar tooth, however, the tumour had formed for itself a smaller loculus, and as at this spot the growth did not shell out so readily, Paquelin's cautery was swept over the interior of the cavity. After all the growth had been removed, the ulcerated aperture at the situation of the second molar tooth was found to communicate with the cavity in the interior of the bone. It appeared, therefore, that the growth had commenced at this situation, and, expanding the bone, had protruded into the mouth through the socket of the tooth.

The growth is described in the notes as having the microscopical characters of a sarcoma, but beyond this, and that it was of a papillary nature, the detailed account of its minute structure is unfortunately not given.

The patient made an excellent recovery, and returned to the country on September 20th, with the wounds in the mouth and below the jaw completely and soundly healed. Nothing more was heard of her till February 25th, 1886, four years and a half after the operation above described, when she was again admitted into the hospital with a large tumour of the left side of the lower jaw. In the meantime she had married, and had three children. She had enjoyed perfect health till two years before, when she noticed a return of the swelling about the site of the former operation. The lower jaw on the left side was now found expanded by a tumour, which had fungated at one spot into the mouth, and was infiltrating the cheek. It extended along the alveolar margin of the jaw, and prevented the teeth from being completely closed. There were no enlarged glands, and the patient's general health was good.

On March 5th Mr. Walsham excised the left half of the lower jaw in the usual manner, and a portion both of the mucous membrane of the cheek and of the masseter muscle, which were to some extent infiltrated. The patient made a rapid recovery, and was discharged March 30th with the wound soundly healed. When last heard of, January 25th, 1888, there had been no return.

REMARKS BY MR. WALSHAM.—The specimen was examined by Mr. Bowlby, and shown by him at the Pathological Society; it is now contained in the hospital museum. The microscopical examination of the tumour after removal of the jaw clearly showed it to have the structure of those growths for which Mr. Eve has proposed the term "multilocular cystic epithelial tumours." Such tumours appear to be the result of the ingrowing of the epithelium of the gum consequent upon an increase of the blood-supply attending certain injuries, the irritation of decayed teeth, and the like. They are generally of slow growth, frequently do not return, and show little tendency to involve the lymphatics or to become disseminated. The small portion of growth removed for microscopical examination before the first operation was thought to have a sarcomatous structure; but, as the growth after enucleation does not appear to have been examined with sufficient care, it is questionable whether from the first it was not a multilocular cystic epithelial tumour. Its clinical character, moreover—namely, slow growth, its origin in connection with a broken tooth, the absence of any glandular enlargement and of any tendency to general dissemination—bear out this view. The growth had already attained some size when it first came under my notice, and had perforated the bone in places, and consequently some outlying portion probably escaped extirpation. The propriety of an early and thorough removal of the growth whilst it is yet confined within its bony case cannot, I think, be too strongly insisted upon.

ACCIDENT TO DR. REID, ROTHESAY.—While driving through Rothesay on April 25th, Dr. Reid met with a severe accident, but is, we are glad to learn, now recovering.

PADDINGTON GREEN CHILDREN'S HOSPITAL.—Miss Augusta Forbea has been appointed Matron of this hospital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 8TH, 1888.

Sir E. H. STEVENING, M.D., President, in the Chair.

On the Results of the Treatment of Pulmonary Consumption. Residence at High Altitudes, as exemplified by an Analysis of 1 Cases.—Dr. C. THEODORE WILLIAMS offered a contribution on his own practice of 141 cases of phthisis treated in sanatoria lying in altitude from 5,000 to 9,000 feet, in the Alps, the Rocky mountains, and the South African Highlands, during the last nine years, in order to deduce certain practical rules therefrom. The 141 cases had been tabulated for statistical purposes under the following headings: Sex. Age. The length of illness before the commencement of mountain residence. Hæmoptysis. History and nature of cases. State of the lungs. Medicine and diet. Length of residence at high altitudes. The Alpine climate was then compared with that of Colorado and the South African Highlands. The results of this treatment had been tabulated under the heads: General—referring to the general health, vigour, and weight—local, including the conclusions arrived at from the examination of the lungs. The general results were divided into (1) cured 41.13 per cent., where the restoration to health was complete, (2) greatly improved 29.78 per cent., (3) improved 11.34 per cent., (4) deteriorated 17.02 per cent., thus giving a total of 82.25 per cent. improved and 11.34 per cent. deteriorated, including 13.47 per cent. deaths. The local results of the 141 cases yielded improvement, greater or less, in 74.82 per cent. (including arrest in nearly 44 per cent.), and deterioration in 21.5 per cent., and a stationary condition in 3.59 per cent. Among the first stage cases there was improvement in 91 per cent., and arrest of disease in 63 per cent., with deterioration in nearly 7.5 per cent. Cases of unilateral first stage gave 92 per cent. improved and 70.5 per cent. of cures, and cases of bilateral affection yielded 87.09 per cent. of cures and 48.38 per cent. of arrests. In the second and third stage cases there was improvement, to a greater or less extent, in 68 per cent., arrest in 10 per cent., and deterioration in 46 per cent. Single cavity cases gave better results than cavity cases with the opposite lung involved, and left lung cavities showed a greater tendency to change, either for better or worse, than the right lung cavities. The following conclusions were arrived at: 1. That prolonged residence at high altitudes produced great improvement in the majority of consumptive patients, and complete arrest of the disease in a considerable proportion, such arrest being in a greater or less degree permanent. 2. That in order to secure these advantages, patients must be free from pyrexia and all acute symptoms, and must possess sufficient lung surface to adequately carry on the process of respiration in the rarefied atmosphere. 3. That the influence of the climate seemed to promote a change in the lungs, either of a curative or destructive character, and to oppose the process of necrosis. 4. That residence at high altitudes caused enlargement of the thorax, hypertrophy of the healthy lung-tissue, and development of pulmonary emphysema around the tubercular cavities, and that this expansion of the chest was accompanied by diminution of the pulse and respiration rate. 5. That it was probable that the arrest of consumptive disease was partly owing to the pressure exercised on the tubercular masses by the increasing bulk of the surrounding tissue. 6. That the above local changes were accompanied by general improvement, shown in the cessation of all symptoms and the gain of weight, colour, and of muscular, respiratory, and circulatory power. 7. That consumptives of both sexes benefited equally by mountain residence, but that the age of the patient exercised considerable influence on the result. 8. That the high-altitude treatment seemed to be specially adapted in cases where heredity and family predisposition were present. 9. That the climate was useful in cases of hæmorrhagic phthisis, and that hæmoptysis was of rare occurrence at the mountain stations. 10. That mountain climates were most effective in arresting phthisis when the disease was of recent date, but they were also beneficial in cases of longer standing. 11. That the special effects of high-altitude residence on the healthy and diseased were common to all mountain ranges of elevations of from 5,000 feet and upwards. 12. That to ensure the full advantages of high-altitude residence, a period of at least six months was necessary in the majority of consumptives. In cases of long standing and of extensive lesions, one or two years were often requisite to produce arrest of the disease. 13. That, in addition to the above

examples, mountain climates were beneficial in (1) cases of imperfect thoracic and pulmonary development; (2) in chronic pneumonia without bronchiectasis; (3) chronic pleurisy where the lung did not expand after removal of the fluid; (4) spasmodic asthma without much emphysema; and (5) in anæmia. 14. That they were contra-indicated in the following conditions: (1) Phthisis with double cavities, with or without pyrexia; (2) cases of phthisis where the pulmonary area at low levels hardly sufficed for respiratory purposes; (3) catarrhal phthisis; (4) cretanic phthisis, or phthisis where there was great irritability of the nervous system; (5) emphysema; (6) chronic bronchitis and bronchiectasis; (7) diseases of the heart and greater vessels; (8) affections of the brain and spinal cord, and conditions of hypersensibility of the nervous system; and (9) where the patients were of advanced age, and where they were too feeble to take exercise.—Dr. BOWLES wished to call attention to a point which was very common in the Alps, and produced pathological changes, namely, sunburn. It did not seem at first sight to have much to do with phthisis, but he considered that it might be found to throw some light upon it. Snow was a potent factor in producing the effects of sunburn, as might be seen in any collection of snow walkers in the high Alps, as contrasted with those who walked in the lower levels; some of them felt a stinging sensation in the face almost as soon as they got upon snow, and developed a condition almost like erysipelas. He had noticed that the freckles on a face were almost unaffected, and from that indication had painted his own face brown before going on the snow, and had by that means succeeded in avoiding being burnt. He had been interested to learn subsequently that that was a plan adopted for a similar end, by the natives of North Africa and Sikkim.—Dr. HERMAN WEBER was specially interested in Dr. Williams's figures, as he had compiled somewhat similar tables himself in 106 cases which he had sent to high altitudes. His results were not quite as satisfactory as those of Dr. Williams, but very nearly so, for they showed nearly 40 per cent. of cure, and nearly 40 per cent. of improvement, more or less. He had, however, sent a larger proportion of patients in the first stage (namely, 70 out of 106) than Dr. Williams. Of his cases, 55 per cent. had gained weight, 38 per cent. had remained stationary, and only 7 per cent. had lost weight. He was not inclined to attribute very much importance to this last group of figures, as it was largely dependent on the opportunities of nourishment before leaving England; nor did he attach value to altitude, except as making open air and exercise easy. At Frankenstein, for instance, which was less than 2,000 feet above sea level, he thought they got quite as good results as in the high Alps, or even better.—Dr. DE HAVIDLAND HALL had been sorry to hear nothing from Dr. Williams about laryngeal phthisis. He should be glad to know if Dr. Williams agreed with the general opinion that no gain was to be got for that from high altitudes, unless in the cases in which the laryngeal mischief was merely catarrhal.—Dr. J. E. POLLOCK thought there was something to be learnt from figures in this matter, and was grateful to Dr. Williams for what he had put before them. He had himself, a good many years ago, collected and tabulated a series of 13,500 cases which had been under his observation at the Brompton Hospital. Altitude was only one of the many agents which might tend to cure phthisis, and on what all the others were he had still a great deal to learn. The cases Dr. Williams had selected to send to the Alps were just the cases that would do well in London also. The cases where there was pyrexia had been excluded, and he must draw their attention to this, for really it seemed to him that this was half the battle. The cases with a chronic first stage did well in England also. The cases with a limited cavity in one lung lasted longer in England than those in any other stage of any other form of phthisis; they were checked by the consolidation, and might live through twenty-five or thirty years. And, lastly, the cases of scattered deposit often remained unchanged for a long while. They had often heard of a rich man's gout, and a poor man's disease. Dr. Williams had been talking to them about was emphatically a rich man's phthisis. What these people were suffering from, who would indulge themselves in their weighing machines and their toboggans, and support their doctors and their parsons, was a very different thing from the malady of *les misérables* with which we all had so much to do nearer home.—Dr. A. TUCKER WISE remarked that in the Alps appetites improved and spirits rose in all who could enjoy the sun and take wholesome exercise, and there was very little annoyance from the lesser colds and coughs. The cold aseptic air acted as a sedative to the cough, and the rooms were often not heated above 50° F.

The action of the sun's rays helped to change the white corpuscles of the blood into red, and to develop hæmoglobin. The ozone was beneficial. He had noticed that those who perspired readily did not have the usual dyspnoea of a high altitude.—Dr. EWART had no doubt that the poor would improve even more than the rich if they could go to equal comforts in high altitudes; it was difficult, or in fact impossible at present, that they should go. The question they had to consider was what was the best way of improving phthisis in rich men. They suffered here from luxurious living: in the Alps they got physical and mental rest. They got complete change and a fresh spring of hope. If anyone doubted it, it would be best for him to go to see the patients whilst they were out there, or at least to hear their evidence when they came home. He had himself been greatly improved by four winter visits to the Alps, and the comparative want of vigour and freshness in the Riviera had struck him much. Nevertheless, much discrimination was wanted in choosing the cases to send to the Alps.—Dr. HUGGARD had not met with a condition of hypertrophy of healthy lung-tissue in the Alps, such as Dr. Williams had mentioned. He had found the chief change in the chest was increased capacity for movement, a greater maximum of expansion in inspiration or smaller minimum after expiration. He could not agree with what Dr. Bowles had said as to the probable effect of snow in the cure, for the consumptives did equally well in Mexico and Colorado and the Andes, where there was no snow. It was a remarkable fact that phthisis was completely absent from Mexico, although it was a crowded city.—Dr. QUAIN was very much obliged to Dr. Williams for his statistics, but he could not help saying that to him they were absolutely valueless. He had heard not a word of the constitutional symptoms and dyspepsia of these patients, and he was inclined to think they got well because they could not help it; they would have got well anywhere. One point went strongly against his sending anyone to the Alps, and that was the most unfriendly fashion in which Switzerland had forbidden English physicians to practise there, under pain of imprisonment. That was a genuine grievance, and needed speedy attention.—Dr. C. T. WILLIAMS begged to thank the meeting for their kind reception of his paper, and for their various criticisms and suggestions. He was glad to find Dr. Weber, on the whole, confirmed his statistics. Before he could quite believe all that was said of Frankenstein as a health-resort for phthisis, he wanted to see more statistics about it, and asked where he could find them. He had found, as Dr. Hall had expected, that laryngeal phthisis was not benefited at all by treatment at high altitudes. The hypertrophy of healthy lung-tissue he had mentioned was a conclusion to which he had been led by the absence of any other hypothesis to explain the physical facts of increased nausea, chest capacity, and breathing, as measured by the spirometer. He acknowledged great debts to Dr. Pollock, but ventured to doubt if even he could show him so many cases of arrest, although he admitted for his own part, of course, that he had selected his cases. He referred to many tables on the walls with a view of showing that many groups of cases treated at the English coast, or on the Riviera, or by sea-voyage, did not show equally good results with those treated at high altitudes.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 2ND, 1888.

JOHN WILLIAMS, M.D., President, in the Chair.

Specimens.—Mr. DORAN: Glandular Structure in the Substance of a Primary Cancer of the Fallopian Tube.—Dr. GALABIN: Microscopic Section of Tube from a case of Tubal Gestation at fourth or fifth week.—Dr. GRIFFITH: (1) Microscopic Section of Oviduct of Frog, showing Tubular Glands; (2) Microscopic Section from a case of Interstitial Gestation, showing Mucous Follicles in the Muscular Wall of the Fallopian Tube.—Dr. HOBROCKS: Completely Inverted Uterus removed by Operation.—Dr. GRAILY HEWITT: Invalid's Compendium.—Dr. GODSON: Auvard's Nipple Shield.—Dr. ARMSTRONG (Liverpool): Alpha Enema Syringe.

Cyst Connected with Uterus, and Simulating Enlargement of that Organ.—Dr. CULLINGWORTH described the case of a woman, aged 23, admitted into hospital on November 23rd, 1886, with an abdominal swelling which had been observed for five months. The catamenia were regular, but during her last pregnancy they had continued to the seventh month. The swelling fluctuated distinctly, and reached upwards as high as half way between the

umbilicus and the ensiform cartilage. A soft *bruit*, synchronous with the radial pulse, could be heard, especially towards the left iliac region. The uterus lay high in the pelvis, and was intimately connected with the tumour; no fetal heart sounds could be heard. She left hospital, but returned on December 20th, sudden abdominal pain having followed an attack of profuse metrorrhagia, and the abdomen, which had been very tense, became soft as the pain set in. She was pale and collapsed when readmitted; high temperature followed. By December 26th she had greatly improved. A distinct, firm, elongated, movable tumour could be felt in the lower part of the abdomen. Ascitic distension of the abdomen took place. On January 19th, 1887, Dr. Cullingworth performed abdominal section. Six pints of ascitic fluid were cleared away, and there were evidences of recent peritonitis. The uterus, or what appeared to be the uterus, was enlarged, as at the fifth month of pregnancy. Douglas's pouch was obliterated by adhesions. The right ovary (as large as a hen's egg) and the tube were found to be covered with recent lymph; they were ligatured and removed. The left ovary was normal. The omentum was enormously thickened. Nothing like a ruptured cyst was detected. The patient died, with symptoms of catarrhal pneumonia, eleven days after the operation. At the necropsy the uterus was found to be of normal size, and what had appeared to be the enlarged uterus proved to be a thick-walled cyst, containing a quantity of thick, opalescent, jelly-like fluid, in which were some portions of tissue, like softened parchment. The left Fallopian tube ran along for some distance in the wall of the cyst, but did not anywhere communicate with it. No fetal remains could be found. A thickened patch of tissue on the cyst-wall was carefully examined, but Dr. T. HARRIS (Manchester), who examined it when fresh, could find no evidence that it represented degenerated placental tissue. The specimen had been referred to a committee after its exhibition before the Society in April. Their report was now read; the parts were minutely described, and it was concluded that it was impossible to say whether the tumour was a cyst which had grown, possibly, from the left broad ligament and extended to the right between the uterus and rectum, thus becoming adherent to the surrounding parts, or whether, on the other hand, it was the product of an inflammatory process with pseudo-cystic walls. The cyst had completely separated the posterior part of the uterus from its peritoneal coat. Douglas's pouch lay behind the cyst, obliterated by adhesions.—Mr. BLAND SUTTON believed that the cyst really represented hydatid disease.—Dr. HORROCKS thought that the thickness of the middle muscular coat negated that supposition.—Mr. SUTTON considered that the presence of a layer of muscle fibre supported his view.—Dr. CULLINGWORTH regretted that the fluid from the cyst had not been examined; he was inclined to agree with Mr. Sutton's theory.—Mr. ALBAN DORAN admitted that the cyst occupied the position noted by Freund and others in their recorded cases of hydatid disease of the pelvis. But hydatids were usually much disseminated, and none were discovered at the necropsy on Dr. Cullingworth's case.—Dr. HEWITT had seen a case where a hydatid tumour was found in the same situation as in Dr. Cullingworth's specimen.

The Glands of the Fallopian Tubes and their Function.—Mr. BLAND SUTTON endeavoured to show that the mucous membrane of the tubes in the human subject was, contrary to the current opinion, glandular, and that the tubes themselves had a function beyond acting as simple passages for ova. Their structure had been so thoroughly investigated by competent histologists that the question was merely a matter of interpretation. The homology of the various parts of the human uterus and the avian oviduct was described, and the function of those parts considered. Thus the infundibulum and the albumen segment of the oviduct corresponded with the Fallopian tube and its fimbriae. The shell-forming segment and the uterus proper were homologous. The vagina was the homologue of the isthmus and the oviducal portion of the cloaca. The nature of a gland was considered, and comparison made between the epithelial diverticula of the oviduct, the uterus, and Fallopian tubes, in order to show that the so-called rugæ of these tubes were really glandular diverticula, whose function was to secrete an albuminous material comparable to the albumen of an egg. From this substance the embryo obtained pabulum by means of the chorionic villi.—Mr. ALBAN DORAN stated that Hennig had shown, about fourteen years ago, that there were glands in the Fallopian tube, but had not convinced authorities in respect to his theory. Mr. Sutton had more

oroughly demonstrated the glandular nature of the tubal mucous membrane, but sceptical scientists might demand more practical evidence, in the shape of microscopic preparations and accurate diagrams, than could be afforded by his undoubtedly able arguments alone.—Dr. GRIFFITH insisted that in discussing the function of the highly specialised mucous membrane of the human oviduct the glands found in the oviducts of many lower vertebrates should have been taken into consideration by Mr. Atton.—In reply, Mr. SUTROX admitted the value of studying the oviduct in the lower vertebrates, but when it came to be a question of structural peculiarity in a mammal, the oviducts in lower forms afforded little that was trustworthy. Doubtless the opinion that the rugae of the tube were glandular in function had occurred to many; but they lacked the boldness, or perhaps rashness, to express it.

Hemiplegia occurring Nine Days after Parturition; Death: Autopsy Post-mortem Examination.—This case was recorded by C. E. F. SCUGAL (Huddersfield). A patient, aged 37, was confined on August 21st, 1887, of her seventh child. All went well till August 28th, when she complained of numbness and tingling in the first, second, and third fingers of the left hand. At 1.30 p.m. on August 29th the nurse noticed that amongst other symptoms the patient's mouth was slightly drawn to the right. At 10 p.m. she was found as follows: complete paralysis of the left arm and paresis of the left leg, slight divergent strabismus of the right eye, and the mouth slightly drawn to the right side. There had been a little difficulty in swallowing, which had now passed away. Consciousness and speech were unaffected; there was no pain in the right side of the head. The skin was moist, temperature normal, pulse 96; no loss of sensation could be detected. Three and a half grains of calomel pill was given, to be followed by two ounces of Esculap water every two hours till diarrhoea was produced, and a draught containing iodide of potassium and citrate of potash was prescribed. By 1 p.m. the left leg was completely paralysed. In the course of the next day drowsiness came on; the bowels were opened by enemata. Later on numbness and increased pain in the right side of the head were served; the temperature rose to 99.2°; the pulse was irregular rhythm and power, varying from 72 to 84. The secretion of milk had quite disappeared by August 31st. The patient became comatose and died at 2.15 on September 1st. The brain alone was examined after death. A clot was found in a vein on the surface of the brain corresponding in position to the right middle meningeal artery, and another in a vein corresponding in position to the right middle cerebral artery. These clots were distinctly *ante mortem*. There was no sign of thrombi in the sinuses. The brain, pons, and medulla exhibited no trace of extravasations or of any other morbid appearance.—After some observations by Dr. MORGAN HANDFIELD-JONES on a case in his own experience, Dr. GRIFFITH NAPLIER observed that puerperal hemiplegia was practically due to thrombosis, embolism, or reflex influences, the first cause being the most frequent.

A Case of Extirpation of the Uterus for Primary Carcinoma of the Body.—This communication was read by Dr. LEWERS. The patient was aged 58, and had had one child. She had been subjected to uterine hæmorrhage for ten months, accompanied ultimately with watery discharge, severe pain radiating to the thighs, and emaciation. On vaginal examination, February 26th, 1886, the vaginal portion of the cervix was found normal; a hard lump was felt posteriorly, apparently in the supra-vaginal part of the cervix. The uterus, examined under chloroform, was freely movable, the body evidently enlarged. Through the speculum no blood-stained discharge was seen issuing from the os. The fundus was then passed, and afterwards small fragments of a soft material appeared in the discharge. On March 1st, 1886, vaginal extirpation of the uterus was performed. The perineum was incised, to gain room. The bladder was separated from the uterus, the utero-vesical reflexion of peritoneum being, at this stage, left intact. Douglas's pouch was then opened to a small extent with scissors, and the aperture enlarged by laceration effected with the fingers. The utero-vesical fold was then torn through from below, the size of the uterus prevented the operator from passing his fingers along the back of the uterus and over the fundus, so as to use a guide to the cutting through of that fold. The ends of the anterior and posterior incisions were united laterally, by cutting, first, through the mucous membrane only. The lateral attachments of the cervix were tied on each side by silk ligatures passed with the aid of an aneurysm needle from behind forwards. The cervix was cleared as high as the level of the internal os. Each

broad ligament was transfixed and tied in two halves, stout silk ligatures being employed. The broad ligaments were then cut through, and the uterus separated; on account of its bulk it could not be retroverted and brought out fundus foremost. The peritoneal wound was closed with silver sutures, the ends of the broad ligaments being adapted between the edges of the wound. A small drainage-tube was introduced into Douglas's pouch; it was found loose in the vagina two days later. The vagina was filled with eucalyptus gauze sprinkled with iodoform. The patient made a good recovery. The uterus was found to contain a papillary growth occupying the right side of its cavity, and separated from the healthy mucous membrane by a sharp line of demarcation. She continued in good health for several months; at length a lump could be felt in the upper part of the vagina, followed by secondary deposits in the lumbar glands. She died in hospital sixteen months and one week after the operation. Dr. Lewers considered that the patient had enjoyed ten months of renewed health and comfort, owing to the operation which had prolonged her life.—The PRESIDENT was glad that Dr. Lewers had not published his case until able to give a complete account of it. Total extirpation of the uterus for cancer of the cervix was not justified, because supra-vaginal amputation was less dangerous, and furnished as good results; recurrence, when it took place, appeared in the cellular tissue around the cervix, and not in the uterine stump. The scanty data at our disposal did not put us in a position to judge the value of total extirpation for cancer of the body. The mortality was high, and recurrence, in most instances, so early that it remained doubtful if, in the majority of cases, life were prolonged. Still, it could not be doubted that a longer or shorter respite from suffering was given in all cases which recovered from the operation.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, MAY 3RD, 1888.

J. W. HULKE, F.R.S., President, in the Chair.

Melanotic Sarcoma.—Mr. C. HIGGINS gave an account of a case of this affection. The chief point of interest was that the appearance of the growth simulated to such an extent an opaque and displaced lens as to be taken for one by more than one of those who examined it. The eyeball was eventually excised, and found to contain a mass of melanotic sarcoma. The patient died with a greatly enlarged liver seven months after the removal of the eyeball.

A Point in Connection with Artificial Eyes.—Mr. McHARDY pointed out that a sinister appearance almost invariably associated with the wearing of an artificial eye was very largely, if not indeed entirely, obviated when such a patient wore spectacles or eyeglasses glazed with odd lenses, so that the lens in front of the artificial eye had something like 3 D greater refracting power than that before the natural eye. The extra lens power before the artificial eye produced an optical delusion regarding the level and size of the latter; and the excess of lens power, which usually was about 3 D, could be varied according to the distance at which the lens was placed in front of the artificial eye.—Mr. TWEEDY thought there was nothing new in the suggestion; he had adopted the practice for many years, and believed he owed the idea to Mr. Lawson.

Primary Tuberculosis of the Choroid.—Mr. McHARDY read the notes of a case of local tubercular choroiditis occurring in a child aged 6, with negative family history. He closely watched the intra-ocular condition during four weeks, and then enucleated. The constitutional symptoms which had preceded enucleation immediately subsided after removal of the eye, and had not returned in the five months that had since elapsed. The specimen showed that complete detachment of the retina had occurred at the time of enucleation; that the main intra-ocular tumour was in the choroid, and that the two smaller masses in the retina were all definitely tubercular so far as the microscopical appearances without the presence of bacilli would reveal. He regretted that inoculation had not been practised, urged the importance of early enucleation in analogous cases, and remarked that the literature of the subject pointed to the infrequency of local intra-ocular tuberculosis, to the not invariable, but very usual, failure to find the Koch bacillus therein, and that successful tubercular inoculation from such masses had been effected even when the Koch bacillus had eluded detection.—The PRESIDENT did not remember to have seen a single instance

of primary tubercle of the choroid.—Dr. HILL GRIFFITH asked how it was proved that the growth was not a sarcoma? He had enucleated an eyeball for sarcoma, and found a detachment of the retina which was not present immediately before the enucleation. The improvement in the constitutional state might have been the result of the relief from pain.—Dr. SHARKEY thought that the diagnosis of primary tuberculosis of the choroid could not be sustained in this case without further history. It was a well recognised fact that tubercular peritonitis was frequently cured, as attested both by clinical and pathological evidence, the latter being extremely strong. It was much more likely that this was a case of tuberculosis of the peritoneum and subsequently of the choroid.—Mr. CARLESS described the methods of staining adopted in the search for bacilli, and alluded to some points in the clinical history of the abdominal ailment.—Mr. MCLARDY, in reply, pointed out that the appearances did not at all agree with those seen in sarcoma. There was no pain about the eye, but the tumour grew very rapidly, and hence probably the relief of the symptoms after the enucleation. He quite agreed that there was a doubt as to the nature of the original abdominal affection.

Functional Eye Symptoms in Hysteria and Allied Conditions.—Dr. HILL GRIFFITH read an abstract of a paper on this subject. He classified the cases into the following groups: 1. Hysterical blindness, mostly monocular; 2. Amblyopia of one eye, with achromatopsia and hemianæsthesia (Charcot); 3. Same group with absence of hemianæsthesia; 4. Blepharospasm as sole eye symptom. This symptom was common in all the groups; 5. Hysterical conjugate deviation of eyes; 6. Neurasthenic asthenopia, symptoms bilateral. He was in favour of the theory of changes in the centres of vision rather than in the retina, as the cause of contraction of the field of vision.—Mr. JESSOP asked if he had met with the concentric spiral cases described by Mr. Priestley Smith, in which it had been shown that a neutral tinted glass enlarged the field. He asked if any change had been noted in the ordinary fields, that is, in relation of green to white, etc.—Mr. ERNEST CLARKE objected to all the cases being grouped under one heading, some being evidently due to fraud, others to true hysteria, and others possibly were central.—Dr. GRIFFITH agreed that the fields of vision were always affected. He thought it was difficult to draw the line between fraud and self-deception.

On the Removal of Staphyloma of the Cornea.—Mr. TATHAM THOMPSON read a paper recommending that a curved needle threaded with horsehair should be passed through that portion of the staphyloma which it was intended to remove; it afforded a ready means of steadying the eye whilst the elliptical incisions were being made, and of removing the portion after they were completed. The edges of the wound usually adapted themselves readily: the parts were then well flushed with a weak solution of perchloride of mercury, and tolerably firm pressure applied to keep them in apposition. The results obtained were very satisfactory.

Specimens.—The following card and living specimens were shown:—Dr. W. J. COLLINS: Photographs and Drawings of some Rare Affections of the Eyelids: 1. Spontaneous Symmetrical Œdema of both Eyelids in a Boy without obvious cause of rapid onset and slow subsidence; 2. Spurious Ptosis due to Paralysis of Frontalis Muscle on one Side; 3. Bilateral Hysterical Ptosis.—Mr. S. H. A. STEPHENSON: Case of Double Optic Neuritis after Measles.—Mr. J. B. LAWford: Pathological Specimens: 1. Pigmentation of Retina chiefly along the Larger Vessels; 2. Colouring Matter (? Blood Pigment) in Cornea; 3. New Tissue Formation in Choroid.—Mr. BRATLEY: 1. Case of Destructive Ulceration of Eyelid in an Infant, probably Syphilitic; 2. Case of Nipple-like Detachment of the Retina.—Mr. JESSOP: New Form of Stereoscope.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.
THURSDAY, MAY 3RD, 1888.

F. W. SALZMANN, M.R.C.S., President, in the Chair.

Electrical Treatment of Diseases of the Uterus.—Sir SPENCER WELLS read a paper on this subject, which is published in full at p. 995.—Dr. APOSTOLI said he had but one word to add to what had been said by their illustrious master, Sir Spencer Wells. In the month of August, 1885, he (the speaker) wrote as follows: "If the electrical treatment of fibroid tumours of the uterus is not destined to altogether replace the knife, yet it ought, when its safety and efficiency are taken into consideration, to be counted a most useful auxiliary to surgery; whether it is to be used only for women upon whom it is not advisable to operate; or whether

it will delay, for all, for a time at least, or perhaps render unnecessary, an operation which is always dangerous." These words remained true to-day. After an experience of nearly six years during which time more than 500 patients had been treated, and more than 6,000 applications of electricity had been made, he was able to confirm what he wrote three years ago, and to say that his method was not in itself dangerous. It was also necessary, however, to state that it might become full of danger in inexperienced hands, and, if antiseptic precautions were not carried out, or the rules which he had laid down were not attended to. These rules were as follows: 1. Never to employ large doses suddenly but always gradually, and according to the amount of tolerance which was shown by the uterus. 2. In all suspected or recognised inflammations of the uterine appendages it was necessary to redouble the precautions and to lessen the doses. He repeated his method was almost constantly efficacious in relieving symptoms. The electrical treatment did not pretend to make a radical cure of fibroid tumours of the uterus; it was content to diminish their bulk, to relieve the patients, and to make them feel well. In the presence of an operation such as that of hysterectomy always difficult and accompanied by great danger, and of that of oophorectomy, an operation not always possible nor always efficacious, the electrical treatment, in its simplicity, in its freedom from danger, aspired legitimately to place itself before all gynaecologists as a means of treatment of fibroid tumours of the uterus, palliative in the first place, but also one which allowed us to assure our patients that they would almost certainly remain in good health.

—Dr. PLAYFAIR said that few subjects in gynaecology had of late years caused more interest than Dr. Apostoli's work, and he was glad to find it made the subject of public discussion, so that the experience of those who had been working at it should be learnt. There could be no doubt that any means of treating certain classes of fibro-myomata which would prevent or postpone the formidable and mutilating operations of hysterectomy and removal of the uterine appendages would be an enormous gain, even if the results fell far short of those claimed for his methods by Dr. Apostoli; and great credit was due to him for his energetic work, which had thoroughly roused the interest and attention of the profession. Being anxious to see for himself what Dr. Apostoli was doing, he (Dr. Playfair) had visited Paris at the end of last summer, and had not only been received by Dr. Apostoli with great courtesy but had had free access to his carefully-reported cases, and opportunities of personally investigating and examining many of his patients. One thing he was perfectly satisfied of, that although Dr. Apostoli might be an enthusiast, and possibly given to overestimate the value of his treatment, he was at least an honest and convinced enthusiast. Certainly in this he did not stand alone, for without enthusiasm in medicine no progress was ever made. They did not need to go beyond that room for an example in point, for had Sir Spencer Wells not been an enthusiast in ovariectomy, in the face of the most unfair and prejudiced opposition where would be the great name and world-wide reputation he had achieved for himself? As to the criticisms on Dr. Apostoli's method, all he had heard were based on mere theory or on second-hand gossip. To this sort of objection no sensible man would give a moment's attention. What was wanted was careful and unbiassed personal investigation and accurately recorded facts, without prejudice either for or against. If Dr. Apostoli's treatment was subjected to tests such as these and found wanting, then by all means let it be condemned, but not condemned untried and unheard. Since October he (Dr. Playfair) had been endeavouring by numerous trials to form an estimate of its value. In so short a time no very positive conclusion could be arrived at, especially as to permanency of results, but he had at least had a fair opportunity of testing it. He had not used it in anything like the number of cases in which he might have tried it, as he selected his cases, and did not wish to use it indiscriminately. With the permission of the Society he would say a few words: (1) as to the cases in which it was applicable; (2) as to its possible dangers; (3) as to its application, and the difficulties connected with it. 1. The cases in which it had been most talked of were those of fibro-myomata, attended with hæmorrhage, and certainly this was its most important and promising application. Now out of the cases of this kind he had treated most had been benefited; in some the hæmorrhage had been entirely checked, but in one or two he was bound to say that no appreciable result on the hæmorrhage had followed. It was impossible in such a meeting to enter into details, which he might possibly publish elsewhere, but such was the fact. Perhaps he might fairly say that in three cases out of four the hæmorrhage

results had been distinctly good. The action of the positive current in this way was, no doubt, that of a chemical cautery, and he was inclined to think that the failures were due to the difficulty of bringing the sound, in certain cases, into accurate apposition with the uterine cavity. Some more perfect mechanical appliances in this direction were certainly required. With regard to non-hæmorrhagic fibroids, the number in which any interference was needful was very small. Indeed, it was only when pressure symptoms were well marked that it was justifiable to do anything. He had, therefore, only treated two cases of this kind. In one a large tumour had practically entirely disappeared, but with a very serious amount of constitutional disturbance presently to be referred to. In the other, then under treatment, the patient, whose tumour was impacted in the pelvis, and who had not micturated for a long time in consequence of pressure on the urethra, was already able to pass her own water. The cases in which he had found the most remarkable and satisfactory results were those of severe dysmenorrhœa, and bad chronic endometritis, with profuse glairy discharges. In them the results were really very remarkable, and some cases of both kinds, which had resisted years of treatment, had apparently been perfectly cured after only three or four applications of the electro-negative currents. Thus, three cases of intense dysmenorrhœa were treated, the patients writing of themselves as follows: (a) after four applications, "entirely free from pain;" (b) "quite painless;" (c) "hardly any pain." Of the application of the continuous current to absorb inflammatory deposits, and of the faradic current to relieve pain, he had not had sufficient experience to offer an opinion. The faradic current he had found very useful in restoring the menstrual discharge in one case of amenorrhœa of seven years' standing in another it had failed. 2. With regard to the alleged dangers, he believed them to have been greatly exaggerated. Dr. Keith's experience was of itself sufficient to prove this. Unquestionably, however, like all potent agents, electricity might do serious mischief if rashly employed by those unskilled in its use. He had only seen two cases in which the slightest irritation or mischief had followed its use. One was a case of pelvi-peritonitis with pelvic exudation, in which he was conscious that he had used it too soon, and a fresh but not serious exacerbation had followed. The other was the case of fibroid above referred to. This was a dense fibro-myoma he had watched for ten years, steadily growing. It nearly filled the pelvic cavity, and reached above the umbilicus. He had made six electro-negative punctures in Douglas's pouch. These were followed by pyrexia, accompanied by a profuse purulent offensive discharge from the uterine cavity at intervals of two or three days. The tumour had entirely disappeared, but the constitutional disturbance had certainly been considerable. That there were certain risks must therefore be admitted; he did not, however, believe them to be prohibitive, and time would probably show us what they were, and how they were to be avoided. 3. As to the alleged difficulties, they certainly were not of a nature to prevent any well-instructed gynecologist from adopting the practice. He must protest strongly against the statement that had been made that this class of work should be carried out by a professed electrician. Anything more absurd he had never heard. The manipulation of the apparatus, so far as the electricity was concerned, offered no difficulty at all. Any intelligent student could learn it in half an hour. The selection of proper cases, however, the passage of the sound, etc., required a profound gynecological knowledge, as Dr. Apostoli had well remarked; and beyond any question this method of treatment never could be widely and indiscriminately employed. If not carefully used, and in suitable cases only, much mischief would most certainly follow.—Dr. AVELING said he was sure all who, like himself, were employing electricity for the treatment of uterine tumours, would feel fortified in their opinions, and encouraged to proceed in their work, by the fact that Sir Spencer Wells sympathised practically with them. All would remember the remarkable paper which Dr. Keith published in the JOURNAL a short time since, in which he said he should consider himself guilty of a criminal act were he to advise any patient to run the risk of her life by hysterectomy, before having given a fair trial to electricity; "even," he adds, "if he were sure the mortality would not be greater than that which hysterectomy has given in his private practice—under 4 per cent." No one could say Sir Spencer Wells and Dr. Keith had taken to the electrical treatment of tumours because they were afraid of operating. Their exploits in abdominal surgery were known to all over the world. Their support of electrical treatment was therefore all the more valuable. The galvanic battery was, as

already pointed out, used by Sir James Y. Simpson forty years ago for the discussion of a uterine fibroid, and one of the most healthy signs of the electrical method was the gradual development of it since that time, every step enabling the operator to employ it with greater safety and efficacy. The two greatest modern improvements had been the use of the galvanometer, and the substitution of the dispersing abdominal electrode for the dangerous abdominal galvano puncture, two points insisted upon by Dr. Apostoli. The speaker said it was quite amusing to observe the flutter of excitement which the recent rapid advancement of electrical treatment had caused among some distinguished abdominal sectionists. From their uncompromising opposition and their abuse and ridicule, one was almost inclined to think these gentlemen feared their occupation was gone. They need not be alarmed; there would always be a place for hysterectomy and oophorectomy, as there seemed every reason to believe there would be for electrical treatment. An endeavour was now being made to determine what that place should be. If it were proved that it could cure a patient symptomatically—could stay hæmorrhage, relieve pain, and diminish bulk, in fact could remove the symptoms which brought the patient to the medical man for help—how many would propose and how many submit to the more fatal and radical operations? Complaint had been made that we were acting empirically, and were all in the dark as to the action of the galvanic current on tumours. This might to a great extent be granted, but it was no argument against its use. Who knew how quinine cured intermittent fever? If clinical experience proved that a patient having a uterine tumour could by electricity be relieved of her symptoms, and her existence rendered useful and comfortable, we were bound to employ the galvanic current, and might contentedly wait until science explained what was the effect of the caustic action of the pole, and how the catalytic interpoler current acted in producing atrophy of the tumour. Dr. Aveling stated that he had used the electrical treatment in several cases, and had met with such satisfactory results that he intended to continue its employment. He had met with no symptoms resulting from it to give him the least anxiety. He believed that most of the accidents reported were due to ignorance, carelessness, or impatience. Sir Spencer Wells had not mentioned the use of a rheostat in his paper. A water-rheostat was a great comfort to the patient. It obviated the succession of shocks caused by adding or taking off cells, while increasing or reducing the intensity of the current. A useful dispersing electrode was one made of a flat coil of copper wire, placed between a layer of moist spongio-piline and amadou. An important practical point was that the skin of the abdomen should be thoroughly saturated with warm water before using electricity. Dry epidermis was a potent non-conductor. The clay was difficult to keep sufficiently moist, and was dirty. Later in the discussion Dr. Aveling dissented from the opinion that the interpoler current was inert, and asked Dr. Parsons whence he thought the ions were derived which arrived at the poles during the passage of the current.—Dr. INGLIS PARSONS congratulated Dr. Apostoli on his success. He was not, however, able to agree with Dr. Apostoli's theory of an interpoler action. There were no scientific proofs that any change occurred between the poles. The speaker had tried several experiments, thinking to prove the theory, but had found it untenable. The first of these was on the web of a frog's foot. At the negative pole a collection of hydrogen gas occurred, at the positive a coagulation, but between the poles the circulation proceeded as before, and no change in the tissues could be found under the microscope. A similar result took place when a current of 250 milliamperes was passed through a small fibroid for one hour and a half soon after its removal from the body. Sections made by Dr. Rutherford showed destructions of all tissues, except the fibrous, in contact with the poles, but no interpoler alteration could be discovered. The principle also held good with saline solutions. If three glasses filled with a standard solution of iodide of potash were connected by damp cords, and a current were passed through for several hours, the solutions in the end glasses containing the poles were decomposed, while that in the centre, or interpoler, glass remained unchanged. Not only was there no interpoler decomposition, but the transport of elements from one pole to the other had apparently no effect; but the latter action required further investigation. These results corresponded with Dr. Parsons's clinical experience at the Chelsea Hospital for Women. If a tumour could be punctured it soon disappeared. He had cured a case in this way that was not amenable to surgical treatment. Nothing remained of the tumour but a diffused mass

one-third the size of the original. This probably consisted of fibrous tissue, which, as he had shown, was not decomposed by the current. The patient left the hospital three months ago, and was seen recently with no return and in good health. With regard to hæmorrhagic cases, he found that unless the electrode was brought into direct contact with the whole of the bleeding surface the hæmorrhage would continue. In a case now under treatment the electrode was passed only half the full distance into the uterus, and the hæmorrhage continued, even after twelve applications. But as soon as it was passed the full distance, the hæmorrhage commenced to diminish. This was no doubt due to the fact that the action of the current was chiefly at the poles. With regard to dosage, he found a distinct difference between those cases where the current passed first through the uterus, and those where it passed directly into the tumour. In the latter case a much larger dose could be used even with susceptible patients. To one he had given as much as 250 milliampères every other day for thirty minutes, with a most successful result. If the current passed through the uterus, the restrictions laid down by Dr. Apostoli must be strictly followed.—Dr. HERWOOD SMITH, in answer to the President's invitation, said he had but little claim to speak on the subject, as he had no personal experience of Dr. Apostoli's treatment, nevertheless, as they were all present that evening to learn, he thought that some questions might elicit some instructive answers. He wished to know the way the electric current was intended to act, whether as a disintegrating force or as an escharotic. If the latter, then any cautery would do to start to destructive action, as had been the case in some of the cases reported; namely, one by Dr. Holland, and that just mentioned by Dr. Playfair, where evidently the curative process was proceeding by the sloughing away of the tumour. If the current acted as a disintegrating or decomposing process, in what way was the *débris* thrown off or absorbed, as fibrous tumours were exogenous, not endogenous growths, and their vascular and lymphatic systems were at the circumference of the tumours? How then was the disintegrating process, which was commenced round the needle which was thrust into the middle of the tumour, placed in relation to the vascular system at the circumference of the tumour? Then, in cases of subinvolution with chronic endometritis and menorrhagia, what was the action of the current on the lining membrane of the uterus, and did it produce any escharotic or other effect on the membrane and on the uterine follicles, or did it by its stimulus induce greater tonicity of the uterus, and so lessen the hæmorrhagic tendency?—Dr. ELDER (Nottingham) said that his first duty was to thank the President and members of the Society for allowing him to take part in that important discussion—a permission which he would be wanting in gratitude to Dr. Apostoli for his kindness to him during a recent visit to Paris, if he had not gladly taken advantage of. The necessarily short time at his disposal would be best occupied by first alluding to three of his most successful cases under this treatment, and then generalising upon the other cases which had been under observation. Case I.—Mrs. F., aged 37, came with a history of flooding for two years and severe pressure symptoms, totally incapacitating her for housework. A solid uterine growth filled the pelvis and reached midway between the umbilicus and the xiphoid cartilage. Treatment was commenced at the end of July by galvano-punctures (negative), and continued at intervals, usually of a week, till Christmas, with the following results. The growths had decreased by quite a third, so that her clothes, which on her first visit were fastened by connecting tape, now overlapped; the periods had become normal as to time and quantity; the pressure-symptoms disappeared, and she was able to do her work as beforetimes. From time to time she had been seen, and the improvement was maintained. Case II.—Mrs. W., aged 48, consulted him for flooding of five months' duration due to an interstitial myoma in the posterior wall. The uterine cavity measured four inches; seven intra-uterine applications of the galvano-positive electrode caused disappearance of the tumour, arrested the hæmorrhage, and reduced the length of the cavity to three inches. Case III.—Mrs. M., aged 35, had suffered for several years from bouts of flooding, which during the past twelve months had laid her up for weeks together, and totally disabled her for work. The uterine cavity measured $3\frac{1}{2}$ inches, and a uterine growth occupying the right iliac fossa and reaching above to a level with the anterior inferior iliac spine could be well defined. Treatment by galvano-positive intra-uterine applications was begun in January, and continued once a week till now, with the result of bringing about menstrual regularity, removing pressure symptoms,

and also restoring the patient to very good health. In all, the treatment had been employed by him in forty cases, including some examples of subinvolution, endometritis, peri-uterine exudation, etc., without danger to the patient, unless in a case which would again be alluded to, and with only one distinct failure to relieve more or less the symptoms for which the patients consulted him. The failure occurred in a lady suffering from a uterine myoma, in whom complete removal of the tubes and ovaries had not arrested the draining, nor had the galvano-positive applications any better effect. The only case which gave him any anxiety was that of a middle-aged woman enfeebled by long-continued hæmorrhage and pressure symptoms due to a large uterine growth. In September of last year, after the third galvano-puncture, she persisted in walking home, a distance of a mile, on a very wet night, and took a chill. Some four months afterwards she died of septicæmia; but whether after this interval and with the utter neglect of common-sense precautions on the part of the patient this casualty could fairly be laid to the charge of the treatment must be left to fair, impartial judgment. So far as his experience of this treatment had gone, he believed it to be not only a distinct advance on the treatment of myomata by rest, diet, drugs, etc., but one which would in most cases supersede removal of the appendages and hysterectomy and our plain duty in all cases where its application was possible was to offer to our patients this alternative.—Dr. TRAVERS asked what was meant by "tolerance of the uterus."—Dr. APOSTOLI replied that where there was a simple fibroma of the uterus in a healthy woman the uterus was made more tolerant than where there was inflammation of the annexes, or where the uterus was irritable. In the latter case much more care was needed in applying electricity. It was best to begin with small doses and short sittings. If he could introduce a sound, he employed that first.—Mr. SKENE KEITH said that although sufficient time had not elapsed since Dr. Apostoli began this treatment for them to pass judgment upon it, yet he could say, from an experience of nearly 3,000 applications, that the results—and some of these results had already stood the test of 8 or 9 months—had been such that Dr. Keith, whose mortality after hysterectomy appeared to be the smallest of any operator, had not found it necessary to advise either that operation or even the less serious one of removal of the ovaries since his visit to Dr. Apostoli last year. Since June Dr. Keith and himself had had under treatment 92 cases of distinct fibroid tumours of the uterus, in fact, everyone where there where symptoms had been treated; and, without entering into details which would be published later on, he might say that, on the whole, the results had been extremely satisfactory. Of those 92 women, 76 had had more or less of the ordinary treatment without receiving any marked benefit. The great disadvantage of this treatment was the length of time it took, though often not longer than a visit to a watering-place, and the amount of work which fell on the physician or surgeon. On the other hand, one great advantage was that, when necessary, it could be carried out in the out-patient room of any hospital, and that the patient could attend to her ordinary duties exactly the same as usual. They had already heard of operation being required when this treatment had failed. This might be so, but he would ask that a distinction should be made between Dr. Apostoli's and various methods of treatment which went by his name. For example, a friend had told him (the speaker) that he had not read Dr. Apostoli's papers; another thought that he had made a discovery when a patient told him that he (Mr. Skene Keith) had moved the sound over the surface of the uterine cavity. Need he say that their results had not been brilliant? The practice of Sir Spencer Wells of publishing every case of ovariectomy had been followed by Dr. Apostoli in the thesis of Dr. Carlet, published in 1884. They had had full details of about 100 cases, and it was by such means that the value of the electrical treatment of fibroids had to be decided. Dr. Keith regretted much that he could not be present, but he (the speaker) had his authority for saying that so long as they could get the results they had had by electricity, he had no intention of advising any patient to run the risk of dying after hysterectomy, or after removal of the ovaries for fibroid.—Mr. WILLOUGHBY FURNER inquired as to which pole of the battery should be used in a case of uterine fibroid that did not bleed.—Dr. APOSTOLI replied that the positive pole should be used in hæmorrhagic cases, on account of its hæmostatic properties. In non-hæmorrhagic forms the negative pole should be employed, as being more active.—Dr. INGLIS PARSONS made some further remarks of

be electrolytic action in these cases, and on his own experiments in this direction.—Sir SPENCER WELLS made a few concluding remarks.

Electrical Apparatus.—Messrs. MAYER and MELTZER exhibited a battery for the electrical treatment of fibroids and other uterine diseases. The battery, which is 14 in. by 10 in. by 10 in., is arranged so that the fluid cannot be spilt if carried with ordinary care. The battery is supplied complete with Dr. Aveling's abdominal electrode, platinum-pointed sound, and trocars. Messrs. Mayer and Meltzer also exhibited specimens of electric lamps, Dr. Heywood Smith's speculum lamp, etc.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, APRIL 25TH, 1888.

ARTHUR W. EDIS, M.D., F.R.C.P., President, in the Chair.

Hermaphroditism.—Dr. FANCOUR BARNES exhibited a case in which the determination of the sex appeared to be doubtful. The individual was the third child in a family of eleven, and was now nineteen years of age. Up to the present she had been reared up as a girl, and her tastes were decidedly feminine. His reasons for believing the sex to be masculine were—(1) the appearance of the head; (2) the *timbre* of the voice; (3) the non-development of the breasts; (4) the undoubted existence of a well-developed prepuce and glans penis; (5) the imperfectly-formed urethra running down from the tip of the glans and passing into the bladder; (6) the utter absence of anything like uterus or ovaries; and (7) the appearance of the perineum. The thighs and lower abdomen were covered with masculine hairs. Hair had grown on the arms, and especially the forearms; and there were traces of moustache and beard, which were evidently shaved. The head was somewhat bald. Maternal impressions were alleged as a possible cause. The last born of the same family appeared to be similarly affected.—Mr. LAWSON TAIT, Dr. ROUTH, Dr. HEYWOOD SMITH, and Dr. R. BARNES made some remarks.

Kolpo-hysterectomy for Malignant Disease.—Dr. F. A. PURCELL exhibited the uterus and appendages which he had removed through the vagina for epithelioma of the cervix. The growth as removed by the galvanic *écraseur*. As a portion of the disease appeared to be left behind, he proceeded to the total removal of the uterus, which was accomplished without loss of blood. Both ovaries and the Fallopian tubes were also removed. The patient made a most satisfactory recovery, and was up and walking about by the twenty-second day.—The PRESIDENT pointed out that the patient was only twenty-five years of age, and the specimen showed clearly enough the nature of the growth. Under such circumstances total extirpation seemed justifiable.

A Method of treating Incontinence of Urine in the Female in cases hitherto considered to be beyond the Resources of Surgery.—Dr. WILLIAM ALEXANDER (Liverpool) read notes of two cases in which he had successfully treated this condition. The first was a married woman, aged 35, who had had two miscarriages and no children. She ascribed her illness to her having been compelled by her occupation to remain for long periods without emptying the bladder. The urethra was quite patulous, admitting with ease the index finger, and sphincter power was lost. In other respects she was a strong, healthy woman. He first released the upper or anterior surface of the urethra from its connection with the pubic arch. A slit was made into the rectum through the exposed vaginal and rectal walls. The urethra was then denuded in front and laterally only, except a small piece around the orifice, and drawn through the slit in the rectal wall, to which it was stitched in front and at the sides, but not behind. The labia minora and clitoris—in fact, everything in front of the urethra—were denuded up to the middle of the labia majora. The vulvar orifice was then completely closed by the labia being united in the middle line with numerous fine silkworm-gut sutures. The urethra was thus pressed well back and firmly supported in its place, and the rectal wall at the same time held forwards by the stitches that passed through it. The result had been a complete success. A diagram showed that there was only one external aperture instead of three. The urethra opened into the rectum, and just behind the urethra was a small fissure through which any uterine or vaginal secretion found its way into the bowel. On passing the finger into the rectum, the opening of the urethra could be felt with difficulty just above the internal sphincter; the difficulty of feeling it arose from the way in which the folds of the rectum covered it over. The folds were so disposed that it would appear very difficult for gas to pass from the bowel into

the bladder. The patient could hold her urine for upwards of four hours, and had to get up only two or three times during the night. The second case was that of a patient, aged 50, whose urethra had completely disappeared from sloughing, an unsuccessful attempt having been made to cure a cystocele some two years before. A somewhat similar operation had been successful in her case also.—After some remarks by Dr. GRANVILLE BANTOCK and Dr. AVELING, Mr. LAWSON TAIT said that the first time he saw the vulvar orifice closed on account of the destruction of the anterior and posterior walls of the vagina was by Sir James Simpson, in 1862, and he happened to be able to trace the woman's history afterwards. It was one of prolonged misery. What was reported as a "mild diarrhoea" amounted to irritation so excessive that the patient ultimately induced someone to undo the result of the operation. A patient on whom he had operated seven years ago had also had the operation undone for the same reason. In spite of that, he was attempting to close a third, in the hope that the condition of irritation might not be common to all these unfortunate creatures. If he found that the rectum would tolerate a mixture of faeces and urine, he would agree in the performance of Dr. Alexander's operation. He suggested it would be better to divert the ureters into the rectum.—Dr. MANSELL-MOULIN said it was obvious from the diagram that the bladder, vagina, and rectum intercommunicated with each other at the seat of operation. The patient, therefore, was in no way benefited by Dr. Alexander's operation beyond what she would be by the simple closure of the vulvar orifice, and an opening made into the rectum. In either case the urine necessarily passed into the vagina.—Dr. ALEXANDER replied.

REVIEWS AND NOTICES.

HUNTERIAN LECTURES ON CERTAIN DISEASES OF THE JAWS. Delivered at the Royal College of Surgeons. By CHRISTOPHER HEATH, F.R.C.S. London: J. and A. Churchill. 1888.

THE author has been so long and so well known as the most established authority on surgical affections of the jaws, that we are not surprised at his making use of his large store of material for the Hunterian Lectures, and there is no doubt that these lectures will form the best modern reference on the subjects treated in them. But the author's position as the editor of the largest and best work in recent days on the practice of surgery, and his vast field of observation at one of the most important metropolitan hospitals, may have led us to hope he would have devoted his practical mind to some new region of surgery in these lectures. However, there is much in them that is indicative of the author's thoroughness, though it does not seem that there is much that is new to record in this branch of surgery.

The first lecture includes cystic diseases of the jaws, and, as with the other lectures, deals with the pathology and treatment of the disease, making excellent use of the store of specimens to be found in other museums besides that of the College of Surgeons. The second lecture considers the other tumours of the jaws, and one kind comprises the diseases of the temporo-maxillary articulation, and the very troublesome and unsatisfactory class of cases where the jaw has become closed by disease in the joint, or by contracted scars or other similar complications outside.

The deformities produced by these diseases are certainly ugly, and the pictures often very repulsive, and for that reason perhaps the subject is not attractive; but, if the surgeon can relieve these conditions successfully, he will be the greater benefactor. The causes and the pathology of the disease are here specially treated of; but there are certain points in the treatment we should have expected to find comment upon. For instance, we miss in these lectures any reference to the steps which should be taken in performing some of the greater operations, and such reference would be advisable in any such work as this may become for a surgeon or student in the future. The question of preliminary tracheotomy, and the best apparatus or means to prevent suffocation during operation, are important matters; the case recently reported in the JOURNAL (April 21st), where a recurring sarcoma of the upper jaw was removed, shows this very clearly, and Mr. Morris's remarks are very much to the point.

It is a pleasure to find that the experience and the opinions of the older race of surgeons and anatomists are brought prominently forward; for we cannot but feel the justice of some remarks

in the JOURNAL, recently made, that students are nowadays made to trust too much to the opinions of modern authorities, and to overlook the work and the judgment of able surgeons and pathologists who lived before the days of Listerism and bacteria. We do not mean to make light of what is now being done in these directions; but it is quite possible to make too much of it. It is also refreshing to find that Hignmore's work is still continued by able successors in the same classical Sherborne; for we find that one at least of the recent cases, sent to the author for operative treatment and pictured in these lectures, was under the care of Hignmore's present representative in the practice. The illustrations are numerous, the type good, and the writing clear and forcible, as we should expect from the author.

TRANSFUSION. By C. E. JENNINGS, F.R.C.S., M.B. Third Edition. London: Baillière, Tindall, and Cox. 1888.

This little book, which has reached a third edition, discusses an important subject to the general practitioner and to the surgeon, and we look into it with some interest to see what the author's experience will lead him to recommend. There seem to us to be two distinct points to be inquired into: first, the simplest and safest means of transfusing; and, secondly, the kind of fluid to be transfused in particular cases. Each of these subjects is capable of careful consideration; and the author has succeeded, we think, in selecting a practical and simple method of transfusing, or, more correctly, injecting into the veins fluid which is artificially prepared. The method he adopts is practically what has been recommended before him, and may be described as the syphon method, in contradistinction to the force-pump method, which has always appeared to us as dangerous and unscientific. Moreover, as he rightly points out, a simple apparatus is the only one available in the majority of cases, and where skilled assistants are not within call. He is right, too, in insisting upon complete arrest of hæmorrhage as a preliminary to any transfusion. But we want fuller evidence than he gives of the utility of transfusing simple saline fluids, though there is no doubt they act as a charm for a time. But will their influence be lasting enough for Nature to work the cure? Anyhow, they are not open to the objection of blood-transfusion, as it must be done very often in general practice, or as we have seen it done in hospital practice. Roussel's ingenious apparatus is too elaborate, too costly, and too liable to be out of working order to be of real service in the majority of instances.

As to the character of fluid transfused, we confess to not feeling convinced by the author's arguments that he has made out his case for the simple saline and alcoholic solution, as against that of milk with saline and stimulant, and more, we think, remains to be done in this latter direction. The one or two cases he gives are not sufficient, though they are interesting and valuable. It does not seem to us that the work does itself justice as a manual on transfusion, but here and there we find a summary of the author's opinions on certain important matters, as on pages 21 and 63.

The appendix constitutes half the book, and gives cases, other papers on the subject written by the author, a number of experiments performed on animals, under different circumstances, by the author and others; and extracts from medical journals, including those referring to the injection of milk. These latter we have already referred to as inconclusive.

The little book is interesting as calling attention to a very important subject. In many parts it is objectionable in its style, and not scientific in its method, and the attempt at a popular and rather flashy style detracts from its influence. Very much is assumed, but not proved; but we shall be glad to see that further experience supports the sanguine hope which others before the author have felt and expressed, that benefit is to be obtained from the transfusion of nutritive as well as stimulating fluids, when a patient has been drained by hæmorrhage, whatever the cause.

MR. W. H. ALISON TEBBS, of Auckland Hospital, New Zealand, has been awarded a Scholarship of £40 in Chemistry and Physics at the Westminster Hospital Medical School.

PRESENTATION.—Dr. Cobbold, the late Medical Superintendent of Earlswood Asylum, has received from the members of the medical staff of that charity a gratifying testimony of their esteem and regard, by the presentation of a handsome spirit stand, claret jug, and salver. Dr. Cobbold, in acknowledging the gift, spoke of the great changes that had been effected in the five and a half years during which he held office, and referred to matters in which he had been enabled to improve the position of the staff.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

GREEN'S HYPODERMIC SOLUTIONS.

ALTHOUGH the introduction of tabloids, gelatine discs, and the like for the extempore preparation of hypodermic solutions at the bedside has of late years met with considerable favour, many practitioners still prefer to employ solutions. Messrs. Green and Co., of Tower Chambers, Moorgate Street, E.C., have submitted to our notice a number of such solutions, for which they claim the following advantages: that they are of uniform strength; that they are clear and neutral; and that they will not undergo decomposition under varying climatic surroundings. These claims, as far as we have been able to test them, are well founded. The solutions are certainly neutral and clear, and in our hands have retained their condition when subjected for a prolonged period to widely different conditions as to temperature and light. We are informed by Messrs. Green that this result is effected by the use of an antiseptic hydrocarbon as a preservative.

Messrs. Green's list of solutions includes aconitine, apomorphine, atropine, caffeine, ergotin, morphine, sparteine, pilocarpine, etc. They are all of convenient strength, the morphine especially so, a grain of the alkaloid being contained in 12 minims of the solution. Thus, a half, one-third, a quarter, and one-sixth of a grain of morphine are all represented by an even number of minims and no calculation is required in order to administer these doses.

FRY'S TRUSS.

MR. CORRIE JACKSON (17, Poland Street, W.) writes: Shortly after the meeting of the Medical Society in December last, referred to by Mr. Walter Pye in his article in the JOURNAL of April 5th, the truss invented by Mr. Fry, of 13, Ivydale Road, Nunhead, was brought to my notice. I fitted one, with the best results, on a patient who had had a large double scrotal hernia of forty years' duration, for which he had been under treatment for three weeks in hospital for strangulation, all other trusses proving painful and ineffectual.

A great feature in Fry's truss is that it can be worn by the patient whilst lying on his back; in the case mentioned no other truss could be worn in that position.

Contrary to Mr. Pye's experience, I found that considerable pressure was obtained against the apertures by the action of the elastic webbing and taper-shape of the pad. I believe this truss would afford very efficient relief in cases of inguinal, femoral, and scrotal hernia on account of the ready adjustment of the pad.

ROYAL COLLEGE OF SURGEONS.

AN ordinary meeting of the Council was held at the College on the afternoon of Thursday, May 10th.

The minutes of the quarterly Council held on April 12th were read and confirmed.

Mr. E. Hurry Fenwick was introduced, and the President handed him the Jacksonian prize for the past year (a cheque for £12 15s. 2d., being the amount of one year's dividends received from the Jacksonian Fund), together with the instrument declaratory of the award thereof. Mr. F. A. Southam was also introduced, and the President handed him an instrument declaratory of the appreciation of the Council of the merits of his dissertation for the Jacksonian prize. Mr. J. A. Marston was introduced, and after signing the necessary declarations, etc., was admitted a Fellow of the College.

A Report from the Committee on Extension of the College Premises, recommending the Council to authorise the expenditure of about £400 in alterations of the library and other portions of the building, and also recommending that, with a view to expediting the completion of the redecoration of the library which is contemplated, it be closed during the month of August as well as September, accommodation being provided for readers during August, was approved and adopted.

A Report from the Committee of the two Colleges, on "the Internal Arrangements and the requisite Fittings of the Rooms and Theatre in the New Building on the Embankment," was read, approved, and adopted.

A motion "That the annual meeting of the Fellows of the College for the election of members of the Council be held at the College on Thursday, July 5th, at 2 o'clock, P.M., precisely," was agreed to.

A letter was read thanking the Council for their resolution of condolence in reference to the death of Mr. T. B. Curling.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

MEMBERS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 12TH, 1888.

THE DEVELOPMENT OF BRITISH HEALTH RESORTS.

As has been said and written during the last year or two regarding the development of the health resorts of this country, and at this season it seems opportune to inquire what may chiefly be aimed at in this direction, and what is clearly ill-considered and chimerical. It can hardly be denied that in the matter of popularising sanatoria and rendering them thoroughly attractive, we have still much to learn from our Continental neighbours. Some of the most noted resorts in Europe have their natural advantages either of scenery, position, or resources, and in many cases art has been admirably utilised to supplement Nature. The gay Kursaal, with its daily round of amusements, the pleasant parks and trim gardens, the admirably appointed *établissements des bains*, the excellent music—these are but parts of the ordinary stock in trade with which Wiesbaden and Carlsbad, Homburg and Vichy so successfully attract their crowds of annual patrons. But of such attractions our British resorts are for the most part singularly destitute. They may have beautiful scenery, valuable mineral waters, excellent air, but these important advantages do not save them from being in many cases intolerably dull. Our error is twofold: we make the theoretical mistake of regarding health resorts as places solely for definite medical treatment, forgetting that amusement and mental distraction are not only desirable to all, but absolutely indispensable to the sick; and we fall into the practical error of assuming that sanatoria can provide sufficient recreation without organisation and co-operation. We need to realise, first, that a health resort has not fulfilled all its duty when it has built fine hotels, secured an ample water-supply, and cleansed its drains; and, secondly, that adequate distraction and amusement cannot safely be left to the accidents of individual enterprise, but require united and municipal effort. A health resort must first be healthy, and secondly attractive. It must aim at securing as many as possible of the conditions which check disease and promote recovery, and it must provide ample and varied relaxation for convalescents and their companions. Nor should it be forgotten that the presence of every invalid entails on an average the presence of two or three others, friends or attendants, who are not invalids. A health resort which provides sufficient occupation and amusement for this latter class will have gained an additional claim to consideration.

While we are still far behind France and Germany in enterprise of this kind, it would be unjust to ignore the great progress which is being made. Southport shows what a pleasant resort can be constructed upon the barest of sandhills, and Bournemouth is a witness of how a pine forest can be transformed into one of the most attractive of sanatoria. Bath, Leamington, and Droitwich are proving that enterprise is not hopelessly dead at the English spas, and here, as always, well-directed effort is reaping its due reward. No British resort has hitherto, so far as we are aware, adopted the plan so general on the Continent of imposing a fixed tax upon all visitors for the development of the locality on the lines indicated in this article. Such an impost would be a novelty in this country, and perhaps somewhat repugnant to our prejudices, but a nation that still tolerates tolls upon bridges cannot consistently rebel against a *Kur-tax*. The advantages of such an arrangement need hardly be pointed out.

After all has been said, it may be urged that Continental resorts surpass us in point of climate, and that as long as our summers and autumns are prone to be sunless and damp, so long will those who have the means migrate to more favoured regions. Granting this argument some weight, it by no means disposes of the entire question. There can be little doubt that at the holiday season our climate is far more promotive of health than that of many of the most famous sanatoria. From July to October includes the period at which our various classes seek their annual holiday. During July and August sea-bathing is one of the chief ends pursued; and it may be confidently asserted that no marine resorts in the world equal those of Great Britain. Scarborough, Hastings, Brighton, Eastbourne, Ilfracombe, Cromer, Whitby, Llandudno, Tenby, and Barmouth constitute a list that might easily be enlarged, and one to which no Continental country can afford an adequate parallel. Another large class of holiday-seekers is composed of those who require mineral waters and baths, which are usually associated. Now, with one important exception, this country is well provided with natural mineral springs, and it can hardly be denied that in summer or early autumn Harrogate, Buxton, and Moffat are more desirable resorts than the German or Austrian baths. Unfortunately, our springs are deficient in waters aerated with carbonic acid gas, and hence our sulphur and saline waters are apt to prove somewhat heavy and indigestible. It has been proposed, and in places successfully attempted, to have some species of natural water artificially aerated.

But, to recur to our original position, it is not, we think, any natural deficiency in our health resorts which dooms many of them to insignificance, so much as lack of enterprise and blindness to those attractive accessories which make the fortune of many of the Continental sanatoria. It must be owned that as a nation we are not successful in organising those minor enjoyments and lighter graces which are yet indispensable to a well-rounded existence. We "take our pleasures sadly," and thereby are great losers. Probably that incapacity for small enjoyments, that inability to be easily amused which so strongly characterises us, is a lingering relic of the old Puritan prejudice against every species of pleasure. Such a prejudice is happily almost a thing of the past. From the medical point of view it was an error to be deplored, and

such errors, even when ostensibly abandoned, are apt to leave traces behind in the poise and adjustment of the national mind. We must not be ashamed to amuse the sick, and both sick and healthy may with advantage occasionally devote some serious thoughts to those arts which promote the best and most advantageous utilisation of leisure hours and holiday seasons. It is only a crude philosophy which can condemn such efforts as unworthy of our best endeavours and most serious attention.

This JOURNAL has taken many opportunities of pressing these views upon the attention of those most interested in their success, and the subject is one to which Mr. Ernest Hart referred in some detail in his "Letters from Carlsbad." It is gratifying to us to know that some good results are likely to follow. At the beginning of another season we again invite attention to a subject of national as well as professional importance.

TEACHING SCIENCE AND SCIENTIFIC TEACHING.

IN teaching science, a double aim is sought—to impart knowledge, and to give mental training; both objects are of great importance to the student. It is frequently a subject of regret to see how soon physiology, anatomy and chemistry are forgotten by the student who has passed his examinations in those subjects, although he may have worked industriously at them in his earlier years. We cannot but think that this is in part due to failure in training the student to think and argue for himself about what he sees in the laboratory and the class-room. Observing facts does not necessarily imply thinking about them; to make logical comparisons and analogies between objects seen, to trace out under wise supervision the sequences of events as demonstrated by what is seen does compel thinking. Questions asked as to the action of different groups of muscles, and as to the muscles, the nerves, and the nerve centres which produce certain visible movements; such methods tend to produce efficient thinking, and add a practical interest to physiological and anatomical studies. In the hospital some students are too apt to be satisfied with detecting physical signs; a systolic apical *bruit* is detected over the heart, and the hasty inference is drawn that the mitral valve is diseased, and that this constitutes a diagnosis justifying at once the prescription of digitalis and iron. The *bruit* is a very important piece of initial evidence, and suggests the hypothesis of possible mitral disease, and the necessity of looking to all the physical conditions of the heart and the circulation in the pulmonary and systemic systems, as well as in the various viscera. A successful observation should stimulate thought, and lead to further observation. A patient complains of pain in the chest; on listening no friction is heard, and no abnormal dulness is found; the hasty conclusion may be drawn that no pleurisy is present, the student neglecting to take the temperature and to look for all the signs of pleurisy. Such habits of want of thoughtfulness lead to bad practice. Every observation should be followed by thought as to its significance and its relations to our knowledge; such mental habits may be

inculcated in teaching science. It is not only in clinical work that the need for correct thinking is seen; in the examination room we have frequently seen candidates fail to answer simple questions, not necessarily through ignorance, but because they were unpractised in continuous and regular habits of thought.

MR. PEARCE GOULD has resigned the office of Surgeon to the London Temperance Hospital.

THE Guy's Hospital Biennial Festival Dinner will take place on Wednesday, July 4th; and Dr. P. H. Pye-Smith, F.R.S., will be the chairman. The annual distribution of prizes will be made in the afternoon of the same day at the Hospital.

DR. AUGUST WEGNER, Generalarzt of the First Class, and Physician in Ordinary to the German Emperor, has been ennobled. This gives him the right to place the *particule nobiliaire* "von" before his name.

DR. MATTHEWS DUNCAN will preside at the half-yearly dinner of the Aberdeen University Club (London), which will be held at the Holborn Restaurant on Wednesday next. The honorary secretaries of the Club are Dr. R. W. Burnet and Mr. R. M. Routledge (1 Elm Court, Temple).

THE Burial Reform Association has resolved to memorialise the Home Secretary to inquire into the condition of cemeteries and the mode of burial adopted. At the annual meeting to be held next Monday at Grosvenor House, the Duke of Westminster in the chair, it is proposed to put the sanitary aspect of the question to the front. Sir E. H. Sieveking, M.D., Dr. Hubbard, Dr. Danford Thomas, Mr. Ellice-Clarke, C.E., Mr. F. Seymour Haden, F.S.A., and Mr. Wollaston Pym, are among those who have promised to take part in the proceedings.

ST. GEORGE'S HOSPITAL.

WE understand that it is proposed to present a testimonial to both Dr. Wadham and Mr. Holmes, whose periods of office as physician and surgeon respectively to St. George's Hospital have recently expired. Dr. Dickinson is the treasurer, and the subscription to each testimonial is not to exceed one guinea.

RABBITS IN AUSTRALIA.

A TELEGRAM from Sydney states that the conference upon the means of dealing with the rabbit pest has resulted in the selection of an island where M. Pasteur's and other methods of extirpation will be thoroughly tried. The liability of other animals and birds to infection by the same means will also be tested.

INTERNATIONAL OTOLOGICAL CONGRESS.

THE next International Congress of Otolology will be held at Brussels from the 10th to the 16th of September next under the presidency of Dr. Ch. Delstanche. Gentlemen wishing to be present are requested to communicate before May 15th with the Secretary, Dr. Ch. Goris, 143, Rue Royale, Brussels.

MEDICAL DEVOTION.

ANOTHER instance of the heroic and praiseworthy services so often rendered by medical men, in times of disaster and special danger has come to our notice in an account of the terrible disaster which recently occurred at the St. Helen's Colliery at Workington, where, as the result of an explosion, many lives were lost and others injured. Drs. Dudgeon and Ormrod were, it is stated, early on the scene, and, while Dr. Dudgeon was attending to the injured Dr. Ormrod went down the pit with the rescue party; and though

the after-damp was very oppressive, the whole of the workings were explored. Again and again they made the descent, bringing up the dead and injured, and imperilling their own lives in doing so. Every possible help was given to the injured and suffering. Dr. Ormrod has, we believe, had experience of many colliery explosions.

METROPOLITAN COUNTIES BRANCH: WESTERN DISTRICT.

Members are requested to call the attention of our members resident in the Western District of the Metropolitan Counties Branch to the fact that at the next meeting, which will be held on Wednesday, May 16th, at St. George's Union Infirmary, Fulham Road, London, the chair will be taken at 8.15 by Dr. Charlton Bastian, F.R.S., Vice-President of the District, when a short paper will be read by Mr. Butlin on "The Treatment of Chronic Ulcers of the Tongue." Demonstrations will be given by Mr. Noble Smith and Mr. H. W. Webster. This District Branch, which has an ample constituency, promises a programme of considerable interest for its summer proceedings, and the attendance of all members and their friends is invited.

THE GENERAL MEDICAL COUNCIL.

It seems probable that the General Medical Council will not have much business before it during the next session, which commences on Tuesday, May 22nd. Official notification of the appointment of two new members, Dr. G. Y. Heath, representing the University of Durham, and Dr. Hector C. Cameron, representing the Faculty of Physicians and Surgeons of Glasgow, will be received. Reports of the various committees—the Finance, Pharmacopœia, Statistical, and Income and Expenditure Committees—will be presented, as well as a report from the Education Committee, which may possibly give occasion for some discussion. The Executive Committee will meet on Monday, May 21st, to arrange the order of business.

THE MAGNESIUM LIGHT IN PHOTOGRAPHY.

PROFESSOR DR. HERMANN COHN, Breslau, is of opinion that the "lightning powder" used of late (consisting of magnesium powdered and chlorate of potash in equal parts) is disadvantageous for the following reasons: 1. On account of the dangerous character of this powder it cannot be made in large quantities and stored for use, but must be carefully prepared for use as occasion requires. 2. It is not easy to set on fire at the precise moment desired, even with the electric spark. Fuming sulphuric acid will do this, Dr. Cohn has been told, but this is not a desirable substance to deal with, as its vapour would damage any delicate apparatus in the vicinity. 3. It is not always desirable to have a double illumination. 4. The light should be "photochemical." Professor Cohn obviates all these inconveniences by using simple magnesium powder, which is then blown through any flame in use by means of a simple little apparatus (which may be obtained for 3s. from Herr Pusch, Breslau, Schmiedebrücke 46). Armed with this and a small benzine lamp, anyone can produce a momentary and brilliant illumination, and this may obtain photographs anywhere and at any time. Magnesium is only about one-twentieth of a grain, and a grain or two amply suffices. For medical photographers nothing can be simpler than Professor Cohn's magnesium-benzine light.

A THRILLING INCIDENT.

DR. A. C. DUTT calls attention to the following circumstance reported in the *Indian Daily News* (Calcutta), which is of interest not only for its personal aspects, but as an example of successful treatment of snake-bite. A number of snakes, principally cobras, were sent to Dr. Vincent Richards for experiment. Dr. Richards

took out one of the cobras with the object of getting some of its poison in a watch-glass, which he had ready for the purpose. He held the snake in his right hand, and was moving his left hand in front of it, when the snake bit him severely on the forefinger of the left hand. Dr. Richards, fortunately for himself, preserved his presence of mind; he killed the snake, and with a knife laid the finger open to the bone above the wound, and applied permanganate of potash; he then applied a ligature to the finger and another to the forearm, and drove off for medical help. Dr. Macleod and Sir Benjamin Simpson reopened the wound and thoroughly cauterised it with nitric acid. Ordinary dressings were then put on. More than two months have passed since the accident, and Dr. Richards is doing well.

THE GERMAN EMPEROR.

WE received the following telegram from Charlottenburg on Thursday morning: "Last Saturday, immense, sudden increase of pus took place, twice as much as any day previously, but no increase of fever occurred. It is probable, therefore, that the abscess which formed a fortnight ago broke down. The discharge of pus is now lessening, and the Emperor is gradually recovering strength." We learn, on what appears to be trustworthy authority, that in Professor Senator's opinion the disease is undoubtedly laryngeal cancer, complicated with extensive suppuration. New swellings are continually becoming developed in the trachea, so that the cannula has to be frequently changed.

THE PARKES MUSEUM OF HYGIENE,

HER Royal Highness the Duchess of Albany presented on Saturday last, at the Parkes Museum, certificates to the ladies who had passed an examination following a course of lectures on domestic hygiene given by Dr. Schofield on behalf of the National Health Society. Sir Douglas Galton, who opened the proceedings, spoke of the need which was felt by friends of hygiene and workers in sanitation at this critical point, when further progress of the sanitary education of the nation required earnest and concentrated effort, and expressed a strong belief that, if all the different sanitary and health associations were combined, ample funds for the endowment of a grand national college of hygiene, with affiliations in the chief localities of the empire, would be at once available. Lord Wantage proposed and Mr. Ernest Hart seconded a vote of thanks to the Duchess of Albany, which was cordially passed. A letter from Miss Florence Nightingale, expressing her deep sympathy with the objects of the Museum, especially with the ceremony that day, was read; it contained the following passage: "Without women there can be no domestic hygiene. The first principles and work of sewerage, water-supply, and ventilation must, without the housewife, almost remain a dead letter. But let her be practically interested in how to keep air, earth, and water pure, and to admit light in her house, and the health and life-giving machinery is complete."

MEETINGS OF GERMAN ASSOCIATIONS.

THE sixty-first German Scientific and Medical Congress will be held in Cologne from September 18th to 23rd. Dr. Laudahn, representing the section of Neurology and Psychiatry, will receive announcements of intended papers.—The second Congress of the Anatomical Society will take place in Würzburg from May 20th to 23rd. The following papers and addresses are announced:—Gegenbauer: On Cœnogenesis. Bardeleben: On the Position of the Female Pelvic Organs. His: On the Origin of Nerve Fibres (with demonstrations). Kollmann: On the Skeletal Hand in Vertebrates; also On Cœlom and Nephridium in Vertebrates. Von Brunn: Membrana Præformativa and Cuticula Dentis. H. Virchow: The Spinal Cord in Anthropoidea. Th. Kölliker: On the

Simple Deposition of the Intermaxillary, with demonstrations *contra* Biondi. Lehoucq: The Finger-skeleton in Pinnipedia and Cetacea. Bonnet: Stump-tailed Dogs, in regard to the Transmission of Acquired Peculiarities. Born: On the Formation of the Valves, Orifices, and Septa of Mammalian Hearts, with demonstrations. Rabl (Prague): On the Origin of Connective Substances. Several interesting demonstrations are announced, in addition to the above.—The German Gynaecological Association will hold its second meeting in Halle from May 24th to 26th. About twenty-three members have promised papers, amongst which are the following,—Winckel (Munich); On the Facilitation of the Delivery of the Head in Foot-presentation. Dohen (Königsberg): The After-birth Period. Schwartz (Halle): (1) The Treatment of Extra-uterine Pregnancy; (2) Atony of the Non-puerperal Uterus. Ahlfeld (Marburg): (1) On Placenta Prævia and Uterine Incision; (2) On some Intra-uterine Fœtal Movements not hitherto described. Olshausen (Berlin): On the Mechanism of Delivery in Cranial Presentation.

BOWER AND KEATES INDEMNITY FUND.

THE Committee of the Bower and Keates Indemnity Fund are now, after several unavoidable delays, in a position to wind up the affairs with which they have had to deal. After paying Messrs. Bower and Keates's bill of taxed costs and all the expenses connected with the appeal to the profession, etc., a balance of about £500 remained. Some time ago the Committee issued to every subscriber a circular regarding the disposal of the surplus, and suggested that part should be given to help other practitioners who had been attacked and had vindicated themselves at considerable cost, and that part might be given to some of the medical charities. The subscribers having left the power of disposal in the hands of the Committee, we believe they have advanced so far in the distribution as to vote £100 to Mr. Ralph Hodgson, late of Lewisham, who was successful in clearing himself from charges brought against him by a servant; in the case of Gibson and Wife *v.* Jeffries and Hills, £50 to the defendants; and a like sum to Mr. Brown, of Wandsworth, in the case of Lennard *v.* Lennard, Brown, and Allatt. The Committee have still about £300 remaining, and they propose to meet in a month to decide as to its distribution and to close the accounts.

A CASE OF SPLENECTOMY.

In the *Annali Clinici dell' Ospedale degl' Incurabili in Napoli* for May and June, 1887, Professor Agostino Casini has recorded a case in which he successfully excised a "wandering" and hypertrophied spleen. The patient was a woman, aged 22, who for four years had suffered from frequent attacks of malarial fever, sometimes accompanied by jaundice. Three years before she came under the care of Dr. Casini she became conscious of uneasy dragging sensations in the abdomen, and noticed a tumour in that region which steadily increased in size, whilst her general health became gradually worse. On examination the belly was seen to be enlarged, especially on the left side. A smooth, rounded, rather hard swelling was felt occupying the fore part of the cavity; it extended upwards nearly to the margin of the ribs, downwards to the pelvis, and laterally to a line passing downwards from the anterior axillary border. The tumour was freely movable, and was not adherent to the abdominal parietes. It could be rotated so that its upper edge was directed forwards perpendicularly to the wall of the belly, the anterior surface thus becoming the inferior, and the posterior the upper. On the rounded margin a notch could be distinctly felt. The mass could be moved upwards and to the left, so as to be almost covered by the ribs; displacement towards the right, on the other hand, caused a feeling of dragging and stretching on the left side. There was some fluid in the abdominal cavity. On April 20th Professor Casini opened

the abdomen in the middle line, and removed the spleen. There were some adhesions to the kidney, and especially to the pancreas, which formed part of the pedicle. The latter gave a good deal of trouble, and had to be tied in a number of separate pieces, a portion of the pancreas, which could not be detached, being seized between the blades of a pair of forceps, and crushed off; the stump of the pancreas was then stitched up, and, after careful cleansing of the peritoneum, the abdomen was closed. Very little blood was lost in spite of the difficulty which had been felt in securing the vessels of the pedicle. The spleen weighed 3 kilogrammes and 100 grammes (6½ lbs.). The temperature on the first and second day was 100.4° F., after which it fell to a point little above normal. On the seventh day the sutures were removed from the abdominal wound, which had healed by first intention. A few days later a small abscess formed in the abdomen on the left side above the level of the umbilicus; the patient, however, soon afterwards passed a quantity of pus in her urine, and continued to do so for some little time, the swelling meanwhile gradually disappearing. Towards the end of May she was discharged cured, and six months later she was still in perfect health. This makes the ninth splenectomy that has been performed in Italy, the first having been done in 1874. Of these operations five had a fatal result; the remaining four, which have all been performed since 1881, have been successful.

DR. APOSTOLI AT BRIGHTON.

AT the last meeting of the Brighton and Sussex Medico-Chirurgical Society, held on Thursday, May 3rd—Mr. W. F. Salzmann, President, in the chair—Sir T. Spencer Wells read a paper "On the Electrical Treatment of Diseases of the Uterus." After the paper, which will be found reported in full on another page, Dr. Apostoli, who was very well received, made some remarks in French. An animated discussion then followed, sustained by Drs. Playfair, Aveling, Inglis Parsons, Heywood Smith, George Elder (Nottingham), Travers, Skene Keith, and Mr. W. Furner. As will be seen from our report, most of the speakers were decidedly in favour of Apostoli's method. Various questions on the subject were replied to by Sir Spencer Wells and Dr. Apostoli. There were over sixty gentlemen present, amongst others, as visitors, Mr. Morse (Norwich), Dr. Beaumont (Southampton), Drs. Colgate and Farnell (Eastbourne), etc. The members present included the Vice-Presidents, Mr. Noble Edwards and Dr. Withers Moore, the Treasurer, Mr. Hodgson, and the Honorary Secretaries, Mr. Cresswell Baber and Dr. Mackey (acting for Dr. Whittle).

THE DEATH OF MR. WALTER SHIRLEY.

THE distressing circumstances attending the death of Mr. W. Shirley, until recently M.P. for the Doncaster Division, have naturally attracted a good deal of attention. He was admitted into the London Hospital, and died within twenty-four hours, *post-mortem* examination showing that the immediate cause of death was suppurative peritonitis. A painful impression was created by the statement that he had previously applied to St. Thomas's Home and Hospital and had been refused admission. We have received from the Resident Assistant Physician the following explanation of the reasons which led to this refusal:—"On April 30th, at 11 P.M., Mr. Shirley, accompanied by his landlord and a policeman, applied for admission to St. Thomas's Home. He was seen by Dr. Edmunds, the medical officer of the Home, and subsequently, at Dr. Edmunds's request, by Dr. Hawkins, the resident assistant physician of the hospital. It appears that he had left his residence in the Temple to take lodgings in Newington. In Newington he had been seen by a local practitioner, who had recommended his admission to St. Thomas's Home. The appearance of the policeman on the scene was due to the fact that Mr. Shirley, on his way to the Home in a cab, had

imped out and invoked the assistance of the police to protect him from being taken to an asylum. Dr. Edmunds and Dr. Hawkins found Mr. Shirley to present such marked signs of mental aberration as to render him unfit to be admitted to Home Hospital, the rules of which forbid the admission, except in cases of extreme urgency, of such cases. Extreme urgency was certainly not apparent. Mr. Shirley walked about with much activity, conversed freely, had a good pulse and a clean tongue; his mental condition rendered it in the highest degree undesirable that he should be introduced into a ward containing a number of persons to whom rest was precious. His physical condition after his journey to the hospital showed nothing incompatible with his return to Newington, under the care of his medical attendant in that locality. Admission was therefore refused. At the same time a letter was sent to his medical attendant, giving the reasons which prevented his admission; and a telegraphic message was ordered to be despatched to his nearest known relative notifying his condition."

SWISS LAWS AND ENGLISH PATIENTS.

In the discussion at the Royal Medical and Chirurgical Society on the treatment of phthisis by residence at high altitudes, Dr. Quain made some very pertinent remarks. He dwelt with some emphasis on the recent action of the Swiss Government, which has rendered to English practitioners, however well qualified, liable to fine and imprisonment for attending his own countrymen within the Republic. This unfortunate state of the Swiss law led Dr. Quain to hesitate before advising patients to go to health resorts where they would be so ruthlessly deprived of the advice of English medical men. There was, he said, good reason to believe that not a few of his colleagues in London held the same opinion. His recent decision of the Swiss authorities is the more remarkable inasmuch as they must be aware that Swiss medical men can practise in England without let or hindrance, and could now even be placed on the *Register* for foreign practitioners, which confers every privilege possessed by an English practitioner, provided that the Swiss were willing to reciprocate by giving English practitioners a like privilege in Switzerland.

A VICTIM TO THE CHLOROFORM HABIT.

Two points at least furnishing matter for reflection arise out of the death from inhalation of chloroform reported this week. The case ceased, a midwife, aged 42, had, it appears, been in the habit for at least ten years of inhaling large quantities of chloroform; in fact, she claimed to be—at any rate it was claimed for her at the quest—that she was the champion chloroform taker of the world, and that she would take a pint of chloroform in the day. It will be safe to assert that a very considerable quantity of this illicit allowance was never really taken, or inhaled by her at all, but wasted on the atmosphere around her. As everyone conversant with the subject is well aware, it is not the amount of chloroform, but the proportion of it to air, that constitutes the chief source of danger in inhalation. The first point, however, to which we would refer is whether we may infer from this case that a system may become habituated to, and so more tolerant of, chloroform vapour; we do not think such an inference can be made; we have no evidence as to the degree of concentration of the vapour she was wont to inhale, and her death would prove that she certainly had not attained to complete toleration, whilst it is well known that many fatal results from chloroform inhalation have occurred in persons who had previously and sometimes repeatedly taken chloroform without any ill effect. Our second reflection is as to how it happened that this woman was able to purchase such large quantities of so potent a drug; some chemists may sell it to medical men, or by their instructions; and it is to be regretted that the opportunity was not afforded to the jury of

making a strong presentment on the subject on the present occasion. The unfortunate woman could never have acquired the habit had it not been for the laxity of some person or persons in selling chloroform to her.

WEIL'S DISEASE.

WITHIN the last two years, another disease, bearing a man's name, has been described and discussed. We have already Bright's, Addison's, Graves's or Basedow's, Raynaud's, Friedreich's, Thomsen's, and Menière's diseases, besides Argyll-Robertson's pupils, Colles's fracture, and several surgeons' amputations. There are numerous objections to the practice of employing men's names to distinguish diseases. The taunt of the Psalmist against the heathen calling their lands after their own names does not apply to the present case, as the names in question, surnames of distinguished observers, are invariably attached by others to the diseases which these observers first described without the aid and convenience of nomenclature. Nevertheless, the practice is objectionable; it implies the glorification of men through disease, and, as part of a system of nomenclature, is faulty. Weil's disease is so-called for the usual reason—that is to say, it was first described by a physician of that name. About thirty cases have been noted, including those first detailed by Dr. Weil only two years ago. Dr. Fiedler has since written on the new disorder in the *Deutsch. Archiv*, vol. xlii, part 4, page 281. His paper has already been fully condensed in the May number of the *American Journal of the Medical Sciences*. Fiedler concludes that the disease, first described by Weil in 1886, is not an abortive form of typhoid fever, as Dr. Weil has suggested. It is a distinct, acute infectious or toxic affection. The disease begins suddenly, without prodromal symptoms, but often with a chill. The constant symptoms are fever, headache, gastric disturbance, jaundice, and muscular pain, especially in the calves. The fever has a typical course, and lasts eight or ten days. Relapses have been observed. The spleen and liver are generally but not always swollen; the liver often becomes tender on pressure. Nephritis is often observed; herpes and erythema occur at times. The prognosis is generally favourable. Weil's disease is generally seen in hot weather, and men in the prime of life are the most subject to it. The cause is quite unknown, but butchers appear most liable to the disease, judging from the scanty statistics already at the disposal of the physicians who have studied Weil's disease.

EXTIRPATION OF CONSTRICTED PORTION OF THE LIVER.

DR. LANGENBUCH describes, in the *Berliner Klinische Wochenschrift*, No. 3, 1888, the case of a woman, aged 30, who had suffered for eight years from abdominal pain, most marked when she lay down: when lying on the back, palpitations and a feeling of fear came on. In the upper part of the abdomen a swelling, the size of a fist, could be felt. It was hardly perceptible externally, and extended from the ensiform cartilage to within two and a quarter inches of the umbilical level. The swelling was smooth, tough, and elastic; its inner border was thick. Percussion impaired, the dulness being continuous with that corresponding to the area of the liver. Echinococcus or, more probably, constriction of liver, caused by clothing, was diagnosed. An exploratory incision was made, and a large mass of liver-substance, cut off by a deep constriction from the left lobe of the liver, was discovered. The position of the constricted mass explained the high degree of pain and discomfort which it caused, strongly contrasting with the trifling inconvenience observed when the right lobe is similarly affected. The mass in this case pressed the pyloric portion of the stomach, the duodenum, pancreas, aorta, with several great nerves and ganglia of the sympathetic against the vertebral column. The mass of liver was amputated, several pedicles being

made out of the bands of connective tissue which still united it to the main part of the liver, and carefully ligatured. Hæmorrhage occurred on the evening of the operation, the abdominal cavity was opened up again, clots removed, and a vessel ligatured. The patient recovered for a time. Gradually ascites set in, with œdema. Dr. Langenbuch was uncertain whether the ascites should be attributed to the high degree of hydræmia present in this case, or to diminution of the area of the portal circulation. The abdomen was twice tapped, when the patient is said to have recovered completely.

PHYSICAL INSTRUCTION.

MADAME BERGMAN ÖSTERBERG, who has for some years acted for the London School Board as superintendent of physical training, and in supervising and training the teachers, has given evidence before the Royal Commission on education. Madame Österberg, as the result of her experience, gives her opinion that the present drill does not develop children physically, it simply sharpens their attention. The recommendation is made that the training of special teachers should comprise an elementary course in anatomy, physiology, and hygiene, and that special inspectors should supervise these subjects. The health of girls appears to suffer from neglect of such training, especially in towns, and improvement has been obvious under training upon the Swedish system. In schools it has been found that where mistresses at first grudged the time given to physical exercises, they have never afterwards regretted the time so spent. Exercise must, of course, be modified in the case of children who are underfed or starving. Mr. Alexander, of Liverpool, advocates that teachers should qualify themselves in giving gymnastic exercises, and that children should commence such practice when 8 years old. He also proposes that children should be taught to play under competent supervision, and that gymnastic apparatus be provided in every school; he considers that the use of some such apparatus quickens the circulation, and that other exercises aid development, while free exercises are enough for health. It is much to be hoped that the report of the Royal Commission will give some recommendations for physical training and attention to the hygiene of primary schools.

ULCERATIVE OR INFECTIOUS ENDOCARDITIS IN DOGS.

M. MATHIS, of the Lyons Veterinary School, has recently published some cases of infectious endocarditis in dogs, which appear to be of interest to medical men from their similarity to cases occurring in human beings. The first case described is that of an old bitch, which had been operated on for a tumour of the udder. All went well till a week after the operation, when the animal managed to tear away a ligature which had been placed on the mammary artery. This was followed by violent hæmorrhage, which was checked by the actual cautery. From that time the bitch refused her food, the wound ceased to granulate, and the respiration became rapid and difficult; there was also violent palpitation of the heart. A week later she died. The heart was found filled with whitish clots, easily broken down, looking more like jelly than fibrin; these were adherent to the walls of the heart and especially to the mitral and tricuspid valves, which were ulcerated. In the second case a bitch, which had just dropped a litter of puppies, had to walk through a large puddle of water which came up to her middle. She was immediately afterwards attacked by violent fever (40.5° C.), the pulse being 145, and the heart beating very violently; the breath was short, and the mouth hot and dry. She fell into a somnolent state, the dyspnoea and palpitation gradually increasing, till death ensued seventy-two hours after the commencement of the attack. Clots and valvular ulcers were found in the heart. In the third case, where there had been

a good deal of uterine hæmorrhage a trocar had been inserted into an old hæmatoma situated at the fundus of the vagina of a bitch five years old. Soon afterwards dyspnoea, palpitation, and pyrexia came on, death rapidly ensuing. Some very distinct ulcers of a reddish-grey colour were found on the auriculo-ventricular valves; from these ulcers a micrococcus was obtained and cultures prepared; these succeeded very well in broth, but developed less quickly in gelatine, and not at all in agar-agar. The juice of all the organs served for sowing the cultures. Intra-venous injections of the culture did not succeed in developing the disease in healthy animals, a certain predisposition being apparently required. Thus, in two of the three cases described there had been exhausting hæmorrhage, while the third occurred in the puerperal state. The clinical characters of this disease may be said to be sudden invasion causing extreme depression, dyspnoea and violent palpitation, no physical signs to account for these being discoverable by auscultation or percussion.

SCOTLAND.

DR. W. SCOTT LANG has recently been appointed to lecture on surgical pathology at Surgeons' Hall, and commenced the course by giving an introductory lecture on May 2nd.

SOUTHERN MEDICAL SOCIETY, GLASGOW.

ON May 3rd Dr. McIntyre read notes of laryngeal cases illustrating difficulties of diagnosis and treatment. He specially referred to the frequency with which the larynx was the seat of reflex irritation from other parts, such as the nasal mucous membrane or from the presence of nasal polypi, and described the more recent methods of treating such cases.

OPENING OF THE GLASGOW EXHIBITION.

THE great social event of the week has been the opening on Tuesday last of the Exhibition by their Royal Highnesses the Prince and Princess of Wales. The event was most successful. Glasgow visited so seldom by Royalty, was *en fête*. In the most brilliant sunshine, the miles of gaily-decorated streets and the dense crowds of holiday-makers made a sight well worth seeing. The Exhibition and grounds were in apple-pie order, and nothing occurred to mar the beauty of one of the most brilliant ceremonies that have ever occurred in Glasgow.

DISCUSSION ON TRACHELORRHAPHY.

At the last meeting of the Glasgow Obstetrical and Gynaecological Society, Dr. Park introduced a discussion on trachelorrhaphy; he criticised and traversed the conclusions of Nøggerath. He thought subinvolution and hypertrophy were not only directly but remotely sequent to lacerations of any considerable extent; but that, while that was so, these frequently yielded to treatment, and trachelorrhaphy was only called for in intractable cases. The discussion was an animated one, and was engaged in by Drs. Sloan, Oliphant, Pollock, Turner, Stark, and Nairn.

MEDICO-CHIRURGICAL SOCIETY, GLASGOW.

At the meeting of the Medical Section on May 4th, Professor W. T. Gairdner showed a young child with a peculiar deformity of its arms, affecting chiefly the muscles, causing abduction of the arm, with flexion of elbow and inversion of forearm. It was supposed to be due to some central nervous lesion. Dr. Middleton showed a patient with congenital cardiac disease, due probably to communication between the auricles or ventricles, but without any blueness of skin. Professor Gairdner showed a heart from a case in which an auricular systolic murmur was heard during life, while the *post-mortem* examination revealed no lesion.

at a perforation of one of the anterior segments of the aortic valve. Professor Gairdner said this was the first case that had come under his observation that appeared to support Austin Flint's theory of the causation of the presystolic murmur. Professor Gairdner and Dr. Middleton showed a heart from a case in which systolic and diastolic murmurs were heard during life, while the *post-mortem* examination revealed extreme mitral stenosis as well as aortic and tricuspid lesions.

DEATH OF DR. H. C. MACEWEN.

This talented physician has just died at the early age of 27, from phthisis caught in the discharge of his professional duty, and the very outset of his career. After a most distinguished course as a student, first at the University of Glasgow, and afterwards of Edinburgh, he graduated in 1885, and then proceeded to Vienna, to continue his studies of special branches. On his return to Glasgow he entered the Royal Infirmary as house-physician, here he resided for a year, and only left a month ago to fill a vacancy on the staff of the Belvidere Fever Hospital. He had hardly been three weeks in his new post when he was seized with his fatal illness. He first complained of sore throat on April 15th, and he died on May 3rd, deeply regretted by all who knew him.

GLASGOW BOUNDARIES COMMISSION.

The report of this Commission, which has just been issued, will in many respects have a very great influence on the health and sanitary conditions of the inhabitants of Glasgow. The Commission recommends the inclusion within the city of all the presently separate suburban police burghs and of certain portions of the counties of Lanark and Renfrew, built upon and inhabited, but still extra-burghal. This means the addition of about 180,000 inhabitants and of about 8,500 acres to the present city, giving a total population of about 724,000, and an acreage of 14,600 to the extended city. In making these additions the Commissioners have been largely guided by the sanitary and drainage necessities of the various districts and by the common interests of the city and districts in regard to the spread of infectious diseases and the treatment and removal of these diseases and of all other unsanitary conditions. They regard it as of the utmost importance that the whole urban area should be under the charge of one chief medical officer, with an adequate staff and appliances in the various districts, and that that officer should be responsible to the central authorities, consisting of representatives of every part of the extended city. It is to be hoped that a report based on such enlightened considerations for the health of the inhabitants may speedily be made the basis for Parliamentary procedure.

GLASGOW UNIVERSITY.

The summer session of the various Glasgow medical schools opened last week. The interruption to the ordinary course of work by the opening of the International Exhibition on May 8th seems, however, to have deterred many students from entering promptly for the classes. At any rate the enrolments at the University are as yet in many cases considerably below those of last year. The agitation aroused by the Universities Bill seems to have opened as the Bill slowly progresses in Parliament. It will be rather difficult to form a just estimate of the dominant opinion regarding the Bill so far as Glasgow University is concerned, as fewer than four petitions have already gone up from various bodies connected with the University, and expressing views of no little divergence. That of the Senate seeks to have the affiliation clauses wiped out, and the clauses relating to the powers of the Court and Senate amended, so as to leave the present powers of the Senate in educational matters intact; while the petition of the Council Association, representing the views of "about a thousand

graduates,.....comprising clergymen, medical men, lawyers, and others," specially singles out the affiliation clauses and those restricting the powers of the Senate for approval, though it expresses the opinion that the affiliation proposals are defective in that they do not expressly confer on the University Court any share in the management of the affiliated colleges. The Council itself asks only for a definition of affiliation, incorporation, etc., disapproves of the transference of the patronage of bursaries, and petitions for an increase in the financial grant; while the University Club takes the senatorial view that the Commissioners should have affiliation referred to them merely for consideration and report. On May 3rd the unusual spectacle was witnessed of the Principal and a deputation from the Senate, consisting of Professors Leishman, Veitch, Stewart, and Jack, appearing before the Town Council to show cause why the Council should not petition in favour of St. Mungo's College Bill, as the promoters of the Bill had desired them to do. The deputation addressed the Council for an hour and a quarter, and at the close the Lord Provost intimated that the statements made would be carefully considered before a decision was arrived at.

ASPHALTE PAVEMENTS AND THE PUBLIC HEALTH.

The vapour of tar has been supposed to be beneficial in a number of disorders, but Dr. Edmund J. Mills, of the Glasgow Technical College, has written a short note on the injurious effects of tar vapours so copiously discharged on our streets while asphalt road-mending is going on. It is said that the injurious effects of these fumes is perfectly well known at tar works, where the pitch is always cooled down in a closed chamber prior to casting in blocks. Casual inquiries have convinced him that the operations of road repair in Glasgow have been, during the last three weeks, the cause of a great deal of totally unnecessary illness, the leading symptoms of which are nausea and giddiness. He himself has been three times prostrated in this way, and has been thereby debarred from pursuing his ordinary professional work until these repairs cease. In view of the serious inconvenience from which many more must have suffered, it is to be hoped that the use of pitch in the future may be dispensed with, as the operation of road-mending can, if desired, be conducted without any offence whatever to the public health.

THE CONSUMPTION OF METHYLATED SPIRITS.

At a meeting of the Edinburgh Town Council held last week, an important communication was presented by the chief constable of the city referring to the great and increasing use of methylated spirits as a beverage among the poorer classes. This trade in a most noxious material is largely carried on on Sundays, when the ordinary liquor traffic is prohibited in Scotland under the Sunday Closing Act. The head constable's report is as follows: "I think it my duty to bring prominently under the notice of the magistrates and council the fact that on Sundays within the city a considerable trade has arisen among certain druggists for the sale of methylated spirit to persons who consume it as a beverage. In consequence of numerous complaints, I have had observation kept upon the shops of a number of druggists who were reputed to carry on this Sunday trade, and the result of that observation shows clearly that a very considerable traffic goes on every Sunday. The class of persons who purchase the spirit is about the lowest we have in the city, and their appearance ought to be sufficient to denote to the druggist the purpose for which they are making their purchases. No questions, however, are asked as to what the methylated spirit is wanted for, and in not a few cases the purchaser did not even require to ask for any specific article, but simply placed an empty bottle on the counter with the price of the quantity wanted, and it was at once supplied. The whole facts go to show that the druggists are perfectly well aware that

the spirit is bought to be drunk, but without specific evidence to prove this knowledge on their part there is little hope of securing a conviction for a contravention of the Act. The spirit is known amongst its users by a variety of names, among which are 'finish,' 'dynamite,' 'polish,' etc. The trade is an increasing one, and I am certain it is doing a vast amount of mischief; but as the law stands, the police are powerless to deal with it. I have never been able to find any objection which would hold good to the prohibition of the sale of methylated spirit on Sundays, and if the corporation can see their way to make any representation likely to effect this, they would do a public service."

ROYAL SOCIETY OF EDINBURGH.

At the last meeting of the Royal Society, several papers of medical interest were communicated to the Fellows. Dr. Woodhead and Mr. Irvine read a paper on the secretion of carbonate of lime by animals. Dr. Bruce then communicated a paper on his recent interesting case of a brain in which the corpus callosum was entirely absent. After fully describing the actual condition of parts in the cerebrum, which was in many particulars curiously abnormal, he entered into a discussion of the views held by Professor D. J. Hamilton, of Aberdeen, who communicated his doctrine of the non-commisural character of the corpus callosum some twelve months ago. This doctrine has found little favour in Dr. Bruce's eyes from the first, and in his paper he largely developed his antagonism to the new doctrine. Several other interesting papers, mostly on zoological subjects, followed; among them a valuable paper on the distribution of marine life on the west coast of Scotland, and one describing the crustacea of the Firth of Forth by Mr. W. E. Hoyle.

IRELAND.

THE WATER-SUPPLY OF LISBURN.

A REPORT has been issued, in which the sanitary officers of Lisburn give a startling account of the impurity of the water at present supplied to the inhabitants. Confidence is felt that now, when attention has been drawn to the matter, the necessary improvements will be instituted by the lord of the soil, Sir Richard Wallace, who has always shown generosity and public spirit in the management of his property.

POLLUTION OF THE RIVER LEE, CORK.

THE Cork City Engineer has recently reported to the Public Health Committee that at Macroom the river Lee is subject to pollution, and it is intended that immediate steps shall be taken to compel the guardians of Macroom to prevent any further contamination of the water which supplies the citizens of Cork.

LADIES AT IRISH EXAMINATIONS.

At the recent examination under the Conjoint Scheme, Miss Thoms, of London, outstripped the other twenty candidates and came out first. At the Royal University, Miss Fleury, of the London School of Medicine for Women, made brilliant answering at the third year's examination. She was one of six candidates who—out of 80—were recommended to compete for honours. The result of this further test has not yet been made known.

TESTIMONIAL TO SIR GEORGE OWENS, M.D.

On Friday, May 4th, a purse of one thousand sovereigns, an album, and a claret jug, with an address, were presented to Sir George Owens, M.D., as an acknowledgment of his services to the public. Sir George Owens has devoted much time to the duties of the various public bodies of which he is a member, and he has earned the approval of a large section of the community.

THE ROYAL COLLEGE OF SURGEONS AND THE QUEEN.

THE President and Council of the College of Surgeons announce that a portrait of the Queen will be unveiled at the College on May 22nd. His Excellency the Lord Lieutenant and Prince Edward of Saxe-Weimar will be present on the occasion. The President (Mr. Corley) will give a banquet on the evening of the same day, when His Excellency the Marquis of Londonderry and other distinguished guests will be present.

AMALGAMATION OF SCHOOLS.

A REQUISITION is being signed by Fellows of the College of Surgeons, asking the President to convene a special meeting to consider the question of the amalgamation of one or more private schools with that of the college. The subject was brought up at the annual meeting last year by Mr. Thomson, and was defeated by a narrow majority. There are no less than five medical schools in Dublin, two of them being proprietary. The waste of power which results is very obvious, and it would be a clear gain to medical education if there could be more concentration of teaching.

ELECTION OF EXAMINERS, ROYAL COLLEGE OF SURGEONS IN IRELAND.—The annual election of examiners took place at the College of Surgeons last week. Messrs. O'Grady, Mapother, R. L. Swan, and A. Benson retired by rotation. The following were appointed to the Conjoint Board of the College of Physicians and College of Surgeons:—Anatomy: John Barton and Thornley Stoker. Surgery: William Thomson and C. B. Ball. Physiology and Histology: J. A. Scott. Midwifery: H. G. Croly. Ophthalmology: H. R. Swanzy and F. Devaine. To the Conjoint Board of the College of Surgeons at the Apothecaries' Hall:—Anatomy: F. A. Nixon and C. H. Robinson. Surgery: L. H. Ormsby and H. G. Croly. Physiology: Coppinger. Medicine: M. A. Boyd. Chemistry: H. C. Tweed. Midwifery: J. J. Cranny. The last-named gentlemen will all take place in any other examinations at which their services may be required. Dr. Hayes was appointed an examiner in Medicine and Dr. Minchin in Chemistry.

COLLEGE OF STATE MEDICINE.—The introductory lecture of the inaugural session of the College of State Medicine was delivered by Mr. Brudenell Carter on Wednesday, May 2nd, the subject being "The Aims and Objects of State Medicine." Sir Joseph Fayrer, in introducing the lecture described the character, scope, and objects of the institution which that day had begun its active existence. It was proposed that the College should be a training institution for those who desired to be specially qualified to guard the public health, or to fill any of those public offices which required sanitary knowledge, and also for those who held commissions in the Volunteer Medical Service and who required a knowledge of ambulance work; that, in fact, the College should do for the members of the medical profession very much what Netley has now for many years past done for the military.

TESTIMONIAL TO MR. JOHN BROADBENT.—At the last meeting of the Manchester Medico-Ethical Association, an illuminating address was presented to Mr. John Broadbent, surgeon, who has held the office of honorary secretary for the last ten years. The address, which was signed by Dr. Henry Simpson, President, and Drs. A. Wahltruch and Frederick H. Collins, honorary secretaries in the name of the Association, expressed a high appreciation of the manner in which Mr. Broadbent had discharged the duties of the office for so long a period.

BEQUESTS.—Mr. Richard Benyon, of Englefield Park (the President), has given £500 to the Royal Berkshire Hospital, Reading. Professor Leone Levi has given 100 guineas to the Great Northern Central Hospital, on condition that one of the beds in the new building shall be named "The Leone Levi Bed."—Mr. Henry Clarke has given £100 to St. Mary's Hospital.—Mr. William Speke, J.P. and D.L. of Portledge, Bideford, has bequeathed £100 to the Taunton and Somerset Hospital.—The Royal Maternity Charity has received £100 under the will of Mrs. E. Douglas.—Sir Edwin Saunders (the senior Trustee) has given £50 to the Dental Hospital of London.

PARLIAMENTARY BILLS COMMITTEE.

IRISH LUNACY LAW.

The following is the report of the Subcommittee of the Parliamentary Bills Committee of the British Medical Association on the above.

There were present at the Subcommittee Mr. Ernest Hart, Mr. Bridgwater, Dr. Alfred Carpenter, and Dr. Mickle, who drafted the report.

Resolutions in relation to Irish lunacy law passed in the section of Psychology at the annual meeting of the British Medical Association in Dublin, August, 1887, and referred to the Parliamentary Bills Committee by the Council of the Association; "It was moved by Dr. Yellowlees and seconded by Dr. Savage:—

"That this Section of the British Medical Association, having had under consideration during the meeting in Dublin the Irish lunacy laws and their practical working, and having strongly felt their grave defects when compared with those of England and Scotland, conclude to bring this subject under the consideration of the Council, in the hope that they will take such steps as to bring under the attention of the Government the urgent need of better regulations and further legislation in regard to this matter." The chief defects are the following:

"1. The modes of admission of patients into asylums, which often involve injustice and injury to the patients, and great danger to the public.

"2. The defective powers possessed by the medical superintendent for the proper and efficient management of the asylums, for example, his having no power to engage or to dismiss the attendants, on whose loyal discharge of duty the welfare of the patients so greatly depends.

"3. The want, in the majority of asylums, of assistant medical officers, so that the medical superintendent is unable to give the necessary time to his strictly medical duties, and large asylums containing some hundreds of lunatics may be left entirely without resident medical supervision when the superintendent is absent."

1. The modes of admission of (pauper) patients into asylums in Ireland.

One mode of admission is provided for under the General Rules and Regulations for the Management of District Lunatic Asylums in Ireland, made by the Lord-Lieutenant and Privy Council (Nos. 15, 16).

A declaration (stamped) is made before a magistrate that the person (for whom admission is sought) is destitute and insane. With this is a certificate by a magistrate and clergyman or poor-law guardian, that they have inquired into the case, and believe the person aforesaid to be a lunatic in destitute circumstances. Another certificate required is a medical one, that the individual concerned is insane and a fit subject for speedy admission into the district asylum. The applicant for a lunatic's admission to an asylum must also enter into an engagement to remove the lunatic whenever called upon to do so by the inspectors of lunatic asylums or the board of governors. These prescribed procedures and forms having been duly complied with, and application for admission of the lunatic made, the latter may be admitted on the authority of the board of governors of the asylum; three governors; the resident medical superintendent (or, in his absence, the visiting physician) having also the power to admit the case at once should he deem it to be urgent, and report afterwards to the board of governors, and obtain its sanction at the next meeting. A form containing a few particulars must be filled in by the lunatic's friends. So far as it goes, it is believed that this mode of admission is signed on fair and just lines, both as regards the public, the lunatic, and those who send him to, or receive him in, an asylum. But it has met with several objections: it has been said to cause unnecessary delay, trouble, and expense, application having to be made for the form at the asylum, and the form, after being filled in, having to be returned to the asylum before the patient can be admitted. Yet, in these days, when it is thought to be so necessary to safeguard the liberty of an alleged lunatic, and when it is desirable that the whole procedure, in placing a lunatic under care and control should be most carefully carried out, and the checks upon carelessness or negligence therein should be efficient, the above-mentioned objections will, perhaps, hardly be considered to tell against this particular method of admission into asylums, and, in fact, in some points they refer to provisions that are commendable.

With this, however, we would link the suggestion that whilst in ordinary cases of alleged lunacy it is desirable to avoid undue precipitancy of action in placing the subjects thereof in asylums, yet some provision is necessary for securing promptitude in placing urgent and dangerous cases under proper care and control; and some modification of the ordinary mode of procedure is needed in these latter cases, and can easily be devised.

Another objection to the above mode of admission is that it does not provide absolute authority for the immediate admission of dangerous lunatics. And this flaw might well be met by an amendment to the effect that the magistrate might have power to order the immediate admission of lunatics dangerous to themselves or to others.

But the mode of admission under which, in fact, most lunatics (more than two-thirds) are admitted in Ireland is the procedure under the Act 30-31 Vic., cap. 118, sec. 10. This is as follows:—The alleged lunatic having been brought before two justices, and it having been proved to their satisfaction that such person was discovered and apprehended under circumstances denoting a derangement of mind and a purpose of committing some crime for which, if committed, such person would be liable to be indicted, the said justices shall call to their assistance a medical officer of the dispensary district, who shall examine such person; and if he shall certify that such person is a dangerous lunatic or idiot, it shall be lawful for the justices, by warrant, to direct that the alleged lunatic shall be taken to the lunatic asylum for the district or place. But any relation or friend may, thereafter, take such lunatic under his own protection and care if he shall enter into sufficient recognisance for the peaceable behaviour or safe custody of such lunatic, before two justices of the peace, or the Chairman of the Court of Quarter Sessions of the county, or a judge of a superior court at Dublin.

That the magistrates may be duly satisfied that the alleged lunatic was found and taken under circumstances denoting a derangement of mind and a purpose of committing some indictable crime, it appears to be necessary that the alleged lunatic should be apprehended, be taken before two justices, and that a deposition should be sworn concerning his conduct and acts, and justifying the required opinion and conclusion on the part of the justices as to the existence of such derangement and purpose. The justices also, although they are required to see and examine the alleged lunatic, and be satisfied that he is lunatic and dangerous, are not bound to give any reasons for their coming to that conclusion, except the recital of those mentioned in the deposition. Then, again, the form of medical certificate and statement of particulars relating to the case are meagre in their requirements.

However desirable in a few dangerous and criminal cases this mode of admission may be, it is obviously unsuited for the vast majority of patients. And while adapted only for dangerous or criminal cases, it is inseparably linked with the most incongruous provision that any relative or friend may get the dangerous or criminal lunatic, who has been sent to an asylum by this mode, out of the asylum by becoming bail for his good behaviour and safe custody—behaviour and custody of a dangerous lunatic which such friend or relative is, in reality, unable to secure, but with regard to which failure to secure, it is believed, the recognisances entered into are never forfeited, thus depriving the public of any real protection by the feebly deterrent influences of the provision concerning bail.

It is submitted that what is required in Ireland is: either a modification and expansion of the mode of admission to asylums, first described above; or else such changes as will, as nearly as possible, make the modes of admission the same there as they are in Great Britain, or in one or other part thereof.

2. The defective control of medical affairs over the asylum staffs in Ireland.

According to the Act already mentioned (30 and 31 Vic., cap. 118, sec. 2), the Governors of the Asylums in Ireland appoint all the servants and attendants. Obviously, it would conduce to the welfare of the asylums and their inmates if the selection was left to the medical superintendents, and if engagement or dismissal of members of the staff should primarily rest with them, subject to the approval and confirmation of the board of governors.

3. The absence of the post of assistant medical officer in many asylums in Ireland.

It is understood that only about 9 asylums out of 22 in Ireland have a second medical officer. Where the asylums are of any but very small size, the desirability of having an assistant medical officer is too obvious to require any comment.

LUNACY ACTS AMENDMENT BILL.

At a meeting of the Subcommittee appointed to consider the report submitted by Dr. Mickle on the above Bill, present Mr. Ernest Hart (Chairman), Dr. Bridgwater, Dr. Carpenter, Dr. Mickle, and Dr. Grigg,

It was proposed by Dr. BRIDGWATER, and seconded by Dr. GRIGG:—

"That the report now made be received and placed on the minutes, and that a copy be forwarded to every member of Parliament and to the Branches, with a request that they communicate the same to their members, and ask their support to the suggested amendments in the House of Commons, and that a special request be forwarded to all the medical members of Parliament, asking them to consider the same, and if they approve to put notices in accordance therewith on the papers of the House."

RECOMMENDATIONS OF PARLIAMENTARY BILLS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION ON LUNACY ACTS AMENDMENT BILL.

Sect. 4, subsections 1, 2, p. 3, and Section 9, pp. 6 and 7. It is suggested that partly in modification and partly in substitution for these provisions in non-paper cases, the justice should see the alleged lunatic before signing an order of admission. At present, the provisions of these Sections leave room for much delay, so that a lunatic may be certified and yet his case only decided upon a fortnight later; and though when certified he might be extremely insane, when examined by a justice he might have recovered, and hence the certifier be placed in an extremely equivocal position, open to misunderstanding and attack. It is desirable to make it compulsory for the justice to see the alleged lunatic before signing an order for his admission.

Sect. 12, subsection 2, p. 9, line 21, for "may" read "shall;" and in line 22-3 omit "or whether making such visit or not;" and thus secure personal examination by the justice. Also in

Form 12, p. 51, Schedule, line 4, after "practitioner" to insert "and having personally examined A.B."

It is felt to be desirable that the existing requirement that the justice who signs the order of admission of a pauper lunatic to an asylum shall personally see and examine the alleged lunatic before signing such order should not be discontinued under the present Bill.

Sect. 20, subsection 5, p. 13, for "practitioner" to read "practitioners," and to omit "not being an officer of the workhouse;" and in line 4, for "examines" to read "examine." Also in

Subsection 7, p. 13, lines 23 to 25, to omit "for each day or part of a day, after the first day and before the notice is given during which the alleged lunatic remains in the workhouse."

These suggestions are made to secure remuneration for the medical officers of workhouses, except where they have contracted to do all the duties for a fixed salary; and modification of the severely punitive clauses with regard to them.

Sect. 28, subsection 4, p. 18, line 10, to omit "a special report," and the words following it to and including the word "with" in line 13, and to make the necessary alterations in this and subsequent subsections to harmonise with this alteration.

The medical certificate of unsoundness of mind sent periodically is thought to be sufficient.

The large amount of extra routine work imposed on the medical superintendent of an asylum will for a time absorb his whole attention to the detriment of his other numerous and important duties. Imperfectly recovered lunatics will constitute a serious danger to the community when at large, and the tendency of this Section will be to set many patients at liberty before recovery has become sufficiently established.

Sect. 36, p. 22. It is suggested that this Section be omitted. If this Section be not omitted, it is suggested that the person making application for discharge of a patient under this Section should give adequate security for the payment of all necessary expenses; and that persons be disqualified to sign any medical certificate under this Section who hold to the applicant under this Section the same relations as the persons disqualified to sign under Section 8 hold to the "petitioner" for an order for reception of an alleged lunatic into an asylum, or under single care, etc.

It is to be anticipated that under this Section vexatious and wholly unnecessary proceedings will sometimes be instituted, and that it is likely to lead to the discharge of persons who are in an unfit state for discharge.

Secs. 40 and 41. It is suggested that these Sections be omitted; or failing this, to omit Section 41, and the part of Section 40 following the word "be" in line 18, p. 25.

The correspondence of patients in private asylums is thought to be already duly protected, inasmuch as all letters to certain persons and authorities must be forwarded, unopened; and any letter written by a private patient, and not forwarded to the person to whom it is addressed, must be endorsed to that effect by the medical superintendent or proprietor, and laid before the Visiting Commissioners, or Committee of Visitors, as the case may be, at their next visit.

Sect. 50-55, p. 32, *et seq.* It is suggested that the provisions of the Bill be so altered as not to subject the registered lunatic hospitals to special restrictions and disabilities.

Sect. 60, page 35, line 27. It is suggested to omit the words "wholly or in part belonging to the county or borough;" so that the services of medical officers in any two or more county or borough asylums should count accumulatively towards pension, as if all such service had been in one asylum; each such county to contribute its appropriate share.

It is also suggested that officers and servants in county and borough asylums should be entitled to claim pensions, as a right, after a certain length of service with good conduct; and that the medical officers should be placed, as regards this matter, on a footing analogous to that of members of the Civil Service (First Class, 22 Vic., cap. 29, sec. 4).

MEDICAL SOCIETY OF LONDON.

THE annual meeting of the Medical Society of London took place on Monday, May 7th. The Oration was delivered by Sir Joseph Fayrer, K.C.S.I., on "The Natural History and Epidemiology of Cholera." The orator alluded to his own considerable experience of cholera in India and elsewhere, reviewed the history of the epidemics of the disease which have devastated the various regions of the habitable globe at different epochs, and discussed its appearance in the sporadic, endemic, and epidemic forms. He alluded to the ignorance which prevailed as to the real nature of epidemic influence, and proceeded to consider the influence of meteorology on the production of epidemics. He pointed out that the word cholera was as a rule only applied to the disease in its fully-developed condition, although it presented many phases varying in gravity from simple *malaise* to collapse and the coma of the worst forms of fever. He maintained that under certain circumstances English cholera was indistinguishable from its Asiatic congener, and quoted the opinions of various authorities to the effect that Asiatic cholera, *Damietta cholera*, and British cholera differed only in severity and not in kind. Various local outbreaks were quoted as tending to show the influence of some factor or factors apart from contagion and local insanitary conditions. He showed that the severity of the disease was not always greatest in proportion to density of population, and that its geographical distribution was a phenomenon of meteorological significance rather than of condition connected with human intercourse. He then discussed the correlation of season and the spread of cholera, pointing out how in India the seasonal prevalence varied according to the district, consequent to some extent on the fluctuating level and stagnation of subsoil water. The periods of cholera abeyance and cholera prevalence offer curious differences in the various provinces, the disease being very general in one district in a given year, while others are comparatively exempt. He argued that the theories of contagion and diffusion by human intercourse did not explain the movements of cholera epidemics, since neither the frequency, the direction, nor the rapidity of the spread of the disease bore any relation to the development of means of communication. He then criticised the alleged transport of disease by contagion, and showed that in many instances the disease had already occurred before the vehicle of contagion had arrived. In the same direction, he recalled the peculiar predilection of the disease for certain districts, streets, and even houses. Moreover, in Bengal, for example, the course of the disease was upwards, that is, not with but rather against the rivers and main lines of traffic.

Passing on to the consideration of the etiology of the disease, the orator reviewed the various theories that had been suggested to account for it, and expressed himself as unable to convince himself that any of them satisfactorily or conclusively explained all the phenomena exhibited by epidemics, or that either or any theory was to be accepted to the exclusion of the others. Alluding to the present tendency to trace all diseases to a specific cause, he insisted on the necessity for not losing sight of the possibility of poison, autogenetically developed, giving rise to disease. He added that although the primary cause was still a mystery, local conditions undoubtedly permitted and favoured the occurrence and spread of the disease. He declined to accept the water theory as a sufficient explanation of all cholera outbreaks, and was led to seek the explanation in causes of a wider and more general character. He maintained, therefore, that until contagion in every form was entirely disproved authorities were justified in adopting measures which, while avoiding all oppressive or coercive interference with personal liberty, took reasonable precautions against possible sources of infection, and gave full effect to all known practical measures against the importation or diffusion of disease. The orator then discussed coercive measures and their results, dwelling upon the rigours and hardships of quarantine and the great suffering and incalculable damage to commercial interests which had resulted from the contagion theory as interpreted in other countries. After giving some tables bearing on the mortality of the disease at different epochs, Sir Joseph proceeded to discuss the precautionary measures, general and special at present employed against cholera, and wound up with fifteen conclusions based on the knowledge of the facts and phenomena of the disease which have so far been recorded. These were to the effect (1) that cholera has always been present in India, but that isolated cases occur there and elsewhere; (2) that its prevalence varies according to the year and the season of the year; (3) that

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cholera does not visit all the places within an epidemic area; (4) that meteorological changes produce sudden alterations in the activity and intensity of an outbreak; (5) that the rate and direction are not influenced by facilities of communication; (6) that cases are more frequent and more severe at the commencement than in the continuance of an outbreak; (7) that hygienic measures afford the greatest but not an all powerful safeguard against cholera, and that it is important to check diarrhoea in time of epidemic; (8) that cordons and quarantine have utterly failed to prevent the spread of cholera, but on the contrary have done harm; (9) that epidemic districts present peculiar dangers to new comers, from which residents have a better chance of escape; (10) that in case of attack of bodies of men, removal is the best course; (11) that attendants on the sick do not suffer more than others; (12) that certain agents, impure water, articles of diet, etc., may cause diarrhoea and then cholera; (13) that fatigue, anxiety, etc., are powerful predisposing causes; (14) that observations tend to negative the idea of a specific poison; (15) that one attack confers no immunity. The orator concluded with an eloquent appeal to authorities to secure the removal of conditions likely to favour the occurrence and spread of the disease, observing that epidemics were not a necessary though a constant condition of men's existence, and were amenable to the laws of hygiene and common sense.

After the annual oration, the usual *conversazione* took place, the music being furnished by the band of the Coldstream Guards, under Mr. C. Thomas. The pictures were lent by Messrs. Boussod, Valadon, and Co., and by Messrs. J. and W. Vokins. There was so on exhibition a number of photographs by the new colour process, by Mr. Mayall; Robertson's writing telegraph, etc. A very large number of Fellows and their friends were present, and were received by the President, Sir William MacCormac.

THE LOCAL GOVERNMENT BILL AND PENSIONS OF ASYLUM OFFICERS.

ASYLUM officials are invited to attend a special meeting of the medico-psychological Association, to be held at Bethlem Hospital, on May 16th, at 6 P.M., to discuss the pension clauses of the Lunacy Acts Amendment Bill, and the clauses of the Local Government Bill affecting Asylums.

Among the many indications of the keen interest felt by those most affected in the operation of the Local Government Bill, would it become law, is the action recently taken by the Committee of Visitors of the Derby County Asylum. The following resolution passed at their meeting on May 5th, Sir Henry Every, Bart., in the chair.

That in the opinion of this Committee it is desirable that all existing officers should have an assured right to a pension on a scale not lower than that provided by the rules relating to Her Majesty's Civil Service.

A similar resolution was passed by the Committee of Visitors of the West Riding Asylum, Wakefield, on April 26th last, and to the same effect was adopted by the Committee of the South Yorkshire Asylum, Wadsley, on April 30th.

The following petition was unanimously signed by the staff of officers, attendants, and resident servants of the Derby County Asylum, and forwarded to the President of the Local Government Board, on May 2nd.

To the Right Honourable Charles Thompson Ritchie, M.P., President of the Local Government Board.

The petition of the undersigned officers, attendants, and servants in the Derby County Asylum, humbly sheweth—

That our position at present as regards prospect of pension is unsatisfactory, owing to its uncertainty, and to the extreme inequalities which prevail; whilst the new County Government Bill no clause appears which is likely to remedy its state of things; that our duties are irksome, depressing, and trying to temper and to health; that they involve more or less continuous responsibility, anxiety, and bodily risk; that the hours of duty in an asylum are long, and the pay in most cases is by no means proportionate; that a prospect of pension is one of the greatest inducements to long and faithful service.

We therefore pray that, in our interest and for the advantage of the public, you will insert in the County Government Bill a clause which will ensure to us a fixed scale of pension similar to that which is granted to civil servants under the 1st Vict., cap. 26, with the same qualifications and additions as therein specified.

We further pray that you will insert in the County Government Bill a clause which will enable officers, attendants, and servants, when they are transferred, often happens, from an asylum in one county or borough to an asylum in another county or borough, and when their approved service has been of not less than three years' duration (as proposed in the Police Constables Superannuation Bills of 1885 and 1887) to reckon such transferred service as continuous service which shall be counted (for the purpose of computing their pension, gratuity, or allowance, or gratuity) for length of service as if all such asylums had constituted only one asylum (see Section 60 of the Lunacy Acts Amendment Bill, 1888, which only applies to asylums in the same county). And your petitioners will ever pray, etc..

UNIVERSITY OF LONDON.

THE annual meeting of Convocation took place at the University Buildings on Tuesday, May 8th. Dr. FREDERICK JOHN WOOD was re-elected chairman. The Clerk of Convocation, Mr. H. E. ALLEN, LL.B., B.A., was reappointed.

Dr. T. B. NAPIER and Mr. W. J. SPRATLING presented the report of the Annual Committee, and moved its reception, which was agreed to.

Dr. T. B. NAPIER next moved:

"That the Annual Committee, jointly with the Special Committee already appointed on December 8th, 1885, for the consideration of the scheme for the constitution of the University, be empowered to take steps with reference to the representation, by suitable witnesses, of the views of Convocation to the Royal Commission appointed to inquire into the condition of the higher education in London, and for that purpose to adopt such measures and make such communications to the Senate as shall seem desirable."

In moving this resolution, the proposer gave a lucid historical account of the present movement for the furtherance of university education in London, and criticised adversely the part which the University and King's Colleges had taken in the matter. Mr. SPRATLING seconded the resolution. Sir JULIAN GOLDSMID considered the movement furthered by University College in favour of the formation of the proposed Albert University was decidedly retrograde. He had used some influence to prevent it, and, being unable to attain his end, had, with several other persons, resigned his position in the College. It was not desirable to have two universities in London. He thought that Convocation ought to be well represented before the Royal Commission, and he cordially supported the resolution. Mr. T. E. SCRUTTON urged that University and King's Colleges had not started their movement in favour of the Albert University until they found that the Senate of the University of London was opposed to their interests. Mr. T. TYLER and Mr. B. H. COOPER addressed the house, and the resolution was carried unanimously.

Mr. J. ANSTIE, Q.C., presented the report of the Special Committee for the Consideration of the Regulations for the Examinations for the Degrees in Laws, and moved its reception. This proposal was seconded by Dr. J. B. BENSON, and, after a long debate, was carried unanimously.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, General Secretary.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTemperance, which was presented to the Section of Medicine in the Annual Meeting of 1887, will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observa-

tions, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held in the Bell Library and Medical Institute, Cleveland Road, Wolverhampton, on Thursday, May 31st. The chair will be taken by the President, Mr. W. D. Spanton, at 3 o'clock in the afternoon. The following papers will be read:—Dr. C. A. McMunn: Excretion of Reduction Products of Hæmatin in Disease. Dr. Alfred H. Carter: Practical Considerations on the Nature and Treatment of Chronic Cardiac Disease. Mr. E. Hurry Fenwick, London: The Electric Illumination of the Bladder and Urethra, and its Value in the Diagnosis and Treatment of Obscure Vesico-Urethral Diseases. Dr. McMunn will show a simple method of adapting a photographic camera to the microscope.—T. VINCENT JACKSON, Wolverhampton.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting will be held at the Infirmary, Hull, on Wednesday, May 30th, at 1.30 p.m. Gentlemen who intend to make any communication, or to propose any resolution, are requested to inform the Secretary not later than May 20th.—E. P. HARDEY, Honorary Secretary, 80, Spring Bank, Hull.

MIDLAND BRANCH.—The annual meeting will be held at Nottingham on Thursday, June 14th, at 2 p.m. Members desirous of reading papers, exhibiting cases, etc., are requested to communicate with the Secretary before May 24th. Candidates for election by the Branch Council must send in their forms of application by the same date.—W. A. CARLINE, M.B., Honorary Secretary, Lincoln.

METROPOLITAN COUNTIES BRANCH: WESTERN DISTRICT.—The next meeting will be held on Wednesday, May 18th, at St. George's Union Infirmary, Fulham Road, Brompton, S.W. The chair will be taken at 8.15 p.m. by H. Charlton Bastian, Esq., M.D., F.R.S., the Vice-President of the District. Business:—Minutes of preceding meeting. A short paper will be read by H. T. Butlin, Esq., F.R.C.S., on the Treatment of some Chronic Ulcers of the Tongue. A Demonstration will be given by Noble Smith, Esq., F.R.C.S., on the Treatment of various Curvatures of the Spine. A few Cases of Clinical interest will be introduced by H. W. Webster, M.D., Medical Superintendent of the St. George's Infirmary.—C. ARTHUR PATTEN, Honorary Secretary, Marpool House, Baling.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of the above District will be held at the Kent and Canterbury Hospital on Thursday, May 21th, at 3 p.m., Dr. Parsons, of Dover, in the chair. The dinner will take place at 5 p.m. at the Royal Fountain Hotel. Agenda:—Usual business of annual meeting. Mr. Raven: Tendon Reactions in Health and Disease. Mr. Brian Rigden: Notes on a recent Epidemic of Measles. N.B.—Anyone wishing to send papers, etc., should communicate at once with the Honorary Secretary, W. J. TYSON, 10, Langhorne Gardens, Folkestone.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The May meeting of this Branch will be held in 191, Union Street, Aberdeen, on Wednesday, May 16th, at 8 p.m., the President, Dr. Smith, of Kinnaird, in the chair. Business:—Minutes, nomination of new members, etc. Ballot for the admission of Dr. Ligertwood, Methlick. Professor Ogston: Intubation of the Larynx. Dr. Mackenzie Booth: Otological Memoranda; (1) Hyperacousia after Trauma of Membrana Tympani; (2) Recovery of Hearing after prolonged Eustachian Obstruction and Tympanic Catarrh. Exhibition of Specimens.—Dr. Gordon: Abscess of Liver. Dr. Mackenzie Davidson: Jessop's Refraction Ophthalmoscope. Professor Ogston: Composite Photograph.—ROBERT JOHN GORDON and J. MACKENZIE BOOTH, Honorary Secretaries.

OXFORD AND DISTRICT BRANCH.

A MEETING of this Branch was held at the Radcliffe Infirmary, at three o'clock, on Friday, April 27th; the President, Mr. CHEATLE, was in the chair, and about thirty members attended.

New Members.—Mr. D. Iles, of Fairford; Dr. Mair, Mr. Watson, Mr. Hickman, and Mr. Palmer, of Newbury; Mr. G. Mallam, of Oxford; and Dr. Ball, of Wantage, were elected members of the Branch.

Alteration in By-Laws.—Some alterations in the by-laws, proposed by Dr. DARBISHIRE, were carried.

Member Proposed.—Mr. Oates, of Bampton, was proposed as a member of the Branch.

Cases and Papers.—Mr. BLOXSOME showed a very successful case of Macewen's Operation.—Dr. BATT showed a most interesting and marked case of Pseudo-Hypertrophic Paralysis in a Boy.—Dr. COLLIER showed a specimen of Thoracic Aneurysm; there were no physical signs during life.—Mr. W. LEWIS MORGAN showed a good specimen of Tubercular Disease of Testis.—Mr. WINKFIELD showed a specimen of Round-celled Sarcoma of the Testis.—Dr. BROOKS read a paper on the Uses of Antipyrin.—Mr. DOYNE showed an Optometer.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

THE annual meeting was held at Bethlem Royal Hospital on May 8th, at 5.30 p.m. There were present about thirty members and visitors.

The minutes of the previous meeting were read and confirmed.

Election of Officers.—In accordance with a resolution passed at the last meeting of the Council of the Branch, the present officers of the District were re-elected for the ensuing year, namely:—**Vice-President:** Dr. Frederick Taylor. **Representative on Council:** Dr. Savage. **Committee:** Mr. Howell, Mr. Brindley James, Dr. Oswald, Dr. Pitt, Mr. Johnson Smith, Mr. Sangster, Dr. Verdon. **Honorary Secretary:** Dr. Percy Smith.

Dr. Savage then conducted the members and visitors through the wards of the hospital, and gave a clinical demonstration on several cases of insanity.

Vote of Thanks.—A vote of thanks to Dr. Savage for his interesting demonstration was subsequently carried unanimously.

SPECIAL CORRESPONDENCE.

BERLIN.

[FROM AN OCCASIONAL CORRESPONDENT.]

The Health of the Emperor.—The Bergmann Incident.—The German Press on Sir Morell Mackenzie.—The True History of the Present Crisis.

DURING the past week there has been a slight improvement in the Emperor's condition, which of course has been made the most of in the official bulletins. The most favourable feature in the case is, that His Majesty has no difficulty whatever in swallowing, and is therefore able to take plenty of nourishment. His appetite is, however, capricious, and it is in this respect that Sir Morell Mackenzie's continued presence beside him is so especially valuable, for His Majesty will obey the advice of his English physician when he will not listen to any one else, and will eat in deference to Sir Morell's wishes, even when he has no appetite.

The Bergmann catastrophe still continues to be hotly discussed, both in professional circles and in the general press. Public opinion seems, on the whole, to be against our "leading surgeon," as Bergmann is usually called here, not so much because he retreated from a position which circumstances had probably made untenable, but because he was unwise enough to make the situation which he himself had created the basis of a further attack on Sir Morell Mackenzie. At the last meeting of the Berlin Medical Society, the following letter was read:¹

"In der Nummer 1426 des BRITISH MEDICAL JOURNAL vom 28 April, 1888, wird mit folgenden Worten auf Seite 933: 'As Dr. von Bergmann has not contradicted this statement, it may be accepted as true,' die Behauptung vertreten, dass, weil ich zu persönlichen und sachlichen Angriffen schweige, ich die Richtigkeit derselben zugebe. Wenn das BRITISH MEDICAL JOURNAL nicht ein Blatt wäre, dessen wissenschaftlichen Werth ich ausserordentlich hochschätze, könnte ich zu diesem Schlusse auch schweigen. So aber muss ich mich gegen denselben verwahren. Ich schweige, nicht weil ich Unrecht habe, sondern weil ich, wie jeder ehrenwerthe britische und deutsche Arzt, Vorgänge am Krankenbette meiner Patienten nicht öffentlich bespreche.

"ERNST VON BERGMANN."

It had, I believe, been intended by some of Professor von Bergmann's friends to make that meeting the occasion of proposing a vote of confidence in him, but when his letter was read it was received with dead silence. After the meeting the letter was freely discussed, and no one seemed to have a word to say in Bergmann's favour. If he had merely said he had a defence but that was not the time to publish it, such a course would have met with general approval, but his indirect attack on his English colleague was thought to be in very bad taste. The general opinion seemed to be that Bergmann ought not to have attacked Mackenzie before the Medical Society, because that was not a place for the ventilation of personal grievances, but solely for the discussion of scientific topics, and also because Mackenzie could not defend himself before the Society. Much the same view of the matter is taken in the general press. The *Vossische Zeitung* of May 4th says: "The meeting heard Professor von Bergmann in silence and with astonishment. His explanation did not make a favourable impression.....Bergmann made use of the Society to attack a distinguished man who enjoys the absolute confidence

¹ A translation of this will be found in Sir Morell Mackenzie's letter at page 1032.

the Emperor. It is quite possible that the editor of the English professional journal (the BRITISH MEDICAL JOURNAL, to wit), wounded in his national feelings by the German papers attacked Bergmann of his own accord. But it is also possible that the learned and able editor was influenced by Mackenzie, which has yet to be proved; and in that case Bergmann has other means of defending himself than that which he has chosen. Mackenzie would not think of attacking Bergmann at a meeting of the British Medical Association, and Bergmann should not attack a foreigner with reference to a matter which was not before the meeting of the Berlin Medical Society."

In dealing with the same subject another paper says: "Professor von Bergmann draws a fine distinction between an honourable medical practitioner and one that is not honourable. According to him, a doctor who talks publicly about things occurring in the sick-room to a number of different people through whose nose means this talk is inserted in a newspaper, such a man is dishonourable; but if a doctor demands, in accordance with the German Press Laws, that incorrect statements concerning himself shall be corrected and signs his name (in accordance with the law), such a physician is not dishonourable." Then there is the *Freisinnige Zeitung*, which says: "It is remarkable in any case that at a very moment when Professor von Bergmann demands the greatest reticence from the physicians in attendance, the 'efficients' press is able to publish the contents of his correspondence respecting the august patient. If one physician publicly attacks another, we consider his conduct more honourable if he signs his name, than if he attacks his colleagues through the *ptilia*."

These quotations will suffice to show that the independent public opinion of Germany is entirely misrepresented by the "elegant facts" from the *reptile* section of our press, which certain of your newspaper correspondents have so perseveringly collected for the edification of your English *gobemouches*. By the way, I suppose that I should explain the expression *Reptilia*, used above to designate the German Tory papers. This addition to the political vocabulary owes its invention, like so many others, to the genius of our Iron Chancellor. There is a very large sum of money in the hands of the Prussian Government, owing to the confiscation of the property of the King of Hanover. This money Bismarck, with his characteristic cynical frankness, said he would keep for himself and the payment of spies in foreign countries and of parliamentary scribes at home, and he gave it the significant name of the *Reptile Fund*. In this way, certain papers which are commonly supposed to receive subventions (the *Kölnische Zeitung*, the *ev. Zeitung*, the *Post*, and the *Hambürger Nachrichten*), have come to be known among opposition journalists as the *Reptilia*. The fact that Mackenzie is bringing an action against one of them, which recently used the term "dishonest" in speaking of him, and claims 10,000 marks as damages, this being the legal price here for the luxury of applying that epithet to an opponent.

As there has been an incredible amount of misrepresentation as to what occurred on that fatal 13th of April (when the present Emperor in the Emperor's malady began), I think you may like to see a brief account of what actually took place. You may rely on the accuracy of the information which I am about to give. On the night of Wednesday, April 12th, Dr. Howell noticed that His Majesty was breathing somewhat noisily, but plenty of air entered his lungs; he shifted the tube a little so as to make it lie more comfortably, and at 10 o'clock on Thursday morning, when Drs. Wagner and Krause, together with Sir Morell Mackenzie, were in attendance, a fresh tube was put in. After Drs. Wegner and Krause, Sir Morell Mackenzie, not being entirely satisfied with the result of things, went into Berlin to see if some tubes which he had previously ordered were ready. Finding that they were not, he had an impromptu tube made of lead, which, of course, could be readily bent to any curve that might be desirable. On his return to Charlottenburg, it being then 3 p.m., Sir Morell Mackenzie dispatched a groom belonging to the palace (called officially a *Reitknecht*, but in the papers, not quite correctly, a *Dispatchenreiter*) with a letter to Professor von Bergmann asking him to "come as early as possible." This expression, which has been made so much of by Sir Morell Mackenzie's assailants, meant in reality nothing more than that, as everything was in readiness, it was desirable that the Professor should be in attendance without delay. In writing a *Reitknecht* Sir Morell Mackenzie only did what he is in the habit of doing on much less important occasions; in fact, when he arrived at Charlottenburg he was told that when he wanted

anything (for example, a book from Berlin, change for English money, etc.), he was always to send a *Reitknecht*. The dispatch of this messenger, therefore, whose ride *ventre à terre* to Berlin has been described with the lurid eloquence of Carlyle as a historical event of "epoch-making" character, was in reality nothing out of the ordinary course of things. Professor von Bergmann was summoned as a matter—not of necessity—but of professional courtesy; and it is Sir Morell Mackenzie's declaration to that effect (made in reply to totally unfounded attacks) that has made him so angry. When he arrived, instead of standing by while Sir Morell Mackenzie introduced the tube, Bergmann quickly pulled out the cannula then in the trachea, and tried to introduce a fresh tube. It went in, *but no air came out*. He then thrust his finger deeply into the wound, and afterwards pushed in a second cannula. Still no air came out, but blood began to flow freely, and repeated attacks of violent suffocative cough came on. Bergmann then sent for his assistant, Dr. Bramann, who was waiting outside, and the latter inserted a small tube (No. 8 German scale). This tube was several sizes smaller than the one Sir Morell Mackenzie had suggested using at San Remo, when he was overruled by the German surgeons. The bleeding continued for some hours, and during Friday and Saturday the Emperor complained of soreness in the throat. At 6 p.m. on the latter day, he had a shivering fit, followed by a rise of temperature. An abscess situated at the sides and back of the trachea near the lower end of the tube soon afterwards burst, and pus has been discharged in greater or less abundance ever since. This is a plain unvarnished narrative of the facts as they occurred. I prefer to make no comment on them, but professional men will no doubt draw their own inferences from them. The retirement of Professor von Bergmann has removed the one discordant element in the counsels of the Emperor's medical advisers, among whom the most perfect harmony now prevails.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Volatile Bases in the Blood.—Bacillary Pseudo-tuberculosis.
M. WURTZ publishes, in the *Compte Rendu des Séances de la Société de Biologie*, of January 20th, some notes on the presence of volatile bases in the blood, and in the air exhaled from the lungs. To collect and isolate the volatile bases which pass from the blood into the expired air, M. Wurtz stirred up in it a 1 per cent. solution of oxalic acid, using a special apparatus. This apparatus is so constructed as to avoid error arising from the projection of saliva or solid particles. When a sufficient number of cubic metres of air has passed into the apparatus, the solution of oxalic acid is saturated with pure carbonate of lime, free from chloride or sulphate, as the solution is neutralised by adding a drop or two of lime water, which immediately precipitates the oxalic acid. Then filter; neutralise exactly by a trace of chlorhydric acid; evaporate *in vacuo*. Various chlorhydrates are thus obtained, amongst which chlorhydrate of ammonia, which predominates; and a certain proportion of an organic base determined by M. Wurtz, by the following reagents precipitated by Bouchardat's reagent, also by double ioduret of potassium and of mercury. A soluble chloroplatinate, crystallising in short needles, is formed. This chloroplatinate seemed to have the same crystalline form as that of one of the bases of the blood isolated by soluble chloraurate. M. Wurtz was not able to analyse or to experiment on the physiological effects; this he intends to do on future occasions.

A communication from MM. Charrin and Roger, on bacillary pseudo-tuberculosis, was read before the Académie des Sciences, on March 19th, 1888. A guinea-pig died suddenly in Professor Bouchardat's laboratory. At the necropsy the liver and spleen were found covered with granulations similar to those of tuberculosis. MM. Charrin and Roger isolated a mobile bacillus from those organs which develops in gelatine, gelose and potato, but does not liquefy gelatine. The skin of rabbits was inoculated with this bacillus, and a local tumour was produced, followed by adenopathy. The animals died on the third day: the liver and spleen were full of granulations, and in a fifth of the cases similar granulations were found in the kidneys and lungs. The same results are produced when the peritoneum is inoculated. A sero-fibrinous pleurisy results from inoculation of the pleura. In addition to the above lesions. In the guinea-pig the disease gives

rise to local lesions. The microbe is pathogenic to the mouse, but has no effect on the dog, cat or ass. The disease discovered by MM. Charrin and Roger, like that of MM. Malassez and Vignal, is inoculable in series. This characteristic does not suffice to prove the tuberculous nature of a disease, but to indicate its parasitic nature.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Operative Treatment of Empyema of the Antrum.—Innervation of Hepatic Vessels.

DR. S. LINK, of Lemberg, in a recent number of the *Przeglad Lekarski*, relates two cases of operative treatment of empyema of the antrum. Miculicz was the first who successfully performed the operation proposed by Zuckerkandl. He has operated in four cases. With a specially constructed drill he perforated the thin part of the wall of the maxillary sinus below the inferior turbinate bone, and thus gave issue to the contents through the nose. Dr. Link has in two similar cases performed the same operation, with an equally good result. The first was that of a woman, aged 32, who suffered from severe pain in the upper maxilla owing to a carious tooth. After the extraction of the tooth, pus was constantly discharged from the alveolus. On examination Dr. Link detected in the alveolus, corresponding to the left upper wisdom-tooth, a fistula through which the mouth communicated with the maxillary sinus. On dilating the fistula a considerable amount of atheromatous material escaped into the cavity of the mouth. With the view of closing the fistula, Dr. Link performed the above-mentioned operation under chloroform. A large quantity of sour-smelling fluid escaped from the nostril. The antrum was then washed out with a 10 per cent. emulsion of iodoform and glycerine, and stuffed with iodoform gauze. The tampons were removed after twenty-four hours, and the cavity was washed out every day by means of the syringe devised for the purpose by Miculicz. After eight days the fistula in the alveolus was closed, and after three months the patient wrote to the author that she had very seldom occasion to syringe out the cavity, that the pain had ceased, and that there was very little discharge. The second case was that of an artilleryman, aged 22, belonging to a tuberculous family. After the extraction of the second upper right molar tooth, which was carious, an abscess formed beneath the internal angle of the right eye, which burst later on, and was followed by a fistula in the cheek, from which there was a constant discharge of pus. The fistula communicated with the maxillary sinus, into which a probe could be passed through the alveolus of the tooth which had been removed, or through the natural opening of the right nasal cavity beneath the lower turbinate bone. Miculicz's operation was performed on November 26th. On syringing out the cavity, a fluid similar to that in the first case escaped. The maxillary sinus was afterwards scraped out with a sharp spoon which was passed through the external fistula; a drainage-tube was introduced, and the right nasal cavity was stuffed with iodoform gauze. The tampon was removed after twenty-four hours, and the maxillary sinus was then daily washed out with a solution of salicylic acid. The drainage-tube was removed after six days, and two days later the fistula in the cheek and the alveolus had closed. On washing out the cavity, which was now done daily through the artificial opening, the injected fluid returned quite clean. A deep retracted scar was left below the internal angle of the right eye, at the spot where the fistula had been before. The author then discussed the advantages of this method as compared with that of Störk, and stated that he had found a new diagnostic sign which consisted in the fact that by percussing of the hard palate it could be recognised whether the maxillary sinus was empty, and whether its contents were fluid or solid.

At a recent meeting of the Imperial Royal Society of Physicians of Vienna, Dr. Pal made a communication on the innervation of the hepatic vessels. Claude Bernard was the first to formulate the hypothesis of hepatic nerves, though their existence had not been directly proved. Dr. Pal had tried to decide this problem in the following manner. He ligatured below the anastomosis of the hepatic veins with the portal vein all those blood-vessels which conveyed blood to the liver, such as the thoracic part of the aorta and the ascending vena cava. On irritating the peripheral part of the splanchnic nerve, considerable increase of the blood-pressure was produced; the same was also observed when

the ascending cava was ligatured above the implantation of the hepatic veins, but in this case to a lesser degree. Experiments which he had made with the view of determining the rapidity of the out-flowing blood showed that the liver pressed out blood on irritating the splanchnic nerve, thus proving the presence of vaso-constrictors in the liver.

EGYPT.

[FROM AN OCCASIONAL CORRESPONDENT.]

Economies in the Sanitary Service.—Professor Virchow on Bilharzia.—The Medical School and Hospital.—Foundation of a Medical Society.—Out-Patients.—The Alexandria Hospital.

ECONOMY is just now the order of the day in Egypt. To provide means for cutting drainage canals and thereby supplement and complete the irrigation scheme from which so much has been expected, the finance authorities are resolved on reducing expenditure in all departments of the State to the lowest possible figure. A Commission of Economy has consequently been very busy lately examining budgets in the various administrations, and amongst other retrenchments has recommended that a reduction of £7,500 should be effected in the Services Sanitaires. This department, with a totally insufficient budget of £100,000, is supposed to carry out the following duties: Registration of births and deaths throughout Egypt; vaccination; the issuing of permits for burial; examination of, and report on, all medico-legal questions; recruiting; medical inspection of government employes; medical charge of prisons; sanitary supervision of country in general; charge and maintenance of 21 hospitals containing 1,735 beds; the same as regards several newly established dispensaries, which latter seem to promise well for the future civilisation of the country. Out of the above mentioned sum no less than £28,000 is devoted to the scavenging and watering of Cairo and Alexandria, one item of expenditure in the former city being £7,000 for cost of water alone; there remains, therefore, about £70,000 to meet the above requirements, besides others too numerous to mention, such as veterinary supervision, sanitary engineering, maintenance of foundlings, etc., and from this meagre allowance it is now proposed to subtract about 10 per cent. in order that visionary irrigation may be prevented from ruining the land. This is certainly very hard on the officials of the Sanitary Department, who have one and all worked with zeal and energy, and are admitted on all sides to deserve well of the country. The Economy Commission also holds this opinion, for it has recommended the fusion of the Tanzim in the Services Sanitaires, the Tanzim being that section of the Public Works Department which gives permission for the erection of new buildings, and which also has charge of road making and public gardens. For these purposes a sum of £60,000 is allowed annually for Cairo alone, a sum which the Commission with justice looks on as too large, considering the results obtained, and considering also that no less than 54 engineers and 26 writers are now employed in obtaining these results at a cost to the State of over £12,000.

Professor Virchow, who had been for some time up the Nile, lately returned to Cairo, and devoted his immense influence towards stimulating the authorities to a systematic examination into the *habitat* of the bilharzia hæmatobia and the manner in which that parasite makes its entry into the human body. There is no doubt that the distoma is abundant in Egypt, but what remain to be ascertained are the localities where it undergoes its development and attains to maturity. If these could be determined, something might possibly be done towards reducing the evil, or perchance the pest might even be stamped out altogether. Dr. Fouquet, of Cairo, has had great success in the treatment of the bilharzia by means of the extract of male fern. He has communicated to *La France Médicale* a detailed account of fifteen cases in which perfect cure had been the result. This seemed to interest Professor Virchow very much, for, in common with most authorities, he had been under the impression that treatment was of little avail when once the parasite had established itself in the urinary tracts.

The great pathologist visited with unwearied diligence the whole of the medical and sanitary institutions of Cairo, and appeared much struck with the new installation of the medical school, and with the arrangement of the Government hospital at Kasr-el-Aini, which of late years has been much improved under the able management of Dr. Milton. Amongst the cases which attracted the attention of the Professor was one of a native girl

who was being supplied with a new upper lip from her arm, the limb being immovably fixed in the necessary position by means of a plaster-of-Paris apparatus. Perfect union had taken place by the first intention, but during the process there had necessarily been some difficulty in feeding the patient, till it was discovered that she possessed the power of swallowing fluids quite easily through the nose. For the Professor's edification she was given a cup of water, which she applied to one nostril, quietly sniffing up her contents without even closing the other nostril, and with apparently the greatest ease in the world.

A new medical society has lately been started in Cairo under the presidency of Dr. Salem Pacha. The second meeting took place a few nights ago, when Professor Virchow delivered an address in the German language, his eloquent utterances being, at the close of each period, translated into equally eloquent Arabic by the President. It is hoped that this Society, so auspiciously inaugurated, may do much to cement and solidify the *entente cordiale* amongst the members of the medical profession practising in Egypt, whom, unfortunately, national and other jealousies have hitherto done much to keep separate and antagonistic.

The out-patient department at Kasr-el-Aini has increased of late in an almost alarming manner. Last year no less than 30,000 cases were treated—that is to say, there was a daily average attendance (excluding Fridays) of about 100 patients, for whom upwards of 17,000 prescriptions were dispensed. This, of course, increases the drug bill of the Sanitary Administration, whose budget, however, is unfortunately not an elastic one.

Dr. Greene Pacha hopes soon to secure the services of another English medical man, whom he proposes to place in charge of the Government hospital at Alexandria, in order that that institution may be raised to the level of Kasr-el-Aini, a *desideratum* which, under present circumstances, is absolutely hopeless. Dr. Keatinge, who has done good service with the Egyptian army, and who is well acquainted with Arabic, is the gentleman proposed for the post.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Camphorated Carbolic Acid.—Professor Forel on Hypnotism.

In the *Correspondenzblatt für Schweizer Aerzte*, No. 7, 1888, p. 229, Dr. Th. Schneider, of Basle, recommends camphorated carbolic acid as an "elegant, reliable, and very convenient antiseptic preparation." As is well known, when one part of crystallised carbolic acid and three parts of powdered camphor are shaken up together in a test-tube, a colourless limpid fluid is produced. This mixture does not possess either the characteristic odour or the anæsthetic and caustic properties of carbolic acid, while the antiseptic power of the latter remains intact. When placed on the tongue the compound causes but a very slight burning sensation. It has no effect on polished steel.

At a meeting of the *Gesellschaft der Aerzte in Zürich*, Professor Forel read an interesting paper on hypnotism. Having recently made experiments on seventy-two persons, he had succeeded in inducing more or less deep hypnotic sleep in as many as fifty-two. He had never observed the slightest injurious effects from hypnotisation by modern improved methods, whereas, several years ago, when using an old bad method consisting in fixation of a bright shining button, he had seen in a neurotic woman a severe hysterical attack, with subsequent delirium, which, however, yielded to faradisation. On the whole, he believes that any injurious effects of hypnotic experiments are caused by the employment of bad methods, as well as by some want of skill and experience. Like Liebeault, Professor Forel teaches that the hypnotic state is simply an artificially-produced sleep, modified in so far that the hypnotiser is enabled to influence the course of the "subject's" dreams. The hypnotisation itself consists in actually sending to sleep, and, as far as the person experimented upon is concerned, its success depends solely upon a certain power of falling asleep easily, and a corresponding willingness to submit to the hypnotiser's will. Any disappearance of nervous symptoms under the influence of hypnotism is to be explained exactly in the same way as the cessation of pain (for example, toothache, sciatica, etc.), which, as is well known, often follows sudden violent fright, etc. In other words, "it is to be attributed to cerebral inhibitory processes caused by intensive dreams." "A deep-rooted morbid irritation cannot be removed by hypnotisation." The author mentions a case of obstinate neuralgia in an otherwise healthy nurse,

which was permanently cured by hypnotic suggestion. A marked improvement also took place in a case of chronic alcoholism where a disgust towards spirits had been "suggested during the hypnotic sleep." On the other hand, no satisfactory results could be obtained in a case of epileptic insanity in a boy. Referring to Professor Forel's communication, Dr. von Monakow, of Zürich, stated that he had lately treated two women by hypnotic suggestions. One of them was suffering from brachial neuralgia, the other from hallucinations. In both, the morbid symptoms disappeared for a time, but returned after a certain interval (for example, a fortnight) to yield again temporarily to the same procedure, and so on.

NEWCASTLE - UPON - TYNE.

[FROM OUR OWN CORRESPONDENT.]

The Infirmary.—*The Medical Officership of the Workhouse Hospital.*

A quarterly meeting of the governors of the Infirmary was held last week, when it was announced that the Corporation of Newcastle had increased their annual subscription from 160 guineas to £300, and that there was an increase in the subscriptions for the quarter over that of any previous year.

The board of guardians have at last definitively settled the appointments of medical officer and master and matron, and both appointments have been ratified by the Local Government Board. Mr. T. A. Dodd, assistant-surgeon to the Infirmary, has received the post of consulting medical officer after a close fight with Mr. W. G. Black. The appointment is a popular one with the profession, and could not have fallen into better hands. Mr. Dodd has been in practice for some time, and has held the assistant-surgery of the Infirmary for about ten years, so that both in age and experience he is well qualified for the post.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

The Owens College Medical School.—*Professor Sinclair's Introductory Address.*—*The "Sweating System."*

THE summer session in the Medical School of the Owens College was opened on May 1st, and already we believe the entries are ahead of those in any previous session, so that, as far as numbers go, the present summer session bids fair to be the most successful in the history of this Medical School.

Professor Sinclair, the newly-elected Professor of Obstetrics in the College, gave his introductory lecture on Thursday to an audience who accorded him a most hearty welcome. The Professor gave an interesting account of the evolution of gynaecology, and he secured the wrapt attention of his audience from beginning to end by the marked literary tone of the address, combined with the effective historical account of the subject. We understand that clinical work will form an integral part of the teaching of Professor Sinclair.

Much interest is being exhibited by the authorities in the investigation of the "sweating system" in this neighbourhood, and already reports have been made to several municipal authorities thereon.

SHEFFIELD.

[FROM OUR OWN CORRESPONDENT.]

Working Class Representatives on the Board of the Rotherham Hospital.—*Small-pox Hospitals and Schools.*—*Small-pox in Sheffield.*

THE working men of the town and neighbourhood contribute in a most praiseworthy manner to the Rotherham Hospital. Some little feeling has found expression that they are insufficiently represented on the management. The weekly board called a meeting of the representatives of the working men subscribers, and, in consequence of the frank and courteous manner in which the chairman and other members met the delegates, it is hoped any irritation will have been dissipated. The question of hospital management is recognised as a difficult one, and the increase of working class representatives, whose time for such work is necessarily limited, is one requiring care and wisdom. The hospital has received a notable and valuable addition in a new ward for twenty beds, erected at a cost of about £1,200, with every modern requisite. It was opened in January last. It was suggested by one of

the working men representatives that the opening of this new ward would render necessary an increase in the medical staff. During the last year, however, the daily average of in-patients was only 19.1, and, therefore, it may well be affirmed that more such wards will have to be added before it becomes necessary, or, indeed, desirable, to add to the honorary working staff, which already consists of three members.

The Mexborough School Board are proceeding with their plan of erecting a school close to the small-pox hospital, in spite of the remonstrances of the medical officer of health. The playground will be adjacent to the hospital.

The small-pox epidemic may almost be regarded as ended. The number of deaths from this cause during the last week was only five. Attercliffe has been the district where the disease has chiefly lingered. Here many people have unfortunately persistently set their faces against revaccination, pinning their faith to Mr. Herring. If Attercliffe had only adopted the prudent and sensible course adopted elsewhere, the disease would have died out ere this.

CORRESPONDENCE.

THE CHARTERS OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—The Fellows and Members of the College must not allow of any lull in their agitation for those rights for which they have so long striven. A sharp eye must be kept on the petition of the College for a new charter. The last that was heard of the matter was on April 23rd, when Viscount Cranbrook, in reply to Lord Sudeley, said that he did not think that the petition of the Royal College of Surgeons for a supplementary charter, though it raised points of some importance, could be properly referred to the Commission about to be appointed to consider the question of a new university. Care must be taken lest the Fellows and Members should be hoodwinked by the expression "supplementary," which practically, though not technically, implies a new charter; in short, it signifies precisely what the Fellows do not wish to be sanctioned by law until they have been allowed a voice in the matter. Let them remember and think on their claims calmly and deliberately, else they may not be awakened to energy till within three weeks or a fortnight of the next meeting—too short a period for independent thought. Let not everything be left for a few well-known bold and disinterested leaders. Again, July is drawing near; let the Fellows and Members think whom they will select as worthy to represent them and to further their views on the Council; and may the provincial Fellows exert themselves, so as to add at least one more of their number to the Council. It is noteworthy that the Council have thought that prudence advised them not to notice the Members' petition to the Privy Council, or to attempt any reply to the statement made by them to the Lord President.—I am, etc.,

F.R.C.S.

SIR MORELL MACKENZIE AND PROFESSOR VON BERGMANN.

SIR,—At the meeting of the Berlin Medical Society last Tuesday a letter from Professor von Bergmann to the following effect was read: "On April 28th the BRITISH MEDICAL JOURNAL made these remarks: 'As Professor von Bergmann has not contradicted this statement it may be accepted as true;' that is to say, because I am silent in the face of a statement of facts and of personal attacks it shows they must be well founded. If the BRITISH MEDICAL JOURNAL were not a journal whose scientific value I prize very highly, I might still remain silent in the presence of such an accusation, but under the circumstances I must defend myself. I am not silent because I am in the wrong, but because I, like every honourable British or German physician, do not talk publicly about what goes on at the bedside of my patients."

The observations which you made on Professor Bergmann were,

I suppose, called forth by the letter which Mr. Howell addressed to the *Cologne Gazette* demanding a rectification when charged by that newspaper with "having done serious injury to His Majesty by having forced deleterious matters down into his lungs." In Germany, before taking criminal proceedings against a journal for making a false statement, the Press Laws require the aggrieved person to demand a *rectification* (*Berichtigung*), and *such demand must be signed*. I have never given any information to the press except such as was permitted by august personages, with a view of contradicting the false and exaggerated reports which certain people have delighted to spread.¹

Further, neither I nor Mr. Howell have ever attacked a colleague under the veil of anonymity, nor openly, except when acting in self-defence. On the other hand, Professor von Bergmann is known to be in close relationship with Dr. Fischer, the Berlin correspondent of the paper (*Cologne Gazette*) which libelled Mr. Howell so cruelly. It has, in fact, been stated over and over again in the German press that this attack could only have come from Professor von Bergmann. The English public have seen that Professor von Bergmann is on such intimate terms with the Berlin correspondent of the *Times* that he has shown that person a private letter of mine to him. The *Kreuz Zeitung*, an organ which likewise receives its inspirations from Professor von Bergmann, and could only have obtained its pretended information, directly or indirectly, from him, described me as "*at my wil's end*" (*rathlos*); then, when, in accordance with the German Press-Laws, I wrote a letter demanding a rectification, and pointed out that Professor von Bergmann did not even introduce the cannula, the professor is hurt at my candour and poses as a "whole-souled" man who "*does not speak publicly of what goes on in the sick room*." This is really too much like the Gracchi denouncing sedition.

The medical profession in England will be glad to hear that I have received an immense number of letters from medical men in all parts of Germany expressing their satisfaction at the treatment which I have pursued in the case of His Majesty, and it is on the pressing advice of eminent members of the profession in Berlin (members of the Berlin Medical Society) that I now defend myself in the JOURNAL against the attacks of Professor von Bergmann.—I am, etc.,

MOBELL MACKENZIE.

Charlottenburg, May 8th, 1888.

WANTED AN ADDRESS.

SIR,—The late Dr. John Murray published in the *Medico-Chirurgical Transactions* for 1873 the cases of three children in one family who suffered from a most extraordinary condition of the gums with the development of subcutaneous tumours in various parts of the body. The parents of the children S. kept a greengrocer's shop near the Liverpool Road. The children had been under care at various hospitals, and their cases had excited great interest. I should be very much obliged to any of your readers who may be able to give me any information as to the present condition of these patients, and should be especially glad of an opportunity of seeing them again.—I am, etc.,

15, Cavendish Square, W.

JONATHAN HUTCHINSON.

TEA AND TEETH.

SIR,—It seems a pity that the writer who contributes to the JOURNAL of May 5th some speculations on a subject of dental pathology did not first make himself acquainted with some of the fundamental facts of the subject. He might have learnt from any dental manual that no such structures as "tooth-sacs" exist in relation with fully formed teeth; and that teeth are covered with enamel, not dentine. Reference to a work on chemistry might have further taught him that to write of "theine or tannin having an elective affinity for dentine" is pure nonsense.

This writer represents a considerable class who seem to look upon the teeth as mysteries worked by miracle, whereas they are, in fact, extremely simple structures compared to more highly organised parts, and their maladies proportionately easy to under-

¹ Whilst, however, Professor von Bergmann was in attendance, the minutest details from the sick chamber were published in the *National Zeitung*, a paper which received its information from Professor von Bergmann. Not only was the state of the pulse given, but the frequency of the respiration was published; not only was the exact food and drink stated, but the medicine and even the surgical measures proposed by Professor von Bergmann, but not carried into effect, were described. Neither I nor my English colleagues have ever given any information as to food or medicine, much less as to the frequency of respiration. Any details on such matters published in English papers have been taken from German sources.—M. M.

tand and explain. The main predisposing causes of tooth decay (aries) are, first, innate structural defects in enamel and dentine, rendering them easily acted upon by agents; and, secondly, vitiation of the secretions of the mouth, whereby these agents (acids and micro-organisms) are developed and lodged on and about the teeth. Excessive tea drinking, in so far as it might tend to produce the latter effect, should certainly be looked upon as a remote cause of dental disease.—I am, etc.,
H. S.
London, May 5th.

SIR,—About 2,000 of the population here work in the cotton factories; they not only take strong tea at their morning, mid-day, and evening meals, but many of them a cup at 6 A.M. when going to their work, and numbers also carry cans of tea with them which they drink during the day, heating it on steam pipes. They almost without exception have bad teeth, many having lost nearly all their teeth at puberty, and in not a few instances the disease, whatever be its cause, appears to be hereditary, children during the period of teething losing their first teeth before the latter ones appear. The decay begins in or near the fangs, having no resemblance to specific disease; in fact, syphilis is almost unknown in his particular district.—I am, etc.,

E. B. FENNELL, M.B., B.Ch.

Barrowford, Lancashire, May 7th.

INCISION AND EXCISION OF JOINTS.

SIR,—May I be allowed to correct a clerical error in the report of my remarks on Mr. Wainwright's paper, read before the last meeting of the Clinical Society. I was arguing in favour of Mr. Bennett's view that the suppurating hip-joint which recovered after incision was the result of acute inflammation, possibly septic in nature; and I mentioned a case in which three joints in succession had been affected, requiring incision. The printed report says, "Mr. Lucas mentioned a case in which three joints had been affected in succession requiring excision." This quite alters the direction of my contention, which was to the effect that acute suppurating joints would recover after simple incision, but that chronic pulpy joints would require a more radical operation to bring about complete cure.

The case alluded to is now before me. A child, aged 3 years and 9 months, was seized five days before admission with shivering, sickness, and headache. She was admitted as a medical case in a fretful, typhoid condition, complaining of general tenderness. A few days later a swelling connected with the left shoulder was noticed, and about three weeks after an abscess was opened antiseptically. The temperature fell to subnormal, but soon rose again. After another interval of three weeks, owing to pain and swelling about the right hip, it was thought advisable to apply a double hip-splint. A week later an abscess was opened behind the right trochanter. Irregular temperatures continued, and, after a fortnight's interval, an abscess was found connected with the left hip, which was also opened. All these joints recovered, and the wounds healed, but some shortening was noticed on the right side before the child left the hospital.—I am, etc.,

R. CLEMENT LUCAS, B.S., F.R.C.S.

Surgeon to the Evelina Hospital for Children, etc.

Finsbury Square, May 5th.

MEDICAL DECLARATIONS RE ALCOHOL.

SIR,—The annexed circular has been sent to more than 2,000 of the leading medical men of the United Kingdom, and a very large number of valuable endorsements has been received. Our Council would, but for the great expense involved, have sent a similar circular to every practitioner in the kingdom; but, as this is impossible, may I ask that this important matter may be brought under their notice through your columns, and that all may thus have an opportunity of appending their names before the list is published? If, as soon as possible after reading this, each one who approves of these declarations will send me a post-card, addressed "Dr. Ridge, Enfield, Middlesex," with the simple statement, "I endorse Declaration I, II, and III" (any or all, as the case may be), with his name and qualifications, it will be much appreciated.—I am, etc.,
J. JAMES RIDGE.
Enfield.

Carlton House, Enfield, Middlesex. February, 1888. DEAR SIR,—You are doubtless aware that during the last fifty years three medical declarations respecting alcohol have been issued. The first of these, issued in 1839, was to the following effect:—

Declaration I.—"An opinion handed down from rude and ignorant times and imbibed by Englishmen from their youth, has become very general, that the habitual use of some portion of alcoholic drink, as of wine, beer, or spirit, is beneficial to health, and even necessary to those who are subjected to habitual labour. Anatomy, physiology, and the experience of all ages and countries when properly examined, must satisfy every mind, well-informed in medical science, that the above opinion is altogether erroneous. Man, in ordinary health, like other animals, requires not any such stimulants, and cannot be benefited by the habitual employment of any quantity of them, large or small; nor will their use during his lifetime increase the aggregate amount of his labour. In whatever quantity they are employed, they will rather tend to diminish it. When he is in a state of temporary debility from illness or other causes, a temporary use of them, as of other stimulant medicines, may be desirable; but as soon as he is raised to his natural standard of health, a continuance of their use can do no good to him, even in the most moderate quantities, while larger quantities (yet such as by many persons are thought moderate) do, sooner or later, prove injurious to the human constitution, without any exceptions. It is my opinion that the above statement is substantially correct."

This document was signed by Sir Benjamin Brodie, Dr. W. F. Chambers, Sir James Clarke, Bransley Cooper, Dr. D. Davies, Sir J. Eyre, Dr. R. Ferguson, Mason Good, Dr. Marshall Hall, Dr. J. Hope, C. A. Key, Dr. R. Lee, Herbert Mayo, R. Partridge, Richard Quain, Dr. A. T. Thomson, R. Travers, Drs. Andrew and Alexander Ure, and in all by seventy-eight men of distinction in the profession.

The second medical certificate was promoted by John Dunlop, Esq., in 1847, and was signed by upwards of 2,000 physicians and surgeons. Their testimony was as follows:—

Declaration II.—"We, the undersigned, are of opinion: 1. That a very large portion of human misery, including poverty, disease, and crime, is induced by the use of alcoholic or fermented liquors or beverages. 2. That the most perfect health is compatible with total abstinence from all such intoxicating beverages, whether in the form of ardent spirits, or as wine, beer, ale, porter, cider, etc. 3. That persons accustomed to such drinks may, with perfect safety, discontinue them entirely, either at once or gradually, after a short time. 4. That total and universal abstinence from alcoholic liquors and beverages of all sorts would greatly contribute to the health, the prosperity, the morality, and the happiness of the human race."

Among the signatories to this document in London were those of Dr. Addison, Dr. Niel Arnot, J. Moncrieff Arnott, Esq., Dr. B. G. Babington, Dr. Beattie, Sir J. Risdon Bennett, Dr. A. Billing, Dr. John Bostock, Dr. Golding-Bird, Dr. Black, Dr. R. Bright, W. Bowman, Esq., Sir B. C. Brodie, Sir W. Burnett, Dr. G. Budd, Sir G. Burrows, Dr. W. B. Carpenter, Dr. W. F. Chambers, Sir J. Clark, Dr. Copland, Sir J. Eyre, Dr. A. Farre, Dr. Robert Ferguson, Sir W. Ferguson, Sir J. Forbes, R. D. Grainger, Esq., Dr. Guy, Dr. Marshall Hall, Sir H. Holland, Sir Aston Key, F. Kiernan, Esq., W. B. Langmore, Esq., Dr. P. M. Latham, Sir J. McGrigor, Bart., Dr. J. A. Paris, Dr. Peacock, Dr. Pereira, Dr. Pettigrew, Dr. Prout, Dr. Toynebee, Dr. Wilks, Erasmus Wilson, Esq., Dr. Forbes Winslow, and many others of equal note.

In the provinces the following signed with many others:—Professor Adams, Dr. Aitken, Professor Alison, Dr. S. Begbie, W. Braithwaite, Esq., Dr. Buchanan, Dr. P. Crampton, Professor Curran, Dr. Keith, Sir H. Marsh, Dr. Q. E. Paget, Professor Pirrie, Professor J. Reid, Professor Syme, T. P. Teale, Esq., Dr. Andrew Wood, Dr. Wylie, etc.

The third declaration was issued in 1871 to the following effect:—

Declaration III.—"As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no medical practitioner should prescribe it without a sense of grave responsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for the continuance of its use when the occasion is past.

"They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet, and since no class of men see so much of its ill effects, and possess such power to restrain its abuse, as members of their own profession, they hold that every medical practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquids.

"Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness, and welfare of those classes, and neutralising to a large extent the great industrial prosperity which Providence has placed within the reach of this nation, the undersigned would gladly support any wise legislation which would tend to restrict within proper limits the use of alcoholic beverages, and gradually introduce habits of temperance."

This third declaration was signed by most of the leading consulting and hospital physicians and surgeons of the day.

It is now 17 years since the last declaration, 41 years since the second, and 49 since the first, and during this long period a vast amount of experience has accumulated, both as to the effects of alcohol, and as to the practice of abstinence, so that there should be no difficulty in determining whether the above declarations are correct or not.

It has seemed to the Council of the British Medical Temperance Association highly desirable, both for the credit of the profession and the advantage of the public, that these declarations should be reviewed, and their statements confirmed or denied, according to the judgment of the medical authorities of the present day.

I beg, therefore, respectfully to submit these declarations to your notice, and ask you to be kind enough to sign and return the enclosed form, if your experience and observation enable you to endorse them.—I am, etc., J. JAMES RIDGE, Honorary Secretary British Medical Temperance Association.

BEQUESTS AND DONATIONS.—Mr. George Cope, J.P., of Woolton, Liverpool, has bequeathed £5,000 to the Woolton Convalescent Institution.—The Baroness de Stern has given £1,000 to the London Hospital.

NAVAL AND MILITARY MEDICAL SERVICES.

CLASS BLACKBALLING.

SIR.—With reference to the announcement in your issue of April 28th that an extraordinary general meeting would be held at the Junior United Service Club on May 7th, to vote concerning the rejection of four officers at a former ballot, your readers will be glad to hear that the four gentlemen, two of whom were medical officers of the army, were elected almost unanimously. The "clique" who amuse themselves by blackballing medical officers made a most ridiculous and feeble display, and it is quite evident that the great majority of the members are determined to permit no class prejudices to operate in the working of the club. The meeting was a large and representative one, and, it is hoped, will do much to eradicate the objectionable practice which has prevailed for some time past of blackballing officers for no other reason than that they belonged to the medical profession.—I am, etc.,

A CORRESPONDENT.

THE DIRECTOR-GENERAL AND THE RESERVE OF MEDICAL OFFICERS.—In a lecture on "Field Medical Organisation," delivered to the West Kent Tactical Society, on May 4th, the Director-General, Sir Thomas Crawford, M.D., K.C.B., referred to the objects of the Reserve of medical officers. He stated that the scheme was under consideration and drafted, two years ago, before the present discussion of the rank and privileges of army medical officers commenced, and that there was no intention of employing the officers of the reserve to the prejudice of the officers of the regular army.

ARMY MEDICAL POLITICS IN INDIA.—A correspondent sends us a cutting from the Indian *Pioneer*, from which we see the press in that country fully grasps the points at issue between the War Secretary and the Medical Department. The questions of the reductions in the active list, the restrictions placed on retirement, and the proposed increase of the periods of foreign service, are all cleverly handled. The full significance of the Army Medical Reserve Warrant is also realised, and pronounced to be a shabby endeavour to inveigle medical men in the auxiliary forces to place themselves and their practices at the disposal of the War Office—for, literally, nothing!

THE NAVY.

STAFF-SURGEON ROBERT GRANT, M.A., M.B., has been promoted to the rank of Fleet-Surgeon. His commission as Surgeon is dated May 7th, 1868, and as Staff-Surgeon, June 7th, 1879. While Surgeon of the *Flora*, he served on shore with the 88th Regiment during the Kafir War, 1877; was specially promoted for services when in charge of small-pox patients of *Zoadicea*, 1879; as Staff-Surgeon, he lauded during the Zulu war, and accompanied the Naval Brigade to Port Durnford (mentioned in despatches, medal); Staff-Surgeon of *Orion* during Egyptian war, 1882 (medal, Khedive's bronze star); Staff-Surgeon of *Orontes* during naval and military operations in the Eastern Soudan, 1884; was Medical Officer in charge of Transports, and accompanied the Royal Marine Battalion in action at Tannich (mentioned in despatches for his admirable arrangements for the sick and wounded, clasp).

Fleet-Surgeon **MAXWELL RODGERS, M.D.**, has been promoted to be Deputy Inspector-General. His previous commissions are dated: Surgeon, December 28th, 1857; Staff-Surgeon, December 8th, 1868; and Fleet-Surgeon, March 6th, 1860. He served as Assistant-Surgeon in the *Belleisle*, and attended on the wounded during the operations at the Pelhe forts in 1858 (China medal); was Acting-Surgeon of the *Assurance* during an outbreak of cholera and fever on board in 1865, when in the River Danube and Black Sea; Fleet-Surgeon of the *Monarch* at the bombardment of Alexandria, July 11th, 1882, and at the occupation of Port Said (Egyptian medal, clasp, Khedive's bronze star).

Inspector-General **T. J. HARRAN** has been placed on the retired list. He entered the service as Surgeon, July 27th, 1850; became Staff-Surgeon, April 4th, 1853; Fleet-Surgeon, June 8th, 1871; Deputy Inspector-General, April 1st, 1881; and Inspector-General, March 19th, 1886. He was (says the *Royal Navy List*) Assistant-Surgeon of and employed in charge of *Harlequin's* boats in attack on Lagos, November, 1851 (mentioned in despatches), and in several subsequent expeditions into the rivers and lagoons adjoining against the expelled chief Kosoko; also employed repeatedly in boat cruising in *Harlequin's* boats, for suppression of slave trade on the West Coast of Africa. Assistant-Surgeon of *Viper* in the Black Sea during the Crimean war, repeatedly in action; took part in the battle of Eupatoria; operations on the coast of Circassia, including the capture of Kertch, and the expedition in the Sea of Azov, night attacks on sea defences of Sebastopol, capture of Kinburn, and subsequent operations in the Gulf of Dupleir (Crimean and Turkish medals, Azov and Sebastopol clasps). Assistant of the 1st Battalion Surgeon of *Roscaevan*, flagship of the Hon. Sir F. W. Grey on the Cape of Good Hope and West Coast of Africa Station, 1857-60, and landed at Assension to attend yellow fever cases of *Trident* in 1859. Surgeon of *Brisk*, 1861-63, employed at the Cape of Good Hope and East and West Coasts of Africa; accompanied Commodore Wilmut in December, 1862, on a mission to the King of Dahomey, considered then a perilous enterprise; absent from ship six weeks. Selected for service with Royal Marine Battalion which proceeded to South Africa in 1879. Employed as Deputy Inspector-General at Haslar, and in charge of Malta hospitals, 1881-1886, when promoted to Inspector-General and

appointed to Plymouth Hospital (Sir Gilbert Blane's Gold Medal); J.P. of Queensland.

The following appointments have been made at the Admiralty: F. W. FOSTER, to be Surgeon and Agent at Walton-on-the-Naze; T. A. SKENE, M.B., to be Surgeon and Agent at Cove Bay.

THE MEDICAL STAFF.

BRIGADE-SURGEON HENRY KNAGGS has been granted retired pay. Entering as Assistant-Surgeon, April 22nd, 1858, he became Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; and Brigade-Surgeon, April 16th, 1884. During the Bechuanaland Expedition, under Sir Charles Warren in 1884-85, he had charge of the hospital at the base.

Surgeon-Major **Alexander BREBNER, M.D.**, is also granted retired pay. His commissions bear date: Assistant-Surgeon, April 14th, 1863; Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. He was with the 55th Regiment during the Bhootan campaign, in the North-West Frontier of India, and was at the recapture of Dewangiri in 1865 (medal with clasp).

Surgeon **H. G. CHRISTIAN, M.B.**, has resigned his commission, which bore date March 6th, 1880.

Surgeon **V. E. HUNTER**, serving in Bengal, has passed the examination in Burmese by the lower standard.

ARMY MEDICAL RESERVE.

The following is substituted for the announcement in the *Gazette* of April 24th, 1888 (*vide* JOURNAL, April 25th): Surgeon **FREDERIC EDWARD MANNY, F.R.C.S.**, 3rd Volunteer Battalion the South Staffordshire Regiment, to be Surgeon-Major (ranking as Major).

The undermentioned officers to be Surgeons-Major (ranking as Majors): Surgeon-Major **ROWLAND HILL COOMES, M.D.**, 3rd Battalion the Bedfordshire Regiment (late the Bedford Militia); Surgeon **ERNESTER SHEED**, 2nd Volunteer Battalion the Essex Regiment (formerly the 2nd Essex Volunteers); Surgeon **HENRY GEARY DYER**, 4th Volunteer Battalion the Hampshire Regiment (late the 4th Hampshire Volunteers).

The undermentioned officers to be Surgeons (ranking as Captains): Surgeon **WALTER CULVER JAMES, M.D.**, F.R.C.S.E., the Honourable Artillery Company of London; Surgeon **WILLIAM JOHN NAISMITH, M.D.**, F.R.C.S.E., Artillery Yeomanry Cavalry; Acting-Surgeon **ALFRED LINGARD**, 3rd Middlesex Artillery Volunteers; Acting-Surgeon **ROBERT CLARK**, 5th Lancashire Artillery Volunteers; Surgeon **WILLIAM CHALMERS COWAN**, 1st Forfarshire Artillery Volunteers; Surgeon **WILLIAM COATES**, the Manchester Division Volunteer Medical Staff; Acting-Surgeon **QUINTIN CHALMERS, M.D.**, 5th Volunteer Battalion the Highland Light Infantry (late the 10th Lanarkshire Volunteers); Acting-Surgeon **WILLIAM DUNCAN, F.R.C.S.**, 1st London Rifle Volunteers; Acting-Surgeon **WILLIAM BROWN MOIR, M.D.**, 2nd Volunteer Battalion the Highland Light Infantry (late the 6th Lanarkshire Volunteers).

THE INDIAN MEDICAL SERVICE.

SURGEON F. C. CLARKE, Bengal Establishment, is appointed to the officiating medical charge of the 6th Bengal Cavalry, *vice* Surgeon-Major P. F. O'Connor, M.D., granted furlough. This cancels Surgeon W. R. Clark's appointment to the 6th Bengal Cavalry, previously notified.

Surgeon **W. R. CLARK**, Bengal Establishment, is appointed to the officiating medical charge of the 17th Bengal Cavalry, *vice* Surgeon-Major W. E. Griffiths, granted furlough.

Surgeon **E. HUDSON**, Bengal Establishment, is appointed to the officiating medical charge of the 11th Bengal Infantry, *vice* Surgeon C. Vaid, transferred temporarily to civil employ.

Surgeon **W. A. SYKES**, Bengal Establishment, is appointed to the officiating medical charge of the 18th Bengal Lancers, *vice* Surgeon A. W. Dawson.

Surgeon **E. C. HARE**, Bengal Establishment, is appointed to the officiating medical charge of the 1st Punjab Infantry, *vice* Brigade-Surgeon J. Duncaan, M.D., appointed to Shaikh Budin during the ensuing season.

Surgeon **W. CONRY, M.B.**, Bengal Establishment, medical officer 13th Bengal Lancers, has leave of absence for one year on private affairs.

Surgeon **G. B. IRVINE**, Bengal Establishment, is appointed to the officiating medical charge of the 1st Battalion 2nd Gorkhas, *vice* Surgeon-Major D. P. Macdonald, M.D., granted leave out of India.

The services of Surgeon **H. ADEY**, Bombay Establishment, are placed at the disposal of Government for employment in the Civil Department.

Surgeon **T. D. C. BARRY**, Bombay Establishment, is appointed to the officiating medical charge of the 20th Native Infantry during the absence of Surgeon-Major J. Macgregor, M.D., or until further orders.

Surgeon-Major **J. LUCAS**, Bombay Establishment, is appointed to the officiating medical charge of the 27th Native Infantry during the absence of Surgeon H. Adey, or until further notice.

Surgeon **CHARLES MATRIAS**, formerly of the Indian Medical Service, died on April 13th at Penally, Pembrokehire, aged 70.

The undermentioned probationers for the Indian Medical Service, having completed a course of instruction at the Army Medical School and being reported qualified, have been appointed Surgeons on the Bengal Establishment, their commissions as such bearing date October 1st, 1887, the day of their joining the Army Medical School:—A. E. ROBERTS, D. M. DAVIDSON, F. P. MANNARD, J. C. LAMONT, A. H. NOTT, A. COLEMAN, W. W. WHITE, D. T. LANE, M.D., R. C. MAOWATT, W. H. E. WOODWRIGHT, W. J. BUCHANAN, J. CLOSS, M.D., J. M. MACNAMARA, M.D., and H. M. BRABAZON.

THE VOLUNTEERS.

The undermentioned gentlemen have been appointed Acting-Surgeons to the corps specified:—C. L. FRASER, 1st Berwick-on-Tweed Artillery; Acting-Surgeon **R. K. TAIT**, from the 1st Newcastle and Durham Engineers, to the 17th Division Submarine Miners Royal Engineers; **EDMUND VAUDREY, M.B.**, 1st Volunteer Battalion Derbyshire Regiment (late the 1st Derby).

Surgeon and Hon. Surgeon-Major **H. MEAD**, of the 2nd West Riding Artillery, has resigned his commission, which was dated July 3rd, 1872; he is permitted to retain his rank and uniform.

Surgeon and Hon. Surgeon-Major **J. WILLIAMS**, of the 1st Volunteer Battalion South Wales Borderers (late the 1st Brecknock), has also resigned, with permission to retain his rank and uniform; his appointment was dated April 15th, 1862.

Acting-Surgeon **A. R. WADE** is appointed Surgeon to the 2nd Battalion Hampshire Regiment (late the 2nd Hampshire); and **MR. W. J. HARNETT** is appointed Surgeon to the 22nd Middlesex (Central London Rangers).

Surgeon E. T. PRIOR, of the 4th Volunteer Battalion Norfolk Regiment (late 4th Norfolk), has resigned his commission, which was dated July 30th, 87.
Mr. H. J. JOHNSON is appointed Surgeon to the London Division of the Volunteer Medical Staff, and Mr. J. OLIVER, M.B., Surgeon to the Leeds Division.

B. F.—There is every reason to believe that the effort at promotion in the family party at the headquarters of the Army Medical Department which was rumoured, and which is referred to by our correspondent, has been frustrated.

SPREADING THE NET FOR VOLUNTEER SURGEONS.

A CAUGHT BIRD," himself ensnared into the Medical Staff, expresses his surprise that any volunteer surgeons could be caught by such a naked pinch of salt as the Army Medical Reserve Warrant seeks to place on their tails. He thinks they, in joining the so-called Reserve, incur obligations scarcely realised, or they would pause. They will not be able to back out of these obligations when summoned upon to do duty anywhere in a factitious "national emergency."

THE QUALIFICATIONS OF VOLUNTEER MEDICAL OFFICERS.

EDICUS asks: Can a practitioner holding only the L.S.A.Lond. be appointed acting-surgeon of a volunteer regiment? If so, is it not time for the Volunteer Medical Association, and have the same inserted in the Volunteer Medical (?) Regulations? I have looked through the Volunteer Regulations, but cannot find any reference as to the necessary medical qualifications. I ask this question as I know of a case wherein a practitioner having only the L.S.A.Lond. has been nominated for this appointment, his name being sent to the War Office for confirmation of appointment.

. A certificate of proficiency is only granted to a volunteer medical officer who is registered under the Medical Act of 1858 as qualified to practise medicine and surgery in Great Britain and Ireland" (Army Form, E 564; Volunteer Regulation, 1887, Part I, sec. ii, para. 144). Volunteer medical officers have been appointed who have only one qualification, and the certificate of proficiency has been withheld by the War Office in such cases. Officers are now required to become proficient within one year of their appointment.

THE ARMY MEDICAL RESERVE.

FRASER STOKES (Surgeon, the London Rifle Brigade) writes: As a volunteer medical officer, I have read with interest your leading article upon this subject in the JOURNAL of April 28th. Since the issue of the Warrant I have been hesitating about joining, but at present have not done so, there being many adverse opinions to the scheme. Doubtless, as your article states, volunteer medical officers are quite prepared to make great personal sacrifices, together with volunteers of all ranks, when real national danger unfortunately comes about, but it is entirely another matter to ask them to risk private professional ruin when the emergency may be not national at all."

With this I entirely agree, but it seems to me that if the War Office wishes to see this Army Medical Reserve become a success, and be thoroughly well taken up, it should make the Warrant more adapted to the position and occupation of the man whose services it is seeking to enlist. For instance, if we were to guarantee that volunteer medical officers should be placed in large of troops only in those barracks situated in the immediate neighbourhood of the towns in which they reside, and at the same time to allow them to devote some part of the day to the supervision of their own private practices, I believe the scheme would be warmly supported. As matters stand at present it would appear, for example, that an officer resident in London is able to be ordered to Portsmouth or Chatham, and kept there for an unlimited period, during which time his private practice must be seriously damaged. Perhaps the War Office will see fit to so modify the Warrant as to make it more adapted to the professional life of volunteer surgeons.

. We fear the writer of the above hardly grasps the absolutely necessary conditions of a Reserve which shall be other than a merely bogus one. In any national emergency, "real or factitious, the military authorities would very soon show they care nothing for the private practice or personal convenience of a reservist who is bound under penalties to fulfil a contract. He must go where ordered—the "London resident" to Chatham, or, for that matter, to Regent's Park or Trafalgar if required. If he repents and refuses at the last moment, we doubt not he would discover he was under the penalties of the volunteer and other enactments. Crude and unworkable as the Warrant is, it could certainly not be made more impracticable by guaranteeing reservists they should only have such duties as suited their private interest or convenience. If the writer is in any doubt on this subject, then, we say, do not join the Reserve.

PLEA FOR HONORARY RANK.

TEN YEARS writes: I think the familiarity with which medical officers of long service and high position are treated by young military officers is very humiliating and humiliating. I have seen Senior Surgeons-Major, Brigade Surgeons, and administrative medical officers of the highest position addressed without any prefix to the surname by officers young enough to be their sons. In civil life such a thing would not occur. Military officers respect military rank only, and treat Dr. Browne, the Surgeon-General, as they would Dr. Browne, the Surgeon, not condescending to inquire what their respective ranks may be.

There is no doubt that socially we have lost position since the abolition of a regimental system. We are a large body of officers, brought in intimate contact with military officers, and dependent on them for all that constitutes social life in the army. We have no messes, and no means of making, as a rule, any return for hospitality. Naturally, regiments look down on a body of officers without any position, and we sink lower every day in the social

scale. This cannot be denied; it is evidenced by the neglect of regiments to make us honorary members of their messes, and by the exclusion of medical officers from regimental entertainments. I do not say every regiment excludes us, but the number of those that do is steadily increasing. We are growing more unpopular every day. There is a strange want of independence amongst us. Many an act of grave injustice has been done medical officers; for instance, sweeping us with one stroke out of our regiments, but a Director-General resigning his chair, no matter how snubbed and insulted, has never been known. A short time ago the "aiguillette" was taken from honorary surgeons to the Viceroy; any other body of officers would have resigned the degraded position, but I have not heard that any one of those gentlemen has acted with becoming spirit and independence, a public insult to the Department should be publicly resented. The position of a medical staff officer is intolerable to men of gentlemanly feeling; snubs, slights, and humiliations are daily served out to us with an unsparing hand. The remedy is obvious—honorary rank. There is a slavish respect for military titles in the army, and no matter who the persons are, they rise at once to weight and consideration when granted military titles. I need only point to paymasters and Commissariat officers. Can any one deny that their position in the army has been marvellously improved by honorary rank?

We are deeply indebted to you, Sir, for fighting our battles, but we are a numerous body, and, I think, should do something for ourselves. We should establish in London a Medical Staff Defence Association, appoint a paid secretary; plenty of medical officers on retired pay suitable for the post. I shall be happy to subscribe liberally. The medical officers of the Indian Service adopted this plan, and got their grievances redressed. I do not see why we should not do the same. Our position is bad, and will, unless we exert ourselves to improve it, become intolerable.

MR. STANHOPE'S MEMORANDUM.

A SENIOR SURGEON-MAJOR, writing from India, says the alterations in the terms of retirement foreshadowed in Mr. Stanhope's memorandum have produced positive consternation among the Medical Staff serving in that country. He asks: Can it be possible that the British Government, hitherto distinguished for its absolute good faith, would deliberately break its contracts with its servants? It is surely impossible.

MEDICO-LEGAL AND MEDICO-ETHICAL.

PRESCRIBING CHEMISTS AND COMPOUNDING DOCTORS.

M. R. C. asks if it is competent for a L.K.Q.C.P.I., in face of the declaration, to superintend a medical hall publicly opened for sale of medicine and for compounding prescriptions; the hall to be the property of unqualified persons, who would have in it a capable though unqualified hand to do all work, and merely superintended by the L.K.Q.C.P.I.

. We have referred this question to Mr. James R. Upton, Solicitor to the British Medical Association, who replies as follows: Whether L.K.Q.C.P.I.'s superintendence would constitute "covering" would entirely depend on the extent of the supervision he exercised. If complaint were to be made to the General Medical Council, the tests that would be applied to the facts laid before them would be (1) was the employment of the unqualified assistant in substitution for the services of L.K.Q.C.P.I., or under circumstances in which due personal supervision and control were not, or could not, be exercised by him? and (2) did L.K.Q.C.P.I. do any act to enable the unqualified person to practise as if duly qualified (see the JOURNAL for March 31st last, at p. 714)?

A BONE-SETTER.

T. W. writes: I have been attending a woman, aged 70, suffering from fracture of the neck of the femur. I put a long splint on, but was obliged to remove it on account of bedsores caused by incontinence of urine. I was going to mould a leathern splint for it when I was superseded by a bone-setter, who said it was out of joint, and the leg never had been broken. I have been severely handled by many of my patients for my ignorance. Have I any redress at a court of law, and should not our Branch take it up seeing that it would benefit the profession?

. The only means of obtaining redress that we can suggest would be an action claiming damages for slander. Before attempting to bring such an action, it is important to have clear proof of the exact words used. If they impute ignorance of his profession to a medical man they would clearly be actionable, but the amount of damages awarded would depend on the view taken by the jury.

CORONERS AND MEDICAL WITNESSES.

NEMO asks: What discretionary powers, if any, has the coroner in regard to the calling in or not of the medical man in attendance on the deceased before death?

. If the coroner previous to the inquest considers medical evidence at an inquest is necessary, he can subpoena a medical man to attend. Should, however, the inquest have been commenced and no medical evidence forthcoming, it is within the power of the coroner or the jury to adjourn for the attendance of a medical witness. The jury have also the power to call additional medical evidence, and to name the medical man they desire to attend should they not feel satisfied with the medical evidence that may already have been given.

The Skinners' Company have given a donation of ten guineas to the Parkes Museum, Margaret Street, Regent Street, to aid in maintaining and extending its work of practically teaching the laws of health.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1888.

THE vital and mortal statistics of the twenty-eight towns dealt with by the Registrar-General in his weekly return are summarised in the accompanying table. During the three months ending March last, 76,127 births were registered in the twenty-eight large towns, equal to an annual rate of 32.5 per 1,000 of their aggregate population, estimated at nearly nine and a half millions of persons. In the corresponding periods of the three preceding years, 1885-7, the birth-rate in these towns was 35.3, 34.7, and 32.9 respectively. The birth-rate in London last quarter was equal to 32.2 per 1,000, while in the twenty-seven provincial towns it averaged 32.8, and ranged from 22.7 in Brighton, 26.5 in Huddersfield, and 28.3 in Bradford to 37.4 in Norwich, 37.7 in Newcastle-upon-Tyne, 39.5 in Preston, and 43.9 in Cardiff.

The 51,659 deaths registered in the twenty-eight towns during the first three months of this year were equal to an annual rate of 22.1 per 1,000, against 22.7, 24.4, and 22.0 in the corresponding quarters of the three years 1885-7. In London the rate of mortality was 22.0 per 1,000, while in the twenty-seven provincial towns it averaged 22.2 per 1,000. The lowest rates in these provincial towns were 18.0 in Bradford, 18.1 in Hull, 18.5 in Brighton, and 19.0 in Sunderland; the highest were 27.1 in Preston, 28.8 in Plymouth, and 29.0 in Blackburn and in Manchester. During the quarter under notice, 5,637 deaths were referred to the principal zymotic diseases in the twenty-eight towns, equal to an annual rate of 2.41 per 1,000; the zymotic death-rate in these towns in the first quarter of the five preceding years averaged 2.38 per 1,000. The lowest zymotic rates in these towns last quarter were 0.75 in Halifax, 0.97 in Sunderland, 1.01 in Newcastle-upon-Tyne, and 1.04 in Brighton; while they ranged upwards in the other towns to 3.01 in Nottingham, 3.31 in Plymouth, 3.74 in Blackburn, and 5.39 in Sheffield. The 5,637 deaths referred to the principal zymotic diseases included 2,335 which resulted from whooping-cough, 858 from scarlet fever, 618 from measles

from "fever" (including typhus, enteric, and simple and ill-defined forms of continued fever), 499 from diphtheria, 396 from diarrhoea, and 393 from small-pox. The 2,335 fatal cases of whooping-cough registered in the twenty-eight towns during the quarter under notice were equal to an annual rate of 1.00 per 1,000, and, with the exception of 1886, when the rate was also 1.00, exceeded that recorded in the first quarter of any year since 1882. This disease was proportionally much more prevalent in London than in the aggregate of the provincial towns: for while the whooping-cough death-rate in London was as high as 1.52 per 1,000, it did not average more than 0.56 in the twenty-seven provincial towns, among which it was highest in Norwich, Salford, Leicester, and Wolverhampton. The 618 fatal cases of measles were equal to an annual rate of 0.26 per 1,000, a lower rate than in any quarter of any year since 1878. The rate of mortality from this disease in London last quarter was 0.22 per 1,000, while it averaged 0.30 in the twenty-seven provincial towns, among which it showed the highest proportional fatality in Bolton, Blackburn, Birmingham, Nottingham, and Plymouth. The death-rate from scarlet fever was equal to 0.37 per 1,000, and exceeded that recorded in the March quarter of any year since 1884; in London the rate of mortality from this disease was equal to 0.39 per 1,000, and slightly exceeded the mean rate in the provincial towns, among which scarlet fever was proportionally most fatal in Manchester, Sheffield, Birkenhead, Oldham, and Blackburn. The number of scarlet fever patients in the Metropolitan Asylums Hospitals, which had been 2,049 at the beginning of the year, steadily declined to 1,037 at the end of March. The admissions into these hospitals, which had risen from 466 to 2,908 in the four quarters of 1887, declined to 1,037 during the first three months of this year. The 538 deaths referred to different forms of "fever" in the twenty-eight towns last quarter were equal to an annual rate of 0.23 per 1,000; this rate was below the average of the corresponding quarters of the five preceding years, although it exceeded that recorded in the first three months of any of the three previous years. In London the fever death-rate was 0.23 per 1,000, and corresponded with the mean rate in the twenty-seven provincial towns, among which it was highest in Cardiff, Derby, and Nottingham. The rate of mortality from diphtheria was equal to 0.21 per 1,000, and although showing a slight decline from the rate in the preceding quarter, was higher than in the

Public Health Statistics relating to Twenty-eight Large English Towns, for the First Quarter of 1888.

Towns.	Estimated Population middle of 1888.	Births.	Deaths.	Annual Rate per 1,000 Living.			Deaths from Principal Zymotic Diseases.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Fever.	Diarrhoea.	Rate per cent. of Uncertified Deaths.	Deaths of Children under one year of age to 1,000 Births.
				Births.	Deaths.	Principal Zymotic Diseases.										
23 Towns	9,398,273	76,127	51,659	32.5	22.1	2.41	5,637	393	618	858	499	2,335	538	396	2.0	147
27 Provincial Towns	5,115,352	41,759	24,235	32.8	22.2	2.68	2,655	389	380	443	185	718	295	245	3.0	150
London	4,282,921	34,368	23,424	32.2	22.0	2.79	2,982	4	238	415	314	1,617	243	151	0.9	143
Brighton	119,983	679	553	22.7	18.5	1.04	31	—	—	1	5	20	5	—	1.1	135
Portsmouth	139,575	1,234	803	35.5	23.1	1.09	38	—	—	5	3	20	7	3	1.0	141
Norwich	93,675	873	550	37.1	23.6	2.10	49	—	—	8	8	25	6	2	1.8	143
Plymouth	77,074	813	557	31.7	24.8	3.31	61	—	—	55	1	2	2	3	1.6	199
Bristol	226,510	1,748	1,150	31.0	20.4	1.35	76	15	7	12	5	20	8	9	2.3	122
Wolverhampton	81,691	767	507	33.1	24.9	2.75	56	—	—	9	7	3	29	4	0.8	177
Birmingham	447,912	3,542	2,255	31.7	20.2	2.03	226	—	91	14	15	61	16	29	2.2	140
Leicester	146,799	1,251	753	34.2	20.6	2.05	75	—	9	1	2	49	13	1	1.9	174
Nottingham	230,921	1,801	1,230	31.3	21.4	3.01	173	9	66	7	16	26	40	19	1.4	165
Derby	196,241	730	460	30.1	19.2	2.71	65	—	14	5	4	23	16	3	1.5	149
Birkenhead	100,093	777	504	31.2	20.2	1.88	47	—	5	19	2	4	4	8	1.0	151
Liverpool	599,738	4,674	3,334	31.3	22.3	1.58	236	1	9	53	24	89	40	20	5.5	148
Bolton	113,506	955	623	33.8	22.0	2.73	77	—	19	9	6	30	8	5	13.4	158
Manchester	378,164	3,496	2,737	37.1	29.0	2.39	225	13	12	53	23	70	28	26	2.0	156
Salford	226,336	1,882	1,253	33.4	22.2	2.46	139	—	17	20	7	67	11	17	3.9	158
Oldham	138,220	1,071	773	31.1	22.1	2.32	80	6	2	34	16	15	2	5	3.1	148
Blackburn	119,039	1,092	880	35.8	29.0	3.71	111	8	20	41	—	17	11	14	3.3	203
Preston	103,234	1,016	698	39.5	27.1	1.94	50	—	1	11	8	12	7	11	3.1	178
Huddersfield	91,419	1,603	434	26.5	19.1	1.32	30	2	1	12	7	6	2	—	3.5	119
Halifax	80,138	571	415	28.7	20.8	0.75	15	—	2	6	1	3	2	1	4.1	145
Bradford	229,721	1,622	1,023	28.3	18.0	1.36	78	—	25	29	2	13	3	16	2.8	141
Leeds	351,210	2,916	1,840	33.3	21.0	1.36	119	13	5	19	8	14	13	10	1.4	138
Sheffield	321,711	2,609	1,921	32.5	24.0	5.39	432	318	1	45	7	29	15	17	5.5	166
Hull	292,359	1,527	914	30.3	18.1	1.05	53	3	1	14	2	41	9	10	5.8	141
Sunderland	131,919	1,144	624	34.8	19.0	0.97	32	1	1	2	6	16	3	4	2.1	114
Newcastle-on Tyne	159,003	1,494	873	37.7	22.0	1.01	40	—	5	4	9	13	8	1	2.7	143
Cardiff	108,570	1,187	581	43.9	21.5	1.40	38	—	3	12	4	—	12	7	2.1	124

quarter of any year on record; in London the death-rate from diphtheria was equal to 0.29 per 1,000, while it did not average more than 0.15 in the provincial towns, among which this case showed the highest proportional fatality in Preston, Huddersfield, Norwich, and Oldham. The rate of mortality from diarrhoea was 0.17 per 1,000, and was below the average. During the first three months of this year, 393 deaths resulted from small-pox in the twenty-eight towns; of these, no fewer than 318 occurred in Sheffield (against 3, 45 and 230 in the three preceding quarters), also 15 in Bristol, 13 in Manchester, 13 in Leeds, 9 in Nottingham, 8 in Blackburn, and 6 in Oldham. Only 9 cases of small-pox were under treatment in the Metropolitan Asylums Hospitals at the end of March, and 38 cases of this disease had been admitted during the quarter, against 7 and 30 in the two preceding quarters.

The rate of infant mortality in the twenty-eight towns, measured by the proportion of deaths of children under one year of age to 100 registered births, was equal to 147 per 1,000 during the quarter under notice, against 154 and 145 in the corresponding periods of the two preceding years. While the rate of infant mortality was 143 per 1,000 in London, it averaged 150 in the twenty-seven provincial towns, among which it ranged from 114 in Sunderland, 119 in Huddersfield, and 122 in Bristol, to 177 in Wolverhampton, 178 in Preston, 199 in Plymouth, and 203 in Blackburn. The causes of 1,054, or 2.0 per cent of the deaths registered in the twenty-eight towns during last quarter were not certified, either by registered medical practitioners or by coroners. The proportion of uncertified deaths in London did not exceed 0.9 per cent., while it averaged 3.0 in the twenty-seven provincial towns, and ranged from 0.8 in Wolverhampton, and 1.0 in Birkenhead to 4.1 in Halifax, 5.5 in Sheffield and in Liverpool, and 5.8 in Hull.

MEDICAL OFFICERS OF HEALTH AND THE LOCAL GOVERNMENT BILL.

A SPECIAL meeting of the Birmingham and Midland Branch of the Society of Medical Officers of Health was recently held for the purpose of considering the Local Government Bill, presided over by Dr. A. BOSTOCK HILL, President, who said he thought the present moment was favourable for effecting the reform in the position of medical officers of health which they had so long been fighting out for. There were a great many medical officers of health engaged at salaries which made it absolutely impossible for them to do any sanitary work at all. There were a large number getting salaries of £5 and even £3 a year—a sum which did not pay a professional man even for the time expended in collecting statistics for his annual report. The payment of such a small salary, in fact, was practically an intimation from his employers that the less sanitary work he did the better. A large number of the present officers would become the officers of the district councils; but under the new system, there would probably be an amalgamation of the smaller areas, so that a salary could be paid which would enable a man really to do good sanitary work. Reference was made to the recent meeting of the Society held in London.—Dr. AGG suggested that the impending change afforded an opportunity of effecting still larger reforms in the system of sanitary administration. For instance, vaccination ought to be included in the work of the sanitary authorities. Small-pox was as much a matter for the sanitary administration as other zymotic diseases. The Bill was a comprehensive and far-reaching measure, and those were special reasons that the utmost care should be bestowed upon the construction of its details. Putting aside the omission of the adjustment of the shortcomings of our poor-law system, it was surprising how little, as the Chairman had noted, the Bill proposed to effect in the reconstruction and adjustment of our "tumbledown" piecemeal sanitary legislation, beyond renaming the local authorities and the introduction of County Councils. The Bill took no notice whatever of those sanitary requirements which such competent authorities as Farr, Acland, Simon, Rumsey, and the Councils of the British Medical and Social Science Associations have declared essential to the satisfactory working of our sanitary organisation. Her Majesty's Government had no excuse for ignoring these essentials, since they were duly brought officially before them as long ago as 1868, in the "Memorandum of State Medicine," the "Memorial of the Joint Councils of the British Medical and Social Science Associations, appointed to consider the better administration of the laws relating to Registration, Medico-legal inquiries, and the improvement of the Public Health;" and in 1869

in the "Minutes of Evidence in the first Report of the Royal Sanitary Commission." No mere renaming or grouping of the existing sanitary authorities could be satisfactory. The conditions of sanitary science and progress in the large centres of population and combined districts might be considered fairly satisfactory, but the very reverse held in the numerous small districts; there the hindrances to effective sanitary work and to the officials were greatest and most powerful. No doubt the former might be left as separate organisations or centres; but adjoining small districts ought to be grouped around their largest town into a sanitary district or area with a definite minimum population (about 100,000 or 150,000, this latter corresponding to the approximate Parliamentary divisional basis), under the care of a properly qualified medical officer and his staff, who would each devote their whole time and energies to the work, with life tenure of office during "good conduct," and at adequate remuneration; these four were the long recognised essential defects of our legislation. There were two other points he would allude to. From the experience of the 30 odd towns having compulsory notification of infectious disease, there was every reason that that important provision should now be extended by the Bill (or a separate one to follow it) to the whole country, all the new authorities being compelled to forego themselves with suitable hospital accommodation; lastly, there was the urgent necessity of the abolition of the antagonism between the practical working of the Education Acts and the Public Health laws in the matter of the constant diffusion of infectious diseases by schools. All pecuniary loss to the elementary schools by the non-attendance of children from infected houses ought to be done away. The Bill, so amended, would meet the most pressing and acknowledged defects of our present sanitary disorganisation.—Dr. A. HILL thought the object of the meeting should be limited to that taken by the Metropolitan Society—namely, the desirability of the medical officers of health holding their appointments direct from the County Councils.—Dr. PAGE, in accordance with the Chairman's suggestion, proposed: "That this branch of the Society of Medical Officers of Health wishes to express the opinion that the election of medical officers of health should be in the hands of the County Council."—Dr. A. HILL seconded the motion.—Dr. FENTON said that he agreed with the proposal so far as it affected the small rural appointments, but he thought that in boroughs of a moderate size matters might remain as they were. He had, during his time, proceeded against the Mayor and other members of the Town Council, but he had nothing to complain of in the way he had been treated.—Dr. UNDERHILL, while having no personal grievance, supported the motion, and, with regard to the amalgamation of districts, said that they must sink their personal interests out of regard to the general interests of sanitation.—Mr. HOLLINGSHEAD said he could not vote for the motion. He had no reason to complain of want of support from the authority of his district.—The PRESIDENT said that he was exactly in the same position as Mr. Hollingshead, being officer to two local authorities. There were, however, some flagrant instances of medical officers of health of the highest ability losing their positions through having incurred personal hostility in the discharge of their duty.—Dr. A. HILL said if county medical officers were appointed, they could only supervise the work of the districts. Local officers would still be required for the details of the works. The motion was carried.

HOSPITALS FOR INFECTIOUS DISEASES.

THE principle that the spread of infectious disease is to be controlled most effectually by the isolation of the first cases attacked has been so frequently exemplified, that of late years it has become more generally recognised and acted upon by sanitary authorities; but with some authorities exaggerated considerations of expense and false notions of economy have asserted themselves, and the warning that a comparatively small initial expenditure in making some small hospital provision may be the means of protecting a locality from much sickness, misery, and pecuniary loss has too frequently been ignored. The Public Health Act, 1875, leaves the matter entirely within the discretion of the local sanitary authorities, but the Medical Department of the Local Government Board have, with much success, availed themselves of every suitable opportunity of influencing local authorities in the right direction.

A further effort has just been made by the Central Department to bring the subject under the attention of those local authorities who have not provided their districts with hospital accommoda-

tion, by the issue of a short memorandum¹ on the subject, signed by Dr. G. Buchanan, together with some carefully prepared plans of small hospitals. In that memorandum it is pointed out that too often the provision of isolation hospitals is put off until some infectious disease is immediately threatening or has actually invaded a district, and that it cannot be too clearly understood that such hospitals, to fulfil their proper purpose of sanitary defence, ought to be in readiness beforehand. During the progress of an epidemic, it is of little avail to set about hospital construction. The mischief of allowing infection to spread from first cases will always have been done, and this mischief cannot be repaired. Thus hospitals provided during an epidemic are mainly of advantage to particular patients; they have little effect in staying the further spread of infection. Moreover, hospitals provided under such circumstances, to be of any use, must be large and costly, and their construction can seldom be of a kind that is suited in after times for the isolation requirements of their districts.

Large villages and groups of adjacent villages will, it is pointed out, commonly require the same sort of provision as towns. Where good roads and proper arrangements for the conveyance of the sick have been provided, the best arrangement for village populations is a small building accessible from several villages; otherwise the requisite accommodation for (say) four cases of infectious disease in a village may be got in a suitable four-room or six-room cottage at the disposal of the sanitary authority; or by arrangement made beforehand with some trustworthy cottage holders, not having children, that they should receive and nurse, on occasion, patients requiring such accommodation.

In towns hospital accommodation for infectious diseases is wanted more constantly, as well as in larger amount than in villages; and in towns there is greater probability that room will be wanted at the same time for two or more infectious diseases which have to be treated separately. The permanent provision to be made in a town should consist of not less than four rooms in two separate pairs; each pair to receive the sufferers from one infectious disease, men and women of course separately. The number of cases for which permanent provision should be made must depend upon various considerations, among which the size and the growth of the town, the lodgment and habits of its population, and the traffic of the town with other places, are the most important. There is no fixed standard, therefore, by which the standing hospital requirements proper for a town can be measured. Furthermore, it is to be remembered, that occasions will arise (as where infection is brought into several parts of a town at one time) when isolation provision, in excess of that commonly sufficient for the town, will become needful.

For a town, the hospital provision ought to consist of wards in one or more permanent buildings, with space enough for the erection of other wards, temporary or permanent. Considerations of ultimate economy make it wise to have permanent buildings sufficient for somewhat more than the average necessities of the place, so that recourse to temporary extensions may less often be necessary. And in any case it is well to make the administrative offices somewhat in excess of the wants of the permanent wards; because thus, at little additional first cost, they will be ready to serve, when occasion comes, for the wants of temporary extension.

Some very useful plans, illustrating the sanitary requirements of small hospitals for infectious diseases, are arranged on sheets accompanying the memorandum. In all the plans proper standards of space are observed, namely, not less than 2,000 cubic feet of air space, 144 square feet of floor space, and 12 linear feet of wall space to each bed; means are provided for the adequate ventilation and warming of wards, and for securing them from closet emanations and the like. Places for washing and disinfection, and for a mortuary are indicated. An interval of 40 feet is everywhere interposed between every building used for the reception of infected persons or things and the boundary of the hospital site; and this boundary, it is recommended, should have a close fence of sufficient height, and the 40 feet of interval should not afterwards be encroached on by any temporary building or other extension of the hospital.

In determining the locality where an infectious hospital should be placed, the wholesomeness of the site, the character of the approaches, together with the facilities for water-supply and for slop and refuse removal, are matters of primary importance.

¹ To be purchased, either directly or through any bookseller, from Eyre and Spottiswoode, East Harding Street, Fleet Street, E.C.; or Adam and Charles Black, 5, North Bridge, Edinburgh; or Hodges, Figgis, and Co., 104, Grafton Street, Dublin.

The memorandum does not fail to emphasise the caution which recent experience as to the spread of small-pox from hospitals has shown to be necessary. "Sites," it says, "for hospitals designed to receive small-pox require a very much larger space about them than sites for other infectious diseases hospitals. Small-pox hospitals, as we know them, are apt to disseminate small-pox, and their sites should, therefore, be placed outside of towns, and should, indeed, be sought at places as far distant from any populated neighbourhood as considerations of accessibility permit. It has been suggested that small-pox hospitals may be so constructed as not to be dangerous to neighbouring habitations; that this can be done by a system of passing through a furnace all outgoing air from infected wards and places: but this suggestion has not yet been carried into effect in England."

We commend the memorandum to the serious attention of all those sanitary authorities that have not provided their districts with the primary defence against epidemics which isolation hospitals constitute.

PUBLIC HEALTH ADMINISTRATION IN BRADFORD.

A MEETING of the medical practitioners of Bradford was held recently for the purpose of presenting an address to Dr. Hime on the approaching termination of his five years' engagement as medical officer for the borough. There was a large attendance. The address, which was elaborately illuminated on five pages, and handsomely bound in book form, with a suitable inscription, signed by eighty-six medical men, congratulated Dr. Hime on the good work which, in conjunction with the sanitary authority, he had been able to accomplish during his five years of office; on the cordial relations subsisting between himself and his medical brethren, which had enabled him to secure their active co-operation in carrying out the by-laws for the control of infectious diseases; on the greatly diminished death-rate, and the fact that Bradford now occupied a favourable position among the healthiest towns in England.

CHOLERA IN CHILI.

ACCOUNTS reach us of the fearful ravages of cholera, which has prevailed during the last three months in Chili. The *Chilian Times* of March 17th says: "Last week there occurred here 96 cases and 39 deaths, against 105 cases and 38 deaths in the previous returns. This brings up the total for the twelve weeks ended last Saturday, according to the defective returns of the Board of Health, to 3,338 cases and 1,357 deaths, which is nowhere near the mark. Dr. Gacitua estimates that from 4,500 to 5,000 persons have died in Valparaiso of cholera from the time of the appearance here of the disease on December 25th last until the 3rd instant. As the epidemic shows no signs of disappearance yet, a recrudescence of the disease having coincided with the introduction of fruit and *chicha* (grape cider), the probabilities are that the cholera will linger on until, as happened last year, it is temporarily placed in abeyance by the arrival of winter, by which time it may be taken for granted that Dr. Gacitua's highest estimate of victims will have been reached, and perhaps exceeded."

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons, 5,834 births and 3,367 deaths were registered during the week ending Saturday, May 5th. The annual rate of mortality, which had declined from 21.9 to 18.9 per 1,000 in the three preceding weeks, further fell to 18.7 during the week under notice. The rates in the several towns ranged from 12.7 in Portsmouth, 15.1 in Birkenhead, and 15.8 in Sunderland to 24.8 in Plymouth, 26.3 in Preston, 27.6 in Manchester, and 28.1 in Salford. In the twenty-seven provincial towns the mean death-rate was 19.8 per 1,000, and exceeded by 2.3 the rate recorded in London, which was only 17.5 per 1,000. The 3,367 deaths registered during the week under notice included 146 which were referred to whooping-cough, 45 to scarlet fever, 38 to diarrhoea, 32 to "fever" (principally enteric), 31 to diphtheria, 25 to measles, and 12 to small-pox; in all, 329 deaths resulted from these principal zymotic diseases, against 363 and 328 in the two preceding weeks. These 329 deaths were equal to an annual rate of 1.8 per 1,000; in London the zymotic death-rate was 2.1 per 1,000, while it averaged 1.6 in the twenty-seven provincial towns, and ranged from 0.0 in Portsmouth and in Plymouth, and 0.4 in Sunderland to 2.8 in Sheffield and in Norwich, 3.5 in Blackburn, and 5.3 in Salford. Measles caused the highest

proportional fatality in Bristol, Preston, Bradford, and Nottingham; scarlet fever in Salford and Blackburn; whooping-cough in Norwich, Manchester, London, Blackburn, and Salford; and fever" in Manchester and Salford. Of the 31 deaths from diphtheria recorded during the week under notice in the twenty-eight towns, 15 occurred in London and 3 in Manchester. The 3 fatal cases of small-pox included 8 in Sheffield, 2 in Bristol, in Oldham, and 1 in Hull. The number of small-pox patients in the Metropolitan Asylums Hospitals on Saturday, May 5th, was 1, of which 2 had been admitted during the week. These hospitals also contained 920 scarlet fever patients on the same date, against 961 and 967 at the end of the two preceding weeks; 10 cases were admitted during the week, against 91 and 79 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 3.5 per 1,000, and was considerably below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, May 5th, 888 births and 493 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had been 21.2 and 21.0 per 1,000 in the two preceding weeks, further declined to 19.5 during the week under notice, and exceeded by 0.8 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Perth and Dundee, and the highest in Edinburgh and Glasgow. The 493 deaths in these towns during the week under notice included 35 which were referred to the principal zymotic diseases, equal to an annual rate of 1.4 per 1,000, which was 0.4 below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Aberdeen and Glasgow. Eight fatal cases of diphtheria, 7 of whooping-cough, and 5 measles occurred in Glasgow; but no zymotic disease was fatally prevalent in any of the other towns. The mortality from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 4.4 per 1,000, against 5 in London.

THE POWERS OF THE REGISTRAR OF DEATHS.

Y. Z. asks: Has a registrar of births and deaths power to give a certificate of death in cases not seen by a medical man if there are no suspicious circumstances? My reason for asking is the following case, which has occurred this week.

A man called at the surgery to ask me to go at once to see his child. I was unable to do so, but offered to go as soon as I could. This offer the man would not accept (his house is four miles from the surgery), and said if I could not go back with him I was not to go at all. I did not do so. Next day the child died. Speaking casually to the registrar, he informed me he had registered the death as due to inflammation of the bowels. The case had not been seen by any medical man, and it is customary here for the registrar to give certificates in cases similar to the above. Would you kindly tell me whether he has any legal power to do so?

. If the person giving information of a death to the registrar states that the deceased had no medical attendant of any kind during the last illness, and if, upon inquiry, the registrar finds that the case is not one which he should report to the coroner (such as a death caused directly or indirectly by violence, or attended by suspicious circumstances, or when the cause of death is stated to be "unknown," or "sudden"), he must record the best information respecting the cause of death which he is able to obtain from the informant, and may issue his "certificate of the registry of death" in the usual manner.

POOR LAW MEDICAL OFFICERS' ASSOCIATION AND THE PUBLIC HEALTH PREVENTION OF DISEASES BILL.

At a meeting of the Council of the Poor Law Medical Officers' Association, held at their rooms, 3, Bolt Court, Fleet Street, May 1st, it was considered that the time had now arrived when poor law medical officers could cooperate most effectually in the proposed arrangement sought to be made by the medical officers of health. It was proposed to suggest to the central authority that poor law medical officers should be styled "district health officers," and that their duties should include the acting as deputies to those appointed as health officers of counties or large districts.

The subject of the Public Health Prevention of Diseases Bill came also under consideration, and Clause 3, Subsection 5, which makes a distinction in the amount of fees payable under different circumstances, was thought to be very objectionable and derogatory to those holding public appointments, and the Council requested Mr. Barnes to communicate its views upon this subject to Dr. Farquharson, M.P.

In reference to the Lord Chancellor's Coroners Bill, the Council resolved that it is not just towards the medical profession, and will, in many cases, be a hardship on the poor law medical service, if the appointment of coroners, as proposed by the Bill, becomes vested in the Lord Chancellor; and the Council urgently requests all members of the medical profession to oppose in every possible way that clause of the Bill which confers this power on the Lord Chancellor.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

ASSISTANT TO THE PROFESSOR OF SURGERY.—It is proposed to appoint an Assistant to the Professor of Surgery, whose duty it shall be to aid in the surgical teaching, and to add to and maintain the surgical collections in the museum. The thanks of the University are offered to Professor Humphry for his generous proposal to provide, out of his own pocket, a suitable stipend for the assistant. Mr. Joseph Griffiths, M.B., is at present doing the work of the new office.

HONORARY DEGREE.—It is also proposed to confer the degree of M.A., *honoris causa*, on Dr. Siegfried Ruhemann, who, for the last two or three years has acted as assistant to Professor Dewar, and has very successfully conducted the teaching of organic chemistry in the University laboratory.

CAMBRIDGE AND LONDON.—The interest taken by London hospital schools in students from the Universities is evidenced by the announcement just made that Charing Cross will offer a scholarship of £50 for competition among Cambridge men who have passed the second M.B., and Oxford men who have passed the first M.B. examination.

OXFORD.

EXAMINATIONS IN MEDICINE AND SURGERY.—1. The Regius Professor of Medicine gives notice that the examination in the several parts of the first examination for the degree of Bachelor in Medicine, will commence on or about Monday, June 25th. The final examination for the degree of Bachelor of Medicine, will commence on or about May 28th, and that for the degree of Master in Surgery on June 7th. The precise days will shortly be notified. Intending candidates are requested to forward their names to the Regius Professor of Medicine, medical department of the museum. 2. The Secretary of the Boards of Faculties gives notice that he will be in attendance at his office in the Clarendon Building, on Friday, May 11th, and Saturday, May 12th, from 9 to 10 A.M., for the purpose of receiving names of candidates for the second examination for the degree of M.B.; and on Friday, June 8th, and Saturday, June 9th, from 9 to 10 A.M., for the purpose of receiving names of candidates for the first examination for the degree of M.B. Names may be sent to him by letter at any time not later than the above-mentioned days.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Tuesday, May 8th.

The Lunacy Laws.—The Earl of MILLTOWN asked whether it was the intention of the Government to forward and pass into law this session the important Bill for the amendment of the Lunacy Laws, which, having already passed that House on three previous occasions, was sent down to another place on March 22nd of this year.—The Earl of SELBORNE also expressed the hope that the Bill might not be longer delayed in the other House.—The LORD CHANCELLOR said it was difficult to answer the question, because he could not answer for the progress of business in the other House. He agreed that this was a topic quite removed from party politics, and although there was not perfect unanimity, yet he thought they might hope soon to settle it one way or the other.

HOUSE OF COMMONS.—Tuesday, May 8th.

Foreign Medical Practitioners.—Mr. C. WRIGHT asked the Vice-President of the Committee of Council on Education whether the Medical Acts Amendment Bill which passed in 1886, and provided for registering duly-qualified foreign medical practitioners, was now in operation, and whether the requisite forms would be supplied to those practitioners to fill up for registration; and whether he could name the countries that were eligible to claim registration for their medical practitioners.—Sir W. HART DYKE said the second part of the Act had only been applied to New Zealand and Ceylon. In regard to registration of foreign medical practitioners, Sections 11, 12, and 13 of the Act prescribed the exact course to be adopted.

Hospital Accommodation on Transatlantic Steamers.—Sir MICHAEL HICKS-BEACH, in reply to a question by Dr. TANNER as to whether the hospital accommodation on board Transatlantic steamers was not frequently utilised for the accommodation of passengers, officers, or crew, said he was assured by the companies that such was not the case. No such hospital berths could be allocated to other than sick persons, unless on the express sanction of the medical officer of the ship.—Dr. TANNER asked whether

it was not a well-known fact, from all the reports furnished by the emigration officers at Liverpool and Queenstown, that such hospital accommodation was frequently utilised by both passengers and crew.—Sir M. HICKS-BEACH said he was not aware of it.

BURGH POLICE AND HEALTH (SCOTLAND) BILL.

On the motion of the LORD ADVOCATE, it was agreed that the Select Committee on the Burgh Police and Health (Scotland) Bill do consist of twenty-five members: Mr. Anstruther, Mr. Asher, Mr. Baird, Sir G. Balfour, Mr. Barbour, Mr. Barclay, Mr. Bolton, Mr. Preston Bruce, Mr. Caldwell, Mr. Macdonald Cameron, Sir A. Campbell, Mr. R. F. Campbell, Dr. Clark, Mr. Cochran-Ballie, Mr. D. Crawford, Lord Elcho, Mr. Esslemont, Mr. Hozler, the Lord Advocate, Mr. Menzies, Mr. F. S. Powell, Mr. Sinclair, Mr. Mark Stewart, Mr. Webster, and Mr. Williamson, with power to send for persons, papers, and records: five to be the quorum.

THE HORSE TAX.

ADDITIONAL petitions against this tax have been presented by Mr. Hanbury-Tracy, from the medical practitioners of Welshpool and district; by Sir W. Foster, from Northern Counties (Scotland) Branch of the British Medical Association; by Lord Beehive, from a Westmoreland Dalesman doctor; by Mr. S. Leighton, from medical men of Oswestry; by Mr. T. W. Legh, from medical officers in Wigan district; by Viscount Ebrington, from surgeons of Hatherleigh and Black Torrington; by Sir Wilfrid Lawson, from the medical men of Maryport; by the Marquis of Hartington, from Drs. T. Evans and J. Jones, of New Quay; and by Mr. A. E. Gathorne-Hardy, from medical men in Hayward's Heath and district.

OBITUARY.

MARK LONG, M.D., of Ludlow, Shropshire.

WE regret to announce the death of Dr. Mark Long, which occurred on April 28th, in one of the paying wards of Guy's Hospital, at the comparatively early age of 44. The subject of this notice was the eldest son of the late Mr. John Long, engineer of the Limerick Harbour Board. Dr. Long was educated at the Queen's College, Cork, and the Ledwich School of Medicine, Dublin, taking the M.D. of the Queen's University in 1865, and the L.R.C.S.I. the same year. He soon after proceeded to England, and was for ten years in practice in Hackney, in partnership with Drs. Daly and Gibbings. Owing to the delicate health of some members of his family he subsequently removed to Ludlow, where he soon acquired a large and good class practice. The deceased gentleman had a happy way of winning in a remarkable degree the confidence of his patients, and had a genial and pleasant manner. In the zenith of his success, in the autumn of last year, he developed obscure symptoms of disease of the bladder and kidneys, for which he came to London and consulted Mr. Jonathan Hutchinson. The symptoms becoming more acute, he was visited in February of this year by Mr. Clement Lucas, who advised his coming into one of the private wards of Guy's Hospital. Nine weeks ago Mr. Lucas cut down upon the right kidney, letting out eight ounces of foetid pus. The operation was most successful, and a rapid improvement was manifested in his condition, but subsequently grave uræmic symptoms occurred, terminating in convulsions and coma. A *post-mortem* examination justified the operation, the cavity in the kidney having contracted to a third of its dimensions at the time of the operation; the left kidney was quite healthy, but the left ureter was enormously distended, owing to the pressure of a periprostatic abscess. Dr. Long leaves a widow, the daughter of Mr. James Cooper, of Cromer, and four children, two sons and two daughters.

PETER LEONARD, M.D., Inspector-General of Hospitals and Fleets.

DR. PETER LEONARD died at Arbroath on May 2nd. The deceased gentleman was born at St. Vigeans, Arbroath, in 1801, and educated at Arbroath Academy; became a Licentiate of the Royal College of Surgeons, Edinburgh, in 1822; M.D. of St. Andrews in 1851; and M.R.C.P. London in 1859. He entered the navy very early in life, and served in every naval station of the British Empire, except that of the West Indies. In 1833 he published *Records of a Voyage to the Western Coast of Africa and of the Service on that Station for the Suppression of the Slave Trade*. He also wrote a *Naval Medical Journal of Service in South America*, for which he was awarded Sir G. Blaine's gold medal. Dr. Leonard was the first Inspector-General appointed under the Contagious Diseases Act, and he organised the administration of the Act. He was for many years Deputy Inspector-General at Chatham, and afterwards at Haslar, and he received the Greenwich Hospital pension for good service.

PETER ADRIAN VAN DER LAAN, M.D., Lisbon.
DR. VAN DER LAAN, the leading ophthalmologist of Portugal died at his residence in Lisbon on April 20th. He was born a Spanbroek, in Holland, in 1841, and educated at the University of Utrecht, where he took the degree of Doctor of Medicine, the subject of his inaugural dissertation being the disturbances of vision associated with albuminuria. He afterwards studied at Berlin, London, and Vienna, giving his attention chiefly to ophthalmology, under such masters as von Graefe, Liebreich, and Arlt. Being threatened with consumption, he started for Madeira towards the end of 1870, but broke his journey at Lisbon, where he remained for the rest of his life. Wishing to practise his profession in his adopted country, he with rare energy went through the required course of study in the Lisbon Medical School, and successfully passed all the numerous examinations for the degree. He soon acquired a great reputation as an oculist throughout Portugal; during his career he is said to have treated no fewer than 24,000 patients. He was an indefatigable worker, and employed the rare intervals of leisure which his professional engagements allowed him in contributing to medical literature. He died of the disease which had in the first instance driven him southwards, studying up to the very last moment. As the *Correio Medico* says, he died with a medical treatise in his hand on a subject altogether unconnected with the affection from which he was himself suffering.

The *Correio Medico* goes so far as to say that Van der Laan introduced ophthalmology into Portugal, where the pathology and treatment of diseases of the eye were almost unknown before 1870. In addition to his professional attainments, Dr. van der Laan was a deeply-read theologian, a sound classical scholar, and could converse fluently in English, German, and French, besides Portuguese and his native Dutch.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations for the diploma were, at an ordinary meeting of the Council on May 10th, admitted Members of the College.

H. P. Ainsworth, L.R.C.P. Lond., 26, Norland Square, W.; J. L. Aymard, L.R.C.P. Lond., Vine Lodge, Surbiton; G. Black, L.S.A., 34, Pembroke Road, Walthamstow; J. D. Cruickshank, L.R.C.P. Lond., 10, Dartmouth Terrace, Lewisham; F. K. Holman, L.R.C.P. Lond., Thanington Vicarage, Canterbury; W. J. Maillard, L.R.C.P. Lond., 72, Miskin Street, Cardiff; G. H. Metcalfe, L.R.C.P. Lond., 72, Lee Road, S.E.; B. Moss, L.R.C.P. Lond., 22, Josephine Avenue, Brixton; J. E. Moyses, L.R.C.P. Lond., Arden, Torquay; J. L. Roberts, L.R.C.P. Lond., Eirianfa, Llanrwst, N. Wales; W. C. Swayne, L.R.C.P. Lond., 2, New Street, S.E., Students of Guy's Hospital; J. W. Applegate, L.R.C.P. Lond., 16, Tufnell Park Road; J. B. Appleton, L.R.C.P. Lond., The Lizard, Cornwall; C. H. Ashford, L.R.C.P. Lond., 8, Alfred Place, Plymouth; A. M. Barford, L.R.C.P. Lond., Wokingham, Berks; D. T. Bekling, L.R.C.P. Lond., East Dereham, Norfolk; Robert Bird, L.R.C.P. Lond., Wrattlesley Road, Plumstead; S. A. Bonsor, L.R.C.P. Lond., 29, Castellan Villas, Barnes; J. G. B. Colby, L.R.C.P. Lond., 11, Percy Circus, W.C.; P. G. Gilmore, L.R.C.P. Lond., 24, Carleton Road, N. E. Heasman, L.R.C.P. Lond., Angmering, near Worthing; P. Hicks, L.R.C.P. Lond., Blastow Hall, Kent; A. W. L. Jones, L.R.C.P. Lond., 28, Sutherland Gardens, W.; W. B. Lane, L.R.C.P. Lond., 42, Great Russell Street, W.C.; K. McLaren, L.R.C.P. Lond., La plierne, Kingston Hill; S. C. H. Moberly, L.R.C.P. Lond., 17, St. Thomas Road, Finsbury Park; F. O. Kinealy, L.R.C.P. Lond., St. Bartholomew's Hospital; O. Steinthal, L.S.A., 54, Torrington Square, W.C. E. R. H. Whitehead, L.R.C.P. Lond., 340, Essex Road, N.; H. Williams, L.R.C.P. Lond., 3, Augusta Place, Weymouth, and A. E. Wynter, L.R.C.P. Lond., Templecombe, Twickenham, St. Bartholomew's Hospital; T. Austen, L.R.C.P. Lond., 40, Reedworth Road, Kennington; W. H. Burrows, L.S.A., Western House, Long Lane, S.E.; E. Cooper, L.R.C.P. Lond., Southampton Villa, Southsea; F. Grange, L.R.C.P. Lond., 81, Peckham Rye, S.E.; A. Purvis, L.R.C.P. Lond., 55, Tyrnham Road, Brockley, of Charing Cross Hospital; J. A. Ballingall, L.R.C.P. Lond., Altanton, Blairgowrie, N. B.; J. D. Brown, L.R.C.P. Lond., 83, St. Oswald Road, W.; G. W. B. Daniell, L.R.C.P. Lond., 57, Leinster Square, W.; G. A. Heberden, L.R.C.P. Lond., 18, Milton Chambers; F. S. D. Hogg, L.R.C.P. Lond., 17, Halsey Street, S.W.; W. S. Holford, L.R.C.P. Lond., Worcester House, Sutton; and N. B. Robinson, L.R.C.P. Lond., West Hill Road, Windsworth, of St. George's Hospital; H. Barnett, L.R.C.P. Lond., 17, Oakley Street, S.E.; E. S. Bell, L.R.C.P. Lond., Christ Church Vicarage, Spa Road, S.E.; A. H. Blunt, L.R.C.P. Lond., Market Place, Derby; H. C. Bristowe, L.R.C.P. Lond., 13, Old Burlington Street, W.; A. B. Cox, L.R.C.P. Lond., 37, Harrington Street, Derby; A. Goulston, L.R.C.P. Lond., 26, Peckham Rye; W. M. Helsham, L.R.C.P. Lond., 13, Barton Street, Westminster; O. W. Lockyer, L.R.C.P. Lond., 7, St. Julian's Farm, Road, West Norwood; S. G. Moore, L.R.C.P. Lond., St. Andrew's House, Herford; H. B. Seddon, L.R.C.P. Lond., 1, Queen Anne's Gate, S.W.; R. F. Walker, L.R.C.P. Lond., Vale Cottage, Esher, of St. Thomas's Hospital; H. N. Baron, L.R.C.P. Lond., 57, Great Ormond Street, W.C.; G. B. Flinx, L.R.C.P. Lond., 27, Harley Street; F. V. Peigge, L.R.C.P. Lond., Vernon House, Briton Ferry, South Wales; C. J. Stanley, L.R.C.P. Lond., The Knowle, Streatham, of King's

College; J. C. Barr, L.R.C.P.Lond., 1, Cranmore, Aldershot; F. A. Brooks, L.R.C.P.Lond., 6, Percy Road, Shephard's Bush; N. C. Ridley, L.R.C.P.Lond., Bratton Rectory, Burgh, Lincolnshire; and W. S. Sharpe, L.R.C.P.Lond., Mavis Enderby, Spilsby, of St. Mary's Hospital; R. A. Beaver, L.S.A., Waterloo, Liverpool; E. A. T. Steele, L.R.C.P.Lond., 2, Queen's Terrace, Seacombe, of Liverpool Infirmary; B. R. Sawhuy, L.R.C.P.Lond., 12, Ladbroke Grove, W., of Lahore College, India; L. Beckett, L.R.C.P.Lond.; L. C. E. Calthorp, L.R.C.P.Lond., The Cheal, Hornsey Lane, N.; B. Clark, L.R.C.P.Lond., Coldharbour Lane, Brixton; O. Collier, L.R.C.P.Lond., St. Aubyns, Tiverton; F. Corner, L.R.C.P.Lond., Manor House, Poplar; J. J. Coulton, L.R.C.P.Lond., 47, Bromley Street, E.; W. S. Fenwick, L.R.C.P.Lond., 29, Harley Street, W.; T. J. Head, L.R.C.P.Lond., 23, Queens Down Road, Clapton; R. Jones, L.R.C.P.Lond., Newtown, Montgomeryshire; F. J. Oxley, L.R.C.P.Lond., Drayton Road, Leytonstone; T. W. Robbins, L.R.C.P.Lond., 41, Etchingham Road, Stratford New Town, of the London Hospital; N. D. Best, L.S.A., Lime House, Walsall, Staffordshire, of Birmingham; E. F. Bour, L.R.C.P.Lond., University College; R. W. Boyce, L.R.C.P.Lond., Willoughby Road, Hampstead; H. N. Oappe, L.R.C.P.Lond., 7, Dean Road, Willesden Park; C. S. Dowdell, L.R.C.P.Lond., 25, Rutland Street, N.W.; J. P. Parkinson, L.R.C.P.Lond., 21, Richmond Terrace, Blackburn; W. B. Ranson, L.R.C.P.Lond., The Pavement, Notts.; C. E. Seal, L.R.C.P.Lond., 95, Albert Street, Regent's Park; C. H. Stevens, L.R.C.P.Lond., 21, St. Edmund's Terrace, N.W.; C. H. Clayton, L.R.C.P.Lond., 11, Fairfax Road, South Hampstead, of University College; G. Braide, L.R.C.P.Lond., The Poplars, Warrington; H. Wade, L.R.C.P.Lond., 5, York Place, Manchester; W. K. Walls, L.R.C.P.Lond., 46, Swan Street, Manchester; J. P. Williams, L.R.C.P.Lond., Broomfield, Swinton, Manchester; W. B. Yates, L.R.C.P.Lond., 14, Palatine Street, Manchester, of Manchester; R. S. Charsley, L.R.C.P.Lond., 5, Cowley Street, S.W.; G. C. Cory, L.S.A., 17, Sudeley Street, Brighton; H. S. Fremilt, L.R.C.P.Lond., 1, Margaret Street, W.; C. S. Vines, L.R.C.P.Lond., Abbotsford, Ramsgate, of Westminster Hospital; J. K. Couch, L.R.C.P.Lond., Mansel House, Swansea; M. P. Cooke, L.S.A., Fern House, Landkey, Barnstaple; C. W. Edwards, L.R.C.P.Lond., Mill Hill, Hendon; H. C. Fox, L.S.A., 14, Alfred Place, W.C.; J. A. Hudson, L.R.C.P.Lond., 75, Charlotte Street, W.C.; W. B. Nelson, L.R.C.P.Lond., 1, Shrewsbury Road, W.; A. Primrose, M.B. C.M.Ed., The College, Middlesex Hospital, of Middlesex Hospital; E. H. Gibbon, M.B.Durh., 1, Laygate Terrace, South Shields; E. R. Lyth, M.B.Durh., 39, Brooke Road, N., of Newcastle-on-Tyne; H. Hill, L.R.C.P.Lond., 84, Coronation Road, Bristol; C. T. Hudson, L.R.C.P.Lond., 6, Royal York Crescent, Clifton, and E. Ward, L.R.C.P.Lond., 7, York Place, Clifton, of Bristol.

MEDICAL VACANCIES.

The following Vacancies are announced:

OOMSBURY DISPENSARY.—Physician. Applications by May 15th to the Secretary.

IGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon. Salary, £140, with apartments, etc. Applications by June 2nd to the Assistant Secretary.

ISTOL ROYAL INFIRMARY.—House-Physician. Salary, £100 a year, with board, washing, and apartments. Applications by May 19th to the Secretary.

ESEA, BROMPTON, AND BELGRAVE DISPENSARY, Sloane Square.—Surgeon. Applications by May 17th.

ST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Assistant Surgeon. Applications by May 23rd to the Secretary.

ST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Surgeon. Applications by May 23rd to the Secretary.

RDON HOSPITAL FOR FISTULA, ETC., Vauxhall Bridge Road. Assistant Surgeon. Applications by May 26th to the Secretary.

LIFAX INFIRMARY AND DISPENSARY.—Senior House-Surgeon. Salary, £80 per annum, with board and residence. Applications by May 22nd to Dr. E. West Symes, Hoop Hall, Halifax.

SPITAL FOR DISEASES OF THE THROAT, Golden Square.—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications by May 26th to the Honorary Secretary.

SPITAL FOR EPILEPSY AND PARALYSIS, 32, Portland Terrace, Regent's Park.—Assistant Physician and Registrar. Applications by May 14th to H. H. Graham, Esq., Secretary.

WESTOFT FRIENDLY SOCIETIES MEDICAL INSTITUTION.—Surgeon. Salary, £150 per annum, with extra fees. Applications by May 21st to Mr. J. Hammond, 4, Raglan Street, Lowestoft.

ETROPOLITAN HOSPITAL, Kingsland Road.—Assistant House-Surgeon. Salary, £40 per annum, with board and residence. Applications by May 21st to the Secretary.

ATIONAL LYING-IN HOSPITAL, Holles Street, Dublin.—Two Assistants to the Master. Applications to Dr. Roe, 13, Lower Fitzwilliam Street, or at the Hospital.

IRTH STAFFORDSHIRE INFIRMARY.—House Physician. Salary £100, with board, washing, and apartments. Applications by May 23rd to the Secretary.

WENS COLLEGE, Manchester.—Professor of Surgery. Applications by June 8th to the Registrar.

IRISH OF BARNET, ETC.—Medical Officer of Health. Salary, £443 per annum. Applications by May 14th to H. M. Turner, Esq., 66, High Street, Watford.

IRISH OF LOCHS, Stornoway.—Medical Officer. Salary, £140 per annum, with free house. Applications by May 16th to Mr. H. M. L. Ross, Inspector of Poor, Lochs and Barvas.

DYAL FREE HOSPITAL, Gray's Inn Road.—Assistant Physician. Applications by May 16th to the Secretary.

DYAL FREE HOSPITAL, Gray's Inn Road.—Assistant Surgeon. Applications by May 16th to the Secretary.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Junior House-Physician. Salary, £50 per annum, with board and lodging. Applications by May 19th to the Secretary.

SMALL-POX HOSPITAL, Birmingham.—Resident Medical Superintendent. Salary, £150 per annum, with board, etc. Applications by May 25th to the Chairman, Health Committee, Council House, Birmingham.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea.—House-Physician. Honorarium of £50, with board and lodging. Applications by June 2nd to the Secretary.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea. House-Surgeon. Honorarium of £50, with board and lodging. Applications by June 2nd to the Secretary.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Surgeon. Applications by May 24th to the Secretary.

MEDICAL APPOINTMENTS.

BLURTON, J. F., M.B.Durh., M.R.C.S., appointed Obstetric and Ophthalmic House-Surgeon at the Queen's Hospital, Birmingham, *vice* R. J. Riley, M.R.C.S.

BRYDEN, F. W. A., M.R.C.S., L.S.A., appointed Assistant House-Surgeon to the Rotherham Hospital.

CUFF, Robert, M.B.Lond., M.R.C.S.Eng., appointed Honorary Surgeon to Scarborough Hospital and Dispensary.

De RENZI, Arthur C. M.R.C.S., L.S.A., late of the New Zealand Shipping Company's R. M. S. *Rimutaka*, appointed Resident Surgeon to the Christchurch Hospital, New Zealand.

HALL, W. W., M.B., C.M., appointed Registrar and Chloroformist to the London Temperance Hospital, *vice* T. F. Pearce, M.D., resigned.

HEWITT, R. J., L.R.C.S.I., etc., appointed Medical Officer to the Ballingarry Dispensary, *vice* M. Fennelly, L.R.C.S.I., resigned.

HILL, J. de Vere, appointed Sanitary Surveyor (Board of Trade) for the port of Liverpool.

HILL, E. B., M.R.C.S., appointed Assistant House-Surgeon to the Birmingham General Hospital, *vice* E. Antrobus, M.R.C.S., resigned.

MELLER, C. B., L.R.C.P., M.R.C.S., L.S.A., appointed Medical Officer of Health for the Borough of Cowbridge, and Medical Officer, Public Vaccinator, and Medical Officer of Health for the Cowbridge District of the Bridgend Union.

NASON, E. N., M.B., M.R.C.S., appointed Resident Surgical Officer to the Birmingham General Hospital, *vice* John Elliott, M.B., resigned.

NICOLSON, R. H., appointed Assistant Medical Officer to the Warwick County Lunatic Asylum, *vice* G. P. Torney, L.R.C.S.I., etc., resigned.

OWEN, A. D., M.R.C.S., L.S.A.Lond., appointed Medical Officer to the Halwell District of Totnes Union, *vice* J. T. Cape, M.R.C.S.Eng., deceased.

PROWSE, A. B., M.D.Lond., F.R.C.S.Eng., appointed Lecturer on Materia Medica and Therapeutics at the Bristol Medical School.

SANCTUARY, T. M.D., L.R.C.P., etc., appointed Assistant Medical Officer to the London Skin Hospital, W.C.

SHAW, W. R., M.D., C.M.Toronto, L.R.C.P.Lond., appointed Resident Clinical Assistant to the City of London Hospital for Diseases of the Chest.

TORNEY, G. P., L.K.Q.C.P.I., L.R.C.S.I., appointed Assistant Medical Officer to the Lincolnshire County Asylum, *vice* J. W. Marsh, M.R.C.S., resigned.

WILLIAMS, P. W., M.B., appointed Honorary Assistant-Physician to the Bristol Royal Infirmary, *vice* A. B. Prowse, M.D.

POST-GRADUATE COURSE IN LIVERPOOL.—It is proposed to give at the Victoria University, during the summer session, a post-graduate course of lectures and demonstrations, commencing on May 16th. The fee for the course is two guineas. Among the lecturers and subjects announced are the following: Mr. Reginald Harrison on Affections of the Bladder and Urethra, including demonstrations with the Electric Endoscope; Dr. Glynn: Some Points in the Pathology and Treatment of Infective Diseases of the Heart; Dr. Carter: On the Practical Examination of the Urine (demonstrations); Dr. Davidson: On the Medical Selection of Lives for Assurance, and on recent Improvements in the Local Treatment of Skin Diseases; Mr. Edgar Browne: Diseases and Defects of the Eye in Childhood; Dr. Ross: On the Anatomy of the Spinal Cord and the Localisation of Spinal Lesions; Mr. Royston: On the Teeth; Mr. Mitchell Banks: On the Anatomy of the Brain in relation to Cerebral Surgery; Dr. Wallace: On Abnormal Tumours; Mr. Paul: Demonstration of a *Post-mortem* Examination made for Medicolegal Purposes, and Ready Methods for the Detection of Common Poisons; Mr. Rushton Parker: Recognition and Treatment of Injuries to the Upper and Lower Limbs; Dr. Caton: On Ptomaines and Leucomaines; Dr. Barron: On Pathogenic Micro-organisms. It is intended that, if possible, June 6th, 20th, and July 11th, shall be devoted to demonstrations of the Different Forms of Insanity in a Lunatic Asylum.

HUNGARIAN MEDICAL WORKS.—The Society for the Publication of Hungarian Medical Works last year completed the twenty-fourth year of its existence. During that time 55 large and 7 small medical works have been published in the Hungarian language, at an average yearly cost of 6,750 florins. Three hundred members have already signified their intention to join the Society.

CENSURE OF A POLICE SURGEON BY A JURY.—Rather too much blame seems to have been attributed by a Deptford coroner's jury to a young surgeon acting for the divisional police surgeon, who, on being called to the police station—which was full of men waiting to be paid, and therefore greatly crowded—failed to detect that a prisoner, who had perforce been placed in a passage outside the cells, was suffering from paralysis in addition to drink. According to the newspaper report, the senior medical officer of Greenwich Workhouse Infirmary, who made the *post-mortem* examination, attributed death to syncope, caused by taking too much beer, combined with the existence of a fatty heart. It is quite possible that the paraplegia, which the young surgeon alluded to promptly diagnosed on a second visit, had come on subsequently to the first examination.

TREATMENT OF MERCURIAL STOMATITIS.—In the *Rivista Clinica e Terapeutica* for February, Dr. E. de Renzi, of Naples, states that he has treated several cases of mercurial stomatitis with corrosive sublimate with satisfactory results. He was induced to try this plan by the consideration that a powerful antiseptic was indicated in a disease characterised by well-marked putrefactive processes. The remedy was prescribed as a mouth-wash, a solution of 25 centigrammes of corrosive sublimate in 1,000 grammes of water being used in that manner in the course of two days. On the first day the foul smell of the breath was removed, and within three days the redness and swelling of the mouth had much diminished. On the fifth day, as a rule, the patient was completely cured.

MEDICINE IN PORTUGAL.—The *Correio Medico de Lisboa* of May 1st states that twelve students will present themselves for their final examination in the Medico-Chirurgical School of Lisbon in July next. The following are among the subjects which the candidates have chosen for their theses; they are of some interest as showing that Portugal is alive to the latest developments of medical science: Radical Cure of Hernia; new methods of Diagnosing Carcinoma of the Stomach; Pathogeny of Tetanus; new Treatment of Chronic Metritis and Fibroid Tumours of the Uterus by Electricity; Uses of Antipyrin; Hypnotism and Suggestion; Massage in the Treatment of Fractures; Anomalous Forms of Typhoid.

DARENTH HOSPITALS.—The Local Government Board have authorised the Managers of the Metropolitan Asylums Board to erect at Darenth a hospital for convalescing small-pox patients, at a cost not exceeding £63,392; and also to cause the Darenth camp buildings used in the last small-pox epidemic to be adapted to infirmary purposes, at a cost not exceeding £2,750. It was resolved to apply to the Metropolitan Board of Works for a loan of £50,000 for the erection of the hospital.

AMBULANCE INSTRUCTION FOR THE POLICE.—Mr. John Furley, Deputy Chairman of the St. John Ambulance Association, presented 104 certificates last week to members of the Metropolitan Police Force, who had shown themselves proficient in the principles and practice of "first aid." The Chief Surgeon of the Force, Mr. A. O. McKellar, spoke in warm terms of the numerous cases of valuable "first aid" rendered by police officers brought to his notice,

WILLIAM HENRY BURKE, M.R.C.S., of Monk Bretton, near Barnsley, who, on February 9th, discharged a revolver at his daughter, aged nine years, in a public-house where he had been drinking heavily during the day, was charged with the murder at the Leeds Assizes, found guilty, and sentenced to death.

On June 12th the University of Bologna will celebrate the 800th year of its existence. This university is said to be the oldest in the world, having been founded by the Emperor Theodosius II in the year 425 A.D.

DR. GARRÉ, hitherto Privat-Dozent in Basle, has become an assistant surgeon in the surgical clinic and Docent in Surgery in Tübingen. Dr. E. Haflter will take his place on the editorial staff of the *Correspondenzblatt für Schweizer Aerzte*.

PRIVAT DOCENT DR. ENGELHARDT, in Halle, becomes Extraordinary Professor of Gynaecology in the University of Iena, in place of Professor Küstner, who has been invited to Dorpat.

THE Commission of the Peace for the town of Belfast has been offered to Dr. Whitla, who has, we understand, declined the proffered honour.

DIARY FOR NEXT WEEK.

TUESDAY.

PATHOLOGICAL SOCIETY OF LONDON, 8.30 P.M.—Mr. J. Hutchinson jun.: Dupuytren's Fracture. Mr. Ballance and Mr. Shattock Note on the Histology of Cancer and Normal Tissues after Sterile Incubation. Mr. Bruce Clarke: Sloughing of Bladder following Cystitis. Mr. Vincent Jackson: Sarcoma of Bladder. Dr. Turner: Necrosis of Kidney. Mr. Fenwick (for Dr. A. Jones): Localised Tuberculosis of Ureters. Mr. Targett: Peculiar Fracture of Skull. Dr. Pitt: 1. Malignant Growths of Bronchial Glands and Pleura; 2. Spinal Cord from Dr. Collier Case of Charcot's Joint Disease. Card Specimens: Mr. Coleman: Polyypus of Umbilicus. Mr. S. Paget: 1. Unusual Fracture of Head of Humerus; 2. Adenoma of the Tongue. Dr. Collier: Curious Fracture of the Larger Pastern Bone of a Horse. Dr. Ormerod: Cancer of Gall Duct; Mr. V. Jackson Stone from a Vesical Diverticulum. Mr. Fenwick (for Dr. Harris): Bilharzian Carcinoma of Bladder. Mr. Stonham: Tubercle of Prostate and Vesiculae Seminales; 2. Cancer of Prostate, Prostatectomy; 3. Melanotic Cancer of Bone; Two Specimens of Cancer of Oesophagus necessitating Tracheotomy; 5. Hematocele with Tunica Vaginalis from Difficult Breech Delivery; 6. Cyst of Peritoneum. Mr. Battle: 1. Duct Cancer of Breast; 2. Very Early Malignant Disease of Testis. 3. Sarcoma of Lower Jaw Associated with Necrosis. Mr. O'Connor: Hydatida of Liver and Spleen. Mr. Lunn: 1. Tabetic Feet; 2. Calvaria, Clavicle, and Lower Jaw from a Case of Osteitis Deformans; 3. Multiple Epiphysitis. Dr. Hebb: Cancer of Thyroid Isthmus; 2. Tuberculosis of Breast.

WEDNESDAY.

COLLEGE OF STATE MEDICINE, Burlington House, 4 P.M.—Professor G. H. Seeley, F.R.S.: On Soil in its Influence on Health.

ROYAL METEOROLOGICAL SOCIETY, 7 P.M.—Mr. G. M. Whipple and Mr. W. H. Dines: Report of the Wind Force Committee on Experiments with Anemometers conducted at Hershham. Dr. William Marcet (President); On the Measurement of the Increase of Humidity in Rooms by the Emission of Steam from the So-called Bronchitis Kettle.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, 8.30 P.M.—Mr. W. Bruce Clarke: The Value of Antiseptics in Internal Urethrotomy.

FRIDAY.

SOCIETY OF MEDICAL OFFICERS OF HEALTH (Crane Court, Fleet Street), 7.30 P.M.—The following papers will be read. Mr. C. A. Watts Parkison: Notes of an Epidemic of Poemonia. Mr. J. F. J. Sykes: Verification and Certification of Deaths. Mr. F. J. Lloyd: On the Powerlessness of the Public Health Act for the Closure of Wells Supplying Contaminated Water.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d which should be forwarded in stamps with the announcement.

BIRTHS.

HOOKE.—On May 7th, at Cirencester, the wife of Charles Hooker, of a daughter.
KNOWLES.—On May 7th, at 5, Ashford Road, Maidstone, the wife of John Knowles, surgeon, of a daughter.
NAPIER.—On May 5th, at 3, Beaufort Gardens, S.W., the wife of A. D. Leitch Napier, M.D., F.R.S.E., of a son.

DEATH.

SHEEHY.—On April 30th, at 4, 'Claremont Square, N., Myra, wife of W. H. Sheehy, L.R.C.P.Lond., aged 29.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivered of the JOURNAL, etc., should be addressed to the Manager, at the Office, 42 Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 42 Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. **CORRESPONDENTS** not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

D., in practice, wishes to know what books are usually read for the London College of Physicians final.

NERLEY asks which would be the best sea voyage, lasting about three months out and home, for a phthisical patient whom he wants to be at sea, starting middle of May.

ESERINE.

writes: 1. When and by whom was this name first applied to the active principle of the Calabar bean? 2. Where is the earliest mention of it to be found? 3. What is the derivation of the word?

ANSWERS.

Y. Z. should put himself in communication with the Registrar of the General Medical Council, W. J. C. Miller, Esq., 299, Oxford Street.

LECTURES AT THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.
A. JOHN INCE.—The lectures at the Royal Colleges of Physicians and Surgeons are always noted in the Diary for the next week, which is published weekly.

MEDICAL BOOKKEEPING.

D. writes: In reply to your correspondent, "M.B., C.M.," let me recommend him to try the "A. B. C." system of medical bookkeeping. It is infinitely more simple, accurate, and rapid than any other system with which I am acquainted, and before I adopted it I had tried a number. It is suited to any size or class of practice, and can be commenced at any time. I believe it is much used now, and it will certainly revolutionise the bookkeeping of doctors, doing away with the wearisome rudgerery and the immense losses which have been general among them. The publisher is Mr. Allsop, Saltire, near Leeds.

MBYSES writes: When I remember many of the horrors I endured over the lay books and ledgers of others in years gone by, I am thankful that necessity, the mother of invention, has stimulated me to devise a *multum in parvo* for my own use and comfort. All one wants in ordinary practice is as follows:—

1. Loose leaves to be fastened together as they increase by a clip, on which can be pencilled down every day names and memoranda.
2. Prescription book for recipes like to be repeated or wanted again at some time (one in five, say, at most), at least, that is my experience.
3. Silverlock's, or Smith's *Monthly List*, with column in same page of aggregate fees opposite each name, which can always be verified at a glance.
4. Ledger, in which the sums for each month are simply entered, under the proper name with member of family also if preferred.

This system answers all practical purposes, and saves a mint of time to the busy practitioner, let alone worry.

D. writes: If "M.B.," "C.M." will refer to Sections 565-5 of the *Medical Digest* and appendix. He will find a clue to all the various plans which have been recommended in the *JOURNAL* since 1880, excepting the last, which appeared in June, 1886.

CONSTITUTIONAL SYPHILIS.

ONE writes: In answer to the question of "Hermes," the impregnation must have taken place before the syphilitic eruption appeared; had it occurred after, the mother would have aborted a syphilitic ovum of two or three months' gestation. In the supposition assumed the child will not be syphilitic; but now constitutional syphilis has declared, four or five abortions will result—if there be so many pregnancies—each successive gestation being more prolonged, until in time a living birth results. This, in my experience, will be the course whether mercury be given, or time only assuages the acuteness of the evil. To procure abortion on mere supposition of syphilis would be criminal; if acute syphilis exist in the fetus it is certain to be aborted.

R. J. BRYDEN (Gravesend) says, in answer to "Hermes": I attended in her confinement, about a month ago, a person whose husband a year previously had given her syphilis. She came to me suffering from bad "secundaries," and, although under proper treatment, the disease was very obstinate; yet, after three or four months course of mercury, she got much better. She had sore throat, with severe ulceration of one of the tonsils. The hair fell out, and her skin presented a marked psoriatic eruption, etc. I quite expected to see a syphilitic fetus, but she went the full term, and was delivered of a healthy child, and it has remained so up to the present time of four weeks. She got very weak and exhausted during the labour, so I used the creeps, and she afterwards made a rapid recovery.

This case proves that the child need not of necessity be syphilitic. It is absolutely necessary for the mother to take mercury, and there is no justification in such a case to procure abortion or induce premature labour.

AVENA.

A. DE WATTEVILLE writes: The answer given by Dr. Aspinall to "Member" in your last issue will no doubt have satiated his hunger for botanical knowledge, but hardly satisfied his therapeutic curiosity. What he wants to know is that there is an American concoction known as "tinct. avena sativa" (with New York), reputed to be "a powerful nerve stimulant, tonic, etc.," and recommended for the cure of paralysis, writers' cramp, epilepsy, chorea, cholism, insomnia, nerve exhaustion, etc. "Member" will probably be tempted (and wisely) to ask himself how this American tincture of common oats can differ so much from the Scotch decoction, or porridge, as to acquire so marvellous therapeutic properties ascribed to it by its promoters?

P.S.—Since writing the above, I came across the following report (*New York Medical Journal*, April 21st, 1888) by Dr. H. Smith, Professor of Chemistry Yale College:—"I have separated from the preparation ('Scotch oats tincture') a considerable quantity of morphia."

GRADUATION IN AUSTRALIA.

BEN DOWN asks whether a student, who is obliged to go to Australia, can qualify in the colony, and, if so, what qualifications are available, where, and at what?

* The universities of Sydney (New South Wales) and of Melbourne (Victoria) grant degrees in medicine after a curriculum has been kept and certain

examinations passed. In both properly attested certificates of attendance on lectures at a recognised school are accepted as proof *pro tanto* of attendance on lectures and examinations required by its by-laws. A degree in Arts, or some similar literary or scientific certificate is required by the University of Sydney. The University of Melbourne requires matriculation in it, or in some university recognised by it. The total fees for education and graduation at the University of Sydney amount to £171 12s., but of this only £12 is payable to the University, the remainder being for hospital practice and systematic classes. Fuller particulars will be found in Bruck's *Australian Medical Directory*, Sydney: Australasian Medical Gazette Office. London: Baillière, Tindall, and Cox. 1886.

A TONIC PILL.

A. H. C.—Richardson, of Leicester, prepare a sugar-coated pill, No. 95, containing 1 grain each sulphate of quinine and sulphate of iron, and 1-8th of a grain of nuxvomica, which is an excellent combination. This is probably the pill referred to.

TREATMENT OF PALMAR PSORIASIS.

VICTUS asks to be recommended treatment for so-called "psoriasis palmaris," which has baffled all recognised methods for the past two years.

. The effect of macerating the skin in its own secretions might be tried by the use of india-rubber gloves. If this fails, the hard epidermis might be softened and removed by the application of Beiersdorf's salicylic gutta-percha plaster, and stimulating remedies applied subsequently. Valuable indications will be found in the larger works on skin diseases recently published.

PRACTICE IN AMERICA.

M.D., M.R.C.S.E. (Philadelphia, Penn.) writes: In reply to "Stars and Stripes," and at the same time correcting a grave mistake of "Yankee's" in his reply to "Stars and Stripes," I would say that an English graduate will have no difficulty whatever in securing the proper registration in any of the States of the Union. The examination required is simply formal, as the examiners themselves will tell you. "Yankee," unlike the original Yankee, remarks that it would be hard for an Englishman to pass. This is an intentional error (I feel like saying lie), since anyone who knows the relative standing of the profession in both countries will bear me out in my assertion. It would be no advantage for an English graduate or licentiate to possess an American M.D. It would be to him less than "thank'ee for nothing." And should he desire one (M.D.) he would have little trouble in securing it. "I speak whereof I know," since I am graduate of England and America.

THE "MEDICAL DIGEST."

A COUNTRY DOCTOR writes: If "A Member" (*JOURNAL*, April 21st, p. 856) will have his BRITISH MEDICAL JOURNALS bound, which any bookbinder will do for half-a-crown a volume, he will find the *Medical Digest* more useful to him than the new editions of textbooks on medicine, surgery, or midwifery.

THE LETTER OF THE LAW AT THE GENERAL MEDICAL COUNCIL OFFICE.
SURGEON-MAJOR (Indian Medical Department).—The Registrar of the General Medical Council is bound by law to keep his *Register* correct, and for this purpose sends letters of inquiry as to change of address to the addresses given by the persons registered. If these letters are not answered, it is held to be the duty of the Registrar to remove the name from the *Register*. Registered persons are required to take care that their addresses are correctly given. Our correspondent appears to have great cause of complaint against the India Office, and probably, if representations were made in the proper quarters, the difficulty would be overcome.

NOTES, LETTERS, ETC.

DISEASE OR TOXÆMIA.

SURGEON P. H. FOX (Castlebar) writes: I have been much impressed by Dr. Alfred Carpenter's most interesting paper on "The Difficulty in Diagnosis between Symptoms produced by Disease and those produced by Drugs," which appeared in the *JOURNAL* of March 24th, 1888; and, as the subject is one of great importance to military as well as to civil surgeons, I beg to offer a few remarks, and to give a brief description of a case in point. I have had some experience in these cases, and, as Dr. Carpenter so well remarked, it is not always easy to distinguish between "dead drunk," cerebral compression, and narcotic poisoning. In fact, when called suddenly to see a patient in a cell or barrack-room suffering from intense coma, it is often almost impossible to arrive at a correct diagnosis; and, unless there happens to be some person present who can give a satisfactory history of the case, the real cause of the comatose condition cannot be determined. The following is the latest case which I have had bearing on the subject.

Private J. H., Royal Welsh Fusiliers, aged 20, was found in a most intense state of coma in his barrack-room on the morning of March 26th, shortly after the "rouse" was sounded. His comrades and the non-commissioned officer in charge of the room were interrogated, but nothing could be elicited which would in any way account for the man's condition. They merely stated that he was a most temperate man, drank nothing the day before, never had fits, went to bed apparently in good health, and at "rouse" they found him in his present condition. I had him conveyed to the hospital on a stretcher, where I made a most careful examination.

The pulse, temperature, and respirations were normal; the heart and lungs were also healthy. I passed a catheter and drew off a few ounces of urine, which I found to be normal in every respect. There was no smell from his breath, no oedema or swelling, no wounds or other marks of violence on his head or on any part of his body; yet there he lay, perfectly unconscious. Slapped in the face with a wet towel, he opened his eyes and gazed vacantly for a moment or two; and then, closing them gradually, he went on to sleep as before. The pupils were slightly dilated, but sensibly to light. There was neither congestion of the countenance nor suffusion of the eyes. In this state the patient remained for two nights and three days, having slept sixty hours without partaking either of food or drink.

Medically speaking, the only thing I did for him was this. Finding the ordinary means of resuscitation ineffectual, I plied him with enemata, drew off his urine, and blistered the nape of his neck. After a good deal of yawning

REMARKS

ON

THE TREATMENT OF CARBUNCLES
AND BOILS.

By SIR PETER EADE, M.D., F.R.C.P.,

Senior Physician to the Norfolk and Norwich Hospital.

THE very valuable papers by Mr. Page and Mr. Rushton Parker recently published in the BRITISH MEDICAL JOURNAL aptly recall attention to the subject of the local treatment of carbuncles as well as boils, and I think yet a few more words may well be said on this matter.

The contribution of Mr. Page refers chiefly to the treatment of carbuncle in its advanced stages, and especially to the method of then treating it by incision and scraping away as far as possible the sloughing and diseased mass which gradually forms in the course of this disease. It is doubtless in these later stages that this method of procedure by abrasion or scraping appears most applicable, because it is then that the soft, boggy material exists in considerable quantity, and the size of the peculiar "core" or slough is then such as to make its removal desirable for every reason. In all three of Mr. Page's cases the carbuncle had reached a very forward stage, the diameters of the swellings being four, five, and eight inches respectively, and in all the disease having existed for from two to three weeks. The results appears to have been in all of them highly satisfactory.

Mr. Parker's cases carry these views as to the desirability of surgical interference still further, and press upon consideration the question of always treating carbuncles and boils at all their stages by removal or destruction.

These views are, of course, in direct opposition to the opinion expressed by Sir J. Paget as to the propriety of non-interference in these cases, but they strongly confirm the recommendations given by the late Mr. James Startin (BRITISH MEDICAL JOURNAL, vol. ii, 1866) in a most practical paper on this subject.

Many years ago I devoted considerable attention to these diseases, and I published several papers (see *Lancet*, 1869 and 1874, and BRITISH MEDICAL JOURNAL, 1876) advocating the free use of caustics for their destruction. Then, as now, all evidence went to show that a carbuncle (like a boil) was mainly a local disease, and that its career could be cut short at almost any stage, from its earliest one of a pimple with an open apex, through that of a solid papule, to the fully-formed condition of a pulpy mass with its characteristic cribriform and discharging openings.

The several cases so recently published show once more what are the true theoretical principles on which we should act, and also how effective is the knife or the spoon in removing the disease and relieving the patient. I would urge that they forcibly inculcate the duty of considering in every case whether prompt surgical interference is not called for, not only when the disease is large and fully formed, but also when smaller, yet slowly but surely advancing in its well-known course, and is certainly involving the patient in a prolonged illness attended with much pain and general suffering, as well as the possibility of some danger to life.

That the disease is not only local, but is due to the presence (or products) of a micrococcus, is now practically established (see Mr. Watson Cheyne's Lectures, 1888, etc.), and there is now little doubt that the multiplication and spread of a mass of germ-growth (? *staphylococcus pyogenes aureus*) from the centre or original pimple in a circular form outwards and outwards is the essence of the disease.

Like anthrax and malignant boils generally, carbuncle is in its early stages undoubtedly curable through local destruction or removal. But it seems that a necessity for increased strength of the destructive agent steadily increases as the period of its existence is prolonged. At first the pimple may be almost certainly destroyed by continuous soaking with a solution of boracic acid, salicylic acid, or other mild antiseptic. At a little later period it

may usually be aborted by inserting freely into its central or cribriform openings some strong solution of carbolic acid in water or glycerine, or by adopting one or other of the methods suggested by Mr. Startin (JOURNAL, vol. ii, 1866). But when it has become large and solid, and much surrounding tissue has been infiltrated with the growing germs and their products, the disease appears to be chiefly susceptible of surgical treatment by partial or entire excision, or incision with scraping away of the boggy material, as recommended and practised by Mr. Page.

In cases where this severer form of treatment is either declined or thought inexpedient, there is then nothing for it but such careful expectant treatment as Sir J. Paget recommends; although my own experience shows that even in the later stages the free application of oil or glycerine of carbolic acid, alone or upon a poultice, or inserted into the openings, has a marked effect in penetrating and rapidly improving the condition of the sloughy mass, and apparently in hastening its separation.

None of the usual local caustic applications are otherwise than painful, for the spreading growth is always excessively tender, but nevertheless, in many cases, it is well worth while to submit to the pain of the application in the early stages, rather than incur the risk of one, two, or three months' severe and, perhaps, dangerous illness. But in some other cases it is almost imperative to try and abort or destroy the nascent growth, as, for example, in carbuncle commencing upon the face or upper lip, which is, perhaps, its severest form. A few years ago it happened that a well known surgeon in this county was attacked with a carbuncle of the lip, which was treated in the ordinary way by poultices and the other usual methods of soothing and expectant treatment. This gentleman was severely ill, and in considerable danger of his life for several weeks. He was compelled to leave his home and to relinquish practice for several months; and when he returned, the whole side of his face was deformed and distorted from the contraction of cicatricial tissue, and his face and chin were reddened and disfigured for life.

Very shortly after this I was asked to see another medical man in whom the same form of the disease had begun, and was rapidly spreading. It began at the right side of the upper lip, and had extended nearly to the middle line, and the lip was swollen, tense, and very painful, whilst several small openings had already formed. Remembering the other recent and unfortunate case, which I quoted to the patient, I persuaded him to allow me freely and frequently to insert a strong carbolic glycerine solution into every part of the swelling where a hole permitted it. The process was disagreeable and somewhat painful, yet the good result obtained encouraged us to persevere, and in three or four days we had the satisfaction of finding that the increase of the growth was quite stopped, that the tension and swelling were steadily subsiding, whilst bright red granulations (such as carbolic acid will often produce in the base of a sloughing tissue) began to show themselves.

In two or three weeks from the commencement of the attack this gentleman was absolutely well, quite free from deformity, and almost free from any cicatrix, the result exhibiting a marked and gratifying contrast to that in the case of his professional brother.

Boils are not identical with carbuncles, for they have a different size and aspect, a different life-history, and an entirely different duration; but they are evidently closely akin, alike local and "fungoid," and the theory of their treatment must be the same, however modified in practice by their lesser importance. And they are markedly contagious, for there is strong reason to believe that what is commonly called a "crop of boils," and is often attributed to some blood-fault, is essentially the result of auto-inoculation, and that each successive boil is due to the implantation in the skin of fresh seeds or germs from the preceding one. It is well known that a nascent boil may be easily aborted by a point of some strong caustic. The same result may be more easily and pleasantly obtained (as in the earliest stages of carbuncle) by soaking the commencing pimple frequently with a solution of salicylic acid; and I had the satisfaction a short time since of thus entirely stopping the progress of "a crop of boils" in both husband and wife, who had clearly infected each other, by the adoption of this very simple and painless process.

The whole tenour of our increasing knowledge of both carbuncles and boils appears to me strongly to point not only to the certainty of their local and parasitic nature, but also to the desirability of their destruction and removal at the earliest stage at which they come under our observation.

ABSTRACT OF
CLINICAL LECTURES
ON
CARCINOMAS OF THE BREAST WHICH
REQUIRE AN OPERATION.

By N. C. MACNAMARA, F.R.C.S.,
Surgeon to the Westminster Hospital.

LECTURE I.

SIR B. BRODIE, in his lecture on the treatment of scirrhus tumours of the breast, observes, "that terrible as is the fate of persons suffering from carcinoma, and desirable as it may seem to remove such tumours, we must remember that the larger proportion of those operated on die within two or three years afterwards, and, in many cases, instead of the operation stopping the disease, it actually seems to hasten its progress." This opinion was formed some fifty years ago by one of the ablest surgeons England has produced; and the question is whether there is reason to suppose that recent improvements in surgery enable us to modify our ideas on this subject. Sir B. Brodie commences his lecture on the treatment of scirrhus of the breast by stating that, from a clinical aspect, carcinomas in this situation may be divided into two classes: those in which the tumour in the course of a few months reaches a large size, the whole of the gland being converted into a malignant growth; and secondly, slowly-growing tumours, which in their early stages appear as if embedded in the substance of the gland. The peculiarity of the rapidly-growing carcinomas is that the diseased action seems to involve simultaneously the whole of the epithelial structures of the affected gland; its progress is remarkably rapid, neighbouring glands as well as distant organs of the body being speedily implicated, so that the patient usually succumbs to the disease within twelve months of its first appearance.

For instance, Mrs. M., aged 38, first came under my care in the Westminster Hospital on November 4th, 1886. Her family and previous history were good. She had had eleven children, and had weaned her baby just before being admitted into the hospital on account of a submammary abscess on the left side. The abscess was opened on November 12th, and the patient left the hospital on December 1st; the wound had then healed, and the breast, although indurated, appeared otherwise to be healthy. On February 3rd, 1887, Mrs. M. was readmitted. Her left breast was then fixed to the chest-wall, and projected uniformly forwards; it was extremely painful; the skin was of a dusky red colour, in places dimpled and attached to the gland. The breast felt tense but elastic; the axillary glands were enlarged. The patient urged me to operate, and, as she was suffering intense pain I did so, removing the whole of the diseased structures. Mrs. M. left the hospital in March, having made a good recovery from the operation; but within six months she returned, with recurrence of the carcinoma in her left side, and evidently in a dying condition, and that within nine months from the time when the abscess formed in her breast.

With reference to these rapidly-growing cancers, the opinion expressed by Sir B. Brodie was correct; he states that "an operation never succeeds, but it rather hastens the progress of the disease." This form of carcinoma is usually preceded by mastitis or by injury to the gland, but such cases hardly form 5 per cent. of instances of cancers of the breast we meet with in practice.

With reference to the second class of cases mentioned by Sir B. Brodie, and in which the cancer has first appeared as a hard lump in the breast, and has since grown in the course of twelve months or more to about the size of a pigeon's egg, I think these tumours should be subdivided into two classes in which the scirrhus has been first observed after the cases in which the scirrhus has been long observed probably for some 50 years of age, the catamenia having probably ceased for some two or three years, and those in which the "change of life" had lately ceased for some two or three years, and in which a carcinoma has commenced before the change of life has taken place.

Supposing a patient with a densely hard tumour in the breast, which has long existed for two years, and

during that time has grown to be as large as a pigeon's egg, the skin over the tumour being dimpled and fixed to the mammary gland; there is a suspicion of the axillary glands being enlarged, and the patient has lately experienced a considerable amount of pain in the part. In such a case, if the individual is upwards of 50 years of age before the tumour had been noticed, the menses having ceased for some time, I should hesitate to perform an operation, but caution the patient against allowing her to do anything else to rub or press upon the breast. My reason for forming this opinion would be based on the experience I have gained as to the results which in such cases follow an operation, as contrasted with those which are observed when the disease has been allowed to run its course. The mammae, at the period of life when I have supposed the tumour to have developed, are slowly undergoing atrophic changes, and it is not unreasonable to hope that a morbid growth forms in them, it may with the breast, unaided, pass into fibrous tissue and so become converted into a cicatrix. For instance:

I was asked by Dr. Potter to see a patient suffering from scirrhus of the right breast; the woman was then 52 years of age, and had ceased to menstruate for about five years; she had for some time noticed the lump in her breast, regarding which she sought for my opinion; this was in 1879. The tumour was about the size of a pigeon's egg; the skin over it was dimpled and adherent to the growth, some of the axillary glands were enlarged. It is now nearly 9 years since I first saw this patient; she is still in excellent health, the breast has become converted into a dense cicatrix and the axillary glands appear to have undergone similar changes.

We have another patient attending the hospital at present. She observed a nodule in her right breast when she was 55 years of age; it had been in existence for a considerable time and she did not think it had increased in size lately; the skin, which was adherent to the growth subsequently ulcerated; the woman had been under observation for seven years, and, although she has suffered much from pain in the part she is now in very good health and well able to do her work in life: I do not think this would have been the case had I excised the breast seven years ago.

Cornil and Ranvier, writing on cancer, remark that "the certainty of their dissemination is in proportion as the disease is longer standing;" this is not my experience in the class of cases above referred to. On the other hand, Sir B. Brodie was right when he remarked that "if you are doubting about the expediency of an operation, and the disease be in an indolent state, the recollection of such cases as these, where the patient has lived with scirrhus of the breast unaltered for many years, should be sufficient to incline you to reject it." I would, however, restrict this observation to the class of patients who are advanced in life before the tumour develops; such cases form, perhaps, 10 per cent. of all the slowly growing cancers of the breast which are met with in practice. This opinion, as I have already remarked, is founded on my own experience, and I have no desire to fortify it by referring to statistics of cancer of the breast, for I think that if applied to a subject of this kind, are often misleading. Probably few surgeons were better able to appreciate this fact than Sir B. Brodie; and it is quite possible he may have had the matter prominently brought to his notice, with regard to the treatment of carcinoma of the breast; for Sir Charles Bell had written forcibly on the advantages to be derived from excision of the gland when affected with cancer. Sir Charles, in his Edinburgh lectures, taught that excision failed in the greater number of cases because the operation was delayed too long; on the other hand, Dr. Alex. Munro, of the same school, published a paper in which he stated "that of nearly sixty cases of cancer he had seen extirpated, only four were free of the disease at the end of two years." In reply to this, Sir Charles remarks it was natural that Dr. Munro should have formed so bad an opinion of excision of the breast for cancer, because he was only a consultant, and, therefore, saw none but far advanced cases of the disease. Sir Charles observes "before applying for this kind of assistance, private surgeons are usually consulted, who generally retain the patient under their own management if the case does not appear to be desperate, or if any reputation is likely to be got from an operation." In order to prove the correctness of this idea, Sir Charles quotes the following from a paper written by his friend Dr. Hill, of Dumfries: "He was the more readily induced to do this from knowing that no fallacy or mistake could occur in the relation, Mr. Hill having been so exact as to keep a register of every case." The statement which Sir C. Bell thus endorses as being accurate shows to what remarkable purposes figures may be turned in reference to the sur-

gical treatment of disease; for Mr. Hill asserts that he had not only extirpated eighty-eight genuine cancers, all of which except four had ulcerated, with only two deaths, but that of seventy-seven such cases, sixty-six continued free of cancer as long as they lived, so that "the different patients lived as long after extirpation of the cancer as, according to the bills of mortality, they would have done had they never had any cancer, or undergone any operation." Sir Charles in this way disposes, to his own satisfaction, of his friend the "late justly esteemed" Dr. A. Munro. I have no desire to follow his example, and attempt to strengthen my opinion regarding carcinomas of the breast which should be operated on by referring to figures, for "everyone knows how easy it is to twist statistics to suit any moral which the manipulator is anxious to enforce."

Excluding cases of cancer which have advanced beyond hope of relief and those whose health is seriously compromised by some other disease, Sir B. Brodie avoided operating on rapidly-growing carcinomas, as well as on those very slowly-growing tumours above referred to. He was also disposed to hesitate in operating when the skin and axillary glands as well as the breast were affected with cancer in younger persons. There seems good reason why he should have formed this opinion, because fifty years ago the death-rate directly following an operation for excision of the breast was hardly less than 16 per cent., and if the glands were removed it rose to 25 per cent. With a risk of this kind from the operation, and the certainty that by far the larger proportion of those who survived excision of the glands would die of cancer within two years, Sir B. Brodie was right in declining to operate unless in exceptional cases of this kind. Thanks, however, to drainage, anaesthetics, and antiseptics, we may now take a more favourable view of the risks incident to excision of the breast; the death-rate from this proceeding has diminished of late years, and the pain from the subsequent dressings has been greatly alleviated, so that we are not only justified, but it is our duty to remove a large proportion of carcinomas of the breast, although the skin and axillary glands are diseased; we may thus hope to prolong life, and we have good reason to believe that we shall also save our patient much suffering. It is true there are a certain few cases of rapidly-growing carcinomas of the breast, and some very slowly-growing tumours we had better leave to run their course, but these do not form more than 12 or 15 per cent. of all the cases of scirrhus we meet with, and their existence cannot justify practitioners abstaining from excising the affected gland in the large majority of cases, especially in the early stages of the disease, a subject to which I shall return in my next lecture.

MODE OF FIXATION OF THE SCAPULA, SUGGESTED BY A STUDY OF THE MOVEMENTS OF THAT BONE IN EXTREME FLEXION OF THE SHOULDER-JOINT: ITS BEARING UPON FRACTURE OF THE CORACOID PROCESS.

By W. ARBUTHNOT LANE, M.S., F.R.C.S.,

Assistant-Surgeon to Guy's Hospital, and to the Hospital for Sick Children, Great Ormond Street.

In the *Guy's Hospital Reports*, 1886, page 332, I showed that during the movement of flexion of the shoulder-joint, the scapula rotates around a transverse axis, or, more accurately, around an axis whose direction is, on the whole, obliquely inwards and forwards. While the scapula is performing this movement, that portion of it which is most fixed as regards the clavicle is the acromion at its articulation with that bone, and next to that the coracoid process of the scapula. The lower extremity of the scapula glides outwards, forwards, and then upwards, over the convex outer surface of the thorax, while its upper margin is carried backwards and somewhat upwards from its relative position to the clavicle in the pendulous attitude of the arm.

The coraco-clavicular ligaments oppose and limit this separation of the two bones, and the coracoid process is prevented from moving upwards and backwards by its coming in contact with the under surface of the clavicle.

I also pointed out that in those labourers who have to carry loads upon the head or trunk, in order to keep their heavy burdens in place by their arms, the shoulder-joints are retained in a position of extreme flexion, the scapula being fixed upon the clavicle by the opposing surfaces of clavicle and coracoid process;

that in such labourers an arthroclavicular joint is developed in this situation, and that the perfection at which the joint arrives depends entirely upon the strain exerted upon the arm, and therefore upon the opposing surfaces of coracoid process and clavicle while the shoulder-joint is in a position of complete flexion (this condition is even more marked when the load exerts a direct as well as an indirect pressure upon the clavicle).

In some cases I have found this joint remarkably well developed, the articulating surfaces on the coracoid process and clavicle being eburnated, and the capsule surrounding them strong and well defined. In that paper in the *Reports* I suggested that this apposition of the coracoid process of the scapula and clavicle was the developmental factor which determined the separation of a portion of the tendon of the pectoralis minor to form the coraco-humeral ligament, that tendon originally passing superior to the coracoid process, as a large portion of it does in occasional instances. In the same manner it has possibly destroyed a portion of the subclavius, which may have formerly extended outwards as far as the acromion. In porters I have seen the subclavius arising by fleshy fibres from the capsule of this joint, rendering it obvious that during one lifetime the extent of the origin of that muscle can be considerably altered. As it does not bear directly upon the point I wish to illustrate here, I will only mention the similar joint formation and other pressure changes, identical in character with the above, and associated with them, which develop between the clavicle, rhomboid ligaments, and the underlying first rib and cartilage.

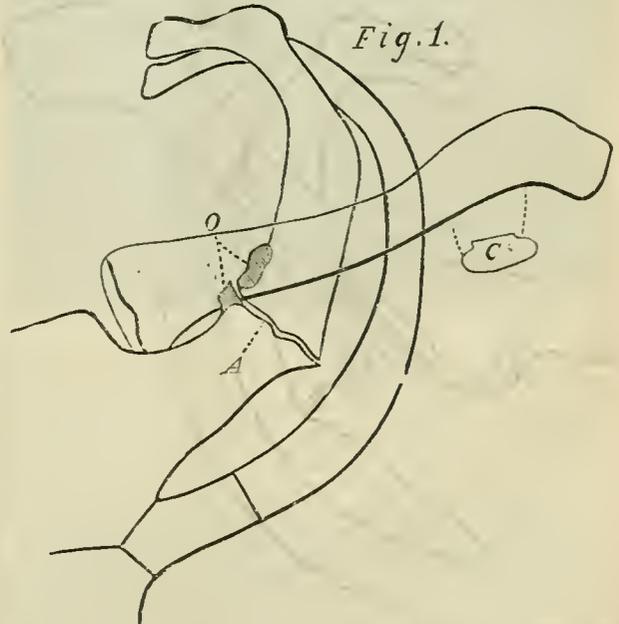


Fig. 1 represents the upper two costal arches, the clavicle, the extremity of the coracoid process, and the half of the manubrium of the left side of the body of a labourer. On the upper surface of the coracoid process C the articular facet, by which this bone articulates with the under surface of the clavicle, is represented as a slightly elevated plane. The dotted line indicates the position of the capsule of the acquired coraco-clavicular joint. A points to the arthroclavicular joint which has developed in the outer portion of the ossified first costal cartilage. O indicates the position of facets on the first costal cartilage and on the anterior extremity of the first rib, which articulate with a corresponding articular surface on the under surface of the clavicle, and form with it what I call the chondro-clavicular articulation.

In Figs. 1, 2, 3 and 4 I have represented the chondro- and coraco-clavicular joints as they existed in a labourer who carried loads upon his left shoulder.

The movements of the scapula with regard to the clavicle during flexion of the shoulder-joint are very briefly and somewhat inaccurately described by anatomists, and I am describing them here, as a knowledge of them suggests a very important practical point in the surgical treatment of that joint.

The circumstance which I wish to call attention to is this—namely, that in complete flexion of the shoulder-joint the scapula is rendered fixed by the coracoid process impinging upon the under surface of the clavicle, and that while the shoulder-joint is

completely flexed the humerus may be rotated, completely adducted, and very extensively abducted without the scapula accompanying it in its movements.

Surgeons are all familiar with the difficulty they experience in fixing the scapula when they wish to break down adhesions which have formed between the humerus and that bone, and many means have been devised to obviate this difficulty. I will illustrate this by quoting a few lines referring to the treatment of synovitis of the shoulder-joint from Holmes's *System of Surgery*, vol. ii, page 393: "But, if adhesion remain between or about the surfaces, difficulties in restoring motion are met with in the shoulder-joint which are not present to the same extent in other joints. They are due to the mobility of the scapula, which, when we attempt to make passive motion for the stretching or the tearing of the new material, moves with the bones, and we have no *point d'appui*, as in other joints. But the difficulty can to some extent be overcome if the patient be put under the influence of an anæsthetic, by giving the scapula into the charge of an assistant, who stands at the side of the patient opposite to that of the affected joint. If now, while he grasps this bone with both hands, and fixes it against the ribs with his fingers on its borders, the humerus be slowly brought away from the side, and then rotated upon its own axis, the adhesions may be gradually loosened after one or two attempts if the assistant be able to hold the scapula firmly. Unfortunately, the patient himself will not, as a rule, carry out active motion carefully."

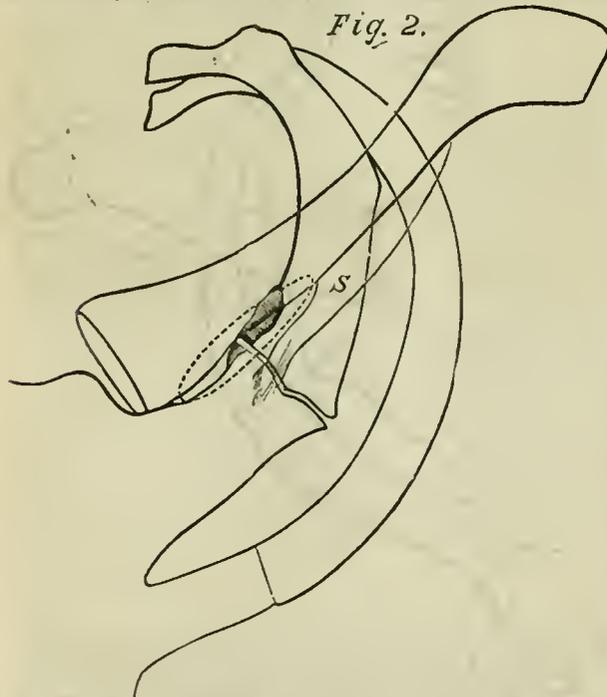


Fig. 2.—The dotted line indicates the limits of the chondro-clavicular joint and its relations to the subclavius muscle (S) and sterno-clavicular articulation. The outer end of the clavicle has been displaced upwards and backwards, in order to show this new joint.

The writer very wisely inserts the proviso, "if the assistant be able to hold the scapula firmly;" and in my experience the assistant was never able to do so to my satisfaction. By means of the method I suggest, not only can the surgeon and his assistant completely fix the scapula, and rotate the humerus readily when the scapula is fixed, but the patient can readily arrange that his relations or friends shall carry out the definite and simple instructions of the surgeon, and a very important part of the subsequent treatment can in this manner be secured.

It is obvious from the above description of the movements of the shoulder-joint that the coracoid process is brought into forcible contact with the under surface of the clavicle only in extreme flexion of the shoulder-joint; and that if the force exerted in bringing these bones into apposition be great, the coracoid process may sustain a strain sufficient to break it. Such an acci-

dent might then ensue by the exertion of a sudden or considerable strain upon the trunk of an individual hanging by his arms, or by a heavy fall forwards, the arms being at the time completely flexed at the shoulder-joints, and, therefore, stretched directly forwards. In either case it is very likely that fracture of the coracoid process would be accompanied by dislocation of the head of the humerus.

The coracoid process would, therefore, be broken by indirect and not by direct violence, but, according to surgical authors, the coracoid process is not broken in this manner. For instance, in Holmes's *System of Surgery*, vol. i, page 953, I find the following: "Fracture of the coracoid process is an extremely rare accident, and only produced by severe direct violence; it is usually accompanied by other injuries, as dislocation of the humerus in the cases reported by South and Holmes, or by fractures of other parts of the scapula." I would ask how it is that fracture of the coracoid process by direct violence is so frequently associated with dislocation of the humerus? It seems difficult to understand. The writer goes on to say that "Two cases of fracture of this process have come under my notice. In both the fracture was caused by a fall forward from a slight height with the arms stretched forward, etc." Again I would ask in what manner does he suppose that the coracoid process could have been influenced by direct violence when the shoulder-joint and arm were in the position he describes?

It is obvious that he refutes in a very practical manner the assertion he had just made by the two cases which he has brought forward to illustrate and verify it, since it would be almost impossible to fracture the coracoid process by direct violence under the circumstances related.

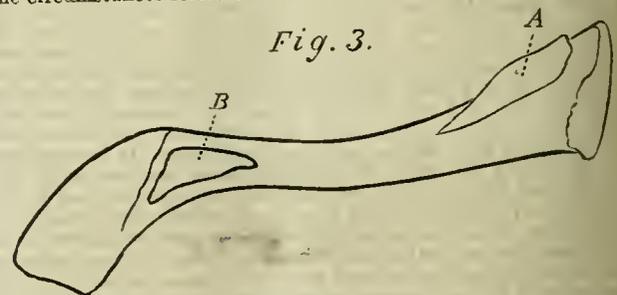


Fig. 3 represents the under surface of the left clavicle; A the facet on the clavicle which enters into the formation of the chondro-clavicular articulation; and B the facet forming the clavicular portion of the coraco-clavicular articulation.

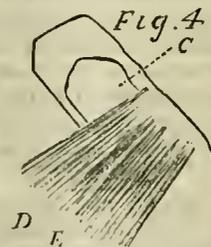


Fig. 4 represents the upper surface of the left coracoid process, C indicating the raised flat facet on this surface of the bone, which articulates with the facet B on Fig. 3. D and E point to the trapezoid and conoid ligaments respectively.

The extreme rarity of this fracture illustrates another point in which I am interested, namely, the relative frequency of fractures of the various bones. In 325 bodies whose bones I have thoroughly examined in the dissecting-room, I found no undoubted instance of fracture of the coracoid process, though I have looked for it very carefully. In the same number of subjects I found that a considerable proportion presented fractures of the acromion, that portion of the scapula being broken more frequently than any other bone in the body. Yet in the statistics of the fractures of the upper extremity, treated at the Middlesex Hospital during ten years ending 1879, comprising a total of 1,084 fractures, there are six fractures of the coracoid process, and only ten fractures of the acromion.

The reason of the incompatibility of this last statement with the results of my experience in the dead subject is obvious from

the comparative difficulty in detecting a fracture of the acromion. I have in many instances of so-called simple contusion of the shoulder of the living subject been able to satisfy myself of the presence of an ununited fracture of the acromion or of fracture of the outer third of the clavicle.

This is another instance of the extreme inaccuracy of the published statistics of the relative frequency of fractures of the various bones. In a paper in the *Guy's Hospital Reports*, 1886,¹ I have described in full the frequency of fractures of the acromion, first costal arch, and outer third of the clavicle, and I am merely referring to it here as bearing upon the rarity of fracture of the coracoid process. It is also obvious that the force required to produce a fracture of the coracoid process must be great as compared with fractures of the acromion or clavicle.

A NOTE ON THE RHYTHM AND CHARACTER OF CERTAIN TREMORS.

By R. NORRIS WOLFENDEN, M.D.(CANTAB.),

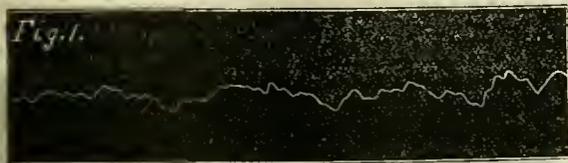
Physician to the Hospital for Diseases of the Throat;

AND

DAWSON WILLIAMS, M.D.(LOND.),

Fellow of University College, and Assistant-Physician to the East London Hospital for Children, Shadwell.

THE voluntary contraction of a muscle in man is maintained by a series of nervous impulses, which reach the muscle at a certain definite and fairly constant rate. Under ordinary circumstances in health, the fine vibration thus produced is imperceptible to the casual observer; but if even a steady hand be attentively watched, it may be seen to be constantly vibrating. By the use of suitable apparatus a graphic representation of this vibration may be obtained; the general character of such a tracing is fairly represented by Fig. 1, which was obtained by one of us from his own forefinger.



The rhythm of muscular contraction for the muscles of the forearm was set down by Beaunis (*Physiologie Humaine*, 1876, p. 273) at 10.5 per second, and he added the remark that these vibrations were much more "pronounced in senile tremor and alcoholic trembling, which are only exaggerations of the physiological state."

Horsley and Schäfer (*Journal of Physiology*, vol. v) have recently found from experiment that the rhythm of muscular response to electrical excitation of the nerve centres is the same, whether the excitation be applied to the grey matter of the cerebral cortex of the motor region, the corona radiata, or the spinal cord (but not to the peripheral motor nerves); and that with all the rates of excitation higher than ten, the rhythm of muscular response is maintained at a fairly uniform rate of about ten per second. The rhythm in the case of voluntary and reflex contractions is essentially the same as that got by excitation of the nervous centres. In the case of epilepsy they obtained sometimes a slower rate, due to summation in the cells of the spinal cord. This summation on the part of the spinal cord cells explains why in some cases a rhythm was obtained the same as the electrical excitation, or, if not quite equal to that, yet considerably exceeding the normal rhythm. This was due to failure or imperfect performance of the summation process. They think that the spinal cord cells are never capable of originating a rhythm of greater frequency than ten per second, but that cortical cells may originate a rhythm of twelve, thirteen, or even more.

Schäfer (*Journal of Physiology*, vol. v) also has recently shown that a prolonged voluntary action in man is an incomplete tetanus produced by from eight to thirteen successive nervous impulses per second. He concludes that in this case the average rhythm is also ten per second.

That this rate of rhythm is maintained fairly constantly in the various movements constituting the tremor of disease is made

evident by our observations. Mr. Victor Horsley has already figured in the *JOURNAL* (vol. i, 1885, p. 112) a tracing of ankle clonus in a man suffering from caries of the spine, which showed a wave-rate of eight to ten per second, and also a tracing from a well marked case of paralysis agitans made by Dr. Beevor, showing a wave-rate of four or five in a second. Mr. Horsley added that he had found frequent indications of each wave being a compound of two.

The investigation which we now report was directed to the study of the characters, but especially of the rate, of various forms of tremor observed in disease, with the view of ascertaining whether the relation on which they stood to the normal oscillations of health was of a constant character. The analysis of complex movements such as those of athetosis, or even of chorea did not come within the scope of our inquiry.

The apparatus which we employed is represented in Fig. 2. The tracing was taken on an ordinary revolving cylinder (A) driven by

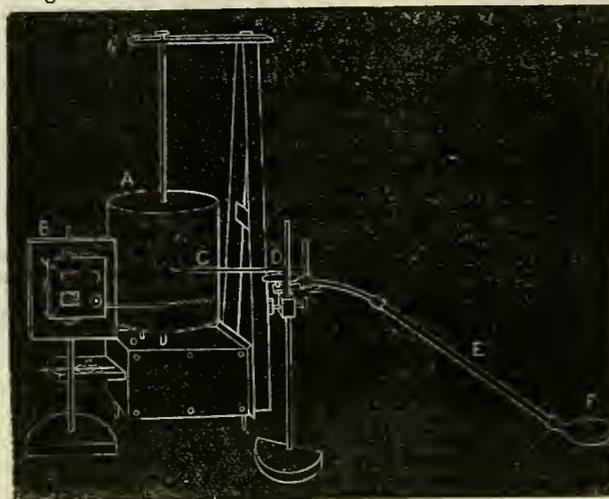


Fig 2

clockwork; the writing lever of the time marker (n) marked half seconds on the same cylinder; a Marey's tambour (D) carrying a writing lever (C) was connected with an india-rubber bag (F)—of the kind used by Dr. Warner in his experiments—by a long piece of glass tubing (E); this rigid tube was introduced in order to prevent as much as possible accidental jarring or shaking of the apparatus, which, especially when the patient has a severe form of tremor, is very prone to occur if the whole connection is by india-rubber. The patient placed the tips of the fingers or the palm of the hand upon the india-rubber bag; each movement was thus transmitted to the tambour (D) and inscribed upon the blackened paper of the recording cylinder by the writing lever (C). This arrangement of the apparatus has the great advantage of permitting observations to be made without difficulty in an ordinary ward; it can be quickly put together and carried from ward to ward by a single assistant.

The first observations were made on cases of exophthalmic goitre (Graves's disease); the exceedingly fine character of the tremor which is present in the earlier stages of that disease can only be studied by obtaining a graphic record of the movements, and, while affording a good test of the applicability of the method to clinical purposes, there seemed to be some probability that a comparison of the tracings with others obtained in other forms of



disease where the tremor is coarser might throw some light on the nature of Graves's disease itself. Fig. 3 is a reproduction of a

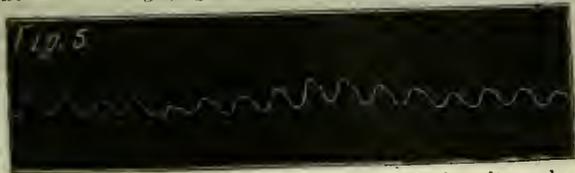
¹ "The Pathology of Pressure-changes in the Trunk and Shoulder-girdle."

tracing taken as above described while the cylinder was revolving slowly. The patient was a young woman, A. C., suffering from well-marked symptoms of Graves's disease in an early stage. The tremor could be distinctly felt when her hand was loosely placed in the hand of the observer. The tracing was taken with her right hand resting lightly on the tambour. The movements occur at the rate of 11 per second, and their amplitude is slight, though varying within small limits. Numerous tracings were taken from this patient, and also from another young woman, E. A., who also presented well-marked symptoms of Graves's disease in the early stage. All the tracings had the same characters, and the rate was practically identical in both patients, the maximum of numerous countings being 11.5 per second in A. C., and the minimum 10.8 per second in E. A. A study of the extended series of tracings from these two cases appears to show that even this slight difference is due to imperfections in the apparatus, and that, within the limits of experimental error, the rate in these cases was almost identical. Fig. 4 is a reproduc-

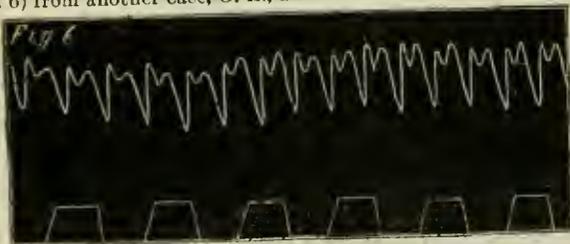


tion of a tracing taken with a more rapidly revolving cylinder. Though the general aspect is, for this reason, different, the rate at which the movements occur (11.3 per second) is almost the same as in Fig. 3, and the two tracings have essentially the same characters.

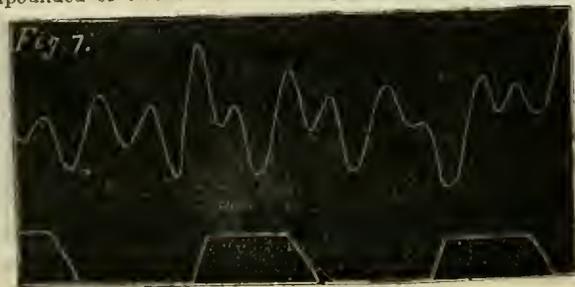
The next tracing (Fig. 5) is from a man, W. H. H., aged 78,



who presented well marked symptoms of paralysis agitans; he was under the care of Dr. Scanes Spicer in the Fulham Infirmary, to whose kindness we are indebted for the opportunity of making this as well as the observations recorded below. Though the tremor was well marked, the patient was still able to do a little light work. The tracing gives a rate of 5.2 per second, but inspection shows that many of the curves give indications of secondary waves. This is beautifully marked in the tracing (Fig. 6) from another case, G. E., an old man, also in the Fulham

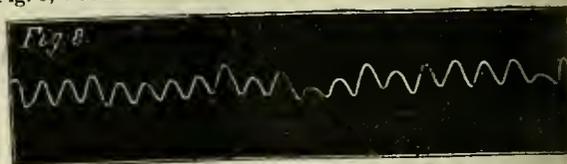


Infirmary, with incapacitating paralysis agitans. Each wave is notched at the summit with singular regularity, and is clearly compounded of two waves. The larger waves give a rate of 5.1



per second; and, as each is double, the true rate is 10.2 per second, which is about the average rate of the oscillations in health, the difference lying in an alteration in the amplitude, and in the fusing of each alternate wave with the one immediately preceding. This point is further elucidated in another tracing (Fig. 7), taken from this case on a more rapidly revolving drum. The lever, as it descends, is caught by the secondary wave, and again thrown up, very much as in a tracing of a "dicrotic" pulse. The tremor of paralysis agitans, which ordinarily gives such a tracing as that reproduced in Fig. 5, is thus seen to be due to a fusion of the waves in pairs as above stated.

Tracings were taken from two cases of disseminated sclerosis. In one, A. D., a woman aged 77, a very uniform tracing, reproduced in Fig. 8, was obtained. The rate is 5.8 per second. A tracing



obtained from another case of the same disease in a woman, A. T., affords evidence of secondary waves, which, viewed in the light afforded by the tracings from the cases of paralysis agitans (Figs. 5, 6, 7), points clearly to a process of fusion. The same effect is extremely well shown in a tracing (Fig. 9) from a case of



lateral sclerosis with tremor of the arms in a woman aged 63. The rate, if the main oscillations only are counted, is 5.2; and, as each oscillation is distinctly double, the true rate is in this case also 10.4. The next tracing (Fig. 10) is from an old woman aged



91, who had well-marked senile tremor. The average of the oscillations is 5.5 per second. Many of the curves, however, are distinctly notched, so that, as in other instances, we here have, in all probability, an effect of regular summation in pairs.

It would be easy to multiply tracings all giving evidence of the same nature, but enough has been advanced to make it clear that the rate of the tremulous movements in these various forms of nervous disorder does not overpass the normal limits observed by Schäfer and Horsley. The general result of our observations is to show that the special characteristics which clinically distinguish the various forms of tremor are to be traced to two causes: in the first place an exaggeration of the amplitude of the normal vibration; and in the second place to the fusion of vibrations, which has the effect of producing a relatively slow tremor, generally of a rate corresponding to half that of the normal vibration.

A NOTE ON FILARIA SANGUINIS HOMINIS:

WITH A DESCRIPTION OF A MALE SPECIMEN.

BY ALFRED GIBBS BOURNE, D.Sc.,
Professor of Biology in the Presidency College, Madras.

OUR knowledge of the adult form of this worm is still incomplete. It was discovered by Dr. Bancroft, in Brisbane, in 1876. It has also been found by Dr. Timothy Richards Lewis, in Calcutta; Dr. Patrick Manson, in Amoy; Dr. Silva Arango and Dr. F. dos Santos, in Brazil. Dr. Bancroft's specimens were described by Dr. Spencer Cobbold. Drs. Lewis and Manson have both given descriptions of their specimens. All these specimens were imperfect, and are

May 19, 1888.]

stated by Cobbold to have all been females. This authority states in his book (*Parasites: a Treatise on the Entozoa of Men and Animals*, 1879) that the male parasite is unknown. This was not, however, strictly correct, as Lewis in the paper (*Quarterly Journal of Microscopical Science*, 1879) referred to by Cobbold, states that he found portions of two specimens: the one was about one inch and a half long, and belonged to a female from which the caudal extremity had been severed, while the other was a fragment of a male worm. Of this latter he says: "It measured half an inch in length, and $\frac{1}{10}$ of an inch transversely; it was thinner than the female, but of considerably firmer texture—so firm, indeed, that whilst endeavouring to make out its anatomy a considerable portion of it was lost by one of the needles used for dissecting snapping, and carrying a portion of the worm along with it. On tearing the helminth across, the severed surface does not present a ragged edge, but an even outline. The male manifested also a great tendency to coil, and it was only with difficulty that it could be separated from the specimen of the female parasite, around a portion of which it had twisted itself. It is unfortunate that its caudal end, especially, could not be found, as the definite decision of the genus to which it should be referred depends in a great measure on the characters which the posterior end of the male worm presents."

Brigade-Surgeon Sihthorpe has had several cases of filarial disease in the General Hospital at Madras, and has always made a search for the adult worm; this has hitherto proved fruitless. Recently, however, after an amputation of a lymphoid scrotum, he found two worms which he had mounted and identified as adult filariæ. He had found embryo filariæ swarming in the patient's blood on the previous evening. He very kindly sent these specimens to me for examination, and I found that one was a female, while the other was a male. The female specimen agrees very closely with Cobbold's figure, but the vagina is everted or protruded. Dr. Smyth, resident surgeon to the hospital, who mounted the specimens, tells me that the eversion took place during mounting; it is probably a normal act during life. The caudal portion is wanting. The male specimen is about an inch and a quarter long; the anterior extremity is wanting, but the caudal extremity is intact, and presents two spicules. The structure of these spicules will doubtless form a valuable specific character. Unfortunately, only one of these spicules remains *in situ*; the other has dropped out in the mounting and lies nearly isolated on the slide. The spicule is broad at its proximal extremity, and gradually tapers until it becomes capillary in character. About half-way down there is a lateral prominence, and when *in situ* the spicule is folded on itself so that this prominence forms the actual free extremity of the spicule, while the broad end and the capillary end lie near to one another.

A description and figures of this specimen, which, with the exception of Lewis's fragment, is, I believe, the first recorded specimen of the adult male filaria sanguinis hominis, will be published in an ensuing number of the *Transactions* of the South Indian Branch of the British Medical Association.

It is interesting to note that in this case, as in Lewis's case, the male and female were found in close contiguity.

EMPHYEMA FOLLOWING PNEUMONIA.¹

By DONALD W. C. HOOD, M.D. Cantab.,

Senior Physician North-West London Hospital, and Physician West London Hospital.

I wish to call attention to those cases in which an inflammatory attack connected with the chest has been followed by anomalous or irregular symptoms. I can of course only hope to touch lightly upon a branch of such a vast subject, and any remarks I may make will relate only to those cases where an acute pneumonia has been followed by purulent effusion.

Is a lung solid with adventitious products or is the pleural cavity charged with fluid contents? This is a problem which we are often called upon to solve; happily it is one in which in the greater majority of cases we shall have, no doubt, no difficulty. On the other hand, we may be called upon to express an opinion where the clinical course has been shrouded in obscurity, where the symptoms from the first are complex and irregular, where our diagnosis is a matter not only of moment but of difficulty.

The ambiguity which arises in those cases where the ordinary well-recognised symptoms of pleural effusion or solidified lung are either absent or profoundly modified have occupied the attention of many clinical observers. It is not easy to realise how completely a chest filled with fluid can simulate a lung solid from pneumonia. But a short time past we had a good instance of this in the case of a woman admitted into hospital suffering from cough and dyspnoea. Her right side was absolutely dull. On this side was the scar due to her breast having been removed for scirrhus. There were symptoms of recurrence of the growth. In this case the entire balance of physical evidence lent much weight to the opinion that the chest was filled with solid mass; an aspirator, however, quickly settled any doubt, and we found the cavity filled with fluid.

The difficulty in diagnosis is much increased if the primary seizure be of the nature of pneumonia, especially if the attack occur on the right side. A young girl, now in hospital, was admitted on February 7th, 1888; she had been ailing about a week, had caught cold and had had a sharp shivering fit. I saw this patient on the afternoon of the day on which she was admitted; her clinical condition was typical of an acute attack of pneumonia; respirations between 40 and 50; *alæ nasi* working vigorously; pulse 130; temperature 104° F.

Beyond some sharp fine crepitation to be heard at the base of the left lung, the physical symptoms were insignificant. She had pain over this side, but no stitch or catch in breathing. The air appeared to be entering both sides of the chest equally well. The following day there was increase in the area over which fine crepitation could be heard, and the lower two-thirds of the left chest was dull; no bronchial breathing could be detected; there was no expectoration, though frequent cough.

From this time the patient was severely ill, so ill that an accurate, careful examination of the chest was impossible. The lower part of the right lung was implicated in the attack, the constitutional symptoms being extreme.

On January 14th, seven days after admission, a thorough examination was made. The left side was dull, with tubular breathing and bronchophony. The apex-beat of the heart could not be felt, but the heart-sounds were heard loudest to the left of the median line. There had been no hectic, no shivering, the temperature gradually falling, and the general condition of the patient had improved. She pronounced herself as feeling much better. Nevertheless the breathing was still rapid and embarrassed. At this time the general condition of the patient suggested the presence of fluid within the chest, though a physical examination almost directly negatived such a view.

On January 17th the girl was seen again. She expressed herself as being much more comfortable, had slept well, and had taken food with appetite. The temperature was now normal, but both pulse and respiration were still rapid. Cough was very frequent, almost paroxysmal, but without expectoration. On this day I distinctly heard the heart-sounds loudest to the right of the median line. An aspirator was used, and a pint of sweet pus withdrawn. Subsequently a free opening into the chest was made by my colleague, Mr. Durham, about two pints of pus being removed. The patient has made an uninterrupted recovery.

Another case, bearing on the matter under our notice, occurred to me in the case of a patient admitted under my care into the West London Hospital, on March 5th, 1886, suffering from an attack of pneumonia of ordinary intensity. There was nothing irregular in the clinical course, and the normal physical symptoms of pneumonia were present. There was a rather free expectoration of rusty and blood-stained sputa.

On the seventh day after admission the general state of the patient was satisfactory. The attack had run an ordinary course, and on the morning of this day the temperature was 99°. The percussion note at the lower part of the right chest was toneless, that is, it was more dull than is usually the case from pneumonic consolidation. The cough was irritating and paroxysmal. We had noticed the ordinary cough of pneumonia giving place to one which was paroxysmal and without expectoration. Such a cough may be caused by the presence of a small quantity of fluid within the chest. A hypodermic syringe revealed the presence of fluid, and a small quantity, namely four ounces, was removed, and proved to be sero-purulent. It was sweet. The following day the temperature was normal, the cough had gone, and the patient, a few days later, was discharged well.

But lately a child was under my care in the West London Hospital suffering from a slight attack of broncho-pneumonia. The

¹ Abstract of paper read before the Metropolitan Counties Branch, North London District.

illness passed off rapidly; but after all fever and constitutional symptoms had subsided, there remained a very small patch of dullness at the lower part of the right chest. The heart was not displaced, but there was the same paroxysmal cough as I have just referred to. Indeed, so paroxysmal was the cough, that it was suggested that the disease was pertussis, commencing with acute inflammatory symptoms. We determined to explore the dull patch at the base of the lung, and a hypodermic syringe revealed the presence of pus; four drachms were removed. The cough ceased from that moment, and the child was discharged well. Though kept for some weeks under observation there was no return of cough or chest mischief.

Large effusions occurring on the right side of the chest, especially when they simulate solid lung, are doubtless much more difficult to diagnose than when the fluid is on the left side. We do not gain the same help from altered positions of the heart. A large effusion may occur on the right side and the heart beat in its normal position. Of this fact we had striking proof some months past in the case of a poor woman who was admitted under my care. She was sent in for supposed enlargement and disease of liver, that organ being felt below the umbilicus. The enlargement, however, was apparent only, the viscous being displaced downwards by an enormous effusion into the right chest. Although this effusion was sufficient to influence the position of the liver to such an extent, the apex of the heart was found beating in or about its normal position. A free exit was made for the pus which filled the chest, and the liver returned to within two fingers' breadth of the ribs.

An interesting case occurred to me a few months ago in the case of a strong young man admitted under my care into the West London Hospital. The patient stated that three days before admission he had been seized with a severe shivering fit, and since the attack had had pain over the chest, with difficulty in breathing. The constitutional symptoms were of extreme severity; no physical symptoms of importance could be detected on admission. During the first week it was impossible to examine the chest with exactness, as the patient being in a state of delirious mania, it was with the greatest difficulty he could be kept in bed. There was, however, a plentiful crop of herpes on the lip, and an expectoration of rusty sputa, the balance of clinical evidence being largely on the side of pneumonia. The delirious state was followed by a sharp attack of pericarditis, which again prevented a careful examination of the chest; and it was not till after the patient had been in hospital for nearly a fortnight that we were able to estimate the amount of chest mischief.

Briefly, the physical symptoms were as follows: The right chest was found to be dull, and over this region tubular breathing and bronchophony were well marked. On February 15th, being twenty-eight days after admission, the following note was made: "The general strength of the patient has improved, but the lung has not cleared up. The right chest is still dull. Vocal fremitus can be felt on this side, the breathing being tubular. The heart beats in normal position, and the liver is not depressed. The clinical evidence is against the presence of fluid."

A week later the physical symptoms were much the same. The general condition of the patient was good, his temperature gradually falling. The cough was noted as being peculiar, coming on in whooping-cough-like paroxysms, and unattended with any expectoration. A hypodermic syringe detected pus. Subsequently three pints were withdrawn, a free opening being made into the chest, the patient making a complete and rapid recovery. The cough ceased immediately after the pus was removed.

Perhaps nothing has contributed more to the study of medicine as a science than the knowledge gained by an exact investigation into the natural history of individual diseases; in other words—the physiology of pathological processes. We should be in a position to state with confidence the time necessary for the lung, solidified by pneumonia, to become normal tissue. We should know the relation between such a period and the amount of tissue implicated in the attack. Some such exact knowledge would doubtless help us in forming an opinion as to the presence of fluid in the chest, more especially in those cases where the ordinary symptoms are modified or absent.

Dr. Addison, in his 27th aphorism, writes: "When serous effusion is very considerable, giving rise to unequivocal bronchophony, tubular breathing, want of resonance and vocal vibration, physical examination has repeatedly led to a mistaken belief that these signs resulted from a pneumonia or other consolidation of lung." That similar mistakes may occur, even if the fluid be pus, must be admitted.

In the case of the two patients whose attacks I have briefly brought before you, there was nothing in the course of the illness *per se* to indicate, even granting the existence of fluid, that that fluid was pus. They had gone through no process sapping the vital forces. They were strong, in vigorous health, and well-nourished. The attacks were marked by extreme severity at the initial outbreak. There was nothing to indicate a septic influence. There was no hectic, no heavy sweats, no fluctuating temperature. At the time when the first exploratory puncture was made, in the one case it was normal, in the other 90°; in both cases it had been gradually falling. There was no bulging of ribs, no œdema of parietes, no extreme stitch-like pain—nothing, I say, to warrant us in thinking the fluid was purulent. Baccelli's test failed in both instances, for in each whispering pectoriloquy was to be heard with striking intensity. From my own observations I look upon this test as useless, and I have reason for thinking that the vibrations giving rise to the conduction of whispers depend more upon the tension of the fluid than its character. As a general rule tension (that is, distension of the chest) is greater in serous than in purulent effusions: thus we are more likely to hear whispering pectoriloquy in cases of serous effusion. But if, on the other hand, there be a large purulent effusion with consequent great tension, the whispers are as readily conducted as if the fluid were serous.

A paroxysmal cough, more or less of the nature of whooping cough, has been a symptom to which, personally, I owe much help in those cases where the signs of fluid within the chest have been equivocal. My experience is not sufficient to enable me to say with confidence that such a cough, remaining after an acute chest attack has subsided, is invariably indicative or pathognomonic of the presence of fluid. But certainly in nine consecutive cases occurring directly under my own notice such a cough was present, and immediately ceased on withdrawing the fluid from the chest. In all cases the fluid was purulent, and, with one exception, each patient made a complete and speedy recovery, the one exception being a young woman whose attack was evidently septic, and followed a miscarriage.

The case of the little child to which I have very briefly referred was of special interest, the amount of pus removed being but four drachms, this small quantity evidently giving rise to the cough which so closely simulated pertussis.

NOTES ON ANTIPYRIN.¹

By W. TYRRELL BROOKS, M.B.LOND., B.A. OXON.,
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It is not my intention to make any remarks on the uses of antipyrin as a febrifuge. Antipyrin has been long used for this purpose, long enough indeed for a host of rivals to have arisen, one of which—I mean antifebrin (acetanilide)—bids fair to displace it. I wish rather to bring before the meeting some account of the various diseases for which antipyrin has been used in which it has a more or less specific action, apart from its property of lowering temperature. Antipyrin has been so largely used, during the last year, more especially upon the Continent, that it runs the danger of degenerating into a universal panacea for all ills. So great in fact has been the demand for the drug, that it is believed that the supply has with difficulty kept pace with it, and complaints are now made that the drug is suffering from over-popularity, and that its purity is being sacrificed by the makers to ensure a sufficient quantity in the market.

Antipyrin has been very largely used as an anodyne, and a claim has been made for it by Professors Germain Sée and Lépine that it is a reliable substitute for morphine, whilst in cases where morphine is contra-indicated, such as advanced kidney-disease, acute gout, or certain forms of cerebral irritation, antipyrin may be given freely to allay pain. It has the great advantage over morphine that it does not cause cerebral symptoms; thus there is not any vertigo nor vomiting, and according to Professor Sée the use of the drug is not followed by sleep or nervous stimulation. Professor Lépine, however, considers that antipyrin acts both as an anodyne and a nerve-stimulant, so that though it relieves pain, it at the same time quickens the intellectual faculties of the patient and renders him disinclined for sleep.

Taking his view of the action of antipyrin as an anodyne, we may say that it is diametrically opposed to morphine in that it

¹ Read before the Oxford Branch of the British Medical Association.

acts as an anodyne without depressing the higher brain-centres. In only two cases in which I have given antipyrin has it caused sleep, and in these instances I believe the sleep was rather the result of relief from pain than of any somnolent action of the drug. The fact that antipyrin acts as a nerve-stimulant as well as an anodyne is a decided objection to its employment when we wish to relieve pain and at the same time ensure sleep. The best method in such cases is to follow the antipyrin by a hypnotic, such as chloral.

For the immediate relief of pain the drug should be used hypodermically, and as it is very soluble in water, a fresh solution may be made by dissolving one of the tablets prepared by Burroughs and Wellcome in an equal weight of water.

The dose for an adult of antipyrin used hypodermically to relieve pain is five grains. This has been calculated by Dr. Fränkel of Berlin to be equivalent to one-thirtieth of a grain of morphine. The dose may be repeated if the pain be not relieved. Beyond the pain caused by the injection, and a certain feeling of tension which lasts a few seconds, no bad effects have been noticed. The drug usually gives relief in from fifteen seconds to half a minute, and the effect lasts for some hours (six to eight hours—Fränkel).

As an anodyne antipyrin has been used chiefly in herpes zoster, lumbago, ataxia, hepatic and nephritic colic, acute asthma, acute rheumatism, and acute gout.

If given in sufficiently large doses it appears to give relief in the majority of cases. Dr. Fränkel gave it in all cases in which morphine appeared to be indicated, and did not meet with a single failure. Dr. Jennings, of Paris, however, side by side with many cases successfully treated by antipyrin, mentions a case of acute gout which was uninfluenced by the drug.

If given by the mouth as an anodyne antipyrin must be used in large doses; thus Professor Sée recommends a drachm to a drachm and a half in the twenty-four hours, and Professor Lépine 150 grains divided into two doses.

In rheumatism and gout the drug appears to be both sedative and curative in its action; it not only allays the pain, but in many cases shortens the attack. Professor Sée gave it in fifteen cases of hydrarthrosis which had resisted treatment with the salicylates and also counter-irritation by the actual cautery. In all these cases he found that swelling and pain disappeared in a few days. Dr. Fränkel gave it in thirty-four cases, with the result that in all but two there was amelioration of the symptoms and shortening of the attack. In fifteen cases, however, a relapse occurred. He found that the average duration of acute rheumatism with antipyrin was 25 days, whilst with the salicylate treatment it was 35.2 days. Mr. Raymond Johnson tried antipyrin in four cases of acute rheumatism, with the result that it lowered the temperature in all, but in only one out of the four did it relieve the symptoms. The three cases which were unrelieved by antipyrin yielded to treatment with the salicylates, whilst in the fourth case, where salicylate of soda had failed to relieve the patient, antipyrin readily did so.

To give relief in acute rheumatism or acute gout, large doses of antipyrin must be given, 1 to 2 drachms during the twenty-four hours being a usual dose. As a rule the drug produces free sweating and rapid defervescence. In chronic rheumatism it acts in allaying the pain and shortening the course of the disease. I have given it in a large number of cases of rheumatism, and in the majority I have found it successful. It appears to me to be a remedy which at least should be tried when the salicylates fail or produce disagreeable after-effects, as they occasionally do. Most of the cases recorded in which antipyrin and the salicylate treatment have been used side by side, for the purpose of comparison, yield either to the one or the other, the refractory cases in either section usually yielding to the administration of the other drug. I have not any statistics to prove whether antipyrin is of use in preventing the secondary troubles in acute rheumatism, such as endocarditis.

Antipyrin has been used with great success in nervous disorders, and I believe it supplies us with a specific for many neuralgic and other allied complaints. Its success in the treatment of migraine and cephalalgia is now assured, and one rarely takes up a medical periodical without finding in it the description of various cases which, after being more or less intractable to remedies for years, have yielded to antipyrin.

In Germany and France especially has this drug been used in the treatment of migraine, and to a less extent in England. During the last few months I have used it in the out-patient department and in private practice in such cases with very good results. As

a rule patients return after having taken the remedy, and ask pointedly for some more of the same medicine that they had last time, a fact which stamps its value at once on one's mind.

In treating migraine with this drug, I believe the best plan is to use the remedy as a specific against the attacks, and not to administer it continuously. If the migraine be periodic, or if there be a preliminary aura, the drug should be exhibited as soon as possible before the threatened attack. Thus, if an attack be feared for the morning, antipyrin should be given at night, and if the attack still threatens in the morning, a further dose should be administered. In this way the attack generally is aborted. Even if preliminary warning be absent, the medicine taken as soon as the attack comes on either aborts it, or renders its symptoms less intense. In my experience it is very rare for antipyrin to fail to influence favourably an attack of migraine, and in this I am supported by almost all of those who have noted on this drug.

It is rarely necessary to give large doses to produce the specific effect. I generally give 5 to 7 grains combined with alkalies and a bitter infusion, to be taken when an attack threatens, and to be repeated, if necessary in an hour. I find that somewhat larger doses are recommended (15 to 20 grains), but patients rarely complain that the smaller dose fails.

I have found the drug useful also in those cases of bilious headache, which often occur in patients of full habit, who are addicted to the too frequent use of alcohol. These cases, which generally occur amongst women in a comfortable position in life, yield to the administration of antipyrin; I had the satisfaction of hearing a patient, who has suffered in this way for more than ten years, state that at last a remedy had been found which relieved her. Of course the remedy does not touch the root of the evil.

In some cases of cephalalgia, antipyrin relieves for a time, but at length the patient becomes habituated to the drug, and the relief is less marked. In such cases, either the drug may be increased, or antifebrin or some other of the substitutes for antipyrin may be used.

As antipyrin has so marked an influence over these nervous complaints, it seems natural to suppose that it may be useful in epilepsy.

Fraty concludes that it has a distinct influence over epilepsy akin to that manifested by the alkaline bromides, but he confesses that large doses must be given (1 to 2 drachms daily), and that in a considerable number of cases it has to be given up, owing to the *malaise* it produces.

I have not tried the drug in many cases of epilepsy, but I was not favourably impressed with the result when I did try it. As a sedative antipyrin has been tried in cases of nocturnal emissions, and it has been found that 7 to 15 grains administered on going to bed prevents the emission in many cases. It also acts in diminishing the excessive flow of urine which not infrequently accompanies spermatorrhœa, and which arises from the hyperæsthesia of the nervous system. I would venture to think that this drug may be well worth a trial in those cases which so often are found to exist in young men who have fallen into the habit of masturbation at school, and who, on coming into the world, learn the evils of it, and relinquish the habit, but in whom spermatorrhœa frequently supervenes to a serious extent. I have given it in similar cases with good results, the best plan being to give 10 grains of antipyrin in combination with 10 grains of chloral hydrate at bed time, the patient usually falling asleep shortly after getting into bed, and remaining asleep without disturbance till the morning.

Antipyrin was given by M. Bloch to a neurotic man with a tender spine, who was periodically overcome by attacks of drowsiness, which came on after each meal; these were accompanied by pains in the head and debility. His condition had been improved by the use of *nux vomica* to some extent; but, on the exhibition of antipyrin in 15-grain doses given on waking and at 11 A.M., the drowsiness after a few days disappeared, and the remaining nervous symptoms abated. In this case it acted as a decided nerve stimulant.

The drug has been strongly recommended in cases of chorea by Legroux, who considers it a most rapid, certain, and inoffensive remedy. He administered it in six cases, giving 40 to 50 grains daily. All his cases recovered rapidly in from 6 to 27 days. I have not had the opportunity to use it frequently in chorea, but in such cases as I have used it the movements diminished rapidly. In one child to whom I gave the drug it had to be discontinued, owing to the cardiac depression which accompanied its use.

Antipyrin has been used with success in spasmodic nervous disorders such as hay fever and whooping-cough. Dr. Bloch tried it

in a case of hay fever in which cocaine and the bromides had been given without result. He gave it in 30-grain doses at the hours when the attacks usually came on, and found that the drug aborted the attacks. After taking antipyrin for some weeks the disease disappeared in this case.

Sonnenberger, from an experience of 70 cases in which he used the drug in whooping-cough, concludes that it is a very useful remedy in such cases. He gave it to infants in doses of $\frac{1}{2}$ to $1\frac{1}{2}$ grain three times a day in syrup of tolu or raspberry, increasing the dose to 10 or 15 grains for older children. The remedy must be used systematically to produce a good result in whooping-cough.

In nervous vomiting, especially in the vomiting of pregnancy, antipyrin is useful. If the vomiting be periodic, the drug should be given a few hours before the usual appearance of the attack. In sea-sickness the drug has been lauded as a specific, perhaps only to have its day as most other specifics for this disorder have had. More than one medical man has, however, recorded the debt of gratitude he owes to this remedy in crossing the Atlantic, so that it may be tried in the hope that it may be of use.

Antipyrin has been used as a hæmostatic in cases of pulmonary hæmorrhage by Dr. Olikoff. He made a solution of 15 grains to the ounce in water, and made his patients breathe through this for four or five respirations, repeating the use of it every half hour. In all the six cases tried the hæmorrhage was diminished. As a hæmostatic for general purposes, antipyrin is too costly a remedy to be employed lavishly, though it has been recommended for epistaxis and other forms of hæmorrhage. Herpes zoster and locomotor ataxy have both been successfully treated with antipyrin. In locomotor ataxy it appears to act in alleviating the lightning pains and in giving ease to the patient rather than by altering the course of the malady.

Since antipyrin became a popular remedy, many cases in which the drug has produced disagreeable effects have been recorded, though, as far as I am aware, none of these cases have ended fatally, nor have there been any symptoms which have lasted more than a few hours. The cases which I have collected (more than twelve in number) appear to me to be pure examples of idiosyncrasy. They are usually isolated cases occurring amidst many others in which the same quantity of the drug was administered. They do not appear to depend on the quantity of the drug given, for in one case 4 grains, in another 8 grains, and in a third 15 grains of antipyrin produced symptoms of poisoning, though more than double the dose has been given in many hundreds of cases without bad effects. There is, as far as I can find, no special class of cases in which the administration of antipyrin is likely to bring on symptoms of poisoning; but, as it appears in certain individuals to cause disagreeable symptoms, regardless of dose, we are likely to hear further of this property it possesses from some of the large number of people who are now taking the drug as a preventive against sea-sickness.

The chief symptoms which manifest themselves in cases of poisoning by antipyrin are certain nervous sensations, such as restlessness, loss of memory, a feeling of general expansion of the body, and a sensation of great coldness. These are followed by swelling of the face and the appearance of an erythematous eruption resembling measles—so much like it, in fact, that those who have seen cases of antipyrin rash are careful to warn us to avoid the diagnosis of measles in patients taking antipyrin.

The chief points of difference between this rash and measles are that it appears but slightly on the face, that its chief distribution is on the extremities, that it is non-crescentic in distribution. In many cases it is not accompanied by catarrh of the eyes and nose, but in a few cases catarrh does occur, and when present it must make the differential diagnosis very difficult. Besides these symptoms, antipyrin may cause diaphoresis, feebleness of the pulse, and general collapse. Gastro-enteritis occurs rarely.

The antidote which removes these disagreeable effects most readily is belladonna, given either as the tincture or in the form of atropine used hypodermically (one-seventieth of a grain).

Conclusions.—I would venture to think that in antipyrin we have a drug which, though suffering from a temporary over-popularity, is likely to be of use in practice. Its power of relieving migraine and other forms of cephalalgia is, in many cases, magical. As an anodyne it is particularly useful in those cases where morphine is contra-indicated, especially in advanced kidney disease, acute gout, or in the bronchitis of old people. I do not think that antipyrin is at all likely to displace morphine, as this drug possesses the advantage of being much more powerful bulk for bulk, and hence is more convenient for hypodermic medica-

tion. But a trial of it should be made where morphine cannot be given, or where morphine must be withheld for fear of establishing the morphine habit. In cases of long continued pain in which some anodyne must be given for a period often stretching over years, antipyrin may be found useful as an occasional substitute for morphine when the patient has become habituated to the morphine, and when it otherwise would be necessary to increase the dose of this drug. I regret I have not met with a case in which I could try this, but such cases as locomotor ataxy, or cases of slow paralysis accompanied by spasm of the muscles, would be suitable ones in which to make a trial.

I do not think antipyrin will displace the alkaline salicylates in the treatment of acute rheumatism, but it is undoubtedly useful where the salicylates have failed, or where they are contra-indicated by the disagreeable effects they occasionally produce.

With regard to the objection raised against antipyrin that it not infrequently gives rise to symptoms of poisoning, I believe that such is of little value. I have given the drug in a large number of cases without meeting with any bad effects from it, and few of those who have used this drug most largely lay any stress upon this difficulty. One must be prepared to meet with cases of idiosyncrasy in the administration of this drug as one has to be with cocaine, morphine, quinine, and other drugs.

By far the most serious objection to its extended use, particularly in hospital practice, is expense. At present, its manufacture is in the hands of monopolists, and though the French chemists say they have ascertained its composition and method of preparation, no one at present has sent on the market any of the drug under its proper chemical name, which is dimethyl-oxiquinidin, a name which requires some reflection before being added to a prescription.

I have tried antifebrin as a substitute for this drug in several cases of migraine, and though the effect does not seem so certain as when antipyrin is used, yet in many cases it has acted well. The relative expense of antifebrin is much less than that of antipyrin.

THE USE OF "SALUFER" (SILICO-FLUORIDE OF SODA) AS AN ANTISEPTIC.

By A. W. MAYO ROBSON, F.R.C.S.,

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A PERFECT antiseptic for surgical purposes has yet to be found. It must be at the same time a strong germicide, non-poisonous, unirritating to the skin or to the tissues, inodorous, non-volatile, not destroyed by oxidation, non-corrosive to steel instruments, non-injurious to sponges, and inexpensive. In "salufer" (silico-fluoride of sodium) we have a substance which would seem to fulfil most of these conditions. Mr. W. Thomson, F.R.S.Edin., read a paper before the British Association at Manchester last year in which he explained the results of certain experiments he had made with respect to the antiseptic properties of some of the fluorine compounds. He had tried the effects, on flour paste and on meat chopped into small pieces and mixed with water, of a very large number of chemical compounds, and had found that those which had the most remarkable antiseptic properties were the compounds of fluorine, the neutral fluorides of sodium, potassium, and ammonium, and their fluosilicates. Fluosilicate of soda he found to be the best adapted for use as an antiseptic, it being non-poisonous, inodorous, and sparingly soluble in water. As it had only a very slightly saline taste, he said it might be employed in preserving food without communicating any taste to it. Mr. Thomson stated that a saturated solution which contained only 0.61 per cent. possessed greater antiseptic power for animal tissue than I in 500 perchloride of mercury solution.

For general surgical purposes I have been very well satisfied with perchloride of mercury, which is a most efficient antiseptic, and which is so very conveniently carried in the form of powders, each containing five grains of perchloride and five grains of sal-ammoniac, which quantity, dissolved in a pint of water, makes a 1 in 2,000 solution; but it has the great disadvantages of roughening and cracking the hands, of corroding steel instruments, and of being poisonous. Hence it is dangerous for syringing out large cavities—for example, psoas abscess; for washing out serous sacs—for example, peritoneum and pleura; or for irrigating the interior of the uterus after gynecological operations or in obstetric practice.

It is chiefly to find a safe and efficient antiseptic for such cases as I have during the past few months been using "salufer" most exclusively in my surgical work.

Before describing details of critical cases which incontestably prove the value of any antiseptic, it might be well to mention a few of the uses to which I have put "salufer"; and, unless otherwise stated, a solution of 20 grains to the pint of water is always understood, which proportion seems to be at the same time unirritating and efficiently antiseptic. They are as follows: in washing out the peritoneal cavity after laparotomy, here using 10 grains to the pint; in cases of strangulated hernia; in the radical cure for hernia; in excision of joints; in amputation of the arm, leg, and thigh; in washing out the pleural cavity; in the removal of tumours; in excision of veins; in ligation of blood vessels; in compound fractures; in osteotomies; in washing out the bladder; in washing out the uterus after curetting the interior, and after the removal of septic retained membranes; as a vaginal douche before and after Apostoli's operation for fibroid; in the irrigation of extensive ulceration in the rectum, where a poisonous antiseptic could not have been employed; in washing out the stomach; as an injection in gonorrhoea (10 grains to the pint); as an injection in otorrhoea; in syringing out large pelvic abscesses; as a gargle in hospital and in diphtheritic sore throat; as a nasal douche after removing polypi; for syringing out empyema of antrum; and in many other cases. My colleague, Mr. Wendelack Hewetson, tells me that he has used it extensively in ophthalmic and aural surgery, and that he is well pleased with its use as an antiseptic.

As I have no opportunity of testing "salufer" in obstetric practice, I have asked some of my medical friends to try it, and their reports have been uniformly satisfactory. My brother, Mr. Herbert Hobson, tells me that he has found it most efficient, both in syringing out the uterus and as a vaginal douche.

The following cases, for the notes of which I am indebted to my house-surgeon, Mr. Berkeley G. A. Moynihan, are given more in detail.

1. *Goitre* threatening asphyxia. Division of isthmus by galvanocautery. Skin incision four inches long. Drainage-tube introduced, and wound stitched up with catgut sutures. Tube removed on third day. Antiseptic dressings on third, fifth, and eighth days, the wound being then completely healed. The highest temperature was on the day following operation, being then 99.7° .

2. *Strangulated Inguinal Hernia*.—After the return of the gut a portion of the Omega loops of Treves) the neck of the sac was ligatured with No. 3 catgut. The wound was syringed out and a drainage-tube introduced. Dressing on first, third, sixth, and eighth days, the tube being removed on third day. All but the drainage opening healed by first intention. Highest temperature 99.6° , at every other time below 99° .

3. *Double Osteotomy* for extreme bowing of the tibiae. The right tibia was divided on December 8th, and three-quarters of an inch of the shaft of the bone removed. No drainage-tube introduced. The wound was uncovered for the first time on December 22nd, and found to be perfectly healed. Highest temperature 100.4° , the evening of the day after operation. Temperature never afterwards reached 100° . Left tibia divided on December 29th, and an inch and a quarter of bone removed. On January 11th, when the wound was uncovered, it was found to be perfectly healed. Highest temperature 99.5° . In both cases a catgut stitch was introduced.

4. *Varicocele* of enormous size, said to reach in summer to the knee. At the operation the veins were ligatured in four places, and the intermediate bundles of veins removed. No drainage-tube. On the seventh day the dressing was taken off, and, but for thickening and induration round the veins, the site of the wound could not have been found. Temperature never above normal.

5. *Removal of Enlarged Glands of Neck*.—Incision two inches long; four enlarged glands, two of them caseous, were removed. Small drainage-tube introduced. Dressings on third, sixth, and ninth days; wound healed by first intention. Highest temperature 99.2° .

6. *Radical Cure of Varicose Veins of Leg and Thigh*.—Two veins of the leg and the internal saphenous trunk were doubly ligatured, the ligatures being about half an inch apart, the intermediate portion of vein not being divided. The wounds, which were not drained, were not dressed till the eighth day, running an aseptic course, the highest temperature being 98.8° .

7. *Compound Fracture of Tibia and Fibula*.—About half an inch

of projecting tibia was removed, and the tendo Achillis was divided before the leg could be got into good position. The wound was enlarged for about an inch and a half, and syringed out with five pints of "salufer" lotion. The highest temperature was 100.2° the night after operation, never afterwards reaching 100° ; perfectly aseptic course.

8. *Radical Cure of Varicose Veins of Leg and Thigh*.—Ligatures applied in four places. Dressed on ninth day; course aseptic. Highest temperature 99.7° .

9. *Tubercular Salpingitis: Acute Peritonitis*.—An incision about three inches long was made through linea alba. Acute peritonitis with effusion was found, and as its cause a ruptured Fallopian tube, covered with miliary tubercles. After removing the diseased appendage, the peritoneum was washed out with "salufer" (grs. x ad Oj), and a Bantock's tube introduced. The case ran a perfectly aseptic course.

10. *Removal of Scirrhus of Breast*, of very large size, together with enlarged axillary glands. The whole breast and about six enlarged axillary glands were removed. The wound was of such large size that it was found impossible to bring the edges into apposition along the central part, where a gap of about three inches by two inches was left. Wound dressed on third and ninth day. The whole of wound, with exception of central part, was perfectly healed. Highest temperature 98.6° ; course perfectly aseptic.

11. *Macewen's Operation for Extreme Genu Valgum*.—The angle formed by the tibia, with a line continued down in vertical direction from the thigh, was 75° . Highest temperature 100.2° . Dressing never changed until twelfth day, when the wound was healed.

12. *Pyosalpinx*.—The abdomen was opened by an incision about an inch and a half in length. The distended and totally adherent Fallopian tube was accidentally burst, a large quantity of the most fetid pus escaping. The abscess cavity and the lower part of general peritoneal cavity (the upper being separated off by sponges) were well syringed out with about ten pints of "salufer" lotion (twenty grains to the pint). Keith's drainage-tube introduced. At subsequent dressings the discharge was found to be perfectly sweet. The temperature, which before operation had never been below 101.2° , fell after operation to normal, and has remained so since.

13. *Lipoma of Shoulder*.—Tumour, size of large orange, removed January 25th. Dressed on third day, when the drainage-tube was removed, and on the tenth, when the wound was quite healed. No pus was seen, and temperature normal throughout.

The following are the conclusions to which I have come, after an extensive and varied trial of the fluosilicate.

1. That "salufer" is an efficient antiseptic.
2. That the powder is a strong irritant, even acting as a caustic if dusted on a raw surface, and is, therefore, in that form, unavailable for surgical purposes.
3. That a solution of one grain to an ounce of water is quite strong enough for ordinary purposes, in that strength being apparently unirritating.
4. That a solution of ten to twenty grains to a pint may be safely used to syringe out closed cavities, even where one cannot be certain of all the fluid returning.
5. That the solution is unirritating to the hands, which is no small advantage to those operators whose fingers are easily irritated by the ordinary antiseptic solutions.
6. That the solution acts on the glaze of porcelain after long use, and corrodes steel instruments, but that sponges are unaffected by it. Mr. Thomson kindly suggested to me the addition of bicarbonate of soda to the solution of "salufer" to prevent it corroding steel instruments; this certainly diminishes its action on steel.
7. That a very convenient and comfortable antiseptic poultice may be made by soaking Gamgee tissue or absorbent wool in a hot solution (ten grains to the pint), wringing it free of excessive moisture, applying it to a wound, and covering with gutta-percha tissue.
8. That although for ordinary surgical work I may still employ perchloride of mercury, in all cases where there is danger of absorption, as in syringing out cavities, I shall employ "salufer."
9. That I believe "salufer" will prove to be of great use to obstetricians, it being both safe and efficient.
10. That it acts very efficiently as a deodoriser to the hands. After examining carcinoma of the uterus or rectum, by washing and steeping the hands in a saturated solution, the odour is removed more efficiently than it is by any solution with which I

am acquainted. Messrs. Reynolds and Branson have made some compressed tabloids, each containing forty grains, that is sufficient to make a quart of solution. They have also been good enough to carry out my wishes in making a dressing of "salufer" wool.

In all the cases related this "salufer" wool has been the dressing employed, a layer of gauze wet with the "salufer" lotion covering the wound, and intervening between it and the wool.

TREATMENT OF CONGENITAL HERNIA.

By LEWIS W. MARSHALL, M.D.,

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MR. TIMOTHY HOLMES called attention, in an address on "Children's Hospitals as Medical Schools," which was published in the JOURNAL of October 30th, 1886, to the absence of statistics in relation to congenital hernia and its persistency. Acting upon his suggestion I kept a record in 1887 of all cases occurring amongst my hospital patients, and at the commencement of this year tabulated them as follows, namely:

No. Cases.	Cured.	Not Well.	No Reply.
41	20	12	9

(all boys)

Each of these forty-one cases was treated by the wool-truss suggested first by Mr. Coates,¹ of Salisbury, and more recently referred to by Mr. Lund. This method commends itself to us because it can so thoroughly be carried out by any mother of ordinary intelligence, and efficient means of support are obtained at a trivial cost.

In analysing the forty-one cases I find that in every instance one of two things was noted, and sometimes both—either a congenital phimosis existed, or an imperfect urethral opening, and sometimes both.

Having recognised for many years that hindrances of this kind were a common cause of hernia in male children, I had not quite realised how very frequently the two co-existed as cause and effect. That they occupy this position is shown by the speedy relief gained by removal of the conditions referred to, either by circumcision—freeing the prepuce from the glans penis by passing a probe round between them, and maintaining this separation, or when necessary by slitting up the urethra.

From the twelve cases entered as "not well," I learn that in all some one or more of these urinary conditions still existed. In one case pertussis was present; in another, obstinate constipation; and in several, malnutrition, with very deficient muscular development.

We may fairly assume, I think, that at least half of those cases in which no reply had been given were cured. In ten of the twelve cases still showing a hernia a phimosis had to be treated more energetically than had been done before, or the urethra was enlarged. Considerable objection is often raised to circumcision, and the simpler method of dilatation has therefore been adopted first in some cases. I am disposed to think that the importance of the size of the orifice of the urethra has been to some extent lost sight of, because cases have not uncommonly come into my hands in which circumcision, having been practised by another surgeon, the difficulty in passing water still remains, and is relieved at once by slitting the urethra. I regret that in the notes no mention has been made of the number of double herniæ, but my impression is that there were not more than half a dozen. All the children were under three years of age.

The practical outcome of this inquiry is that if the primary factor in the production of the hernia is duly recognised and dealt with, the pressure given by the wool-truss is ample to ensure closure of the canal when the nutrition is maintained. As a proof of the importance of this statement in reference to the nutrition may be quoted the fact that "breast" babies always do best. Nothing need be said by me about the best form of wool, etc., because Mr. Pye has so fully described all these details already, and the opinion expressed by him I can endorse.

¹ Vide paper by Mr. W. Pye, JOURNAL, May 23rd, 1887.

Messrs. MANSSELL and Co have forwarded us mezzotint portraits which they are publishing of Sir Andrew Clark, Sir Joseph Lister, and Sir Spencer Wells. The plates, which are 11½ × 9 inches, are in brownish-black upon plate paper 27 × 20 inches. The trial proofs have been approved and signed in each case.

CLINICAL MEMORANDA.

1 SEIZURES CAUSED BY OXYURIDES EPILEPTIFORMULARES IN AN ADULT.

VERMIFORM (March 24th, p. 642, and March

RECENT numbers of the JOURNAL have contained illustrations of the "epileptic attacks." The following case of intestinal irritation and convulsions entitles it to a brief description. It has features of its own which are noted by a man, aged 57, but

In December, 1885, I was first consulted by a man, aged 57, but of a much older as well as somewhat emaciated appearance. He complained that for fully a year he had been sometimes accompanied by an unpleasant odour issuing from the chest, and always followed by unconsciousness. The unconsciousness was at first very brief, the man supporting himself by clinging his bench firmly. Latterly, however, he had on several occasions fallen down, and the body had presented convulsive manifestations, as witnessed by his family and others. He was nervous and irritable from several attacks, Sunday being his worst day. He was not

The family history exhibited no acknowledged disease, but the patient claimed to have been always a healthy man prior to the onset of this affection. After I had very closely examined him, however, as to details regarding his bodily state, he admitted great hesitation—owing to the delicacy of the subject, that he had long been troubled with threadworms, which he tried to get rid of by the use of vermifuge.

Assuming a possible cause in these vermin, I resolved on a course of treatment directed against them upon his other attacks. The result was that, for six weeks afterwards, there was no more convulsive attack, though a few of the *petit mal* seizures. The patient then became careless of treatment, with the effect of again bringing the graver phenomena. The same alternation between improvement and self-neglect has been the man's history since, but on the whole, considerable gain during the past three months.

I may mention that at one stage I prescribed the bromides, but the man's broken down condition quickly increased, and one of the worst epileptoid seizures occurred during their administration, and they were soon withdrawn. By careful observance of dietetic, vermifuge, cathartic, and tonic treatment, the patient produces his ailment to rare attacks of the minor form, but has never been able to get completely rid of them. Whether by more prolonged adherence to treatment he might effect cure, or whether that is too much to hope for, taking into account the difficulty of finally exterminating the parasites in persons well on in life, and also the morbid excitability of the cerebrum acquired by long subjection to special irritation, I cannot affect to say.

Perth.

JAMES FERGUSON, M.B., C.M.

TOXICOLOGICAL MEMORANDA.

CHEMICAL NOTES.

A Simple Test to Distinguish the Carbonates from the Bicarbonates of Potassium and Sodium.—A delicate and simple test for distinguishing a carbonate from a bicarbonate will be found in phenol-phthalein. Add a drop of phenol-phthalein solution to a carbonate, and it will be turned to a bright red, but with a bicarbonate there will be no change of colour. I have prepared test-papers which are very convenient; they will detect 1 part of K_2CO_3 in 1,000 parts of water. These papers may be obtained from Mottershead and Co., 7, Exchange Street, Manchester.

Colour Test for Strychnine.—There are many colour tests for strychnine, but I believe the chromate of zinc used in the same way as permanganate of potassium, deserves a place in our text-books, as it is superior to some.

Bacup.

JOHN BROWN, L.R.C.P. Lond.

SURGICAL MEMORANDA.

FAILURE TO FIND THE COLON IN LUMBAR COLOTOMY.
In Mr. H. Allingham's valuable remarks on the causes of failure to find the colon in lumbar colotomy, a considerable difference occurs in the tables of statistics quoted as to the presence or absence of a complete peritoneal investment or meso-colon on either side. I think there is one circumstance which has a very important bearing

on this condition, and that is the amount of distension of the bowel, not only of the large intestine itself, but of the whole peritoneal cavity. In the great majority of bodies examined in the post-mortem room, where the intestines are collapsed, and especially in multiparous women, the descending colon is found completely invested by peritoneum, with frequently a mesentery of half an inch or more in length. Now, the effect of gradual distension of the gut by the injection of air is (as can easily be proved by experiment) to cause the bowel as it distends to encroach on its mesentery, shortening and separating its two surfaces, the bowel at the same time coming into close contact with the abdominal wall, and this occurs all the more readily if the parietal reflections of the mesentery are themselves stretched apart by the general distension of the peritoneal cavity. For the peritoneal investment of the hollow abdominal viscera accommodates itself to their varying size more by a sliding or a folding movement than by an actual stretching of the membrane itself.



Diagram showing the effect of distension of the colon on its peritoneal investment.

With regard to the practical application of these remarks, in the operations I have witnessed no difficulty has occurred in finding the bowel in cases where there has been distension, whereas when the bowels have been empty difficulty has occurred, and in the first case on which I operated a meso-colon of two inches in length was found only after opening the peritoneal cavity. In such cases, then, if the gut cannot be distended with air at the time of the operation (a somewhat uncertain proceeding) it would be better, as Mr. Allingham suggests, to open the peritoneal cavity and draw out the bowel.

C. J. BOND, F.R.C.S.,

Honorary Surgeon, Leicester Infirmary.

TREATMENT OF CARBUNCLE.

I HAVE tried the expectant treatment of carbuncle recommended by Paget; but find it so long, tedious, and painful to my patients that I have completely discarded it. The treatment by excision and scraping is too severe to be generally adopted in private practice, although apparently very successful.

I have adopted the following for the last three years, to which I have added the hypodermic injection of cocaine. I inject into the carbuncle hypodermically half a grain of hydrochlorate of cocaine, and wait about five minutes until the skin is quite anaesthetic; then I make a small incision into the centre of the carbuncle with a tenotomy knife, and insert a small sharp piece of potassa fusa, and then push it home. Afterwards a piece of belladonna plaster is cut circular, a little larger than the carbuncle, and placed over it. The plaster serves the double purpose of retaining the caustic, and of alleviating the pain. This is kept on for eight hours, and then it is taken off, and hot linseed-poultices are applied for the same length of time. The result is that the patient always recovers about three days after the commencement of the treatment, which in this way is carried out almost painlessly.

ROBERT MAIN, M.D.

East Isley, Berks.

GYNÆCOLOGICAL MEMORANDA.

CASE OF ENCYSTED SEROUS PELVIC PERITONITIS.

FOR seven weeks E. R., aged 20, single, had complained of pain all over the stomach. The pain, felt more especially on the right side, radiated down the inside of the right thigh as far as the knee. This symptom developed at a menstrual period, on the fourth day of the flow, and the hæmorrhagic discharge continued thereafter for fourteen days, the usual length of time being seven days. The temperature was 101.4° F. Pain was experienced prior to and during the act of micturition. The abdomen, at first slightly distended, gradually became occupied by a distinctly pyriform fluctuating tumour, reaching to above the umbilicus. A plastic deposit in the pelvis could be felt on vaginal examination, close to the cervix on the right side. The abdominal tumour and uterus moved *en masse*.

The cystic swelling gradually lessened in size, and in five months had totally disappeared, the only evidence of pre-existing

inflammatory change being a deviation of the uterus to the right side of the pelvis. The encysted effusion simulated closely an ovarian cyst.

JAMES OLIVER, M.D., F.R.S. Edin.,
Assistant Physician Hospital for Women, Soho, W.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

PUBLIC HOSPITAL, GEORGETOWN, BRITISH GUIANA.

A CASE OF TREPHINING FOR CORTICAL BRAIN LESION, GIVING
RISE TO EPILEPTIFORM SEIZURES AND PARALYSIS,
AFFECTING MAINLY LEFT FACE AND
LEFT UPPER EXTREMITY.¹

(Under the care of ARTHUR RANNIE, M.B.)

THAT cerebral surgery is still in its infancy, few who have watched its development of late years will be disposed to deny. As yet but a small number of operations have been placed on record as performed for the express purpose of relieving conditions diagnosed as due to localised disease of the brain or its membranes. It is chiefly, therefore, with the view of adding to the statistics of the subject, that I desire to record the following case which, however, like all other cases of cerebral disease, has some features peculiarly its own.

The patient was a black woman, aged 35, a native of the colony. She was the subject of tertiary syphilis. For about eighteen months prior to her last admission, she had suffered much from intense pain in the head, referred by her to the right frontal and parietal regions. With this pain, which was irregularly intermittent in character, were associated marked tenderness of the scalp over the regions mentioned, and a discharge from the right ear, both symptoms intermitting with the headache. The ear discharge was usually thin and watery, but occasionally became thick, yellowish, and offensive, and was ascertained to be due to catarrh of the external auditory meatus, there being no evidence of disease of the middle ear or of the bony meatus.

She had also suffered much from buzzing and singing sounds in the ears, visual hallucinations, and gloomy dreams. Her whole mental existence became affected, and about a year ago, while being treated in the public hospital for the head pain, her mental condition was characterised by marked exaltation. Since then she had been twice under treatment here for considerable periods of time, her mental condition on those occasions being characterised by gloomy despondency and peevishness, due to the painfully distressing head symptoms above mentioned. The treatment consisted of large doses of the bromide and iodide of potassium, with ferruginous and other tonics, and the application of iodine liniment to the seat of pain. She was last discharged from the hospital about a month ago, at her own request, being considerably relieved.

She was readmitted at midnight on June 5th, 1887. She stated that she had had a fit, causing her to lose consciousness; that she recovered from the seizure very quickly and walked to the hospital at once. On admission, she seemed a little dazed and confused, but otherwise presented nothing worthy of note. A mixture containing iodide and bromide of potassium was prescribed for her. On the morning of June 7th, while at breakfast, she had an epileptiform seizure, lasting two or three minutes, and accompanied by complete loss of consciousness. While she was being put to bed a second seizure occurred, which was witnessed by myself. The left angle of the mouth became retracted and elevated, and this was accompanied by conjugate deviation of the head and eyes to the left side; the left upper extremity then became adducted, the forearm flexed at right-angles with the arm, wrist bent forwards, and fingers flexed upon the palm; left lower limb stiffly extended; the right upper limb was carried above the head and loosely flexed; the right lower limb was stiffly extended during the tonic stage of the seizure. This stage was very short, and was succeeded by clonic spasms affecting mainly the left upper extremity and left facial muscles, the left

¹ Read at a meeting of the British Guiana Branch of the British Medical Association.

leg being but slightly affected, and the right limbs and right facial muscles not at all. Of the left facial muscles, the orbicularis oculi and the muscles which retract and elevate the angle of the mouth were mainly affected. There was moderate and equal dilatation of both pupils during the seizure. The clonic spasms persisted for about a quarter of an hour, when they were checked by the exhibition of 30 grains of chloral hydrate. During the clonic stage the patient largely recovered consciousness, and was able to apprehend to a great extent the meaning of what was said to her, and to execute voluntary movements with her right limbs.

After the effects of the chloral had passed off, there was found to be marked paresis of the left side of the face and of the left upper extremity, as also, though in a much less degree, of the left lower limb. There was slight proptosis of the left eyeball, with slight drooping of the upper eyelid. There was a decided droop to the left side during progression.

On June 8th Dr. Williams, Acting Surgeon-General, saw her in consultation with myself, and it was decided to operate with the view of removing a lesion—probably a syphilitic growth in the membranes—involving the arm and face centres in the right cerebral hemisphere.

The operation was performed by Dr. Williams on June 9th, the patient having had in the meantime four slight seizures. Her temperature before the operation was 101°, and she complained much of severe head pain a little in front of the right parietal eminence. The site selected for trephining corresponded to the right ascending frontal convolution. With an inch trephine an opening was made in the skull, which was found to be much thicker than normal and extremely dense. The dura mater beneath was thickened, and on cutting it a small quantity of puriform fluid ran out; this was found to proceed from the centre of a small degenerating gumma in the dura. As the disease appeared to extend backwards, the trephine was applied again, and a half-circle of bone removed from the posterior edge of the original trephine opening. This was subsequently found to have been unnecessary, as the disease was strictly localised, scarcely extending more than a quarter of an inch beyond the edge of the original trephine opening in any direction. The growth and some portion of the thickened and diseased dura were removed. Beyond slight local inflammation of the inner membranes, giving rise to opacity and thickening, the brain presented nothing abnormal at the site of operation. A little brain tissue was removed during the operation. The wound in the scalp—a crucial incision—was carefully sewn up, only a small opening being left for drainage. The wound was then dressed with sublimated lint. Throughout the operation the wound was irrigated with warm sublimate lotion (1 to 1,000). The patient passed a good night after the operation, had one slight fit, and slept a little. The head pain was relieved, only a slight gnawing sensation being complained of at the site of operation.

On the day after the operation another slight fit occurred, not accompanied by abolition of consciousness. The left limbs were convulsed in the extended position; left facial muscles involved as before. Paretic symptoms decidedly relieved.

June 11th. She had two slight seizures during the night, and fell out of bed.

June 12th. No fits since the day before. She was bright and cheerful, suffered no pain, ate well. There was still marked paresis of the left arm and left facial muscles, more especially of the former.

June 16th. Her temperature, which had been fluctuating between 99° and 101° for several days, suddenly rose to 103°. The wound was dressed for the first time, and found to be nearly healed. A little thick reddish fluid, free from smell, exuded from one of the corners of the wound. It came from the trephine opening, and appeared to consist of degenerated blood. By gentle pressure the trephine opening was emptied of this fluid, and a corner of the scalp wound opened up to allow of free drainage.

June 17th. Temperature this morning 99°. Great improvement in paretic symptoms.

June 30th. The further progress of the case up to this date had been eminently satisfactory. She now walked without the slightest droop, and although motor power in the left upper extremity was still considerably impaired, she was steadily improving in this respect. The left facial muscles were still lacking in tone to some extent. There was no headache and no tenderness of scalp. No further seizures had occurred. Her facial expression was bright and cheerful.

The wound was found to be quite healed at the third dressing, and has given no trouble since then. There has been no tendency to hernia cerebri since the operation.

REMARKS BY MR. RANNIE.—So far as I am aware, this is the second occasion on which the operation of trephining has been performed in this colony for localised disease of the brain or its membrane. In the early part of last year Dr. Grieve, Surgeon-General, operated upon a woman under my care for the relief of coma and limited convulsive seizures, supposed to be due to meningeal hæmorrhage, but which were afterwards found to have been caused by meningitis. The patient was temporarily benefited by the operation, but after a few days the convulsions recurred, and she gradually sank. The temporary relief afforded by the operation was doubtless due to the lessening of intracranial tension.

The main diagnostic features of the case I have just related were the existence of active syphilitic manifestations, the persistent localised head pain and tenderness of scalp, the sympathetic ear discharge, and the limited nature of the epileptiform seizures and subsequent paralysis. Upon the latter mainly the diagnosis of the situation of the disease was based, and the result of the operation tends to confirm, if any confirmation be needed, the doctrines of cerebral localisation.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, MAY 15TH, 1888.

Sir JAMES PAGET, Bart., F.R.S., President, in the Chair.

Morbid Growths Committee.—The report of the Morbid Growths Committee on Dr. Griffith's specimen of tumour in the neck was read by Mr. SHATTOCK. The report stated that the whole of the morbid growth was contained within the vascular system. The occurrence of growths within veins was rare, and the exclusive presence of the growth in the veins was, so far as was known unique. The growth could not be termed an angio-sarcoma, but was a dendritic sarcoma arising from the vessel-walls.

Dupuytren's Fracture.—Mr. JONATHAN HUTCHINSON, jun. exhibited a specimen of Dupuytren's fracture, removed by amputation from a man aged 25. A heavy weight had fallen on the outer side of the foot, breaking both malleoli as well as the fibula about three inches from the ankle. The lower fragment had been separated from the tibia, from which it had pulled off a piece of bone corresponding to the attachment of the interosseous ligament. The astragalus occupied the gap thus formed, and the distance between the malleoli was increased. Dupuytren's might be regarded as an exaggerated form of Pott's fracture; it was so rare that few specimens existed in the museums of the United Kingdom, the best being Sir A. Cooper's at St. Thomas's and Mr. Thomson's in Dublin. Dupuytren stated that it occurred in the proportion of 1 in 200 cases of fracture of the fibula. At the London Hospital it occurred once (possibly twice) to 140 cases of Pott's fracture and 210 cases of fracture of the fibula. Forcible eversion of the foot, which caused the outer border of the astragalus to act as a wedge, seemed to be the usual cause; and generally the interosseous ligament tore off its attachment to the tibia. The upper fragment of the tibia was retained in position by the interosseous membrane, and the extent to which the astragalus rose upwards depended on the exact point at which the fibula was broken.

Histology of Cancer and Normal Tissues after Sterile Incubation.—Further experiments on the infectivity of cancer, by Messrs SHATTOCK and BALLANCE, were described by the latter. After referring to their previous papers on the possibility of maintaining portions of tumour incubated for prolonged periods in the sterile condition, the results of microscopic examination of such portions of tissue were related. The cancer tissues were kept continuously at 100° F., and were found to present certain peculiar appearances which were not observed in healthy tissues thus treated. Zeiss's 1/5th immersion combined with ocular 1 or 3 was used for the examination, and logwood and fuchsin were found to be the most satisfactory stains for showing the nuclear changes. As a typical example, a specimen of mammary scirrhus after eight days' sterile incubation was described. The nuclei of the epithelioid cells were very granular; the nuclear matrix was either slightly stained or colourless. In some of the nuclei there was a distinct network (nucleo-plasm). There were also large distinct granules, nucleoli; the nuclei had a delicate continuous outline, even when

projections of the contained granules gave them a spinous form. In some cases the granules lay free in the cell-protoplasm, but were still connected with the nucleus by thread-like processes. The granules, which varied in size, were round, oval, or comma-shaped. The corpuscles of the fibrous tissue contained a deeply-stained nucleus, and around it the cell protoplasm formed a hazy zone containing granules, which were also found in the fibrous tissue, thickly and uniformly distributed. These appearances were found in numerous carcinomata and in sarcomata. It could not be positively stated that incubation was necessary for the production of this condition, as somewhat similar granules might sometimes be seen in perfectly fresh sections of carcinomata; in some cases the granules in the epithelial cells appeared to have escaped, collecting in the fibrous tissue. The appearances presented by the elements of normal tissue, either before or after incubation, were entirely distinct. The nuclei at first became granular, but well-defined, and presented none of the budlike processes above described as granules. After prolonged incubation the nuclei ceased to stain, and became indistinguishable from the cell protoplasm. In the testicle only did a process occur at all comparable to that observed in cancers; the liberation of spermatozoa was normally accompanied by a disintegration of the nuclei of the epithelium of the nutritive layer; no budding from the nuclei, however, had been observed. Although no explanation could as yet be afforded of the import of the peculiar appearances observed in cancer, it seemed probable that they had an intimate bearing on the local and general infective processes. It was thought by no means improbable that these detached buds (granules) might by their dissemination be one means of conveying infection to the lymphatic glands, and, like the spermatozoa which escaped from the spermatoblastic cells of the testicle, be the *semen* by which the growth was carried forth in other parts of the body. In a previous communication the authors had compared the process to that known as "rejuvenescence" in certain of the protozoa, and it might be that such nuclear particles were capable of subsequent development into cells; or the particles might enter the cells of the organs to which they were carried, and excite in them a tissue process similar to that existing in the primary tumour; if this were so they might be called *cancerzoa*. Or the process might be viewed in relation with the symbiosis of fungi and algae to produce lichen. Sir John Simon, in a private letter, had said: "Substitute for alga a bit of normal human body, say a bit of lower lip; substitute for fungus your amoeba, or whatever else it may be; the cancer which begins in the lip and spreads in its own type through the body is the lichen of that analogy." Gussenbauer (Z. f. Heil., B. ii, 1880) had stated that the secondary infection of lymphatic glands was effected by small granules, presumably derived from the primary tumour, which entered the cells of the glands, and incited them to multiply or to take on the characters of the primary growth. In reply to Dr. PERCY KIDD, Mr. BALANCE said that in some cases fuchsin, and in others logwood, stained the granules best.

Sloughing of the Bladder.—Mr. BRUCE CLARKE showed specimens from a case of sloughing of the bladder which had occurred in a man, aged 36, admitted with retention of urine of three days' duration. A small catheter was passed up a railroad catheter and retained, three or four pints of urine draining away. Much blood passed, and it was conjectured that the bladder contained blood-clot. Though the urethra admitted a No. 10 English catheter five days after admission, the patient was unable to void urine spontaneously, and, in spite of antiseptic precautions, the urine became foul and ammoniacal. A month after admission, perineal cystostomy was performed, but was followed by only temporary improvement; suppuration continued, and he died two months after admission. Examination after death showed that the cæcum was adherent to the upper surface of the bladder, which was gangrenous in its upper part; there was a collection of pus between the bladder and the rectum, but shut off by adhesions from the general peritoneal cavity. The prostate was natural. The urethra had sloughed round the aperture of the wound. There was no stricture; the kidneys were in a condition of tubal nephritis. Sloughing of the mucous membrane, or even, as in this case, of all the coats of the bladder, was not very uncommon in connection with central nervous disease, and in pregnant women sloughing took place from pressure, or in consequence of an acute attack of retention of urine, but he had been unable to find any case which was the direct counterpart of the case described.

Sarcoma of the Urinary Bladder.—Mr. VINCENT JACKSON showed

a bladder with a sarcomatous tumour occupying its interior. The specimen was removed from a gentleman, aged 76, who died two years and a half after the commencement of the first symptom, which was hæmaturia, at first slight and afterwards profuse. The tumour occupied the base of the bladder, covering the trigone and extending forwards to the prostate, the posterior wall of the bladder being unaffected. The growth was single, and although not distinctly pedunculated, yet the attached portion was circumferentially smaller than the free portion. The microscopic examination (made by Dr. Heneage Gibbes) showed that the tumour was made up of rounded cells varying in size in different parts, and a fibrous stroma. Throughout it ran a large number of vessels in direct contact with the cells. In some parts the cells were small and densely packed, and the stroma could only be made out with difficulty; in other parts the cells were large, and the stroma surrounded each cell; other parts were intermediate between these two conditions. The structure of the tumour varied in different parts; that portion containing large round cells surrounded by stroma resembled what had been described as alveolar sarcoma. In other parts it resembled a round-celled sarcoma of the ordinary type, but differed in being much more vascular than they usually were. In the most delicate parts the stroma somewhat resembled that found in myxomata.

Necrosis of the Pyramids of the Kidney.—Dr. TURNER showed the left kidney of an obese female, aged 60, who died with gangrene of the right foot and leg; she had also glycosuria. The papille, with a great part of the pyramids of the kidney, were necrotic, and partially detached from the living tissues, which appeared unchanged up to the line of separation. The organ appeared otherwise healthy. There was no pyelitis. The other kidney and the bladder were normal. There was fatty infiltration of the heart and atheroma of the aorta, but no valvular lesion. Two specimens of similar lesions of the kidney previously exhibited to the Society were referred to. The simultaneous necrosis of all the pyramids was attributed to thrombotic obstruction of the arterioles, due to defect of the general nutrition and to some disturbance of the local nutritive function. The separation of the sequestra instead of their absorption, as in the case of cortical necroses, was attributed to the contact of the necrosed tissue with the urinary secretion.

Peculiar Isolated Fracture of the Skull.—Mr. TARGETT exhibited a portion of a skull showing an isolated fracture of the base of the skull, produced by slight violence applied to the mastoid region; the patient, a boy, died of suppurative meningitis; there was an old history of otorrhœa. The fracture ran through the left petrous bone.

Malignant Growths of Pleura and Bronchial Glands.—Dr. PITT showed specimens from three cases of intra-thoracic malignant growths. The first specimen was from a woman, aged 61, who had been ill for one year, with symptoms of chronic chest disease, and physical signs of fluid in the left pleura. A small quantity of blood-stained fluid was drawn off. She had attacks of hemiplegia, first of one side and then of the other, and died. The necropsy revealed a white cuirass-like growth, involving the whole parietal pleura on the left side, and the pleural cavity contained blood-stained fluid. The lung was capped at the apex by new growth, and collapsed throughout, but unadherent below; the bronchial, aortic, pelvic, and inguinal glands were infected; the other lung and the duodenum contained small growths. The growth was a cylinder-celled epithelioma. Dr. Pitt thought that the history and *post-mortem* appearances rendered it highly probable that the growth was a primary affection of the pleura. He also exhibited two specimens of primary cancer of the bronchial glands.—Mr. SHATTOCK thought that few would agree with Dr. Pitt in believing that a columnar-celled epithelioma could originate in the pleura. There were well-recognised primary sources of such growths within the chest. He would ask Dr. Pitt whether the tracheal and œsophageal glands could be certainly excluded as sources of origin of the tumour? Few competent pathologists, he thought, would believe that a columnar-celled carcinoma could grow primarily from the pleura.—Mr. GODLEE endorsed Mr. Shattock's observations, and supplemented them by observing that the secondary tumours were often large and abundant in number after small primary tumours of the intestine.—Dr. COLLIER mentioned a case of scirrhus cancer of the pleura without any discoverable primary tumour.—Dr. PERCY KIDD had seen cases of carcinoma of the bronchial glands without any primary growths.—Mr. R. W. PARKER suggested that the primary growth might be the growths in the other lung.—Dr. PITT was alive to the obvious difficulties

in accepting the explanation he had put forward; but the distribution clearly pointed to the growth being primarily pleural.

Charcot's Disease.—Dr. PITT also described the microscopic appearances of the spinal cord from the case of Charcot's joint disease described to the Society by Dr. Collier earlier in the session. The membranes were thickened posteriorly; the cord was shortened and distorted. There was extreme sclerosis of the exterior part of the posterior column, and degeneration of Goll's columns. But the most remarkable feature was wasting and degeneration of Clarke's columns on the right side; in places the posterior nerve-roots were degenerated.—Dr. ORMEROD asked whether the ascending cerebellar tract were degenerated.—Dr. PITT replied in the negative.

Card Specimens.—Mr. COLEMAN: Polypus of Umbilicus.—Mr. S. PAGET: (1) Unusual Fracture of Head of Humerus; (2) Adenoma of Tongue.—Dr. COLLIER: Fracture of Longer Pastern Bone of Horse.—Dr. ORMEROD: Cancer of Gall-Duct.—Mr. V. JACKSON: Stone from Vesical Diverticulum removed by Suprapubic Lithotomy.—Mr. FENWICK (for Dr. HARRIS): Bilharzian Carcinoma of Bladder.—Mr. STONEHAM: (1) Tubercle of Prostate and Vesiculæ Seminales; (2) Cancer of Prostate, Prostatectomy; (3) Melanotic Cancer of Bone; (4) Two specimens of Cancer of Oesophagus necessitating Tracheotomy; (5) Hematocele from difficult Breech Delivery; (6) Cyst of Peritoneum.—Mr. BATTLE: (1) Duct Cancer of Breast; (2) Very Early Malignant Disease of Testis; (3) Sarcoma of Lower Jaw associated with Necrosis.—Dr. B. O'CONNOR: Hydatids of Liver and Spleen.—Mr. LUNN: (1) Tabetic Foot; (2) Calvaria, Clavicle, and Lower Jaw from a case of Osteitis Deformans; (3) Multiple Epiphysitis.—Dr. HEBB: (1) Cancer of Thyroid Isthmus; (2) Tuberculosis of Breast.—Dr. PENROSE: Aneurysm of the Heart.—Mr. SHATTOCK: (1) Two Mammiferous Dermoid Cysts of the Ovary; (2) Secondary Duct Cancer of Breast in Ribs.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 11TH, 1888.

W. II. BROADBENT, M.D., F.R.C.P., President, in the Chair.

A Case of Rupture of the Urinary Bladder, in which the Rent was Sutured.—Mr. SYMONDS read notes of the case. The patient was a child, aged 7, who was thrown from Blackfriars Bridge, falling into a passing barge on to her abdomen. She was admitted in a state of extreme collapse, and for some time it was feared she would die. The abdomen was full and tender, chiefly over the hypogastric region, where was a prominence exactly resembling a moderately distended bladder. No urine having been passed for about six hours, a No. 1 catheter was inserted. At first a few drops of clear urine were withdrawn, and then a drain of dark blood. Under chloroform a catheter was again introduced, and a small quantity of dark fluid removed. An attempt was made to pass the catheter through a possible rent in the viscus without success. The abdomen was at once opened, for though the catheter passed easily into the bladder, no reduction was effected in the dull prominence in the hypogastric region. A large quantity of dark fluid (having a faint urinous odour) immediately escaped. The rent was not at once found, but on passing a steel sound into the bladder it protruded just below the apex. There an irregular rent, an inch and a quarter long, was found, involving partly the peritoneal, but chiefly the extra-peritoneal surface. It was Y-shaped. The fold of peritoneum passing from the bladder to the abdominal wall was much lacerated, and the edges of the bladder were much torn. About twenty Lembert's sutures were inserted, the peritoneum was washed out with weak carbolic acid lotion and perchloride of mercury solution, and the abdominal wound closed. A catheter was tied into the bladder. For a time the child did well. Then the catheter irritated her, and was removed. She never fully recovered from her collapse, passing from it into a restless, non-ferverish condition. Fearing an accumulation of urine and inflammatory products, the abdomen was reopened on the sixth day, but nothing was found. Next day urine escaped through the wound, and the child died on the eighth day. At the inspection a collection of pus was found on the left side of the bladder, extending into the left ilio-lumbar region. The peritoneal part of the wound was soundly healed, but the non-peritoneal part was gaping widely, the sutures having torn through. The urine had escaped, and had set up the suppuration. There was no general peritonitis. There was separation of the right sacro-iliac synchondrosis. In reviewing the case, Mr. Symonds said that he considered the best plan would have been to have

closed the peritoneal part of the rupture and the rent in the anterior false drainage-tube into the bladder. The edges of the rent were ragged and bruised, and, though turned in, the muscle did not unite, nor could it be expected to do so. The case, he pointed out, was a good illustration of the necessity of leaving the extra-peritoneal part of the rent open. One point in the diagnosis was important, the prominence representing the bladder was due to the urine, the fluid not having formed a boundary, the pelvic cavity above it the small intestine for part. PRESIDENT called attention to being quite empty of bowel.—The opinion of Fellows on the points at issue, and asked for a record of the point raised by Mr. subject.—Sir WM. MAC CORMAC said that the two cases he had himself Symonds was one of importance. It would be able to suture in self operated upon he had the good fortune. He thought that in both the intra- and extra-peritoneal ruptures would be the better most cases the closure of the entire wound would be the better treatment. The conditions were so far from being healthy, and, of injury that the bladder-walls and urines in the recorded case therefore, disposed to heal.—Mr. BENNETT said that on account of the was an extremely unfavourable one, not only extensive extreme shock, but on account of the irregularity of wounds did laceration of the bladder. Extra-peritoneal parts and provision not heal so readily as those within the peritoneum. It was a disastrous course always to be made, by drainage, to avert the danger, and with sequences of the giving way of the extra-peritoneal wall. MAC CORMAC said extravasation of urine and suppuration.—Sir WM. MAC CORMAC inserted. he had taken it for granted that a drainage-tube was inserted.—Mr. It was a necessary part of the operation in such cases. SYMONDS, in reply, said that the non-insertion of the drainage-tube was a matter of great regret to him, but the wound appeared to him so securely closed that it seemed unnecessary. He thought that it was a most desirable thing to do, especially in such a case, where the lacerated and bruised edges were not unlikely to give way. He did not, however, consider a drainage-tube necessary in a case of intra-peritoneal rupture.

Acute Parenchymatous Tonsillitis, or Quinsy, treated by Cocaine.—Dr. DE HAVILLAND HALL read notes of three cases. Case I.—A labourer, aged 28, was admitted into the Westminster Hospital on September 28th, 1887, suffering from quinsy. He had had two similar attacks in the last five years. On admission, he had been ill four days. The right tonsil and adjacent soft parts were enormously swollen, and he was unable to swallow without the greatest difficulty and pain. On the 30th there was complete inability to swallow, but, after painting a twenty per cent. solution of cocaine freely over the whole of the fauces, the patient was able to swallow some bread and milk. The same night the left tonsil became affected, and the cocaine solution was applied again next day with an equally good effect, and the day following he was able to swallow bread and butter. No suppuration occurred. The patient left the hospital quite well after being in one week instead of four and three weeks respectively, as on the two former occasions. Case II.—A publican, aged 25, was seen in consultation with Mr. Wright at Kennington on October 26th, 1887. When seen, the patient's complexion was dusky; he was suffering from some dyspnoea and great dysphagia. Both tonsils and the soft palate were greatly swollen, and were covered with a viscid secretion, but there was no false membrane. Pulse 120, feeble. Urine, specific gravity 1030, loaded with albumen. The patient's condition was a most anxious one. The throat was swabbed out with a twenty per cent. solution of cocaine, and the application was repeated in ten minutes. Five minutes later, the patient was breathing more easily, and was able to swallow half a pint of egg-milk, and brandy. During the next two days, applications of cocaine were made night and morning, and one on the third day. The patient gradually improved, no suppuration occurred, and a week later the urine was free from albumen, and he was well. Case III.—A porter, aged 39, attended at the Throat Department of the Westminster Hospital on November 16th, 1887, complaining of sore throat and inability to swallow for thirty-six hours. He was previously quite well. The left tonsil and adjacent parts were swollen, and there was a yellow patch on the tonsil. Pulse 88, fair volume. Temperature 102.2°. The urine contained a trace of albumen. A twenty per cent. solution of cocaine was applied, and the patient was soon able to swallow half a pint of bread and milk. Four days later the patient had no difficulty in swallowing and was practically well. In all three cases, as soon as the patients could swallow easily, tincture of the perchloride of iron, with or without quinine, was ordered. Dr. de Havilland Hall pointed out

at cocaine had a twofold action in these cases; it diminished the sensibility of the parts to which it was applied, and at the same time lessened the blood-supply, hence deglutition was much facilitated. He also thought that it checked suppuration. He advised the throat to be sprayed out with a solution of bicarbonate of sodium, ten grains to the ounce, before the cocaine was applied; this means less cocaine was needed, as it appeared that cocaine acted more efficaciously in the presence of an alkali.—After some remarks by Mr. STOKER and Dr. ALEX. MORISON, Dr. SEMON said he had seen cases in which cocaine had been too freely used. Patients obtained cocaine pastilles from the chemist, and used them indiscriminately. A lady suffering from hay asthma, with cough, coryza, etc., being ordered a 10 per cent. solution, procured one of 20 per cent., which she used occasionally for two years to the nostril. One night, after so using it, she awoke from sleep feeling very ill, and with her heart's action very regular. She recovered after a time, and had since then had a wholesome fear of cocaine. Another patient, a gentleman, had severe poisonous symptoms from the use of only the sixth part of a grain. In fact he (the speaker) was of opinion that some patients could not use it. On the other hand, he had seen a patient suffering from tonsillitis, who had had aphagia for twenty-four or thirty-six hours, become able to swallow with some comfort only ten minutes after an application of cocaine to the fauces.—Dr. HALL, in reply, mentioned that last week he had used a 10 per cent. solution of cocaine to the nostril of a young and strong man, who was very strongly affected by it, became faint, and had to lie down for nearly an hour before the effects passed off, although ether and other stimulants were given. He always applied the solution now with a brush, all the cases in which upward symptoms had showed themselves having been when he used the spray. He observed that peri-tonsillar inflammation seemed to take place in some cases when practically no tonsillar issue was left. He thought that cocaine was only of use in parenchymatous tonsillitis; the same good results had not followed its use in follicular tonsillitis.

Complete Bilateral Paralysis of the Vocal Cords, the Result of Acute Laryngitis: Recovery.—Dr. PERCY KIDD read notes of this case. The patient, a pale, thin woman, aged 37, the subject of chronic bronchitis, complained of shortness of breath and loss of voice, which had developed a few days previously. On examination there was inspiratory dyspnoea, with complete aphonia, and harsh laryngeal breathing was audible over the upper part of both lungs. The mucous membrane of the larynx was deeply congested, and there was much swelling of the ary-epiglottic folds, ventricular band, and to a less extent of the inter-arytenoid fold. In the last situation there was a small yellowish mass which could not be detached by coughing. The vocal cords occupied the cadaveric position, and remained motionless during inspiration and phonation. The patient was ordered cold applications to the throat, ice to suck, and complete rest. Four days later she was much better; the dyspnoea had diminished, there was less laryngeal swelling, and the inter-arytenoid fold presented a normal appearance. There was no trace of the small yellow mass, probably a piece of inspissated mucus. The vocal cords had to a great extent recovered their power. On phonation the normal closure of the glottis occurred; but abduction was still very deficient, though not absolutely lost. From that time she rapidly recovered, and in three weeks the larynx was perfectly healthy, and the vocal cords had recovered their functions. The want of mobility of the cords was attributed to paralysis of their muscles from inflammatory infiltration of the intra-muscular nerve filaments and muscular fibres. Reasons were given for the belief that mechanical fixation from abscess, perichondritis, swelling of the inter-arytenoid fold, etc., was inadequate to explain the succession of events.—Dr. SEMON said he had come to the meeting feeling somewhat sceptical as to the possibility of the existence of a bilateral rheumatic paralysis of the vocal records. Such cases, if followed to their termination, generally ended in the discovery of a central cause for the paralysis. He agreed that there were no *a priori* reasons why cold should not affect the recurrent laryngeal nerve as it did the facial, though, being better protected, the former was less liable to such influence. He said that the order of retrogression certainly supported the diagnosis of rheumatic paralysis, but it was the first case on record of bilateral paralysis from that cause. The reasoning which Dr. Kidd had brought forward to prove that the case was not an affection of the laryngeal joints was to him (Dr. Semon) quite conclusive.—Dr. PERCY KIDD, in reply, said he was

extremely gratified to find that Dr. Semon had no more serious argument to allege against his contention.

Necrosis of the Greater Cornu of the Hyoid Bone and of Ossified Portions of the Thyroid Cartilage: Extrusion of Sequestra from an Abscess in the Anterior Triangle of the Neck, following Gummatus Ulceration of the Tongue and Perichondritis of Thyroid and Cricoid Cartilages; Profuse Hæmorrhages; Pneumonia; Phthisis.—Mr. NUNN described this case. The patient, aged 33, was a gentleman who had served with the army in India for a short period. About three years before coming under Mr. Nunn's notice he had suffered from syphilis followed by constitutional symptoms. Tertiary ulceration of the tongue was the chief trouble. The irregular habits of the patient prevented the steady carrying out of any treatment. At the end of fourteen months swelling with tenderness appeared on the right side of the larynx, and a couple of weeks later profuse hæmorrhages, three in number, occurred; ultimately, the sequestra above named were discharged from an abscess which formed in the anterior triangle of the neck near the sternum. The abscess ultimately became a pharyngeal fistula, liquid food escaping during the act of deglutition. Pneumonia set in immediately after the hæmorrhages, and finally the patient died of phthisis. The case was most sedulously watched by Mr. Evans, then of Hobart Place, and by Mr. Edward Semple. After the first hæmorrhage, Sir James Paget was consulted in respect of ligaturing the carotid artery, but the operation was decided against.—Dr. PERCY KIDD observed that the patient was said to have had hæmorrhage from the throat, and yet afterwards tubercular disease of the lung was discovered. Under such circumstances he did not think the lungs could be quite excluded in searching for the source of the hæmorrhage.—The PRESIDENT remarked that in a case closely watched, as this had been, and where the surgeon was actually present, he as thought the source of the hæmorrhage was not difficult to ascertain. It was probably a case of *phthisis ab hæmoptoë*: blood sucked into the lungs originating the phthisis.—Mr. NUNN said, in reply, that when Sir James Paget saw the patient the question arose as to whether the hæmorrhage came from the lingual or the hyoid artery, or some other large vessel. At that time there was only the swelling about the hyoid bone. The hæmorrhages were profuse. The hand-basin was half filled with blood, and the patient quite blanched. When the abscess formed at the front of the neck, and the bone was extruded, then he (the speaker) came to the conclusion that it was the lingual artery which had bled. The lung mischief seemed to have followed the drawing of the blood into the lung.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MAY 3RD, 1888.

R. S. MAIR, M.D., in the Chair.

Treatment of Spinal Abscess.—Mr. WATSON CHEYNE read a paper on this subject. He said that in these abscesses we had to consider the contents, the wall, and the lesion of the bone from which they started, although the bone lesion could not always be made out. There were three chief types of tubercular disease of the spine: (1) formation of tubercular cavities containing soft, cheesy material; (2) formation of tubercular sequestra, which either lay free in a cavity lined with tubercular granulations, or were not completely separated; (3) a superficial caries of the bone. The first two forms were those which were chiefly associated with marked curvature, while the third form was not necessarily associated with curvature, unless it occurred in conjunction with the others, or spread in along the inter-vertebral discs and destroyed them; but the third form was more extensive; it was chiefly found in adults, and a larger proportion of abscesses accompanied it than in the case of the other two. When the osseous lesion approached the surface, it involved the periosteum and ligaments, and led to the formation of a firm nodule, which, on microscopical examination, was seen to consist of granulation tissue, in which the inflammatory cells were few in amount, but which contained numbers of tubercles. This nodule constantly extended by infiltration of the neighbouring tissue with similar growth, while at the same time the older tubercles which were present in the centre of the mass tended to undergo caseation; the caseous material became infiltrated with exuded fluid, and thus we came to have a central collection of broken-down cells and tissue floating in a variable amount of fluid, and surrounded by a wall composed of new tissue infiltrated with tubercles—in fact, a chronic abscess. The growing

part of the abscess was thus the wall, while the contents were not pus, properly so-called, but broken-down portions of the wall. However extensive the abscess, the wall would be found on examination to present the above appearance, and portions of it inoculated into guinea-pigs set up tuberculosis. The pyogenic organisms did not take any part in the production of chronic abscesses, as shown, among other things, by the fact that they grow rapidly and luxuriantly in the contents of chronic abscesses, while pus in which they had already grown was no longer a favourable nidus for their development. The bad results following the opening of these abscesses where fermentation was not prevented, would be readily understood from their pathology. The entrance of the putrefactive organisms gave rise to the various symptoms of septic intoxication. The pyogenic organisms were able to grow in the contents or in the wall, and cause septi-cæmia or pyæmia, and the chronic osteomyelitis of the bone might be converted into a dangerous acute osteomyelitis. At a later period the continued growth of the pyogenic organisms kept up a state of chronic septi-cæmia, and the profuse discharge led to exhaustion or waxy degeneration. The methods of treatment considered were two in number—those which led to the cure of the abscess without opening it, and those in which the abscess was opened. Reference was especially made to the results obtained by injection of these abscesses with iodoform mixed with glycerine, or with iodoform dissolved in ether; and the method of employment and the results obtained by this plan were narrated, the general conclusion come to being that it would be well to adopt these plans in all suitable cases before proceeding to open the abscess. Details were given of the results obtained by the method of aseptic opening and drainage of these abscesses, the cases referred to having been partly treated by Sir Joseph Lister and partly by the author. Statistics of 56 cases were given, of which 73.2 per cent. healed, and 12.5 per cent. died. These were cases chiefly of psoas abscess, but there were also lumbar, dorsal, and cervical. The cases were most numerous between the ages of 20 and 30: 22 per cent. of these abscesses recurred at periods varying from eighteen days to three years, but the great majority of these cases had again healed, and the patients remained well. As to the causes of death, 4 patients died of phthisis, 1 of exhaustion, 1 of whooping-cough, and 1 of erysipelas which attacked a small incision made in the neck without antiseptic precautions, and which did not spread under the dressings. The latter case was, in reality, a case of cure which died of an accidental attack of erysipelas. The cases in which septic infection of the wound occurred were discussed, and the causes of this occurrence pointed out, and as most of these accidents were avoidable the proportion of successes in future would probably be greater. The average length of time taken in healing was from eight to nine months, but one or two cases lasted considerably longer. In some instances tubercular disease existed elsewhere, and a case was narrated in which a number of abscesses occurred in connection with various bones and which ultimately got well. The progress of a case under aseptic treatment was then described, and the contrast between this course and that followed when the wound became aseptic was pointed out, in the case of a patient whose wound in the first instance followed an aseptic course and healed, but who some time later had recurrence of the abscess, which burst before the patient was admitted to hospital. As to the question when these abscesses should be opened, the conclusion come to was that they ought to be treated as soon as possible, for the chances of absorption were very slight, and if absorption did not occur the abscess-wall grew, and the abscess became larger. It had already been pointed out that in many cases it would be well to employ the methods of iodoform injection for opening the abscess. As to the position of the opening, the most important point was to have it as far removed from sources of contamination as possible; in the case of psoas abscess, either in the lumbar region or in the neighbourhood of the anterior superior spine, in the case of retro-pharyngeal abscesses at the upper and posterior part of the sternomastoid muscle. An important question was what should be done with the abscess wall, which was a very essential part of the abscess. In subcutaneous and small chronic abscesses the author urged that they should be dissected out as if they were cysts, but in these spinal abscesses this was rarely possible, and even scraping the wall thoroughly was dangerous on account of the important structures in the vicinity. Nevertheless, as much of the abscess wall should be removed as possible, and the author had found great advantage in touching the portion which remained

with undiluted carbolic acid. The removal of the diseased bone as advocated by Mr. Treves was seldom feasible, for in the lumbar region the disease was more often a superficial caries of considerable extent than a necrosis, and any attempt to scrape or gouge away the diseased part was impracticable. In the neck this was more feasible, and the possibility of doing good in this way must be borne in mind. With regard to the method of dressing, it must be conducted strictly on the principle of excluding all micro-organisms; that is to say, it must be strictly aseptic. The author was inclined to think that for these abscesses the old carbolic dressings were the best, though he often combined them with the alembroth dressings which had recently come into use. The author objected strongly to imperfect antiseptic treatment in these cases, and more especially to the attempts to remedy the mischief so arising by injecting irritating antiseptic solutions. In conclusion, stress was laid on the fact that the patient was also suffering from disease of the spine, and the treatment necessary in each case must be adopted. As a rule it was best to keep the patient in bed in the recumbent posture, with a light apparatus to prevent lateral movement, and to remind him that he must not sit up. As a rule the general health improved during the patient's stay in bed, and it was not usually seen at the conclusion of the case that any advantage was gained by letting them get about.—Mr. LOCKWOOD said he considered the spinal lesion of the most importance, and the abscess but an accident added to it. Rest in the recumbent posture frequently led to ankylosis and cure. He wished to know whether Mr. Cheyne had experience of cases in which rest had been maintained and the abscess left alone; also whether all these cases were tubercular, because their contents produced tuberculosis in guinea-pigs. The question was also raised as to the occasional origin of the disease in the intervertebral discs. The length of time taken by the abscess to heal was an indication of the progress of repair in the spine. If the abscess required opening, antiseptic precautions were essential.—Mr. CHEYNE, in replying, said that he had no personal experience of the absorption of these abscesses when the patient was placed in bed in the recumbent posture, but he referred to Lacharrière's paper, in which a number of cases of this occurrence were mentioned; for reasons stated in the body of the paper, the author thought this treatment was injudicious. With regard to the views that the occurrence of tuberculosis in guinea-pigs did not necessarily imply that the material introduced was tubercular, he pointed out that the experiments on which such a conclusion was founded had been completely disproved; and that we must look on the occurrence of tuberculosis in guinea-pigs after inoculation as the result of the inoculation of tubercular material. As to whether the disease could begin in the intervertebral discs, he did not deny the possibility of this occurrence, but thought it much more probable that the destruction of the discs was secondary to disease of the bone. As to the point that the length of time taken in healing really implied the length of time for the bone lesion to get well, and that, therefore, the treatment of the bone lesion was more important than that of the abscess, he pointed out that the delay in healing was in all probability mainly dependent on the length of time required for the osseous lesion to get well, but that, however important the treatment of the bone lesion, if the aseptic treatment of the sinus were neglected, the chances of recovery of the bone were very much less. As to the necessity for the spray, he held that it was not essential, but that in many cases it was the most convenient form of irrigation.

Painful Affections of the Feet.—Mr. SYMONDS also read a paper On Some Cases of Painful Feet.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MAY 4TH, 1888.

C. B. KEETLEY, F.R.C.S., President, in the Chair.

Cases.—The following clinical cases were shown: Multiple Exostoses in three members of the same family, by Mr. BRUCE CLARKE; a case of Nevroid Growth in the Lower Jaw of a Child, by Mr. E. C. VAN BUREN; a case illustrating one cause of failure after Operation for Fistula *in ano*; a case of Complete Iridemia, by Mr. PERCY DUNN; a series of cases of Diseases of the Conjunctiva and Cornea, by Mr. LANG. Pathological specimens were also exhibited by Mr. DUNN.

Cavendish Lecture.—The CHAIRMAN announced the arrangements for the Cavendish Lecture, to be given on Friday evening, June 1st, by Sir William Stokes.

New Members.—Messrs. A. C. A. Alexander, J. M. Barbour, G.

Heaton, A. S. MacCausland, S. H. Moore, B. Nowell, and R. D. R. Sweeting were elected members.

Treatment of Piles by Injection.—Mr. SWINFORD EDWARDS read a paper, in which he gave the results obtained by this method in thirty-eight cases which he had treated at St. Mark's Hospital for Fistula and in private during the last two years. Of these cases, ten were still under treatment; two had been lost sight of; nine, although still under observation, appeared to be perfectly well; and seventeen had been cured. Three had remained well for nearly two years, and fourteen for periods varying between this and six months. In one case only was there a relapse, and this after a year's immunity. The formula used was carbolic acid gr. xii, glycerine and water aa ʒi. The bowels having been well moved, and the piles being extruded, three to five minims or more of the solution were injected by a hypodermic syringe into the centre of each hæmorrhoid. After all were thus treated, they were returned well above the sphincter, and the patient allowed to go home, being instructed to replace the piles at once should they prolapse. The injection might be repeated, if necessary, at intervals of a fortnight; but, in the majority of cases, once appeared to suffice. As an adjunct to this treatment, it was well to order a laxative iron mixture, and an ointment of the subsulphate of iron, to be passed well up the rectum before and after each stool. The advantages of this method were that the patient was not laid up, but could follow his usual occupation during the whole course of treatment, suffered no pain, and ran no risk to life. Its only disadvantage was that at present one could not say how long the cure would last; for this, many more years' experience would be required.—Mr. CHIPPS stated that his small experience of the method (only twenty or twenty-one cases) did not point to any good results. Those cases which he had been able to follow had not at all benefited. The introducer of the method had himself now—in consequence of a succession of bad cases—modified his views as to the advisability of the method in all cases.—Remarks were made by the PRESIDENT, Mr. H. ALLINGHAM, Mr. BENHAM, Dr. ALDERSON, and Mr. BENTON; and Mr. EDWARDS replied.

Hernia of the Bladder.—Mr. KEETLEY read notes of a case in which the bladder was found in the wall of a hernial sac in the course of an operation for radical cure of hernia. The viscus was punctured unintentionally, but the puncture having been carefully closed, and care taken that no urine should be left in the peritoneal cavity, the patient recovered without a bad symptom, and was exhibited. It was believed that similar accidents were not uncommon; and two unreported cases, of which Mr. Keetley had received authentic accounts, were referred to. In each of these two, a portion of the bladder was cut off, in one case with a fatal result.

HUNTERIAN SOCIETY.

WEDNESDAY, APRIL 25TH.

R. CLEMENT LUCAS, B.S., F.R.C.S., President, in the Chair.

Laryngeal Cancer.—Dr. DUNDAS GRANT showed a case of intrinsic epithelioma of the larynx, which he had brought before the Society last year (April, 1887). At present, respiration through the larynx could not be carried on beyond a few moments, the voice was nearly abolished, and there was commencing pain in swallowing. One gland on the left side of the neck was much enlarged and hardened. The spreading out of the thyroid cartilage was distinctly increased. Laryngoscopically the growth was seen to have infiltrated the left ventricular band, and to have extended round the interior of the larynx, so as almost to occlude it. There was no extension upwards into the pharynx. Tracheotomy was performed on July 26th, 1886, when the disease was progressing with obvious rapidity. The immediate improvement in comfort, and the comparative well-being of the patient, added to the retarded progress of the disease since the operation, gave evidence of the unquestionable benefit effected by tracheotomy, and confirmed the opinion of Fauvel, whose statistics showed an average duration of four years in cases of epithelioma of the larynx treated by tracheotomy, against one of one year and four months in those left alone.

Nasal Trephine.—Dr. DUNDAS GRANT then showed the nasal trephine referred to in his paper on Tinnitus Aurium at the last meeting. It was capable of removing cartilaginous or bony outgrowths, and deviating portions of the nasal septum almost instantaneously, and with little or no pain.

Congenital Absence of Iris.—Mr. GEORGE CARPENTER showed, for the PRESIDENT, a case of congenital absence of either iris in a

child 3 years of age. The child had marked nystagmus. The fundus oculi was perfectly healthy. Associated with this deformity there had been talipes equino-varus dating from birth, for which he had been operated upon. His mother had internal strabismus on the left side, nystagmus, complete absence of the iris, together with posterior polar cataract, the fundus oculi being normal. Her occupation was that of a shirt-maker, and she was able to do fine work. The brother and sister of the patient were quite healthy, and there was no history of a similar deformity on either the maternal or paternal side.

Tropho-neurosis.—Dr. STOWEN exhibited a rare case of tropho-neurosis, characterised by chronic ulceration and atrophy of the nails and nail matrices of the hands and feet, in the person of a woman, aged 67, associated with "glossy skin." The disease commenced thirty-seven years previously, within a fortnight of her second confinement, and was at first symmetrical. She had never had acute gout, although several of the phalangeal joints of the hands were swollen and had been tender. Her father was stated to have had gouty manifestations since his early youth.

Paralysis Agitans.—Dr. A. T. DAVIES read notes of a case of commencing paralysis agitans (Parkinson's disease). The disease began in a characteristic manner in the hand, and gradually spread upwards, involving the neck, and downwards to the right leg. The observation of Mr. Parkinson, who, in 1817, first described the "shaking palsy," that the movements occurred in parts not in action, and even when supported, was well illustrated by the case. M. Charcot attributed sudden shock or terror as one of the chief causes of the disease, and this appeared to be the agent in this case. The patient was shown at the meeting.

Skin Affections connected with Rheumatism.—Dr. STEPHEN MACKENZIE read a paper on the skin affections connected with rheumatism. After a passing notice of sudamina and miliaria, so often seen in connection with rheumatic fever, but only indirectly connected with it through the profuse sweating characteristic of the disease, he then dealt with urticaria, showing that, whilst not numerically frequent, there appeared to be some link connecting it with rheumatism, and mentioned a recorded case in which unilateral urticaria and chorea occurred as sequels to rheumatic fever. A few cases of pemphigus have been observed in connection with rheumatism, as also rare cases of exfoliative dermatitis. Coming to the group of erythemata, firmer ground was approached. Erythema circinatum was frequently noticed to concur with acute rheumatism. He had seen erythema papulatum with rheumatic symptoms, and in one case of this affection a murmur resulted, presumably due to endocarditis. With regard to erythema nodosum, he had elsewhere brought forward strong evidence, he thought, that it frequently coexisted with acute rheumatism, which it might precede or follow; that it might give rise to endocarditis when no joint-symptoms were present; and, further, he thought it probable that in some cases it might be the sole expression of rheumatism. He fully dealt with purpura in connection with rheumatism. He thought Schönlein's original description of peliosis rheumatica had been much misread, and that great confusion existed on the subject. He therefore discarded the term. He narrated some cases of purpura with acute rheumatism, occurring during convalescence from acute rheumatism, and in persons who had previously suffered from rheumatism, as well as cases of purpura of great similarity, but without unequivocal arthritis. The general correspondence of the symptoms in the last group with those of the undoubtedly rheumatic group, was, in his opinion, sufficient to justify their being regarded as rheumatic.—Dr. G. N. PITT, Mr. FENDICK, and Dr. A. GARROD took part in the subsequent discussion, and Dr. STEPHEN MACKENZIE replied.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MAY 2ND, 1888.

J. DRESCHFELD, M.D., F.R.C.P., President, in the Chair.

Complete Destruction of Tongue.—Dr. THOMAS HARRIS showed, for Dr. H. SIMPSON, a boy aged 14, in whom there had been complete destruction of the tongue. The boy's friends stated that, eight years ago, ulceration began in the soft palate, and proceeded to almost complete destruction of that part. The affection of the tongue began two years ago with an ulceration in the centre of the organ, and that ulceration gradually spread towards the periphery, and destroyed the whole of the anterior part of the tongue. Eight months ago stiffness of the lower jaw appeared. At the present time only a very small portion of the root of the tongue existed, the whole of the anterior part of the organ having disappeared.

leaving the floor of the mouth irregular and studded with small nodular elevations. The faucial aperture was small and lozenge-shaped, measuring about half an inch vertically and the same transversely, and bounded on either side by thick bands of fibrous tissue. The boy said he could taste very well, but this was found to be true only when he swallowed, since he did not taste either a solution of quinine or of common salt, when these were brushed over the anterior part of the floor of the mouth, until he performed an act of deglutition. It was difficult to obtain a perfect view of the floor of the mouth, in consequence of the boy being able to separate the incisor teeth only half an inch. The boy showed no other evidence of a syphilitic taint; but a brother, about twelve months his junior, exhibits well marked signs of congenital syphilis.

Intussusception of the Bowel: Recovery.—Dr. NESFIELD showed the specimen; it consisted of about ten inches of the ileum, the cæcum, and the valve. The case was that of a married lady, aged 34. On March 10th last, she over-reached herself, and was taken suddenly ill with abdominal pains, a desire to go to the closet, and vomiting. When visited, she was partially collapsed. A tumour was found reaching across the lower part of the abdomen, inclining to the right side, but tender and dull on percussion. After an enema on the third day, she passed a large quantity of blood, and the tumour disappeared; vomiting was frequent, and occasionally stercoraceous. On the eighth day the bowels acted spontaneously. The pulse was slow and the temperature nearly normal. On the seventeenth day the slough came away. Recovery has been slow, but she is now able to move about. Treatment: morphine hypodermically and rectal feeding. Abdominal section was considered, but postponed, the symptoms being at no time sufficiently urgent.

Cystoscopes.—Mr. WHITEHEAD demonstrated different forms of cystoscopes, and mentioned conditions where their use was invaluable.

Peripheral Neuritis.—Dr. BURY read a paper on peripheral neuritis in acute rheumatism, and on the relation of muscular atrophy to affections of the joints.

SOUTH INDIAN BRANCH (MADRAS).

FRIDAY, JANUARY 13TH, 1887.

Surgeon-General G. BIDIE, M.B., C.I.E., President, in the Chair.

Statistics: Compound Fracture.—Brigade-Surgeon SINTHORPE presented an elaborate series of tables embodying the fullest obtainable particulars of all the cases of compound fractures or compound dislocations of the limbs among natives treated in the Madras General Hospital from 1868 to 1886 inclusive. The cases occurred in the practice of ten or twelve different medical officers. There were altogether 115 treated, with 29 deaths. Seven were Mohammedan males, 102 Hindu males, 5 Hindu females, and 1 Syrian male. The injuries were classed as follows:

Nature of Injury.	Admission.	Recovered.	Died.	Ratio Percentage of Death.
Multiple injuries	15	8	7	53.3
Compound fracture of arm	5	4	1	20.0
Compound fracture of forearm	21	18	3	14.2
Compound dislocation of wrist	7	1	—	—
Compound fractures of thigh	9	4	5	55.5
Compound dislocation of knee	1	1	—	—
Compound fractures of leg	63	50	13	20.6
Total	115	86	29	25.2

The causes of the 29 deaths were as follows: tetanus, 13; septicæmia, 2; gangrene and septicæmia, 1; gangrene, 2; shock, 6; exhaustion, 2; acute pneumonic phthisis, 1; no records, 2. It was observed that the mortality from tetanus, which was nearly 1 in 9, was formidable, being greatly in excess of that at Guy's Hospital, which was stated by Mr. Bryant, quoting from Mr. Poland's statistics, to have been 9 in 398 cases of compound fracture, or about 1 in 44.

Excision of Tongue.—Surgeon F. CLARENCE SMITH reported two cases in which he had excised the tongue by Mr. Syme's method, in which ligature was first performed to control hæmorrhage, in the manner suggested by Mr. Jordan Lloyd. This modification of the operation prevented any serious hæmorrhage, and if the

wounds were dressed with some preparation of iodoform, laryngotomy or tracheotomy, with or without occlusion of the pharynx was unnecessary. The only objection was that suppuration followed in the track of ligature, and Surgeon Clarence Smith proposed in future to use a pad over the skin, over which the ends of the ligatures might be tied. In this way he thought the circulation might be effectually controlled, while the puckering of the skin and tissues included in the ligatures would be avoided. In the second case, where the tongue was removed far back, the patient sank from inanition, and it was suggested that in a similar case, where the patient was in a very low condition, it would be better to perform a preliminary gastrostomy.—Surgeon-Major DRAKE-BROCKMAN and BRANFOT recommended the operation with the *écraseur*, plain or heated, in preference to that performed.—Surgeon J. SMYTH mentioned a case in which some hæmorrhage had followed the use of the chain *écraseur*, and he had found difficulty in removing the whole of the growth with the instrument. He had assisted Surgeon Clarence Smith in the two operations reported, and had observed that there was very little hæmorrhage.—Surgeon CLARENCE SMITH, replying to an observation made by Mr. DRAKE-BROCKMAN as to the action of chunam used in chewing betel, said that that had occurred to him as a possible cause of malignant disease of the tongue, owing to the irritation which it produced. He defended his preference for Syme's operation, as modified by Jordan Lloyd, on the grounds that the *écraseur* did not do away with either primary or secondary hæmorrhage, and was apt to take away too much or too little; that the galvanic *écraseurs* always caused a slough, and that the *écraseur* could not do anything in the region of the tongue which could not be better done with the knife or scissors.

PATHOLOGICAL SOCIETY OF MANCHESTER.

WEDNESDAY, MAY 9TH, 1888.

A. W. STOCKS, M.R.C.S., President, in the Chair.

Meckel's Diverticulum.—Mr. G. GIBSON HAMILTON (Liverpool) described two cases of acute intestinal obstruction due to Meckel's diverticulum. Both had occurred in boys six years of age. One had been operated on eighteen hours after symptoms commenced the diverticulum being easily separated from its attachment to the mesentery. The patient made a good recovery. The second case had not been so acute, and was operated on at the end of a week, when the boy was almost moribund. The patient survived only a few hours. A specimen demonstrating how the obstruction had occurred was shown.

Malignant Tumour of Lung.—Dr. STEEL showed a large lympho-sarcoma of the upper part of the right lung, the centre of which had broken down, a cavity being formed. The patient aged 45, from whom the specimen was taken had suffered from hæmoptysis in May, 1887, and from that time his health had failed, although he had not suffered from cough and expectoration till winter. The physical signs, as well as the fetid sputa and the mode of their expectoration, had indicated the presence of a cavity during life. Centrifugal pressure symptoms had been well marked. The patient died on March 7th, 1888. No other tumours were found in any part of the body.

Liver in Phosphorus Poisoning.—Mr. JOSEPH COLLIER showed the liver from a case of acute phosphorus poisoning. The patient, a girl aged 20, died after two days' illness. The liver was large and fatty, not uniformly yellow, but mottled, with reddish patches, as in the slower cases of acute yellow atrophy. The lobules remained distinct. Sections under the microscope showed the hepatic cells to be in a state of fatty degeneration, many being distended by and converted into large fat-globules—a condition of things very different from the fine fatty granules found in acute yellow atrophy. There was no proliferation of biliary capillaries and infiltration of leucocytes, but the small bile-tubes were seen to be compressed by the enlarged lobules.

Tumour of Kidney.—Dr. HURTON showed a large tumour of the kidney from a girl aged 8. Microscopic preparations of the growth were also exhibited.

Epithelial Tumour of the Cornea.—Dr. A. EMRYS JONES and Dr. PETER YATES showed specimens and sections from a man, aged 57, first seen in January, 1885. Three years previously he had suffered from phlyctenular conjunctivitis in the right eye, and little vesicles were noticed on the edge of the cornea. When seen in 1885 there was a distinct lobulated growth covering nearly the whole of the cornea and the adjoining region of the conjunctiva. The eye was at once enucleated, and, after recovery,

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he was not again seen. It was, however, reported that he died in January, 1886, from cancer in the neck. Microscopically, the tumour was found to be an example of tubular epithelioma, with cells arranged in tracts or cylinders. The stroma was composed of partially-formed fibrous tissue. At the surface there were a number of small cysts.

Sarcoma of Choroid.—Dr. A. EMRYS JONES and Dr. PETER YATES showed specimens and sections from a tumour of the eyeball taken from a woman aged 24. The eye had been dim for three months, but without pain. On ophthalmoscopic examination there was found on the inner side a large red growth pushing the retina in front. The translucency of the eyeball was tried according to Lange's method, but with negative results. There was a history of an aunt who had died from cancer of the breast. The growth occupied nearly one-third of the eyeball, and was of the spindle-celled variety of sarcoma. A few of the spindles were very large, and contained two nuclei, and some of the cells were forked and branched at one end.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MAY 4TH, 1888.

E. ATKINSON, M.R.C.S., President, in the Chair.

Treatment of Uterine Myomata by Apostoli's Method.—Mr. MAYO ROBSON read a paper on his experience of the treatment of fibroid tumours of the uterus by electrolysis, and gave details of several cases. In one case a large tumour reaching to the ribs had been reduced to a simple pelvic enlargement in a little over two months, during which time a current varying from 150 to 270 milliampères had been applied twelve times. The menorrhagia, which on commencing the treatment required eighteen napkins a fortnight, was reduced to six napkins a month when the patient left. In another case, although the treatment had been just as efficiently tried—nineteen operations in three months, varying between 180 and 300 milliampères, for periods of ten minutes each application—the tumour had steadily increased. In several other cases improvement had been effected and hæmorrhage controlled. In no case had any inconvenience resulted from the operation. In all cases Dr. Apostoli's directions had been strictly carried out. Mr. Robson thought that in electrolysis we had a powerful means of treating with success some cases of fibroid tumours of the uterus, but that too much must not be expected, for in some cases it seemed to fail to give the slightest benefit. He thought that all cases in which the treatment had been tried ought to be reported in detail, so that the profession might be able to decide for itself on this important question, and so that an opinion might be formed as to what cases were likely to be benefited by it. His own experience led him to believe that benefit was most likely to ensue in cases accompanied by severe hæmorrhage. Mr. Robson had found benefit to accrue from the treatment of endometritis accompanied by menorrhagia, and related a case in illustration where the hæmorrhage at a menstrual period had been reduced from fifty napkins to fourteen. He used a battery of fifty 1-pint Leclanché cells, and employed a double collector, a rheostat, and a Gaiffe's galvanometer.—Dr. CAMERON pointed out that electric measurements were to a certain extent fallacious, as, according to the shape of the tumour, a definite current might act very differently, according as it was directed through a small portion or widely diffused.—Mr. LAW-FORD KNAGGS reviewed the published results of the operation. The great differences of opinion on the subject must be due to errors of diagnosis or inexperience in the methods of administration.

The Nature of Cancer.—Dr. BRAITHWAITE read a paper on this subject. He reviewed the various characteristics of the epithelium cell with regard to position, shape, size, and nutrition, and considered that the abnormal growth was due to the cell having pierced the basement membrane, and therefore being subject to conditions allowing of greater nutrition and consequent growth. Growths, while they remained encapsuled, were not malignant.—Mr. LITTLEWOOD thought the difficulties of the case had not been met by the paper. Encapsulation was no test of malignancy, as shown by the case of lymphosarcoma of the tonsil.—Dr. PURDY referred to Professor Hamilton's definition of cancer as an "in-growing wart."

Cases.—Dr. CHURTON showed two cases of Duchenne's Paralysis, members of the same family.

Pathological Specimens.—Mr. BENDELACK HEWETSON: A large

Rhinolith of 24 years' growth, removed by crushing; weight, 96 grains.—Mr. LAW-FORD KNAGGS: Ovaries, Fallopian Tubes, and Uterus at the close of menstruation.—Mr. TURNER: Microscopic Sections: 1, Duct Papilloma of Breast; 2, Intestinal polyp; 3, Alveolar Sarcoma of Chest Wall.

Antique Stethoscope.—The PRESIDENT showed a very early form of stethoscope, said to have been used by Mr. William Hey. He appealed to the members for gifts of obsolete and curious surgical instruments, as a collection was about to be formed of such objects in the museum of the Yorkshire College.

REVIEWS AND NOTICES.

MISCELLANEA MEDICO-CHIRURGICA. Second Part. Occasional Papers and Remarks by E. L. HUSSEY, F.R.C.S. Oxford Horace Hart.

WHETHER letters to local newspapers, reports of after-dinner speeches, discourses at town council meetings, and all those other ephemeral utterances of which a public man in a provincial town delivers himself during a long life, are worth collecting and publishing in a separate volume is scarcely an open question. But certainly if such a collection must be made, it is well to follow Mr. Hussey's example, and atone for slightness of material by the charming dress in which it is presented. Nothing could exceed the beauty of type and excellence of paper of this little book. It is in all respects worthy of the reputation of the Oxford press.

Mr. Hussey has not, we think, been careful of his posthumous fame in preserving and publishing certain of his opinions. What, for instance, could be more illiberal, and, indeed, unjust, than the following attribution of motives to the Fellows and Members of the Royal College of Surgeons in opposing their demand to be admitted to vote in the election of members of the Council of their own body? "The men who are calling for the power of voting are Fellows who are not likely to obtain seats in the Council by the vote of the existing Fellows and others who wish to get admission, as they now have into the Council of Education and Registration, that they may put down (as they think they will) unqualified or irregular practitioners, and make education so dear that a poor man will not be able to put a son into the profession. In short, they want 'protection,' which has been withdrawn from every other calling."

The dictum our author gives on the ventilation of hospital wards is scarcely up to the scientific level of the day—"I have not seen any arrangement for fresh air so good as that by doors, windows, and fireplaces"—while his proof of the excellence of the Oxford water supply falls very far indeed below it: "Without venturing to attach a definite meaning to the phrase ('the present defective sanitary conditions of the supply'), repeated over and over, in varying words, till people at a distance have come to believe in it, I cannot say that I have seen any proof offered that the health of people here suffers from drinking that water supplied by the city. For the last six or seven years I have not myself drunk (*sic*) any other water." Nor do we think that Mr. Hussey's qualified approval of the practice of admitting patients suffering from such fevers as scarlatina into general wards is capable of much defence.

It would be unfair, however, not to own that there are in this little work one or two notes worth recording. The following on medical knights, for instance, is interesting, and will, perhaps, be new to many of our readers. "During my attendance as a pupil at St. Bartholomew's Hospital, some five and forty years ago, I remember that I once asked an old practitioner some question about Sir James Earle and other gentlemen of title whose names had been known in connection with the hospital. He told me that it had been the custom to knight the senior surgeon of the hospitals in London; that when it came to Mr. Abernethy's turn to receive the honour he declined it. Mr. Vincent did the same, and the minister ceased to recommend the surgeons for the honour. The number of medical practitioners in possession of the honour has been declining for some years. Passing the baronets and the knights of the different orders, it appears from published lists of knights bachelors, to which I have the opportunity of referring, that there were thirty-three members of the medical profession among the number in 1849, and seventeen in 1871. At the present time there are ten, which is less than a tenth part of the number of lawyers now on the list." Mr. Hussey's ante-Jubilee prognostic

that a long string of provincial medical knights would not be made have, as our readers will recollect, proved absolutely correct. The "honour" of knighthood was offered to one or two of the leading members of our profession, who would have braced a peerage, but was otherwise reserved for local butchers, bakers, and quack benefactors, who were thought more worthy of the honour.

It is interesting to get a glimpse of a coroner's view of his office, and especially of its relation to the medical profession, but we can scarcely say that the glimpse is likely to delay the reform of this, with like survivals of feudal offices, which the advance of the age so imperatively demands. It is certainly the case that Mr. Hussey "magnifies his office," and one can scarcely prevent an amused recollection of "nothing like leather" crossing one's mind as one reads his recommendation that every death from small-pox should be referred to the coroner before the death is registered. The action of the Sheffield coroner in declining to view with his jury the body of a person who died from this disease scarcely seems to indicate that the coroners of the country would view such a duty with much pleasure.

The suggestion that the coroner should be able to summon a medical practitioner for his opinion or for information, to order him to make, if necessary, a *post-mortem* examination, and to take the evidence of the practitioner on oath before he decides on further action, is a good one if the medical practitioner be worthily remunerated. But Mr. Hussey's ideas on this point do not seem to be very generous. He says: "While it may be admitted that the fee is not large in return for a professional man's time, it should be borne in mind that it is nearly as much as the coroner gets for work which takes more of his time, and that a medical practitioner is the only professional person to whom a payment is made for the attendance before the coroner; also that it is not thought sound policy by those who are concerned in the administration of justice to remunerate too highly those who are required to give evidence in cases of public inquiry, especially when of a preliminary nature." The imputation apparently conveyed in the last clause of this sentence is, to our minds, a particularly odious one.

Some other suggestions made will not, we think, commend themselves to the admiration or acceptance of our readers. We certainly dissent from Mr. Hussey when he thinks "that it is open to question whether the house-surgeon, who is forbidden by the rules of his office from engaging in practice, comes within the definition of 'being at the time in actual practice.'" Nor do we believe that it is the duty of hospital officials in the case where a man has been readmitted with an old fracture of the spine treated in the hospital many months before, to send the coroner information of the patient's decease, or to do more than give a certificate to the registrar, stating clearly the cause of death. A protest should certainly be raised against the decision of coroners arrived at on a case of Mr. Hussey's, about which he asked their opinion. The patient died in the Radcliffe Infirmary in May, 1887 (we think it unfair to have given the exact month of the occurrence). She had been operated on without the consultation of all the surgeons to the Infirmary. She died, and the certificate gave "excision of uterine fibromata" as the cause of death. Mr. Hussey heard rumours of mistakes made by the surgeons in charge of the case, but came to the (in our opinion, proper) conclusion that erroneous treatment, even if proved, was not a reason for holding an inquest. His brother coroners when consulted, however, arrived at the decision, in which Mr. Hussey seems to have concurred, that the fact of giving a so-called false certificate of the cause of death was of itself a reason for holding an inquest, and that, if necessary, the body should be exhumed for the purpose.

The rest of the book consists of reports of speeches and letters concerning the management of the Radcliffe Infirmary, and the admission of fever patients gratuitously into its wards (a controversy in which Mr. Hussey seems to have had the best of the argument but the worst of the final decision), and miscellaneous letters on other subjects, in one of which he supplies a country clergyman with a list of drugs and directions for their administration, with the result that at the end of eight years the reverend gentleman stood high in the opinion of his parishioners as a (gratis) practitioner in medicine. Mr. Hussey does not inform us in what light his pupil was viewed by the more regular practitioners in the healing art.

REQUEST.—Mr. Baker, of Freemantle, Southampton, has bequeathed £5,000 to the Royal South Hants Infirmary.

NOTES ON BOOKS.

Shelley's Complete Press Directory for 1888. (Shelley and Co., 5, Leadenhall Street, London, E.C.)—In noticing the present year's edition of this work, there is little more to say than that it merits the good opinions we have already expressed of the earlier volumes, while it contains some additional features which cannot fail to add to its value. It is a well arranged portable volume, published in cloth at one shilling, giving with completeness the lists of the morning, evening, weekly, and other newspapers, with magazines and periodicals, to the number of 3,736, published in the United Kingdom.

Sell's Dictionary of the World's Press. (London: Sell's Advertising Offices, Fleet Street. 1888.)—This is a portly imperial octavo volume of over 1,300 pages, published for the low sum of two shillings, and must be regarded as an advertisement in itself. It differs from the ordinary press directories, inasmuch as in addition to the usual lists of newspapers, magazines, monthly, quarterly, and annual publications published in Great Britain, it gives an extensive and useful dictionary of the world's press. The chief publications throughout the four quarters of the globe are noted, with particulars of their circulation, together with some account of their character and politics. To the English press is given, in most cases, the advertising scale of charges. The value of the work is enhanced by a series of articles on matters cognate to journalism, such as "Practical Hints on the Law relating to Libels in Newspapers," by W. Blake Odgers, LL.D.; "The Rise of Provincial Journalism," by H. R. Fox Bourne; and others, giving a fair idea of the duties devolved upon the editor, the leader writer, the reporter, the interviewer, and the "special." The volume is illustrated by sixty-four portraits of leading editors—English, French, and American—having affixed, in many cases, a *facsimile* of their autograph.

1. *A Manual of the Operations of Surgery, for the Use of Senior Students, House Surgeons, and Junior Practitioners.* Illustrated. By JOSEPH BELL, M.D., F.R.C.S. Edin. Sixth edition. (Oliver and Boyd. 1888.)—2. *Operative Surgery on the Cadaver.* By J. J. GARMANY, A.M., M.D., F.R.C.S. (New York: Appleton and Co. 1887.)—Professor Bell's work, having reached its sixth edition, needs but little comment from us. On this occasion the author brings us up to the most modern processes and ideas. May we suggest, in a seventh edition, more woodcuts, and these, possibly, more worthy of the excellent letterpress? Dr. Garmany's work is good enough in its way, and we might have difficulty in finding fault with it, so far as its scope is concerned, and it is certainly a valuable and reliable textbook for the cadaver. What, however, it may be asked, is the advantage of so many books on operations on the "dead body?" We well remember an old and esteemed teacher, when we asked him to recommend us an Operative Surgery, saying: "Oh, take Fergusson or Liston into the dead-house, and make what you can of them." Old-fashioned, perhaps; but all modern Surgeries deal with the details of operation, and are equally available. The plethora of these works is simply astounding, and seems to form a sort of basis, and we trust it does, for many an aspirant to practice and fame. But is it not a little overdone? Many of our aspirants are clever enough at the desk. There is certainly room for an English work on the foreign lines, such as Farabœuf, Dubrueil, and Chauval. Why does not an "aspirant" do it?

A NURSING STRIKE AT SHEFFIELD.—At the annual meeting, held May 15th, of the Sheffield Nurses' Home, an institution for the provision of trained nurses, it appeared that owing to a dispute which had occurred between the committee and the lady superintendent, Miss Cowan, the latter had given three months' notice to resign her post, and the committee had since received a letter signed by thirty-one out of thirty-eight nurses connected with the home, stating that unless Miss Cowan was asked to remain, and does remain, they will each tender their notices to leave at the earliest possible period. A resolution was passed approving the action of the committee, and the Mayor, who presided, said there was no need to close the home because of the resignation of Miss Cowan or the nurses. They must consider Miss Cowan as dead when her notice expired, and act accordingly.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SOLUBLE SACCHARINE.

MESSRS. BURROUGHS, WELLCOME, and Co., whose saccharine tabloids we have already noticed with approval, recognising the inconvenience likely to arise from the comparatively insoluble nature of ordinary saccharine, have sent us a sample of their soluble saccharine, which is free from the above objection. It consists of a fine granulated powder, and is put up in a very portable form in a bottle small enough to be carried in the vest pocket, and is conveniently accompanied by a small measure. It is supplied to the consumer at 2s. 6d. per bottle.

HYPODERMIC ANTISEPTIC INJECTOR.

WE have received from Dr. George Whyte, of Elgin, a hypodermic antiseptic injector, which he informs us was specially devised for use with hypodermic tabloids; but it answers equally well for ordinary hypodermic solutions. It differs from the common syringe in having an india-rubber pump in place of the usual piston—the pump having a guiding rod passing through its centre, to ensure its working evenly and smoothly. The following advantages are claimed for this instrument, which Dr. Whyte has patented:

"1. There being no piston to contaminate with the solutions, they never come in contact with the glass barrel. 2. It is worked entirely with one hand. 3. As the volume of fluid entering the injector exactly corresponds to the volume of air previously expelled, it is impossible that air can get into the tissues. 4. The injector may be safely trusted with nurses. 5. It never gets out of order."

The inventor says he has used one for over three years, and it has never once got out of order. The case containing the injector is also fitted with a small glass vessel and rod to make the solutions, and has space for four tabloid bottles. The glass barrels are conveniently tabulated for ten drops (sufficient for all practical purposes). The following directions are given for its use:

The instrument should be held between the first and second fingers, knuckles downwards, with the thumb on the pump. The pump is then compressed, and the point of the needle placed in the solution, and allowed slowly to fill the syringe. A fold of skin is then pinched up, and the needle rapidly inserted. The pump is again compressed, and the pressure kept up till the needle be withdrawn.

In using the tabloids, place one in the glass vessel; then fill the injector with water—warm preferred—and discharge it into the glass vessel, completing the solution by means of the glass rod. If warm water cannot be had, the application for a few moments of a lighted match quickly effects solution, but mostly all the tabloids are soluble in cold water. In recharging the injector, the glass vessel should be tilted slightly, and the eye of the needle turned downwards.

With solutions, the injector is first charged with water; then as many drops expelled as is intended to be used of the solution, and then allowed to re-fill slowly from the solution. Two or three trials will make this an easy proceeding.

The manufacturer is Mr. J. Gardner, 32, Forrest Road, Edinburgh.

NEW UTERINE DILATOR.

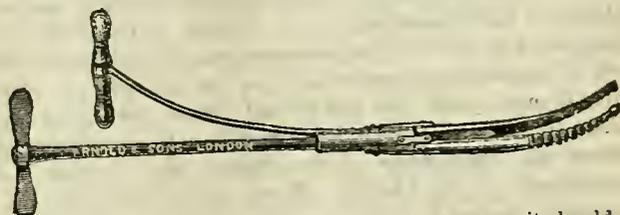
HAVING experienced the want of a rapid uterine dilator either for exploration of the cavity for diagnostic purposes, as in cases of hæmorrhage, etc., or to obtain more room for the application of curette or *écraseur* wire, I have been led to design an instrument for the purposes enumerated which will, I think, contrast favourably with those already in use.

Hegar's and Tait's instruments, though simple in design and

possessing the advantage of cleanliness, are very slow in action, and require the introduction of a considerable number before sufficient room is gained; and Tait's possesses another disadvantage—namely, that of slipping into the uterine cavity altogether when used in cases when the body of that organ exceeds the normal size.

The shape of my dilator being conical like Tait's, but curved (in which it differs from his) makes it, I find, easier of introduction by touch alone, and combines with this the additional advantage of divarication to the extent necessary to open the cervical canal sufficiently to admit the finger for exploration, one instrument thus doing the combined work of a number.

The cervix being steadied by either tenaculum hook or volsellum, five drops of a 5 per cent. solution of cocaine is injected into the tissue at either side of the os, the needle being made to penetrate for half an inch at least. When sufficient time has elapsed for the absorption of the cocaine, the point of the dilator, warmed and oiled, is then slowly introduced, either by touch alone (which I prefer) or by sight, the duckbill speculum affording a good view. The dilator being made to penetrate by boring action till past the inner os, the screw at the end of the instrument is slowly turned, as when using the *écraseur*, steadying the dilator by holding the cross-handle at the side, and judging of the amount of force necessary to be used by the resistance offered to the turning of the screw.



When the dilator is expanded to the required extent, it should be allowed to remain quietly for a minute or so, when the screw can be rotated in the opposite direction, when the blades will close by spring action, and, if preferred, they need not be allowed to close altogether before withdrawing the dilator from the cervix; thus the dilatation of the entire canal from within outwards can be secured.

Very slight bleeding, as a rule, follows the operation, and a camel hair pencil, charged with a saturated solution of alum in glycerine, I find the cleanest styptic. Turpentine can also be used with advantage, but I strongly object to iron, as it hides the source of bleeding, and by forming clots gives rise to subsequent trouble.

I can generally obtain the full amount of dilatation necessary for the introduction of the finger in from ten to fifteen minutes, and thus avoid the frequent introduction of a number of dilators. Should I wish to keep the cervical canal patulous, either for drainage or subsequent exploration on another occasion, I introduce one of my large-sized, spiral, wire stems, which I find so useful for preventing the contraction of the cervical canal after the operation of division of the os and cervix for stenosis.

The dilator can be easily cleaned by being whisked through hot water after use, or a brush applied while the blades are fully expanded.

The makers of both dilator and stems are Messrs. Arnold and Sons, whose name is a sufficient guarantee for good workmanship.

ALEXANDER DUKE, F.K.Q.C.P.I., etc.,
Ex-Assistant Master, Rotunda Hospital.

HEALTH COCOA.

MESSRS. H. THORNE AND Co., LEEDS.

THIS article represents pure cocoa of the best quality, deprived of part of the fat natural to cocoa beans, and prepared in the manner introduced by Dutch manufacturers. It leaves nothing to be desired as to so-called solubility—that is, it remains in complete suspension when prepared with boiling water or milk—purity, strength, and flavour.

AYR COUNTY HOSPITAL.—This hospital has benefited to the extent of £70 by the Ayr Charity Cup Football competitions. £90 was raised for the hospital by church collections on May 6th, Hospital Sunday in Ayr.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 19TH, 1888.

THE CHARTER OF THE COLLEGE OF
SURGEONS.

THE official announcement made by Sir W. Hart Dyke in the House of Commons, and the report which we publish in another column of the proceedings of the Council of the College of Surgeons, will afford to the profession what is probably to the bulk of our readers the sensation of a painful surprise. The Privy Council, under the well-devised official formula of declining to deal with contentious matter, have practically refused offhand the applications of the Fellows and Members for amendments of the Charter. There are probably few precedents for dealing in this summary way with a petition of so many thousands of the members of a College for the better recognition of their rights in their own corporation. The Privy Council, or rather the one or two distinguished gentlemen who act for it in these matters, received in this case a petition of almost unexampled numbers and weight from the educated members of a professional body, and a further formal request from a delegated deputation that if their claims were not admitted they might be heard by counsel in support of them. Nevertheless, it now appears that, without reply from the existing authorities of the College, and even without the usual courtesy of any further communication with the Association of Members, the advisers of the Queen have summarily snuffed out their claim. Such a course of action calls for immediate and energetic protest. The claims of the Members may be right or wrong, but no steps have been taken to convince them that they are unfounded either in policy, justice, or law. No answer of any sort has been vouchsafed to their arguments or their claims, although these were based, among other things, upon the strongest allegations as to the true constitution of the body whose charters were in question, and showed strong reasons for the belief that many matters in the existing organisation amounted practically to an abuse.

The Privy Council cannot have convinced itself either of the impolicy or of the want of legal basis for these contentions, since it neither received any answer in respect to them from the promoters of the charter nor afforded any opportunity for a judicial or quasi-judicial consideration of the issues involved. Trusting to the usual fairness and courtesy of great official bodies in such matters, no discussion has meantime been raised in Parliament, and at this period of the session it is difficult, if not impossible to secure the attention of Parli-

ment to the subject in any effective manner until next February. It is, perhaps, undesirable that the Members should be driven to enforce the rights they claim by any litigation with their own College, and especially so as these claims are much more largely based upon questions of public policy and general justice than of technical legal right, although the latter would appear not to be wanting.

Even yet, however, it is not too late for Her Majesty's advisers to reconsider their present attitude towards the question. It would appear to be still open to the Members to address an immediate petition to the Court praying that the matter of such petition and of the previous petition signed by 6,000 Members of the College already before the Privy Council, may be remitted to the Privy Council in its judicial capacity for further debate in order that they may advise the Crown with judicial responsibility, after hearing such evidence as the parties interested may desire to produce and the arguments of counsel thereon. We believe that there is nothing contrary to constitutional practice in such a course, although precedents of this precise character are, of course, rare, as are the circumstances which lead to it. It is highly unsatisfactory that so important a question should be burked by an official body, which practically sets aside a claim the equity of which it neither discusses nor decides. It must not be forgotten that even the limited supplemental charter which it is now proposed to grant will perpetuate and increase that autocratic form of administration against which the bulk of the Members have petitioned and protested, by empowering the existing authorities to hold and administer even a larger amount of corporate property than that which they already possess. The Members can hardly allow the matter to rest here, if they are well advised and properly led.

THERAPEUTIC STUDIES.

V.—THE CLIMATIC TREATMENT OF CONSUMPTION.

PHthisis has been regarded as the greatest scourge which afflicts mankind; for, although it does not inspire as much terror as a severe epidemic passing like a destroying angel through a country, yet it is always insidiously at work amongst us. Under the title, *The Experiences of a Poitrineire*, Dr. Friedmann, of Berka, has embodied observations on himself and others extending over seventeen years, in pamphlet form, as a reprint from the *Deutsche Med. Zeitung*, 1887. Dr. Friedmann very clearly lays down the principles upon which the best sanatoria are conducted.

We fight against phthisis in three modes, namely, by medicines, by dietetics—which include the patient's whole course of life—and by climatic influences. But the influence of drugs upon phthisis is practically nil. Neither benzoate of soda, quinine, kairin, the hypophosphites, nor any other drugs can be depended upon. Nor is the "prescription-writing physician" helped by the discovery of the tubercle bacillus; on the contrary, this discovery has proved rather an embarrassment than otherwise, for it has made the patient very nervous about infection by tuberculosis in crowded health-resorts, even when

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phthisical himself. There remain as curative agents dietetics and climatic influences. The latter of these comprehends the former, for a radical change in the patient's mode of life is impracticable at his own home, and this radical change is, or should be, the keynote of the treatment; hence the extreme importance of a change of climate. But here, again, a wrong choice is disastrous; a winter is lost to no purpose, or, more probably, to the patient's deterioration.

Before deciding where the patient is to go, however, we must consider whether or not he ought to go, for it is not pretended that all should go away. The following three divisions comprise the group of those who should stay at home—namely, (1) young, uneducated people; (2) acute feverish cases; (3) patients who are so wedded to the routine of home life as to be unhappy anywhere away from home; and this class is a larger one than is commonly supposed. Of course, no one advises a removal in advanced cases. Where then are the suitable cases to go? The answer is, where they can breathe pure fresh air all day and all night. It is long since established that fresh air is the most powerful factor in the cure of phthisis. The deeply-rooted prejudices against the vivifying breezes, the unreasonable fondness for a hot-house temperature, and the prevalent fear of "taking a chill," must be discarded. The fear of "catching cold" is still too much a bugbear with both doctor and patient. The little vital capacity which the patient possesses should be increased by living as much as possible in the open air. It is the hardest task of the physician to combat this fear of the patients—namely, of taking a chill—a task which demands all his energies. The patient must be sent out of doors in all weathers, properly clothed, of course. If he perspires he must be dry rubbed, and must put on a change of clothing; if he is fatigued he must rest, but he must breathe fresh air. The bedroom window must be left slightly open too at night, a screen being used if the wind be at all strong. Those who are unable to walk about should use a well-cushioned and curtained long chair, as introduced by Detweiler, portable beds in fact. Dry frictions are extremely useful at intervals during the day. A certain gradation may be effected from dry rubbing to friction with a towel that has been wet with spirits of wine, and then partially dried; thence to the application of a wet sheet for a few minutes, succeeded by dry rubbing, and finally to the cold douche. The food must be abundant and varied in kind; there is no exclusive diet for consumptive patients. Plenty of wine (and even cognac) is recommended by Dr. Friedmann. If there is anorexia, which does not give way to a good bitter, such as condurango bark, with hydrochloric acid, recourse must be had to milk for a few days, with eggs and brandy if possible. In most of the hotels on the Riviera the dinner is taken at rather too late an hour for invalids; this is easily rectified by making the mid-day meal the chief meal of the day.

All this must be kept up after the patient has left the sanatorium, which is to be a school of living for the patient. Nothing new or unknown to the medical profession is used in the numerous sanatoria in the South of Europe; but the co-operation

of the minutest arrangements, a life strictly regulated in the smallest details, the "gross im kleinen"—the motto of Detweiler's classic *brochure*—are accompanied by their inevitable results for good.

The patient must be out of doors at an early hour, and so get an appetite for a good breakfast. On no account should the thermometer be used by the patient himself, for the attendant anxiety and depression if the reading is not exactly what it should be more than counterbalance any advantages. One thing more must be eschewed, and that is the reading of books on pulmonary disease, whether popular or strictly scientific. The glibness with which patients now talk about "infiltration," and "softenings," and "caverns"—terms which are connected with the strangest ideas in their minds—is to be deprecated, because such patients are apt to criticise the treatment at every stage. While on this point, it may be remarked that the first stage of phthisis, the most important for treatment, should not be made too light of to the patient. To call this stage, for example, "merely a slight catarrh of the apex of one lung," is to mislead the patient. On the contrary, he should be told of the danger he is in, so that he may make the necessary sacrifice and radically change his whole mode of life, with a full resolution to employ all his energies in his own cure.

Now as to the kind of air which the patient is to breathe. Dr. Friedmann is of opinion that the hygrometric condition of the air is of more importance than its density. As a rule, a fair proportion of moisture is beneficial, for though much moisture is somewhat depressing to the nervous system, it has a soothing effect upon the respiration. This question is usually made to turn upon that of the temperament, and most cases in the early stage of phthisis show the torpid "lymphatic" temperament, though this statement is contrary to the general opinion, Erythraism, however, is a characteristic of all advanced cases, and of acute early cases. But different places vary considerably as to moisture in different seasons, and on this and other grounds (temperature, etc.) a change is occasionally desirable, especially in early summer. High plains and mountains are suitable for all torpid and chronic cases. It is well known that feverish cases do not bear a residence at the seaside well. The tissue-changes being too much stimulated, temperature is a question of less importance, and patients can pass the winter in Europe very well, as the astonishing results at such sanatoria as Falkenstein and Göbersdorf teach us. The best place in Europe in winter for a consumptive patient is, owing to its exceptional situation, the Riviera. Italy itself, otherwise, from Pisa to Naples, is apt to be very cold in winter; but, south of Naples, all is warmth and sunshine again. The Alpine resorts claim attention in early summer.

The consumptive patient, then, is advised by Dr. Friedmann to winter in the Riviera; and, further, having gone to so much trouble and expense, not to economise in the wrong direction by dabbling in medicine chests, but to consult on arrival a local physician; a fellow-countryman for preference, to whom even the choice of the hotel should be left. By so doing he will be

saved the extremes of pessimism or optimism, according to his varying moods, and his life will be regulated for him to the best advantage on the principles above laid down.

TRANSPLANTATION OF NERVE FROM THE RABBIT TO MAN.

DR. GERSUNG, of Vienna, assistant to Professor Billroth, has recently performed a novel and interesting operation—the transplantation of nerve from the rabbit to man. The case has not hitherto been published in any medical journal, but owing to its general interest the bare fact had found its way into the lay newspapers. Our Vienna Correspondent has received from Dr. Gersung a verbal account of the salient points of this most remarkable operation, which has so far been conspicuously successful. The patient is Professor von Fleischl, the distinguished occupant of the chair of physiology in the University of Vienna; sixteen years ago he accidentally wounded himself while conducting a *post-mortem* examination, and severe inflammation of the whole right upper limb ensued. During the course of the disease the terminal phalanx of the thumb became gangrenous. The stump thus left was painful, and later on re-amputation was performed. This was followed by the formation of neuromata. For this condition the branches of the median nerve which supply the thumb were first resected, together with the terminal neuromata, and at a later period, when new neuromata began to develop, the central parts of the same nerves, together with the branches of the radial nerve which supply the thumb, were resected. Fresh neuromata now developed on the branches of the median nerve, which were treated, without any success whatever, by the injection of hyperosmic acid and electrolysis. Two years ago the neuromata were resected again, and the resection of the nerves was continued as far as the “ligamentum carpi volare;” on this occasion, the branches which supply the radial and the ulnar sides of the index, as well as the radial side of the middle finger, were resected to a great extent. The forefinger now became anæsthetic, except the dorsal aspect of its first phalanx, which, as is known, is supplied by the radial nerve; in the same way the whole radial side of the middle finger became anæsthetic. The pain, however, again recurred, as after the previous operations, and during the course of the second week after the last operation, the patient became aware that a fresh neuroma was developing. The suffering finally became so severe that the patient wished to undergo another operation, in order to procure, at least, temporary relief. Accordingly the following operation was performed: On March 4th the patient was put under the influence of chloroform, and the neuroma, which was situated behind the volar carpal ligament, was excised, the nerve being cut through behind the neuroma. The peripheral nerve stumps of the two digital branches above mentioned were then sought for. A rabbit was now killed, and as long as possible of the sciatic nerve of the animal, with the two branches into which it becomes divided, was dissected from it (the animal still presenting voluntary contractions). The sciatic nerve was afterwards inserted into the space between the central stump of the median nerve and its digital branches; the central end of the sciatic nerve was sutured to the connective tissue which

covered the median nerve, and the two branches were sutured to the digital branches of the median nerve; the portion of nerve, measuring about 6 centimètres, which was deficient was thus made up. After the operation severe pain persisted for some hours, but then entirely subsided. Healing took place by first intention. As two months have now elapsed since the date of operation and the pain has not returned, it may be hoped that the favourable result will become a permanent one. Sensibility, moreover, is becoming re-established in the part. Dr. Gersung has postponed the publication of the case, because he wished to observe whether complete sensibility would return; he hopes with confidence that this will be the case. The ultimate result will be awaited with great interest; for if it is as favourable as now appears probable Dr. Gersung's recommendation that the operation should be given an extended trial will doubtless be widely acted on.

SANITARY REGISTRATION OF LODGING HOUSES.

At a recent meeting of the Hastings Town Council, Mr. Councillor Bray moved a resolution of wide public interest, the purport of which was the proposal to establish a system of voluntary registration of houses by the Town Council after examination and report by the borough surveyor or nuisance inspector. The resolution also proposed to grant certificates to such houses as attained, in the opinion of the examining officer, a certain standard of sanitary excellence. After a lengthy discussion, Mr. Bray eventually agreed to withdraw his motion. Whilst acknowledging that Mr. Bray brought forward many cogent reasons for the introduction of such a system into Hastings, it must be allowed that considerable weight attaches to the dissentient views which were expressed at the meeting. In the first place there is nothing at the present time to prevent lodging-house keepers or house-owners from obtaining such certificates from competent persons, should they desire to do so; and no doubt they would do so, if the public were in the habit of demanding them. In the second place, it is very questionable if any public body like a Town Council would be justified in saddling itself with so onerous a responsibility to the public and to visitors as that for the sanitary condition of houses in the town, over which it would have but little real control, but for which it would be held liable should ill-health or disease ensue as the result of occupancy entered into on the strength of the assurance given as to good sanitary condition by the Town Council's certificate. Again, as the Mayor pointed out, if Mr. Bray's resolution were adopted, the Town Council might render themselves liable to house-owners for damages should certificates be withheld when applied for.

Although the system would be voluntary and would thereby avoid the chief defect which characterised the Sanitary Registration of Buildings Bill of last session, the discussion which that Bill gave rise to clearly showed that in the opinion of those best qualified to know, the sanitary officials of a public authority are not the people to be entrusted with the examination of houses and the granting of certificates; the possible abuses of such a system are too obvious. The signs are not wanting that at last the public is beginning to understand that lodgings at seaside and health resorts are often the least

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desirable abodes for those who are in search of health. The only possible remedy for such a condition of things is so general an enlightenment as to sanitary matters, that the impending occupant of the "commodious apartments" at the seaside, will require to be satisfied as to the good condition of the drainage and water supply of the house before he trusts himself or his family inside its walls.

THE LAW AS TO WATER ANALYSIS.

By Section 21 of the Sale of Food and Drugs Act, 1875, at the hearing of the information against a person charged with an offence under the Act, "the production of the certificate of the analyst shall be sufficient evidence of the facts therein stated, unless the defendant shall require that the analyst shall be called as a witness." As a matter of practice we believe that it is rare for this requirement to be made, as the defendant is unwilling to increase costs against himself by insisting on the presence of the analyst. Certificates are no doubt generally correct, but the disclosures made in a case recently heard before the magistrates at Birmingham show that analyses are not always conducted so as to satisfy legal requirements. The summons was under Section 70 of the Public Health Act against the owner of a well, which was alleged to be so polluted as to be injurious to health. Under that Act there is no provision making the certificate of an analyst evidence, and the condition of the incriminated well had therefore to be proved, like any other material fact. Dr. Hill, the borough analyst of Birmingham, was called as a witness to prove the water to be polluted; and the result of the analysis made in his laboratory undoubtedly showed that there was a dangerous proportion of nitrates and nitrites in the water, and that the well was to some extent contaminated with urine. Dr. Hill, however, on cross-examination, admitted that he had not conducted the whole analysis himself, and could not say which part of the process he had personally conducted, though he said he took the responsibility of it. He also, in answer to the Bench, stated that he could not say the well was actually injurious to health, as there was no proof of any person having been injured; but it was certainly dangerous, and might be injurious at any moment. The Bench therefore dismissed the case, on the ground that the prosecution had failed to show the well to be so polluted as to be injurious to health.

The decision may be right as a matter of law, but the consequences may be serious. On this principle the Broad Street pump could not have been condemned till after it had spread death and devastation. If magistrates refuse to hold that a well which is contaminated by organic matter is dangerous until it has actually become specifically poisoned and has infected a neighbourhood, public health in such places stands on a rickety basis. There is, moreover, another moral to this case. The law, for obvious reasons, requires facts to be proved by persons who know them of their own knowledge, and have not derived them by hearsay from others. Dr. Hill stated that he had so many analyses to conduct that he could not afterwards say that he did any one part of any particular analysis. Probably, most analysts of any reputation have assistants in their laboratories, and get the greater part of the work of analysis done by them. In cases, however, where the

analyst is likely to have to give evidence in support of his analysis, he must take care to supervise and keep a record of the processes, so as to be able to prove the necessary facts from his own knowledge. The fee for an analysis, provided by Section 12 of the Sale of Food and Drugs Act (10s. 6d.) is certainly inadequate in cases where the analyst has to devote much personal care and trouble; but that is supposed to be in addition to the presumably satisfactory salary payable under Section 10. As a fact, many of the salaries paid by local authorities are miserably inadequate; but qualified men accept them. They do not devote their whole time to the performance of their duties as analysts, and are not expected to do so. Possibly, if they realise that the position of public analyst entails a greater amount of personal supervision and trouble than has hitherto been deemed necessary, and consequently leaves less time for other and more remunerative work, they may cease to be content with the salaries they have hitherto accepted. If so, the local authorities must pay more, or put up with the services of less competent men. An analyst, while he occupies the position, must discharge its duties properly himself. If he cannot do so, however skilful a chemist he may be, he is useless as an official employed to protect the public health.

MR. R. CLEMENT LUCAS, B.S., M.B., F.R.S., has been appointed Surgeon to Guy's Hospital in the place of Mr. Thomas Bryant, F.R.C.S., who has been appointed Consulting Surgeon. Mr. W. Arbuthnot Lane, M.S., F.R.C.S., has been appointed Assistant Surgeon.

By the resignation of Mr. Henry Smith a vacancy has occurred in the senior staff of King's College Hospital. Mr. William Rose has been elected full Surgeon to the hospital in charge of beds, and also Professor of Surgery in the College. Mr. Rose has long been known as an able surgeon and teacher, and there is no doubt that his accession to the staff will prove a source of strength to the hospital and school.

THE MARSHALL HALL PRIZE: THE ADDRESS.

It has already been announced that the Marshall Hall Prize of the Royal Medical and Chirurgical Society has been awarded to Dr. W. H. Gaskell, F.R.S., Lecturer in Advanced Physiology in the University of Cambridge. A special meeting of the Society will be held on Thursday next, May 24th, at 8.30 p.m., when Dr. Gaskell will give an address on "The Relations between the Function, Structure, Origin, and Distribution of the Nerve Fibres which compose the Spinal and Cranial Nerves."

A HOSPITAL POLL-TAX FOR ST. PETERSBURG.

It has been resolved by the *Duma* or municipal authority of St. Petersburg to impose a tax—that is, if the Czar will permit—on all the inhabitants over seventeen years of age, with certain exceptions, for the maintenance of the hospitals. The amount proposed is two roubles a head for men and a rouble and a half a head for women. (The value of the rouble is a little under two shillings.) All persons paying this tax will be entitled to free treatment in the hospitals they are thus to be compelled to support. There is a great outcry now that the hospitals are too full, and that numbers of deserving cases are refused admission. If almost every inhabitant is to be led to consider that he or she has an absolute right to admission, an immense increase in the accommodation at present available must be made, and the field open to private practitioners will certainly be greatly reduced. Many of these gentlemen have now a severe struggle for existence, and

such a wholesale attraction of the inhabitants to public institutions appears calculated to wipe the poor private practitioner almost out of existence.

LANOLIN IN CUTS AND BURNS.

A RECENT article in the *Pharmaceutische Rundschau* (No. 3, March, 1888) states that experience has shown that lanolin is an excellent dressing for cuts and burns. Professor B. Fränkel finds that it prevents the formation of scabs, and that burns under this treatment do not desquamate so much as under most others. In cases where it is desired to irrigate a wound, in order to reduce heat and irritation, lanolin may still be applied, as it is not readily washed away. If a small wound is immediately dressed with this ointment basis, hæmorrhage is stopped.

THE SUMMER LECTURES AT THE COLLEGE OF SURGEONS.

WE have already noticed that Mr. Bryant will lecture on Tension as met with in Surgical Practice, on June 11th and 13th; and on Surgical Interference in Cranial Injuries, on June 15th. Mr. A. E. Barker will deliver three lectures on the Operative Treatment of Tubercular Diseases in Joints, on Monday, Wednesday and Friday, June 4th, 6th, and 8th. Mr. R. Marcus Gunn will lecture on Light-Perceptive Organs, on Monday, Wednesday, and Friday, June 18th, 20th, and 22nd. It is important for all who wish to attend some of the above courses that they should bear in mind that each lecture will begin at 5 o'clock in the afternoon, and not at 4 o'clock, as before.

DONDERS MEMORIAL FUND.

THE ceremony at Utrecht on May 28th, to celebrate the seventieth birthday of Professor Donders and his consequent retirement from the professorship, will commence at 1.30 P.M. The sum collected, together with the roll of subscribers, will be formally presented. A public dinner will be held at half-past 5. After the ceremony of presentation, the Professor will name the scientific purpose to which he proposes that the fund shall be applied. The complete list of subscribers from this country is to be seen in our advertising columns on page 55, in the order in which they have been received. Any subscriber may verify the amount of his subscription by applying to Mr. Brailey, 11, Old Burlington Street, where the audited list may be seen. The total amount collected here is £290 11s. 10d. Professor Humphry, Dr. Hughlings Jackson, Mr. Hutchinson, and Mr. Brailey have been invited to attend as delegates to represent the subscribers, and it is hoped that many others also may be able to attend and by their presence do honour to Professor Donders.

MYXŒDEMA.

WE learn with satisfaction that the Committee appointed by the Clinical Society of London to study the nature of myxœdema has concluded its labours. The inquiry has been in progress for three or four years, and has proved a very laborious undertaking, as the Committee took a very serious view of its duties, and has worked earnestly to give a thorough answer to the question, "What is myxœdema?" A short summary of the report will be read by Dr. Ord at the meeting on May 25th, when there will doubtless be a full gathering of members, especially as it will be the last meeting of the session. The Clinical Society, by the preparation of this report and of similar reports on Charcot's joint-disease and on spina bifida, have established a good precedent; the study of such complicated clinical questions is an enterprise well within its province, though involving much labour, trouble, and some expense. To Dr. Ord, chairman of the Committee, and to Dr. Hadden, the honorary secretary, on whose shoulders a large share of the work has fallen, the warmest thanks are due. The

report will, we understand, be issued as a separate volume, and will be purchasable by persons who are not members of the Society.

SIR WILLIAM JENNER.

IN order to show the highest mark of the respect of the Fellow of the Royal College of Physicians, the chief officers of the College attended at Sir William Jenner's house on May 11th to present to him the resolution conveying the thanks of the College which was passed on April 26th. The President (Sir Andrew Clark), accompanied by the Senior Censor (Sir Alfred Garrod who had proposed the resolution in the Comitia, Dr. Quair the seconder of the resolution, and the Registrar (Sir Henry Pitman), constituted the deputation. Sir William Jenner was deeply gratified at their visit; and, in reply, stated, amongst other things, that it had always been his object never to endeavour to do more than one thing at the time; first, as an investigator secondly, as a teacher; thirdly, as a practitioner. Speaking of the College, he said that he hoped the time would never come when the Fellows would be chosen by examination alone, but that the character of the candidates for the Fellowship and their relations to the public and the profession, as well as the mere writing of scientific papers, should, in his opinion, form conditions for the Fellowship.

THE WORK-ROOMS AT THE COLLEGE OF SURGEONS.

AN advertisement inviting Fellows and Members of the College to apply for the privilege of making use of the work-rooms has recently been issued. The following "Conditions relating to the use by Fellows and Members of the New Work-Rooms at the College, have been drawn up, and are to be obtained on application to the Secretary, Mr. Trimmer. *Subjects of Research.*—Anatomy, Physiology, and Pathology, human and comparative, including Histology, Hygiene and Therapeutics in their relation to Surgery. *Conditions of Study in the Work-rooms.*—Appointments will be made by the Council for definite periods. When application is made for an appointment, a prospectus or description of the proposed investigation shall be sent in, with as complete a list as possible of the necessary instruments and apparatus. No new line of research, other than that originally approved by the Council, shall be undertaken without their previous sanction. Reports of progress shall be made to the Council at stated periods of investigation. The place and mode of publication of results of work shall be determined by the Council. If any assistance be required, the investigator may provide it, but the person or persons proposed must be approved by the Council. No fixed hours of attendance will be required, but a record must be kept of actual hours of daily work. The necessary instruments and materials will be provided and expenses of investigation will be defrayed by the College, but no purchase of any additional instruments or apparatus shall be made without the sanction of the Council.

ORPHANAGES AND CHARITY SCHOOLS.

MANY public orphanages have been founded by philanthropic people for the reception and training of children. Such institutions require careful management, and diligent attention to all matters of hygiene. The principles of ventilation, clothing, and dietary are well known to all who are acquainted with the principles of sanitary science. We desire to impress on all who are responsible for such institutions for children the great importance of discriminating among the children such as are in any way defective in development and constitution. Any large proportion of children defective in body or in brain power residing in a boarding-school is, in our opinion, a matter to be very carefully guarded against, as likely to lead to serious difficulty in discharging obvious

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duties. Such children tend to lower moral and intellectual tone, and to promote bad habits among the other children. They are liable to suffer much from the effects of cold in the winter season, and in the school and the workshop they require different management from that provided for the stronger children. Any appreciable number of such cases—say 6 in a school of 200—will not only lower the results of good training, but also demand of the staff an amount of personal attention which cannot be bestowed with due regard to the requirements of the majority, thus leading to neglect, or to an increase in the strength of the staff. On the other hand, when an institution voluntarily receives and retains children of defective make, they must not be neglected, and a greatly increased responsibility is thereby thrown upon the management. A voluntary institution, to work economically and well, must follow one of two plans; either it must rigidly exclude children of defective constitution, or it must make due provision for them. In either case it is the duty of the management to see that such conditions in children be reported to them, either before admission, or soon after, and then to act or make such provision as they think best. In such matters skilled medical opinion is obviously necessary. In some schools for the blind this difficulty has long been felt. Blind children often have very awkward habits; defective action and constant automatic movements are common in such cases, giving many blind children the appearance of stupidity, though brain-power may not be permanently defective. In these schools the managers often require a probationary trial before they finally accept responsibility for the care and education of any child; much waste of teaching power is thus prevented. In the remarks here made only voluntary schools are referred to. The circumstances are, of course, quite different where admission is compulsory, as in establishments under the poor-law,

SWISS PERSECUTION OF ENGLISH DOCTORS.

UNLESS the Swiss Government can see its way to put an end to the war which is now being waged in the leading Swiss health resorts against the few English medical men who now reside there for the purpose of meeting the needs of English patients, there is likely to be a great decrease this winter in the number of English speaking patients who will resort there. Dr. Tucker Wise, at Maloja; Dr. Holland, at St. Moritz; and Dr. White, in the Canton Vaud, are among the limited number of resident English physicians to whom Switzerland is much indebted for aiding in the development of her winter health resorts. They are now being subjected to persistent persecution by the active enforcement of an old law, prohibiting the practice there of foreign physicians. Dr. Wise, to take a conspicuous example, has, it is well known, done much, to speak quite moderately, to develop the prosperity and resources of Maloja and St. Moritz and Wiesen. While these exertions were being made, and pending the afflux of patients, now attracted thither in no small measure by his writings and the confidence of his professional brethren in England, no objection was raised to his practising among his countrymen who came to reside there. Now, however, that the place has attained a reputation, and there is a considerable afflux of foreigners, of whom perhaps 95 per cent. are English-speaking, a war has been commenced against the medical benefactors of the place. Drs. Wise and Holland have been subjected to fines of £20 each for practising their profession, and threats of more severe measures have been held out. The short-sightedness and the injustice of the proceeding are sufficiently palpable. But such proceedings are likely to bring their own punishment; for it may be reasonably assumed that, deprived of the services of medical men of their own speech, and of whose school and methods of practice they have experience and confidence, English and American invalids will prefer to seek other places where such annoying restrictions are

not so vexatiously enforced. The future of health resorts lies very much in the hands of the medical profession, who, if they are deprived of the opportunity of placing their patients under the charge of men whom they know, and in whom they can confide from personal acquaintance, and who can carry on the English methods of treatment, will feel some hesitation in sending away their patients to distant and isolated places, such as Maloja, St. Moritz and other stations of the kind.

THE LIFE HISTORY OF FILARIA SANGUINIS HOMINIS.

It is interesting to note the long chain of inductive reasoning, combined with careful and laborious research, which has led to the unravelling of the complicated life history of the filaria sanguinis hominis. The discovery of bilharziac hæmaturia by Griesinger in Egypt, led Wucherer to search the urine of patients suffering from hæmaturia in Brazil, and it is just twenty years since he first saw the immature worm in the urine of these cases. Shortly afterwards the same parasite was independently discovered by the late Dr. T. R. Lewis in the blood of a patient in Calcutta, and to this acute observer is due the credit of establishing a connection between chyluria and the filaria. This observation led Dr. Manson to the surmise that the adult worm must establish itself in such cases in the larger lymphatic vessels, or even in the thoracic duct. Systematic search was consequently made; but it was not until 1876 that the adult was at length found by Dr. Bancroft, of Brisbane, who went a step further by suggesting that the mosquito was probably the intermediate host. This Dr. Manson proved to be correct by direct observation in 1877; the immature filaria is sucked up with the blood by the mosquito, which shortly resorts to water to deposit its eggs, and, having achieved this object of its existence, expires; not, however, before it has digested the greater number of the filariae. A few, however, escape, and are set free by the dissolution of the mosquito. It has been supposed that the filaria passes the next stage of its existence in the water as a free nematode, but can only attain full sexual development by entering the human body; it is believed to accomplish this by penetrating the skin of bathers, and to attain sexual maturity in a short time within the body, the conjunction of the sexes taking place in the lymphatics. Lewis once obtained a fragment of a male which was closely coiled around the female; but the specimen, described at page 1050 by Professor A. G. Bourne, of Madras, from a case of lymphoid scrotum, is the first found in a condition which permits the specific characters to be described. The chief point which now remains to be cleared up by observation is as to the manner in which the parasite enters the human body. Dr. Manson has proved himself on former occasions not only an able observer but an acute reasoner; still his theory mentioned above presents certain obvious difficulties.

EFFECTS OF EXPOSURE OF THE INTESTINES.

At the November meeting of the Berlin Obstetrical and Gynaecological Society, Professor Olshausen read a communication on a hitherto unrecognised cause of death after laparotomy where intestine has been allowed to lie outside the abdominal wall for a prolonged period. In this country, at least, surgeons are careful to prevent prolapse of the intestines. Coils which adhere to a tumour and cannot be at once separated are carefully covered with flat sponges, or with towels wrung out in hot water which often contains an antiseptic compound. As soon as the adherent coils are separated from the tumour, all bleeding points being secured, they are carefully replaced. As soon as the tumour is extracted through the abdominal wound, or indeed whilst it is slipping out of the incision, a broad flat sponge is slipped into the

peritoneal cavity to prevent any chance of prolapse, and to protect the gut from the suture-needles. The abdominal incision is, moreover, always made as short as possible, so as to avoid the sudden escape of coils of intestine. The Germans are less particular about eventration. Dr. Martin, in 1885, publicly recommended the dragging out of a large amount of intestine in cases where the tumour lay deep in the abdominal cavity, and declared that the greater part of the intestinal tract might be left hanging out of the abdomen during the whole operation, so that the surgeon might have plenty of room for manipulating the tumour. "This eventration," said Dr. Martin, "is quite free from danger; I have practised it in at least 90 per cent. of my cases without seeing any evil results." Professor Olshausen was more cautious, and directed attention to certain cases of collapse, often fatal, which followed cases of abdominal section and were not accompanied by symptoms of peritonitis. He concluded that prolonged exposure of the intestines in laparotomy might cause disturbance in the circulation in the walls of the gut, ending in venous stasis and serous infiltration, with ultimate formation of ecchymoses. At the same time the muscular coat is paralysed, often for several days; if the paralysis does not abate, symptoms of ileus set in. Fatal results of this kind are probably caused by the absorption of decomposing material in the intestinal canal.

FAIRS AND VENEREAL DISEASES IN RUSSIA.

DR. A. M. ZENKOFF, of Irbit, gives, in the *Shornik Permskako Zemstra*, December 27th, 1887, p. 421, some interesting particulars as to the manner in which syphilis is propagated by fairs in Russia. Irbit is a district town in the (East Russian) Perm Government, with a stationary population of 5,000, which is, however, periodically subject to very large increase during 2 or 2½ months, when the annual fair is held. This is officially open from February 1st to March 1st, and is a most important commercial meeting for wholesale transactions in tea, sugar, furs, wool, and leather; it is also one of the great centres of Russian prostitution. Dr. Zenkoff's report refers to 1884, but his description is equally applicable to subsequent, as well as to several preceding years. The information embodied in his paper was gathered by himself and Dr. N. V. Antonoff. The report deals only with the so-called "open" or "official" prostitution, and leaves out of consideration the unregistered or clandestine form which is practised to an enormous extent by numberless waitresses in beer shops, taverns, and inns, by attendants employed in public baths, by domestic servants, by hotel singers and harp players, by *kalatchnitsas* (female bakers of *kalatch*, a favourite national white or grey bread having the shape of a padlock), etc. The number of regular prostitutes in the town brothels was 20, all of whom were Russian single women, aged from 16 to 27, who had been "in practice" from 2 to 10 years; all but one were entirely illiterate; 13 had had syphilis. During the fair time (beginning in this case early in December) the "official" contingent rapidly rose to 292, scattered about in all sorts of extemporised brothels distinguished by the red lamp which is the recognised mark of such establishments all over Russia, just as a blue lantern is throughout China. The ages of 272 new comers varied, between 15 and 38, about 56.5 per cent. being between 20 and 25, 27.5 per cent. between 15 and 20, and 16.0 between 25 and 38. As to their nationality, 245 were Great Russian, 25 Tartar, 1 Little Russian, and 1 German. As regards their social position, 197 belonged to the peasantry, while the remainder were artisans, factory hands, etc.; there were also several daughters and wives of Crown officials, and one medical assistant's daughter. Only 12 could read and write, 14 others could only read, while the remaining 246 were utterly illiterate; 229 were single women, 34 married, and 9 widows. Only 84 (31 per cent.) of the new comers were professional prostitutes, while the remaining 69 per cent. practised prostitution only during the fair, subsequently

going back to their usual occupations. Out of fair time, 23 per cent. (of 272) earned their livelihood as cooks, chambermaids, and even nurses; 12 per cent. were professional needlewomen of various descriptions; others were usually employed as agricultural labourers, miners, laundresses, *kalatch* bakers, cigarette makers, etc. A special group of 32 women stated that their usual occupation was "household work," all of them living with their families. Many of this group confessed to the author that they had come to the fair with the full knowledge and permission of their relatives (husband or father, or both); in fact, they had come to earn something towards the support of their families. Everyone of the new comers (as well as of those belonging to the town) proved to be suffering more or less from chronic vaginitis. Three came with well-marked secondary syphilis, 3 with soft chancres, 1 with virulent vaginitis, 4 with marks of tertiary syphilis, and 48 with enlarged lymphatic glands following secondary attacks. The following figures referring to a period of five months (December, 1883, to April, 1884), and taken from the records of the small Irbit Zemskaja Infirmary give a faint idea of the pernicious influence of the fair on the health of the local population. There were treated as in-patients, during the period stated: *a*, for gonorrhœa, 19 women (including non-prostitutes), and 61 men; *b*, for soft chancres, 20 women and 14 men; and *c*, for syphilis (secondary), 17 women and 19 men; total, 150 patients (56 women and 94 men). A far larger number, however, came under the notice of the local medical men in their private practice during the same period. How many visitors to the fair carried infection back to their homes it is obviously impossible to say. It is a fact, however, that venereal disease is, in spite of registration and sanitary supervision of prostitutes, probably more rife in Russia than in any country the world, and there can be no doubt that this is largely due to local fairs of the kind here described.

VAN MILLINGEN'S OPERATION FOR ENTROPION.

THAT the treatment of entropion resulting from trachoma is not satisfactory may be inferred from the number of operations that have been invented for its cure. When the contraction of the conjunctival surface has entirely ceased, any of the best operations will succeed. Unfortunately, it is not always easy to say when this stage has been reached, and the condition is one that does not allow treatment to be postponed. The old operation of removing the margin of the lid has fallen into well merited disrepute, and excision of the hair follicles is only applicable to cases of partial entropion. The operations which have till now been most generally adopted in this country are Arlt's transplantation of the cilia-bearing margin, or some modification of this, or Bürow's operation, which consists in dividing the tarsus along its whole length into an upper and lower portion, accompanied or not by excision of a fold of skin. The latter operation is not infrequently followed by relapse, and in the former the lashes are very apt to be drawn down again by the cicatricial contraction of the raw surface left below them. The proceeding has consequently been modified by many operators, notably by Dianoux, who, instead of excising the fold of skin to make room for the ciliary flap, simply transposes the two flaps. The objection to this method is that a rather unsightly swelling is formed by the crossing of the flaps, and that the skin sometimes contains fine hairs which irritate the cornea. To obviate these drawbacks, Dr. Story, in 1885, substituted rabbit's conjunctiva, and, later, mucous membrane from the patient's lip, for the skin. Although Dr. Story appears to have suggested this operation, and practised it independently, it had already been extensively used by Van Millingen in Constantinople. The East offers so enormous a field for the observation of the results of trachoma, that Dr. Van Millingen is entitled to speak with authority on this subject, and

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a paper by him in the November number of the *Ophthalmic Review* will probably lead to the universal adoption of his operation. It differs from nearly all other proceedings in that the extent of the conjunctival surface is increased, while no tissue is removed from the lid. The operation itself is exceedingly simple. The lid is split from end to end into an anterior and posterior layer, the division reaching to a height of 3 millimètres in the centre and less at the sides. This gap is opened widely, and is kept open by suturing the ciliary margin to the integument. A strip of conjunctiva is then dissected off the patient's under lip and laid in the gap, no sutures being used. On the second day the cutaneous sutures are removed. The only test of the value of an operation of this kind is the permanence of the results, and Dr. Van Millingen says that he has kept cases under observation for many years, without any relapse taking place.

ANTIPYRIN IN HÆMORRHAGE AND ULCERS OF THE LEG.

In view of the statements of Henocque and Huchard as to the hæmostatic properties of antipyrin, Dr. Alexöi G. Glinsky, of Kharkov, tried (*Transactions of the Kharkov Medical Society*, Part I, 1887, p. 23) the drug (in the shape of cotton-wool plugs soaked in a 5 or 10 per cent. solution, or powdered with the antipyrin) in a series of cases of bleeding, such as epistaxis, hæmorrhage from surgical or accidental wounds, etc. On the whole, his results were unsatisfactory. In some cases of lacerated wounds of the fingers (inflicted by a nail, etc.) hæmorrhage was arrested, but it was not certain that this effect was not rather due to pressure than to the antipyrin. Dr. Glinsky tried it on a wound on his own finger, but was obliged to have recourse to perchloride of iron. In three cases of severe epistaxis the bleeding came on again in five or ten minutes after withdrawing the antipyrin plugs, and ultimately could be stopped only by plugging the posterior nares. Antipyrin had no effect in checking hæmorrhage after excision of acute condylomata, labial papilloma, etc. On the other hand, Dr. Glinsky was much pleased with antipyrin as a dry dressing in indolent ulcers of the leg, fully confirming Dr. Bosse's observations (*Berliner Klin. Wochenschrift*, No. 33, 1886) on this point. The healing action of the drug in these cases is so rapid that he strongly recommends the use of antipyrin in powder when other means fail. He also obtained good results with antipyrin in acute articular rheumatism, in which it is said to act as effectively as salicylate of soda and more rapidly. It also proved useful in migraine and neuralgia of the fifth nerve. Unpleasant secondary effects (rash, sickness, collapse) occurred in his experience very rarely.

SCOTLAND.

SUICIDE BY SWALLOWING SULPHURIC ACID.

A FEW days ago a woman was brought into the Royal Infirmary, Glasgow, suffering from poisoning by sulphuric acid. She had been arrested by the police for creating a disturbance in the street, and had swallowed the poison shortly before her arrest. She was at once removed from the police-station, after examination by the surgeon, to the infirmary, but died soon after her admission.

DEATH OF DR. JOHN WILSON, GLASGOW.

It is with deep regret that we record the death of Dr. John Wilson, of Hillhead, Glasgow, on May 8th, at the age of 63. He had been in feeble health for some time past, but the end came suddenly, death being due to apoplexy. He was one of the most popular members of the profession in Glasgow, and his tall figure and genial, enthusiastic manner, will long be missed. Dr. Wilson was a man of scholarly habits and of considerable literary and

artistic power. He had very conspicuous ability in expressing his ideas both with pen and pencil. He frequently read papers before our various societies, and his last paper, read before the Medico-Chirurgical Society this session, on the Erect Attitude in Man will long be remembered for its sound anatomical knowledge, its wealth of illustration, and its felicity of expression.

LAKE DWELLING AT OBAN.

A DISCOVERY of more than ordinary interest to archaeologists has recently been made at Lochavullin, near Oban, of an ancient "crannog," or lake dwelling. It has been visited by Dr. Robert Munro, of Kilmarnock, author of *Ancient Scottish Lake Dwellings*, who has declared it to be a genuine "crannog," and the largest he has yet seen in Scotland. It measures about 85 feet by 60 feet. By digging in the mud three tiers of wooden piles were discovered, and more woodwork could be felt at a depth of 14 feet from the surface. Further excavations were, however, suspended till the water of the lake could be thoroughly drained off.

ACCIDENTS AT THE OPENING OF THE EXHIBITION.

CONSIDERING the enormous crowds which lined the streets of Glasgow and occupied every available elevation on the route of the procession on May 8th, it is fortunate there were so few accidents. The only cases reported are comparatively slight. A little girl, while climbing over a railing in the Park, got her leg broken. A crowd of people leaning against a railing caused it to give way and fall upon the people in the street below, of whom two, a man and a woman, had their legs broken. Late in the afternoon a man standing on the top of a tramcar overbalanced and fell to the ground on his head. All the injured were conveyed to hospital, and are now doing well.

PATHOLOGICAL AND CLINICAL SOCIETY, GLASGOW.

THE last meeting for the session was held on Monday, May 15th. Dr. Thomas Reid showed a case of fracture of the skull, with loss of sight of one eye, and hemiopia of the other. Dr. Newman showed two cases of complete laryngeal stenosis produced by wounds of the larynx in attempted suicide. Dr. H. C. Cameron showed a dermoid cyst of the ovary, with teeth and hairs growing on its outer wall, and a large Dupuytren's exostosis of the great toe. He also showed several large biliary calculi removed successfully by operation from the gall-bladder. Dr. Meighan showed an eyeball in which ossification of the choroid and lens had taken place. The following were the office-bearers elected for next year: *President*: Professor W. T. Gairdner. *Vice-President*: Dr. David Newman. *Secretaries*: Mr. Maylard and Dr. Lindsay Steven. *Treasurer*: Dr. J. B. Russell. *Council*: Drs. Middleton, Meighan, Finlayson, and Clarke. The recommendation of the Council that Dr. Joseph Coats be appointed representative of the Society at the Congress on Tuberculosis to be held in Paris in July next was unanimously adopted.

UNIVERSITY EXTENSION LECTURES.

ARRANGEMENTS have recently been made in Edinburgh for developing in the city itself the system of University extension lectures that has proved so satisfactory and successful in some of the surrounding districts. A course of twelve lectures on botany, by Mr. Patrick Geddes, has been initiated in connection with the Edinburgh Philosophical Institution; the hall of that institution being used as a lecture room. The first lecture was delivered last week, and there was such a crowded attendance as to necessitate the redelivery of the lecture subsequently to those who could not obtain admission on the first occasion. The course is, therefore, an assured success, and will probably lead to further developments in other branches of teaching in science, art, and literature.

ABERDEEN.

THE summer session of the University opened on April 23rd, and the various practical and systematic classes are now in full swing, bidding fair to maintain the character of the University as a working school. The entries, especially of freshmen, are larger than in any previous year, rendering evident the necessity for enlargement of some of the laboratories and classrooms. It is understood that this will be done in the course of the year by an extension of the buildings. Impatience is finding expression at the delay in getting on with the new Infirmary buildings. The money is subscribed, but, somehow, there is delay over the details of the plans which cannot be considered unavoidable. The parts to be first erected are the new surgical hospital and the detached pathological block. The inspectors of the Medical Council paid a visit to Aberdeen at the final examination last month.

THE UNIVERSITIES' (SCOTLAND) BILL.

A SPECIAL meeting of the Merchants' House at Glasgow was held on May 11th to consider this Bill. Dr. W. G. Blackie, who presided, explained that, since the Merchants' House had petitioned in favour of the Bill, very considerable opposition had been raised in the House of Lords to the clauses providing for university extension. These clauses, in the eyes of those who were in favour of university extension, were the cardinal clauses in the Bill, which, without them, would be of comparatively little value. The fear was that the opposition would cause these clauses to be dropped, and their present object was to impress upon Lord Salisbury the great importance of the affiliation clauses, so that they might be retained. The idea was that this would be best done by memorialising Lord Salisbury himself. It was stated that amendments had been prepared meeting the objections that had been raised to the affiliation clauses as they stood. Lord Rosebery had seen the amendments, had expressed his approval of them, and there were some hopes that he might take charge of them in the House of Lords. It was unanimously agreed to send a memorial expressing approval of the object of the Bill, especially the powers in the Bill for the extension of university teaching in Scotland, and those recognising extra-mural teaching under due regulations, and stating that the memorialists would deem it a grievous misfortune if these powers were in any form interfered with. The Education Board of University College, Dundee, have petitioned in favour of the Bill, expressing regret if any change is made endangering the proposals for extending the area of university education in Scotland, whether by the recognition of extra-mural teaching or by the affiliation or incorporation of other colleges, and expressing approval of the special clause relating to the Dundee College. The Glasgow Southern Medical Society, at a special meeting, held on May 11th, unanimously agreed to petition in favour of the Bill, the affiliation clauses being regarded as vital.

IRELAND.

NEW WATERWORKS FOR LIMERICK.

THE Board of Works have approved of the plans for the new waterworks for this town, and have sanctioned the immediate issue of the loan required for their construction.

ROYAL COLLEGE OF SURGEONS.

THE following gentlemen have been appointed examiners: J. D. Pratt, Preliminary Education; H. C. Tweedy, Public Health. Mr. Theodore Stock, Mr. Conolly Norman, and Mr. J. B. Story are candidates for the Council; the election takes place on the first Monday in June.

DEATH OF DR. BARRY DELANY.

THE death of Dr. Barry Delany, Superintendent of the Kilkenny District Asylum, is announced. The cause was angina pectoris. The appointment is worth £550 a year, with allowances. It is practically certain that Dr. Myles, the senior assistant at the Richmond Asylum, Dublin, will be promoted. The patronage is in the hands of the Lord Lieutenant.

MEDICAL SCHOLARSHIPS, ETC.

THE annual examinations for the Coulter and Malcolm exhibitions at the Royal Hospital, Belfast, have just been held, and the results declared. Mr. W. Quarry has obtained the former and Mr. James McConnell, B.A., the latter. Mr. R. W. Haslett, B.A., has been awarded the gold medal annually offered by the Belfast Hospital for Sick Children, at the close of the winter session, for proficiency in the medical and surgical diseases of children.

ELECTION OF CORONERS.

DR. McGRATH (Nationalist) has been returned for this office by a majority of 187 votes over his Unionist opponent, Dr. T. J. Browne. The contest seems to have been conducted purely on political grounds, as has unfortunately become the rule in such cases. It is difficult to see the connection between politics and a candidate's fitness to preside over the coroner's court. Dr. Alexander Heron, J.P., of Rathfriland, has been returned for the office of Coroner of the Southern Division of Co. Down. Dr. Martin, of Newry, and Dr. Smyth, of Banbridge, were at one time in the field, but retired upon the nomination day, leaving Dr. Heron in possession of the field.

HEALTH OF IRELAND: MARCH QUARTER.

THE death-rate was above the average for the March quarter, and was higher than the rate for any quarter since 1883. This result was due partly to the great prevalence of measles in many districts, and to the large mortality from diseases of the respiratory organs caused by the inclement weather which prevailed. The principal zymotic diseases caused 2,273 deaths, a number equal to a rate of 1.9 per 1,000, and showing an increase of .270 as compared with the number for the previous three months.

ENGLISH HOSPITALS AND IRISH SURGICAL QUALIFICATIONS.

THE Council of the College of Surgeons in Ireland has addressed the following letter to the Board of Trustees of the Bristol Royal Infirmary:—

Royal College of Surgeons in Ireland. May 9th, 1888. DEAR SIR,—The President and Council of the Royal College of Surgeons in Ireland, have had their attention called to the reported proceedings of the trustees of the Bristol Royal Infirmary, from which it appears that a motion has been made at their last meeting that a new rule shall be enacted, the effect of which will be to exclude from the medical staff of the Infirmary the Fellows of this College, in common with the graduates of most universities in England, and of all the colleges and universities in Scotland and Ireland. This College does not feel called upon to vindicate the status of its Fellows, except so far as it may be necessary to protect the interests of those who practise in England; but it has observed that the movers of the new rule in question have suggested that such regulation is advisable in order that the status of the medical officers of the Infirmary may be thereby raised, it being inferred that the Fellows of other Colleges, which are named, are of superior educational qualification. With the view of removing misapprehension on this point, I am directed to send, for the information of the Board (enclosed), copies of the Fellowship Regulations of the College, from which it will be observed that under no circumstances is any candidate admitted to that diploma except after several days' theoretical, practical, and operative examination, the scope of which is not in any respect inferior to that of any licensing body in the kingdom, and before and after the passing of these examinations strict guarantees are exacted from the candidate for the propriety of his professional

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notice as a Fellow. Lest any doubt may exist as to the *bona fides* of these examinations, or as to their educational standard, the College has expressed to the General Medical Council its desire that these examinations should be submitted to any inspection which may seem necessary to remove any possible doubt on these points; and I am directed to say that if any question arises to the professional status of our Fellows, this College is ready to afford to your Board the most ample information to enable you to satisfy yourselves that there is no reasonable ground for such a motion as that which has been submitted to them, and the College invites them to make such inquiries as they may deem necessary.—I am, Sir, yours very faithfully, ARCHIBALD H. JACOB, R.C.S.I., Secretary to the Council.

PROPOSED SANITARIUM AT ROSTREVOR, CO. DOWN.

THE prospectus of a company recently formed for the foundation of a hydropathic establishment and sanitarium at Rostrevor, Co. Down, is just being issued. It is pointed out that a great need exists for an establishment of this kind in the North of Ireland, none at present existing in Ulster, in spite of the proved popularity of such institutions. The only thoroughly organised and efficient hydropathic establishment in Ireland is at Blarney, near Cork; and it is thus hoped that the proposed institution at Rostrevor might enjoy a virtual monopoly of patronage from the people of the North. The advantages of Rostrevor as a site are set forth in the prospectus with all the glowing language familiar in such documents. They are, however, sufficiently obvious and genuine to need no exaggeration. They consist mainly of two important features—shelter and natural beauty. The Mourne Mountains form an almost continuous rampart on the east and north, constituting Rostrevor one of the mildest of resorts, especially during the prevalence of east winds. The neighbourhood is also highly picturesque, and is easily accessible from all parts. Warrenpoint, the nearest railway terminus, is two miles and a half distant, and it is only seven miles thence to Greenore, which is five hours steaming from Holyhead. The site of the proposed sanitarium has a southerly aspect, and a frontage of 750 feet to Carlingford Lough. It is intended that the building to be erected shall have accommodation for fifty guests, and contain all the equipment of a complete hydropathic establishment. The capital of the company is to consist of £16,000, in 11,000 shares of £1 each, and £5,000 in 6 per cent. debentures. Mr. T. W. Russell, M.P., is one of the directors.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.—Mr. W. S. Savory, F.R.S., took the chair at the annual general meeting of this association. The following gentlemen were elected members: Wilson Coltart, L.R.C.P., M.R.C.S., medical officer to Epsom College; Peter W. Delamotte, M.R.C.P.E., M.R.C.S., medical officer to the West London Schools, Ashford; and Percival Kingsford, M.R.C.S., L.S.A., medical officer to the Welsh High School for Girls, and to the Feltham Reformatory. The audited accounts—showing a balance in hand of £39 2s. 11d.—were presented and passed. The officers for the ensuing year were then elected as follows:—*President:* W. S. Savory, Esq., F.R.S. *Vice-Presidents:* Sir Andrew Clark, Bart., Dr. Farquharson, M.P., Dr. Fuller, Dr. Brett, and H. Statham, Esq. *Treasurer:* Noble Smith, Esq. *Honorary Secretaries:* Dr. Alder Smith and Dr. Charles Shelly. In place of the four gentlemen retiring by rotation, the following were elected as new *Members of Council:* Dr. Abercrombie, Assistant Physician at the Children's Hospital, Great Ormond Street; Chune Fletcher, Esq., medical officer to the Merchant Taylors' School; William Holderness, Esq., medical attendant at Eton; and Surgeon-Major Lever, medical officer to the Military College, Oxford. *Auditors:* Messrs. Statham and Chune Fletcher were re-elected. The Honorary Secretaries then presented the Code on the Construction and Maintenance of School Infirmaries and Sanatoria, on the preparation of which the Council had been continuously engaged during the last eighteen months. This was considered and discussed by the meeting clause by clause. Certain modifications having been introduced into the text, it was then resolved that the Code should be printed and

published for the association, and that a copy should be sent to each member and to the head masters of the large schools. A vote of thanks to the Council, and a special vote of thanks to Dr. Shelly for his great help in wording and preparing the Code, were then passed unanimously. Several members and guests subsequently attended the annual dinner, at which the President presided.

PRESENTATIONS.—Mr. George Parsons Torney, B.A. Dublin, L.K.Q.C.P.I., who recently resigned the appointment of assistant medical officer in the Warwickshire County Asylum, Hatton, to accept the assistant medical officership at the Lincoln County Asylum, has been presented with an illuminated address, together with a handsome clock bearing a suitable inscription, a pair of valuable chimney-piece bronzes, and other objects of practical and artistic value from his brother officers, patients, and friends.—Dr. C. Knott, of Landport, has been presented by the members of Court Mechanics' Hope, No. 2,357 A.O.F., as a mark of their esteem, with a massive four-branch silver candelabrum, chased and ornamented, also a silver-plated fish slice and fork.

CLINICAL LECTURES ON CHILDREN'S DISEASES.—A course of clinical lectures and demonstrations commenced at the Hospital for Sick Children, Great Ormond Street, on Thursday, May 17th, at 3.30 P.M., when Dr. Cheadle lectured on Rheumatic Heart Disease in Children. On Saturday, May 19th, at 9.30 A.M., Mr. Howard Marsh will lecture on Abscess in Child—Diagnosis and Treatment. The lectures are practically free, though for attendance throughout a small fee is charged. A syllabus of the complete course can be obtained of the Secretary, Mr. Adrian Hope.

THE Glasgow Society for the Prevention of Cruelty to Children has during the past month dealt with cases involving the welfare of 118 children, some of a peculiarly distressing character. Of the children, 18 had been placed in industrial schools and training ships, and 43 had been placed under the supervision of the School Board. A fancy dress ball, held recently in aid of the society in St. Andrew's Hall, had realised £550 for the benefit of its funds.

LEGACY TO EDINBURGH ROYAL INFIRMARY.—Under the will of the late Mr. Henry Ritchie Cooper Wallace, of Busbie and Cloncaird, Ayrshire, a large residual sum, after paying other legacies, was left to the Royal Infirmary. The terms of the will were subject to a life rent, payable to the widow of the deceased gentleman, and were only to be implemented on her marriage or demise. The former alternative has been recently fulfilled, and the Royal Infirmary thus becomes the recipient of a handsome legacy, amounting to over £21,000.

A SCHOOL OF HOUSEKEEPING.—A school of housekeeping has been started in Brussels by the Countess of Flanders. Forty girls there receive a practical training in domestic economy, marketing, cooking, mending, and laundry. The pupils keep house-keeping books, and enter receipts and expenditure. Such an effort to improve practical knowledge deserves commendation and imitation.

THE Greenock Centre of the St. Andrews Ambulance Association held their second annual meeting on May 5th. The centre was reported to be in a prosperous condition, twenty-nine classes, comprising 1,000 persons, having been held in the two years of the existence of the branch. Of that number of persons nearly all had taken certificates, and forty-three had been awarded the Association's medallion.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—The trustees of the Helen Prideaux Fund propose to make the first award of the Helen Prideaux Scholarship at the end of July, 1888. The amount of the scholarship will be £50. Particulars may be obtained on application to the Secretary, Miss Thorne, at the school, Handel Street, Brunswick Square.

METROPOLITAN CORONERS' DISTRICT.—The petitions in favour of dividing the Eastern District into two parts have been favourably considered by the Privy Council, and an Order in Council has been issued, directing that the district shall, for the purposes of the Coroners Act, be divided into two districts, to be called the North-Eastern District and the South-Eastern District.

DR. A. HUIJSMANN, of Utrecht, has recently had a patient with a tumour growing from the under surface of the epiglottis, about the size and shape of a large bean. It was removed under cocaine by the galvano-cautery, and proved to be a simple cyst, its contents being caseous and semi-fluid.

ROYAL COLLEGE OF PHYSICIANS.

At a meeting of the Royal College of Physicians, April 26th, 1888, on the motion of the Senior Censor, seconded by Dr. Quain, the following resolution was adopted unanimously:

"That the cordial thanks of the College are due, and are hereby offered, to Sir William Jenner, Bart., K.C.B., M.D., for the ability and judgment with which he conducted the business of the College during the seven consecutive years in which he filled the office of President, and also for the time he devoted to the duties of that office, and for his endeavours to advance, on all occasions, the interests of the profession."

On Friday, May 11th, a deputation consisting of the President, the mover and seconder of the resolution, and the Registrar, waited on Sir William Jenner, at 63, Brook Street, to present the resolution in the name of the College.

At the Comitia held on Monday, May 14th, Sir ANDREW CLARK, Bart., presiding, the newly-elected Fellows, whose names have already been published in the JOURNAL, were duly admitted.

A report was received from the Council, recommending the adoption of the following regulations for the Moxon Medal:

1. That the memorial consist of a gold medal, of the value of £30, to be awarded every third year to the person who shall be deemed to have especially distinguished himself by observation and research in clinical medicine.

2. That the award be not restricted to British subjects.

3. That the award be made on the recommendation of the President and Council (who may, if they see fit, call in the aid of assessors), subject to the approval of the College.

4. That in making the award the College should always have regard to discovery and originality in research rather than general personal reputation.

5. That the medal be presented immediately after the Harveian Oration by the President of the College; and that, in the absence of the medallist, the medal be given into the hands of the Registrar, who shall forward it to its destination.

6. That the medal shall present on the obverse the portrait of the late Dr. Moxon, with his name and the dates 1836-1886; and on the reverse the portico of the Royal College of Physicians, with the inscription "Ob artem medicam studiis et experimentis auctam," and, further, that the name of the medallist in his native language, with the date of the award, be engraved on the rim of the medal.

These regulations were unanimously adopted by the College.

A report was received from the committee appointed to consider the internal arrangements and requisite fittings of the rooms and theatre in the new building to be erected behind the Examination Hall, pointing out that it had been necessary to make a slight modification in the plans already sanctioned by the two Colleges, in order to allow more light to the houses in the rear. The committee also desired the sanction of the two Colleges to expend a sum not exceeding £50 in preliminary inquiries, both in England and abroad. Both these suggestions were unanimously adopted.

Sir HENRY PITMAN gave notice that at the next Comitia he would move the appointment of a committee of seven from this College, to form, with seven delegates from the College of Surgeons, a committee to superintend the work carried on in this building when constructed.

On the motion of Dr. THEODORE WILLIAMS, it was agreed to hold a *conversazione* in June, a committee for this purpose to be nominated by the President.

Dr. Herringham was appointed an Examiner in Anatomy.

ROYAL COLLEGE OF SURGEONS.

At the meeting of the Council of the College held on Thursday, May 10th, a letter, the contents of which, owing to a technical objection, we were unable to publish in the report of the proceedings of the Council in our last issue, was read from Mr. C. L. Peel, Clerk to the Privy Council, stating, by direction of the Lords of the Council, that their lordships are ready to consider favourably the grant to the College of some further powers to hold property, and for amending the existing charters in regard to points in which there is no controversy with the Fellows and Members of the College, omitting from the supplemental charter the controverted points, namely, those contained in Sections 2, 3, 4, and 5, and inquiring whether the College will be willing to accept the supplemental charter on this basis. It was resolved by the Council of the College to accept the supplemental charter on the basis

offered by the Lords of the Council. The net result of the application of the Council of the College to the Privy Council may be briefly summed up as follows:

The Privy Council is willing to grant additional powers to Council of the College to enable them (1) to hold more property than at present; (2) to enable Fellows to vote by voting paper at the annual meeting for the election of Fellows as members of Council, instead of having to record their votes in person hitherto.

The Privy Council refuses to insert in the supplemental charter the following controverted points contained in Sections 2, 3, and 5 of the Petition of the Council of the College:

1. That the regulations of admission to the Fellowship should be made otherwise than by law, as at present.

2. That the fee for the Fellowship should be determined by-law instead of by charter, as at present.

3. That the Council should have the power of electing ten instead of two members of the College of twenty years' standing each year.

4. That there should be two honorary Fellows elected each year.

THE COUNCIL OF THE COLLEGE OF SURGEONS.

In July, Mr. Cadge, Mr. Bryant, and Sir Joseph Lister retired by rotation, all three having been elected eight years ago, so that, excepting those members who have been re-elected after serving a full term, they stand at the head of the twenty-four members of the Council as it is now constituted. As it is highly advisable that the Fellows of the College should not lose time in considering how they may further their interests at the coming election, which will take place within two months, and as they may not have the history of the present Council at their fingers' ends, we supply the following statistics. The Council stands, at present, thus:

President: Mr. Savory (third year of office). *Vice-President:* Mr. Bryant and Mr. Thomas Smith. *Other Members:* Sir Jam. Paget, Sir T. Spencer Wells, and Mr. Marshall (all three former Presidents), and Mr. Lund, Mr. Henry Power, Mr. Hutehinson, Mr. Cadge, Sir J. Lister, Mr. Hulke, Mr. Christopher Heath, Mr. Croft, Mr. Sydney Jones, Sir W. Mac Cormac, Mr. Lawson, Mr. Berkeley Hill, Mr. Durham, Mr. Macnamara, Mr. Oliver Pemberton, Mr. Septimus Sibley, Mr. Reginald Harrison, and Mr. Willett. The elections have run as follows during the past eight years, a asterisk marking re-elected members. 1880.—Mr. Cadge, Mr. Bryant, Sir J. Lister, and Mr. T. Smith (substitute member 1881.—*Sir J. Paget, Mr. Hulke, and Mr. Heath. 1882.—*Mr. Marshall, *Mr. Power, and Mr. Croft. 1883.—*Mr. Cooper Forster (deceased), Mr. S. Jones, and Sir W. Mac Cormac. 1884.—Mr. Lawson, Mr. Durham, *Mr. T. Smith (see 1880), Mr. B. Hill (substitute member for Sir Erasmus Wilson), and Mr. Allingham (substitute member for Mr. Gay, and since retired). 1885.—*Mr. Savory, Mr. Pemberton, and Mr. Macnamara. 1886.—*Mr. Lund, *Mr. Hill (see 1884), Mr. Harrison, and Mr. Sibley (substitute member for Mr. Cooper Forster). 1887.—*Mr. Hutchinson, Mr. Willett, and *Sir Spencer Wells. The order under each of the above dates follows the number of votes which the candidates polled.

We may remind our readers of the signification of the term "substitute members." They are elected to fill up vacancies taking place among elective members of Council in any other way than by going out of office by rotation. Every person so elected holds office until the time when the person in whose room he shall have been chosen would have gone out of office. When that time has expired the substitute member must retire, but is eligible for re-election, and if re-elected becomes a member on his own account, so to speak, and may remain on the Council for the full term of eight years. There are but four provincial members at present on the Council—Mr. Lund, Mr. Cadge, Mr. Pemberton, and Mr. Harrison. Mr. Lund, re-elected in 1886, has the right of six more years on the Council; Mr. Pemberton, elected in 1885, may remain yet five years as an honoured and progressive provincial member, whilst Mr. Cadge, as we have already observed, will retire in July. The wishes of the Association will doubtless favour his return. There is but one representative of the general practitioners, Mr. Sibley, who has yet three more years before him as the substitute member for Mr. Cooper Forster, who was re-elected in 1883. Mr. Bryant and Sir Joseph Lister are so well-known to fame, and Mr. Cadge is so popular as a provincial member, that they will probably all be re-elected should they offer themselves

appears to be most probable according to trustworthy rumours. It is, should there be no further vacancy through retirement before the regulation period, the coming elections will not be of a very exciting character.

ST. MARY'S HOSPITAL.

The Festival Dinner in aid of the extension of St. Mary's Hospital held at the Hôtel Métropole on Saturday last, Lord RANDOLPH BURCHILL presided, and about 150 other gentlemen were present. The Chairman, in proposing the toast of the evening, spoke with admiration of the hospital system of London, voluntary, free, and independent, but costing about £650,000 a year, though enjoying an income of about £560,000 only, the deficiency being made up of legacies, which vary from £50,000 to £100,000 a year. The London hospitals assist annually about 1,300,000 people, but the chief of them are situated within a radius of about 1½ mile from Charing Cross; and, out of the 6,500 beds found in all these institutions, 4,500 are within that radius, whilst the population with which the hospitals have to deal covers an area extending 7 miles from Charing Cross, so that many people necessarily cannot obtain easy access to the hospitals, although the public-houses are always near their homes. Unfortunately, too, the income of 14 large hospitals derived from subscriptions has in 10 years increased only about £3,000 (from £32,000 to £35,000), whilst their expenditure at the same time has been augmented by nearly £50,000 (from £201,000 to £247,000). These figures warrant the opinion that there is a distinct falling off of the efforts of the rich in support of these great institutions. But the people themselves are making efforts to overcome these deficiencies, as evidenced by the increase in the Hospital Saturday Fund, the large amount (£5,000) collected in Islington for the Great Northern Central Hospital, the starting of hospitals in East and West Ham, whilst in the provinces, at Birmingham, Glasgow, Stoke, etc., the working classes contribute largely to the local hospitals. The hospitals, too, are the great schools at which doctors are taught and nurses trained; they, therefore, deserve far more support than they obtain. Turning next to St. Mary's Hospital, the Chairman showed how most of the faults of the London hospital system are intensified in the case of that institution, which has an inconvenient and inadequate site, is surrounded by an overwhelming daily growing population, for which it endeavours to provide medical relief always with a deficient income. A splendid opportunity had arisen for acquiring a piece of land in Praed Street, adjoining the hospital, which would give it a fine frontage in an important public thoroughfare, and this land must be acquired.

In the course of the evening Mr. RYAN, Secretary to the hospital, announced subscriptions amounting to £4,600 for the Enlargement Fund, which sum included 25 guineas from the Chairman, 50 guineas from Mr. John Aird, M.P., £400 from Mr. C. Vesey, and £286, collected in shillings, by Mrs. G. P. Field.

An excellent selection of vocal music, under the direction of Mr. Coates, assisted by Madame George and other artistes, was given; and the dinner committee, of which Mr. Malcolm Morris was chairman, and which comprised Mr. G. P. Field and other gentlemen, may be congratulated on the success that attended their efforts.

THE CORONERS BILL.

The Coroners Bill, as introduced by the Lord Chancellor, is one which the Parliamentary Bills Committee has already expressed its intention of opposing in its present form. This Bill practically proposes to hand over the appointment of coroners altogether to the Lord Chancellor. The Lord Chancellor already possesses an overwhelming mass of patronage far greater than he either can or does dispense to the public satisfaction, and nothing could be more unwise or unpopular than to hand over to this high functionary the appointment of the whole of the coroners of London. One inevitable result would be the appointment of lawyers to an office for which as a rule lawyers are very ill-fitted, and for which medical men are, on the whole, far better fitted. On the other hand, the election by freeholders undoubtedly gives rise to abuses, and is an inconvenient and costly method of appointing judicial officers. The creation of the new County Councils will afford a suitable body in whom the appointment should naturally be vested. An opinion has been expressed at the preliminary discussion of the Parliamentary Bills Committee in favour of vesting the future appointment of coroners in these new elective bodies,

and we are glad to see in the discussion in the House of Lords that Lord Herschell expressed an opinion in accordance with that of our Parliamentary Bills Committee, and intimated that he would move an amendment to that effect.

THE SANITARY CONDITION OF HAILEYBURY COLLEGE, HERTFORD.

In accordance with our promise, we publish Dr. Stevenson's last analysis and report on the quality of the water from the well at Haileybury College.

The samples were enclosed in glass-stoppered bottles, marked respectively, "Water direct from well at Haileybury College, April 18th, 1888," and "Water after Porter-Clark treatment, April 18th, 1888."

Both the samples were clear, colourless, and destitute of odour. The results below are in grains per gallon.

	Well.	After Treatment.
Total solid or saline matter	23.24	16.52
Loss on ignition	1.68	1.49
Combined chlorine	1.26	1.26
Equal to common salt	2.08	2.08
Nitrogen as nitrates	0.18	0.13
Nitrites	None	None
Ammonia	0.001	Trace
Albuminoid, or organic ammonia	0.0035	0.0050
Oxygen required to oxidise the organic matter	0.043	0.021
Hardness in degrees:—		
Temporary	13.6°	7.6°
Permanent	4.4°	4.0°
Total	18.0°	11.6°

The organic impurities found in the water lately, have entirely disappeared, and the results approximate to those met with when I made my analysis in October last. The waters are now both of the highest degree of purity, being almost destitute of organic matter.

It will be noted on comparing my present with previous analyses, that when the water from the well is organically pure, the proportion of saline matter is very sensibly greater than when the water is brown and organically impure.

(Signed) THOS. STEVENSON.

This analysis and the remarks speak for themselves as to the purity of the sample submitted to Dr. Stevenson upon April 18th, but we must remind Dr. Shelly, the medical officer of the college, who kindly forwarded us the copy for publication, that this sample was taken at a very favourable time during the holidays, when the boys and servants had been away from the College for a fortnight, and when there would necessarily be less putrescible matter on the surface to find its way vertically down the well to the water level beneath.

It would have been more applicable to the point at issue had he at the same time enclosed us a copy of Dr. Stevenson's previous analysis of and remarks upon the sample sent to him on or about Lady Day, which was in the possession of the school authorities at their council meeting on April 7th, soon after the school had broken up, and which, according to Dr. Shelly, was stated by Dr. Stevenson to have been "most discoloured," although qualified by his statement that "the organic matter present does not appear to be due to sewage."

We have no desire in any way to impugn the quality of the Haileybury water; all we wish to say is that so long as the well occupies its present position it is subject to suspicion, and that there are many authorities on the water question who will not readily believe that in the rainfall of March, which up to the date in question (March 23rd) amounted only to 1.65 inch in the neighbourhood of Hertford (and which was spread over twelve days), there was cause, atmospheric or otherwise, for the discoloration of the deep water in the chalk.

Lastly, we believe that most sanitarians will agree that, no matter what analyses taken at long intervals and at odd times may go to prove, the suspicion as to the quality of the water will not be removed as long as it is drawn from a well which is sunk directly under the building, and therefore invites insidious pollution.

MEDICAL MAGISTRATES.—Dr. Thomas Frederick Young and Dr. Thomas Munns Wills have been placed on the Commission of the Peace for the Borough of Bootle.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTemperance, which was presented to the Section of Medicine in the Annual Meeting of 1887, will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held in the Bell Library and Medical Institute, Cleveland Road, Wolverhampton, on Thursday, May 31st. The chair will be taken by the President, Mr. W. D. Spanton, at 3 o'clock in the afternoon. The following papers will be read:—Dr. C. A. McMunn: Excretion of Reduction Products of Hematin in Disease. Dr. Alfred H. Carter: Practical Considerations on the Nature and Treatment of Chronic Cardiac Disease. Mr. E. Hurry Fenwick, London: The Electric Illumination of the Bladder and Urethra, and its Value in the Diagnosis and Treatment of Obscure Vesico-Urethral Diseases. Dr. McMunn will show a simple method of adapting a photographic camera to the microscope.—T. VINCENT JACKSON, Wolverhampton.

EAST YORK AND NORTH LINCOLN BRANCH.—The annual meeting will be held at the Infirmary, Hull, on Wednesday, May 30th, at 1.30 p.m. Gentlemen who intend to make any communication, or to propose any resolution, are requested to inform the Secretary not later than May 20th.—E. P. HARDET, Honorary Secretary, 80, Spring Bank, Hull.

MIDLAND BRANCH.—The annual meeting will be held at Nottingham on Thursday, June 14th, at 2 p.m. Members desirous of reading papers, exhibiting cases, etc., are requested to communicate with the Secretary before May 24th. Candidates for election by the Branch Council must send in their forms of application by the same date.—W. A. CARLINE, M.B., Honorary Secretary, Lincoln.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The annual meeting of the above District will be held at the Kent and Canterbury Hospital on Thursday, May 24th, at 3 p.m., Dr. Parsons, of Dover, in the chair. The dinner will take place at 5 p.m. at the Royal Fountain Hotel. Agenda:—Usual business of annual meeting. Mr. Raven: Tendon Reactions in Health and Disease. Mr. Brian Rigden: Notes on a recent Epidemic of Measles. Anyone wishing to send papers, etc., should communicate at once with the Honorary Secretary, W. J. TYSON, 10, Langborne Gardens, Folkestone.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at the Devon and Exeter Hospital, Exeter, on Tuesday, June 28th, under the presidency of Dr. John Woodman, F.R.C.S. Notices of motion or communications to be intimated to the Honorary Secretary without delay, and it will facilitate arrangements if members will inform the Honorary Secretary as soon as possible if they hope to be present at the meeting. The following motion was passed at the Council Meeting on May 2nd:—"That inasmuch as the annual meeting assumes more or less the character of a day of recreation, and with a view of encouraging the district meetings, the business of the annual meeting shall be confined to the president's address, the business of the Branch, the exhibition of cases or of specimens with notes, and the annual dinner."—P. MAURAY DEAS, Wonford House, Exeter, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—A meeting for the exhibition and discussion of microscopic specimens will be held on May 31st, at 3.30 p.m., in the dissecting-room of the College of Medicine, Newcastle-upon-Tyne. The Secretary will be glad to hear from any of the members who have interesting slides of any description. After the meeting there will be an informal dinner at 5 p.m., at the Douglas Hotel.—G. E. WILLIAMSON, 22, Eldon Square, Newcastle-upon-Tyne, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting will be held in Liverpool about the 13th of June. Gentlemen wishing to read papers or show cases are requested to communicate to CHAS. ED. GLASCOTT, M.D., 23, Saint John Street, Manchester, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held in the Birmingham Medical Institute, on Wednesday, June 14th, at 3.30 p.m.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—A meeting of the above District will be held in the board-room of the new hospital, at Hastings, on Tuesday, June 12th. Dr. Bagshawe will preside. The Chairman, Mr. Tieburst, and Dr. Penhall, will contribute short papers on cases. Gentlemen interested in hospital construction will be at liberty to inspect the new building. Communications as to papers, etc., should be addressed to T. JENNER VERRALL, 97 Montpelier Road, Brighton, Honorary Secretary.

SOUTH INDIAN BRANCH.

THE annual meeting was held at the Central Museum, Madras, on January 13th, 1888, the PRESIDENT in the chair.

The minutes of the previous meeting were read and confirmed.

New Members.—The PRESIDENT announced that the following gentlemen had been elected by the Council since the last meeting of the Branch: Rev. H. S. Lunn, M.D.; C. A. Lafrenais, Esq., L.M.S.; Deputy Surgeon-General W. F. de Fabick, M.D.; Surgeon J. J. Routh, M.R.C.S.; Surgeon M. E. Reporter, L.R.C.P. and S. Edin.; Surgeon W. H. Karney, L.R.C.P. and S. Edin.

Financial Statement.—The HONORARY TREASURER then presented a statement of the accounts of the Branch for the past year, showing a balance of Rs. 521 6 8, also a Government pro. note for Rs. 1,000, to credit on December 31st. It was proposed by Surgeon-Major DRAKE-BROCKMAN, and seconded by Surgeon-Major ALLISON, that Brigade-Surgeon Fox and Surgeon C. M. Thompson be asked to audit the accounts for the past year. Carried unanimously.

Branch Subscription.—In accordance with Rule VI. it was proposed by Surgeon-Major E. F. DRAKE-BROCKMAN, and seconded by Surgeon-Major BRANFOOT, that the subscription for the year be fixed at Rs. 18 8. Carried unanimously.

Votes of Thanks.—A vote of thanks was then proposed and carried unanimously thanking the Honorary Treasurer for his exertions on behalf of the Branch during the year.—A vote of thanks was also proposed and carried unanimously thanking the Honorary Secretary for the manner in which he had discharged the duties of his office during the year.

Election of Officers.—The meeting then proceeded to the election of office-bearers for the year with the following results:—**President:** Surgeon-General G. Bidie, M.B., C.I.E. **Vice-President:** Deputy Surgeon-General S. B. Roe, M.B., C.B. **Committee:** Surgeon-Major E. F. Drake-Brockman, F.R.C.S.; Surgeon-Major H. W. A. Mackinnon, D.S.O.; Surgeon-Major A. M. Branfoot, M.B.; Surgeon D. F. Dymott, M.B.; Surgeon C. M. Thompson, M.B. **Provisional Members of Committee:** Surgeon-Major A. L. Hackett; Surgeon J. Smyth, M.D. **Honorary Treasurer:** Brigade-Surgeon C. Sibthorpe, F.R.C.P.I. **Honorary Secretary:** Surgeon-Major H. Allison, M.D. **Representative in Council:** Surgeon-General W. R. Cornish, C.I.E.

BORDER COUNTIES BRANCH.

THE Spring meeting was held at Cockermonth on May 4th; Dr. McLEOD, President, in the chair. Twenty members and one visitor were present.

Horse Tax.—The PRESIDENT having introduced the question of the taxing of doctors' horses as pleasure horses, it was moved by Dr. HAMILTON (Hawick) and seconded by Dr. ROBERTSON (Perth), that a letter should be sent to the Chancellor of the Exchequer protesting against the tax, and that a copy of the letter should be sent to the borough and county members in the District.

Fees to Witnesses.—In opening a discussion on the question of fees paid to medical witnesses at assizes and county sessions, Dr. HIGLET said that he had always wondered why the members of the profession had so quietly submitted to what in his opinion was short of a public scandal. Medical

men were themselves much to blame for this, and the public were inclined to estimate their services at what they cost, and not at what they were worth. He was, however, glad to see that the question was attracting the attention of the British Medical Association. In his mind there was no doubt what the answer should be. One guinea per day and two shillings a night for every night detained from home was a sum absurdly small, and when they considered the long distances many of them had to travel, and the detriment to their practice, in many instances left to take care of itself, it was no wonder that many of them fought shy of being called upon to give evidence. He begged to move the following memorial:

"The memorial of the Border Counties Branch of the British Medical Association sheweth: That your memorialists had, at their meeting held at Cockermonth May 4th, 1888, a representation made to them as to inadequate fees paid to medical witnesses in criminal cases at assizes and county sessions. That your memorialists regard the present rate of remuneration—one guinea per day—as altogether inadequate, considering the distance many of them have to travel, and the amount of time thereby taken up, and that this is a matter which requires serious attention at the hands of the President and Council of the Association, and a grievance which calls for an early remedy."

Recovery from long-standing Insanity.—Dr. CAMPBELL (of the Carlisle Asylum) read a paper "On Three Cases of Recovery after a Lengthened Duration of Insanity." He gave an analysis of five years' returns from the Carlisle and Edinburgh Asylums, and gave the percentages of recoveries in those institutions for that period, under one year, under two years, and above two years, showing that in the latter period at Carlisle the recoveries were 9.4 per cent., in the Edinburgh Asylum 5.3 per cent. He pointed out how advisable it was to take a hopeful view of cases, and to impress this on the staff of an asylum; and mentioned how beneficial it was for attendants always to have a certain proportion of curable cases in their wards. He advocated the change of ward, employment, attendants, and even of asylum in certain cases, with a view to recovery, and instanced the improvement he had seen both in groups of patients sent to him from other asylums and also in patients sent by him, owing to overcrowding in the Carlisle Asylum, to different other asylums in England. He gave a short account of (1) a female case of periodic mania, where complete recovery took place after a residence in the asylum of almost seventeen years; (2) a male case of delusional insanity, which recovered after a residence of almost nineteen years; (3) a female case of delusional insanity, which recovered after a residence of more than fourteen years. He concluded with remarks on the special features of the cases, calling attention to the following facts—namely, the rarity with which pathological lesions were found sufficient to account for delusions; the tendency, when delusions faded away, for the mental faculties to have become so weakened as to unfit the patient for active outside life; the rarity with which, on recovery, the patients were willing to discuss the delusions they formerly held.

Puerperal Eclampsia.—Dr. HIGHT (Workington) read notes of a case of puerperal eclampsia which had come under his care. The patient was a primipara, aged 18, unmarried, and the convulsions came on in the ninth month of pregnancy. The premonitory symptoms were headache, derangement of vision, and epigastric pain. The lower limbs were distinctly cedematous, face puffy, and urine highly albuminous. The convulsive seizures were most severe, and recurred with alarming rapidity. The treatment consisted in chloral enema, rupture of membranes, administration of chloroform, dilatation by Barnes's bags (os being soft and dilatable, head presenting, and pains commencing), and application of forceps. A living female child, of large size, was born, and the mother made a perfect recovery. He looked upon the result as a triumph to chloroform and the other anæsthetic agent, chloral, and he contrasted the line of treatment with that by bleeding.—In the discussion which followed, the PRESIDENT, Messrs. IRWIN and CRERAR, Drs. HAMILTON, SPEIRS, ROBERTSON, EATON, IMLACH, and ALTHAM took part.

Next Meeting.—The next meeting of the Branch is the annual, one and will probably be held at Penrith early in July.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

The annual meeting was held at Yelf's Hotel, Ryde, on April 26th. The chair was taken by the President, Dr. WILLIAMSON.

New Member.—The minutes having been confirmed, Dr. Edward Fawcett was elected a member of the District.

Annual Report.—The PRESIDENT read a report of the proceedings for the past year, and suggested certain things which would help to make the meetings more useful. He then vacated the chair, which was taken by the incoming President, T. A. Buck, M.B., of Ryde.

Vote of Thanks to Outgoing President.—A vote of thanks to the outgoing President was carried unanimously.

President's Address.—Mr. BUCK gave an address on Therapeutics in Relation to Pathology, for which a vote of thanks was unanimously accorded.

Office-bearers.—The following officers were then elected; *Vice-President*, in place of Dr. Harvey, left the island: Surgeon-Major Grant. *President-elect*: Dr. Gibson, Cowes. *Vice-President-elect*: Dr. Wm. Hoffmeister, Cowes. *Honorary Secretary and Treasurer*: Mr. W. E. Green was re-elected.

Accounts.—The accounts, having been audited, were passed, and a subscription out of the surplus funds in aid of the Medical Benevolent College was given.

Next Meeting.—The selection of the next place of meeting was left to the Secretary.

Communications.—A Case of Presumed Cerebral Aneurysm was related by Mr. FRYER.—Mr. GREEN exhibited Pieces of Skull removed from a Patient who had made a determined attempt at suicide by means of a coal-hammer.

Dinner.—The members afterwards dined together.

BRITISH GUIANA BRANCH.

The quarterly meeting of this Branch was held at the Public Hospital, Georgetown, on April 6th. There were present, R. GRIEVE, M.D., the Surgeon-General, in the chair, Drs. Anderson, Pollard, Finlayson, Veendam, Castor, Wallbridge, Ferguson, Honiball, Ozzard, Delamere, Hill, Teixeira, Reid, Law, and the Secretary. Drs. Fallon and Pereira were there as visitors.

Miscellaneous Business.—The minutes of the last meeting were read and confirmed. Letters from Drs. Hillis and Massiah apologising for non-attendance, were received.—Dr. ANDERSON made a statement as to the report of the Committee appointed by the last meeting, to the effect that no report had been made on account of the non-attendance of so many of the members. A discussion followed, and, on the proposal of Dr. CASTOR, it was agreed that the Committee be discharged. This was then done.—Dr. DELAMERE gave notice that he would move at the next meeting for the appointment of another committee.—The printing of the transactions of the Branch was discussed on the motion of Dr. WALLBRIDGE, to increase the subscription for this purpose, but no decision was come to, it being deemed advisable to have the opinion of as many members as possible on the point.

Communications.—Dr. POLLARD read a paper on some cases of severe intestinal injuries, and on oleander as an agent for procuring abortion. This was followed by an animated discussion.—Dr. OZZARD read a paper on anchylostoma duodenale, and Dr. LAW reported and read notes of a case of this disease ending fatally. A number of members took part in the discussion which followed.—Dr. ANDERSON showed a specimen of abdominal aneurysm.

Next Meeting.—The PRESIDENT gave notice that the next meeting would be devoted to the discussion of yellow fever, and expressed a hope that all members would give the Branch the benefit of their knowledge and experience.

Votes of Thanks.—Votes of thanks were passed to the readers of the various papers, and the meeting closed.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

The fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc.(Hon.), F.K.Q.C.P.I., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate.

An Address in Medicine will be delivered by Thomas Clifford Allbutt, M.D., Consulting Physician, Leeds General Infirmary.

An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

A Special Address on his "Recent Investigations in Surgery"

will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

A. MEDICINE.—*President*, T. McCall Anderson, M.D. *Vice-Presidents*, W. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries*, J. McGregor Robertson, M.D., 400, Great Western Road, Glasgow; Robert M. Simon, M.D., 27, Newhall Street, Birmingham.

B. SURGERY.—*President*, George Buchanan, M.D. *Vice-Presidents*, James Dunlop, M.D.; Charles Robert Bell Keetley, F.R.C.S. *Honorary Secretaries*, David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pye, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

C. OBSTETRIC MEDICINE.—*President*, Thomas More Madden, M.D. *Vice-Presidents*, William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries*, William Walter, M.D., 20, St. John Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

D. PUBLIC MEDICINE.—*President*, Henry Duncan Littlejohn, M.D. *Vice-Presidents*, James Christie, M.D.; D. Page, M.D. *Honorary Secretaries*, Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

E. PSYCHOLOGY.—*President*, James C. Howden, M.D. *Vice-Presidents*, James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries*, A. R. Urquhart, M.D., Murray House, Perth; Alex. Newington, M.D., Ticehurst, Sussex.

F. ANATOMY AND PHYSIOLOGY.—*President*, John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents*, R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries*, John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

G. PATHOLOGY.—*President*, Sir William Aitken, M.D., F.R.S. *Vice-Presidents*, Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries*, G. Sims Woodhead, M.D., 6, Marchhall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

H. OPHTHALMOLOGY.—*President*, Thomas Reid, M.D. *Vice-Presidents*, J. R. Wolfe, M.D.; C. E. Glascock, M.D. *Honorary Secretaries*, Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Freeland Fergus, M.B., 41, Elmbank Street, Glasgow.

I. OTOLGY.—*President*, Thomas Barr, M.D. *Vice-Presidents*, John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries*, Johnstone Macfie, M.D., 23, Ashton Terrace, Glasgow; James Black, F.R.C.S., 16, Wimpole Street, London.

J. DISEASES OF CHILDREN.—*President*, Walter Butler Cheadle, M.D. *Vice-Presidents*, James Finlayson, M.D.; Henry Ashby, M.D. *Honorary Secretaries*, George S. Middleton, M.D., 23, Sandyford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

K. PHARMACOLOGY AND THERAPEUTICS.—*President*, James Morton, M.D. *Vice-Presidents*, John Dougall, M.D.; Theodore Cash, M.D., F.R.S. *Honorary Secretaries*, Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

L. LARYNGOLOGY AND RHINOLOGY.—*President*, Felix Semon, M.D. *Vice-Presidents*, George Hunter Mackenzie, M.D.; Peter McBride, M.D. *Honorary Secretaries*, D. Newman, M.D., 18, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

Honorary Local Secretaries, John G. McKendrick, M.D., F.R.S., 45, Westbourne Gardens, Glasgow; James Christie, M.D., Hillhead, Glasgow; John Glaister, M.D., 4, Grafton Place, Glasgow.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

- 9.30 A.M.—Meeting of 1887-1888 Council.
11.30 A.M.—First General Meeting. Report of Council. Reports of Committees. Service in the Cathedral.
8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address.

WEDNESDAY, AUGUST 8TH, 1888.

- 9.30 A.M.—Meeting of 1888-89 Council.
10.30 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Second General Meeting. Address in Medicine by Thomas Clifford Allbutt, M.D., F.R.S.

THURSDAY, AUGUST 9TH, 1888.

- 9.30 A.M.—Address on his Recent Surgical Investigations by William Macewen, M.D.
11 A.M.—Meeting of Council.
10.30 A.M. to 2 P.M.—Sectional Meetings.
3 P.M.—Third General Meeting. Address in Surgery by Sir George H. B. Macleod, M.D.
7 P.M.—Public Dinner.
FRIDAY, AUGUST 10TH, 1888.
10.30 A.M. to 1.30 P.M.—Sectional Meetings.
3 P.M.—Concluding General Meeting. Address in Physiology by John G. McKendrick, M.D., F.R.S.
SATURDAY, AUGUST 11TH, 1888.
Excursions.

FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Disinfection of Tuberculous Sputa.—Transmission of Tuberculosis from the Human Subject to the Dog.—Experiments on Hereditary Alcoholism.—The Actual Caustery in the Treatment of Epilepsy.—Chloral in Diphtheria.

At the meeting of the Société de Médecine Publique et d'Hygiène Professionnelle, February 22nd, 1888, M. Grancher gave the results of researches made by himself and Dr. De Gennes, on the disinfection of tuberculous sputa. The air exhaled by tuberculous patients does not affect animals, therefore it does not contain bacilli. M. Grancher and Dr. De Gennes disinfected tuberculous sputa with carbolic acid at 5 per cent.; potassium, at 5 per cent.; sulphate of copper, at 5 per cent.; chloride of zinc, at 5 per cent.; corrosive sublimate, at 1 per cent. Guinea-pigs were submitted to injections of sputa thus disinfected. The results were not encouraging; the corrosive sublimate alone appeared to kill the tuberculous bacillus. It is difficult, however, and even dangerous, to use it at 1 per cent. Guinea-pigs were inoculated with sputa which had been mixed with hot water, and exposed to a temperature of 60°, 80°, and 100° C. It was discovered from these experiments that the bacilli resist water at 60°, are nearly always killed at 80°; and at 90° and 100° are always killed. M. Geneste and Herscher have constructed an apparatus to be placed near each hospital ward. M. Lailier asked if it would not be possible to have one apparatus only for each hospital, on account of the expense; and if the apparatus could not be heated by steam instead of gas. Dr. Ollivier remarked that M. Grancher's experiments proved the insufficiency of the ordinary means of disinfection, such as chloride of zinc. Meat should be always well cooked; and when prescribing it raw, the physician should ascertain that only non-tuberculous mutton was used. M. Grancher replied that raw meat was not dangerous. The experiments of M. Nocard prove that the bacillus of tuberculosis rarely exists in the flesh or juices of animals that die of this disease, unless there be tuberculous glands.

Dr. Bourgougnon publishes in the *Journal de Médecine*, March 18th, 1888, a case in which tuberculosis was transmitted from a human being to a dog. "The patient had suffered for some time from a slight, dry, exhausting cough, feverishness at night, and intermittent pains in the thorax. His father died of an affection of the heart, his mother of phthisis; two sisters died from tuberculosis, one at 19, the other at 27 years of age. The patient, when first examined, presented no symptoms of tuberculosis. After some months, however, cough and fever increased; the patient became breathless after going upstairs, lost flesh, and had nocturnal sweats. In the month of February, 1886, distinct crepitations and dulness were heard under the left clavicle. Finally, in October, 1886, he died with all the symptoms of pulmonary tuberculosis, the disease having lasted about fifteen months. On first visiting the patient I noticed a dog, whose extreme thinness attracted my attention. This dog barked at me whenever I entered the room, and I observed that after barking he was seized with a fit of coughing. The persistence of this symptom, together with the continual loss of flesh, awakened my curiosity and reminded me of the cases of contagion reported by Dr. Léon Petit. I advised the patient to have the dog sent to a veterinary surgeon. This was done, with the result that the animal was pronounced to be tuberculous. The dog became worse and worse, extremely thin, its hair rough, and as stiff as if it had been brushed backwards.

The owner would have had it killed, as its cough was distressing, the expectorations frequent, and the appetite quite lost, but I asked him to let the disease take its course, that the veterinary surgeon and I might make a *post-mortem* examination. Meanwhile I learned that the dog had been given to the patient's sister as a puppy, and during her illness had been literally brought up in her bed. After her death my patient had taken care of the dog, which had thus been brought up in contact with two tuberculous patients. The dog died in the last stage of phthisis in November, 1886. M. Plouchart, veterinary surgeon, of Tours, made the *post-mortem* examination in my presence. The lungs were riddled with tubercles; the left lung contained many patches of softening. The peritoneum was covered with miliary tubercles. The left kidney presented a great number of miliary tubercles; in the right we found four or five tuberculous nodules in process of softening. The stomach and intestines were healthy. It is evident that the disease was transmitted to the animal by my patient and his sister, tuberculosis being of very rare occurrence in dogs. The mode of transmission is not quite clear. The dog doubtless absorbed bacilli from swallowing the sputa or vomit of the patients, yet the healthy condition of the stomach and intestines would point to its having acquired the disease by the respiratory organs."

At the meeting of the Académie des Sciences on March 5th, MM. A. Mairet and Combemale related their observations on the degenerative hereditary influence of alcohol. Twelve puppies were born of a dog submitted to chronic intoxication with alcohol, and a young, healthy bitch with no defect. Two were stillborn, three died accidentally; the seven others succumbed to various diseases—epileptic attacks, verminous enteritis, pulmonary and peritoneal tuberculosis. At the necropsy lesions, evidently arising from alcoholic degeneration, were found: thickening of the bones of the skull, premature closing of fontanelles, adhesion of the dura mater to the cranial bones, difference in weight of the cerebral hemispheres, fatty degeneration of the liver. A strong, intelligent bitch, during the last three weeks of gestation, was intoxicated with absinthe, and gave birth to six puppies, of which three were stillborn; two were well developed physically, but were not at all intelligent; the third—a bitch X—grew slowly, presenting defective intelligence and a remarkable degree of anosmia. X, presenting symptoms of degeneration more especially of the nervous system, was coupled with a strong, intelligent dog. She gave birth to three puppies, one of which had flat foot, atrophy of several of the toes, wolf's mouth; a second died of marasmus; the third was attacked with atrophy of the hind legs. From the latter case it would appear that the degenerative influence of alcohol is greater in the second than in the first generation.

At the meeting of the Société Médicale des Hôpitaux, Msrch 23rd, 1888, M. Charles Féré called attention to an epileptic patient now under his care whom he had treated by applications of the actual cautery to the scalp. M. Féré has treated ten patients in his adult epileptic ward at Bicêtre. All the patients presented hemiplegia; some were affected with Jacksonian epilepsy, others with the common form. M. Féré applied the actual cautery every two or three days to the parts corresponding to the psychomotor zones of the brain, so as to prevent the possibility of suppuration. The attacks were remarkably diminished in frequency and violence in the cases thus treated.

Dr. Adolphe Mercier (of Besançon) has utilised the antiseptic properties of chloral in the treatment of diphtheria in children with excellent results. He proceeds in the following manner: when the tongue is thick, coated, and swollen, the child is given an emetic of ipecacuanha, without tartrate of antimony, which causes prostration. When vomiting has ceased, syrup of chloral, prepared according to the French codex (at 5 per cent.), is given every half-hour, in doses of two, three, or five grammes, according to the age of the patient. It is better to begin by giving the child rather large doses in order to keep him in a state of somnolence, as medicine is then more easily administered. The submaxillary and anterior regions of the neck are covered with a thick layer of belladonna ointment, and wrapped up in cotton-wool. In order to keep the throat impregnated, and prevent the chloral from causing pains in the stomach, the patient is given something to drink every time before, and not after, taking that remedy. As long as he continues taking chloral, to which M. Mercier regularly adds syrup of bark, the patient may eat and drink whatever he fancies—milk, wine, lemonade, or any solid food. This treatment must be rigorously carried out during forty-eight hours. No change ever takes place before twenty-four hours. In forty hours the false membranes begin to come away, and have com-

pletely disappeared by the forty-eighth hour. In the case of patients with fair hair and white skin, they may only come away on the third day. After the separation of the false membranes, the syrup of chloral causes smarting in the throat, and must then be stopped. In rare cases the loosening of the false membranes leaves the tonsils red or swollen. An astringent gargle will do away with any swelling of that kind. A thick coating of vaseline applied to the neck will get rid of any pustular eruption caused by the ointment. If during the illness any spasms or dyspnoea occur, the throat is painted with a 1 in 50 solution of hydrochlorate of cocaine. Prescribed in the last stages of the disease, when the voice is gone, and laryngeal diphtheria has set in, the chloral treatment would be rather injurious than otherwise.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Complete Bilateral Symblepharon.—Excision of Indurated Tissue and Enlarged Glands in Syphilis.—Erythrophlein.

DOCTORS DR. S. CZERMAK brought before the Imperial Royal Society of Physicians a case of complete bilateral symblepharon in a young boy, who had had, two years before, an eruption of vesicles about the size of a bean, which, in part, contained a yellow and clear fluid, and, in part, a bloody liquid. The vesicles first appeared on the trunk, and later on also on the extremities; there were symptoms of fever at the same time, and the patient lost flesh considerably. After a year similar eruptions also came out on the face and eyelids. The latter were greatly swollen, and there was a purulent discharge. At present the eye-cleft was transformed into a shallow furrow, and no trace of the conjunctival sac was present; the upper eyelid was for the greatest part denuded of the eyelashes, and a longitudinal immovable tumour could be felt under it; the lower eyelid was normal in appearance. The mobility of the eyeball was much impaired owing to its adhesion to the conjunctiva. Similar conditions, though not so distinctly pronounced, were also present in the other eye. The perception of light was normal, but the projection uncertain. Numerous smooth and non-pigmented scars were, moreover, present on the face and the trunk. There was no doubt, Dr. Czermak remarked, that the symblepharon in this case was due to a "*syndesmitis degenerativa*" (Stellwag), or to an essential shrinking of the conjunctiva ("*essentielle Bindehautschrumpfung*"). According to recent observations, this affection was to be looked upon as a localisation of "*pemphigus vulgaris*" on the conjunctiva, which, in the opinion of Stephan, might also be seen here in an isolated condition. Taking into account the history of the patient, it was very probable that such causal relation was also present in the case under a consideration. No scars, indeed, were observed in pemphigus, which, so far, seemed to negative such a supposition; on the other hand, some vesicles had become covered with a croupous-diphtheritic layer. The occurrence of symblepharon was very rare, and only twenty-five cases of the kind had been recorded. The treatment was most unsatisfactory; attempts to induce shrinking of the conjunctiva by brushing it with nitrate of silver always failed; and the same was true of the instillation of olive oil into the eye.

Dr. Neumann showed a patient from whom he had a long time ago removed the primary hard sore, and the enlarged lymphatic glands, on the thirty-first day after syphilis had been contracted. A macular rash and desquamating papules nevertheless appeared over the lower part of the abdomen on the fifty-third day. The patient, who seemed to be quite cured after a long course of treatment, came again under the care of Professor Neumann, on April 16th of the present year, with the following syphilitic lesions; gummatous orchitis; syphilitic ulcers and gummata on the posterior wall of the pharynx and the soft palate, as well as periostitis of the tibia. This observation sufficiently proved in the opinion of the speaker, that extirpation of the primary indurated chancre and the lymphatic glands not only did not prevent the spread of the syphilitic affection, but that it did not even make the course of the disease milder.

Dr. Adolf Onodi gives, in the *Orvosi Hetilap*, a summary of his observations on twelve patients, and concludes that erythrophlein is undoubtedly a powerful anæsthetic, the effect of which comes on more slowly, but, on the other hand, lasts much longer, than that of the cocaine. Local anæsthesia persists for eight hours and even longer from the time of instillation. It has, nevertheless,

very disagreeable after-effects, such as headache, giddiness, sometimes even fainting fits; in particular it dims the cornea for several hours. When applied to the nose, the mouth, the soft palate, and the external orifice of the urethra, a 0.20 per cent. solution caused a slight sensation of burning. He did not venture to use stronger solutions.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Dangers of Antiseptics.

At the last meeting of the Berliner Medicinische Gesellschaft, Dr. Emil Senger read a paper on the influence of antiseptic remedies on the organs of the body, with special reference to operations on the kidney. It is well known that after nephrectomy, or even nephrotomy, many patients die with symptoms of uræmia or anuria, even when it had been ascertained beforehand by careful examination that the other kidney was quite healthy and capable of secreting the necessary amount of urea. Dr. James Israël, chief surgeon of the Berlin Jewish Hospital, has propounded a very complicated theory as to certain nervous sympathies between the two kidneys, whereby an operation on one may give rise to degeneration of the other. Senger has now proved by experiments on rabbits and dogs that our antiseptic remedies are the cause of these complications. He injected into the animals, when in perfect health, one tenth or twelfth part of the quantity of corrosive sublimate, carbolic acid, etc., which is sufficient to kill them. He then extirpated one kidney, and examined it microscopically, with the result that in all cases he found glomerulo-nephritis. There was exudation between the glomerulus and the capsule, and the epithelium of the tubuli contorti was almost entirely destroyed. He found also fatty degeneration of the liver, the spleen, the heart-muscle, etc. The various antiseptic agents were found to be injurious in different degrees, corrosive sublimate being the most dangerous, then the others in the following order: iodoform, carbolic acid, salicylic acid, boric acid. Senger therefore recommends surgeons to avoid antiseptics in operations on the thorax and abdomen, and urges them either to employ sterilised water after the manner of your compatriot, Mr. Lawson Tait, or a solution of salt. By bacteriological and pathological researches he proved, first, that this kills the streptococcus pyogenes aureus in twenty-eight minutes, and that the effect is independent of the degree of concentration, for a 5 per cent. solution is just as effectual as a 20 per cent. Secondly, he claims to have shown that chlorate of sodium does not in any way injure the organs, and that no dose is strong enough to kill any animal.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Abdominal Massage in Habitual Constipation.

A VERY instructive lecture on the treatment of habitual constipation by abdominal massage was read at a meeting of the Medicinisch Pharmaceutischen Bezirksverein von Bern, by Dr. Bueler. The method (which, by the way, was employed in a rather primitive form by the celebrated Dr. Tissot, of Lausanne, in 1780) seems to find favour with the Bernese practitioners. Of 20 persons treated by Dr. Bueler after this plan, 18 were permanently cured; in one a relapse occurred in two months, and in another (a case of chronic gastro-intestinal catarrh, with dilatation of the stomach), the constipation still persists, though all digestive disturbances disappeared under the influence of a periodical evacuation of the stomach by means of manipulations in the epigastric region. Cure was effected in from four to six weeks, or after from twelve to twenty-five sittings (three sittings weekly). No unpleasant effects were ever observed, even when very energetic manipulations were performed on old people (of sixty-five, or thereabouts). Dr. Bueler lays stress on the fact that massage is not simply one therapeutic agent, but a combination of several factors powerful for good or evil, according to circumstances. The physiological effects of massage are said to be of the following four kinds: 1. The mechanical action, which is the most important of all, and which is not limited to the gastro-intestinal contents, but extends also to the large abdominal glands, removing obstruction of their ducts, etc. This has often been proved by the successful results of massage in cases of fecal accumulation, jaundice (depending on obstruction of the bile-duct), ileus, invagi-

nation, volvulus, etc. The most powerful mechanical effects are produced by kneading (*Kneten, pétrissage*), which loosens impacted fecal matters; and by stroking (*Streichung, effleurage*), which gives "a natural direction to the contents loosened" by the former manipulations. Sahli's massage by means of a cannon-ball (see JOURNAL, vol. i, 1887, p. 1171) is said to have only a mechanical effect. 2. The reflex effect of massage must be admitted, in view of the physiological fact that, on briefly touching the abdominal wall, a contraction of the intestinal muscular coat always follows. The effect is best produced by slapping (*Klatschung, tapotement*) with moderate force. Certain cases of habitual constipation can be cured solely by manipulations of this kind. This is well illustrated by Dr. Bueler's case of a student who had been suffering from constipation for five years, which resisted all treatment, and who was permanently cured after a course of eight weeks' duration, *tapotements* being repeated three times weekly. 3. The thermic action of massage is thought to be proved by Mosengeil's observations with Geissler's thermometer, the rise of the local temperature after a sitting varying from $\frac{1}{2}^{\circ}$ to 3° C., and lasting for three or four hours. To obtain the greatest thermic effect, "dry" manipulations (that is, without oiling the parts, or, still better, with a rubbing glove, or after covering the parts with a piece of flannel) are recommended. The therapeutic value of the thermic effects of massage is placed by the author side by side with that of the popular treatment of constipation by hot poultices, as well as with certain hydrotherapeutic methods. 4. The chemical action is more hypothetical. It is supposed that abdominal massage, while causing marked hyperæmia of the local integuments, *eo ipso* gives rise to an arterial anæmia, with venous hyperæmia of the peritoneum and relative accumulation of CO₂ in the intestinal circulation, leading to increased peristalsis. "The problem of the practitioner in every individual case of constipation before him," the author says, "is to find out which of the therapeutic elements of massage is most suitable and promising; whether the procedure must aim only at strengthening the tonicity of the abdominal muscles, or must act in a more mechanical way, or in a reflex or thermic manner." This question being settled, the procedure can be considerably simplified by omitting all unnecessary manipulations. The author condemns a routine practice of massage in all cases without discrimination, and insists on the strictest adaptation of the treatment to each particular case. Manipulations which lead to a rapid cure in one group of cases may be followed by injurious consequences in another. Thus, in cases of chronic constipation, caused mainly, if not solely, by extreme weakness and flabbiness of the abdominal walls (as in multiparæ, or in old men with pendulous bellies), such manipulations as forcible separation of the abdominal recti by inserting the tips of the thumbs and fingers deeply between the edges of these muscles along the linea alba are indicated. The muscles respond by sharp contractions, which are further intensified by strong transverse strokings in an outward direction from the middle line. At the same time the diaphragm should be strengthened by deep inspirations, etc. On the other hand, in cases of constipation depending upon atony of the intestine (as is often the case in persons of sedentary habits), Dr. Bueler begins the sitting with gentle, gradually intensified and deepened strokings, and finishes by moderately strong slappings. In cases of constipation caused by dyspepsia, and sometimes complicated with dilatation of the stomach, he limits his manipulations (strong strokings) to the gastric region. Two cases of the kind, which were treated in this way twice weekly, were permanently cured in four weeks. As some special experiments (by washing out the stomach, and the administration of salol combined with its subsequent detection in the patient's urine) have clearly proved, the epigastric rubbing empties the stomach under the manipulating hand. The author localises massage in a corresponding way also in cases of fecal accumulation in the cæcum and sigmoid flexure. In habitual constipation dependent on cerebral or spinal neurasthenia (in hypochondriacal or hysterical subjects), only such procedures as strong slappings with subsequent dry rubbings are indicated. In three of Dr. Bueler's patients hæmorrhoids (sometimes as big as half an egg) were present; in every case their size was greatly diminished after the very first sitting, the swelling disappearing completely and permanently in four weeks (earlier than the constipation). He adds: "I am so charmed with this observation that in future I will recommend to my hæmorrhoidal patients abdominal massage as the first thing to be tried."

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The most disappointing results from the massage treatment seem to be obtained in cases of constipation depending upon adhesions left by previous attacks of general or local peritonitis. Dr. Bueler feels sure that "a large proportion of similar adhesions is due to the exaggerated fears of practitioners," who keep ice-bags on the belly or give opium too long. He thinks that it would be more rational to resort to a gentle *effleurage* as early as possible after the disappearance of acute symptoms in all cases of peritonitis. He adduces a case of acute perityphlitis in a lad aged 17, where from the thirteenth day of the disease (the ninth after defervescence) he daily made first gentle and then gradually intensified strokings in the ileo-cæcal region, and was highly gratified to see that the exudation, which was very considerable, melted away in about eight days, without leaving any trace.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Owens College: Large Attendance of Students.—Chair of Surgery.

I STATED in my last letter that the attendance at the medical school of Owens College was likely to be large during the present summer. I understand that the attendance is very large—larger than in previous years. This is not to be wondered at, considering the fact that Owens College is in the centre of such an enormous population, and when it is known how thoroughly the laboratories of this school are equipped. It seems that the accommodation in the pathological and physiological laboratories is taxed to the uttermost, but the increased needs will speedily be met.

The Chair of Surgery is now declared vacant, and candidates are invited to apply for the office. It is said that there may possibly be some rearrangement of the duties of the professor, whereby the whole surgical department of the College shall in future be under the direction of the professor of surgery. We understand that Mr. Hardie, Mr. Jones, Mr. Southam, Mr. Collier, and perhaps other local surgeons, are likely to be candidates. As applications will be received until June 9th, it is possible that other candidates may be announced.

CORRESPONDENCE.

THE BIRTHPLACE OF CONSUMPTION.

SIR,—I always read your JOURNAL, and I get much good from the perusal. I was, however, surprised to see your editorial of February 25th, 1888, on the "Birthplace of Consumption." In that article you throw doubt on the validity of the law of soil moisture as one of the well-established laws of the disease, and that residence on a damp soil is one potent cause of it in England. You deem the researches made in two successive years by my friend Dr. Buchanan, and supported in the strongest manner by Mr. Simon, then medical officer of the Government, as of doubtful value as a proof of the existence of such a law. The statistics presented by these gentlemen, which I have always deemed most convincing, your editorial would throw aside as at least doubtful, if not worthless. In truth, in such a case, statistics, if not reliable, are worse than useless, because misleading. But, notwithstanding your commanding opinion, I do not give up my belief in the general accuracy of these English researches, because three years before they were announced I had found that in New England certainly the law holds good exactly as promulgated by Messrs. Simon and Buchanan. So assured have I been of its truth that I have acted upon it in my medical practice for the past quarter of a century. I always inquire about the residence of a patient as much as I do about the symptoms in every case. As a very important part of my treatment in a case of consumption I tell any patient who may be living on a damp soil or in a house having a damp cellar that removal from the house is absolutely necessary. I have found that removal from a damp valley to a dry hill within sight of the homestead has been of value as a remedial measure. Under these circumstances, you will, I think, admit that it is reasonable for me to doubt your conclusions, and that I should wish to lay before you for your candid opinion the facts I have gathered relating to the question.

I send by this mail an address delivered by me before the Massachusetts Medical Society at its annual meeting in 1862. In this

you will find data relative to the existence of this law in New England. The fact that here as a rule, as in the "Mother Country" (as we love to call "Old England"), residence on a damp soil is one cause of consumption, has made me desirous of persuading an International Congress to investigate the question in order to decide whether the law prevails generally over the globe. On three occasions I have tried to gain this by asking for a "World's Commission," consisting of one or more persons from every country represented in the Congress, whose duty it should be to get categorical answers if possible to the two following questions:

1. Is any part of your township (or any other definite division of the territory) more liable to have cases of consumption in it than are found in other parts of the same territory?

2. If so, what, if any, are the peculiarities of the spot, especially in regard to dampness of the soil, or its dryness?

Having been unable to be present at any of these International Congresses, the matter has not been mooted because the personal presence of the mover of such an investigation is required before the Congress will act.—I am, etc.,

Boston, U.S.A., April 24th.

HENRY J. BOWDITCH, M.D.

** Dr. Buchanan's conclusions in regard to the relation between soil moisture and phthisis were universally accepted until Dr. Kelly, the medical officer of health for East Sussex, proved them to be, in part at least, unreliable. Dr. Kelly found the order of precedence as to death-rate from phthisis of the districts examined by Dr. Buchanan during the period 1851-60 were materially altered when examined for the period 1861-70. He likewise points out that most of the impervious beds of subsoil are to the north of the South Downs, and that consumption seems most common in places which are bleak and exposed as well as damp. And in general he insists on the fact that in West Sussex (and, indeed, throughout England and Wales) there has been of late years a great decrease in the mortality from consumption. As there has been no change whatever in the drainage, this certainly throws a doubt on the validity of Dr. Buchanan's earlier inquiry as to the effects of sanitary improvements. Dr. Kelly is inclined to attribute it mainly to the progress which has taken place in the social state of the rural population (Fagge's *Medicine*, 1, 993).

THE ELECTRICAL TREATMENT OF DISEASES OF THE UTERUS.

SIR,—The discussion at the meeting of the Brighton and Sussex Medico-Chirurgical Society has not helped us much, for there is nothing new in the paper, and old stories are retold in the discussion. But in Dr. Steavenson's paper we have a complete corroboration of all that was known, and a pretty exact statement of what may be expected from this line of treatment.

I would like to repeat what I have already stated on this subject before: that it is only from an accomplished electrician like Dr. Steavenson that we are likely to get at the true facts of this most involved question. Dr. Playfair says that the "manipulation of the apparatus, so far as the electricity was concerned, offered no difficulty at all; any intelligent student could learn it in half an hour." And this kind of view, it seems to me, is the cause of the dreadful stories we hear about it. I have gone carefully into the question, and I am satisfied that only skilled electricians should attempt it. Further, let me say that Dr. Steavenson's results are stated from the openly displayed experience of a public institution, the work of a responsible officer carried out under the observation of skilled critics, and therefore to be regarded as having an importance altogether different from the utterances of anyone else who has yet spoken on the subject.

Concerning the discussion at Brighton, perhaps you will permit me briefly to allude to the strange remark by Dr. Aveling that "it was quite amusing to observe the flutter of excitement which the recent advancement of electrical treatment had caused among some distinguished abdominal sectionists. From their uncomely promising opposition and their abuse and ridicule, one was almost inclined to think these gentlemen feared their occupation was gone." I am not aware that any opposition, or abuse, or ridicule, has been directed towards the advancement of electrical treatment save in one direction, and that was Dr. Aveling's own proposal to apply it for the arrest of hemorrhage in cases of ruptured tubal pregnancy. I was guilty of saying that in such cases it would be of as much use as a pinch of snuff, and I am still of that opinion. On the other questions I am waiting for trustworthy evidence, like that of Dr. Steavenson.—I am, etc.,

LAWSON TAIT.

7, The Crescent, Birmingham, May 12th.

SIR.—I do not think it right that the case described as hydrosalpinx by Dr. Apostoli in the JOURNAL of May 12th should be received without criticism. At the same time I do not wish to be considered as an opponent of Dr. Apostoli, or of the line of treatment associated with his name.

It has occurred probably to most of your readers that the clinical course of events in this case would have been different under more favourable circumstances. Apart from an exact diagnosis, about which there are likely to be different opinions, the symptoms and physical signs point to an acute attack of inflammation in the neighbourhood of the uterus, and not only an acute attack, but to an attack accompanied by a large fluid effusion, for it may be taken for granted that the presence of evident fluctuation in a febrile inflammatory exudation is, if the bladder be empty, certain evidence of a large effusion either of serum or pus. It appears that the patient under these circumstances was not confined to bed, and was brought with difficulty to the clinic, and each time worse. What does the new method consist of? Practically nothing but a puncture into the walls of the sac by a fine needle, followed by the passage of a current of 100 to 150 milliamperes. Naturally this was at last followed by evacuation of the fluid. Many of us will probably feel that the simple treatment of absolute rest in bed and, if this was not alone sufficient, a direct puncture of the sac would have been at least equally efficacious.

We now turn to the diagnosis, and I would venture to say that whatever the condition of the tube may have been, the disease was retro-uterine perimetritis, with a large serous effusion. The clinical history and physical signs were almost typical, and without discussing them in detail, I may say without fear of contradiction that we have yet to learn that hydrosalpinx under any conditions ever gives rise to such symptoms and such physical signs. I will only mention the fixation of the uterus to the sacrum and the alteration of position of the punctures during convalescence as offering the strongest confirmation of the diagnosis of perimetritis.

Dr. Apostoli appears to have made his diagnosis on the character of the fluid evacuated only, having previously thought it a "peri-uterine phlegmon."

The gross pathological anatomy and clinical history of inflammation of the tubes and ovaries have yet to be studied and described, and until this is much further advanced than at present we must accept many statements about them with caution.—I am, etc.

WALTER S. A. GRIFFITH.

114, Harley Street, W.

THE ALLEGED SUBVENTIONS TO GERMAN NEWSPAPERS.

SIR,—I shall be much obliged by your allowing me to contradict a calumny directed against the *Cologne Gazette* by "An Occasional Correspondent" from Berlin in your last issue (No. 1428). After attempting to give an explanation of the so-called "Reptile Fund," he goes on to say that certain papers, which are commonly supposed to receive subventions (among them the *Kölnische Zeitung*) have come to be known among opposition journalists as the Reptilia.

Though all and each of these journals, as every German not blinded by partisanship well knows, are above the faintest suspicion of accepting bribes, I, as the editor of the *Cologne Gazette* (*Kölnische Zeitung*) may content myself with vindicating my own paper from such an imputation. It is quite as wrong and, I may add, quite as ridiculous to tax the *Cologne Gazette* with receiving a shadow of subvention from any quarter, or even to question its independence, as it would be to impugn the integrity of the *Times* or the *BRITISH MEDICAL JOURNAL*.—I am, etc.,

Cologne, May 15th.

DR. AUGUSTUS SCHMITS.

ANALYSIS IN AUSCULTATION.

SIR,—Under the above heading Dr. Mortimer Granville draws attention, in the JOURNAL of April 28th, p. 901, to the advantage of a cross-piece connecting the elastic tubes of the binaural stethoscope.

Two years ago I exhibited before the Clinical Society of London a stethoscope of the same pattern which had been constructed for me by Messrs. Matthews, and which I have had in daily use since. Inasmuch as this arrangement enables the auscultator to compare different parts of the chest in rapid succession with both ears by alternately closing one of the chest pieces, the term "comparing stethoscope" seems more appropriate than any other. I find, however, that my idea was forestalled in 1881 by Dr. Constantin Paul, who in the beginning of that year exhibited several

stethoscopes of various designs before the Académie de Médecine in Paris; and that Dr. Spencer's stethoscope, although constructed differently, fulfils the same purpose.—I am, etc.,

WILLIAM EWART.

33, Curzon Street, Mayfair, W., May 9th.

HAILEYBURY COLLEGE WELL.

SIR,—I wish to take the earliest opportunity of correcting a mis-statement made in my letter to you, published on May 5th. Some time previously I had asked a gentleman who has known the Haileybury well and its surroundings most intimately for the last thirty years to furnish me with particulars as to its relation to the River Lea and the Lea Valley. In the reply embodying his conclusions the words "above" and "below" were unfortunately (and unconsciously) transposed; and, in the haste necessary to ensure the early publication of my letter to you, I was unable to personally verify the statement in question. I would now, therefore, frankly retract my published statement on this point. The bottom of the College well is indeed some sixty feet below the Lea, as appears on the reduced sketch-plan enclosed herewith. It would probably be difficult absolutely to disprove "lateral percolation" from the river to the well; but it is significant that they are a mile and a half (in strict accuracy 1 mile 833 yards) apart.—I am, etc.,

CHARLES EDWARD SHELLY.

Hertford, May 14th.

THE TREATMENT OF PHTHISIS BY RESIDENCE AT HIGH ALTITUDES.

SIR.—In your account of the discussion of the paper on "The Results of the Treatment of Phtthisis by Residence at High Altitudes," read at the Royal Medical and Chirurgical Society on May 8th, I notice some errors which have inadvertently crept into the report of my reply, which I should like to correct.

In answer to Dr. Hermann Weber's allusion to Dr. Dettweiler's treatment, I mentioned "Falkenstein," not "Frankenstein," as the place where it is practised; and in defence of my theory of lung hypertrophy at high altitudes, due to rarefaction of the atmosphere, I cited the increase of "resonance," not "nausea," as reported—"the increase of chest capacity and of breathing power, as measured by the spirometer." Dr. Quain's remark as to the absence of mention of constitutional symptoms was made in error, as these were included under the heading of "history and nature of cases;" and I may add that the paper included some typical cases, which it would have taken too long to read at the meeting.

Dr. Quain and your leader both very rightly allude to the unfriendly and, I may add, ungrateful attitude of the Swiss authorities in refusing reciprocity to English practitioners, even when resident for many years in the country. The result will be that English physicians will not unnaturally hesitate to send patients where they are deprived of the services of their own countrymen, and will be induced to look to other high altitude stations, such as those of Colorado and New Mexico, which have been proved to be equally efficacious, where comfortable hotels abound, and where English medical men receive a warm welcome from our sensible and large-hearted transatlantic cousins.—I am, etc.,

Upper Brook Street, May 15th.

C. THEODORE WILLIAMS.

THE APOTHECARIES' HALL, AND THE TITLE OF ITS NEW LICENCE.

SIR,—The licence of the Apothecaries' Hall now being a full qualification, it is only reasonable to ask that we who hold its new licence should be entitled to some letters of distinction, whereby the public may know we are authorised to practise both medicine and surgery. Otherwise we shall always be at a very great disadvantage with practitioners who are granted separate medical and surgical diplomas issued by other conjoint examining bodies. The Hall licence is now granted under exactly the same rules and regulations as the diplomas and licences of other examining boards, therefore it would be a great injustice if we were not granted a fuller title, and I am sure our Medical Council never intended such an injustice to a large section of the profession. I hope the matter may be taken up at once, and the Medical Council induced to decide the question at their meeting next week. I would suggest the title (which not a few have already adopted), namely, L.M. and L.S.Lond., Licentiate of Medicine and Licentiate of Surgery, London. Remember the licence is no longer

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licence of an apothecary simply, but a licence to practise medicine, surgery, and midwifery.—I am, etc.,
L.M. and L.S.Lond.

TEA AND TEETH.

SIR,—From your recent correspondence on this subject, it appears certain that tea has an injurious effect upon the teeth. It acts probably in more than one way. First, tea is undoubtedly the most potent cause of dyspepsia; and this, by increasing the acidity of the saliva, would tend to promote caries. Secondly, here is the ill effect of drinking a very hot liquid. And, thirdly, and I believe chiefly, there is the astringent effect of tannin upon the gums, lasting through their recession to exposure, and consequent decay of the fangs. It would be interesting to hear from Dr. Ffenning, who remarks that "the decay begins in or near the fangs," whether this is preceded by recession of the gums. Tea gives an almost neutral reaction to litmus, so that direct acidity cannot be laid to its charge.—I am, etc.,
RALPH W. LEFTWICH, M.D.
London, May 12th.

MR. GEORGE HASTINGS AND THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—At a meeting of the Greenock Medical Society held on May 9th, the following statement made by Mr. George Hastings, Chairman of the Select Committee of the House of Commons, as reported in the JOURNAL of May 5th, page 989, was considered:

"There is one great town in Great Britain which did adopt that very provision, which is the town of Greenock, where they imposed notification only on the householders, and I have the authority of the medical officer of health of that town for saying that the system of notifying by the householder proved a complete failure."

It was resolved that Mr. George Hastings be asked from what printed record he obtained such definite information, giving the date of such record; as the members present were led to believe on good authority that the medical officer of health now considered the compulsory notification being placed on the householders alone acted satisfactorily.—We are, etc.,

J. ROBERT BLACK, M.D., President.
JAMES PATON, M.D., Secretary.

Greenock.

NAVAL AND MILITARY MEDICAL SERVICES.

THE CHAIR OF HYGIENE AT NETLEY.

WE believe it is more than probable that Deputy Surgeon-General J. A. Marston, C.B., will take up the duties of the late Professor de Chaumont at Netley. He temporarily filled the chair during Dr. de Chaumont's illness last summer. It is said Dr. Marston will not retire, but will probably be seconded. It was a grievance of the late lamented Dr. de Chaumont's that retirement as Surgeon-Major was forced on him, to his detriment, when he became Professor.

THE NAVY ESTIMATES.

At the meeting of the Select Committee of the House of Commons appointed to consider the Navy Estimates, Mr. Campbell-Bannerman in the chair, Dr. Dick, Director-General of the Medical Department, gave evidence. He said he considered it would be desirable that naval medical officers on returning from abroad should have the opportunity of attending medical hospitals, to make themselves acquainted with the progress of science. He would recommend a system of one year's service at home. He thought an officer might remain at sea three years without opportunities of improving his knowledge. The number of sick daily in the navy averaged about 46 per 1,000. On board a man-of-war, such as the *Achilles*, with 700 men, the number of men sick daily would average about thirty-five, and there would be three medical officers. The removal of naval medical officers from Netley to Haslar was partly from economy and partly to prevent dissatisfaction among the officers. At Netley Hospital they became imbued with military ideas, which were not desirable. They had an excellent mess and were surrounded by military officers, and lived in an entirely different state of circumstances to naval officers. After being there six months they were drafted off, and then they found that the ideas they had formed at Netley were entirely delusive as regards the Naval Medical Service. They found they had

small cabin, and none of the military surroundings which they had at Netley, and he thought a good many surgeons left the service in consequence. They saved £2,500 a year, which was paid to probationers and professors at Netley. The proportion of cases in the hospitals at home suffering from certain diseases was about a third since the abolition of the Contagious Diseases Acts. Abroad the proportion was much smaller. A scheme for recruiting the Naval Medical Service on an emergency had been arranged and was ready to be put in force. They would be recruited from the civil profession. Efficient retired naval medical officers would be called upon to serve upon an emergency. They could be called out up to 55 years of age. At present the leave granted was fourteen days after a year on board. He should be glad to see the leave increased for all officers. Since the order of 1881 three staff-surgeons and six surgeons had retired voluntarily. Only three accepted the gratuity of £1,000 to which they were entitled in lieu of pension. Six inspector-generals, three deputy inspector-generals, and forty-three fleet-officers retired. The amount of the pensions depended on the length of service, and was from 6s. to 8s. a day. The Contagious Diseases Acts were suspended in 1883, and repealed in 1886. In 1870 the number of cases was 642; in 1871, 619; from 1872 to 1879 it varied from 738 to 887; in 1880 it was 994; in 1881, 1,124; in 1882, 1,169; in 1883, 1,943; in 1884, after the suspension of the Acts, 2,153; in 1885, 2,246; in 1886, 2,197; and in 1887 it had risen to 2,636. The cost of medical treatment for the men was about £5 11s. per head, and for feeding them it cost £18 9s. From that it would seem that medical treatment was as high as a third of their maintenance, but it included also provisions, stores, and other things. He agreed that about £3 per head was due to salaries, pensions, and allowances. They were allowed a staff of 416 medical men, and they had actually 397. The total cost of the medical service, including both effective and non-effective officers, was £209,093. Officers were entitled to retire after eight years' service. He thought that the fact of a door being open for retirement attracted men to the service, but when they got in they found themselves so comfortable that they did not wish to leave. Looking at the danger of accidents occurring in the dockyard, he did not see his way to trust to calling in civil practitioners there. They should not be left without medical assistance during the working hours. The general condition of the health of the navy was quite satisfactory, and in recent years had improved in a marked degree, apart from disease of a certain character.

VOLUNTEER MEDICAL STAFF CORPS.

THE distribution of prizes by the Duchess of Albany to the London Division of the Volunteer Medical Staff Corps took place at the Guildhall on May 12th, when the Lord Mayor, who presided, was accompanied by the Lady Mayoress and the Sheriffs of London and Middlesex. Among those present were Mr. E. Stanhope, M.P., Sir Guyer Hunter, M.P., Sir Thomas Crawford (Director-General), Sir Joseph Fayrer, etc. Surgeon-Commandant Norton having stated that what was commonly known as the Volunteer Ambulance Corps bore exactly the same relation to the volunteer force as the Medical Staff Corps bore to the regular army, spoke of the services which the corps had been enabled to render on public occasions. On Jubilee Day, for example, millions of persons were collected together, and no fewer than 500 cases were dealt with by the corps. The total strength of the corps was 403, with 371 efficient, earning a capitation grant of £763 10s. A new company was about to be formed, which would strengthen the corps by about 100 men. He hoped for the establishment of a great medical reserve, such as had recently been created in Germany, every member of which would be ready to do duty of any sort upon the arising of any national emergency.

THERE was a pleasant dinner at the Holborn Restaurant on Saturday, May 12th, of the officers of the Volunteer Medical Staff Corps. Surgeon-General Sir Guyer Hunter, M.P., Hon. Commandant, was in the chair. Among the guests were Mr. E. Stanhope, M.P., Secretary for War, who responded in an interesting speech to the toast of the "Army, Navy, and Reserve Forces;" Sir Andrew Clark, Bart., President of the Royal College of Physicians; Director-General Sir T. Crawford, and Director-General James Dick, R.N., Colonel Duncan, M.P., and many other distinguished members of the civil, military, and naval branches of the medical profession. The Volunteer Medical Staff Corps are to be con-

gratulated on the interest shown by those in authority in the excellent work they are doing.

CHANGES OF STATION.

The following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Deputy Surg.-Gen. G. M. Slaughter	Chatham	London.
" " T. Rudd, M.D.	Malta	Egypt.
Brigade-Surgeon J. J. Chappell, M.D.	Cork	Curragh.
Surgeon-Major A. Morphee	Bengal	Woolwich.
" " T. M. O'Brien	Devonport	Exeter.
" " J. Wilson	Bengal	Aldershot.
" " J. Fleming, M.D.	Hong Kong	Mauritius.
" " W. E. Riordan	Egypt	Sheerness.
" " J. Macartney, M.D.	Dublin	Curragh.
" " J. A. Campbell	Shorncliffe	Canterbury.
" " H. W. Joynt	Canterbury	Shorncliffe.
" " O. F. Molloy	Bengal	Aldershot.
" " P. A. Hayes	Portsmouth	Netley.
Surgeon J. G. MacNeece	Dublin	Belfast.
" " F. R. Barker, M.B.	Portsmouth	Weymouth.
" " J. G. S. Lewis	Dublin	Cork.
" " H. Martin, M.B.	Dover	Shorncliffe.
" " E. F. Smith	Dublin	Limerick.
" " W. D. A. Cowan	"	Belfast.
" " S. J. Flood	"	"
" " G. W. Robinson	"	Cork.
" " R. D. Donaldson, M.D.	Cork	Dublin.
" " G. T. Goggin	Bengal	Shoeburyness.
" " G. H. K. M.D. O'Callaghan	Devonport	Horfield.
" " J. G. W. Crofts	Lancaster	Fleetwood.
" " F. P. Nichols, M.B.	Bengal	York.
" " R. Fowler	"	Woolwich.
" " C. Birt	Bermuda	York.
" " H. L. G. Chevers	Aldershot	Dunbar.
" " H. M. Ramsay	Malta	Scots Guards.
" " W. N. Murphy, M.D.	Cork	Queenstown.
" " C. W. Keilly	York	Camraron.
" " H. S. Peeke	"	Hereford.
" " R. Crofts	Cape Coast Castle	Sierra Leone.

THE NAVY.

DEPUTY INSPECTOR-GENERAL D. M. SHAW, C.B., has been promoted to be Inspector-General. He entered the service as Surgeon, September 1st, 1854; became Staff-Surgeon, May 5th, 1862; Fleet-Surgeon, October 13th, 1876; and Deputy Inspector-General, February 16th, 1883. He served with the Naval Brigade at Eupatoria, in the Crimea, in the winter of 1854-55, and subsequently before Sebastopol in the *Spithead*, in which ship he was also present at the bombardment and capture of Kinburn (Crimean and Turkish medals, Sebastopol clasp); served with Royal Marines in China from 1857 to 1860; was present at the captures of Canton, Taku forts, and Pekin, also at "The Peiho Disaster," and actions of Sinho, Tongku, Chanchiawan, and Palikao (mentioned in despatches and specially promoted), medal with three clasps; was senior medical officer of the *Octavia*, flagship, during the Abyssinian war in 1868 (medal), and of the *Alexandra*, flagship, at the bombardment of the forts of Alexandria, 1882 (C.B., medal with clasp, and Khedive's Star).

Staff-Surgeon J. K. CONWAY, M.D., has been promoted to be Staff-Surgeon. His commission as Surgeon dates from March 7th, 1863, and as Fleet-Surgeon, December 25th, 1879.

The following appointments have been made at the Admiralty: JOHN FISHER, Inspector of Hospitals, to Plymouth Hospital; A. B. MESSER, M.D., Deputy-Inspector of Hospitals, to Malta Hospital; JOHN MACRIE, Staff-Surgeon, to the *Monarch*; G. D. TWIGG, Surgeon, to the *Impregnable*; E. A. SPILLER, M.D., Surgeon, to the *Triton*; H. F. NORRUBY, Deputy Inspector-General, to Plymouth Hospital; T. H. KNOTT, Fleet-Surgeon, and A. W. MAY, Surgeon, to the *Oriando*.

THE MEDICAL STAFF.

SURGEON-MAJOR A. B. R. MYERS, Scots Guards, is promoted to be Brigade-Surgeon, vice G. Perry, Coldstream Guards, who has been placed on retired pay. He entered the service as Assistant-Surgeon, September 26th, 1859; became Surgeon, March 1st, 1873; and Surgeon-Major, March 14th, 1883. He served in the campaign in the Soudan in 1885 with the 2nd Battalion of the Scots Guards, and received the medal with clasp and the Egyptian bronze star for the campaign.

Surgeon E. H. FENN, from the Grenadier Guards, is promoted to be Surgeon-Major Coldstream Guards, in succession to Brigade-Surgeon G. Perry. Surgeon-Major Fenn's commission as Surgeon dates from September 30th, 1875. He served in the Afghan war in 1879-80 in medical charge of a battery of Royal Artillery, and was present at the affair at Zaidabad; accompanied Sir Frederick Roberts in the march to Candahar, and was at the battle of Candahar (mentioned in despatches, medal with clasp, and bronze decoration). He was also engaged in the Soudan campaign in 1885 with the 3rd Battalion of the Grenadier Guards, and was present in the engagement at Hasheen and at the destruction of Tamai (medal with clasp and Khedive's star).

Surgeon-Major WILLIAM NASH, M.D., is promoted to be Brigade-Surgeon (ranking as Lieutenant-Colonel), vice W. J. Wilson, M.D., who has retired. His previous commissions are dated: Assistant-Surgeon, April 14th, 1863; Surgeon, March 1st, 1873; and Surgeon-Major, April 23th, 1876. He was in the Afghan war of 1878-80 (medal), and in the Egyptian war in 1882 (medal and Egyptian bronze star).

Surgeon-Major WILLIAM CREYK, M.B., is granted retired pay. His commissions bore date: Assistant-Surgeon, April 14th, 1863; Surgeon, March 1st, 1873; and Surgeon-Major, April 23th, 1876. He served in the war in Afghanistan in 1879-80, and received the medal for that campaign.

Surgeon JOHN MULRENNAN, M.D., who went on half-pay May 14th, 1885, is now granted retired pay.

Brigade-Surgeon J. DAVIS, who is serving in Bengal, is appointed to officiate on the administrative medical staff of the army, with the temporary rank of Deputy Surgeon-General, vice Deputy Surgeon-General E. H. Roberts, on sio leave.

Brigade-Surgeon T. H. WHITE, M.D., serving in Bengal, has leave of absence for six months on private affairs.

Surgeon J. FAYRE, M.B., serving in Bengal, is appointed to the civil medical charge of the Muttra district in addition to his military duties.

ARMY MEDICAL RESERVE.

SURGEON and Honorary Surgeon-Major H. W. KJALLMARK, Buckinghamshire (Royal Bucks) Yeomanry Cavalry, to be Surgeon-Major (ranking as Lieutenant Colonel).

The undermentioned officers to be Surgeons-Major (ranking as Majors) Surgeon and Honorary Surgeon-Major J. P. PURVIS, 2nd Volunteer Battalion the Queen's Own Royal West Kent Regiment (late the 3rd Kent); Honorary Surgeon-Major J. P. WADY, 3rd Battalion the Royal Irish Regiment (Wexford Militia); Surgeon T. M. DOLAN, M.D., F.R.C.S.E., 1st Volunteer Battalion the Duke of Wellington's West Riding Regiment (late the 4th West Riding); Surgeon H. F. HOLLAND, M.D., 3rd Volunteer Battalion the Bedfordshire Regiment (late the 1st Bedfordshire).

The undermentioned officers to be Surgeons (ranking as Captains): Surgeon F. F. MOORE, 3rd Volunteer Battalion the King's Liverpool Regiment (late the 13th Lancashire); Surgeon W. J. READY, 2nd Volunteer Battalion the South Wales Borderers (late the 1st Monmouth); Surgeon E. W. SYMES, M.D., 2nd West York (the Prince of Wales's Own) Yeomanry Cavalry; Acting Surgeon D. C. BLACK, M.D., 5th Volunteer Battalion the Highland Light Infantry (late the 10th Lanark); Acting Surgeon C. E. DOUGLAS, M.B., 6th Volunteer Battalion the Royal Highlanders (late the 1st Fife); Acting Surgeon G. W. MURPHY, M.B., 3rd Volunteer Battalion the Bedfordshire Regiment (late the 1st Bedfordshire).

THE INDIAN MEDICAL SERVICE.

The services* of the undermentioned officers of the Bengal Establishment, are temporarily placed at the disposal of the Government of the North-Western Provinces and Oudh:—Surgeon-Major G. GRIFFITH, Medical Officer 18th Bengal Lancers; Surgeon C. C. VAID, Medical Officer 11th Bengal Infantry; Surgeon-Major W. A. C. ROE, Civil Surgeon, Rawal Pindi, to officiate as sanitary commissioner of the Punjab during the absence, on furlough, of Surgeon-Major A. Stephen, M.B.

Brigade-Surgeon A. GARDEN, M.B., Bengal Establishment, has retired from the service, which he entered as Assistant-Surgeon, March 28th, 1855, attaining to the rank of Brigade-Surgeon on November 27th, 1879. He has no war record.

Surgeon-Major A. STEPHEN, M.B., Bengal Establishment, Sanitary Commissioner, Punjab, has leave of absence for one year on private affairs.

Surgeon H. HERBERT, Bombay Establishment, on general duty in the Mhow Division, is directed to officiate in medical charge of the 7th Native Infantry, during the absence of Surgeon H. P. Jervis.

It is reported from Poona, in the Bombay Presidency, that Surgeon-Major J. PRENDERGAST and a Lieutenant of Royal Artillery, were drowned there on April 20th, from the capsizing of their boat. Surgeon-Major Prendergast's commission as Surgeon was dated March 31st, 1874, and as Surgeon twelve years after. He was attached to the 2nd Battalion Royal Irish Fusiliers during the Egyptian war in 1882, and was present at the battle of Tel-el-Kebir (medal with clasp, and Egyptian bronze star). He was also with the expedition to the Soudan under Sir Gerald Graham in 1884, and was at the engagements of El Teb and Tamai, where he was severely wounded; he was mentioned in despatches, and received two clasps for this campaign.

Surgeon-Major ANDREW BARRY, M.D., Bombay Establishment, is promoted to be Brigade-Surgeon. He entered the service as Assistant-Surgeon, March 31st, 1865; was engaged in the war in Abyssinia in 1867-68 (medal), and in the Afghan war in 1880, when he took part in the march to the relief of Candahar with the force under Major-General Phayre (medal).

THE VOLUNTEERS.

ACTING-SURGEON G. BOLTON, 1st (late 5th) Durham Artillery, is promoted to be Surgeon.

Surgeon J. JOHNSTONE, 2nd Lancashire Artillery, is granted the honorary rank of Surgeon-Major.

Mr. F. D. S. M'MAHON is appointed Acting-Surgeon to the 2nd Volunteer Battalion Duke of Cornwall's Light Infantry (late the 2nd Cornwall).

Mr. W. J. PICKUP is appointed Acting-Surgeon to the 2nd Volunteer Battalion Royal Warwickshire Regiment (late the 2nd Warwickshire).

THE QUALIFICATIONS OF A VOLUNTEER MEDICAL OFFICER.

FRED. W. GIBSON, L.S.A.Lond., L.R.C.P. and S.Ed., Acting-Surgeon 1st Durham Volunteer Engineers, writes, in reply to "Medicus": I held the post of Acting-Surgeon to the 5th Volunteer Battalion, the Durham Light Infantry, on the L.S.A.Lond. I found no difficulty in obtaining the appointment, on after I was gazetted. In fact, at our northern reviews I always had a good post.

I cannot see any reason why an L.S.A.Lond. should not receive such an appointment, and I doubt whether any notice would be taken of any L.S.A. applying to-day, unless accompanied by a petition from some poor, jealous practitioner.

THE MEDICAL STAFF IN INDIA.

A "RETIRED MEDICAL OFFICER" sends us the following account of an inquiry which he made into medical politics during a recent visit to India.

1. A feeling of dissatisfaction and discontent pervades all ranks at the delay in definitely settling the question of the status of medical officers.
2. There is no little despondency over the threatened addition of a year to the tour of service.
3. The paucity in numbers of medical officers makes it very difficult to obtain leave of absence.
4. The youth and frequent changing of medical officers in charge of regiments is the subject of grave complaint by military officers at large. Out of a total of 200 officers of the Medical Staff in Bengal, there are only 55 senior officers; while of 140 surgeons, 100 draw the lowest rates of pay. The object in

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employing this very large proportion of junior and less experienced officers is simply to save the Government money.

5. Medical officers cannot properly discharge their duties without horses, but they get no forage allowance.

6. Except at Rawul Pindi there are no medical messes, and as medical officers are nowadays very often not made honorary members of regimental messes, the mode of living by many is very unsatisfactory.

7. No charge pay is given to brigade-surgeons or others for greatly increased responsibilities and work in charge of large hospitals. This is a breach of faith, as it was one of the promises made when unification and station hospitals were introduced.

8. Medical officers are moved about often very unnecessarily, and at great expense to themselves.

9. Exchanges are not allowed after the reliefs are published in July until next trooping season, no matter how urgent may be the officer's private affairs at home.

10. It is very difficult for a junior surgeon to live on his pay; he receives 317 rupees a month, though ranking as captain, while veterinary surgeons receive 400 rupees, staff corps lieutenants in infantry 325, and cavalry 365 rupees per month respectively.

Our correspondent vouches for the above plain statement of facts.

MEDICO-LEGAL AND MEDICO-ETHICAL.

TOD-HEATLEY AND ELLIOTT AND FRY v. BENHAM.

THIS was an action brought by the owner in fee of No. 6, Gloucester Terrace, Old Brompton Road, now being used as the Queen's Jubilee Hospital, and the lessees and occupiers of Nos. 7 and 8, Gloucester Terrace, to restrain the defendant, Mr. R. Fitzroy Benham, M.R.C.S., the sub-lessee of the hospital premises, from using the place as a hospital for the treatment of certain diseases.

The case for the plaintiff was that the business of the hospital came within the scope of the prohibition in the lease, which forbade the carrying on of any noisome, obnoxious, or offensive trade; that persons suffering from unpleasant complaints visited the hospital; that in a high-class neighbourhood there was no need for such an institution; and that the poor who visited it came from a distance, as there were none in the neighbourhood.

Mr. Justice Kekewich delivered judgment in favour of the plaintiffs without calling on their counsel to reply. The question was one of the construction of the covenants in the lease. In *Bramwell v. Lacy*, the covenant was almost in the same language as in the present instance, and, in subject, was indistinguishable. The late Master of the Rolls in that case granted an injunction, one of the grounds for the decision being that the hospital was a business; and he went further, for he stated his own view in very plain terms when he said: "It is well known that there are some throat diseases which are contagious; and, moreover, it is very possible that a patient on his first visit to the hospital might be found to be suffering from some disease of an infectious or contagious nature, and not from an ordinary throat or chest disease;" and he accordingly held that, on the evidence it was conclusive that persons in the neighbourhood had suffered annoyance, and that the possible danger from infection was a matter of which they had a right to complain. The evidence on these heads was quite as strong in this case, which was a case on a very similar covenant, as the evidence in *Bramwell v. Lacy*. Following that case, therefore, his Lordship granted an injunction to restrain the defendant, his servants, agents, and workmen from using, or causing, or suffering No. 6, Gloucester Terrace, to be used as a hospital and surgical appliance department for the treatment of diseases of the throat, nose, and ear, skin, eye, fistula, and other diseases of the rectum, and various deformities of the human frame. The defendant must pay the costs of the action, but, under the circumstances, the injunction would not operate for six months.

ETIQUETTE OF SUBSTITUTES.

ETHICS asks for advice on the following two cases:—

1. I was suddenly called upon to attend Mrs. —, whose husband came to fetch me himself. The medical man originally engaged for the case was out, and had left no address behind where, in case of emergency, he might be found; neither had he left a list of his visits at his own or at his partner's residence. On arrival I found the case, which was a rather quick labour, completed by the nurse. However, I examined the patient, saw that everything was quite safe, and prescribed for the time being, leaving word with the nurse to inform Dr. — of my visit, etc., and telling the patient that her own doctor would undoubtedly call immediately after his return home, and attend her as agreed. The doctor has neither called upon nor written to me, nor has anything been mentioned by him about a fee or other matters to the husband. He simply attended, took his fee, and ignored me altogether. Can I demand the usual half fee from him, or can I claim any fee from the husband? Ought Dr. — to have called on or written to me in reference to the matter?

2. Mrs. — wished me to attend her in her approaching confinement. I had seen her husband first, and afterwards called upon her and made the

usual engagement. I now hear that she has engaged Dr. — since (partner to the doctor mentioned in 1). I was never given to understand that she wished to cancel the engagement, neither am I aware whether she had told her present doctor of her previous engagement with me. Can I claim my fee from her in the usual manner? I may add here that for reasons best known to herself she mentioned that I was not expected to make any intermediate calls since the date of our engagement. I thus waited until sent for.

. In such cases as 1, it is far better that the officiating practitioner should call upon, or by a courteous note apprise, the pre-engaged but absent accoucheur of his having attended the case, instead of entrusting a message to the nurse or other person, the delivery of which is not always to be depended on. Had the suggested course been adopted in the case in question, it would have entailed upon Dr. — an acknowledgment of such attendance, without affording any loophole of excuse on the plea of non-receipt of the message. Be that as it may, under the circumstances related by our correspondent he cannot, we think, justly claim from Dr. — the customary half-fee, but he is undoubtedly entitled to charge the husband for the visit and detention.

In reference to Case 2, there seems to have been a clear contract, and the fee should be claimed.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, May 14th.

Rabies in Dogs.—The Earl of CARNARVON inquired whether the Government proposed to introduce any Bill or issue any instructions for the more effectual suppression of rabies in dogs, in conformity with the recommendations of the Committee which reported last year.—Lord MOUNT TEMPLE said whatever legislation was passed ought to extend to the whole country.—Viscount CRANBROOK sympathised with the views expressed, but a great difference of opinion prevailed as to the best means of suppressing the disease. The Government had issued orders under the Contagious Diseases (Animals) Act, of which the authorities had largely availed themselves. If muzzling were carried out effectively it would, he thought, prove a complete remedy; but it would be almost impossible to enforce it. It was quite true that in certain countries the disease had been stamped out that way. While in Mauritius the disease prevailed, in Réunion it had been completely stamped out, and there had been no case for years past. In a large district in Prussia a similar policy had proved successful. The Government had given powers to deal with the danger to local authorities, and at Birkenhead and other parts of Cheshire those powers had been employed. By the Bill now under discussion in another place the new councils would have extensive powers in this respect. He did not, therefore, think it necessary to introduce a Bill. He had before him a long list of places which had issued orders under the general authority given by the Privy Council. The Government had procured the endorsement on dog licences of any symptoms of rabies which might have developed themselves in dogs so licensed, which he regarded as a valuable precaution.

Tuesday, May 15th.

The Coroners Bill.—The LORD CHANCELLOR moved the second reading of this Bill, and explained that the first part dealt with the powers of the coroner to hold certain inquests, and the second part with the mode of his election. The first section of the Bill, which gave the coroner power to hold inquests in respect of fires, seemed to be generally approved. Such inquests used to be held, but owing to a legal decision that had been given by the Courts, they had been discontinued. The present mode of election of the coroner was very generally condemned, but there was no such unanimity as to the system to be substituted for it. At present every freeholder in the district was entitled to vote. There was no register and great confusion, with consequent enormous expense, and many a candidate had been ruined by his success or failure. It had been suggested that the Parliamentary constituency should be substituted. There was a particular objection to that part of the Bill which vested the appointment of coroners in the Lord Chancellor, and he certainly should not jealously claim the patronage which the Bill gave him. It might be suggested that the new County Councils should have the power of appointing coroners; but the objection would at once arise that this could not be provided in the Bill, because no such bodies existed at the present time. Even if they did, it would require consideration whether the election of coroners by those who were themselves an elected body was altogether a desirable mode of meeting the difficulty. All he would say at present, therefore, was that the present system ought to be altered, and that when the Bill

reached Committee he should gladly welcome any suggestion which would get rid of the difficulty. He asked their lordships to read the Bill a second time.—Lord HERSHELL wished to express his strong objection to the first clause of the Bill with reference to the mode of appointing coroners. He entirely shared the view expressed by his noble and learned friend as to the extreme inexpediency of the present mode of appointment; and he looked upon the proposal to vest the patronage entirely in the Lord Chancellor as a very serious one. There could be no doubt that the abolition of the system by which the freeholders had a voice in the appointment of the coroner would be regarded by many with some jealousy. The mode of popular election was an unsatisfactory one, but there was a widespread feeling that the coroner ought to be regarded to some extent as a representative of the people, and should not be appointed by the Executive. The only step by which they would be able to accomplish what they had in view with general assent would be to vest the appointment in some elected body. Many of the municipalities had for years had the power of appointing coroners, and any proposal to take that power away from them would be regarded with the utmost jealousy and hostility. It seemed to him that the natural course would be to extend to the County Councils the power of appointing coroners. It was true that the County Councils were not yet brought into existence; but they had that night passed a Bill which was based upon the assumption that these Councils were going to exist. He would suggest, therefore, that the question of appointment should not be dealt with until they were able to deal with it in this way. He should feel it his duty to bring this question forward when the Bill reached the Committee stage.—The Bill was then read a second time.

HOUSE OF COMMONS.—Thursday, May 10th.

Naval Hospitals.—Dr. TANNER: I beg to ask the First Lord of the Admiralty, whether in all naval hospitals, since the abolition of Captain Superintendents, the power that they had of dealing with their men employed as nurses was relegated to the Inspectors-General of the said hospitals: and whether it is true that at the present time no medical officer ashore or afloat has the slightest power of dealing with the "Sick Berth Staff," and if so, can he state the reasons for which this change in the regulations of the Naval Medical Service has been made.—Lord GEORGE HAMILTON: On the abolition of appointment of Captain Superintendent of Naval Hospitals the administration and control of the establishment were placed in the hands of the Inspector-General, who now deals entirely with cases of neglect of duty or misconduct on the part of civilian nurses. The men of the Sick Berth Staff belong to the service afloat, and, being subject to the Naval Discipline Act, are dealt with by the Commanders-in-Chief at the ports on the representation of the principal medical officer. All medical officers, whether on shore or afloat, have full power over the Sick Berth Staff by means of reporting them to the commanding officer, and in this respect there has been no change.—Dr. TANNER inquired whether the same rule existed in regard to the Army Medical Service, or whether the Army Medical officers were unable to command the men belonging to the Medical Staff Corps.—Lord GEORGE HAMILTON could not answer the question.

Friday, May 11th.

Caffein.—The CHANCELLOR OF THE EXCHEQUER, in answer to Mr. BARTLEY, said the question of the admission free of duty of tea found to be unfit for human food, for the purpose of the production of caffein, subject to preliminary precautions to prevent the tea getting into consumption, was now under reference to the Board of Customs.

Prison Surgeons.—Dr. CLARK asked whether prison surgeons in Birmingham, Leeds, and Durham were appointed at a salary of £320 a year, while in the Scotch prisons of Perth, Glasgow, and Barlinnie they began at £200 a year, and what was the reason for the difference.—Mr. JACKSON, in reply, said that the surgeons at Glasgow and Perth received higher pay than they would in English prisons of corresponding population, while the surgeon at Barlinnie received less. The Scotch scales of salary were fixed by a Committee which had full knowledge of those adopted in England; but applications for increases had been received from the Scotch officers, and were under consideration.

Monday, May 14th.

Darenth Asylum.—Mr. RITCHIE, in reply to Mr. FRITH—who inquired as to the cost per head at Darenth Asylum being higher than that of any other asylum in England, and £10 per head

higher than Leavesden or Caterham—explained that in the case of the Metropolitan Asylums Board district asylums the cost include other items than those of maintenance (which was not the case with the county and borough asylums). The excess of cost at Darenth over that of Leavesden and Caterham was to some extent accounted for by the fact that Darenth had not had its full number of inmates. The cost of the food of the patients was practically the same in all three.

Contagious Diseases Act in India.—Sir J. GORST said, in reply to Mr. STANSFELD, that the administration of the Contagious Diseases Act in Bombay, Madras, and Bassein, the only places in which it was in force, had been suspended by the Government of India under a power contained in the Act. The Government of India was now engaged in a revision of the regulations made for preventing the spread of venereal disease in cantonments, under Section 27 of Act 111 of 1880; and a despatch was going out to India from the Secretary of State in Council, which would prohibit the compulsory examination of women, and the making of any regulations which could be justly construed into a legalisation of prostitution.

Tuesday, May 15th.

The Royal College of Surgeons.—Dr. FARQUHARSON asked the Vice-President of the Committee of Council on Education whether the petition of Members of the Royal College of Surgeons of England, for a modification of the charters of the College now under consideration by the Council, had received the favourable consideration of the Lord President, or whether it would be referred to the Royal Commission on University Education in London, recently appointed to consider, among other things, the means of facilitating University degrees for resident students in London; and whether the Royal College of Surgeons of England had yet presented to the Lord President any comments on, or reply to, the representations made on behalf of the Members of the College by the deputation which recently waited on him, or whether, in the absence of any such representation in support of the petition by 6,000 Members would be held to be conclusive.—Sir W. HART DYKE, in reply said the petition would not be referred to the Royal Commission. There had been a correspondence between the Council Office and the College on the subject of their petition for a supplementary charter, and the College had accepted a proposal from the Privy Council to omit from the supplementary charter points upon which there had been a controversy with the Fellows and the Members of the College.

Public Health Acts.—The Public Health Acts Amendment (Buildings and Streets) Bill was read a second time without discussion.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

FRANK SMART STUDENTSHIP.—Percy Groom, B.A., late of Trinity College, has been elected to the Frank Smart Studentship in Botany, founded at Gonville and Caius College, by Francis Gray Smart, M.A., M.B.

LECTURESHIP IN GEOGRAPHY.—The new University Lectureship in Geography, the Cambridge electors to which are Dr. FERRERS, Dr. MACALISTER, Professor MICHAEL FOSTER, and Professor BROWNE, is announced to be vacant. The stipend is £200 a year. Candidates are to send their names, with brief statements of their qualifications and of the methods they would propose to adopt, to the Master of Gonville and Caius College, not later than Tuesday June 5th.

THE results of recent examinations for medical degrees are as follows:

Degree of M.C.

C. A. Morris, Caius.

Degree of B.C.

Beddoes, Pemb.; Whishaw, H. Cav.

Third examination for the degree of M.B. Part I.

Battersby, Trin.; Blaker, H. Cav.; Bowen, King's; Campbell, H. Cav.

Chaplin, Joh.; E. H. Colbeck, Caius; Courtney, Pemb.; Crisp, Caius

Eismore, Christ's; Foster, Trin.; Gervis, Trin.; Goddard, Caius; Gordon

Trin.; Hawkins, Caius; Hopkinson, Emman.; G. T. Lloyd, Joh.; Murray

Trin.; Musson, King's; Ogilvie, King's; R. J. Roberts; Rutherford

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Sidney; G. R. Saunders, Cairns; Sortain, Caius; S. B. Syfret, Trin. H.;
Vaele, Christ's; Weber, Trin.; G. H. Wickham, Caius.

Part II.

Barber, Cath.; Copeland, King's; Harris, Christ's; Hicks, H. Cav.; King,
H. Cav.; Little, Down; Percival, Trin.; Pollock, Trin.; Prowse, Noun-
coll.; Smithson, Christ's; Watts, Corpus.

ROYAL UNIVERSITY OF IRELAND.

EXAMINATION RESULTS.—At the recent medical examinations following were the results. Primary: (M.B. qualifying examination) 31 examined, 15 rejected. Second medical: 72 candidates, 39 rejected. Third medical: 134 examined, 67 rejected. M.Ch., 21 examined, 5 rejected; M.A.O., 11 examined, 5 rejected.

The following are the candidates recommended by the examiners as having passed the undermentioned Examinations:

Second Examination in Medicine.

Upper Pass Division.—J. Ambrose, Queen's College, Cork; J. M. C. Brown, Queen's College, Belfast; J. E. W. Cruise, Catholic University School of Medicine; P. H. Keary, Carmichael School of Medicine; J. K. O'Connor, Queen's Colleges, Belfast and Cork; H. Stranaghan, Queen's College, Belfast.

All the above Candidates will be admitted to the Further Examination for honours:

Passed.—J. Alexander, School of Physic, Trinity College; J. H. Anderson, Queen's College, Belfast; R. Boyd, Queen's College, Belfast; P. Brannan, Catholic University School of Medicine; J. A. Browne, B.A., Queen's College, Belfast; W. Cluff, Queen's College, Belfast; F. A. Craig, Queen's College, Belfast; R. Creighton, Royal College of Surgeons and Royal College of Science; J. Dodd, Queen's College, Cork and Catholic University School of Medicine; T. S. Downer, Queen's College, Belfast; J. Gahan, Queen's College, Galway; J. D. Graham, Queen's College, Belfast; W. J. Gregory, Queen's College, Galway; D. Jamison, Queen's College, Belfast; J. H. Jones, Ledwith and Catholic University School of Medicine; R. J. Keane, Queen's College, Cork; J. Lane, Queen's College, Cork; R. McCarthy, Catholic University School of Medicine; N. O. McCormell, Queen's College, Belfast; J. R. McLaren, M.A., Queen's College, Belfast; J. Mills, School of Physic, T. C. D.; W. Moody, Queen's College, Galway and Belfast; J. Priestley, B.A., Queen's College, Belfast; Hester D. Russell, London School of Medicine for Women; M. C. Staunton, Carmichael College and Catholic University School of Medicine; J. T. Wallace, B.A., School of Physic, T. C. D.; L. Wheeler, Queen's College, Belfast.

Third Examination in Medicine.

Upper Pass Division.—Eleonora L. Flenny, London School of Medicine for Women; J. M. Hall, Queen's College, Belfast; R. W. Haslett, Queen's College, Belfast; J. Jackson, Queen's College, Cork; G. W. Jenney, Queen's College, Cork; J. W. C. Macpherson, Queen's College, Cork; G. J. Pierce, Queen's College, Galway; C. Porter, Queen's College, Belfast; J. Smyth, Queen's College, Cork; R. Wilson, Queen's College, Belfast; J. W. Wolfe, Queen's College, Cork.

Passed.—J. Adrain, Queen's College, Belfast; C. J. Beattie, Queen's College, Galway; W. T. Brand, Queen's College, Belfast; J. Buchanan, Queen's College, Belfast; A. Burgess, B.A., Queen's College, Belfast; J. Caldwell, Queen's College, Belfast; H. R. Corbett, Queen's College, Cork; P. H. Donovan, School of Physic, T. C. D.; R. Forsyth, Queen's College, Belfast; J. Fulton, Queen's College, Belfast; H. T. Gill, Queen's College, Belfast; D. H. Hamilton, Queen's College, Belfast; S. Irwin, Queen's College, Belfast; P. Jennings, Queen's College, Cork; J. A. Kelly, Queen's College, Belfast; J. Kenny, M.S., Queen's College, Belfast, and Catholic University School of Medicine; J. McConnell, Queen's College, Belfast; W. P. McRidoney, Queen's College, Belfast; F. McKee, Queen's College, Belfast; J. McKnight, Queen's College, Belfast; H. T. N. Merrick, School of Physic, Trinity College; A. T. Morrison, Queen's College, Belfast; N. of Physic, Trinity College; C. V. H. Nesbitt, Queen's College, Belfast; Morton, Queen's College, Belfast; C. V. H. Nesbitt, Queen's College, Belfast; M. J. O'Hegan, Queen's College, Cork; J. V. Ryan, Queen's College, Belfast; M. J. O'Hegan, Queen's College, Belfast; J. B. Smith, B.A., Queen's College, Cork; D. C. Smiley, Queen's College, Belfast; W. J. Taylor, Queen's College, Cork; C. A. Stone, Queen's College, Cork; W. J. Taylor, Queen's College, Cork; R. Thomson, Queen's College, Belfast; J. T. Walker, Queen's College, Belfast; W. Weatherup, Queen's College, Belfast; W. A. Wheeler, Queen's College, Belfast; S. H. Withers, Queen's College, Belfast; C. R. Zimmer, Carmichael College and School of Physic, Trinity College.

The following candidates will be permitted to present themselves at the Further Examination for Honours:

Eleonora L. Flenny, London School of Medicine for Women; J. M. Hall, Queen's College, Belfast; R. W. Haslett, Queen's College, Belfast; J. Jackson, Queen's College, Cork; G. J. Pierce, Queen's College, Galway; R. Wilson, Queen's College, Belfast; J. W. Wolfe, Queen's College, Cork.

M.B. Examination.

Upper Pass Division.—T. E. Dunne, Carmichael College; A. E. Mahood, School of Physic, T. C. D.; M. Molony, Queen's College, Cork; P. J. O'Brien, Queen's College, Cork.

Passed.—J. H. Corcoran, Queen's College, Cork; D. Crowley, Queen's College, Cork; W. R. Gore, Royal College of Surgeons, Ireland; J. Griffin, Queen's College, Cork; J. Hunter, Queen's College, Belfast; W. Kelleher, Queen's College, Cork; G. Love, Queen's College, Belfast; D. McKee, Queen's College, Belfast; L. O'Clery, Queen's College, Cork; M. Semple, Queen's College, Galway; H. Smith, B.A., Queen's College, Galway; J. W. Wilson, Queen's College, Belfast.

Spring Examinations, 1888. The Examiners have recommended that the following candidates should be adjudged to have passed the undermentioned Examinations:

M.Ch. Degree Examination.—J. F. St. J. Annesley, Queen's College, Bel-

fast; J. Clifford, Carmichael College, Dublin; J. H. Corcoran, Queen's College, Cork; D. Crowley, Queen's College, Cork; R. B. Gorsuch, M.D., Queen's College, Cork; J. Hunter, Queen's College, Belfast; J. J. Lynch, Catholic University School of Medicine; D. McKee, Queen's College, Belfast; P. McKenna, Catholic University School of Medicine; A. E. Mahood, School of Physic, Trinity College, Dublin; C. W. Morgan, M.B., Queen's College, Belfast; J. J. O'Brien, M.D., Queen's College, Cork; P. J. O'Brien, Queen's College, Cork; L. O'Clery, Queen's College, Belfast; M. Semple, Queen's College, Galway; H. Smith, B.A., Queen's College, Belfast.

M.A.O. Degree Examination.—J. H. Corcoran, Queen's College, Cork; D. Crowley, Queen's College, Cork; J. R. Davison, M.D., Queen's College, Belfast; A. E. Mahood, School of Physic, T. C. D.; H. Smith, B.A., Queen's College, Galway; J. Tomb, M.D., Queen's College, Belfast.

INDIA AND THE COLONIES.

INDIA.

INDIAN UNIVERSITIES AND THE GENERAL MEDICAL COUNCIL.

L. M. S. (Bombay) writes: You will be doing a great favour to the hundreds of unrepresented, fully qualified men of India, by inserting this.

The Medical Act of 1886 provides for the due recognition of Indian and Colonial medical degrees by the General Medical Council, but as yet nothing has been done because they are in no way represented, and they have none to speak for them; I therefore desire to draw the attention of the Council, through your columns, to this matter. It is high time that they should consider and decide this question. I need not go into the merits of the question, for I am sure the Council must have all the requisite information; suffice it to say that the degrees or licence are granted in India at the three Universities, after a course of medical training extending over full five years, and the teachers and professors are experienced men from Her Majesty's Army and Indian Medical Service, and the training is in no way inferior to that of the teaching bodies in Great Britain and Ireland, and the tests are equally good, if not more severe than at some of the British licensing bodies. In connection with this I should particularly like to draw attention to one well known fact. I know of several men (and I am prepared to give names and full particulars, if I am called upon) who, having been rejected in the examinations in medicine and surgery of the Bombay University on more occasions than one, have come up to Great Britain and Ireland, and got through the examinations of some of the licensing bodies here, and obtained the licence very easily. I have cited this fact only to show that the tests of the Indian Universities and particularly of Bombay are as good, and in some cases, I make bold to say, more searching than those of the British licensing bodies, the Royal College of Surgeons of England excepted. Thus, then, if a candidate is rejected in Bombay he comes over here, goes to one of the licensing bodies of Glasgow, Edinburgh, or Ireland, and invariably succeeds in obtaining the licence to practise, and can therefore put his name on the British Register, and enjoys all the rights of a qualified man. While if another happens to be more successful, and after a severe test gets the diploma of the Bombay or other Indian University which the former has failed to obtain, and comes over here to prosecute his studies further as a qualified man, why he is not recognised, and labours under a greater disadvantage than the other. This absurd anomaly ought to be done away with, and the sooner the better. We only ask for justice. It is high time that the General Medical Council should consider this question. We men from India are British subjects, we are educated by the British, for which we are ever thankful, and we are, after a proper test, declared by your own men to be fully qualified; and we are even employed by the Government as assistant-surgeons, in charge of dispensaries, and even some hospitals, gaols, &c.

I ask then why should we be ignored in this country? When your own men admit us into this noble profession, why should we not be recognised here? I think it is a great injustice and real grievance, and ought to be soon remedied. The General Medical Council meet this month, and I hope they will take up this question.

OBITUARY.

ARTHUR CRESWELL RICH, M.B.LOND., M.R.C.S.ENG.

THE medical profession in Liverpool learnt with deep regret of the demise, after a few days' illness, of Dr. Arthur Creswell Rich, on May 15th from an attack of purpura hæmorrhagica, at the early age of 31. Dr. Rich was the eldest son of Mr. J. D. Rich, the popular postmaster of Liverpool. He was educated at the Liverpool School of Medicine (now the Medical Faculty of University College, Liverpool), and also at St. Thomas's Hospital. He obtained the degree of M.B. from the London University with first-class honours, and was also a Member of the Royal College of class honours, and was also a Member of the Royal College of Surgeons. He was soon after appointed to a house-surgeoncy at the Liverpool Royal Infirmary, and subsequently filled the important post of pathologist to that institution. He was also a Fellow of the Obstetrical Society, a member of the British Medical Association, and a valued special correspondent for this JOURNAL. During the visit of the Association to Liverpool in 1883, Dr. Rich was the courteous secretary to the Reception Committee, the arrangements of which he carried out in a most successful manner.

Dr. Rich was very zealous as an ambulance lecturer, and the Liverpool police will especially regret his loss. At the time of his

death he was senior medical officer to the Liverpool Post Office, and surgeon to the Liverpool Rifle Brigade of Volunteers. His death brings with it a widespread feeling of regret that such a promising career has been so suddenly cut short. He leaves a young widow to mourn his loss.

Dr. William Carter, who had known Dr. Rich from boyhood, and who attended him in his last illness, has sent us the following tribute to his memory:

"Dr. Rich's multitudinous labours soon told on a health previously injured by malaria, yet it was with great difficulty, and only after more than one serious attack of blood-poisoning, that he could be persuaded by Dr. Carter, whom he consulted, to abandon his pathological work. His reports as pathologist, many of which have been read with admiration by the writer of this sketch, were models of fulness and accuracy, but were only drawn up by the sacrifice of much needed repose. He never failed to respond to a call; and when it is mentioned that within ten days of his death he insisted on visiting, at ten o'clock at night, a member of the post-office, and that he was in so prostrate a condition that it was only by the aid of a kindly administered stimulant that he could be got home without fainting, it will be seen how far his resolute will and heroic devotion to duty carried him. His noble self-forgetfulness probably precipitated the end. His young wife had recently undergone a severe illness, to convalesce from which it was necessary that she should be sent to the south; and although he himself became utterly prostrated in health during her absence, as the above related incident shows, yet he continued to write to her cheerfully daily, and absolutely refused to have any intimation sent to her that would curtail her sojourn by a single day. He was equally determined in resisting entreaties made to him again and again to rest from his work, and to avail himself of medical aid. On his wife's return, however, which was just eight days before his death, she was so shocked by his altered appearance, that she insisted on instantly requesting the attendance of Dr. Carter, who found him in such a condition of prostration as scarcely to afford hope of rallying. The lower extremities were very oedematous, and stained by large subcutaneous hæmorrhages; he was profoundly anæmic, had a high temperature, and a very quick and weak pulse. His friend, Dr. Charles Macalister, at once relieved him of all official duties, and devoted himself night and day to watching over him, ably assisting Dr. Carter by carrying out every detail of treatment. Delirium set in, and Dr. Rich sank exactly eight days after having given up his work. Throughout his short but busy life he was ever anxious to help in any good work. A man of quiet and unostentatious piety, he gave his services freely to many charitable societies, such as the Shoeblocks' Home, the Aged Women's Home, etc. In addition to all his other duties, he undertook and performed those of local secretary to the Collective Investigation of Disease Committee. So much work condensed into so short a life is very rarely seen."

HENRY C. MACEWEN, B.Sc., M.B., C.M., of Glasgow.

THE death from diphtheria of this young and promising member of the profession, at the Belvidere Fever Hospital, of which he was an assistant physician, after an illness of little more than five days' duration, came as a shock to his numerous friends, by whom a feeling of regret will be felt akin to that which was felt on the death of Dr. David Foulis, seven years ago, from the same cause. Born at Glasgow in 1861, the youngest son of Mr. William Macewen, formerly Dean of Guild, many years Chairman of the Royal Infirmary, and a prominent and highly respected citizen, Dr. Macewen had reached the age of twenty-seven years. After a liberal education in the Glasgow Academy and at Merchiston, he decided to enter the medical profession, and began his studies in the University of his native town, where he took his degree of B.Sc. in 1881. He then removed to Edinburgh University, where he completed his curriculum, and graduated M.B., C.M., in the year 1885. As he suffered a good deal at this time from tenderness of the eyes, he took a voyage to New Zealand, acting as surgeon of the ship in which he went out, and returned perfectly cured. Desiring to study some special subjects, he went to Vienna in the autumn of 1886, and whilst there he devoted his time chiefly to the study of skin diseases, and to laryngology. Whilst on the Continent, he visited some of the other German medical schools; and, on his return to Glasgow, he entered on his duties as one of the Resident Assistant Physicians in the Royal Infirmary, in which he continued eleven months, having been reappointed for a second period of six months.

Anxious to acquire a knowledge of fevers and their treatment,

he applied for and obtained an appointment in Belvidere, which he entered on two days after leaving the Royal Infirmary, the interval having been spent as a holiday. He was very happy in his new sphere, and apparently in the best of health and spirit. On Saturday, April 28th, he left the hospital early and went to Arran to join some friends with whom he made an annual excursion to that favourite island. In the evening, after having climbed some of the hills, exposed to a biting east wind, he complained of headache and sore throat, and, this continuing next day, he remained in his lodgings, expecting to see the rash of scarlet fever develop on him; but, as it did not appear, he left by the early steamer next morning, and returned to Belvidere. On seeing him Dr. Allan, the kindly and experienced Physician-Superintendent at once attended to him; but as symptoms of diphtheria developed themselves, and were becoming serious, he called in the aid of Dr. Robertson, the family physician, but without avail, as death took place early next morning. It was a shock and surprise to all who knew him, and to many more who only knew of him through his family connections; and by all it was felt as if a personal loss had been sustained. Dr. Macewen was an assiduous student, of a cheerful nature, and unassuming in character. His Vanduyck-like face will long be remembered and his loss mourned by his old fellow assistants in the Royal Infirmary. Widespread sympathy is felt for his family in their bereavement. The funeral took place on May 7th, and residents and nurses in both hospitals in which he had served sent their floral tributes to the tomb of the deceased in token of their remembrance of him.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his quarterly return relating to the births and deaths registered in England and Wales during the first or winter quarter of this year, and to the marriages in the three months ending December last. The marriage-rate, although slightly above the exceptionally low rates that prevailed in the fourth quarter of the two preceding years, was considerably below the mean rate in the corresponding period of the ten years 1877-86. The mean temperature of the air at the Royal Observatory, Greenwich, was considerably below the average, but the weather was, on the whole, favourable to the public health.

The births registered in England and Wales during the three months ending March last were 223,838, equal to an annual rate of 31.4 per 1,000 of the population, estimated by the Registrar-General to be more than twenty-eight and a half millions of persons. This birth-rate showed a further slight decline from the rates recorded in the corresponding quarters of recent years, and was as much as 3.0 per 1,000 below the mean rate in the first quarters of the ten years 1878-87; it was indeed lower than that recorded in the first quarter of any year since 1833, when registration was undoubtedly defective. The birth-rate in the quarter under notice in the several counties ranged from 24.5 in North Wales, 25.2 in Rutlandshire, and 25.6 in Sussex to 34.3 in the extra-metropolitan portion of Middlesex, 34.6 in South Wales, and 36.7 in Essex and in Monmouthshire. In the twenty-eight large towns for which the Registrar-General publishes weekly returns the birth-rate last quarter averaged 32.5 per 1,000, ranging from 22.7 in Brighton, 26.5 in Huddersfield, and 28.3 in Bradford to 37.7 in Newcastle-upon-Tyne, 39.5 in Preston, and 43.9 in Cardiff. The births registered in England and Wales during the quarter under notice exceeded the deaths by 73,824; this represents the natural increase of the population during that period. From the Board of Trade returns it appears that 59,288 emigrants sailed from the various ports of the United Kingdom at which emigration officers are stationed; of these, 28,935 were English, 6,238 Scotch, and 7,113 Irish. The proportion of British emigrants to a million of the respective populations of the three divisions of the United Kingdom were 1,013 from England, 1,546 from Scotland, and 1,485 from Ireland.

During the first quarter of this year the deaths of 150,014 persons were registered in England and Wales, equal to an annual rate of 21.0 per 1,000 of the estimated population. This death-rate, although showing a slight increase upon the exceptionally low rate in the corresponding period of 1887, was 1.0 below the

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ean rate in the first quarters of the ten years 1878-87. Among the urban population of the country, estimated at upwards of fifteen and a quarter millions of persons, the rate of mortality during the quarter under notice was equal to 21.3 per 1,000; in the remaining and chiefly rural population of about ten and a quarter millions, the rate was 20.6 per 1,000. The urban rate was 9 per 1,000 below, while the rural rate was 0.4 above, the mean rate in the first quarters of the seven years 1881-87. The rate of mortality among infants under one year of age, and among persons aged upwards of sixty years, exceeded the average; while the death-rate of persons aged between one and sixty years was below the average of the ten preceding corresponding quarters.

The 150,014 deaths registered in England and Wales during the three months ending March last included 4,428 which were referred to whooping-cough, 2,129 to measles, 1,868 to scarlet fever, 447 to diphtheria, 1,362 to "fever" (including typhus, typhoid, and simple fever), 1,295 to diarrhoea, and 533 to small-pox; in all, 3,112 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1.84 per 1,000, the average annual rate in the ten preceding corresponding quarters having been 2.20 per 1,000. The mortality from measles, scarlet fever, "fever," and diarrhoea, was considerably below the average for the corresponding quarters in the ten preceding years; while the mortality of whooping-cough, small-pox, and diphtheria exceeded the average. The deaths referred to small-pox, which had been 30, 47, 70, and 358 in the four quarters of 1887, further rose to 533 during the first three months of this year, of which 318 occurred in Sheffield, 15 in Bristol, 13 in Manchester, 13 in Leeds, 11 in Ashton-under-Lyne, and 10 in Rotherham. In London only 4 fatal cases of small-pox were recorded during the quarter.

The rate of infant mortality, or the proportion of deaths under one year of age to registered births, was last quarter equal to 146 per 1,000, and slightly exceeded the average proportion in the ten preceding corresponding quarters. While the rate of infant mortality in London during the first three months of this year was 43 per 1,000, it averaged 150 in the twenty-seven provincial towns, among which it ranged from 114 in Sunderland and 119 in Huddersfield to 178 in Preston, 199 in Plymouth, and 203 in Blackburn.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, May 12th, 5,696 births and 3,174 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 18.9 and 18.7 in the two preceding weeks, further declined to 17.6 during the week under notice. The rates in the several towns ranged from 12.5 in Cardiff, 14.1 in Derby, and 14.3 in Brighton to 23.6 in Wolverhampton, 24.7 in Halifax, and 26.7 in Bolton. The mean death-rate in the twenty-seven provincial towns was 18.5 per 1,000, and exceeded by 1.9 the rate recorded in London, which was only 16.6 per 1,000. The 3,174 deaths registered during the week under notice in the twenty-eight towns included 287 which were referred to the principal zymotic diseases, against 328 and 329 in the two preceding weeks; of these, 109 resulted from whooping-cough, 43 from scarlet fever, 40 from measles, 32 from diarrhoea, 29 from "fever" (principally enteric), 26 from diphtheria, and 6 from small-pox. These 387 deaths were equal to an annual rate of 1.6 per 1,000; in London the zymotic death-rate was 1.6, and corresponded with the mean rate in the twenty-seven provincial towns, among which the zymotic rates ranged from 0.4 in Portsmouth and in Sunderland and 0.7 in Bristol to 2.7 in Plymouth, 3.1 in Blackburn, and 3.9 in Salford. Measles caused the highest proportional fatality in Nottingham and Bradford; scarlet fever in Huddersfield and Blackburn; whooping-cough in Derby, Manchester, and Salford; and "fever" in Leicester and Nottingham. The 26 deaths from diphtheria in the twenty-eight towns included 15 in London, 2 in Liverpool, and 2 in Norwich. Of the 6 fatal cases of small-pox recorded during the week under notice, 3 occurred in Sheffield, 1 in Manchester, 1 in Preston, and 1 in Leeds. The Metropolitan Asylums Hospitals contained 11 small-pox patients on Saturday, May 12th, and no new cases were admitted during the week. These hospitals also contained 904 scarlet fever patients on the same date, against 967 and 921 at the end of the two preceding weeks; there were 91 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 3.2 per 1,000, and was considerably below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns, 839 births and 534 deaths were registered during the week ending Saturday, May 12th. The annual rate of mortality, which had been 21.0 and 19.5 per 1,000 in the two preceding weeks, rose again to 21.1 during the week under notice, and exceeded by 3.5 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Leith and Dundee, and the highest in Edinburgh and Glasgow. The 534 deaths in these towns during the week under notice included 40 which were referred to the principal zymotic diseases, equal to an annual rate of 1.6 per 1,000, which corresponded with the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Perth, Paisley, and Glasgow. Fifteen fatal cases of whooping-cough, and 10 of measles were recorded in Glasgow. The mortality from diseases of the respiratory organs in these towns was equal to 4.4 per 1,000, against 3.2 in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, May 12th, the deaths registered in the sixteen principal town-districts of Ireland were equal to an annual rate of 22.9 per 1,000. The lowest rates were recorded in Dundalk and Lurgan, and the highest in Wexford and Lisburn. The death-rate from the principal zymotic diseases in these towns averaged 2.4 per 1,000, and was highest in Armagh and Galway. The 156 deaths registered in Dublin during the week under notice were equal to an annual rate of 23.1 per 1,000, against 31.5 and 21.7 in the two preceding weeks. The 156 deaths included 17 from the principal zymotic diseases (equal to an annual rate of 2.5 per 1,000), of which 9 were referred to whooping-cough, 4 to scarlet fever, 2 to "fever," 1 to measles, and 1 to diarrhoea.

EDINBURGH HEALTH SOCIETY.

The Edinburgh Health Society has published its annual handbook, the eighth of the series since the foundation of the Society. It contains the lectures delivered to non-professional audiences under the auspices of the Society during the winter months. The present issue contains lectures by Dr. T. S. Clouston, on How Pleasant Surroundings and Conditions affect the Health and Happiness; by Dr. W. Russell, on Indigestion, its Causes and its Consequences; by Dr. Kerr, on Healthy Clothing; by Dr. R. W. Felkin, on Heredity, its Influence on Man in Health and Disease; and by Mr. A. W. Hare, on The Channels of Infection. The lectures are all written in a simple, clear, and popular style, and are calculated to do good to the class for whom they are specially intended.

INFECTIOUS DISEASES AND THE SALE OF MILK.

A DAIRY-KEEPER at Paisley has been fined £1, with £1 7s. 6d. expenses, and with the alternative of seven days in prison, for allowing a girl to milk cows or handle vessels used for the milk whilst she was coming in contact with a girl, a daughter of the dairy-keeper, suffering from measles. The dairy-keeper explained that as soon as she knew what was wrong with her daughter no one who attended her was allowed to do anything in the dairy. A similar case from another parish was similarly dealt with.

BURIAL REFORM.

THE tenth annual meeting of the Burial Reform Association was held on Monday last at Grosvenor House under the presidency of the Duke of Westminster, when the following resolution, proposed by Mr. F. Seymour Haden, F.S.A., was carried:

"That the present mode of interment in brick vaults and crowded graves should be discontinued as dangerous to the health of the living, and that 'earth-to-earth' burial should be encouraged with the use of readily-perishable coffins, and that the Home Secretary be memorialised to institute an inquiry into the condition of cemeteries."

The speaker opposed cremation.

Mr. WOLLASTON PYM said that fifty years ago Brompton Cemetery was condemned by the sanitary authorities, yet 5,000 bodies were still interred there every year.

IS A SMITHY A NUISANCE?

A MEMBER asks whether we think a smithy, consisting of a forge and horse-shed, and situated about ten yards from the village school, could be condemned as a nuisance injurious to the health of boys in that school? This smithy is at present in course of erection, and the question of a nuisance in time to come has arisen.

. The case stated does not, in our opinion, come in any way under the

Public Health Acts. There is no absolute necessity that a forge, etc., should be a nuisance and injurious to health; and the erection of such a building could not be prevented. Should it become a nuisance on account of carelessness, etc., the occupier could be proceeded against.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The quarterly examinations in Edinburgh for the Triple Qualification took place in April and May with the following results.

First Examination.—Of 62 candidates, the following 32 passed: A. M. Gray, Isle of Man; W. L. Lemon, Co. Armagh; Miss Louisa Rosa Cooke, Yorkshire; Miss Edith Mary Brown, Whitehaven; S. Wood, Rochdale; D. K. Muir, West Hartlepool; C. Pearce, Chilli; H. Whalley, Bradford; F. Hall, Lancashire; E. F. Jamison, Co. Down; D. Doherty, Co. Donegal; P. D. Minchin, Kilkenny; R. W. Clayton, Wrexham; J. B. Wilson, Co. Cork; E. G. MacSweeney, Macroom; A. Hestage, Chester; P. J. Munn, Kirkcudbrightshire; T. Marshall, South Shields; L. G. Fink, Calcutta; J. A. Fink, Calcutta; L. F. Bucknell, Sydney; J. Orr, Co. Antrim; G. Macdonald, Kirkintilloch; J. E. H. Gentil, Mauritius; R. Holmes, Westmeath; T. White, Antrim; J. C. Edwards, Llanrhaidr; A. T. Brown, Dunfermline; R. Scott, Kinross-shire; D. V. Ryan, Co. Cork; C. E. Ross, Skye; and A. Mackellar, Glasgow.

Second Examination.—Of 83 candidates, the following 32 passed: G. S. Pope, Madras; J. G. McCandlish, Leeds; H. R. Preece, Cheltenham; D. Mark, Belfast; C. Pearce, Chilli; S. Wilson, Hanley; W. J. Leitch, Tyrone; D. M. B. Myers, Cloumel; G. Mason, Birmingham; H. H. H. Addenbrooke, Smethwick; F. H. Amner, Kew; T. S. Allan, Glasgow; W. Pirie, Arbroath; G. M. Grieve, Dundee; R. F. Granger, Whitby; F. M. Graham, Monmouth; W. Rae, Glasgow; P. McElligott, Kerry; J. M. Rohan, Mauritius; W. R. Lemon, Co. Armagh; W. J. H. Cumming, Kent; E. A. C. Hindmarsh, Calcutta; J. Nesbitt, Co. Derry; T. C. Patterson, Co. Donegal; T. E. Jones, South Wales; O. W. Morgan, Ceylon; J. S. Boyd, Renfrewshire; A. R. Douglas, Newcastle; T. Young, Kilwinning; P. F. Godfrey, Tipperary; W. D. Sweeny, Co. Mayo; and R. Maclean, Ross-shire.

Final Examination.—Of 70 candidates, the following 44 passed, and were admitted L.R.C.P. Ed., L.R.C.S. Ed., and L.F.P. and S. Glasg. G. A. Bannatyne, Rutherglen; E. A. Simeon, Delhi; A. E. Vaughan, Crewe; W. A. Frizell, Liverpool; J. B. Meredith, Queen's Co.; S. Mellor, Huddersfield; R. Aldous, Norfolk; H. Buxton, Lancashire; F. W. Browning, Monmouthshire; A. B. Watson, Norfolk; F. J. Pacey, Melbourne; W. Yorke, Glasgow; C. R. Pigg, Newcastle-on-Tyne; J. K. Coutts, Aberdeen; K. B. Narayan, Kuch Behar; A. Siddon, Bangalore; Miss Jessie Crossfield, Liverpool; W. Grey, Northumberland; S. J. Dunlop, Co. Antrim; A. Mill, Co. Antrim; H. Chadwick, Burnley; A. Bradshaw, Sierra Leone; H. Osborne, Notts.; P. J. Mehta, India; B. E. Jones, Crewe; J. H. Pestell, Australia; R. P. Shaw, Hereford; C. H. Sharpe, Norwich; C. F. Lovibond, Bridgewater; W. Bell, Enniskillen; A. Macdonald, Edinburgh; D. Barry, Co. Cork; W. W. Williamson, Scarborough; E. E. Craster, Middlebrough; A. G. Laidler, Stockton-on-Tees; H. F. Lawrence, Tasmania; A. H. Goodwyn, Devonshire; G. O. Moorhead, India; H. G. Mackie, Canada; C. Smyth, Limerick; H. C. C. McNell, Folkestone; G. H. Douthwaite, Warrminster; I. Crawford, Omagh; and W. B. Marston, jun., London.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—During the April sittings of the Examiners, the following candidates passed the Final Examination, and were admitted L.R.C.S.E.:

Miss Jane Elizabeth Waterston, Inverness; D. M. Greig, Dundee; and G. Abbott, Titchmarsh.

The following candidates passed the First Professional Examination for the Licence in Dental Surgery:

A. E. Donagan, Cambridge; E. J. M. Hodgkinson, London; T. Gregory, Edinburgh; J. S. Walker, York; R. K. Common, Edinburgh; K. E. O'Duffy, Dublin; and T. C. McKenzie, Edinburgh.

The following candidates passed the Final Examination, and were admitted L.D.S. Edin.:

G. W. Welham, London; H. B. Ezard, Bath; J. S. Walker, York; and K. E. O'Duffy, Dublin.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual Monthly Examination Meeting of the College, held on Friday, May 11th, the following Registered Medical Practitioners were admitted as Licentiates of the College:

The Licences to Practise Medicine and Midwifery.—D. M. Lindsay, L.R.C.S.I., Kilkree, Co. Down; J. A. St. George Whitty, L.R.C.S.I., Drogheda.

The Licence to Practise Medicine only.—J. A. Coen, L.R.C.S.I., Castlereagh, Co. Roscommon; J. M. Tidmarsh, L.R.C.S.I., Limerick.

The Licence to Practise Midwifery only.—J. P. Hubbard, M.R.C.S. Eng., Bloxwich, Walsall, Staffordshire; G. F. Hugill, L.R.C.P. Lond., Chislehurst, Kent.

At the same meeting of the College, the Licences to practise Medicine and Midwifery were conferred upon the following candidates who had passed the Fourth, or Final Professional, Examination under the Conjoint Scheme with the Royal College of Surgeons in Ireland, at the April Examinations, namely:

C. J. Hughes, Willowdale, Glenageary, Co. Dublin; P. G. Lee, Sydenham Terrace, Monkstown, Co. Cork; R. MacDougall, Drumleck, Hewth; H.

D. Mason, Yorrley, near Birmingham; W. F. Rowantree, Forthill House, Sligo; J. Seanson, 1, Chalgrove Terrace, South Circular Road, Dublin; V. P. Shiel, Mullingar; J. H. Swan, Diamond, Monaghan; Florence Nightingale, Tonus, Chard, Somerset.

MEDICAL VACANCIES.

The following Vacancies are announced:

- BALTINGLASS UNION.**—Medical Officer, Dunlavin Dispensary. Salary, £12 per annum, and fees. Applications to Captain Heighton, J.P., Honorary Secretary, Donard House. Election on June 13th.
- BIRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL.**—Acting Surgeon. Applications by May 26th to J. E. Hartley, Esq., 13, St. Paul Square, Birmingham.
- BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY, Bridgnorth.**—House-Surgeon. Salary, £120, with rooms, coal, gas, and attendance. Applications by May 23rd to the Honorary Secretary.
- BRIGHTON, HOVE, AND PRESTON DISPENSARY.**—House-Surgeon. Salary, £140, with apartments, etc. Applications by June 2nd to the Assistant Secretary.
- BRISTOL ROYAL INFIRMARY.**—House-Physician. Salary, £100 a year, with board, washing, and apartments. Applications by May 19th to the Secretary.
- CHELSEA HOSPITAL FOR WOMEN.**—Clinical Assistants. Applications by May 19th to the Acting Secretary.
- CHELSEA HOSPITAL FOR WOMEN.**—Resident Medical Officer. Salary, £80, with board and residence. Applications by May 31st to the Secretary.
- CHILDREN'S HOSPITAL, Birmingham.**—Assistant Resident Medical Officer. Salary, £40, with board and lodging. Applications by June 6th to the Secretary.
- CHILDREN'S HOSPITAL, Birmingham.**—Resident Medical Officer. Salary, £80, with board and lodging. Applications by June 6th to the Secretary.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victor Park, E.**—Assistant Physician. Applications by June 7th to the Secretary.
- COUNTIES ASYLUM, Carlisle.**—Assistant Medical Superintendent. Salary, £120, with board. Applications by May 29th to Dr. Campbell, Garland Carlisle.
- EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.**—Assistant Surgeon. Applications by May 23rd to the Secretary.
- EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.**—Surgeon. Applications by May 23rd to the Secretary.
- FULHAM UNION.**—Resident Medical Superintendent of Infirmary, and Medical Officer of the Union Workhouse. Salary, £350, with residence, etc. Applications by June 5th to the Clerk to the Guardians.
- GORDON HOSPITAL FOR FISTULA, etc., Vauxhall Bridge Road.**—Assistant Surgeon. Applications by May 26th to the Secretary.
- HALIFAX INFIRMARY AND DISPENSARY.**—Senior House-Surgeon. Salary, £80 per annum, with board and residence. Applications by May 22nd to Dr. E. West Symes, Hope Hall, Halifax.
- HOSPITAL FOR DISEASES OF THE THROAT, Golden Square.**—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications by May 26th to the Honorary Secretary.
- KING'S COLLEGE HOSPITAL.**—Assistant-Surgeon. Applications to the Secretary.
- LONDON TEMPERANCE HOSPITAL, Hampstead Road.**—Surgeon. Applications by June 16th to the Secretary.
- LOWESTOFT FRIENDLY SOCIETIES MEDICAL INSTITUTION.**—Surgeon. Salary, £160 per annum, with extra fees. Applications by May 21st to Mr. J. Hammond, 4, Raglan Street, Lowestoft.
- METROPOLITAN ASYLUMS BOARD: SMALL-POX HOSPITAL SHIP'S Long Reach.**—Assistant Medical Officer (Clinical Assistant). Board, furnished apartments, and washing. Applications by May 25th to the Clerk to the Metropolitan Asylums Board, Norfolk House, Norfolk Street, Strand, W.C.
- METROPOLITAN HOSPITAL, Kingsland Road.**—Assistant House-Surgeon. Salary, £40 per annum, with board and residence. Applications by May 21st to the Secretary.
- NORTH LONDON CONSUMPTION HOSPITAL, Hampstead and London.**—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications by June 2nd to the Secretary.
- NORTH STAFFORDSHIRE INFIRMARY.**—House-Physician. Salary, £100, with board, washing, and apartments. Applications by May 23rd to the Secretary.
- OWENS COLLEGE, Manchester.**—Professor of Surgery. Applications by June 9th to the Registrar.
- ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.**—Junior House-Physician. Salary, £50 per annum, with board and lodging. Applications by May 19th to the Secretary.
- ST. PETER'S HOSPITAL FOR STONE, etc., Henrietta Street, Covent Garden.**—House-Surgeon. Honorarium, 25 guineas, with board, lodging, etc. Applications by May 24th to the Secretary.
- SMALL-POX HOSPITAL, Birmingham.**—Resident Medical Superintendent. Salary, £150 per annum, with board, etc. Applications by May 25th to the Chairman, Health Committee, Council House, Birmingham.
- UNIVERSITY COLLEGE, LONDON.**—Professor of Botany. Applications by May 30th to the Secretary.
- VICTORIA HOSPITAL FOR CHILDREN, Chelsea.**—House-Physician. Honorarium of £50, with board and lodging. Applications by June 2nd to the Secretary.
- VICTORIA HOSPITAL FOR CHILDREN, Chelsea.**—House-Surgeon. Honorarium of £50, with board and lodging. Applications by June 2nd to the Secretary.

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WELLINGBOROUGH AND DISTRICT MEDICAL INSTITUTE.—Medical Officer. Salary, £230, and fees, with dwelling-house, etc. Applications to G. Bayes, Esq., Jackson's Lane, Wellingborough.

VEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Surgeon.—Applications by May 24th to the Secretary.

WESTPORT UNION.—Medical Officer, Westport No. 2 and Louisburgh No. 2 Districts. Salary, £39 per annum, and fees. Election on June 24th.

MEDICAL APPOINTMENTS.

ANDERSON, John, M.D., C.I.E., appointed Visiting Physician to the Seaman's Hospital Society, Greenwich, vice H. T. Griffiths, M.D., resigned.

BOOTH, A. E., M.B. Edin., appointed Assistant House Surgeon to the Liverpool Infirmary for Children, vice H. E. Jones, M.B., resigned.

BEDIN, H. A., M.B., M.R.C.S., appointed Surgeon to the No. 1 Section of the Manchester Ship Canal.

BREWIS, A. S., M.B., M.R.C.S., appointed House-Surgeon to the Monkwearmouth Dispensary, vice H. Sheldermine, M.B., resigned.

RYDEN, F. W. A., L.S.A., appointed Assistant House-Surgeon to the Rotherham Hospital.

LARKE, W. F., M.R.C.S. Eng., M.B. Lond., appointed House-Surgeon to the Newport and County Infirmary, vice W. Basset, M.R.C.S., L.R.C.P., resigned.

LENDINEN, J. George, reappointed Medical Officer of Health to the Coseley Urban Sanitary Authority.

OLMAN, W. S., M.B. Lond., M.R.C.S., appointed House-Physician to the Hospital for the Paralysed and Epileptic, vice R. T. Williamson, M.B., M.R.C.S., resigned.

LAWSON, W. E., appointed Physician to the "Churchill Home" for Women, Cliswell Street, Finsbury Square, E.C.

HACKETT, C. Alex., M.R.C.S., L.R.C.P. Lond., L.S.A., appointed Junior House-Surgeon to the Ancoats Hospital, Manchester.

MUTT, W. K., M.R.C.S. Eng., L.S.A. Lond., appointed Junior House-Surgeon to the Bury Dispensary Hospital, vice L. Hickey, M.B. Durh., M.R.C.S., resigned.

ISAAC, G. Washington, M.B. Edin., appointed Honorary Medical Officer to the St. Pancras Female Charity School and Orphanage, vice A. W. Cadman, M.R.C.S., etc., resigned.

ONES, John Thomas, L.R.C.P., L.R.C.S. Edin., appointed Medical Officer and Public Vaccinator to the Whitford District of Holywell Union, vice H. L. Davies, M.B., resigned.

LANE, W. Arbuthnot, F.R.C.S., appointed Assistant-Surgeon to Guy's Hospital.

EACH, J. Comyns, M.D. Durh., reappointed Medical Officer to the Rural Sanitary District of Sturminster.

UCAS, R. Clement, M.B., F.R.C.S., appointed Surgeon to Guy's Hospital, vice Thomas Bryant, F.R.C.S., resigned.

MCQUITTY, W. B., M.D., M.Ch., M.A.O., appointed House-Surgeon to the Royal Hospital, Belfast, vice S. A. Powell, M.B., M.Ch., M.A.O., resigned.

HARRY, John William, L.R.C.P., L.R.C.S. Edin., appointed Medical Officer to the Workhouse, Holywell Union, vice H. L. Davies, M.B., resigned.

HENDALL, Percy, M.D., M.R.C.S. Eng., appointed Assistant Colonial Surgeon at the Gambia.

PENCER, Walter, L.R.C.P., L.R.C.S. Edin., appointed Deputy-Coroner for the Bedford District of the County of Nottingham.

PENCER, W. H., M.A., M.D. Cantab., appointed Consulting Physician to the Bristol Royal Infirmary.

Dr. GRANT BEY, of Cairo, has been elected an honorary member of the New York State Medical Society.

THE LATE DR. WILLIAM E. BUCK.—A chapel has been erected at the Leicester Infirmary in memory of William Elgar Buck, M.A., M.D., formerly honorary physician to the infirmary.

THE POPE has been graciously pleased to confer upon Dr. L. Kenny, M.B., Ch.B. Melb., the title and dignity of Chevalier of the Order of Gregory the Great. Dr. Kenny is a member of the British Medical Association.

Dr. MACPHAIL, who has acted as Assistant Medical Superintendent of the Cumberland and Westmoreland Asylum at Carlisle or the last six years, has been appointed Medical Superintendent of the Derby Borough Asylum. Dr. Macphail is a graduate of the Edinburgh University, and was awarded the medal of the Medicopsychological Association in the year 1884, for his researches on the blood of the insane.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—The following officers have been elected for 1888-9. *President*: Dr. J. W. Martin; *Vice-President*: Dr. de Bartolomé; *Treasurer*: Mr. G. S. Taylor; *Secretary*: Mr. Simeon Snell; *Other Members of the Committee*: Mr. Garrard, Mr. W. F. Favell, Mr. A. Jackson, Mr. Pye-Smith, Dr. Wynne, Mr. Browning, Mr. E. Skinner, and Dr. Hargreaves. *Pathological Committee*: Mr. C. Atkin, Mr. Frank Harrison, Dr. Locking, and Dr. Burgess.

THE MEDICAL COLLEGES AND SCHOOLS. SCHOLARSHIPS AND PRIZES, WINTER SESSION, 1887-88.—LONDON HOSPITAL COLLEGE.—Clinical medicine: scholarship, Mr. H. E. Skyrme; hon. certificates, Mr. W. S. Fenwick, and Mr. Beckett (equal). Clinical

surgery: scholarship, Mr. W. S. Fenwick; hon. certificates, Mr. H. E. Skyrme, Mr. M. A. Rudd.—ST MARY'S HOSPITAL SCHOOL.—The first-year prize of £3 3s. in anatomy and histology, Mr. Evans, and that of £3 3s. in chemistry, Mr. Mander Smythe. The second-year prize of £3 3s. in anatomy, Mr. L. Rogers, and that of £3 3s. in general physiology, Mr. Winter. The third-year prizes of £3 3s. in medicine, £3 3s. in surgery, £3 3s. in pathology, and £3 3s. in operative surgery, Mr. R. H. Cole.—KING'S COLLEGE.—The Warneford scholarship of £25 per annum for two years, Mr. Harry Lambert Lack; the surgical clinical prizes of £3 each, Mr. Harry Lambert Lack and Mr. Arthur Henry Cheadle.—UNIVERSITY COLLEGE.—The Fellowes gold clinical medal, Mr. G. R. Murray; the Fellowes silver clinical medals, Messrs. W. B. Ransom, B. M. H. Rogers, and W. J. Broadhurst; the Liston gold medal, Mr. W. E. Ransom.

DIARY FOR NEXT WEEK.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—The following papers will be read. Dr. P. Kidd and Mr. H. H. Taylor: On the Value of the Tubercle Bacillus in Clinical Diagnosis. Sir William B. Dalby: The Removal of Bony Growths from the External Auditory Canal. Drs. Alfred Sangster and Frederick W. Mott: Pemphigoid Eruption with Changes in Peripheral Nerves.

WEDNESDAY.

BRITISH GYNECOLOGICAL SOCIETY, 8.30 P.M.—The following papers will be read. Dr. Fancourt Barnes: Complete Chronic Inversion of the Uterus. Mr. Lawson Tait: The Influence of Removal of the Uterus and its Appendages on the Sexual Appetite. Dr. Henry T. Rutherford: Treatment of Uterine Fibroids by Hydrastis Canadensis. Specimens will be exhibited. Council, 8 P.M.

THURSDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Special Meeting.—Marshall Hall Prize, 1888.—Dr. Walter Holbrook Gaskell, F.R.S.: The Relations between the Function, Structure, Origin, and Distribution of the Nerve-Fibres which compose the Spinal and Cranial Nerves.

FRIDAY.

QUEKETT MICROSCOPICAL CLUB (University College, Gower Street), 8 P.M. Papers by Messrs. Buffham, Smith, and Priest.

CLINICAL SOCIETY OF LONDON, 8.30 P.M.—Dr. Ord will read a summary of the conclusions arrived at by the Committee on Myxœdema. Mr. A. E. Barker: A case of Intussusception of the Cecum, Ascending and Transverse Colon treated by Abdominal Section. Mr. R. W. Parker: Two cases of Intussusception, with special regard to Symptoms and Treatment. Mr. Page: Two cases of Rupture of Intestine without External Wound. Dr. Ward Cousins: Case of Stone, in which Lithotomy was performed twice within two months. Living Specimens:—Dr. White and Mr. Henry Baker: Two cases of Unusual Congenital Deformity.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcement.

MARRIAGES.

WRIGHT—KENT.—On May 9th, at St. Mary's, Kippington, Sevenoaks, by the Rev. Prebendary Tate, vicar, and the Rev. C. E. J. Carter, of St. Giles, Cripplegate, Bernard D. Zorapore Wright, M.R.C.S., and L.R.C.P., second son of J. W. Zorapore Wright, of Barton Fields, Canterbury, to Alice, third daughter of the late William Kent, of Jondaryan, Darling Downs, Queensland.

SNELL—GOLDNEY.—On the 14th April, at All Saints' Church, Berbice, British Guiana, by the Ven. Archdeacon Farrar, B.D., assisted by the Rev. Canon Butt, B.A., and the Rev. Francis Welch, George Snell, M.R.C.S. Eng., Medical Superintendent Public Lunatic Asylum, to Louisa Augusta, youngest daughter of G. J. Goldney, Manager, Colonial Bank, Berbice.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CLINICAL LECTURE

ON
HÆMATURIA.*Delivered at University College Hospital.*By BERKELEY HILL, F.R.C.S.ENG., M.B.LOND.,
Professor of Clinical Surgery in University College, London.

HÆMATURIA, or bloody urine, is only a symptom; but one which varies much in importance. It may signify a trivial injury or a dangerous and rapidly fatal condition. Therefore an analysis of the characters that hæmaturia may assume is worth our attention this afternoon.

Blood may escape into the urine at any part of the urinary tract. Hence, for convenience, I shall arrange the various forms according to their locality, namely, from the kidney, including the pelvis and ureter; from the bladder; from the prostate; and from the urethra. The multitude of the causes of hæmaturia compels me to dwell in my remarks only on those varieties which concern the surgeon. Nevertheless, he should know all the causes that he may distinguish those needing surgical treatment.

General Causes.—Old age brings to some men enlargement of the prostate, and the enlarged organ, if congested, is more liable to bleed than when in its unenlarged condition. In women, at the menopause, or even before that crisis is reached, blood is sometimes voided from the kidney vicariously for the menstrual flow. Also, in women, mixing of the menstrual discharge with the urine after it has left the urethra must not be forgotten. In children, malignant tumours of the kidney are more common than in adults, and they often bleed copiously. In certain countries parasitic diseases prevail which have hæmaturia for a leading symptom. In Egypt and South Eastern Africa, the bilharzia hæmatobia is the common parasite which produces the hæmaturia. In China, bloody urine is caused by the filaria sanguinis hominis. Some general diseases which modify the blood, such as purpura, scarlet fever, measles, or typhoid, and in warm climates, malarious affections, may cause hæmaturia. Certain drugs, for example, lead, mercury, arsenic, cantharides, turpentine, or copaiba, and, it is said, asparagus, will provoke bleeding from the kidney. Exposure to cold and damp, heart-disease, or gonorrhœa, by causing congestion of the kidney, will produce bloody urine. Likewise, sudden suppression of a customary discharge, such as epistaxis or hæmorrhoidal flux, may be replaced by hæmaturia. Violent exertion of any kind will determine congestion of the kidney in some persons. Even shaking in a rough carriage, hunting, long marches, carrying heavy weights, wrestling, the vomiting that sometimes occurs during the throes of parturition, and excessive copulation produce hæmaturia. It must be admitted that chronic renal disease is often present when bleeding follows the exciting causes I have mentioned.

The characters of bloody urine vary much. Sometimes the effusion of blood is sudden and unexpected; sometimes there are premonitory signs. The quantity and appearance of the blood also differ much. The urine, often clear and limpid, is rosy or crimson when it has been evacuated immediately after extravasation; but if the blood has remained some time in the bladder, the urine acquires a dirty brown hue, porter-like if copious, smoky when scanty. This change is due to the hæmaglobin being changed to methæmaglobin by the action of the acid in the urine.

Again, clots like black 'currant jelly, or narrow worm-like coagula, may come away. The latter are casts of the urethra, or, in rare cases, of the ureter. Under the microscope minute clots of thread-like form may sometimes be detected; these are casts of the kidney tubules.

The corpuscles undergo changes. By soaking in urine they swell up, become vacuolated, and grow colourless. They may then be confounded with discoid oxalates or torulæ; both these objects are smaller than blood cells, and the torulæ are generally oval, and have a bright nucleus. Besides, the ocular test, which suffices to distinguish most cases of blood in the urine, and are the only ones by which the condition known as hæmaglobinuria can be diagnosed from bloody urine there are the tests with guaiacum and with the spectroscope. For the guaiacum test, shake a

few drops of fresh tincture of guaiacum in a drachm of urine. Then, if some ozonic ether be added, a blue colour comes to the mixture. Two sources of fallacy exist. The urine does not always give the blue tint, and if iodide of potassium be present, a blue reaction will occur, even if no blood be present.

The spectroscope: this somewhat complicated process of medical physics and chemistry is too intricate to explain in a few words, but we have some specimens prepared for us by Mr. Barton, Dr. Ringer's house-physician, who will presently demonstrate them to you. For a detailed description of the processes to be employed you may also refer to Dr. McClun's work, *The Spectroscope in Medicine*, 1884.

It is often possible to ascertain at which part of the urinary tract the blood escapes into the urine by draining the urine from the bladder as soon as it oozes through the meatus of the ureters, by placing a catheter in the empty bladder after that organ has been carefully washed, and leading the secretion at once from the body. Indeed, attempts have been made to collect the urine from one ureter only by means of a catheter with a short beak and a long eye. The catheter is so laid in the bladder that its long eye shall lie closely against the outlet of one ureter, and drain away the urine dripping from that ureter to the exclusion of the urine arriving by the other ureter into the bladder. When there is blood in the urine, the act of micturition is often more frequent than at other times, partly because the effusion of blood excites the bladder to contract, partly because cystitis is a common accompaniment of hæmaturia, and probably in some cases by irritation sympathetic with renal disease. The quantity of blood lost varies much. The bleeding may be constant, that is, the urine may be always tinged with blood, or the urine may be at times perfectly free of blood. The duration of the attack also varies much; usually, when intermittent, the length of the attack is short, and the intervals extend over weeks or months, or even years.

Local Causes.—With respect to the kidney, blows on the loin wounding the kidney or the ureter, and operations on the kidney produce hæmaturia. The condition called "movable kidney" is also frequently characterised by hæmaturia. Common causes are nephritis or pyelo-nephritis set up by calculi, tubercle, cancer, or villous tumour in the kidney or ureter. The irritation of stronguli or other entozoa in the pelvis may be the exciting causes of hæmaturia. Either with or without these accidental provocatives, blood is lost from the kidney in various inflammatory affections, as in acute suppurative nephritis, in acute congestion without suppuration, or in advanced stages of Bright's disease.

The kidney is probably the most frequent source of bloody urine; but the signs of renal hæmorrhage are often negative, and the diagnosis is reached in many cases only by exclusion. Indicative of renal bleeding are the following: pain or sense of weight in the loins, with tenderness on pressure. In the sediment of the urine casts of the kidney tubules, with minute calculi or uric acid crystals attached to the casts, are often found. When the bleeding is due to some general condition, or is a sequela of acute disease, the diagnosis of the renal source of the blood is helped by the history of the illness, by signs of cardiac disease, by the presence of anasarca, and, as renal bleeding is often scanty, by the dark, smoky aspect of the urine. "Smokiness" is produced when the quantity of blood is small and evenly diffused through the urine, but it is not necessarily only set free from the kidney. There will be in other cases the signs special to the affection of the kidney that causes the hæmorrhage. There would be also no indication of disease in the bladder, prostate, or urethra. If there have been injury, exposure to cold, or excessive exercise, the bleeding will be free though short-lived. When renal calculus is the cause of the bleeding, the blood is rarely copious. The urine is acid, and has a plentiful deposit of mucopus, with perhaps tubule casts. There is often a history of long-lasting pain in the loins, shooting along the course of the ureter, exciting in some cases slight pain at the neck of the bladder, and increased frequency of micturition. Added to these signs may be an enlarged kidney, easily felt by reason of its dilated pelvis, which may even fluctuate on palpation through distension with urine and pus, when the ureter has contracted after ulceration.

Tubercular disease would have similar symptoms, but small calculi or uric acid crystals would be absent from the urinary deposit. There would be pus in the urine long before the advent of blood. Tubercular disease may attack the ureter, and so allow blood to mingle with the urine. This complication would be in-

dictated by tenderness on pressure along the course of the ureter, with pain in the loin and groin. Tubercle of the ureter is probably never seen unless the kidney or bladder is affected also.

In cancer of the kidney, in addition to lumbar pain, frequent and painful micturition, there is sometimes enlarged kidney, or a tumour in the loin is palpable. Bleeding is a constant symptom, sometimes copious and intermittent, more often scanty and continuous, though varying in amount from mere smokiness of the urine to a dark porter-like fluid with coagula. With such uncertain signs it would not be possible to diagnose cancer from calculus, tubercle, or other renal affection. In time the growth will sprout into one of the calyces, and fragments of it may be found in the deposit of the urine. Gradually, the increasing severity of the symptoms and the wasting of the patient confirm the malignant nature of his disease.

Syphilis is occasionally the cause of renal bleeding. In a patient under my care, who had tertiary disease of the pharynx, there was for some weeks persistent albuminuria; to this was added a sudden attack of hæmaturia, with dull pain in the right loin. The urine was dark like coffee for four days; after that it became light brown, then smoky, and gradually regained its natural colour; ultimately no more than traces of albumen remained. Dr. Sandby (*JOURNAL*, December 17th, 1887) relates a somewhat similar case, but in his case some hyaline casts were also detected in the urine, and the infection was inherited.

In the bladder blood may escape into the urine through rupture of that viscus by blows on the hypogastrium, by laceration in crushed pelvis, or by too rough handling of the lithotrite or sound. Even too rapid evacuation of the bladder after over-distention may produce it in patients whose veins are varicose beneath the mucous membrane about the neck of the bladder. Cystitis from any cause, and the ulceration produced by stone, tubercle, or cancer, often bring on bloody urine. The fibrous, the sarcomatous, and the villous tumour, each in their degree, though the villous more than any other, have bleeding as an important symptom. Lastly, the bilharzia hæmatobia has its most frequent seat in the walls of the bladder.

When bleeding is caused by stone in the bladder, the loss of blood is commonly slight, intermittent, and mainly at the end of micturition, when the chafed part of the bladder against which the stone lies is compressed. Then a few drops of blood are expelled from its surface. Where ulceration is extensive, or where the mucous membrane is inflamed, the urine is often discoloured by blood which has exuded between the acts of micturition. The quantity of the blood is usually increased by rough exercise. In addition, there would be painful micturition, alteration of the stream, and other signs of stone to be obtained by sounding.

Tubercular disease, though extending into middle life, mainly affects youths and young adults. Here bleeding is a very minor symptom. It shows itself in the shape of clot in the purulent deposit, or clots are washed out with the first flow of urine, or a little bright blood comes away at the end of the stream. The signs of tubercle closely resemble those of stone: the distinctions being the escape of clots before the flow, and the early appearance of severe pain during and after the flow of urine. Sounding the bladder is also much more painful to the patient when tubercle is present, owing to the customary seat of tubercle being at the neck of the bladder, and the sound strikes the ulcerated surface.

When a tumour growing in the bladder is the source of the hæmaturia, the form the bleeding takes varies somewhat with the structure of the tumour, though this variation does not always take place. One reason why all the different growths may have free bleeding for an early symptom is the fact that the several tumours may have a papilloma as a part of their structure, while the base is fibrous, sarcomatous, or even epitheliomatous. Roughly speaking, the papillomata bleed abundantly at intervals, without causing much pain or inconvenience. The fibromata and sarcomata also bleed obstinately, and at short intervals. The epitheliomata usually cause much pain and irritation before the bleeding becomes important.

Bearing in mind the exceptions to this general habit, it may be inferred that the tumour has a dendritic or villous form if the blood is voided copiously at first, appearing without pain or increased frequency of micturition, and giving the patient no physical distress. The loss of blood continues for an indefinite time, from three or more days to a week or more, and then stops as suddenly as it began. While going on it seems not to be affected either by rough exercise or by rest. The amount of blood present

in the urine varies much. Most commonly it is copious and florid, sometimes dark crimson; when the loss of blood is very slight the urine may be merely smoky. A great characteristic when the bleeding is scanty is the flow at first of clear urine, but as the bladder empties, the stream becomes mainly bright blood. In such cases the patient may feel a little smarting as the contraction of the bladder squeezes blood from the growth. Characteristic also of bleeding from papilloma is the kind of deposit which settles in the urine. It consists of a loose reddish-brown sediment made up of brown coagula and whitish flocculent masses of discoloured fibrine. Not infrequently the deposit contains fragments of the tumour, which can be recognised, and the diagnosis thereby made certain. By sounding the bladder, in many cases the sound can be so directed as to catch against or to slip over the growth, and thus mark its position in the bladder.

The hæmorrhage having ceased, the urine becomes clear, and may remain so for months. More commonly, a little blood is lost at the end of micturition on most days, but it may disappear utterly for years. Sooner or later, nevertheless, perhaps in the same painless way as before, the bleeding reappears, and after the second or third recurrence, increased frequency of micturition and dull, aching pain at the end of the flow become constant phenomena. When clots like black jelly are washed along the urethra, they cause pain if they are large. This intermittent hæmaturia may recur for years without affecting the patient's health or apparently shortening his life. There are specimens of bladders with such tumours in the museums, taken from persons who lived to be 80 years of age, and died from causes unconnected with the bladder. Further, cases are recorded where the whole tumour was extruded, and the patient recovered completely. Such a happy ending must not be looked for; in nearly all cases, if untreated, the papilloma sets up cystitis, or causes obstruction of the outlet of an ureter, and so dilatation of the pelvis, with destruction of the gland, and ultimately death by great suffering.

The following case of simple papilloma was treated by me in this hospital in 1885. A temperate man of 55 first noticed loss of blood from the bladder in the summer of 1879. At that time, during micturition, the urine came away at first quite clear; then a sense of more to come was felt, and a few drops of pure blood would be ejected. Micturition was not increased in frequency, nor was there any pain. The escape of blood, until the spring of 1880, was only occasional and never large. In March, 1880, the urine for two days was charged with blood, and bright crimson in colour. The bleeding then stopped altogether till the beginning of January, 1881; then one copious loss of blood took place. On January 22nd there was a repetition of bleeding at every voidance of urine; great clots came away, and a little scalding was felt for a few minutes after the flow had ceased; thenceforward no discomfort was felt till the next discharge of urine. There was no increased frequency; the urine was retained all night. There was no spasm nor violent effort to drive out the clots; but there was pain if the clots were large enough to fill the urethra. This attack of hæmaturia continued for nine days, and then suddenly stopped. After thirteen days the blood reappeared, and the urine was more or less charged with it for six weeks, and then bleeding again entirely ceased for a month. The blood came again copiously and again ceased; but thenceforth the urine usually contained a copper-coloured sediment, and at the end of micturition a few drops of blood escaped, with a twinge of pain. Three and a half years after the first bleeding cystitis began, and the patient's suffering gradually became severe. Fifteen months later, the patient, being exhausted by cystitis, allowed me to operate on him. This was done on May 5th, 1885. A perineal exploring incision was made, and a suprapubic one into the bladder. Through the upper incision a long frimbriated growth could be seen attached to a short stump, near the opening of the left ureter. This was noosed by an *écraseur* passed through the perineal incision. The patient's exhausted state made the recovery slow and tedious. In January, 1886, he again came under my care, and I crushed a small calculus. Since that operation the patient has enjoyed good health, and there has been no return of vesical disorder.

When the tumour is sarcomatous or epithelial, and no part of it is papillomatous, blood does not escape, as a rule, in the copious manner that attends papilloma. The progress of the disease is more rapid, and there is usually pain in the hypogastrium or perineum before bleeding commences; though cases are recorded where eight or ten years elapsed in which intermittent hæmaturia

was the leading symptom before the condition of the patient became urgent. Usually ulceration begins in a year or less; then voidance of clot is a daily occurrence, and the urine is purulent from cystitis. With epithelioma the patient is nearly always approaching old age; but sarcoma and papilloma, though affections of late middle life, are occasionally met with in young adults.

The following case is a good example of epithelioma of the bladder. I saw with Mr. Marrant Baker, in October, 1885, a gentleman, aged 61. The first attack of bleeding had occurred one year before and, stopping for a fortnight, had recurred, to again subside, leaving only a dull pain after micturition, which act took place about every three hours by day and night. When I saw him the bleeding had set in again, and was accompanied by great spasm and almost constant calls to make water. For a few days his suffering was constant. The urine was dark crimson, mixed with clots that could be got rid of only with great difficulty. This attack lasted about a fortnight and then subsided, to return two weeks later in greater severity. The tumour, which is now before you, I removed through the perineum; Mr. Baker and Mr. Pollard being good enough to help me. Its structure is partly papilliform, but mainly epithelial. The fragments of tumour, as you see, fill a six-ounce bottle. The patient was thoroughly relieved of his sufferings by the operation, and for a time did well; but six weeks later, the tumour began to grow again, and the patient sank under an attack of peritonitis of four days' duration.

Last summer we had in our wards a case of intermittent hæmaturia from bilharzia in a woman who had lived her whole life in England, and therefore her history is of much interest to us. The bilharzia hæmatobia was discovered by Bilharz in 1851 in Cairo when, in conjunction with Griesinger, he was investigating the diseases of the Egyptians. It is an elongated bisexual entozoon. In its perfect phase, it inhabits the veins of the portal system, the hæmorrhoidal veins, and the veins of the bladder, ureter, and pelvis of the kidney. From these proper habitats, it may invade others. Griesinger found egg shells in the blood of the left ventricle, and Kartalis found the ova in the vena cava inferior, and Mackie in the lungs and liver. The entozoon most probably enters the human body in drinking water, for it is very prevalent in Egypt among the fellahen who drink the Nile water unfiltered, and among the native population of South Africa, while Europeans who are careful of the purity of their drinking water escape the disease. Dr. John Harley, who proved the Egyptian disease to be endemic in South Africa, suggested that the animal may enter by penetrating the skin as well as by the stomach to reach the uropoietic system.

The male has a flattened body, about half an inch long; he is thicker and shorter than the female, which he receives for purposes of copulation into a groove, or gynæcophoric canal, and thus has a somewhat cylindrical appearance. The female is cylindrical and filiform, about three-quarters of an inch long. The mature entozoa, after impregnation, lie in the submucous tissue of the kidney, or other part to which they migrate, the bladder, transverse colon, descending colon, or rectum, in smooth-walled spaces formed from dilated blood-vessels. There the female lays the eggs, which gradually work their way to the mucous surface. The ova are about 1-170th of an inch long, almost oval, having an outer shell of hard material; the contents are granular. A spike is attached to the smaller end of the cell of those which escape in the urine; but the spike is at the larger end of those which come from the intestine. The granular contents of the unripened egg become, when mature, a definite cell within the outer case, and, according to Sir William Roberts, exhibit at that stage slowly expanding and oscillating movements. The eggs do not apparently hatch in the urine until that fluid is diluted with plain water; at least, that was so in our patient. In water the hatching is rapid, and the embryo, more elongated than the ovum, ("flask-shaped," Sir W. Roberts), splits his shell and emerges covered with cilia. The cilia give him independent motion, so that he may be seen rolling on his long axis across the field of the microscope. What further development the embryo undergoes before he is ready to enter the human body to perfect his form is unknown. Probably he utilises some water mollusc as his second host, and then, escaping as a cercaria, is swallowed by man in drinking. It is supposed that the spinee assist the ova in boring their way to the surface of the mucous membrane, under which they collect in numbers and cause inflammatory swelling; so that the surface is marked by irregular projections of nodular or polyphoid form. Some of the raised patches are injected and

echymotic, others yellowish or covered with tough mucus or bloody exudation which contains masses of ova. From time to time these masses soften, ulcerate, and blood escapes in quantity with the cells so set free. In some cases the excrescences become so polypoid that they form real tumours, as may be seen at the College of Surgeons. Such projections have been removed by Dr. Mackie, of Alexandria, with the *éraseur* from the wall of the rectum to the great relief of the patient. When the eggs mass together in the ureter, that duct is narrowed; urine may collect in the pelvis of the kidney, and thus hydronephrosis is produced. The congeries matted together by mucus often form the nuclei of stones in the bladder. In the intestine, dysentery with ulceration is produced. When an indefinite time has elapsed, the parasite dies and many patients recover after years of more or less constant suffering. In a considerable number nevertheless death follows by exhaustion through cystitis and perineal abscess with fistulæ or even rupture of the bladder. In the tracts of these fistulæ Mackie found the ova in great quantity. To these sequelæ must be added the effects of septic disease and of great loss of blood. Similarly, fatal disease of the intestine or pelvic organs may follow the proliferation of the parasite in the portal or hæmorrhoidal systems.

The symptoms are essentially chronic and vary according to the locality infested by the parasite. Respecting the length of time necessary for the maturation of the worm after its inception into the body, Sir W. Roberts noted that bloody urine appeared about four months after the patient had drunk the water of the Nile in Egypt. The common symptoms are occasional attacks of lassitude, pains in the back or limbs or perineum, with intermittent hæmaturia and pain at the end of micturition. Between the attacks the patient feels well and the urine may be free of sediment, though the cells still pass in the urine. In time there comes generally cystitis, and the urine is turbid during the intervals of hæmorrhage, and micturition is frequent. In severe or fatal cases the course depends on the particular complication which sets in. The case which I am about to relate to you afforded us an opportunity of witnessing many of the symptoms described by those who have watched the disease in Egypt and elsewhere. The lassitude, the dull pain, the intermittent hæmorrhage, and perhaps the enlarged kidney, were characteristic; while the presence of ova in the urine was pathognomonic of bilharzia.

The following case of bilharzia hæmatobia is, I believe, the second observation which has been recorded as occurring in a person living wholly in this country. The other case is mentioned by Mr. Reginald Harrison. That case was, at the time Mr. Harrison wrote, under the care of Dr. Davidson in the Liverpool Royal Infirmary. No details are given by Mr. Harrison. These are the notes of the case which occurred in this hospital.

Mary Ann A., aged 40, was admitted under the care of Dr. Graily Hewitt on February 18th, 1887. Her general history was good. She was born in Kent, and had lived all her life at Erith or Gravesend. Her parents, brothers, sisters, and children were all healthy. She had seven children and one miscarriage. The last child was born in June, 1885. The catamenia appeared at 16, and remained regular till the present illness, which began in October, 1886. At that time the catamenia were delayed for fourteen days. A free hæmorrhage then took place *viâ* the urethra, during micturition, in which the patient estimated that three pints of blood were lost in twelve hours. During her stay in hospital the catamenia resumed their accustomed regularity. This slight disturbance of the menses was the only premonitory symptom of sufficient gravity to attract the patient's attention before the bleeding began. Until January there was no copious bleeding, but small clots were frequently passed in the urine. The bleedings were preceded by chilliness and coldness of the extremities. In December there was low fever, which lasted several weeks. On January 7th there was again bleeding to half a pint, and on the 8th a smaller quantity was lost. After that date small clots were passed till the 27th, when over two pints of clotted blood came away. On February 11th bleeding began again, to be repeated on three subsequent occasions to a small amount. Before the hæmorrhages the urine was very scanty and high-coloured, but quite clear, and micturition was painful towards the end of the act, not afterwards. Each time that the bleeding ceased the urine was abundant and pale, and the act of passing it was no longer painful. When the blood was ejected in large quantity it settled at the bottom of the chamber-pot, leaving the supernatant urine clear and of the ordinary yellow colour. Micturition took place usually every two hours by day and twice by night. When the patient

was admitted the right kidney could be felt, but was not obviously enlarged. It was not tender. The character of the blood was as already described. The quantity varied between 25 ounces and 72 ounces in the way already mentioned. On the subsidence of the hæmorrhage the quantity increased rapidly. The urine was always turbid, usually acid, sometimes neutral or alkaline. Albumen was always present, never less than one-twentieth part. The specific gravity varied greatly with the quantity. The deposit, during the first five weeks of the patient's stay in hospital, consisted of blood clot, blood discs, pus, and mucus. The peculiar cells of the ova of bilharzia were not discovered till later. After the patient's admission the bleeding was copious on February 24th and from March 11th to 15th, but the latter in part followed a dilatation and digital exploration of the urethra, which I performed at the request of Dr. Graily Hewitt on March 14th. At the time of the examination the right kidney was much enlarged, very movable, and indistinctly lobulated. Its anterior border reached to a point midway between the umbilicus and the iliac crest. It was also painful when handled. In the bladder nothing was felt beyond a slight unevenness of the wall near the fundus on the right side. The urethra was healthy. The womb was slightly retroverted.

On March 25th, the patient was transferred to my ward. During the following week the urine was carefully examined by Mr. J. Pearson, the dresser, being drawn from the bladder by catheter for this purpose. That gentleman detected in the deposit on March 31st, besides blood discs, pus, and epithelium cells, a few oval cells of peculiar form to be presently described. On April 4th, the chilliness premonitory of free hæmorrhage appeared, but on this occasion the amount of blood lost was much less than had previously escaped. The cells were abundant. They were oval, about 1-170th of an inch long, distinctly encapsuled, more pointed at one end than at the other, and from the sharper end a conical process or spike projected. The cells were afterwards allowed to filter into plain water under the microscope, when the hatching of the embryo was witnessed on several occasions by Mr. Pearson and by Mr. Blake, the house-surgeon, and by others at different times. Mr. Victor Horsley, to whom the cells were shown in the first instance, at once pronounced them to be the ova of bilharzia. The ova were afterwards seen several times by me, but I was not so fortunate as to observe the exit of the embryo. They were precisely the same as the eggs preserved in undoubted specimens of this disease. The cells were tested in various ways. None were preserved, as all the media which were tried destroyed the capsule of the ovum, and the cells did not stain with colouring matters. Before specimens could be put up permanently the discharge of blood and ova ceased. On April 30th the patient had lost all pain, and the kidney did not alter perceptibly. She remained thus till June 14th, when her general condition being tolerably good, she left for home at Erith, and was lost sight of. In October her husband informed me that the woman had died in August after an illness of three days' duration, accompanied by violent pain in the belly.

Considering the great interest which attaches to the case, it is most unlucky that we have no *post-mortem* record, nor a permanent specimen of the ova to show. That this is so is not the fault of Mr. Blake or of Mr. Pearson, who spared no pains to secure good examples of the ova.

These cells and embryos agreed in all respects with the descriptions given by those who have observed the parasite in Egypt. Especially interesting was it to observe the ova, which could retain their vitality for an indefinite time in the urine without undergoing further change, pass through the hatching process in a few seconds when transferred to pure water. The moment the embryo escaped from the shell it wriggled its way to any solid matter in its neighbourhood, and there remained quiet unless some current floated it off again. So far as our observations enabled us to follow them, the embryos remained ciliated, bilmy, elongated cells with somewhat granular contents.

Of bleeding from the prostate perhaps the most common form occurs in old age, where the organ is large and the veins dilated. Under the strain of sudden engorgement the prostate swells, the circulation through the veins is obstructed, one or more burst, and the bladder quickly fills with blood. In these cases the bleeding is very abundant, so that for a time the contents of the bladder are much more blood than urine. If the bladder be kept at rest by free drainage, the congestion subsides and the bleeding stops, otherwise the irritation of the bladder and the constant calls to pass water which cannot be gratified not seldom bring a fatal

termination to the case. If the bleeding stops, the urine becomes brown from disintegration of the clot, and the bladder is gradually cleared of blood. Sometimes the hæmorrhage is the result of injury to the prestate by attempts to pass instruments to relieve retention, in which case the condition of the patient is aggravated. Corroborative of the prostatic origin of the hæmorrhage would be the enlarged and tender state of the organ felt *per rectum*, and probably a history of long-standing impediment to micturition or attacks of retention.

Tubercular ulceration of the prostate is a cause of bleeding in young men. It shows itself in the form of clots washed out in the first part of the stream. In such cases there is cystitis, and the prostate is often irregular, hard, and tender to the touch. In other particulars the affection is not distinguishable from tubercle of the bladder, with which indeed it is usually associated.

Masturbation in youths causes prostatic hæmaturia. The urine is voided at short intervals, is coffee-coloured or even dark brown for some days, and there is aching in the perineum, with some lassitude. The presence of blood and a slight increase in the amount of mucus form the only changes of the urine from the healthy standard. The attack passes off in a few days, and the patient is well till a repetition of the unnatural practice brings a return of the hæmorrhage.

The prostate may be implicated with malignant growths extending from the rectum, and their presence may give rise to moderate hæmaturia.

Gonorrhœa also causes prostatitis, in which slight bleeding is common.

Malarial poison as a cause of prostate bleeding came under my notice lately. As you know, it frequently happens that any operation or shock will rekindle the activity of malarial poison in persons who have been attacked by it. This patient had had stricture for more than twenty years; and fourteen years before he consulted me he had suffered from a bad attack of tropical fever, which was followed by bloody urine. Again, six years afterwards, another attack of fever was attended by hæmaturia. The stricture was placed at two inches from the meatus; that is, of course, in the penile portion of the urethra. But there was no contraction, except muscular spasm, elsewhere. The stricture proved rebellious to simple dilatation, and it was cut internally. The first micturition passed off well; but twenty-three hours after the operation, sense of weight came in the rectum, followed by much spasm and difficulty in passing urine. There was also a slight chilliness, and the temperature rose to 99.8° F. Soon afterwards, as the patient himself expected, from experience of former attacks, he voided dark, reddish-brown urine with black clots. In forty-eight hours the bleeding ceased, and the temperature fell to 98°. Two days passed without bleeding. Then, at the same hour as before, a similar series of sensations were experienced at the neck of the bladder, and the urine again became charged with dark blood and clot. Quinine was then taken freely; the bleeding stopped, and did not return. During the second attack, the temperature ranged between 97° and 99° for four days; after that it remained steadily at 98°. That the blood came from the prostate was shown by the fact that there was no blood oozing from the urethra in the intervals of micturition. The dark brown and black colour of the urine, with black clot expelled at the end of the flow, indicated that the blood had escaped into the bladder before it was voided from the body. It must be recollected, also, that the incision was made several inches away from the prostate.

When the urethra is the locality of the bleeding, the blood is often moulded into long worm-like clots which float in the chamber-pot. Besides the form of the clot, the appearance of blood between the acts of micturition and also with the first drops of urine is characteristic of bleeding from the urethra.

Laceration of the urethra by the passage of a sound may cause very dangerous hæmorrhage. Some years ago I had under my care in this hospital a man who was in the habit of treating his stricture with his wife's knitting needles, which he himself bent to a suitable curve. His ingenuity cost him dear. On one occasion, when using a fine needle, he pushed it through the wall of the urethra and wounded the erectile tissue behind the stricture. This led to free hæmorrhage; and the blood, being penned back by the stricture, passed into the bladder, which it distended till that viscus reached to the umbilicus, and, for hardness, resembled the gravid uterus. The patient's sufferings were extreme; but, by dividing the stricture through the perineum, the coagula were quickly washed from the bladder and the patient recovered.

Rupture of the erectile tissue can in another way let loose dangerous bleeding. Some years ago there was a case in this hospital of a boy aged 19, a weakly lad, who had during excessive copulation ruptured some of the vessels of the erectile tissue about the bulb, from which blood flowed so freely that the patient became blanched before the hæmorrhage was arrested. Such cases of copious hæmorrhage are rare, but small bleedings are not infrequent from this cause.

Injuries of very slight amount may set up small bleedings; for example, the passage of a calculus, or of a sound even when very lightly handled. Also rupture of the urethra by a fall on the perineum is often denoted by a few drops of blood oozing from the urethra before the act of micturition is attempted. To make the diagnosis precise, reference would be taken to the history, to the painful bruising and swelling of the perineum, to the sudden pain when attempt is made to pass urine, followed by retention, and succeeding to this failure would be the signs of extravasation. Finally, it would often be impossible to pass a catheter to the bladder.

Sloughing sores or the rupture of the erectile structure during chordee produce hæmorrhage from the urethra, though the hæmorrhage does not take the form of bloody urine.

In females the small vascular aruncles of the urethra may bleed freely if torn by the stream of urine as it escapes from the meatus urinarius.

The following list of writings has served to supply the very brief account of bilharzia given above: Bilharz, *Zeitschrift für Wissenschaftl. Zool.*, 1851; Griesenger, *Archiv der Heilkunde*, 1854; *Dictionnaire de Méd. et de Chirurg. prat.*, par Jaccoud, 1870, art. Distoma; Sossino, *Archives Gén. de Méd.*, Juin, 1876, p. 650; Cobbold, *Parasites of Man and Animals*, 1879; also Quain's *Dictionary of Medicine*, 1882, p. 107; Mackie, *BRIT. MED. JOURN.*, Oct. 7th, 1882; J. Harley, *Med.-Chir. Trans.*, vols. xlvii, lii, liv; Zancanol, *Path. Trans.*, xxxiii, Jan. 3rd, 1882; Wortabet, *Edin. Med. Journ.*, 1879-1880; Sir W. Roberts, *Urinary Dis.*, 4th edit., 1885, p. 648; Reginald Harrison, *Surg.-Dis. of the Urin. Organs*, 1887, p. 249. This author gives an excellent summary of the writings of others, and also adds new matter gathered from communications and specimens sent to him by Dr. Mackie for exhibition. One specimen, shown to the Pathological Society in 1886 (*Path. Trans.*, 1887), is now in the Museum of St. Bartholomew's Hospital. Another, shown to the same Society in 1888 by Mr. Eve, is in the Museum of the Royal College of Surgeons.

ABSTRACT OF
CLINICAL LECTURES

CARCINOMAS OF THE BREAST WHICH
REQUIRE AN OPERATION.

By N. C. MACNAMARA, F.R.C.S.,
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LECTURE II.

In my last lecture I endeavoured to define the class of patients suffering from carcinoma who were unlikely to benefit by an operation for excision of the breast. Excluding cases of rapidly growing cancers, and those tumours which develop late in life and grow very slowly, as also patients otherwise unfit to undergo an operation, we have left by far the majority of instances of carcinoma of the mammae. Of this majority it may be said, if the affected gland were excised in the early stages of the disease that one-fourth of the patients so treated would remain free of cancer for the rest of their lives, and the other three-fourths would be saved from much suffering, and in not a few instances, life would be considerably prolonged by means of the operation. If this be true, evidently it is important to recognise cancer of the breast in its early stages; and although there are no definite symptoms which indicate the commencement of the disease, we can form a sufficiently accurate opinion as to its nature to enable us to follow without hesitation the correct line of treatment. We know little about the etiology of cancer, but it arises, in persons predisposed to the disease, in continued, or in repeated, irritation of glandular epithelium. It is often difficult, in specimens under the microscope, to say where simple chronic irritation ends and car-

cinoma begins; clinically, the difficulty of distinguishing between the two conditions in the early stages of cancer is still greater; but in the mammae the products of irritation, unless they suppurate, usually pass away in the course of a few months, whereas carcinoma may be said never to disappear. If, therefore, a patient, of from 30 to 50 years of age, consults us on account of an extremely hard almost painless nodule in one of her breasts, which may be about the size of a walnut, which has been noticed for six months or upwards, the growth having a roundish form, and being inseparably connected with the gland, it is probable we have to deal with a carcinoma. In such a case no time should be lost in making an exploratory incision into the tumour, and if it offers a resistance like that of an unripe pear when it is cut into, and has no defined outline separating it from the surrounding tissues, the entire gland should at once be excised; I would urge you to study what Sir B. Brodie has to say on this subject in the lecture to which I have so often referred. As an instance in point, I have made the following abstract from the notes of a case reported for me by my dresser, Mr. Shipley Part.

E. McC., aged 35, was admitted into hospital on September 26th, 1886. She is the mother of five children; her family history and general health have been good. Some four months before coming into hospital she had a considerable amount of pain in the left breast, and subsequently she noticed a lump towards the outer part of the gland; this nodule is now about the size of a walnut and of stony hardness; it is imbedded in the gland, and causes her but little pain unless it is roughly handled. The skin and axillary glands are unaffected; the nipple is retracted. On September 30th an exploratory incision having been made into the growth it was found necessary to excise the gland. On the following day the dressings were changed, and again on November 3rd and November 7th; the wound having then healed the patient left the hospital, and has since remained in perfect health.

Upon microscopic examination the growth was found, in places, to consist of enlarged tubes and acini crowded with cells, and in the surrounding connective tissue alveolar groups of epithelial cells were abundant. In other sections the tumour showed evidence of induration.

I think there can be little doubt that this growth had originated in lobular inflammation, and that carcinomatous changes had commenced in the weakened tissue, which, if left to itself, would have spread to surrounding structures and killed the patient probably within three years. It is equally certain, supposing this nodule to have been cancer, that the only way of averting untold suffering to the patient, and a fatal termination of the disease, was to have excised the tumour together with the gland in which it had grown before the surrounding tissues were infected. E. McC. doubtless progressed favourably after the operation; the wound healed in ten days, and the dressings only required changing on three occasions, but in eight out of ten such cases similar results may be secured by means of dry dressings and free drainage.

But if carcinomata of the breast can be excised with so little risk to life and so little pain in their early stages, how is it we meet with so many cancers in their pronounced form? It seems to me Sir Charles Bell, in the passage quoted in my last lecture, has answered this question. He states it is because excision of the breast affected with carcinoma is not resorted to sufficiently early in the progress of the disease that we meet with so many incurable cases. Sir Charles further observes that most patients suffering from cancer of the breast apply to their medical attendants in the first instance; these gentlemen are consequently largely responsible for the want of efficient treatment when alone there is a hope of eradicating the disease. Some practitioners do not believe that cancer is curable in any of its stages; I am convinced this is a mistake. Others, if consulted by a patient with a suspicious nodule in the breast, hope for the best, but cannot bring themselves up to the point of performing their obvious duty, and so months slip away, and the chance of doing any permanent good is gone. I can safely say I have not as yet met with an instance in my own practice, nor have I heard of a surgeon having to regret making an exploratory incision into a suspicious tumour of the breast, but I have repeatedly seen patients and practitioners who have had good reason to feel sorrow for not having resorted to this practice. No doubt it would be satisfactory if the symptoms presented by persons suffering from carcinoma enabled us clearly to determine the nature of the tumour from its commencement, without incising the growth, but in not a few doubtful cases

this is the only way to arrive at an accurate opinion on the subject.

It may be a nodule in the breast is caused by sarcoma; if so, the sooner it is removed the better; it may be cystic, but tumours of this description are seldom met with unless in conjunction with sarcomas or in carcinomas. Should the nodule have formed before the patient had reached her thirtieth year of age, it is not likely to be cancer, more probably it is an adeno-fibroma. These tumours are usually single, peripheral, and more mobile in the gland than carcinomas; but if in doubt we must make an incision into the growth. Should nothing more be necessary the wound may be closed, it will heal in the course of a week or ten days; on the other hand, if we wait and watch the suspected tumour until it is so far developed as to render the diagnosis certain, supposing it to be cancer, we shall have waited too long, the time will have passed when we might possibly have saved the patient from one of the most terrible deaths to which a human being can be subjected. It is well to bear in mind the fact, that cancer occurring in patients from 30 to 50 years of age, form by far the greater number of tumours of the breast we meet with in practice, and that every one of them has had a beginning.

In conclusion, we can safely answer the question referred to at the commencement of my last lecture in the affirmative; modern improvements in surgery enable us to modify the rules laid down fifty years ago as to the desirability of excising carcinomata of the breast, because the risk to life from such an operation has been lessened, and, further, the system of dressing wounds has much diminished the pain of the after-treatment. But what I wish particularly to impress on those of you who intend to follow general practice, is not to procrastinate or shirk your responsibility when consulted by a patient suffering from a persistent hard nodule in the breast. It may be, and indeed is, often necessary to clear up any uncertainty that exists in your minds as to the nature of the growth by means of the knife; should the nodule then seem to be a carcinoma excise the entire gland. You may thus save some of your patients from the further development of the disease, and you will certainly lessen their sufferings and prolong life.

ON BONE-SETTING.¹

By W. J. PENNY, F.R.C.S.,

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MR. PRESIDENT AND GENTLEMEN,—I am obliged to you for the compliment you have paid me, in asking me to open the discussion this evening. The subject selected is more complicated than appears at first sight. The time at our disposal will not allow me to enter into it as fully as I should wish, but I will endeavour to bring its principal features before you as clearly and briefly as possible.

Bone-setting commonly so-called, means not a setting of fractured bones, but the term has arisen from the erroneous view imparted by quacks to the general public, that in many cases of distorted and useless joints a bone is out and requires setting in place again. This setting consists of some forcible movement, during which a crack is usually elicited. This crack is supposed to be caused by the bone slipping back into its place. Among affections successfully treated in this way are cases of fibrous adhesions within and around the joint ligaments and synovial membranes; cases of true complete dislocation; cases of partial dislocation or subluxation; cases of adhesion of tendons to each other, or to ligaments or other structures; disarrangement of ligaments; displacement of tendons; hysterical affections; cases of muscular spasm; ganglia which have been ruptured.

In some cases, bodies foreign to the part, such as new growths, detached pieces of cartilage, displaced cartilages, thickened synovial fringes, organised blood-clot, and numerous others, have become nipped between the bones forming a joint, and have thus interfered with its functions.

Not infrequently inflamed or strumous joints, or even malignant enlargements, have been treated in the same manner; I need hardly tell you with what results. I have seen three cases of amputation from improper use of these forcible movements.

Bone-setting has been little studied by the legitimate members

of our profession, and as cases amenable to treatment are common, quacks and charlatans have had an extensive field for their operations. Many of these quacks, especially one lately deceased, have acquired considerable skill in the treatment of these cases, and no small reputation from the good results they have obtained. The majority, however, have little knowledge of the subject, and consequently have numerous failures as well as successes. The public do not fail to laud the cures obtained by these men, or women, especially when properly qualified surgeons have previously failed to cure the complaint; and they seem rather pleased to have the chance of "having a slap" at their regular attendant. On the other hand, if a bad result ensues, they are ashamed to confess their lack of faith in their own surgeon, and dislike having the laugh turned against themselves; consequently we hear little of the bad results. Many of these quacks do not even know the anatomy of the parts affected, let alone the pathology; their knowledge as a rule amounts to this—"Here is a stiff joint, it must be worked." They know that the majority of cases are improved, a small proportion are made worse. If a bad result ensues, they frequently lay the blame on the previous attendant, by saying to the patient—"You should have consulted me before, and you would not have come to this." The more brazen their assertions, the more easily are they swallowed by the majority of the British public, who apparently like to be gulled.

Now, gentlemen, I hold it is our duty to beat these quacks on their own ground. The public are perfectly within their right to get cured wherever they can. They do not care, and why should they, whether the cure is wrought by a Member of the College of Surgeons, or by the village blacksmith, with a strong arm and a taste for backing his muscular powers against the stiffness of the patient's joint. They want relief from their ailments, and do not consider they have any special call to maintain Members of the College of Surgeons, if they cannot cure them. It is, however, our duty to expose these ignorant pretenders on all occasions; they do not spare our reputations, we need not consider theirs. It does not do simply to abuse them as impostors; patients, not unnaturally, judge by results; we must recognise the fact that they often cure cases in which we have failed. It appears to me that very often we treat the cases just long enough to make them fit for the bone-setter, and then, sometimes from lack of patience on the part of the sufferer, sometimes from lack of enterprise on the part of the surgeon, they drift into the hands of these quacks and get cured. The only way in which we can hope to compete successfully with these men is by a careful study of the anatomical, clinical, and pathological conditions associated with these affections. Having thus gained a sounder knowledge than they, and not fearing to act on it, our successes will prove to our patients that properly qualified scientific men are the more trustworthy, more likely to effect a cure and less likely to aggravate the complaint. I will take as my text the following anecdote.

My father, many years ago, had a valuable horse, which fell and cut one knee badly. The joint was opened. For many weeks it was under the care of a veterinary surgeon with a good reputation. After a time the joint, which had been enormously swollen and discharged pus freely, subsided, and the wound healed. The horse had a stiff knee. "Turn it out to grass for three months," said the vet.; this was done. At the end of that time there was only a slight blemish on the knee, it was the same size as the other, but the horse was perfectly useless for driving, as the knee was still stiff and the horse extremely lame. The vet. then gave up the case in despair, and my father, in disgust, sold the animal for a very small sum. Lo and behold within a day or two the new owner getting impatient at the horse's slow progress, gave it a smart cut with a whip; the animal, a well-bred spirited beast, plunged forward, and from that minute lost its lameness, and went as well as ever. I have seen it many times since, and it has never been lame. A great many lessons can be learnt from that case. A few fibrinous adhesions must have existed, probably within the joint. The pain caused by them prevented the horse, though spirited, from bending the knee; the sudden plunge caused by the whip ruptured them, and the horse was cured. They may have been no larger than threads of cotton. The structures round and in the joint were free from inflammation, and the constitution was sound; a typical example of the cases suitable for bone-setting. My father, a man of common sense, naturally wished to know why the veterinary could not have foreseen this; he now has less faith in him than formerly, and I almost fancy that, in spite of the empirical treatment of the other man, he would prefer his opinion in a similar case, and the result justifies this.

¹ Read before the West Somerset Branch of the British Medical Association.

If this horse had been a man, it is not at all unlikely he would have been treated in a similar fashion. The surgeon in attendance, recognising the danger of exciting inflammatory mischief in the joint, might not have cared to adopt such energetic treatment. The patient might then have drifted into the hands of a bone-setter, entirely ignorant of pathology, who would have told him "the bone was out," given the joint a wrench, ruptured the adhesions, and the case would have been cured. The original attendant, who had brought the case safely through the dangers of a wound of a large joint, would not only have lost all credit for that, but would have been considered less competent than the quack; I do not think we can say quite without reason.

A very short time ago I broke down, almost with a couple of fingers, some adhesions in the shoulder-joint of a man who had been unable to use his arm properly for ten years. Before the operation, if the scapula were fixed, the arm could only be moved one inch away from the side. The patient had been in the habit of pressing his elbow firmly against his side, by this manoeuvre saving the strain on the shoulder-adhesions when he worked the hand. The day after the manipulation he could easily move the arm six inches from the side, and he is now progressing satisfactorily towards recovery. The adhesions were very slight, and no perceptible inflammatory mischief was excited by the operation. He had consulted several surgeons, all of whom had failed to treat the case sufficiently freely. There was marked muscular spasm, which made the ankylosis more apparent; this, of course, disappeared under chloroform, and rendered the rupture of the adhesions a very simple matter. I hope to publish this case later on.

that the capsule either folds itself in various directions like a purse, according to the movements of the joint, or it is drawn out of the way by the muscles inserted around the articulation. Let me refer to the shoulder-joint. The capsular ligament is attached round the margin of the glenoid cavity, and to the anatomical neck of the humerus. It is very lax, so much so, that when all the muscles are removed, the head of the humerus can be drawn about an inch away from the scapula, without laceration of the capsule. All the muscles inserted into the tuberosities send a few fibres into the capsule; when either of these muscles act, the capsular membrane, instead of folding anyhow, is drawn out of the way before the bone (Fig. 1). If it folded anyhow, it might possibly get nipped between the bones, or it might get creased the wrong way, and so impair movement. This nipping is especially likely to happen at the back of the elbow, between the olecranon process and its fossa. The same rule holds good, I believe, in all the joints of the body (Fig. 2). I have examined most of them, and find it to be so. The importance of the fact is this. If the joint be moved in certain directions by its muscles, the capsule is drawn out of the way, or folds in such a manner that the movements are not interfered with. If it is moved passively, or by violence, the capsule is not drawn out of the way, and does not necessarily fold

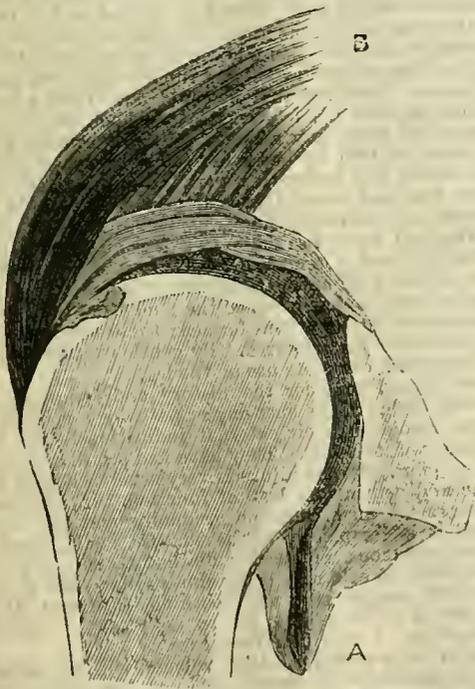


Fig. 1.

Section of shoulder-joint. } Drawn from specimen.
 A. Fold of capsular ligament.
 B. Supra-spinatus muscle inserted into capsular ligament, and great tuberosity of humerus (diagrammatic).

Now comes the question: In what structures do the changes occur which cause this loss of function? I believe that, as a rule, they are to be found in the capsular ligament and the synovial membrane; less frequently in the matting together of the tendons. All the large joints have capsular ligaments; the shoulder and hip decidedly so; the knee, ankle, elbow, wrist, fingers, and toes have strong lateral ligaments, and the parts between these completed by thinner bands of tissue, called anterior and posterior ligaments. For all practical purposes we may consider these as capsular ligaments, with laterally thickened bands. On dissecting these joints and then moving the limb, it is found

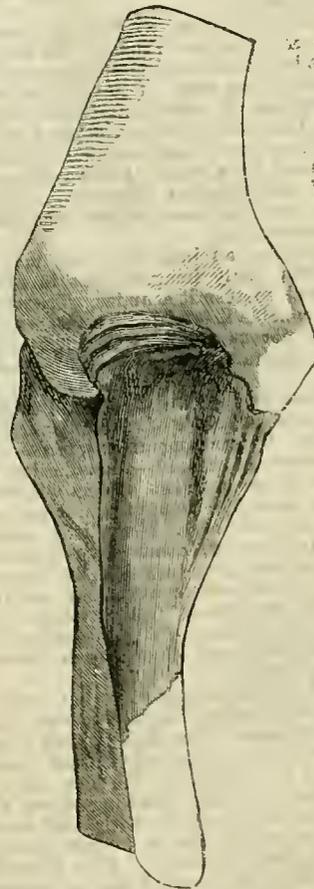


Fig. 2.

Elbow-joint extended; Irregular fold of posterior ligament.

in the right direction; it often does so, but often not. If it is at all sticky from fibrinous effusion, or thickened from the same cause, the probability is that the folding would be irregular, and the joint-movements correspondingly limited and painful, and as long as one worked it passively, this would continue. I have often noticed myself, after a fall or a blow, a species of discomfort in a joint, which has only passed off after working it round several times. This appears to me to be due to a false folding of the ligament. When the muscles work the joint, the ligament is unfolded and drawn into its normal position.

It is a useful, practical plan, in putting up an injury, to tell the patient to move the joint himself; by attempting this he would not only relax the muscles which perform the antagonistic action, as I learnt from a valued teacher, but, if he were unable to exert power enough to do, as he was told, he might still have enough to draw the capsule out of the way and prevent an improper folding. These apparently trivial details will be found on close observation to be of real value. The majority of these adhesions take place as the result of traumatism, or of some inflammatory affection of the joint; singularly enough not, so often after dislocations as after sprains. In dislocations there is a rent in the capsule, and this makes a drainage opening through which the effused fluids escape. As the result of the injury blood or lymph gets effused; this distends the capsule. In whatever position the limb is put up, this effusion would settle to the looses or most dependent part. Take the shoulder again. The arm falls naturally to the side, and is bandaged by the surgeon in that position. (This is not always prudent.) As a consequence the lower part of the capsule would be loose; into this the fluid gravitates and distends it. As it subsequently becomes absorbed the surfaces of the pouch approximate each other, and, if left at rest, become bound together, either by direct fusion of their surfaces or by the intervention of organised bands of lymph.

Adhesions are frequently seen without evidence of change in the membrane or cartilage close to them. We all know, as practical surgeons, that in shoulder ankylosis the greatest difficulty is experienced in raising the arm. I have dissected one of these joints in which ankylosis of some considerable standing existed. After dividing all the muscles which depress the arm, I found myself unable to raise the limb, and on careful examination found this was caused by a fusion of the contiguous surfaces of the lower part of the capsular ligament, with its contained synovial sac. On separating these the arm was easily raised; the rest of the joint was sound.

This fold is sometimes an inch long, and may be even more than that, so you can easily imagine that in many cases great force must be exerted to tear it asunder. The more recent the adhesion, the more capable it is of being stretched; as it increases in age, like all new fibrous tissue, it becomes tougher, and also has a tendency to contract. Great force is then required to rupture it.

I had a case about two months ago, in which, though the patient was under the influence of chloroform, I could hardly rupture the adhesion. By exerting all my force—I am endowed with more than the average amount—the adhesion ruptured with a loud report. One of our resident officers who was giving the anæsthetic and the students thought the bone was fractured; this, however, was not the case. Very little inflammatory disturbance followed, and the movements are now almost normal.

Adhesions may also take place outside the capsule; these are usually the result of rheumatic affections, or are caused by inflammation which has spread from without. The tendons round a joint may also become matted together or fused with the capsule or other parts, and thus impair function. I will tell you another anecdote.

Some years ago I possessed a hunter that had seen his best days, what is commonly called "an old screw"—screwed about the tendons of the forelegs. One day he took a big fence with me, just flinched for a minute as he pitched, but finished the day's work without a sign of lameness. The next day the leg was swollen, and he was evidently suffering from a strain of a tendon. He was treated carefully with cold water bandages until the swelling subsided, and was then prescribed gentle exercise. He simply hobbled along. Then I tried riding him, and once or twice in a half-hearted way attempted to trot or canter, thinking it might be stiffness which would wear off, though I did not quite understand the pathology. The result was painful to both the horse and myself. After some weeks I sold him, as I thought, permanently lame. In a very short time the horse was to be seen careering over the country without a sign of lameness. On inquiring the treatment, it turned out to be the whip again. I was somewhat annoyed not to have tried such a simple remedy more effectually; but I daresay if one had seen the treatment, one would have called the man a brute, though it was a cruel kindness in the long run.

A short time afterwards I had the opportunity of dissecting a horse's leg which had a precisely similar history. Between the flexor tendons were some long, string-like adhesions, evidently

stretched long enough not to interfere with movement. At a part lower down was a small patch of soft adhesions, easily separated, and then the tendons worked freely on each other. It seemed to me probable that when the horse started every day he went lame until these soft adhesions gave way, and then the lameness disappeared. This corresponded with the actual history, the lameness was always more marked after rest, but the whip being applied more freely counteracted this. It is the strain on the adhesion and the loss of mobility that cause the lameness, not the friction of the roughened surfaces. Cases similar to this are not uncommon in man. I had the opportunity of vivisectioning one such.

The patient had an incised wound just above the wrist. As the result, the ulnar nerve and flexor carpi ulnaris tendon became bound down to the deeper parts by fibrous tissue. Excruciating pain resulted on any movement of the wrist, and even without this. I had on two occasions to separate the nerve and tendon from the deeper parts, and finally the nerve remained detached and the pain was cured. The tendon still has a tendency to contract adhesions. The man works, but says he always starts stiff, but that soon wears off. "It is better on Saturday night than Monday morning." The Sunday's rest always makes the part more stiff and painful. Probably, if he rested long enough, the tendon would become fixed again and the wrist movement impaired. The following case is also very instructive.

A. F., aged 26, came to me last winter, complaining of pain, tenderness, and some swelling below and to the inner side of the left knee. Six weeks before, while playing football, he kicked sideways at the ball, with the left leg, at the same time one of his opponents also kicked at it; their legs crossed, and F. felt a sharp pain in the inner side of the knee. The part swelled, he lay in bed for a fortnight, and was then allowed to get about. After another week or ten days he could walk and run all right, and then played football again. He found that he could not "folck a ball" out of the scrimmage with his left leg (that is, hook the ball out sideways with his foot), any attempt to do so causing great pain. After a week or two he had a bad fall with a man on his back, and now comes the interesting part. He felt a sharp pain for a minute or two, and, when that had passed off, the old pain had disappeared, and he thought he was well. The part swelled in the evening, and, when I saw him two days afterwards, there was slight synovitis, and a tender oedematous spot below and to the inner side of the head of the tibia—the original seat of pain. It seemed to me that he had strained the tendons at that spot weeks before; as the result, adhesions formed; these were broken by the fall, and fresh effusion appeared. By gentle exercise and friction he soon recovered complete use of the leg.

Now we should consider the history and symptoms of these cases; a knowledge of the anatomy or pathology is of no use unless we can recognise their external indications. The majority have a history of this sort. They have had a fall, or a blow, or a strain of a joint. If the injury is very severe, there is probably immediate and continuous loss of function. If less severe, the loss of movement may come on gradually and get worse and worse until it is completely abolished. Or, again, there may be a rheumatic, strumous, or specific diathesis, and a slight injury or even exposure to cold may bring on a similar state of things.

In the early stages rest and soothing treatment should be adopted; but if the case goes on to ankylosis, "bone-setting" may be required. I will describe a case.

M. N., aged 45, a strong, healthy woman, with no inherited or acquired predisposition to disease, sprained her right ankle about four months before I saw her. It swelled very much. The medical man who saw the case very properly placed it in splints, and at the end of six weeks left them off, and recommended very careful and gentle exercise, and friction with some liniment. After walking or hobbling, the ankle swelled and became more painful, and walking itself caused her pain. The splints were then reapplied for fourteen days, when she was again to try exercise; the same pain and swelling ensued. Disease of the joint was then hinted at, and, as is usual, all the patient's friends passed their opinion on her case, that which found most favour being the idea that a "bone was out." This opinion she suggested to me at the commencement of our interview. The ankle was slightly thickened, but distinctly white and cold; all the bones were in their normal position, pressure caused no pain, stamping caused no pain; the foot was fixed at a right angle to the leg.

On careful and very gentle examination, slight movement could be detected, but muscular spasm and pain ensued if the movements.

were done at all roughly, and the joint then appeared more fixed, in fact, absolutely so. The diagnosis was clear—fibrous adhesions within or around the joint.

I should also call attention to the fact that the knee of the other leg was distended with fluid, which had appeared subsequent to her attempts at locomotion, evidently due to the increased strain thrown on it by her "dot and go one" style.

Distracting her attention, I gave a sudden wrench to the ankle; a loud report ensued. In a few minutes, after the pain had passed off, the patient could move the joint freely quite two-thirds of its normal movement, and she walked across the room comparatively well. She then said: "I thought the bone was out;" she was firmly persuaded she had heard it go in. It took me five minutes' hard talking to convince her that such was not the case, and then she was only convinced to the extent the gentler sex are "against their will." I did not wonder then that bone-setters often saved themselves the trouble of explaining, but let the patients think as they pleased. This case went on rapidly to complete recovery as far as the ankle was concerned. She has had occasion to consult me again for her knee, which has remained weak.

This case had been treated quite correctly in the early stages, but, as in the case of my father's horse, the whip had not been applied, and so the lameness continued.

There is another side to this question. W. S., aged 24, a healthy countryman, sprained his ankle badly. He saw a medical man, who told him to bandage it. He only lay up for four days, and then walked about. As the result the ankle became worse and worse, and when I saw him about seven months after the accident, there was suppuration and disorganisation of the joint, and amputation had to be resorted to. Successful treatment of these cases lies midway between the two, first a period of rest, and then exercise. The great secret of success lies in judging the exact period at which the one should be changed for the other. No hard-and-fast rule can be established.

In nearly all cases of fibrous ankylosis we find muscular spasm. This alone, in the absence of inflammatory symptoms, or those of new growths or constitutional disease, is sufficient indication for "bone-setting." Many surgeons think it impossible to mistake these affections for each other; there is little danger of doing so when the inflammation or the new growth is well marked, but in their earlier and less acute stages the diagnosis is far from easy. As a rule, I find that the more spasm the slighter are the adhesions.

When the ankylosis is bony, the disease must have existed for a long time, and, the joint being completely fixed, spasmodic action of the muscles is not required to check the movements; they are abolished. The muscles, therefore, waste and undergo fatty degeneration. Pain is a most misleading symptom. The most hysterical, painful case I ever had to deal with was cured by one slight wrench, without even synovitis following it. There was a distinct crack, and the patient immediately moved the joint freely and painlessly, and was extremely grateful. Patients suffering from hysteria pure and simple are not so. In the case of one small adhesion the strain is concentrated on one spot, and consequently is more severely felt. If you pinch a small piece of skin between your finger and thumb nails, acute pain is felt. Pinch a large piece with three times the force, and not half the pain is experienced. Again, pull a single hair of your head, and notice the difference between the pain and that caused by pulling a number together. So it is with the adhesion.

On making an examination of a knee-joint in the dissecting-room at Bristol, I found one small tough adhesion, about the size of a fine piece of twine, between the internal condyle and the back of the tibial spine. In this case the adhesion was stretched long enough not to interfere with movement. My patient, a nervous, sensitive woman, had not the pluck to do so, and consequently suffered severely until the adhesion was ruptured.

Now comes the question, Where is the pain felt? Hilton, in his interesting book on *Rest and Pain*, states that the nerves which supply a joint are branches of those which supply the muscles acting on that joint, and also the skin over it. I will give you a case in point. A man fell over a plank on to his shoulder, bruising the upper part of the joint. Great pain was felt, but only on his attempts to abduct the arm. On passively moving the limb in that direction a soft crepitus could be detected. This movement was also painful. The interesting point is, the pain was not referred to the joint, but to the scapula and side of the neck—the course of the suprascapular nerve. This nerve supplies the upper part of the joint and the supraspinatus muscle which abducts

the limb. Pain was also felt on deep pressure over the head of the bone. Sometimes the pain is experienced immediately over the affected spot, either case being explained by Hilton's theory. I will now refer briefly to some of the more frequent and troublesome complications.

All cases of fibrous ankylosis cannot be cured by one wrench; it is exceptional to find them so simple. When one does get a case it is an easy way of scoring a brilliant result. Cases vary much; each must be judged on its own merits. Those most amenable to treatment are due to simple traumatism in healthy subjects. These recover with marvellous rapidity, and, singular at first sight to relate, it often happens that the longer the ankylosis has existed, the simpler is the cure. The first wrench may require greater force, but as a rule there is less subsequent disturbance in the joint. In these cases the joint, at least that part between the adhesions, has had time to recover its tone, and the adhesions being simple fibrous cords, are just snapped across, and the joint is free. Not infrequently, however, the strain on the adhesions has produced a chronic synovitis, which obscures the primary cause.

Rheumatism is one of the most troublesome complications; every change of weather produces evidence of the constitutional affection in the weakened part, and this of itself contra-indicates movement. I have a troublesome case under my care at the present time. A young man, aged 24, consulted me in February of this year for stiffness of the right hip. Ten years ago this hip was crushed by a waggon wheel, and he is said to have sustained a fracture in that region. He completely recovered from that accident, and has won athletic races since. About seven years ago, he went to Australia. In March of last year he had a bad attack of rheumatic fever, which lasted seven weeks. He was in the bush, and was only seen once by a doctor. After this he found his right hip stiff; he was unable to bend it, ride on horseback, or follow his occupation with any comfort. He went into hospital in Sydney in August. While there he was treated by extension and blisters to the part. The extension caused him great pain. While in hospital he contracted typhoid fever. He left on December 3rd and returned to England. When I saw him in February there was complete loss of function of the hip-joint. Marked lordosis occurred on any attempt to straighten the leg; and very marked muscular spasm existed, especially of the adductor longus. The loss of movement was so complete, that had it not been for the history and the muscular spasm, I should have considered the ankylosis bony. The right buttock and thigh were atrophied, the latter measuring two inches less in circumference than its fellow. If the patient put both heels to the ground, he measured two inches less in height than when standing on the left leg only. The thigh was fixed at an angle of 140° with the body. There was a very marked rheumatic history in the family, consequently my prognosis was guarded.

On producing complete muscular relaxation by chloroform, the very slightest pressure enabled me to fully extend the leg, and move it freely in all directions. Some soft adhesions were felt to give way in the process. As the adhesions were so easily separated I hoped he would soon regain the full use of the limb, but the rheumatic tendency has retarded recovery. The weather has been exceptionally severe, and at every fresh change both the patient and his father have had twinges of rheumatism. The fact of the father suffering at the same time has made the son more patient under the careful and tedious treatment required. The latter gets pain only in the weak hip, very rarely in the knee of the same leg. Whenever the rheumatism appears, muscular spasm ensues, and on attempting passive movements the lumbar vertebrae arch backwards and forwards instead of the normal movement at the hip-joint. By careful treatment the patient, in spite of these drawbacks, is now able to sit comfortably in a saddle, rise up and down to an imaginary trot, throw his leg across the saddle with ease, and I am hopeful that during the summer he will regain almost if not complete use of the joint.

Struma and syphilis are complications requiring great care. If the constitution is really bad, the less one meddles with the case the better. Slight attempts only at movement may be made under chloroform. Many cases of so-called strumous joint-disease depend on a traumatism occurring in a subject debilitated by bad food and improper hygienic surroundings, though they may possibly have inherited a good constitution. In such cases the general health should first be attended to, and when that has been improved, movements may be attempted. The same rule holds good when syphilis is the complication.

Now comes the question of treatment. We cannot do better than refer to my text. The horse had a suppurating knee-joint; it was turned out to grass for three months; before the whip was applied the knee was the same size as the other, and free from inflammation.

The principal symptoms of cases suitable for forcible movements may be summed up as follows. Loss of motion and muscular spasm, especially on rough handling. On very gentle manipulation slight movement can be felt, and that perfectly smooth. Pain on more forcible movement, pain at night, pain on waking in the morning, pain at change of weather, pain on jarring the limb, absence of inflammation, extra coldness of the part, very slight thickening only (if there is much it should be lessened by rest or gentle exercise, blisters and absorbent application, with light friction), the lapse of some weeks before forcible movements are attempted. In the earlier stages forcible movements produce a large amount of fresh effusion, and possibly inflammatory disturbance.

I remember a case some years ago in which I yielded rather to the patient's solicitations, and moved a joint freely in the earlier stage. A large amount of effusion was poured out, and it was only by very careful treatment that suppuration was prevented.

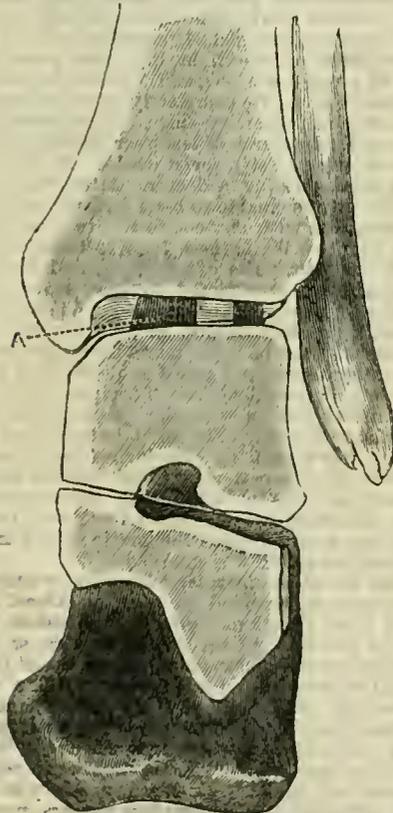


Fig. 3.

Section of ankle-joint showing adhesions (A) between tibia and astragalus; rest of cartilage healthy. No. 1797. College of Surgeons Museum. This diagram was copied from a rough sketch taken from the specimen.

In the earliest stages, that is, directly after an injury, perfect rest should be prescribed. In a few days, if the patient be fairly healthy, absorption of some of the effused fluids will have taken place, and a plastic material remains which can be stretched or moulded by gentle passive movements; these also favour absorption, and should be combined with very gentle friction, remembering the axiom of Hippocrates that hard rubbing binds, soft rubbing loosens. The rubbing should always be done in a centripetal direction. Absorbent remedies may be combined with this treatment. If the case does not progress satisfactorily, or has not come under observation sufficiently early, forcible movements may be required to rupture the adhesions. In suitable cases force should not be spared; in one of mine I had to exert all my strength. I felt that, even if the bone was fractured, the

patient would be no worse off in the long run than if he were allowed to remain as he was. I once saw a humerus fractured by a prominent member of our profession in his attempts to rupture adhesions in the elbow-joint. The patient had a better arm than before operation.

After the adhesions have been ruptured, a day or two of rest should be prescribed, with cooling lotions, and then gentle exercises, active as well as passive. Here is a diagram of a case in which considerable force would have to be exerted to tear through the adhesion.

In cases in which the cartilage has been partially destroyed there may still be movement; the cartilage is replaced by a fibrous material, which fulfils its purpose. I remember a case of compound comminuted fracture of the knee-joint, which was treated in the Bristol General Hospital. I removed several pieces of cartilage from the joint, and yet that patient recovered with a fair amount of movement. There are several specimens in the College of Surgeons Museum which show the replacement of cartilage by fibrous tissue. It is not at all uncommon to find similar evidence with free joint-movement in the dissecting-room; therefore, destruction of cartilage is not sufficient reason of itself to contraindicate forcible movements. Such evidence, however, should

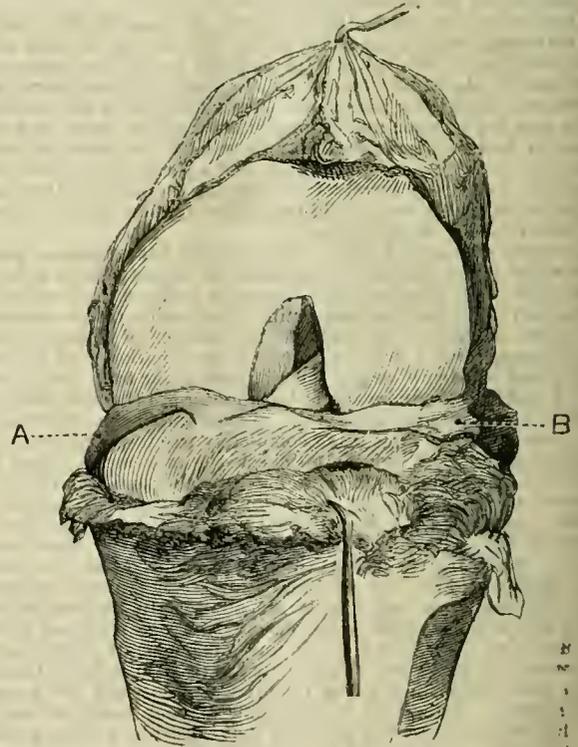


Fig. 4.

Front view of flexed left knee-joint. A Internal, B External semilunar cartilages in their normal position. Skin reflected from femur and tibia.

make us careful as to the amount each case could safely bear, and also particularly careful in the after-treatment. Cartilage itself, as Hunter has told us, is capable of taking on adhesions, without marked change in its structure. Specimen 1797 in the College of Surgeons Museum shows this well (Fig. 3). The cartilage close to the adhesion is smooth and quite unchanged to the naked eye.

Now we come to another class of cases—internal derangements. Many of these are caused by loose bodies in the joints, which may become nipped between the bones. These have special symptoms peculiar to them, and should be removed as soon as possible.

The knee-joint is the most common site of these derangements. It is the most complicated joint in the body. Besides flexion and extension, when the knee is flexed, rotation of the tibia on the femur is permitted. When this is carried to an abnormal degree, there may ensue either a subluxation of the condyle of the femur, or a displacement of a semilunar cartilage. The internal carti-

lage, as you will see by this diagram, is the straighter and longer; the outer is smaller and more circular. The inner, beside being attached to the front and back of the tibial spine, is attached all round the inner half of the head of the tibia by fibrous bands, as well as to the internal lateral ligament. Sometimes this cartilage becomes displaced and nipped between the bones, or it may slip into the notch between the condyles of the femur. The external cartilage is not attached round the head of the tibia, and consequently shifts its position easily, and follows the condyle, and is less frequently displaced than the internal. I will quote a case of displacement of the internal cartilage, and then explain. H. S., aged 25, sprained his knee at football in January, 1886. Synovitis followed, but subsided after some weeks. He regained full use of the joint, but a feeling of weakness remained, for which he wore an elastic knee-cap. In March, 1887, he slipped on the snow, and felt a sharp pain on the inner side of the knee. His leg was flexed and fixed in that position, but on pressing his hand firmly on the inner side of the knee something seemed to slip, and he could then flex and extend the joint freely. The knee, however, swelled and became painful. When I saw him four days after the accident he had slight effusion into the joint; there was œdema and marked tenderness over the upper part of the tibia, at its junction with the cartilage. No pain was experienced on flexing the knee, but only when pressure was thrown on the internal lateral ligament.

ing loose, the bones are allowed to separate, and the tibia is abducted (Fig. 5). All these movements, done sharply and with violence, may cause the condyle to shoot over the edge of the cartilage, and thus become locked; this would be a subluxation. Sometimes not only this happens, but the cartilage gets detached and displaced inwards. While examining this point in the dissecting room one day, I was doing these movements forcibly on a subject, and the cartilage became separated and displaced before my eyes. It happens thus. If the knee is flexed, the back part of the condyle of the femur, when rotated inwards, tends to push the posterior part of the cartilage in the same direction; if the tibia be now rotated outwards, the front part of the cartilage is unsupported by bone, its anterior attachment is carried out with the tibia, and great strain is then thrown on its fibrous attachments to the head of that bone; if these give way, the arc is straightened and the tension relieved, and the cartilage slips outwards. If the bones are much separated, and the movement done suddenly, the cartilage may shoot clean under the condyle into the notch, and lodge there (Fig. 6). When all the fibrous bands are torn, this accident is not unlikely to happen; even when it does, the cartilage can be replaced by extreme flexion of the knee, with subsequent rotations. Mr. Gray, our assistant demonstrator of anatomy, who kindly took some photographs for me, complained that now the cartilage was separated, he could not place the bones in the position de-

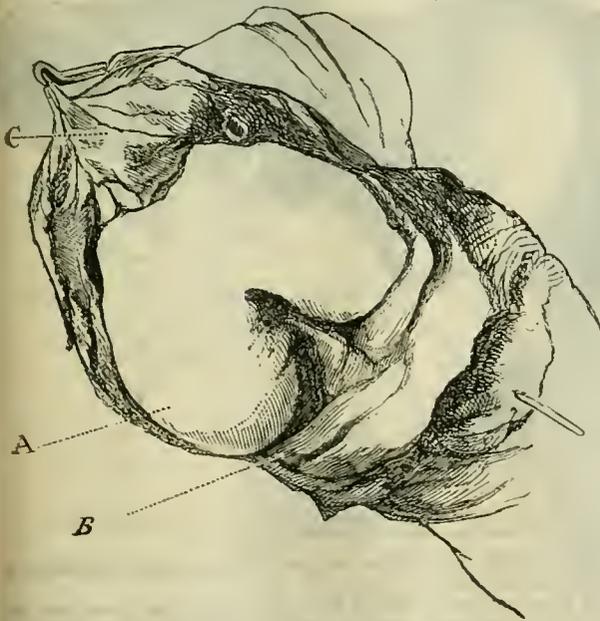


Fig. 5.

The same joint as in Fig. 4; lateral ligaments intact. A. Internal condyle of femur over-riding internal semilunar cartilage B. Knee partially flexed; femur rotated in; tibia rotated out; tibia abducted on femur. C. Patella reflected.

Slight displacement of the internal semilunar cartilage, with strain of the internal lateral ligament, was diagnosed. A felt splint was applied, in the hope that the cartilage would become attached again. The synovitis soon disappeared, and the leg became stronger. At the end of five weeks the patient, who was very anxious to play cricket, said he was quite well, and, contrary to my orders, played. In turning for a quick run, he felt a sharp pain again in the old site. The knee was locked, and could not be replaced without help, and then only after great difficulty had been experienced. This has happened several times since, and I expect to have to operate to fix the cartilage in its proper position. In this case the sprain of 1886 had probably weakened the internal lateral ligament and the fibres which attach the cartilage to the head of the tibia (Fig. 4). In that particular movement of turning sharply, and pushing off with the foot—nearly all the cases I have met with have been caused in a somewhat similar manner—there is a double rotation and abduction. The femur rotates inwards, the tibia outwards, at the same time, the internal lateral ligament be-

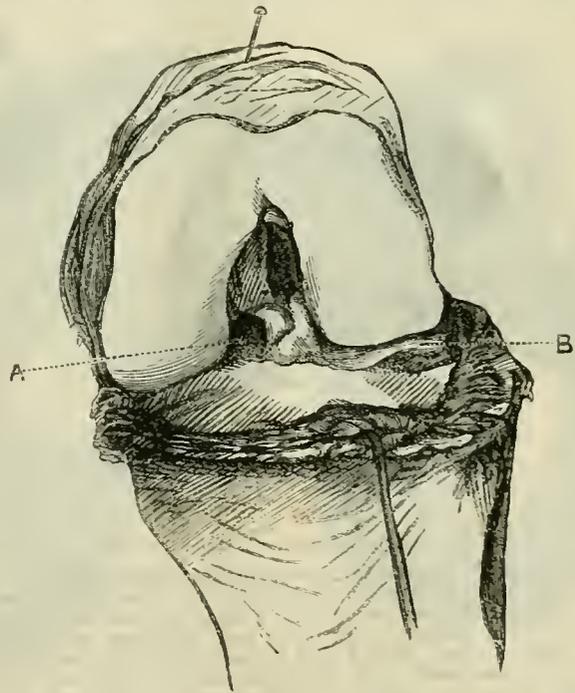


Fig. 6.

A. Internal semilunar cartilage displaced between internal condyle of femur and anterior crucial ligament. Tibia abducted and rotated outwardly in consequence. B. External semilunar cartilage.

scribed without the cartilage slipping between the condyles. Mr. Howard Marsh, in *Diseases of Joints*, refers to three of these cases dissected and described by other surgeons.

When the cartilage is completely displaced between the condyles, the joint movements are less interfered with than when the displacement is partial. In other cases of internal derangements, the fat or synovial fringes, especially when thickened or œdematous, may become displaced and nipped between the bones.

I will describe another case, with its explanation—a hip case. J. H., aged 47, was getting out of a donkey cart when the animal moved on. The patient's right leg slipped on the inside of the shaft, and the left came to the ground. His right thigh was thus forcibly abducted and slightly flexed. He then found that he was unable to walk properly or stoop; he was a very poor man, and said: "If I saw a shilling on the ground I could not pick it up." He hobbled with difficulty into my room about forty-six hours after the accident. All simple remedies had been tried, but

they were of no avail. His leg had the everted, abducted, lengthened appearance seen in subpubic dislocation of the hip. The bones were, however, in their normal relations, there was marked muscular spasm, so that I came to the conclusion it was a disarrangement of something; what I did not exactly know. Acting on the principle that if movement in one direction is particularly painful the opposite movement should be carried to its full extent, and then the painful movement tried quickly, and finding that attempts at extension caused him most pain, I flexed the leg fully on the abdomen and rapidly extended it. The latter movement could then be performed quite freely and painlessly. The patient worked the leg himself, stooped with the greatest ease, and walked round the room in his usual manner. I shall not forget his surprised look as he worked his leg up and down, and said: "Why, it's all right now, Sir." A bone-setter could easily have done this, or an accidental fall might have had the same effect. As it is, a legitimate member of the profession has the credit.

The case puzzled me. I consulted authorities, and all the explanation I could find was that a muscle or tendon might be displaced. On doing the movement forcibly in the dissecting-room,

profession from charges of ignorance or carelessness. Often one feels and knows the truth of these charges. There is a tendency to look on these cases as hysterical or beyond cure. For my own part, I can only say that every year I meet with less hysteria and more definite pathological lesions. Varying degrees of muscular power are required in the treatment, from a force of a few ounces to humour and overcome the spasm of a muscle, to a force of possibly a couple of hundred pounds or even more to rupture dense bands of fibrous tissue.

We should be prepared for any emergency. Accidents may happen in spite of the greatest care and forethought. We should not, for a very remote danger of bad consequences, condemn a large number of individuals to a life-long suffering; for these patients get pain as well as impairment of function. I rarely see inflammatory disturbance follow these manipulations if ordinary care be used. If acute suppuration of a joint should set in, I feel that, thanks to Sir Joseph Lister, we have a very powerful ally at our backs in the antiseptic treatment, an ally that robs these cases of their great dangers to life or limb. I have had the treatment of several cases of suppurating joints, in which not only the patients' life and limb were saved, but a

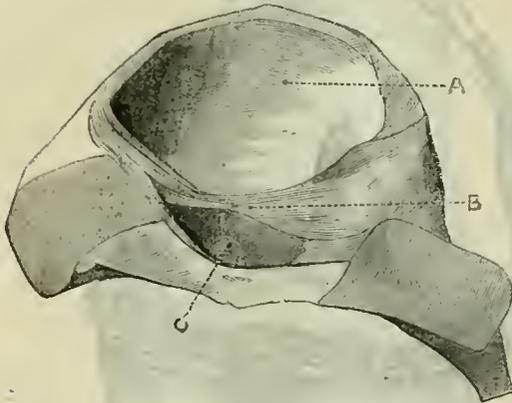


Fig. 7.

A. Acetabulum. B. Transverse ligament. C. Acetabular notch.



Fig. 8.—Head of left femur in acetabulum. Femur abducted. A. Ligamentum teres protruding under transverse ligament.

no muscle could be made to disarrange itself; there is no particular bony prominence to keep out of its place any muscle which may have slipped. No muscle could have been ruptured, as the man did all the movements quite freely and painlessly immediately after manipulation. Then I tried the capsule, but the head of the femur fits too closely into the acetabulum to allow that to be nipped, and a simple abnormal folding would not cause the leg to be fixed. The ligamentum teres was then tried. Professor Humphry, in his interesting book on the skeleton, states that when the thigh is abducted in the erect posture the ligamentum teres is compressed into the lower part of the acetabulum by the head of the femur (Fig. 7). In extreme abduction the ligament and the fatty tissue at its base is driven under the transverse ligament. On doing this movement forcibly and quickly, the ligamentum teres was found to be nipped under the transverse ligament, and this maintained the deformity. On flexing the thigh fully the ligament is drawn back into the joint, and remains there when the leg is subsequently extended. I believe this to be the explanation of my case. The abnormal position was probably maintained by reflex spasm of the surrounding muscles (Fig. 8).

I regret that time will not allow me to enter more fully into the subject; it is most complicated. Bone-setters gain their harvest because we, the legitimate practitioners, too frequently consider the necessary details and delicate manipulations beneath our notice. The loss of function of one joint is often of as much importance to the patient as the loss of a limb. On numerous occasions I have had to defend the reputation of members of our

certain amount of movement as well. In one case the subsequent movement was perfect.

We must not forget that if we do not adopt this practical and legitimate treatment ourselves, we run a great risk of being instructed in our profession by men we contemptuously speak of as "quacks."

The diagrams were drawn from prepared specimens and from photographs taken for me by Messrs. F. Calder and T. C. Gray, of the Bristol Medical School, to whom and to the artist I take this opportunity of expressing my thanks.

BEQUESTS TO DUBLIN HOSPITALS.—The late Mr. Wm. Bannan has left several bequests to Dublin hospitals. Amongst those are the Meath and Sir Patrick Dun's, which will each receive about £6,000.

THE RAILWAY DEATH-RATE.—The return of railway accidents for the year 1887 compares unfavourably, in more ways than one, with that of its predecessor. There were during the year 25 passengers killed as compared with 8 killed in 1886, and these, it should be pointed out, occurred all on one line. There were 538 injured from various causes against 615 in the preceding year, while 8 servants of companies were killed and 109 injured as against 4 and 81 respectively from the same causes in the year before, rendering the total list of deaths from collisions and accidents 33 and injuries 647, whereas only 12 were killed, though 696 were injured, in 1886.

LOOSE BODIES IN THE KNEE-JOINT.

By T. PRIDGIN TEALE, M.A., F.R.C.S.

IN fulfilment of my promise, I beg to record the following cases, which tend to corroborate the opinion of those who think that occasionally, as the result of injury, a piece of articular cartilage with a corresponding portion of bone may become detached, and give rise to the ordinary symptoms of loose cartilage. Further, such a loose body may be removed from the joint, with as complete a recovery as in the case of simple nodule, of cartilage. The first, the case read by my father before the Medico-Chirurgical Society (December 11th, 1885) has been most fully and adequately quoted by Mr. Howard Marsh, in the JOURNAL of April 4th. In this case a blow on the knee was followed in twelve months by sudden lameness and the discovery of a loose body in the joint. It was unfortunately proved *post mortem* that the loose body was a piece of articular cartilage and bone which accurately fitted a shallow cavity in the outer condyle of the femur.

The next case was under my own care at the Leeds Infirmary, and was as follows: J. J., aged 25, a mechanic, on December 4th,

exploring the joint with the finger, there was discovered on the posterior surface of the patella a shallow cavity which exactly corresponded in size and shape with the piece of cartilage and bone removed (Fig. 2).

The patient recovered well; sat up on January 11th, left the hospital on the 14th (the twenty-fifth day after the operation), and on March 12th came to the hospital. "There was no trace of a limp. He could flex the knee to a right angle, and was able to do heavy work with perfect ease."

The next case was under the care of my colleague Mr. Atkinson, with whose permission it is published. In this there is an absence of any evidence of preceding injury.

J. R., a patient in the Leeds Infirmary. On October 7th, 1886, Mr. Atkinson removed two loose cartilages from the left knee and one from the right. There was a history of frequent attacks of pain and swelling of both knee-joints extending over a period of seven years, but not of any severe injury.

January, 1887. He was again admitted into the Leeds Infirmary, as another cartilage had been discovered in the right knee. The cartilage was removed.

On January 31st the knee was excised, and the following condition was discovered (Fig. 3). A piece of articular cartilage about three-quarters of an inch square was partially detached

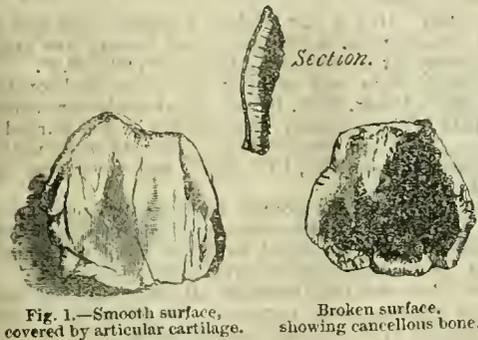


Fig. 1.—Smooth surface, covered by articular cartilage. Broken surface, showing cancellous bone.

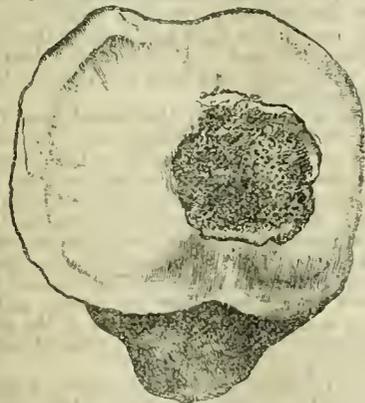


Fig. 2.—Posterior surface of patella, as judged by touch.

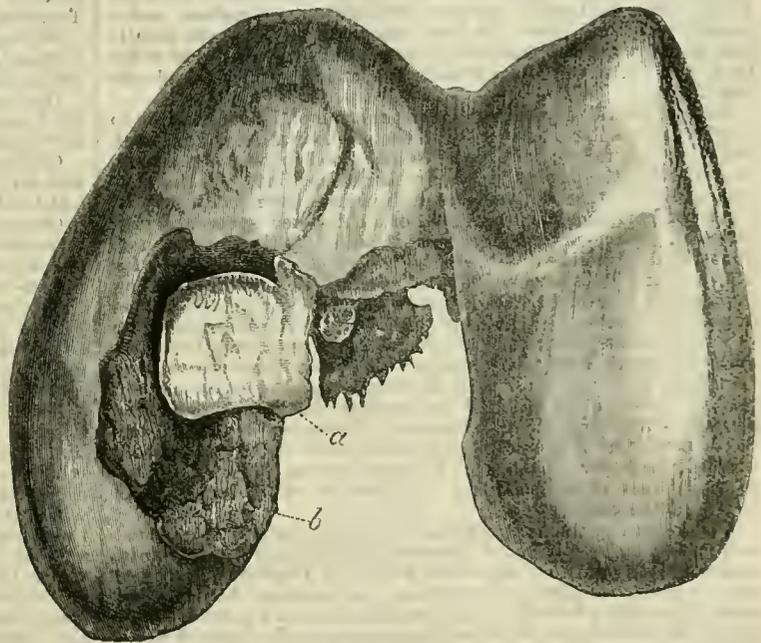


Fig. 3.—A, detached cartilage; B, surface of femur, showing bone, uncovered by cartilage.

1881, caught his foot in a rut, giving the knee a severe wrench, and fell on his hands and knees. By no questioning could any evidence be obtained tending to show that the fall was the result of some foreign body in the joint. With great difficulty, by hopping and leaning against the wall, he reached home. The joint was much swollen immediately, and excessively painful. The patient said that he felt something loose in the joint. Next day, December 5th, he was admitted into the Leeds Infirmary. The joint was swollen, painful, tender to the touch, and especially to pressure over the inner margin of the patella. The house-surgeon, Mr. Edward Ward, thinking that the case might be one of displaced semilunar cartilage, tried the usual manipulation of flexion and extension, with the effect of producing great pain and no amelioration.

December 14th. The dresser discovered a loose body in the joint.

December 21st. The joint was opened, and a loose body, consisting of cartilage and a thin layer of bone (Fig. 1) was removed. On

from the external side of the inner condyle, being attached chiefly at the upper part of its internal border, close to the inter-condyloid notch, by a portion of cartilage and synovial membrane forming a sort of hinge, which allowed the piece of cartilage to flap backwards and forwards. The patient recovered.

THE HOSPITALS ASSOCIATION.—The fourth annual general meeting of the Hospitals Association will be held at the Town Hall, Westminster, on Wednesday next, at 5 p.m., to receive the annual report of the council, etc. The chair will be taken by Dr. J. S. Bristowe, F.R.S., the President, who will deliver an address. Cards of admission can be obtained of the Secretary, Norfolk House, Norfolk Street, W.C.

A MESSAGE has been received from the Home Office, relieving Dr. Burke, who was to have been executed for the murder of his daughter, aged 9, by shooting her. He afterwards shot himself. The reprieve, it is stated, had been petitioned for chiefly by medical men.

THE INTERNAL SEMILUNAR CARTILAGE OF THE KNEE-JOINT SUTURED TO THE HEAD OF THE TIBIA.

By HERBERT WILLIAM ALLINGHAM, F.R.C.S.,

Surgeon to the Great Northern Hospital, and Demonstrator of Anatomy at St. George's Hospital.

It is to add to the literature of this subject, and to try to increase in number the performances of this useful operation, that I bring before you this evening the following case. After reading Mr. Annandale's very interesting paper on this subject, and observing that he had opened the knee-joint with success in eight cases for synovial growth and slipped semilunar cartilage, I determined to follow his advice, and see if I could not assist in bringing this troublesome condition within the province of surgery.

As I am connected with the Surgical Aid Society, I constantly have the opportunity of seeing patients, who inform me that they have been cripples for many years from this malady, and that they have spent the greater part of that period in hospital, undergoing the usual *régime* for slipped cartilage—that is to say, rest, blistering, firing, pressure, etc. When, as often happens, they have derived little or no benefit from these modes of treatment, they are finally committed to the charge of the instrument makers, and a variety of splints tried. In some cases, great good is the result; but, should these appliances fail, the patient is compelled to suffer for the rest of his life from a weak and, at times, painful and useless knee.

Now I should say that, if a careful attempt has been made to remedy the displacement by one of the methods above enumerated, and this has failed, I do not see any good in waiting longer, or subjecting the patient to any further discomfort. On the contrary, I believe that, with strict cleanliness and attention to details, a slipped cartilage may be fixed, or a thickened synovial fringe removed, with no more danger than is caused by the extraction of a loose body from the joint; in both sets of cases, the need for active treatment is at times equally urgent. But before resorting to operative treatment, one should distinguish between two classes of cases—namely, the acute and the chronic. The acute are those in which the displacement has taken place at once, and the coronary ligaments been torn through; cases of this nature may be treated by rest, pressure, etc., with recovery as a not uncommon result. On the other hand, if the cartilage has been loosened by gradual stretching of the coronary ligaments, by no means rare, consequent on much kneeling, little time should be lost in adopting palliative measures. The same recommendation applies to those cases in which acute displacement often recurs, thus tending to become chronic.

With regard to the directions in which the internal and external cartilages may be dislocated, it seems that they may slip forwards, backwards, inwards, or outwards, and that these displacements may be either complete or incomplete; the internal chiefly is the most commonly affected. I may mention that, in a very elaborate paper on this subject, Dr. Scott Lang says that the internal cartilage is dislocated when the leg is rotated outwards; and that, when the external cartilage is displaced, it is from rotation of the leg inwards. He further advises, as an assistance to the treatment of this injury, that, when the internal cartilage is affected, the patient should keep the toes directed inwards, and, in the case of the external cartilage, that they should be kept outwards.

The following is the case I intend to put before you to-night:

In September, 1887, J. W., earman, aged 33, came to me at the Surgical Aid Society, and said that I had seen him some months back when he had applied for a knee-cap. He had stated on that occasion that, about one year previously, when carrying a heavy load, something had slipped in his right knee, and that he had to rest the joint, which was very painful and swollen, for some time; after the first accident he was constantly being laid up with the disordered knee, but rest was of no avail. Each time he returned to his work the old symptoms recurred within the space of a few days. At that time, he said, I had ordered him a strong knee-cap, which, unfortunately, had been of little use.

I then went carefully into his history, and found that he detailed all the symptoms of a slipped semilunar cartilage. Accordingly, as he was a young man and healthy, and as he had asserted that, unless something was done, he would have to give up his work, I proposed that the cartilage should be fixed, and explained

to him all the risks of the operation; these he readily consented to run. I therefore sent him to the Great Northern Hospital, and on September 28th performed the following operation: The right knee was thoroughly washed and enveloped in wet antiseptic bandages for some hours. A vertical incision, two inches long was made over the internal aspect of the joint, the centre of the wound being over the internal cartilage. The joint being opened I introduced my finger with some difficulty, and felt that the internal cartilage could be freely moved about over the head of the tibia, both forwards and outwards. Fixing it with my finger, I then passed a strong needle mounted on a handle through the periosteum at the head of the tibia, and through the semilunar cartilage. The needle was threaded with stout catgut, which was drawn through the cartilage and periosteum, and then tied up tightly, so as to fix the cartilage. After this the joint was disinfected with carbolic lotion, and the cut edges of the synovial membrane carefully brought together with buried catgut sutures. Superficial silver sutures were passed through the skin, no drainage-tube being used.

The leg was then fixed upon a back-splint with a foot-piece which extended up the gluteal fold. Antiseptic dressings were applied, and the whole leg bandaged, so as to obtain firm equal pressure over the knee.

September 29th. Had a fair night. Vomited once, and complained of a little starting in the knee, so an ice-bag was applied. Temperature every six hours showed 97.6°, 98°, 99°, 99.6°.

September 30th. Pain had entirely gone. Ice still continued. Temperature 99.8°, 100.4°, 99.6°, 100.6°. His bowels were confined and he had pain in the abdomen; accordingly he was purged.

October 1st. Had a comfortable night. Bowels acted well, and the temperature fell from 101°, 100°, 98.4°, and never rose again above normal.

October 2nd. I dressed the wound; there was no pus, no effusion into the joint. Antiseptics were reapplied; ice discontinued and the leg not so firmly bandaged, as it was slightly œdematous.

October 3rd. Notes report patient very comfortable.

October 7th. Removed the dressings; all the wound was healed the superficial stitches were removed. No effusion. A pad of cotton-wool applied to the wound, antiseptics being left off.

October 19th. On the leg being removed from the splint, the patient could bend it nearly to a right angle under the thigh; but as it was still a little stiff, and as I did not wish him to use it until the adhesions were sound and firm, I did not let him stand upon the leg until November 1st.

November 26th. He returned from the Convalescent Home at Bognor, saying that his knee was perfectly well. I then advised him to walk about a little, but not to return to hard work for another month. He is now at work, and you will see that, since the operation, he has not been troubled with any discomfort in the joint, which is now perfect. With reference to the operation, I must say that I made a vertical incision instead of the transverse one recommended by Mr. Annandale. I did so, because at that time I was under the impression that he had employed this mode; but shall certainly at a future operation follow his advice, and make a transverse cut, for, by that means, a better view of the interior of the joint may be obtained. There are one or two details in the operation which I think most important.

I regarded the synovial cavity of the knee-joint as I do the peritoneum; that is to say, took great care that no blood should run into the joint, or at least should be cleaned out before being closed up. As we do when suturing the peritoneum, I was particularly careful to bring the two cut synovial edges together, in order that in a few hours the joint might be shut off by lymph thrown out between the edges from the rest of the wound. This point I consider to be of great moment, and must ask my hearers to try a similar plan in any case they may operate upon, for the synovial membrane is a serous sac, like the peritoneum; and therefore, to my mind, should be treated in a like manner. If this is done, I do not think there is much to fear from opening the knee-joint. There is another reason why I do not think there is so much danger, as is generally apprehended, in this operation of opening the knee-joint affected with a dislocated semilunar cartilage, or growths. When attacks of synovitis have frequently occurred, the synovial membrane is not nearly so likely to take on acute inflammation as it is when the serous sac is opened without any preliminary inflammatory attacks. Abdominal disorders furnish us with another parallel to these. This is shown in peritonitis, which, I think, is much more likely to ensue when one operates on a patient whose abdomen has not undergone the preparatory

changes which, I think, take place when the abdominal cavity has been filled with fluid or an ovarian tumour.

The result of my treatment in this case will encourage me to attempt, at some future date, a repetition of the operation. I may mention that I have under my care several patients who are troubled with symptoms of displaced cartilage or growth in the joint, which are constantly slipping or getting pinched between the ends of the bone, thus causing pain and crippling them. I intend, therefore, if I find no improvement after a fair trial, say six months, to open their joints, and remove a fringe or fix a cartilage; and, by so doing, I shall hope to rid them of pain, discomfort, and inability to use the limb.

P.S.—The patient wrote to me on April 16th, 1888 (seven months after the operation), saying he continued quite well.

AN UNUSUAL CASE OF HÆMATURIA.

By THOMAS OLIVER, M.D., M.R.C.P.,

Physician to the Royal Infirmary, and Lecturer on Physiology, University of Durham College of Medicine, Newcastle-upon-Tyne.

THE following case is so unique in my experience that I venture to place it before the profession.

On September 11th, 1887, I was asked to see, in consultation with Dr. Campbell, of Newcastle-upon-Tyne, Miss L. B., aged 11, a pale, emaciated young lady, who for a month had been suffering from hæmaturia, accompanied by high temperature. I was told that when an infant she had suffered from some illness, which had been followed by general desquamation, but whether it was scarlet fever the parents could not say. A few years after this she had measles, and soon after this whooping-cough. A year ago she had a slight attack of hæmaturia, the cause of which was never properly understood. Her recovery was slow, and although the temperature was not taken by the medical gentleman then in attendance, the mother states that the patient was decidedly feverish, particularly towards evening. Ultimately she made a good recovery.

Whilst spending last summer at Cullercoats along with her family, her brother took ill and was brought home only to develop and pass through a very severe attack of typhoid fever. When Dr. Campbell and I met in consultation the boy was convalescent; it was the thirty-second day of the fever. Five days after the illness of this brother was distinctly recognised as typhoid fever our patient had become feverish, and hæmaturia suddenly made its appearance. The temperature ranged from 101° to 103°. Hæmaturia had persisted without any intermission from the commencement of the feverish attack. At times the urine was deep black in colour; it was always plentiful, had a specific gravity about the normal, and was acid in reaction. It was passed without pain, never contained clot, never pus cells or tube casts, but numerous blood cells. A few days before I saw her, vomiting had set in, always coming on immediately after eating, and without pain. Bowels were natural; there was slight cough, no expectoration.

When I saw her she was very ill, much reduced from the fever and vomiting; her tongue was moist and creamy; she was sleepy and seemed heavy and apathetic; pulse from 120 to 124, and it had remained at this all through her illness. Small moist musical râles were heard all over the lower part of the chest; the base of the right lung was rather dull on percussion. The heart's sounds were healthy; liver dullness normal; splenic dullness slightly increased. There was no tumour or increased dullness detected over the region of either kidney, but a degree of pain was experienced when the right kidney was tilted forward. The abdomen was flat, no spots were seen in the skin, no fluid was detected in the peritoneal cavity, no œdema of face, feet, or hands existed. A record of the temperature was unfortunately not kept at first, but on the evening before I saw her it was 104°. From September 2nd to the 18th, the evening temperature generally registered 1° to 3° higher than the morning; the evening temperature being 103° or 104°, whilst the morning was 101° or 102°.

On September 19th the morning temperature suddenly fell from 103° to 99.2°, and whilst on this evening the temperature rose to 100.2°, it never again did so. The morning and evening temperatures were for the future pretty nearly equal, never being higher than 99°.

All sorts of medicines had been tried, iron, gallic acid, quinine, ergot, ergotin, in the view that the hæmaturia might be in some

way or other associated with a specific fever. Sulphur, carbonate of soda, and quinine were given, but all without avail.

After the sudden fall of the temperature on September 19th, blood never appeared in the urine, and the patient had a convalescence which was quite uninterrupted.

Now here was a case of hæmaturia which began with high temperature quite suddenly; both continued for thirty-five days, the high temperature and the hæmaturia each being quite uninfluenced by drugs; then a sudden fall of the temperature occurred, also a cessation of the hæmorrhage, both followed by cure. What was the hæmaturia symptomatic of? There was nothing to suggest stone in the kidney or in the bladder, no enlargement of the kidney pointing to cancer, no history of hæmophilia, no purpura hæmorrhagica, no Bright's disease. The diagnosis, in my opinion, lay between tubercular disease and some peculiar blood condition; and we eliminated the former partly by the good family history we obtained, and the absence of any diseased condition of the lung which we could definitely regard as tubercular; the few râles which we heard in the chest had not been of two days' duration. From the sudden onset of the illness and the high temperature, the continuation of the high temperature and hæmaturia as associated conditions of thirty-five days, the distinct evening exacerbations, their refusal to be influenced by medicines, the enlargement of the spleen, the contemporaneous illness of the brother, and that illness unmistakably typhoid fever, and the fact that brother and sister had been living under identical conditions at Cullercoats, the one taking ill five days before the other; all these led us to regard the hæmaturia as specific, or, in other words, that our patient was also suffering from typhoid fever. Am I right in even suggesting this? All our textbooks speak of the relationship. In scarlet fever we have an illustration of how a poison known to act principally upon the skin and the tonsils may yet attack the glands in the wall of the intestine and the kidney; for as early as the second or third day of the fever the kidney *post mortem* has been found to be the seat of an interstitial or a glomerulo-nephritis. Besides, in typhoid fever itself, is it not the case that while the glands in the lower part of the wall of the ileum are the seats usually selected by the poison, there yet occurs every now and then an inflammation of the lungs with all the physical signs of a pneumonia, a pneumonia difficult to explain as regards its causation and relationship to the typhoid fever, and yet at other times so acute and so severe as to mask the other signs of typhoid fever, of which it is after all but the local expression? I am inclined to think that in our case the kidneys had to bear the brunt of the poison, or as the result of the poisoned condition of the blood, the walls of the renal vessels allowed the blood to escape. If so, then I trust I have made good my claim to this case of hæmaturia being regarded as quite an unusual one.

WOLFFBERG'S COLOUR-TEST.

By SYDNEY H. A. STEPHENSON, M.B. EDIN.,

Clinical Assistant to the Royal Westminster Ophthalmic Hospital.

By the employment of this test Dr. Wolffberg (*Klin. Monatsbl.*, p. 359, 1886) claims to have discovered a simple method of telling in a given case whether defective vision is caused by refractive error or by defect of the light-sense. He employs two discs placed on a background of black velvet; the one is red, 2 millimètres in diameter (R^2), and the other blue, and 7 millimètres in diameter (B^7); if the vision is less than $\frac{1}{3}$ larger, red and blue discs are used. By comparing the distances at which these discs are recognised by the eye under examination, with the degree of visual defect, as ascertained by Snellen's types, Wolffberg believes that he is able to tell whether the defective vision is due to an error of refraction. An eye which reads $\frac{1}{3}$ should see the discs at 5.5 metres; if this be not the case, he concludes that it is suffering from some affection, other than a refractive error, which is likely to affect the light-sense.

If vision be impaired by simple ametropia, the discs should be seen with each degree of vision at a certain constant distance from the eye. Wolffberg believes that he has ascertained these distances by experiment, and he has constructed a table from which can be seen at a glance the distance at which the discs ought to be recognised with each degree of vision. If the defective vision be caused by defect of the light-sense—which is supposed to influence colour-vision more than form-sense—the distances at which the discs will be seen will correspond to constant distances,

shown in a second table, and ascertained by discovering at what distance emmetropic eyes were able to recognise the discs when the illumination was reduced by gradually diminishing the amount of solar light.

Dr. Boehm (*Klin. Monatsbl.*, November, 1887), from a large number of experiments made in Wolffberg's *clinique* and at his suggestion, believes that he has not only confirmed the above conclusions, but also that, by means of this test, he is able to detect the presence of astigmatism; since this impairs the form-sense in a much higher degree than does spherical ametropia, but has not a proportionate effect on the colour-sense.

An able and lucid review of Wolffberg's and Boehm's papers was published in the *London Medical Record* by Mr. W. Adams Frost (*London Medical Record*, Art. 7583, December 15th, 1887), at whose suggestion I made the experiments about to be described.

It is obvious that if Wolffberg's data were correct, we should have a valuable addition to our methods of diagnosis, but as my investigations on the subject do not confirm those data, I have thought it advisable to place them on record.

The observations were carried out on a fairly large number of intelligent children and adults, and the apparatus used was obtained from the source recommended by Dr. Wolffberg. The patients were first made to understand what was expected of them by being shown discs similar in every respect to those actually employed in the test, except that they were of different colours. The real test-discs were then placed at such a distance from the patient that they were invisible to him, and they were gradually approximated until they were recognised. Wolffberg adopts the opposite course, gradually increasing the distance until they become invisible. Although this difference in our respective methods of employing the test might explain trivial discrepancies, it would certainly not account for the totally different results obtained.

My experiments were limited to finding out the distances at which the discs were seen; (1) in eyes whose vision = $\frac{5}{6}$; (2) in spherical ametropia of known amount; (3) in spherical ametropia of artificial production. My original intention was to endeavour to verify all Wolffberg's conclusions, but when I found that the results obtained from the above three classes of cases did not coincide with his table, I thought it useless to proceed further, since the trustworthiness of Wolffberg's whole scheme depends on the integrity of his facts with regard to emmetropia and simple myopia and hypermetropia.

The conclusions which I have reached are as follows:

1. *As to the Distances at which the Discs could be seen by Eyes with V. = $\frac{5}{6}$.*—Many eyes were unable to recognise the coloured discs at 5.5 mètres. The majority of those examined could not distinguish the Bl⁷ disc beyond 5.0 mètres, and in some cases not beyond 3.0 mètres. According to Wolffberg the two coloured discs should be visible at the same distance from the eye, but in most of the cases examined the R² disc had to be held 0.5 to 1.5 mètres nearer the eye than had the Bl⁷ disc before it could be recognised. Many patients had great difficulty in saying the exact distance at which the discs could be seen. So far as I could see there appeared to be no definite constant distance at which different eyes whose V. was $\frac{5}{6}$ could recognise the discs.

2. *Myopia and Hypermetropia in which Corrected Vision = $\frac{5}{6}$.*—The distance at which, with each degree of vision-defect, the discs could be recognised did not correspond with Wolffberg's table. In different experiments persons who had the same degree of defective vision did not see the discs at the same distances; for example, A. (myope) had V. = $\frac{5}{6}$, and saw R² at 0.5 mètre, and Bl⁷ at 1.0 mètre; whilst B. (myope), who also had V. = $\frac{5}{6}$, saw R² at 1.25 mètres, and Bl⁷ at 1.75 mètres.

3. *Myopia and Hypermetropia produced by Convex and Concave Glasses.*—In this class of cases, also, the distances at which the discs were seen in the different degrees of visual defect did not agree with Wolffberg's table; often the results obtained from the two eyes of the same person with the same amount of defect in each gave different results; no two cases ever coincided exactly one with the other; and frequently a person when re-examined gave widely different answers from those obtained at the first examination.

In practically all cases it was found (a) that R² had to be held nearer to the eye than had Bl⁷ before it could be recognised; (b) that the worse the vision the nearer had both the coloured discs to be held to the eye, in order that they might be clearly seen; for example, V. $\frac{4}{5}$ sees R² at 3.5 and Bl⁷ at 5.0 mètres; V. $\frac{3}{4}$ sees R² at 2.5 and Bl⁷ at 4.0 mètres; V. $\frac{2}{3}$ sees R² at 1.0 and Bl⁷ at 2.0

mètres; V. $\frac{1}{2}$ sees R² at 0.75 and Bl⁷ at 2.5 mètres; V. $\frac{1}{3}$ sees R² at 0.5 and Bl⁷ at 1.75 mètres; V. $\frac{1}{4}$ sees R² at 0.33 and Bl⁷ at 1.0 mètre.

Although this test possesses some scientific interest, I fear that it is of no practical value as a help to differential diagnosis: and although there may be—and in all probability is—some ratio between form and colour-sense, I am driven to the conclusion that Wolffberg has not correctly ascertained it, and that his test is open to many sources of error from its purely subjective nature.

THERAPEUTIC MEMORANDA.

SALINE PURGATIVES IN THE TREATMENT OF TYPHLITIS AND PERITONITIS.

At a recent meeting of the Midland Medical Society I showed a patient who had recovered from an undoubted attack of acute peritonitis secondary to typhlitis. In this case opium and belladonna failed to give relief, while the administration of sulphate of magnesium and sulphate of sodium in half-drachm doses with ten minims of tincture of belladonna every four hours was quickly followed by improvement, the motions, at first liquid, becoming more and more solid till normal stools were passed. Two or three slight relapses in this case were at once checked by the mixture and the man rapidly recovered, there remaining a small induration in the right iliac fossa.

Since the above case was recorded, I have had under my care at the Workhouse Infirmary a severe case of typhlitis. I gave the same mixture as in the first case, with great relief; in fact, enemata of soap and water and of glycerine failed to evacuate. After continuing the medicine for a week the bowels failed to act, and in a few days the abdomen was distended, there being dulness in each flank, with a distinct thrill on percussion, all the signs, in fact, of fluid in the peritoneal cavity being present. The patient was very prostrate, having been allowed only a pint of peptonised milk and a pint of beef-tea a day. I gave him three ounces of whisky, and the next morning he passed an enormous liquid motion containing scybala. I continued the stimulant, and allowed him another pint of milk. He continued to pass large motions with scybala, the enlargement of the abdomen and other signs of fluid in the peritoneal cavity completely disappearing. Evidently the saline aperient had caused a large flow of fluid into the intestine, but the bowel was not sufficiently powerful to evacuate it; restoration of tone by stimulants at once enabled the bowel to empty itself. At this time another complication appeared in the form of a painful swelling of the left parotid gland, which, however, subsided without suppuration. Finally, the patient completely recovered, and was discharged six weeks from the time of his admission.

It seems to me that in typhlitis due to fecal retention, and in peritonitis from the same cause, saline purgatives are of great value, especially if enemata fail to act. In moderate doses they do not cause peristalsis, their action is quite painless, and they are exceedingly useful in washing away hardened scybala. During their administration the abdomen should be frequently examined, and any accumulation of fluid in the intestines treated by stimulants.

C. W. SUCKLING, M.D., M.R.C.P.

Birmingham.

JAMBUL IN DIABETES.

A WOMAN suffering from diabetes was admitted into the Newbury District Hospital on September 24th, and during the whole of her stay there she was dieted. For the first nine days she was given a tonic mixture of quinine and iron. The average daily amount of urine was 98 ounces, with an average specific gravity of 1041.5.

During the next ten days she was given half a grain of opium, at first three times, and afterwards four times, a day. The average daily amount of urine was 91.3 ounces, with an average specific gravity of 1040.

During the next eleven days she took jambul, at first two grains and a half, and afterwards five grains three times a day. The average daily amount of urine was 138.3 ounces, with an average specific gravity of 1041.5.

I tested the urine frequently, and always found that sugar was present. The jambul was given in parts containing two grains and a half each, obtained from Thomas Christy and Co. It is as

well to publish facts about new drugs, whether they be favourable or the reverse.
ROBERT BIRCH, L.R.C.P.Lond.
Newbury.

SULPHONAL.

AFTER seeing the articles upon the new hypnotic "sulphonal," on April 21st, I obtained a supply of the drug. I did not find that it was soluble in eighteen or twenty parts of boiling water. It required considerably more, and immediately on cooling it crystallised out; neither did I find it soluble in 100 parts of water at the ordinary temperature.

Its effect upon patients was very discouraging. For several hours after taking the drug no appreciable effect could be observed, but during the greater part of the following day there was extreme drowsiness, also considerable cyanosis. The price is 16s. per ounce.

The best mode of administering sulphonal is to mix with pulv. tragacanth co. and water.
Nettingham. T. ERNEST LOVEGROVE, M.R.C.S.

PHENACETINE.

As an antipyretic I have found this drug to act admirably in from four to twelve grain doses, having greater and more prolonged effect upon the temperature than antipyrin, and producing no rigors, vomiting, or nausea, but rather a sense of well-being, the patient frequently becoming cheerful and demanding food. I hear that it has been used with marked success in the treatment of neuralgia.

LEYLAND ROE, L.R.C.P., M.R.C.S., etc.

Wellington Road, Eccles.

PATHOLOGICAL MEMORANDA.

CLUB-FOOT AND OTHER CONGENITAL CONTRACTIONS.

Mrs. M. D., aged 33, was confined for the ninth time on April 12th, 1887. The confinement was normal, but the child (a male) had double talipes equino-varus. Shortly afterwards the mother requested the nurse to show her the child's feet, and, on observing the deformity, remarked "I thought so." She then confessed to having entertained an "impression" to the effect that the child's feet would be "turned," and the existence of this impression was corroborated by her husband. Two months thereafter I performed the usual tenotomy operations, and the subsequent treatment with splints and bandages was successfully carried out almost entirely by the mother. With this she was more or less employed until within a few weeks of her next confinement, which took place on April 3rd, 1888. On this occasion the presenting part was the breech, and the child (a small male) was dead when born. This child also had double talipes equino-varus, while both hands presented a somewhat crushed appearance, the fingers being flexed and closely applied to the palms. On attempting to open the hands, the little, ring, and middle fingers were found to be firmly held in this position, and could not be extended by a force short of violence, while the thumbs and index fingers were unaffected. Moreover, both knees were drawn up, the thighs forming with the abdomen about a right angle, and any endeavour to straighten the legs by pushing down the knees succeeded only at the expense of raising the chest from the horizontal, doubtless due to contracted psoas and iliacus muscles pulling on the spine.

As to the cause of these deformities I can find in the family history no evidence of heredity.

I have mentioned the employment of the mother during her last pregnancy as being, in relation to the causation of the second case, possibly something more than a concurrent association.

The complete symmetry of these contractions suggests a central cause, and seems in opposition to the theory of their being modifications of intra-uterine attitudes from mechanical causes. Be the explanation what it may, the cases I presume, from their infrequency, are not without interest.

Glasgow. J. A. WILSON, M.B., C.M.Glasg.

At a public meeting held at Perth on May 18th, it was decided to form in that town a centre of the St. Andrews Ambulance Association, and a committee was appointed with that object. The opportunity was taken to present Dr. Simpson with a large and handsome silver salver, bearing a suitable inscription, in recognition of his valuable services to ambulance work in Perth. Dr. Ward, who had assisted Dr. Simpson in connection with the lectures, was presented with a silver-mounted walking-stick.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE.

THREE CASES OF STONE IN THE BLADDER SUCCESSFULLY TREATED BY SUPRAPUBIC LITHOTOMY.

(By Mr. FREDERICK PAGE.)

CASE I.—Seven years ago a Durham pitman, aged 25, took from the bed of the river Wear a pebble which he introduced into his urethra, and manipulated into his bladder. He seems to have felt but little inconvenience till four months ago, when urgent symptoms of stone in the bladder reminded him of his folly. On admission, January 30th, 1888, he was suffering a good deal physically and mentally. On February 7th suprapubic lithotomy was performed, and a round phosphatic stone the size of a thrush's egg removed. Peterson's bag was used, the bladder being distended with warm boracic lotion. The wound was closed with a continuous catgut suture, a drainage-tube being introduced at its lowest part between the separated muscles, but not into the bladder. The bladder was not sutured. A soft catheter was retained in the bladder for four days; it was then removed, and passed at intervals for three other days. On the twelfth day the patient passed by the urethra ten ounces of urine, none having escaped from the wound since the seventh day, showing that the bladder wound had healed in a week; but very little urine escaped from the wound at any time, showing that the bladder was effectually drained by the catheter. The nucleus of the calculus was found to be a piece of rough stone, about the size of a horse bean, and so hard that a section of it could not be made with a saw. The man suffered hardly any inconvenience from the operation, and the whole of the wound, with the exception of tract of the drainage-tube (which closed on the sixteenth day) healed by first intention.

CASE II.—A boy, aged 6 years, admitted February 25th, 1888, with symptoms of stone in the bladder of two years' duration. On February 28th a uric acid stone, coated with phosphates, the size of a large cobnut, was removed by suprapubic lithotomy. The wound was closed with a catgut suture, a small drainage-tube being introduced at its lower angle down to but not into the bladder. A soft rubber catheter was secured in the bladder. No urine escaped from the wound till the fourth day, when the catheter becoming blocked for a short time, some found its way through the drainage-tube. On the seventh day the catheter was removed in consequence of its causing pain. Urine then escaped from the wound for one day. On the eighth day after operation the child passed water naturally, no urine escaping from the wound again. The tract of the drainage-tube closed on the tenth day, the rest of the wound having healed by first intention.

CASE III.—A. B., a Northumberland pitman, aged 23, admitted February 27th, 1888, with symptoms of stone of two years' duration. Suprapubic lithotomy, as in Case I, was performed on February 29th, when an oxalate of lime calculus, the size, shape, and colour of a large Spanish chestnut, was removed. The soft rubber catheter was withdrawn on the sixth day. Some, but very little, urine escaped through the drainage-tube daily till the ninth day, when the patient passed naturally at one time nine ounces of water, after which none escaped from the wound. The tract of the drainage-tube closed on the thirteenth day, the rest of the wound having healed by first intention.

REMARKS.—It must I think be admitted that in cutting into the bladder above the pubes fewer important structures are liable to be wounded than in lateral lithotomy. It cannot be denied that the suprapubic incision is more direct and less extensive than the lateral. There are certainly reasons for preferring the high operation. The three cases reported above could not have done better had they been treated by lateral lithotomy, and it seems to me if suprapubic should be found, as time goes on, to be as successful as lateral lithotomy, the question as to which operation is the better must be answered in favour of the obviously more direct and simpler method. The points to be attended to in the after-treatment of a case of suprapubic lithotomy are I think to keep the bladder empty, and to provide for the direct escape of urine from the wound till the cut in the bladder is

healed and the cicatrix strong enough to resist the presence of urine in the partially distended bladder. If these principles can be readily carried out, and they are possible, I should expect to find suprapubic supplanting lateral lithotomy.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 22ND, 1888.

Sir E. H. STEVERING, M.D., President, in the Chair.

On the Value of the Tubercle Bacillus in Clinical Diagnosis.—Dr. PERCY KIDD and Mr. H. H. TAYLOR presented a communication, the object of which was to emphasise and illustrate the value of the sputum test when systematically applied to all cases of disease of the respiratory organs of doubtful nature. The paper dealt only with cases in which other recognised methods of clinical investigation failed to indicate a definite diagnosis. In the great majority of the cases described, numbering over ninety, positive results were obtained, only a few negative cases having been included where the value of the evidence was tested by *post-mortem* examination. The detection of the tubercle bacilli in such cases was often extremely difficult, and repeated examination might be necessary where the number of the bacilli was very small. The time required for such investigations was, however, well repaid when, as often happened, a positive diagnosis could be arrived at without delay, and without waiting for the progress of the case to decide the point. Success depended largely on the following points: judicious selection of the sample of sputum; method of preparation and staining; careful examination with suitable appliances. The cases described fell into five main groups: 1. No physical signs of disease of the respiratory organs. 2. Laryngeal disease of uncertain nature, without definite pulmonary signs. 3. Signs of bronchitis, with or without emphysema. 4. Signs of pleurisy. 5. Signs of doubtful import—(a) anomalous physical signs, (b) slight signs at the apex, (c) signs confined to or most marked at the base. The tubercle bacillus had been found to be of little use for purposes of prognosis.—Dr. C. T. WILLIAMS congratulated the authors on what he considered an important and practical paper. He was quite ready himself to confirm nearly every point. Some of the divisions of the cases brought forward by the authors were almost verbatim reproductions of part of a book on Pulmonary Consumption he had recently published. Great care had been spent by the authors on the subject at Brompton Hospital, and he was pleased to hear their results; but he thought it would be a pity if attention to the bacteriological part of the subject interfered in the least with the careful examination of all previously available physical signs. He had had visits from some Germans who had had bacilli found in their sputa by a pharmaceutical chemist, and whom the chemist had proposed to treat; that was a result not to be approved. In diagnosis of laryngeal disease he thought examination of sputa for bacilli of great value, and perhaps of even greater value in cases of bronchitis and emphysema where the tubercle was masked by the other diseases. In two small groups of cases beyond those the author had mentioned he thought the examination very useful, namely, in cases of pyrexia and wasting without any physical signs of disease of the lung. In some of these he had found the bacillus before the physical signs; and again in some senile cases where bronchial catarrh masked tubercular disease. In cases of physical signs at the bases only it often happened that the original attack had been at the apex, where it had become quiescent and recrudesced at the base. He did not agree with the conclusions of Dr. Kidd and Mr. Taylor that the bacillus was of little use in prognosis. That the results were disappointing he would allow; but the bacillus was sometimes important in cases of arrested phthisis in whom the process might come on again; it might be of special importance in giving or refusing medical consent to marriage.—Dr. G. HERON agreed to the importance of the presence of the bacillus in settling a tubercular diagnosis in some cases of laryngeal disease, and some of bronchitis and emphysema. In work at the Victoria Park Hospital for some six years, he had paid some attention to the inferences in prognosis to be drawn from frequent examination, and he thought they were of great importance. If he found a case in which the number of the bacilli remained small during several weeks of examination, he thought the prognosis much better than of one in which the

number remained steadily large, and this though he might never have seen the patient.—Dr. DOUGLAS POWELL valued Dr. Kidd's and Mr. Taylor's paper very highly, as it was time now to come to some conclusions on these matters. He agreed with them that the bacillus was valuable in diagnosis, and not of much use in prognosis. For prognosis in a distant patient, such as Dr. Heron had suggested, he would as soon take a report of his weight, or of his physical signs, or even a photograph. In laryngeal cases he agreed it was valuable for diagnosis, and might show phthisis when an aneurysm masked the physical signs. In cases which had been continuously and carefully watched he had sometimes known physical signs come before bacilli.—Dr. J. K. FOWLER wished to bear testimony to the examination for bacilli in cases of spare men with some bronchitis and emphysema. They were not infrequently cases of arrested phthisis. Recently, in a life-insurance case of considerable importance of this class, he had been very much indebted to the examination of the sputa by Mr. Taylor, as showing a concomitant and probably antecedent tuberculosis.—Dr. PERCY KIDD, referring to some remarks of Dr. Williams as to the similarity of some parts of their divisions of the subject and passages of his book, remarked that their list was drawn up some time before his book was published, and he could only be glad that they had arrived independently at such similar results. The cases of senile phthisis he had mentioned would probably have come under their heading of bronchitis and emphysema. Dr. Williams had asked after the *post-mortem* state of the apices of the lungs in a case he had described as basic, and he could say from personal examination that it was one of those rare cases in which the apices were completely non-tuberculous. The point they had wished to make with regard to prognosis had perhaps been a little misunderstood. They had so often found cases in which the disease was in very rapid progress, with a constantly very scanty supply of bacilli, and a chronic stationary case in which the bacilli were very abundant, that they considered the abundance of the bacilli to add little to their other means of prognosis. If there were no other means of prognosis, the rule of many bacilli indicating acute and active disease, though it had a great many exceptions, might be of some considerable service; but what they had meant was that, in the present state of knowledge, very nearly as good a prognosis could be made without an examination of the bacilli as with it.

The Removal of Bony Growths from the External Auditory Canal.—Sir W. B. DALBY read this paper, which dealt only with those tumours of ivory hardness whose point of origin is the osseous portion of the external auditory canal. The method of removing them, which the author introduced in 1874, consisted in grinding and cutting them away with an ordinary dentist's drill. He now employed an electric drilling machine which admitted of 5,000 turns per minute, but the rate of the revolution could be controlled. The extraordinary facility with which bone could thus be cut was shown. The method of operating was described in detail: the drills, burrs, and small trephines were shown.—Sir WILLIAM DALBY, rising at the request of the President, explained some of the specimens and instruments. In some of these cases of exceedingly hard, bony tumours, in the external auditory meatus, it was found sufficient to bore a hole through their base, for that damaged their nutrition, and led to their death and removal by easier means; but the boring of this first hole was no easy matter in a narrow canal where reflected electric light and absolute stillness for the operation were requisite, and burrs made of the best steel in the world were sometimes destroyed to the number of twenty or thirty before any serious impression was made, when they were revolving at a rate of 3,000 times a minute. However, thanks to the admirable ingenuity of Mr. Augustus Winterbottom, they now had the most perfect instruments, and could cut these bony growths as they liked, a very great contrast to much rough-and-tumble sawing and gouging he had seen in surgery. He could not help thinking that when the surgical world realised fully what could be done with the rapid and delicate cutting of bone, they would make more use of it.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT.
THURSDAY, MAY 10TH, 1888.

T. A. RICHARDSON, M.R.C.S., of Croydon, in the Chair.

Febrile States and Antipyretics.—Dr. GOODHART read a paper on certain innominate febrile states and the use of antipyretics. He showed that there was too great a tendency to assign all febrile states to a definite class and to treat them accordingly. Some

cases were improved by allowing a less restricted diet than was required in enteric fever, for example. He described several cases of continued fever (illustrated by charts of temperature, etc.) which were not capable of diagnosis; cases where the diagnosis was not clear as to tubercle or typhoid; cases of "fæcal fever" with coated tongue and offensive breath; cases of severe anæmia with pyrexia, which in his experience often terminated fatally; purpura, with pyrexia and varicella gangrænosa. There appeared to be two classes of cases: 1, where the pyrexia was hurtful; 2, where it was not so distinctly injurious. Many indications pointed to there being a nerve centre for controlling heat-production, and probably in the latter class of cases the fever might be due to some disordered action of this centre, and antipyretics might be useful. That they reduced the fever was certain. On the whole, Dr. Goodhart preferred antifebrin as having least disadvantages, but thought that in the first class of cases, where there was a distinct morbid agent, antipyretics were of little use and might be injurious unless used with great discretion. In the less serious cases, where they appeared to act beneficially, the improvement was frequently not the result of the medicine.—A discussion followed, in which Drs. DUNCAN, PARSONS SMITH, COLES, Mr. RICHARDSON, and Mr. WRAY took part.

Electrolysis in Urethral Stricture.—Mr. BRUCE CLARKE described the treatment of stricture of the urethra by electrolysis, showing a battery with galvanometer and the necessary bougies, solid and hollow. A pad placed over the sacrum was attached to the positive pole of the battery, the urethral bougie being attached to the negative pole. About 5 milliamperes was the average current. Having examined the urethra thoroughly with a urethrometer, pass a bougie slightly larger than the stricture, note the time, and allow the current to pass; press very gently against the stricture, and in 5 to 10 or 30 minutes the bougie would probably pass through. After ten days a larger bougie might be used. There was some smarting, and perhaps slight discharge for a day or two.—Mr. GOLDING-BIRD thought that the class of cases likely to be permanently cured by electrolysis would also be curable by simple dilatation.—Mr. BRUCE CLARKE pointed out the safety of the method by electrolysis; he had had no ill effects from it.

Local Treatment of Eczema.—Dr. PHILPOT read a paper on the local treatment of eczema. After insisting on the necessity of getting at the cause of the disease in each case, and treating it, he maintained that locally the guide for treatment was similar to what obtained in other inflammations, acute or chronic, namely, in acute cases rest, cleanliness, antiseptics; removal of all sources of irritation and disturbance; in chronic cases exercise and stimulation. Acting on these principles he described the various soothing applications for acute cases, showing specimens of Dr. Unna's preparations for eczema, which combined the principle of giving rest by support and applying antiseptic remedies. For chronic cases with thickened epidermis, salicylic acid was a valuable application.

THE CLINICAL SOCIETY OF MANCHESTER.

TUESDAY, MARCH 20TH, 1888.

S. WOODCOCK, M.D., President, in the Chair.

Laryngeal Growths.—Dr. SIMPSON showed two patients with laryngeal growths. One, a young woman in good health, had a papillomatous growth rising from the anterior third of the left vocal cord, and another attached below the cord. He had removed them with forceps several times almost, if not quite, completely; but the tendency to return was very troublesome, notwithstanding the subsequent application of strong astringents and chromic acid. The growth after removal was now, however, much less rapid than it was before. The other case was that of a young man in good general health, a carter, and therefore a good deal exposed to the weather. He attributed his throat affection to repeated colds. Springing from the false cords were two fleshy-looking lobes or thickish flaps projecting inwards, meeting and overlapping each other in the middle line. A smaller similar growth projected forwards from the mucous membrane of the right arytenoid, at its inner edge. During inspiration these flaps were drawn downwards over the glottis, seriously obstructing inspiration. In forced expiration they were driven upwards, and might be seen to vibrate rapidly. The voice was rather rough but strong. The true cords were concealed by the growths. No operative procedure had taken place, but their removal would be attempted with the cutting forceps or laryngeal guillotine, probably the latter.

Spasmus Nutans.—Dr. OWEN showed an example of this affection in a child aged nine months. When seven months old her head was noticed to move in an unusual manner. There were slight lateral movements, the face being turned from side to side, with occasional nutation. There was slight nystagmus. The child had cut two teeth during the past six weeks, and the gums over the upper central incisors were swollen.

Paramyoclonus Multiplex.—Dr. OWEN showed a case of symmetrical spasm of certain muscles of the trunk and face. The patient, a girl aged 13, first came under notice in 1883, with the following history and symptoms. There was no history of rheumatism. She was said to have had scarlatina ten years before, since which she had always had twitching movements, principally of the shoulders, but also of the face. During the past two years she had had spasmodic movements affecting the upper part of the abdominal muscles. The diaphragm was distinctly involved; also the recti abdominis, sterno-thyroid, and erector spinae muscles. The twitching of the shoulders and of the face was said by the mother to alternate with spasm of the trunk muscles. There was partial control over the spasm of the abdominal muscles. The spasm of the muscles was in appearance exactly such as occurred from electric shock. There was no cardiac murmur, but the diaphragmatic spasm caused a respiratory puff, which, when heard at the cardiac apex, exactly simulated a mitral murmur. She had been treated with large doses of arsenic, and with electricity. The affection had now (1888) existed fifteen years. The girl still showed the spasmodic affection of the abdominal muscles, but in a much less marked degree.

Formation of Medio-Tarsal Joint.—Mr. STANMORE BISHOP explained, with the aid of diagrams and preparations, a view of the formation of the medio-tarsal joint. He showed by extracts from various authors that the prevailing view of this joint amongst orthopædists was that of a transverse articulation passing straight across the foot at the level of the astragalo-scapoid junction, and including the calcaneo-cuboid joint. The view he upheld was the more strictly anatomical one of a ball and socket, the ball being the head of the astragalus, the socket being formed by the scaphoid, os calcis, and the ligaments connecting them, the calcaneo-cuboid joint being entirely excluded. He suggested the following arguments as bearing out this idea: (a) The conformation of the bones themselves. (b) The mode in which the various bones were united by ligaments. (c) The method of insertion of muscles into the various bones of the foot, and the especial absence of any muscular attachment to the astragalus. (d) The movements of the various segments of the foot upon one another. (e) The position of the various bones in certain deformities. If this should prove to be correct, a distinct modification of the shoes at present in use would become necessary.

REVIEWS AND NOTICES.

ON THE PRACTICAL VALUE OF WOLFFBERG'S APPARATUS FOR THE QUANTITATIVE ESTIMATION OF THE COLOUR-SENSE. By B. HERZOG. Inaug. Diss. Königsberg, 1887.

AFTER reading this pamphlet, it is impossible not to agree with the conclusion of the writer, that Wolffberg's test as a means of differential diagnosis is practically useless. Wolffberg believes that when vision is impaired solely in consequence of an error in refraction the colour-sense fails in a definite proportion, so that for each degree of visual acuity there is a corresponding colour defect; when the vision is impaired from other causes, such as opacity of the media or affections of the optic nerve, the colour-sense is impaired more than the visual acuity. The colour-sense was estimated by the distance at which certain coloured discs were visible, and the visual acuity in the ordinary way. Tables were given showing the distances at which the discs should be visible for each degree of vision in both conditions. If these data were correct, it is evident that the test would enable one to say at once whether the defect in vision was due solely to an error of refraction or not. These results of Wolffberg have attracted some attention, since Boehm has published extensive statistics compiled from examinations made in Dr. Wolffberg's clinic, which appear not only to corroborate his conclusions, but to give even more definite results.

HERZOG points out that the mode of examination is one which is open to many sources of error. In the first place, he asks, are

we to require the discs to be merely seen as objects, or is their colour to be recognised? Then it is obvious that if, as Wolffberg recommends, the discs are gradually withdrawn till they become invisible, memory and imagination render it extremely difficult to fix the exact moment of disappearance; and this difficulty is by no means entirely removed when the test is reversed. He, moreover, found that many normal emmetropic eyes could not recognise the discs at the prescribed distances, and that some eyes which were not normal, and had sub-normal vision, could recognise them at the distance proper to a normal eye. Although in most cases of astigmatism the form-sense was impaired to a greater extent than the colour-sense, this was not sufficiently constant to render it available for differential diagnosis.

Dr. Herzog's pamphlet is written with every appearance of strict impartiality, his facts are clearly stated, and have evidently been collected with great care, and it is impossible not to feel that he has good ground for the conclusion that "Wolffberg's test method does not render superfluous a single test previously in use."

THE PASSAGE OF AIR AND FÆCES FROM THE URETHRA. By HARRISON CRIPPS, F.R.C.S., Assistant Surgeon to St. Bartholomew's Hospital, etc. London: J. and A. Churchill.

THE author has had under his own observation three patients suffering from that most miserable complication which forms the title of this monograph. In two of these cases the primary disease was cancer, in the third the cause of the passage of air and fæces was obscure, and some slow growing tumour might have existed in the neighbourhood of the parts concerned. A tumour was detected in the right breast.

Mr. CRIPPS has avoided an error common amongst men who rely too much on large personal experience. Relatively speaking, three cases of the rare condition in question represent a large experience. He admits that his cases naturally lead him to believe that communications between the intestine and the bladder are generally the result of malignant disease. But he demonstrates that the result of further research, extended to the records of other surgeons, shows that entero-vesical fistulæ are more commonly established by inflammatory processes.

Mr. Cripps has collected 63 cases, and when the series are subdivided according to the ascertained causes of the abnormal communication between the bladder and intestine, the following statistical information is obtained. Cases where the cause was inflammatory, 45; cancerous, 9; traumatic, 2. There remain 7 cases where the cause was unascertained. The author's subdivision of the "inflammatory" group is of high interest to the surgeon. Excluding 16 from the entire 45, abscess accounts absolutely for 15, stricture for 8, ulcer (intestinal rather than vesical) 4, stone 2. The 63 cases are also grouped thus, according to the seat of the fistula on its intestinal aspect, deducting 6 "unascertained." The fistula was found in the rectum in 25; colon, 15; small intestine, 12; colon and small intestine, 5. The passage of air and fæces into the bladder is dangerous as well as distressing alike in the inflammatory, the cancerous, and the other cases. Putrid urine sometimes finds its way into the bowel (though this accident is not the rule), and other obviously unfavourable conditions break down the patient's health. Hence 22 out of 30 "inflammatory" cases in which a clear life-history was given, and where no surgical interference was deemed advisable or found practicable, ended fatally.

Mr. Cripps is not in favour of exploratory abdominal section, for, after examining museum specimens, he has come to the conclusion that adherent intestine could not be safely detached from the bladder. He strongly advocates colotomy, and maintains that the descending colon should be chosen, after a very close examination of the parts combined with careful consideration of the symptoms, for should the communication involve the cæcum or small intestine, the operation would be worse than useless.

The author's analysis of the entire series is most instructive, and the collected cases, as originally reported, form a valuable appendix. Mr. Cripps appears to have established two facts. First, entero-vesical fistula is generally of inflammatory origin. Secondly, the primary disease is more frequently situated in the bowel than in the bladder.

THE Clothworkers' Company have sent a donation of £25 to aid in maintaining and extending the work of the Parkes Museum in practically teaching the laws of health.

NOTES ON BOOKS.

The Practice of Medicine and Surgery applied to the Diseases and Accidents incident to Women. By W. H. BYFORD, A.M., M.D. Professor of Gynecology in Rush Medical College, etc., and HENRY T. BYFORD, M.D. Surgeon to the Woman's Hospital of Chicago, etc. Fourth Edition. Revised, rewritten, and very much enlarged. With 306 illustrations. (London: J. and A. Churchill, 1888.) Dr. Byford's new edition contains some good chapters on the anatomy and physiology of the female organs, examination of the pelvis, tubal disease, and other subjects to which great attention has lately been directed by practical and scientific authorities. The authors (for Dr. Byford informs the readers that Dr. Henry Byford must practically be considered an author in this edition) treat the subject of tubal inflammatory diseases in a very temperate and satisfactory manner, and strongly condemn indiscriminate operating. Some rare but important tubal diseases, recently described by operators and pathologists, pass entirely unnoticed. Especially commendable are the passages on Apostoli's electrolysis. In noting the alleged electrolytic action of the current, the authors observe: "Just how this can occur to any considerable depth in living tissue without destroying its life along the course of the current, any more than the stomach can digest itself, would however seem incomprehensible." They warn the readers that "the dangers of this treatment are great, unless the operator is thoroughly competent and extremely careful. However," they continue, "a minute study of the technique as taught by Apostoli, renders his method a perfectly safe one to employ." But the puncture of the tumour from the abdomen must always be attended by some danger, and also requires the use of an anæsthetic." Thus do the Drs. Byford impartially treat one of the most important undecided questions of contemporaneous gynecology.

North London or University College Hospital. Report of the Surgical Registrar for 1886. (London: printed by J. Truscott and Son, 1887.)—Though dated December, 1887, the report of the Surgical Registrar for 1886 does not reach one's hands until the second quarter of 1888. The delay is doubtless inevitable, as the voluminous mass of observations and statistics contained in the volume has to be compiled by an officer otherwise very much occupied by the daily routine of the wards. We have in previous years described the excellent arrangements of these reports, and Mr. Bilton Pollard and his assistants have fully maintained the high standard of excellence reached by previous issues.

Mechanics and Experimental Science, as required for the Matriculation Examination of the University of London. By EDWARD AVELING, D.Sc. (Chapman and Hall.)—Mechanics and experimental science now replace the natural philosophy and chemistry heretofore required as the "science" subject of the matriculation examination of the London University. This is a carefully arranged textbook by an experienced hand, planned to meet the requirements of the new examinations. Indented side-headings give the key to each paragraph, and enable the student reading to classify and test his knowledge as he goes on; or, when reverting to his earlier reading, examples and problems are furnished for solution, and a good set of examination papers (taken from those actually set) is supplied at the end of the book. It is a thoroughly practical textbook for students "working up" for examination.

Galloway's Fundamental Principles of Chemistry. (London: Longmans.)—This book aims—and very successfully, as we think—at teaching the fundamental principles of chemistry by a new method. The language of the science and the method of expressing chemical changes are taught by a series of progressive exercises, so that one early learns to attach due meaning to the materials and processes with which chemistry deals. The principles both of chemical physics and pure chemistry are taught by examination questions and exercises, which are well selected, and are chosen largely from the papers of the London University and other examinations. The book is very complete, very interesting and very practical. It appears to us to be based on a very sound view of the way in which students are most likely to acquire knowledge clearly and soundly, and it will, we think, be popular and successful as a textbook.

GENERAL COUNCIL

OF

MEDICAL EDUCATION AND REGISTRATION.

SESSION 1888.

Tuesday, May 22nd.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

New Members.—The following gentlemen were announced to have been appointed members of the General Medical Council: Dr. George Yeoman Heath, as representative of the University of Durham for five years from December 13th, 1887; and Dr. Hector Clare Cameron, as representative of the Faculty of Physicians and Surgeons of Glasgow for five years from April 2nd, 1888.

President's Address.—The PRESIDENT pointed out that the vacancy left by the expiration of Dr. Matthews Duncan's tenure of office as a Crown nominee had not been filled. He announced that two trustees had been appointed, of which he (the President) was one. He mentioned that the Executive Committee had sanctioned the registration of 202 additional foreign medical qualifications, and that two notifications had been received from the Privy Council relating to a separate Colonial Register for New Zealand and Ceylon. In reference to the "recent adoption of very harsh proceedings" in Switzerland against certain medical practitioners duly qualified to practise in this country, but residing in the Swiss Republic in order to attend to the wants of their own countrymen, the President assured the Council that the interests of the profession were thoroughly comprehended and would be carefully guarded by the Privy Council under the existing law. He observed that the formation of either a colonial or a foreign Register was not yet within measurable distance. Four cases of misemployment of unqualified assistants and four of "covering" had been submitted to him by the Registrar, in only one of which did the evidence appear to justify an inquiry. He pointed out that a misapprehension existed as to the rôle of the Council, which was purely judicial, all evidence in support having to be brought to it from without. He then alluded briefly to the programme of business before the Council, involving the reception of reports from various committees. These reports, however, were at present confidential, pending communication with the several inspectors as to certain modifications, previously to their being transmitted to the respective bodies concerned. He suggested, therefore, that the reports in question should be referred to a small subcommittee for that purpose. It appeared that in no report yet received was "the standard of proficiency required from candidates" called in question. In conclusion the President announced that then and on future occasions, committees, with the exception of the Business Committee, would be re-elected at the close instead of at the beginning of the session. He looked forward to a brief but interesting and fruitful session.

On the motion of Mr. WHEELHOUSE, seconded by Sir JOHN SIMON, a vote of thanks to the President for his address was agreed to, and the address was ordered to be entered on the minutes.

Dr. GLOVER, while expressing his regret that the reports were not to be laid before them at present, admitted that it would scarcely have been possible. Alluding to the President's statement that the reports were not to be presented to them in their original shape, he deprecated any modifications in view of the reports of previous visitations, on the ground that they would be more interesting as they stood.

Dr. QUAIN having pointed out that the President's address was not open to discussion, the matter was allowed to drop.

Portrait of Mr. Joseph Henry Green.—The PRESIDENT read a letter from Sir Henry Acland, in which he begged the Council to accept the donation of the portrait of the second President of the Council, Mr. Joseph Henry Green, as a companion to the portrait of Sir Benjamin Brodie, the first President.

Dr. QUAIN proposed that the letter be entered on the minutes.

Sir JOHN SIMON, in a few graceful and eloquent words, expressed the pleasure he felt at the sight of the portrait of his illustrious master in former years. He claimed for Mr. Green the initiative of the great principles of medical reform, especially as concerned the question of preliminary education.

Business Committee.—Mr. WHEELHOUSE (Chairman), and Drs.

STRUTHERS and AQUILLA SMITH were appointed members of the Business Committee.

Reception of Tables of Results.—Dr. STRUTHERS moved that the following tables be received and entered in the minutes; Professor HUMPHRY seconding: 1, showing results of professional medical examinations during 1887; 2, showing results of preliminary examinations during 1887; 3, showing exceptional cases in regard to length of courses of study during 1887; 4, showing results of professional dental examinations during 1887; 5, showing results of competition for commissions in the department of the royal navy; 6, showing results of examinations by the College of Preceptors.

Dr. AQUILLA SMITH called attention to certain discrepancies on the part of the tables referring to the M.D., and in view of the fact that information as to the preliminary examination was refused by several bodies, he moved that the report be referred to the Educational Committee.

Sir DYCE DUCKWORTH called attention to the fact that in the examinations for the M.D. of the University of St. Andrews, there appeared to have been no rejections.

Mr. PETTIGREW explained that in reality three out of twelve candidates among the older men had been rejected, and there had been two rejections among the younger candidates.

The REGISTRAR observed that the tables had been drawn up in accordance with the latest information received from the respective bodies, but that in consequence of the large number of applications necessary to obtain such information, the printing had been done under circumstances of great difficulty.

Mr. MACNAMARA asked the President whether the Council was entitled to demand certain information from the various educational bodies, and whether such replies as "impracticable," "cannot be given," etc., were considered satisfactory. He urged that unless the Council were in a position to require such information to be given, it was *infra dig.* to ask for it. He suggested that a remonstrance should be addressed to the bodies who had failed to comply with the request of the Council for information.

In reply to Dr. HERON WATSON, the REGISTRAR explained that no returns had been received from the Army Medical Department.

Dr. GLOVER asked for information as to the examinations of the University of Durham for practitioners of over fifteen years' standing. He said that there were no examinations of greater interest to the profession generally.

Sir WALTER FOSTER objected to the entry upon the minutes of reports which had been shown to be full of inaccuracies.

The REGISTRAR explained that by so doing the necessary corrections were obtained from the various bodies, and were then inserted in the revised minutes.

The PRESIDENT, in reply to Mr. MACNAMARA, said that the Council had no power to require the information in question to be given.

It was then resolved that the foregoing tables, subject to corrections, be received and entered on the minutes.

Report of the Pharmacopœia Committee.—Dr. QUAIN, in moving the adoption of the report of the Pharmacopœia Committee, congratulated the Council on the fact that there was a profit of £1,209 8s. 2d. on the *Pharmacopœia*. A report received from Professor Atfield on the *Pharmacopœia* for 1887 had been printed, and a copy would be handed to members. Dr. Quain then alluded to the reply of the Lord President of the Privy Council to a letter from the solicitor to the Medical Council on the subject of the *Pharmacopœia* being the standard authority for the composition and preparation of the medicines therein described, which had been considered by the Committee, and in consequence of which the Committee recommended that the solicitor be requested to prepare a statement showing the Orders in Council or clauses in Acts of Parliament which relate to the subject. He mentioned that it had been decided by a magistrate that there was no authority to make any work a standard of the strength of drugs, and that, in consequence, it was possible to sell laudanum containing only half the quantity of opium and paregoric, which did not contain any opium at all. He pointed out that, if this were permitted, fatal accidents might easily arise, as, for instance, with paregoric without opium, a teaspoonful of which might be given to a child without danger, whereas the same quantity of the preparation from another chemist would contain a dangerous dose of opium for a child.

The report was ordered to be received and entered in the minutes.

Various reports were then ordered to be received and entered in the minutes.

An "Appointed Day" for Ceylon.—A communication from the Lord President of the Privy Council, naming January 1st, 1888, as the "appointed day" under the Medical Act of 1886 for the colony of Ceylon was received and entered on the minutes.

Employment of Unqualified Assistants.—The REGISTRAR read a report by the Executive Committee bearing on the circumstances under which a registered medical practitioner would render himself liable to the censure of the Council in reference to the employment of unqualified assistants. In the opinion of the Committee:

"A registered medical practitioner would render himself liable to the censure of the Medical Council in case of the employment of an unqualified assistant in the practice of medicine, surgery, or midwifery on behalf and for the benefit of such registered practitioner, either in complete substitution for his own services, or under circumstances in which due personal supervision and control are not, or cannot be, exercised by the said registered practitioner."

The Executive Committee furthermore took the opportunity of stating, in reference to the procedure known as "covering," that in its view a registered practitioner covers an unregistered person when he does, or assists in doing, or is party to, any act which enables such unqualified person to practise as if he were duly qualified.

In submitting to the General Council this report on the reference, the Executive Committee would, however, call attention to the following resolution passed by the Council on April 21st, 1883 (Vol. XX, p. 91):—

"That the Council ask for legislation to the effect that any registered practitioner practising for gain, who knowingly and wilfully deposes a person not registered or qualified to be registered under the Medical Act to professionally treat on his behalf, in any matter requiring professional discretion or skill, any sick or injured person, shall be subject to the same, legal liabilities as a person who falsely represents himself to be a legally qualified medical practitioner: but with special proviso that such enactment shall not hinder any duly regulated training of pupils in medical schools or otherwise by legally qualified practitioners, nor the use of trained pupils in partially treating the sick or injured under the direction, supervision, and responsibility of such practitioners, nor any legitimate employment of nurses, midwives, or dispensers."

On the motion of Sir WILLIAM TURNER the report was ordered to be received and entered on the minutes.

Registration of B.A.O. Degree.—Communications in regard to the registration of the B.A.O. degree were received and entered on the minutes, to the effect that, in virtue of a resolution passed on April 23rd, 1888, by the Irish Branch Council, the Registrar was directed to remove from the Register any degrees of B.A.O., which he may have registered.

Appointment of Additional Examiners to the Apothecaries' Society.—Mr. BRUDENELL CARTER, in asking the Council to sanction the appointment of five examiners instead of three, said that the experience of the last twelve months had shown that the surgical department of the examining board was somewhat undermanned. He claimed that the conduct of the examinations, as shown by the tables before them, was fully on a level with that of the other examining boards of the country. He then compared these results with those of the Conjoint Examining Board, and showed that at the final examination in surgery of the Conjoint Board, 84 were rejected and 123 passed (1 rejection to 1.46 passes), as against 79 rejections and 119 passes (1 to 1.5) at the Apothecaries' Society. Grouping together medicine and midwifery, the results were 1 rejection to 3 passes under the Conjoint Examining Board, and 1 rejection to 2.3 passes under their own Board, so that, if anything, the figures were in favour of their own examinations.

The motion was seconded by Sir JOHN SIMON, and agreed to.

Sir WILLIAM TURNER expressed a hope that the Examination Board of the Apothecaries' Society would improve their means of examining candidates in anatomy, their present means being altogether inadequate.

Mr. BRUDENELL CARTER then asked that Messrs. Makins, Walsam, Andrew Clark, Arbuthnot Lane, and W. Adams Frost be appointed surgical examiners in virtue of the foregoing resolution. He alluded to the proposal to appoint Mr. Frost as an evidence of the desire of the Society to obviate the reproach that there was no one on the Board to examine in ophthalmic surgery.

A discussion ensued as to the propriety of receiving the request in this form instead of by a formal letter from the Society of Apothecaries; but on the President pointing out that it would be difficult to refuse, seeing that the request had been admitted by the Executive Committee, the motion was ultimately agreed to.

The Council then adjourned at 4 P.M., there being no other business ready to be proceeded with.

Wednesday, May 23rd.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

Report of the Education Committee.—The Council having resolved itself into Committee, Dr. STRUTHERS moved the adoption of the Report of the Education Committee. He reviewed the report in question, and pointed out certain differences in the curriculum insisted on by the various licensing bodies, insisting in particular on three points of contrast. First in regard to the four years' study which all required, the English and Scotch schools only required attendance for three winters and two summers, whereas the Irish schools required four complete years. The next point was a very important one, bearing, as it did, on a considerable period of time being required to elapse between the examination in anatomy and physiology and the final examination. In that respect the Scotch schools were very much behind the English and Irish schools. This regulation provided that the last two years should be devoted to practical study. Thirdly, as regarded the attendance of students on cases outside hospital work, in which respect the Scotch schools seemed to be in advance of the others. He added that he thought examiners required too much from candidates, and expressed the opinion that the examiner should be a younger man, since older men were apt to expect a knowledge which could only come with experience.

Mr. WHEELHOUSE, referring to the first recommendation embodied in the report, "That all candidates for the final examination be required to produce evidence that they have attended for six months the practice of a public dispensary, or the outdoor practice of a hospital, or have acted for six months as assistant to a registered practitioner," observed that it was generally agreed that the present system of medical education was deficient in minor but very important respects. He alluded to the advantages of the old system of pupilage, but admitted that the Council were very unlikely to sanction any return to that system, although they were very anxious that the benefits thereof should be acquired by the student. He said there was a vast amount of clinical material of which no educational advantage was taken, in the dispensaries, etc. If this could be utilised, then the student would obtain the benefits without the inconveniences. He said that if the examining bodies could be induced to make provision for these matters to be learned, and above all examined in, the problem would to a great extent have been solved. He then moved the adoption of the first recommendation, the motion being seconded by Dr. CHAMBERS.

Mr. MITCHELL BANKS denied that the advantages of pupilage could in any way be held to compensate for the loss of time which it would involve. Pupilage would have to be done either before, during, or after the usual curriculum. If before, he doubted whether much useful information would be gained; he did not see how it could be done during the curriculum, except in the holidays; if at the end, then it would mean an extension of the curriculum. He could not see how it was to be superintended, and it would consequently be done in a perfunctory manner. He alluded, in terms of commendation, to the system which obtained in Scotland, where in the dispensaries students visited the sick in their homes and learned how to prescribe. He regretted that nothing of the kind existed in England.

Sir JOHN SIMON asked that it should be emphasised that something additional was intended to what already existed.

Mr. BRUDENELL CARTER suggested that the recommendation should be limited to England and Ireland.

Mr. MITCHELL BANKS thought that the paragraph did not render clear what the Committee required, as to students attending home practice.

Sir JOHN SIMON asked that the words "under proper supervision," should be added, and also the word "authorised" before "public dispensary," "hospital," and "registered practitioner."

Dr. BANKS saw great difficulties in carrying out in Dublin any system of visiting in connection with the dispensaries. He said that, so far as the assistantship was concerned, there was no such person as an assistant in Ireland.

Dr. GLOVER said that, if the system of government by committees was to continue, the least that could be done was to supply early copies of the reports, which in the present instance had been received too late to admit of serious consideration. He proposed, as an amendment, that the word "pupil" should be substituted for that of "assistant." Pupilage was already recognised by the Royal Colleges, and could therefore not be open to serious criticism. He observed that the medical officers of dispensaries were general practitioners, and therefore, if they could be trusted to teach, so might any general practitioner. He denied that the diseases which it was desired that the student should learn to recognise were in any sense minor diseases, as, for instance, measles, whooping-cough, etc.

Mr. MACNAMARA said that the scheme sketched out by Mr. Banks would never be tolerated in Ireland. Before attempting to legislate, for Ireland, Englishmen and Scotchmen should endeavour to know something about the condition of things there. Moreover, the hours at the dispensaries and hospitals were the same; the student could not be at both. He said there was an outdoor department or dispensary attached to every hospital. As to the assistantship, the assistant in Ireland was a mere dispenser.

Dr. LEISHMAN cordially approved the practice of attending home patients; but admitted that it was not always possible. The attempt had been made at Glasgow, and had failed, and it was not worth while to pass a resolution which it might not be possible to enforce.

Dr. BRUCE seconded Dr. Glover's amendment, which was agreed to. He said that the only way to ensure, the system being properly carried out was to insist upon it at the examinations.

Sir GEORGE MACLEOD observed that the scheme for house visiting in Glasgow had, been strongly opposed by the practitioners, who derived their fees from the very class who would be visited, and they could not wish to effect the ruin of these practitioners. Another difficulty arose with reference to teaching students on the subject of fevers, the interference of the sanitary authorities having put a stop to that.

Dr. HEATH observed that the plan of house visitation was in vogue in Newcastle.

Mr. TEALE said the Council were getting into a dilemma, and would either fall foul of Ireland or confine themselves to what had already been done.

Dr. BANKS said that not 50 per cent. of the candidates at examinations had ever seen a case of scarlet fever. He was unable to see any means of giving effect to the clause in question.

Mr. BRUDENELL CARTER asked for a definition of what was meant by "public dispensary," of which there were several categories. He considered the "registered practitioner" part of the clause the most satisfactory, provided that precautions were taken to ensure that the person authorised was in a position to impart the requisite knowledge. He also advocated naming a definite period for the pupilage.

Dr. MOORE deprecated any measure which would be at the expense of sound hospital training. He claimed that in Ireland there was every facility for the student to familiarise himself with the commoner types of disease. He objected to the idea that the general practitioner was competent to teach.

Rev. Dr. HAUGHTON expressed his sympathy with the object of the Committee; but the plan would be altogether inadmissible in Ireland. He suggested that a register should be kept of the attendance of students at the dispensaries attached to hospitals.

Professor HUMPHREYS was opposed to anything being added to the burden which the student was already called upon to bear, especially if it tended to interfere with hospital practice. The cases seen by the student at the hospital were of a kind he might not meet with elsewhere. He thought much more importance should be attached to a proper knowledge of the principles of medicine than to mere practice. Home visiting might be good for the student, but he doubted whether it would be equally advantageous to the patient, and he quite understood the reluctance of the authorities in Ireland to allow the dispensaries to be used for educational purposes.

Sir DYCE DUCKWORTH declined to believe that the men they turned out at the present time were one whit below those produced under the old system. They could not expect to turn out a man fully equipped in every branch of the profession and provided with the experience of a practitioner of ten years' standing. He said that the answers of young men at examinations showed them, as a rule, to be well prepared practically. He then alluded in very glowing terms to the system of the out-patient department at St.

Bartholomew's Hospital, a better system than which, he opined, could not be conceived.

Dr. HERON WATSON said that the decision of the Committee was not the parting of the roads, but the meeting of the ways. He thought that if recommended by the Council the various bodies would consider the best method of giving effect to their wishes, and they would be left perfectly free to adopt whatever plan they might think fit. He suggested that the result of the present system had been to give an undue preponderance to the scientific element of medical education, which might, he thought, tend to remove the student from the mere human sentiments which should accompany him into the houses of the sick poor. What students required was to be broken-in to deal with patients in a humane and considerate manner.

Sir WILLIAM TURNER asked in what form the recommendation was to go down to the various bodies, and said that the question ought not to be looked at apart from previous recommendations. He suggested that the present recommendation should be made an extension of the one which they had already made, so as not to appear to be something new.

Dr. STRUTHERS said that when a student went as pupil to a practitioner there was a double advantage, for if the pupil learned something, the practitioner was also taught things he would not otherwise have known.

Dr. GLOVER, in reference to the assertion that all practitioners were not fit to teach, said that neither were all hospital surgeons and physicians. He thought they might fairly leave the student the choice of his instructor. As to the additional burden thereby laid on the student, he suggested that they might lighten it in other directions; but in any case it was cruel to send a man forth who was ignorant of subjects which would go to make up five-sixths of his future practice. He said he was unable to follow Sir Dyce Duckworth in his eulogy of the out-patient departments of hospitals, and he denied that every variety of disease could be studied there. If the employment of students was not always to the advantage of the patients at their homes, neither was it at hospitals, for example, in a case of pneumonia, which had to be examined by a number of students.

Sir DYCE DUCKWORTH said that the list of diseases met with in hospitals practically only excluded scarlet fever and small-pox.

The PRESIDENT said that No. 15 of the original recommendations contained a cover for everything that had been suggested.

It was then moved by Mr. WHEELHOUSE and seconded by Dr. CHAMBERS that the recommendation be adopted by the Council.

Sir Wm. TURNER objected very strongly to the insertion of the word "recognised" before "registered" practitioners, which he thought invidious and unnecessary.

A discussion ensued as to the propriety of inserting the word "recognised," in which Mr. BRUDENELL CARTER and Dr. HERON WATSON took part.

The PRESIDENT explained what was intended by the insertion of the word "recognised," and said that it was very important that they should have something more than merely "registered practitioners." The practitioners ought to have not only the skill but the opportunities of teaching.

After some discussion, the recommendation was proposed as follows:

"That in addition to the requirements at present in force with respect to hospital attendance and duties, all candidates for the final examination be required to produce evidence that they have attended, under proper supervision, for six months the practice of a recognised public dispensary, including the visitation of patients at their own homes, or the outdoor practice of a recognised hospital, or have acted for six months as pupil to a registered practitioner, either holding such a public appointment or having such opportunities of imparting practical knowledge as shall be satisfactory to the examining bodies."

The motion was then agreed to *nem. con.*

Examination in "Fever."—Rev. Dr. HAUGHTON then rose to propose the adoption of Recommendation No. 2:

"That all candidates for the final examination be required to produce evidence of having studied the subject of 'fever' in its various forms, as far as local circumstances will permit, for a period of not less than three months, under recognised clinical instructors."

He claimed for the University of Dublin that it was the first body to require a certificate of special attendance on fevers. Their example had since been followed by the other bodies in Ireland

with the best possible results. He protested against the idea that sanitation was shortly to render an acquaintance with fevers unobtainable, and urged that by enabling an adult population to grow up without having had any of the "fevers" the way was opened to terrible subsequent visitations. He said that students would not go to the fever hospitals because the teaching there was not of a very high order.

Dr. BANKS said that all the examining bodies in Ireland required this course of study. He said that students avoided the fever wards, and for this reason the course had been made compulsory. He seconded Dr. Haughton's motion.

Dr. MOORE doubted whether three months was sufficient to learn much of fever.

Sir DIXIE DUCKWORTH pointed out that practically only scarlet fever and small-pox were excluded from the London General Hospitals.

Dr. GLOVER asked whether the "recognised clinical instructor" might be a general practitioner.

The discussion was then adjourned.

On the motion of Sir WILLIAM TURNER, the report from the Dental Committee on the case of George Thomas Ockleford Crocker was then received and entered on the minutes.

The Council then adjourned.

Thursday, May 24th, 1888.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

Case of Mr. Richard Percy Woodroffe. — The meeting having been opened, Mr. Richard Percy Woodroffe, Licentiate of the Apothecaries Hall, Dublin, 1884, was summoned to appear to answer a charge of unprofessional conduct, inasmuch as he has acted as cover to John Stamford Walton, an unqualified practitioner of Northallerton, in Yorkshire, thereby enabling him to practise as if he were legally qualified. The complaint was made to the Council by Mr. Lumley, the medical officer of health, and it was on this information that the summons was issued. It appeared that the father of the unqualified practitioner was a medical practitioner and coroner for the North Riding of Yorkshire. He died in 1874, and since that time Walton had carried on the practice, without a qualification, being actually a student at the Newcastle School of Medicine and coroner for one of the Ridings of Yorkshire.

The SOLICITOR for the Council (Mr. Farrar) read the declaration of Mr. Lumley, medical officer of health, bearing on the facts alleged. Mr. Farrar pointed out that the declaration was in itself *prima facie* evidence, seeing that Mr. Lumley might be prosecuted for perjury thereupon. The Council could not examine witnesses on oath, and, therefore, must decide what credence to attach to the evidence. The whole question for the Council to decide was whether Walton had carried on the practice for thirteen years or so as an unqualified practitioner, and whether Woodroffe had acted as his cover since he had been acquainted with Walton. He (Mr. Farrar) had brought the gist of the matter before the Council in an impartial manner, and it would now be for the Council to hear the respective parties. A copy of the declaration had been sent to Mr. Woodroffe.

The PRESIDENT called upon Mr. Woodroffe to say whether he had any reply to make either himself or through his Counsel.

The Rev. Dr. HAUGHTON thought that as Mr. Woodroffe had been charged with having signed certificates of death in cases which he had not attended, the Council ought to have names and dates of cases put before them. As it stood, the charge was of the vaguest nature, and the Council ought to have particulars before it.

In reply to the Solicitor for the defendant, Mr. LUMLEY said as he was medical officer of health he had a weekly return of the deaths in his district, and he found the certificates of cases attended by Walton had been exclusively signed by Woodroffe for the last two years. He had not brought those papers with him, but if the Council desired he would furnish them.

In reply to the Rev. Dr. HAUGHTON, who again desired to have names and dates, Mr. LUMLEY said he had not been asked to furnish such particulars.

Mr. MUIR MACKENZIE (Standing Counsel) submitted that it was not sufficient to give certificates signed by Mr. Woodroffe.

Mr. LUMLEY said that his contention was that Mr. Woodroffe did see these cases for Mr. Walton, not that he signed them without having previously seen them. He would produce particulars of further cases if the Council required them.

The Solicitor for the defendant asked Mr. Lumley if he had any further specific charge against Mr. Woodroffe.

Dr. QUAIN was of opinion that the matter ought to be adjourned until Mr. Lumley could produce his proofs.

After some remarks from Dr. GLOVER, Mr. LUMLEY complained that he had not yet had an opportunity to open his case. If allowed he would prove his case to demonstration.

The PRESIDENT advised him at present to answer questions simply Yes or No.

Sir W. TURNER was in favour of adjourning the matter.

Mr. MUIR MACKENZIE submitted that they must proceed in order. It was right that Mr. Woodroffe's solicitor should ask questions of Mr. Lumley on his declaration.

After some further questions had been put by the defendant's solicitor, Mr. LUMLEY said, in reply to Mr. MACKENZIE, that the surgery was attached to the house in which Mr. Walton lived and in which Mr. Woodroffe was a lodger. He had seen certificates signed "Walton and Woodroffe." The house was owned by Mr. Walton. Mrs. Walton, the mother, had not been there for fourteen years. He identified the writing of the notification in a case of fever signed "Walton and Woodroffe" as being that of Walton. Mr. Lumley then went into a number of instances of alleged improper practice by Walton, going back as far as 1876. He produced various bills sent out in Walton's name and received by Woodroffe. They were known as "Dr. Walton and his assistant."

Some discussion took place as to the evidence showing that Walton practised, which Mr. LUMLEY asserted was to his personal knowledge. The name of Woodroffe did not appear in connection with the practice. Mr. Lumley said he had no witnesses to call, because he had been told that it was not usual.

The SOLICITOR for Mr. Woodroffe (Mr. WAISTELL) then read part of a declaration setting forth circumstances which had caused a great deal of ill-will between the parties. He said that in no case had a certificate of death been given unless Mr. Woodroffe had been actually in attendance. He contended that his client had in no sense acted as a cover. The name of Walton on the bills was that of the elder Walton, who died in 1874, the practice being carried on for the benefit of his widow. His client knew nothing of the circumstances when he came to Northallerton, and he said it was very hard that he should have been arraigned on such a vague charge. He contended that no case had been made out against his client. The money was received on behalf of Mrs. Walton, to whom the house belonged, the surgery being detached.

Mr. WOODROFFE then answered certain questions. In reply to Mr. PETTIGREW he said that he acted as sole manager for Mrs. Walton. In reply to Dr. QUAIN as to what his position really was, he said he merely went to take charge of the practice for the widow. He said he received a salary, but Mr. Mackenzie pointed out that there was no mention of a salary in the agreement. He had agreed to take the salary in lieu of a commission. He received the money and gave it to Mr. Walton for his mother. He had never seen Mrs. Walton. He kept no statement of accounts of moneys received and handed over.

Mr. Woodroffe was closely cross-examined as to his alleged position of manager to Mrs. Walton.

In the continued cross-examination Mr. WOODROFFE said that the agreement was drawn up when he went as manager to Mrs. Walton, but it was not reduced to writing till a year afterwards.

Mr. MUIR MACKENZIE: I thought the negotiations for the agreement took place before you went?

Mr. WOODROFFE: So they did. It was drawn up but not signed.

Question: On what terms did you go for the first year?—Answer: I went as manager for Mrs. Walton. I was on trial.

Question: Is that usual?—Answer: I believe it is. Gentlemen in practice often go six months on trial.

Question: You are a medical practitioner?—Answer: Yes.

Question: And Mr. Walton is your pupil?—Answer: Yes.

Question: Whose pupil was he before you went?—Answer: I do not know.

Dr. CAMERON: Have you any knowledge of how the business was kept up between the death of the elder Walton and the period at which you became Mrs. Walton's manager?—I know nothing about the practice before I went there.

Mr. MUIR MACKENZIE: Did you know that Mr. Walton had been prosecuted by the Apothecaries Society?—Answer: I did not know anything about it.

Mr. MUIR MACKENZIE: What particular part does Mr. Walton take in this practice?—Answer: He is my pupil, and he goes and

the patients. I did not know that there was anything wrong. Question: Does he go to see patients in the first instance?—Answer: He does sometimes, but not always.

Question: Does he attend all his lectures?—Answer: Yes. Mr. MURIE MACKENZIE: He never told you he had been prosecuted by the Apothecaries' Society?—Answer: He never told me.

At this juncture Mr. Woodroffe said that he had withdrawn from the practice, and did not intend to go back to it again. He withdrew the moment he was summoned before the Council. He was not frightened.

Question: Did you know that it was contrary to the rules of the Council?—No, I did not know it was contrary to the rules; and when I found I was doing wrong I withdrew at once.

The defendant apologised humbly for the error into which he had fallen, and said he should not have done it if he had known that it was wrong.

Strangers were then requested to withdraw, and the Council proceeded to deliberate in private.

Strangers having been readmitted after two hours' absence, the PRESIDENT, addressing himself to Mr. Woodroffe, said that the Council had given every attention to his case, and had considered it at great length. He informed Mr. Woodroffe that, in the opinion of the Council, he had been guilty of the offence alleged against him; further, that the Council had taken a very merciful view of the circumstances of the case, and, in view of his expressions of contrition and his promise not to repeat the offence, had decided not to proceed further therein, beyond requesting their President to convey the expression of their opinion. The President then dilated upon the gravity of the offence of which Mr. Woodroffe had been declared guilty. He pointed out that it was an offence against the profession and against society, inasmuch as it enabled a man to act and appear as if possessing a legal status to which he had no claim. He exhorted Mr. Woodroffe to be warned by what had occurred, and to avoid any repetition of the offence, for the Council, he said, were firmly resolved to proceed against a practice which they regarded as constituting the gravest possible offence of which a professional man could be guilty. He pointed out, in conclusion, that Mr. Woodroffe had exposed himself to the risk of being expelled from his profession with dishonour, and only owed his escape to the merciful view taken by the Council of the circumstances of the case.—Mr. Woodroffe, having expressed his gratitude to the Council for their merciful consideration, then withdrew.

Case of *George Thomas Ockleford Crocker*.—A resolution was passed enjoining the Registrar to remove the qualification of L.D.S.Glasgow from the Register as applying to Mr. Crocker, the said qualification having been withdrawn by the College consequent upon an infringement of the College regulations against advertising.

The Council then adjourned.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS,

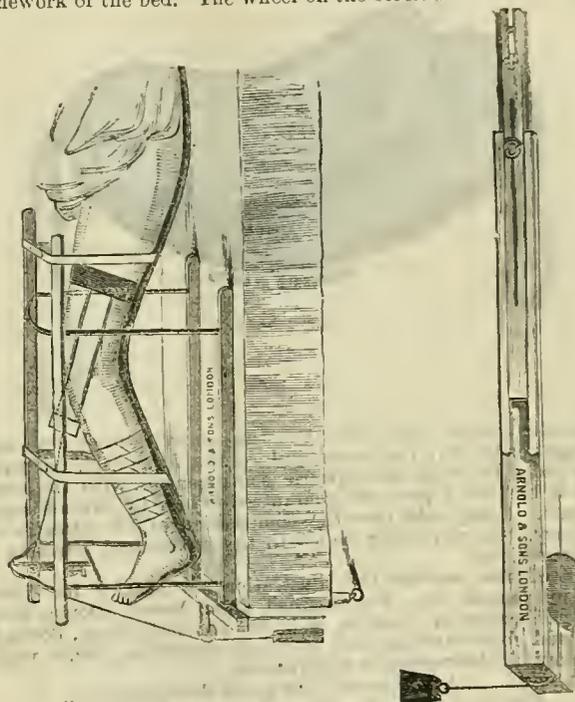
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SPLINTS FOR FRACTURE OF THE FEMUR.

THE two splints figured below represent two methods of treating fracture of the femur. The one is the extended straight position, with the stirrup extension obtained by the usual plan of strapping applied on each side of the limb below the knee. The other is a cradle with a rise and falling pulley, and the stirrup extension applied each side of the thigh. A piece of wrought iron, reaching from behind the buttock to the toes, bent at any suitable angle, acts as a stay and back splint. Lateral holes are punched in the thigh part and in the lower part below the knee, for the purpose of passing leather straps through. The limb may then be hung to the bars of the cradle. I have had holes punched in the iron which reaches behind the buttock. A band or strap can be passed through and around the trunk. I use a perineal band as well, for the purpose of fixity and to steady the splint to the limbs. In children up to seventeen years of age the straight splint or long Liston is the one generally used.

The first splint depicted I have found most useful. It will do

for either leg, and by means of the sliding slot can be used for children or adults. As a rule it is better to have a smaller one made for children below sixteen years of age, but a full-sized splint may be used if the case is treated in a full-sized bed. It simply increases the length of the cord from the stirrup to the wheel at the end of the splint. The pulley I have attached to the splints, which is a distinct advantage, as sometimes it is impossible in private practice or colliery work to fix a pulley to the framework of the bed. The wheel on the block at the end of the



splints is placed at an elevation for good traction, so that the heel of the foot is kept a finger's breadth off the bed, and the foot remains at a right angle and in good line. The limb is fixed either by means of the Scotch plan, the long sheet and pins, or by bandaging from above the ankle up. A good broad flannel spica bandage should be always applied; it gives such support and steadiness to the limb when the bed-pan is used. Another broad bandage should fix the trunk. I use a perineal band smeared over with zinc ointment to avoid any chafing. This, if wished, can also be used as a strong counter-extension by fixing it to the sliding slot, pushing the slot upwards and fixing it with a screw. This should only be slightly made taut by the slot each morning. I trust for counter-extension by the bed being raised on blocks. The block at the end of the splint should be fixed down to the framework of the bed by two pieces of bandage. The splint is equally useful in hip-joint disease. The cradle is meant for cases of fracture of the neck of the femur or lower third of the bone, where the bent position is the more desirable to place the limb in, for comfort and readiness in the use of the bed-pan; this position is the best. The traction I have obtained by the stirrup strapping applied on each side of the thigh, the cord passing over a rise and falling pulley, the latter fixed at any desirable angle. The shortening that occurs in cases of fracture of the femur will, to my mind, entirely depend on the character of the fractured ends, rather than any special mode of treatment. To obviate this, the extension method with stirrup strapping seems the best after the irritable condition of the muscles has subsided.

I have used the straight splint in twenty cases; Dr. Evan Jones, of Aberdeen, and Dr. Brown, of Tredegar, tell me they have found it very useful in their works district. They are made by Messrs. Arnold and Sons, West Smithfield, London.

R. NELSON JONES, L.R.C.P.Lond., M.R.C.S.Eng., Swansea.

THE saving of life effected through the instrumentality of the Royal National Lifeboat Institution during the year 1887 amounted to no less than 33,243 lives.

THE PNEUMATIKON.

THE instrument I have devised is a modification of Jefferies's respirator, but so adapted that a piece of lint, thoroughly impregnated with an antiseptic fluid, can be placed between two layers of wire gauze. It will be seen, therefore, that the instrument thus answers the double purpose of an inhaler and a respirator combined, warming the external atmosphere thus transmitted through its medium, and medicating it at the same time by means of the



antiseptic vapour. The patient is thus enabled to go out either by night or by day, fearless of evil results from cold, nocturnal fogs, and other such atmospheric contingencies, with the assurance of breathing pure air guaranteed to him by this antiseptic medium. I may add that the composition of the latter is not arbitrary, but may safely be left to the experienced selection of the practitioner.

I need not explain the illustration; it speaks for itself. The instrument can be obtained from Messrs. Down, Bros., surgical instrument makers, of 3, St. Thomas's Street, Borough, S.E., and sole manufacturers of the pneumatikon, under which name my inhaler-respirator is registered.

J. BRINDLEY JAMES, M.R.C.S. Eng., etc.,
President of the West Kent Medico-Chirurgical Society.

SCHACHT'S DIGESTIVE FLUIDS.

UNDER the above title, Messrs. Giles Schacht and Co., of Clifton, Bristol, have brought out a series of very attractive preparations. "Pepsina Liquida" (Schacht) can fairly be classed among the most elegant products of modern pharmacy. It is a bright, nearly colourless solution, entirely free from any disagreeable odour, and with a pleasant taste. We find by experiment that it possesses the peptonizing power claimed for it by the makers; namely, that one fluid drachm will, in from 2 to 4 hours, render soluble under proper conditions, 1,000 grains of "comminuted egg albumen." This term is employed by the makers to represent what is defined in the *British Pharmacopœia* as "hard-boiled white of egg passed through wire gauze of 26 meshes to the linear inch, and made of No. 32 brass or copper wire."

Pepsina liquida cum bismutho is a combination of Schacht's well known liq. bismuthi, with "pepsina liquida." As a pharmaceutical preparation it is all that can be desired, and it will probably be found of considerable value in the treatment of cases in which want of digestive power is associated with gastric irritation.

Another preparation named pepsina liquida cum bismutho contains in addition one grain of soluble euonymin in each fluid drachm. The remaining member of the series is pepsina liquida cum euonymin. This consists of one grain of euonymin dissolved in each fluid drachm of pepsina liquida (Schacht), and is likely to be useful in cases in which a hepatic stimulant, together with a food solvent, is required. Liquor bismuthi sedativus (Schacht) should rather be termed a mixture than a solution, since each fluid drachm contains, besides pepsina liquida and liquor bismuthi, $\frac{1}{4}$ grain hydrochlorate of morphine, 2 minims of dilute hydrocyanic acid, and 5 minims of tincture of nuxvomica. All the above preparations are miscible with water, and form with it permanently clear solutions.

THE PHARMACOPŒIA AS A STANDARD.

An interesting question is raised by Professor Attfield in his report for 1887 on the *British Pharmacopœia* as to the extent to which that official compilation is, or should be made to be, the legal standard by which retail traders of all kinds are bound in preparing and selling medicinal articles comprised therein. So far as physicians' prescriptions are concerned, the *Pharmacopœia* is the sole legal standard of the strength of the substances which he prescribes. The question bears rather upon the strength of medicinal substances included in the *Pharmacopœia*, but which are purchased by the public on their own responsibility. Take, for example, the tincture of opium, commonly asked for under the designation of laudanum. A right has been claimed, and, so far as magisterial decisions can settle the question, maintained to set the strength of opium of any morphine strength and of any alcohol strength that the vendor may please. Further, certain grocers and storekeepers not legally qualified to vend poisons claim the right to sell, and do sell, not merely official and other not poisonous drugs of indefinite strength, but even well-known opiates under well-known names, if only they omit the opium from the preparation. Paregoric, for instance, containing opium, is largely sold, and, according to a magistrate, legally sold. As Dr. Quain remarked, in bringing this report to the notice of the General Medical Council, the practice is one which may easily give rise to dangerous and even fatal mistakes. A mother who has given teaspoonful doses of the non-opiated paregoric to her infant with impunity, may, without the slightest warning, be served by a more conscientious dealer with a product of which a teaspoonful would contain what may be, for an infant, a poisonous dose of opium. The best course to pursue will probably be to insert such names as laudanum, paregoric, etc., in the *Pharmacopœia*, and then take the necessary steps to establish the legal obligation to sell only drugs of the strength, nature, and quality authorised by the official publication. The matter is one which concerns the public very much more nearly than the medical profession, but the establishment of a proper standard of strength will arm the authorities in their efforts to represent the public on the part of unscrupulous tradesmen who at present take advantage of the ambiguity of the law on this point to sell opiates without opium, and generally to operate to the detriment of an indiscriminating public.

THE FUTURE POSITION OF SANITARY INSPECTORS.

IN the course of an interesting presidential address delivered by Dr. Alfred Carpenter at the meeting of the North-West District of the Association of Sanitary Inspectors in Liverpool, he made some remarks on the future status of these officers, which possess a special importance at the present moment. While admitting that decentralisation was to some extent a good principle, it would be a misfortune if sanitary inspectors were left entirely at the mercy of the local authorities, which often contained members who were the greatest offenders against public health. "The healthiness," he said, "of the extreme twigs upon which the sanitary tree depends for its development and growth must affect the growth and the development of the trunk of the tree. If, therefore, the sanitary inspectors are not healthy and right, the whole growth is unsound." While leaving to the parishes the right to select properly-educated inspectors, he urged that the appointment ought to be *ad vitam aut culpam*; and that a charge of neglect of duty ought to be proved to the satisfaction of the County Council and its medical officer of health, who, he said, must have his existence provided for in the Bill, and who, though appointed by the County Council, should himself be only removable with the approval of the Local Government Board.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, MAY 26TH, 1888.

RESEARCH WORK OF THE BRITISH
MEDICAL ASSOCIATION.

THE MAMMALIAN HEART.

SUCH knowledge as we possess of the changes which go on in the tissue of the beating heart has been obtained almost entirely from experiments upon the batrachian heart. Hardly any accurate work has been done upon the mammalian organ. The report of the Committee of the British Association (1843) upon an investigation of the movements of the heart by simple inspection; a paper by Czermak and Piotrowsky (1857), upon the persistence of movements of the heart; and another by Kölliker and Müller (1856), on the occurrence of electromotive changes accompanying the systole, are the most important investigations made upon the mammalian heart, and represent fairly well the position of physiological science in regard to this subject. Therefore the important communications of Drs. Waller and Reid (On the Action of the Excised Mammalian Heart, by Augustus D. Waller, M.D., and E. Waymouth Reid, B.A., M.B., *Philosophical Transactions*, 1887, and A Demonstration on Man of Electromotive Changes accompanying the Heart's Beat, by Augustus D. Waller, M.D., *Journal of Physiology*, vol. viii, No. 5), conducted, on the part of Dr. Waller, in his capacity of Research Scholar of the British Medical Association, are of extreme interest, having regard not only to the results obtained, but to the novelty of some of the methods employed, and to the minute care taken to avoid error.

During a course of experiments upon the electromotive action of various tissues, it was found that in the case of the mammalian heart the electromotive variations outlast visible contractions, and that the contractions are of an extraordinarily prolonged character. The observers, therefore, carried out a series of experiments with the galvanometer, the graphic method, and with Lippmann's capillary electrometer. With the latter instrument the observations were rendered more accurate, and also recorded permanently in the most beautiful manner, by photographing the movements of the column of mercury on a travelling plate. In this way slight movements, observable with difficulty or not at all by the unaided eye, are clearly evident, as shown by the plates which accompany the articles. For the observations the hearts of cats, dogs, rabbits, guinea-pigs, rats, and sheep were used. The duration of contracting power in the excised heart was

found to be surprisingly prolonged, even though mere fibrillation was not noticed; but only complete ventricular contractions, such as could be recorded by a lever resting on the heart. In a rabbit's heart spontaneous beats were observed for seventy-two minutes, and beats in response to excitation for an hour and a half *post mortem*. Force of contraction, it was found, declines rapidly at first, more slowly at later periods; frequency of contraction diminishes with fair regularity. A bigeminal character is frequently seen, and is more pronounced at the base than the apex. When irregularity of beat occurred, a period of rest was followed by a beat of unusual force; beats in groups, and occasionally an extreme irregularity, in the form of irregular rapid fibrillation (delirium cordis) were seen. As time elapsed after removal, the ventricular beat became quite independent of the auricular beat, and was found to outlast it. Such were the general results observed. Special attention was paid to the duration of systole in the excised heart, and the influences which cause its increase or diminution. On removing the heart from the body the systole became greatly prolonged, and the prolongation was exaggerated by placing the heart in a chamber surrounded by ice; in one experiment the duration of contraction in a heart so treated was ten seconds. The full effect of cold was to produce total abolition of contractility, both spontaneous and induced by stimulation; this could, however, be restored by the application of warmth. A constant temperature of 40.6 degrees caused rapid decline of contractility, and no prolongation of systole. Therefore, it will be noticed that the mammalian heart agrees with other tissues in showing great excitability and rapid decline at high temperatures, small excitability and slow decline at low temperatures.

A similar prolongation of the latent period of stimulation was also observed under the influence of cold, a common latent period being 0.5 sec., and on one occasion in the rabbit's heart it reached 2 secs. This is longer than has been observed in the frog's heart, and generally, when the results are compared with those of Burdon Sanderson and Hermann, it is seen that the mammalian heart is more susceptible to difference of temperature than is that of the frog.

Nothing appears to have been hitherto done to determine the presence of a wave of contraction in the mammalian heart, such as has been shown by Engelmann, Marchand, and Burdon Sanderson, with the help of the rheotome and galvanometer, to occur in the frog's heart. Moreover, the mechanical method has not been employed at all, even in the frog, for the record of such progressive contraction. By the application of two levers applied to the heart at a certain distance from each other, Drs. Waller and Reid obtained some curious results. In the ventricle of the frog's heart the result of other observers mentioned above, who, using the galvanometer, showed a wave of contraction passing from base to apex, were confirmed. In the mammal's heart, however, the results were markedly different: though it must be mentioned that they were not so uniform as in the case of the frog. The contraction of the apex in cats, rabbits, dogs, and sheep generally preceded that of the base, even though all precautions were taken to avoid error. When a contraction was provoked in a quiescent heart by direct stimulation, it was found that the wave of contraction proceeded from the

part irritated to the parts beyond, and that both the mammalian and frog's hearts behaved alike in this respect. The rapidity of the wave was much greater in warm-blooded than cold-blooded animals, was greater in large than in small hearts, and progressively decreased after excision of the heart.

The galvanometric experiments upon the frog's heart confirm those made by former observers. Kölliker and Müller have shown that the contraction of the mammalian heart is accompanied, or rather preceded by, an electromotive change. This Drs. Waller and Reid now show to be frequently diphasic, and to persist long after visible contractions have ceased. If the heart be quiescent and be then irritated, it is found that a diphasic variation occurs, which indicates in its direction, first, negativity of the proximal electrode; secondly, negativity of the distal electrode. Local injury, when the heart is inexcitable and apparently dead, develops negativity of the injured to all other parts. This easy production by injury of local negativity caused occasional irregularities in the galvanometric results; sometimes, for instance, stimulation produced merely a simple and not a diphasic variation, probably because a touch near one of the two electrodes had developed permanent negativity of that spot. A diphasic variation indicating negativity starting from the distal electrode was never seen; but an exceptional result was that local excitation might give rise to a single variation, indicating negativity of the distal electrode. This is explained by the supposition that there exists in such a case a greater excitability of the tissue in the neighborhood of the distal electrode.

The above experiments refer to artificially-excited beats in an otherwise quiescent heart. When the heart was beating spontaneously, the galvanometric readings were not constant. When viewed by the naked eye, the spontaneous contraction of the mammalian heart is apparently simultaneous in all parts. As mentioned above, the proof of the presence of a wave of contraction by the graphic method was not altogether clear; it is now seen that the record of the galvanometer on this point is obscure, and it is presently to be noted that the electrometer gives indications of a contraction occurring almost simultaneously in all parts of the ventricle. These are points which require further research, and upon them Drs. Waller and Reid express themselves cautiously.

The experiments with the capillary electrometer are specially interesting. The movements of the mercury were magnified by a half-inch objective, the image taken 90 centimètres behind the lens, and photographed upon a sensitive surface travelling more or less rapidly. Changes which were not shown by the galvanometer appear clearly with the electrometer. A diphasic variation was frequently shown when the galvanometer showed only a single change of potential. But, in spite of the extreme delicacy of the electrometer used in the way described, the electromotive change accompanying the beat of the ventricle was sometimes seen to be monophasic. This must be assumed to be really the case—not a mere fusion of two phases by reason of imperfection of the instrument. Further, such monophasic variation occurs during the earlier moments after excision, giving place subsequently to a diphasic variation. The natural conclusion to be drawn from this is,

that in the very active mammalian heart the ventricles contract with such synchronism of their various parts that the excitatory change is practically simultaneous in all parts, and, as the authors think, postulates the existence of nervous channels of conduction, since such simultaneity is inconsistent with the slow nature of muscular transmission.

In the second paper mentioned, Dr. Waller shows how the electromotive changes can be demonstrated even on the human subject. Electrodes leading from the front and back of the chest, when connected with the capillary electrometer, show distinct electrical variation with each beat of the heart. This might be due to mechanical alteration of contact between the electrodes and the chest-wall, caused by the heart's impulse. To disprove this, the electrodes may be led off from the hands or from one foot and one hand placed in two dishes of salt solutions. Still the variation occurs, though less markedly. The crucial test, however, is that by accurate measurement the electromotive change can be shown to precede the contraction of the ventricle by 0.015 second, when the systole lasts 0.35 second. This time difference corresponds with that obtained by Donders for the rabbit's heart *in situ*.

We may add that the research has received the *mention honorable* of the Académie des Sciences, a distinction which is greatly to be valued, and upon which we congratulate the workers.

WOLFFBERG'S METHOD: THE COLOUR-SENSE AS A TEST OF REFRACTION.

IN the present day, when objective methods of estimating the refraction of the eye have been brought to such perfection, it is hardly to be expected that anyone proposing to institute a new test of a purely subjective character would obtain a hearing. But the results claimed to have been obtained by Wolffberg (*Klin. Monatsbl.*, 1886, p. 359) were so very definite, and appeared to be so fully confirmed by Dr. Boehm (*Ib.*, 1887, p. 429) that the temptation to overlook the obvious faults in the method and to give it a fair trial was irresistible, more especially as it was claimed on its behalf that it rendered it possible at once to say whether a given defect in vision was due (a) to a spherical error of refraction, (b) to astigmatism, (c) to a cause unconnected with refraction. A claim such as this has never yet, we believe, been advanced in support of any test, and it is needless to point out, if it could be substantiated, Dr. Wolffberg and Dr. Boehm would have made a discovery of the first magnitude.

In another column will be found a paper by Mr. Stephenson, giving an account of some experiments he has made for the purpose of testing some of the conclusions arrived at by Wolffberg and Boehm, and a short notice of a monograph by Dr. Herzog which deals fully with the whole subject. The conclusions of both these authors, arrived at quite independently, are so entirely opposed to Dr. Wolffberg, that unless he can reply to them, disproving their facts and refuting their arguments, no one will be likely to spend time in using his test.

The test really depends on instituting a comparison between the visual acuity (tested by Snellen's letters in the ordinary

way), and the colour-sense (estimated by the distance at which certain coloured discs are visible). Wolffberg, from experiments on natural and artificial ametropia, believes that he has found the distance at which the discs should be visible for each degree of impaired vision, when such defect is due to an error of refraction. Other causes impair the colour-sense more than the form-sense. By producing different grades of impaired vision by lowering the illumination Wolffberg believes that he has obtained data for estimating the effect of diseases which impair the light-sense—obviously a debatable conclusion. Boehm confirms all these results; but, as he worked in Dr. Wolffberg's clinic and at his instigation, his results can hardly be said to have been independently obtained. He attaches much importance to the fact that astigmatism impairs the form-sense to a greater extent than the colour-sense, so that a conclusion can be formed whether there is spherical ametropia or astigmatism.

It will be seen, therefore, that the whole stability of this test rests upon the accuracy of certain facts; and if these are proved to be untrue, or not constantly true, the whole fabric falls to the ground. That a method of examination which is purely subjective, in which the patient's answers cannot be verified, should give such very definite results, is surprising. If anyone will try the test on himself, he will at once find that it is by no means easy to fix the exact moment at which the disc becomes invisible, and we are surprised that Drs. Wolffberg and Boehm do not attach more importance to this difficulty. Slight discrepancies, therefore, might easily be overlooked; but when patients with the same defect of vision see the discs at 5 and 3 metres respectively, when the same patient varies, when the two eyes of the same patient with the same refraction vary, when discs of different colours, which the authors state are visible at the same distance, are seen at different distances, it is impossible to avoid a suspicion either that the ratio between the colour and form sense is not so definite as has been stated, or that the test does not afford a reliable means of estimating that ratio.

As far as we can ascertain, the only point in which Herzog confirms Wolffberg's conclusions is that in the majority of cases of astigmatism the colour-vision is impaired to a less extent than the form-sense; but, as this was also the case in some eyes which were not astigmatic, the fact cannot be utilised for diagnosis.

To our mind, however, the most damning piece of evidence against the accuracy of the authors of the test is the statement, made both by Dr. Herzog and Mr. Stephenson, that the majority of eyes with normal vision do not see the discs at the prescribed distance, and the cases adduced by the former, in which the discs were seen at the proper distance although the eye was suffering from progressive disease. We do not see how Wolffberg's and Boehm's results can be explained unless we assume that in conducting the experiments the patients were permitted to know what answers they were expected to give, a point which should, of course, be most scrupulously guarded against in any subjective test.

PROFESSOR EWALD, of Berlin, has been named director of the medical wards in the Augusta Hospital, in succession to Professor Senator.

IMMIGRATION AND OVER-POPULATION.

THE Anglo-Saxon race, as in spite of the pedantic objections of some historians we persist in calling ourselves, is just now much exercised on the over-population question. Theoretical articles in monthly reviews, and the more circumstantial evidence given to the Parliamentary Committees now sitting to investigate the sweating system and pauper immigration have stirred men's minds. A "Committee for Inquiring into the subject of Over-population," has held a semi-public meeting, so largely attended that it has been necessary to arrange to hold future "conferences" in a more roomy apartment, and Willis's Rooms have been chosen for the purpose. The United States of America, assailed on both their eastern and western seaboard, have some time ago forbidden the entry of pauper immigrants from Europe on the east, and the immigration of the Chinese on the west. Finally Australia has precipitately attempted to forbid the influx of Chinese labourers into territories which Western Europe was still inclined to regard as boundless.

Against the Chinaman it is urged in general that his ways are insanitary, and specifically that his methods of raising vegetables for the market are distinctly dangerous to health. Miss Gordon Cumming, in one of her delightful works of travel, has given a description, the more vivid from its studied restraint, of the system of market gardening in China, which leaves a very unpleasant impression. The pail-system of sewage disposal is universally adopted in its crudest and most primitive form, and as the same method is pursued by Chinese immigrants, there seems to be good ground for the opinion expressed by competent authorities in Australia, that such diseases as typhoid fever may be transmitted through fresh vegetables grown by Chinese market gardeners. Fresh excreta mixed with water and applied directly to growing lettuces, much as an English gardener may add a little guano or other fertiliser to his watering pot, might very well be the direct means of distributing the disease. The objection is of a totally different kind to that which some thoughtless persons have made against sewage farms; in the latter the liquid sewage runs in channels between the rows of vegetables, filters through soil to the roots, and even if any noxious principles escaped destruction in the earth, they would be subjected to the marvellous metabolic processes of the living cells of the plant; moreover, a laborious research conducted in France, has shown that vegetables grown on sewage farms do not contain dangerous forms of bacteria. But when recent excreta are applied in the haphazard method favoured by the Chinese, the dangers are different and greater, for the surfaces of the growing leaves may be directly contaminated.

The Australians will, no doubt, settle the question of Chinese immigration for themselves, and will probably follow the example set by the United States. In this country, too, it seems not impossible that the pressure of public opinion will compel the Government to follow the example set by the United States on their other coast, and introduce some measure to place the admission of pauper immigrants under strict surveillance. Our hospitals daily afford evidence of the abject poverty and hideous diseases which are the only possessions of too many of the miserable foreigners who have within the last

decade swayed into certain districts of East London. But we must not suppose that even the most complete check to pauper immigration would solve the "over-population question." The Committee to which reference has been made above has taken up a large and somewhat delicate subject. It has chosen for motto *Lux quia lex*, and this alliterative jingle expresses fairly well the chief remedy which we can hope to apply. Speaking generally, it is the most ignorant and least worthy classes which multiply most rapidly, so that our civilisation, it is said, is threatened by a kind of law of the survival of the unfittest, traceable to a mere surplus of numbers. The pressure of "bad times" and the increasing difficulty of earning a living to some extent, as statistics show, tend to lower the birth-rate; but education, moral, mental, and physical, is the only real remedy, and this will take many years, even generations, to produce an effect.

STUDIES IN THERAPEUTICS.

VI.—PARAPHENACETIN.

THE aromatic series of carbon compounds seems destined to supply us with a very large number of drugs, useful in treatment. We are already familiar with antipyrin (dimethyl-oxychinicin), and antifebrin (acetanilide). The latest discovery is that of phenacetin, or para-acetphenetidin, a body closely allied to antifebrin. This body was first prepared by Dr. O. Hinsberg, of Elberfeld, who, in conjunction with Professor Kast, subjected it to physiological research. The results of this research have led Dr. Koller, of Vienna, to make an extensive use of it clinically for its antipyretic properties. The results of his experiments are embodied in a small pamphlet from which the following facts are taken: Phenacetin is inodorous, tasteless, very slightly soluble in acid chyle or pancreatic extract at body temperature. It has no effect in reducing normal temperature, but it is claimed that in all cases of pyrexia even small doses (4 to 7 grains) never fail to produce a perceptible effect in diminishing the fever. No ill-effects such as nausea, vomiting, and collapse, which sometimes follow the use of other antipyretics, have been observed. Altogether, fifty cases of a most varied nature have been treated with the new febrifuge. Of these, tuberculosis, pneumonia, morbilli, and enterica form more than half. The plan adopted was to administer the antipyretic when the continued high temperature seems likely to be prejudicial to the patient, that is to say, in long-continued temperature of 102 degrees to 104 degrees F. The reduction of temperature took place slowly, the maximum effect being produced in about four to six hours; this point being reached, the temperature again rose, so that in eight to ten hours all effects have passed off. Nocturnal exacerbations in phthisis were found to be not prevented, but only delayed; but the rise of temperature under these circumstances was unaccompanied by rigors. Moreover, during treatment, the patients became cheerful and able to take food. The fall in temperature was not usually accompanied by perspiration; when this takes place, Dr. Koller says that care is required in exhibiting the drug. In one case of this kind, temperature was reduced as low as 95 degrees F., which caused some alarm. The patient's temperature rose, however, under the influence of rubbing and warm bottles, and no signs of collapse appeared. It is also stated that a com-

paratively large initial dose is more effective than several successive doses. It would be interesting to ascertain whether in the case of phenacetin, as in that of antipyrin, a tolerance was produced after prolonged exhibition. Phenacetin exerts no diuretic action, and passes out of the body quite harmlessly by the kidneys; its presence in the urine may be detected by the red reaction given by ferric chloride. It would be interesting to know during what length of time this red reaction can be observed as a clue to the rate of excretion. Judging by the properties of allied bodies Dr. Koller has made experiments on the antiseptic properties of phenacetin, but owing to its great insolubility, no definite results have been arrived at. The main deductions from the paper seem to be as follows:—1. That phenacetin is an antipyretic. 2. That its use is not usually followed by disagreeable results. 3. That a single large dose is more serviceable than successive small ones. 4. That the fall of temperature takes place less promptly than when other antipyretics are used, but lasts longer. This seems to be most likely due to the great insolubility of the drug, which is one of the greatest drawbacks.

THE Emperor of Germany has conferred on Professor Virchow the honour of the Red Eagle of the second class.

THE Prince and Princess of Wales have promised to open the new Great Northern Central Hospital in Holloway Road on Monday, June 25th.

THE Cavendish Lecture of the West London Medico-Chirurgical Society will be delivered at the West London Hospital, Hammer-smith, on Friday, June 1st, at 5.30 P.M., by Sir William Stokes Professor of Surgery in the Royal College of Surgeons in Ireland, who will take as his subject 'The Altered Relation of Surgery to Medicine.'

MEDICINE AND POLITICS IN ALSACE.

By a decree of the Governor of the Department, the Société de Médecine de Strasbourg has been dissolved; in other words, the authorisation which is required by law for all meetings of more than twenty persons has been withdrawn. No reasons are given for this rigorous decision, and the disappearance of this venerable society has given rise to general expressions of regret.

GROCCERS NOT PHARMACISTS.

THE Correctional Tribunal of Privas (France) recently sentenced a grocer to a fine of 500 francs, with costs, for having sold fluid extract of cinchona, santenin lozenges, mercurial ointment, etc., to the detriment of the local retail chemists. In view of this decision, the sale of Epsom salts, chloride of lime, or carbolic acid must expose unwary tradesmen, other than chemists, to very serious pecuniary risks. This stringency may have something to do with the comparative rarity of cases of accidental poisoning in France, which are so lamentably common in this country, where the laws restricting the sale of poisons are, to all intents and purposes, inoperative.

MECO-NARCEIN.

DR. LABORDE has called the attention of the French Academy of Medicine to the valuable soporific qualities of a product derived from opium, to which he proposes to give the name of meco-narcein. Narcein as ordinarily prepared is comparatively insoluble, and therefore has very little physiological effect. He has succeeded, however, in obtaining a product quite free from mor-

hine, and consisting of narcein mixed with various unknown kaloids. A fifth of a grain induced a calm sleep in a dog weighing thirty pounds, without any apparent after-effects. It would appear to be devoid of the preliminary exciting effects of morphine, and does not derange the digestive apparatus. Dr. Laborde recommends it in the treatment of insomnia of nervous origin, in broncho-pulmonary affections characterised by cough and excessive secretion of mucus, and finally in morphinomania.

SUCCESSFUL OVARIOTOMY IN A PATIENT AGED EIGHTY-TWO.

M. HOMANS, of Boston, removed, on January 28th, 1888, a papillo-tous multilocular cyst of the left ovary from a widow, aged 82. The temperature rose on the sixth day to 100.5°, but subsided the next day, and the patient returned to her home on March 1st. The tumour had been observed for two years. Its solid portion weighed thirteen pounds, its fluid contents one pound and three quarters. The case is described in the *Boston Medical and Surgical Journal* for May 3rd, 1888, where it is asserted that no case is recorded of ovariectomy in a patient over 78 years of age. Olshausen, however, notes that Schröder successfully operated on a patient aged 79, and on another aged 80. Dr. Miner described in the *Buffalo Medical and Surgical Journal*, September, 1866, the removal of a multilocular ovarian tumour weighing nineteen and a half pounds from a woman, aged 82. She died fourteen days after the operation. Dr. Homans's patient probably the oldest who has recovered from ovariectomy.

POISONOUS WINE.

FEW months since, a large number of the inhabitants of Hyères were suddenly stricken down with a disease, the symptoms of which were colic, anorexia, puffiness of the face, photophobia, and partial paralysis of the extremities. For a time these symptoms were attributed to an epidemic of severe influenza. The number of the victims rapidly increased, until upwards of 300 persons were suffering. It can easily be imagined that the suddenness and mystery of the visitation excited a great deal of consternation among the inhabitants. Matters went on thus till the month of April, when Dr. Roux, who had in the meantime been carrying out an inquiry on lines of his own, arrived at the conclusion that the course and character of the affection pointed to the effects of poison rather than to any known disease. After much painstaking research, he succeeded in incriminating a particular wine supply, and at once brought the matter to the notice of the authorities, basing his opinions on the facts (1) that the effects observed were in direct proportion to the amount of wine absorbed; (2) that no such symptoms had presented themselves, except in those who had partaken of the incriminated supply; and (3) that the members of a family who, for any reason, had not taken the wine, had escaped the symptoms. The authorities seized the stock of wine and arrested its proprietor, who will be kept in prison pending the final report of the analyst, who is stated to have found arsenic in the wine.

AN UNMERITED CENSURE.

An inquest recently held in Oswestry terminated in a severe and quite undeserved censure on Dr. Fuller, a much respected practitioner in the town. The facts were simple. A man, aged 45, was admitted into the cottage hospital suffering from retention of urine due to a long-standing stricture of the urethra. The retention of urine having been relieved by the passage of a catheter, Dr. Fuller ordered the removal of the patient to the workhouse, as he was free from pain and quite comfortable, and was not then properly a case for treatment under the rules of the institution, which limits the admission of cases to accidents, and those of an urgent nature. The patient died four days after his removal to the workhouse, and for some reason unknown to us

Messrs. Blaikie and Cartwright, who attended him during those four days, were not summoned to give evidence at the inquest. As already stated, the jury added a rider to their verdict censuring Dr. Fuller for accelerating the death by the indiscriminate removal of the patient to the workhouse. This censure is certainly not justified in the slightest degree by the evidence, two very full reports of which have appeared in the local newspapers. We cannot help believing that had the additional medical evidence to which we have referred been called for, the rider would never have been added. The indiscriminateness on which the jury laid so much stress really consisted in the hearty dinner and quantity of beer of which the deceased partook after his retention had been relieved.

WOODHALL SPA.

A NUMBER of medical men and others accepted on Tuesday last the invitation of the proprietors of the unique bromo-iodine spa at Woodhall, Lincolnshire, to inspect the hotel, new pump room, and baths which have been recently erected at that place. Till lately the valuable iodine spa at Woodhall has enjoyed little more than a local reputation; it deserves a world-wide celebrity. A short time ago a syndicate composed of Sir E. R. Webster, Q.C., M.P., Mr. Edward Stanhope, M.P., Mr. Henry Chaplin, M.P., and others, was formed to develop what there is reason to anticipate may prove to be a popular and highly useful health resort. Plans of a new hospital have also been prepared by Mr. Waller, of Boston. At a luncheon, presided over by Mr. E. Stanhope, M.P., Dr. Burney Yeo took up effectually the parable which Mr. Ernest Hart has propounded with so much general acceptance in these columns, and pointed out that those who desired to promote the prosperity of English spas must bring about developments in the way of recreation and public amusements, which few of them at present possess. The invalid, he rightly said, did not merely want water and baths; there must be the means of recreation, for the invalid who was well amused was half cured. The Speaker of the House of Commons rather reproached English medical men for neglecting the spas of their own country; but it is not so much the doctors as the municipalities and the proprietors who have been at fault. We hope that a new era is opening, and that Woodhall spa will help to lead the way. Mr. Ernest Hart, in his letters from Carlsbad, has given a detailed account of the very simple and effective method by which the municipality of that little far-away hamlet developed its attractive series of public buildings, *Trink-halle*, musical promenades, *cafés*, woods, and gardens, without drawing upon the slender purse of the town. This lesson should not be lost upon our English municipalities and spa syndicates.

THE TUBERCLE BACILLUS.

THE paper which Dr. Kidd and Mr. H. H. Taylor laid before the Royal Medical and Chirurgical Society on Tuesday, May 22nd, on the results of the examination of sputa for the tubercle bacillus was one well worth attention. Attention on the part of those present was comparatively easy, as Dr. Kidd took the wise course of reading the paper himself, with selections from the cases related, and relieved the Honorary Secretary of the difficult task of emphasising just those points which the authors think important, and passing lightly over the subsidiary parts. It is a practice we could wish was more generally adopted at this Society. The paper was the result of some years of careful and continuous microscopical study, carried on alongside of clinical observation at the Brompton Hospital. During the years that have now elapsed since Koch's discovery of the bacillus of tubercle, clinical observers have been endeavouring to come gradually to a just estimate of what they have thereby gained. They have gained, say Dr. Kidd and Mr. Taylor, some indisputable points in dia-

gnosis of tubercular disease of the lungs and throat, and along with that in treatment, but little in prognosis, as compared with what was possible before. Many of the factors of prognosis had previously been long and carefully studied, and the results of that study are not contradicted, and not much added to by the fresh knowledge of the bacillary origin of the disease. One or two speakers claimed rather more for it in prognosis, but such claims were in part satisfied by the full acknowledgment of its usefulness in diagnosis, and in part must be put to the searching test of long experience. Dr. Kidd's and Mr. Taylor's paper dealt only with the deductions from the sputa, and, in careful and prudent fashion, declined to enter on the larger questions of the possibilities and methods of infection, and the development of any anti-bacillary treatment. These are matters which need most careful and continuous study, after the enthusiasm of a new discovery has passed through its first stage of excitement, and on which the next generation will probably have more to say than we.

"TRAUMATIC HYSTERIA."

Cases not infrequently occur in which the victims of railway accidents, who have or have not been subjected to actual wounds, develop secondary symptoms after a considerable lapse of time, involving paralysis and disorders of the sensory apparatus. The evidence given in respect of such cases in courts of law is usually very conflicting, the medical witnesses for the plaintiff testifying to the existence of this or that symptom, while the professional experts on the other side are unable to see anything more than "hysteria." It may fairly be considered how far such an expression as "hysteria" ought to be used in such cases. The impression which it conveys is decidedly detrimental to the injured party, who may be suffering from one form or another of those functional disorders which not infrequently follow injury, and which, in the present state of ignorance as to their nature, are conveniently, but certainly inaccurately, grouped under the vague and misleading title of "hysteria." At a recent meeting of the Medical Society of London, Dr. Beevor showed just such a case. The patient was a lad who had contused his hand, and the injury was followed in a day or two by gradual firm contraction of the right hand. Anæsthesia of the integument up to the shoulder supervened, with loss of muscular sense; but the movements of the arm and forearm were unimpaired. The lad was otherwise healthy, and had nothing to gain by simulating an affection, the reality of which was, moreover, amply demonstrated. There is no lack of such cases on record, and the point of interest is their bearing in actions for damages on account of injury. The symptoms are as directly the effect of the injury as would be erysipelas or tetanus, and it is not easy to see why an endeavour should be made to distinguish between one and the other in so far as the legal position is concerned. That there is still very much to be learned with respect to the nature of these ill-understood phenomena is painfully evident, and they deserve special attention on account of their peculiar medico-legal interest.

ONE-CHILD STERILITY.

A CONSIDERABLE proportion of women never bear more than one child, and this fact is easily explained, for pregnancy may be complicated or followed by disorders which damage the genital apparatus. Dr. Kleinwächter observed 90 cases where women had been but once pregnant, and on that occasion at a more or less remote period, out of 1,081 patients in his gynecological practice. In 21 of the 90 cases the pregnancy had ended prematurely. He classed the causes of sterility after a first pregnancy into ten groups, based on a careful study of the 90 cases. The groups were thus arranged in order of frequency: 1. Sequelæ of inflammatory processes arising during the puerperium; 2. catarrhal endometritis; 3. sequelæ of inflammatory processes not puerperal in

origin (43 cases came under one or other of these groups); 4, displacements of the uterus; 5, neoplasms of the uterus; 6, constitutional sources of sterility established after the first pregnancy; 7, impaired potency of the husband, well authenticated by the clinical history; this condition has more than a negative influence on the uterus and ovaries; 8, super-involution or atrophy of the uterus; 9, new growths in the ovary; 10, uncertain or unknown causes. Under Group 6 were included cases where anæmia, cachexia, obesity, or emaciation arose after the first pregnancy. As the cases could not readily be kept under observation after their discharge from hospital, or after dispensing with the physician's services, Dr. Kleinwächter could come to no conclusions as to treatment. His observations are to be found in the eighth volume of the *Zeitschrift für Heilkunde*.

SYRINGOMYELIA.

DR. ALLEN STARR, Clinical Lecturer on Nervous Diseases at the College of Physicians and Surgeons, New York, has recently contributed to the *American Journal of the Medical Sciences* a memoir of considerable importance on "Syringomyelia; its Pathology and Clinical Features." Dr. Starr affords his readers a good summary of the opinions of authorities upon this condition, where abnormal cavities are present within the spinal cord. Syringomyelia differs from hydromyelus, which is a congenital affection where the central canal is dilated, the cavity being lined with cylindrical epithelium. Syringomyelia is, on the other hand, acquired. Such is the distinction drawn by Dr. Starr and other writers, but Drs. Frederick Taylor and Whipham, whose valuable papers on syringomyelia in the *Transactions of the Pathological Society of London* have apparently been overlooked by Dr. Starr, do not employ the terms in so definite a sense. In syringomyelia proper the cavities represent the breaking-down of small gliomata, although Leyden, Westphal, and Taylor maintain that the cavities are more probably developed from the central canal itself. From a summary of clinical records Dr. Starr concludes that certain symptoms in a certain combination are characteristic of syringomyelia. First, there is progressive muscular atrophy, with paralysis affecting some or all of the muscles of one limb, and usually extending to the opposite limb and to the body. Again vasomotor and trophic disturbances are observed in the affected limb, manifested by coldness, blueness, bullous eruptions, ulceration, abscesses, and even atrophy and fragility of the bony structures, and a diminution in the excretion of sweat. Lastly, there is a loss of the sensations of pain and temperature in the atrophic part, whilst the senses of touch and location may be preserved. The causes of syringomyelia have not been precisely defined, and nothing is known of the treatment of this disease, which may progress slowly, or come to a standstill, or terminate suddenly.

MEDICAL SELF-HELP.

IN the presence of the numerous and touching appeals which we have recently published on behalf of medical men who have been overtaken by sudden calamity from unforeseen sickness, accident and financial disaster, it is gratifying to be able to note the growth of providence and the extension of membership in the Medical Sickness and Life Assurance Society. The quarterly report which we recently published showed the remarkable growth of the invested funds of this Society, now amounting to upwards of £20,000 in the course of four years, and the satisfactory fact that all the funds show a good surplus, while the management fund shows in the same time a saving of nearly £2,000, which is placed to the credit of the members. At the last monthly meeting of the Society, sickness payments were ordered on account of cases of practitioners, members of the Society, disabled from practice by locomotor ataxy, phthisis (2), compound fracture of the leg and of the arm, myelitis, pneumonia, pyæmia

Menière's disease, acute rheumatism, enteritis. Two of these cases are likely to require, and will receive, a continuous payment for the rest of life, the diseases being permanent and involving total disablement. The Society is one of purely mutual character; there is no eleemosynary element in its constitution. The Managing Committee, however, are unpaid; and the whole of the profits accumulated are the property of the members. The members claim their payments due as a matter of right, and it is a subject for hearty congratulation that an association which puts self-help within the reach of every practitioner in sound health, and enables him to provide against accident, misfortune, sickness, and disablement from old age, is prospering so remarkably, and continues to receive almost daily applications for membership. Prospectuses, tables of premium, forms of proposal, and all information are furnished on application to Mr. C. J. Radley, 25, Wynne Road, Brixton, London, S.W.

NECROPSY OR DISSECTION.

WITH reference to the alleged instance at Victoria Park Hospital of the performance of a *post-mortem* examination in opposition to the wishes of the relatives, we are requested to state the following facts. The patient died somewhat suddenly after rallying from a fit. At the commencement of the serious symptoms the friends were telegraphed for, and a porter afterwards sent to the address given. The friends were, however, not forthcoming. Some hours after the death of the patient the *post-mortem* examination was performed. It is the custom to ask permission in every case for a *post-mortem* examination, but, in the event of the relatives not arriving, this is always performed. In this case the father did not arrive till after the examination (which was an ordinary one) was made. So far from being treated abruptly, the father was given every opportunity of stating his grievance before the committee of the hospital, and no such expression as has been reported—that "they should do as they liked"—was ever used to him. An idea seems to be prevalent that the body was "dissected," such as was not the case. In an ordinary *post-mortem* examination, such as was performed in the instance under consideration, it is impossible, without specially looking, to discover whether an examination has been made or not. The practice of *post-mortem* examinations in hospitals or elsewhere is to be governed by good sense and consideration for the feelings of relatives rather than by reference to legal rights. The law is singularly silent on the subject. In a test case raised by the Vigilance Committee and heard at Bow Street in June, 1882, Mr. Flowers stated that the question for decision was whether making a *post-mortem* examination could be considered to be offering an indignity to a human body. This point was decided by Lord Chief Baron Pollock in the case of *Regina v. Feist*, which came before the Court for Crown Cases Reserved in 1858. The Chief Baron held that there was nothing wrong or against good feeling in making a properly conducted *post-mortem* examination, so that a medical officer who, in the course of his ordinary duties, makes such an examination does not violate the law.

PHYSIOLOGISTS' ON MONT-BLANC.

THREE enterprising French gentlemen went last summer to the top of Mont Blanc for the purpose of making a series of meteorological and physiological observations, and remained there for two or three days, in order to obviate the errors which, so far as physiological observations are concerned, would be inevitable if made while still suffering from the extreme fatigue incidental to so laborious an ascent. As it was, none of them had the courage, on attaining the goal, to put up the tent, etc., which with great difficulty had been brought up, and they fell asleep with their heads on the boxes of instruments. The thermometer, when placed on the snow, registered 19° C. below zero. M. Richard and one of the guides suffered from severe headache, with feverish symptoms.

The least effort—even ordinary movement—caused such fatigue that they were compelled to lie down during the greater part of the day. They had masks to preserve the skin of the face from the biting cold, and the usual spectacles to avoid snow-blindness. The travellers suffered from almost complete anorexia, and they noticed that tea immediately made them ill. The second day tracings were taken of the pulsation of the carotid and radial arteries. One of the guides was quite prostrated with headache and high fever, and was only got down with great difficulty. Once down, a good meal, a denser air, and a milder temperature soon restored them to their normal condition of health.

CORPORAL PUNISHMENT IN ELEMENTARY SCHOOLS.

THE matter of corporal punishment still remains a vexed question with schoolmasters and magistrates. We have great sympathy with the schoolmaster who tries to do his duty and finds chastisement in school necessary. Reasonable chastisement is a useful discipline; if properly administered it is not harmful to the body, while it often improves manners and stimulates learning. Teachers have a right to some authoritative decision as to the power of administering chastisement without incurring legal liability thereby. This is not a matter for fine sentiment and feeling, but for deliberate judgment and action. Let the Education Department and the Home Office confer, and define in a code the ages under which children may corporally be punished, and the mode and extent of administration. Corporal punishment may produce some aches and pains, but it interferes with health less than confinement after hours, or deprivation of food. The teacher should not fear to do his duty, and the law should support him in doing it for the child's good and the maintenance of a wholesome discipline.

UNIVERSITY COLLEGE HOSPITAL.

A MEMBER of the medical staff of University College Hospital is credited with an expression of profound regret that, when an accidental fire occurred in that venerable building during the course of some Christmas festivities, the active workers who extinguished the flames did not turn their attention to removing the patients, leaving the building to be consumed by the devouring element. It is an open secret that the structure is very imperfectly adapted to its purpose, and that many members of the committee have long entertained the opinion that to further patch and repair was mere waste of money, and that the true economy would be to pull down and rebuild. The late Sir Francis Goldsmid, a generous benefactor of the hospital, as he was of the College, held this view so strongly that his large legacy was contingent on this course being adopted, and, when a decision adverse to the proposal was reached, the legacy lapsed. Plans have actually been in existence for years, and some money has been raised; yet it is reported that the committee propose to waste further sums on tinkering at the sanitary arrangements, which once again have been found so patently defective that the hospital will probably have to be closed for six weeks this summer.

STILLBORN CHILDREN AND WORMIAN BONES.

DR. GRACE PECKHAM contributes to the *New York Medical Record*, April 14th, 1888, an article on "Wormian Bones in Fontanelles, and their Effect in Childbirth." From the experience of three cases, very similar—indeed, almost identical—in character she has been led to infer that large Wormian bones in the fontanelles, especially in the posterior, may endanger the child during parturition. They may prevent the overlapping at the sutures, so that during the second stage of labour, when the pressure is greatest, the intra-cranial contents may be gravely damaged by pressure. In all three cases the patients were primipare, and

there was nothing abnormal in the measurements of the maternal pelvis and fetal heads. The presentation was left occipito-anterior in all the cases. The labours progressed slowly but normally through the first stage, but the second stage was very slow, lasting two or three hours. As there was a constant expectation that the labours would terminate naturally, no instruments were used. All these children were stillborn. In the first two cases the abnormality gave rise to confusion in determining the presentation; in the third, previous experience rendered diagnosis easy. The bones were two in number, triangular, and lying on each side of the middle line, the suture which divided them being continuous with the sagittal; their bases lay towards the occiput, their apices touched the parietals. These bones must be distinguished from the remarkable "interparietal," "epactal," or "lambdoid" bone, the "os Incae" said to exist in 20 per cent. of the skulls of the ancient Peruvians. The interparietal bone is single, and represents failure of union of the upper with the lower part of the occipital portion of the occipital bone. Dr. Peckham insists on the facility with which Wormian bones in the posterior fontanelle may be diagnosed during labour, and raises the question: Can the dangerous pressure-effects be avoided by the prompt and early use of instruments? She turns the attention of obstetricians to the subject.

INTERNATIONAL CONGRESS ON ANTHROPOLOGY.

THE Congress announced to be held at Columbia College, Brooklyn, U.S.A., June 4th to 7th, will discuss a variety of subjects affecting medicine and public health. There will be sections for anthropology, ethnology, ethnography, prehistoric archaeology, and history of culture. Under anthropology there will be considered the effect of physical surroundings on man, with the influence of the present system of education; the physiology of the mind, the relation between physical states and psychical phenomena, heredity, criminal biology, and sociology. Under ethnology there fall to be discussed the laws of human progress as affected by food, narcotics, disease, sexual relations, language, the arts and sciences, government and laws, religions, and civilisation. The President is Dr. E. C. Mann. Among the medical English Vice-Presidents are Professors Flower, Huxley, and Victor Horsley; Sir Crichton Browne, Drs. T. S. Clouston, Norman Kerr, Henry Maudsley, George H. Savage, and L. S. Forbes Winslow. English law is represented by Sir J. FitzJames Stephen, and Sir Henry Maine. Other Vice-Presidents are Sir John Lubbock, Professor Häckel of Jena, Professor Virchow of Berlin, Professor Carl Vogt of Geneva, Dr. Kraus of Vienna, and Dr. Morell of Ghent.

ECTOCARDIA CURED BY A PLASTIC OPERATION.

PROFESSOR LANNELONGUE, of Paris, recently presented to the Académie des Sciences a very remarkable case of deformity of the chest wall, with ectopia of the heart, which he had dealt with successfully by operation. The patient was a female child, six days old, well-formed in every part except the thorax. On the front of the chest over the middle of the sternum there was a circular ulcer, rather larger than a franc piece, the base being formed by a yellowish membrane which appeared to be becoming gangrenous. It was already detached from the edges of the ulcer at several points, and thus only imperfectly closed the aperture into the chest. Each beat of the heart pushed it forwards, and on applying the finger during systole the hardening of the ventricular wall as they contracted could be distinctly felt. The inner ends of the clavicle articulated below with the first rib, and appeared to be free internally and above: the sternum was entirely wanting between them. This gap in the osseous wall of the chest extended downwards in the middle line; the sternum appearing to be represented on each side only by a narrow strip of bone running downwards and ob-

liquely inwards," and finally joining the corresponding piece below the median ulcer already referred to. The deficiency in the bony chest wall was therefore of the shape of an isosceles triangle, the apex being below at the ensiform cartilage and the base above at a line joining the inner ends of the two clavicles. The side of the triangle measured 4, and the base 3 centimètres. The circular ulcer was as it were inscribed in this triangle. On inspiration the chest wall corresponding to the malformed part of the skeleton was drawn in, so that a hollow half an inch deep was formed at the upper part; in expiration, on the other hand, it bulged markedly forward. A few days after the little patient was first seen, the remains of the "obturator" membrane at the bottom of the ulcer disappeared; the pericardium was seen to be entirely wanting; the apex of the heart projected outside the chest, and the whole anterior surface of the ventricles was exposed. The hole in the skin became gradually smaller owing to the formation of large fleshy granulations, which pressed on the apex and ventricles of the heart, and it was obvious that immediate surgical interference was necessary to prevent most serious disturbances of the circulation. M. Lannelongue therefore made two vertical incisions on each side, $1\frac{1}{2}$ centimètre to the outer side of the ulcer; the flaps thus formed were sufficiently loosened to allow of their internal edges being brought together over the opening in the chest wall, where they were fixed by three hair sutures. Only a few drops of blood were lost; the operation was not followed by any constitutional disturbance, and the wound was entirely healed in twenty days. Two months after the operation the child was in perfect health. M. Lannelongue points out that in this way he transformed the case from one of "ectocardia" into one of "subcutaneous ectopia." He thinks it possible that the ectopia, which is at present extra-thoracic, may in time, as the heart develops, become intra-thoracic. Professor Verneuil, in presenting M. Lannelongue's communication to the Academy, remarked that this was the first time such a procedure had ever been attempted.

SCOTLAND.

SIR GEORGE HUSBAND BAIRD MACLEOD, Knight, Regius Professor of Surgery in the University of Glasgow, has been made a Deputy-Lieutenant of the County of Dumbarton.

GLASGOW MATERNITY HOSPITAL.

THE directors of this hospital intend to open, on June 11th next, a west-end branch, at 491, St. Vincent Street. Patients will not be received into the west-end house, but will be attended from it, free of payment, at their own houses. Students will continue to take their first six cases from the hospital in North Portland Street, but will be allowed to take additional cases from the branch. This arrangement will be of great service both to students and patients.

ORIGIN OF HOSPITALS.

IN his admirable lecture on Life in One Room, Dr. J. B. Russell, Medical Officer of Health for Glasgow, made the statement that "hospitals for the sick are the special product of Christianity." As this represents a very common belief, our readers may be pleased to have the following references to authorities on another view of the subject. They are taken from a letter in the *Glasgow Herald*, of May 17th. Professor Monier Williams says that "the first hospitals for diseased men and animals are known to have originated with the Indian Buddhists" (*Nineteenth Century*, p. 77, July, 1882). In the fourth century B.C., an edict was promulgated in India by King Asoka, commanding the establishment of hospitals throughout his dominions (*Westminster Review*, October,

1887). Bosworth Smith, in his *Mohammed and Mohammedanism*, p. 253, says we owe the origin of hospitals to the Indian Buddhists, and of lunatic asylums to the Mohammedans. And Prescott, in his *Conquest of Mexico*, p. 16, says that hospitals were established in the principal cities of ancient Mexico for the cure of the sick and the permanent refuge of disabled soldiers.

THE "JOHN REID" MEDICAL PRIZE.

THIS prize, founded by Miss Mary Reid in memory of her brother, the late John Reid, surgeon, Glasgow, is awarded for the best original research bearing on any of the departments of medical science, conducted in one of the hospitals or laboratories of Glasgow. The prize, which is of the annual value of £25, was, at a meeting of the trustees held on May 17th, awarded for one year to Mr. Robert M. Buchanan, Glasgow, for an able paper on the Absorption of Amyloid Material, and the Amyloid Change in Hodgkin's Disease.

PROSECUTION UNDER THE VACCINATION ACT.

AT Alloa Sheriff Court the Rev. E. M. Pulsford was charged by the Parochial Board with a contravention of the Vaccination Act by refusing or neglecting to vaccinate his daughter. Mr. Pulsford, who has been twice previously convicted, pleaded guilty, and said he understood it was within the province of the Parochial Board to drop prosecution after the first conviction. The Sheriff stated he had no choice in the matter. The policy of the Act was to make vaccination compulsory, and if boards only prosecuted once that would not be compulsion. He then imposed a fine of 5s., with 30s. expenses, or seven days' imprisonment. It may be noted here that, as will be seen from the Registrar-General's report, only four deaths from small-pox occurred in the eight principal Scotch towns during 1887.

SEVERE THUNDERSTORM IN SCOTLAND.

ON Saturday, May 19th, a most terrific thunderstorm broke over Glasgow and the south-west of Scotland, causing much damage to property and live stock, and causing four deaths. Two young boys were killed on Glasgow Green. On the body of the one there was only a slight mark on the chest, but that of the other was much scorched, especially about the head and chest, and the hair was entirely burnt off one side of the head. A piece of tin in this boy's pocket was fused by the current, and a large hole, a foot wide and about four feet deep, was made in the ground near where the boys were standing. About the same time two men were struck down in Paisley Road in the outskirts of Glasgow; one was killed, and the other rendered insensible. No marks were found on the body in this case. A young man was also killed near Bathgate. Professor Grant, of the Glasgow Observatory, states that the thunderstorm was the most severe recorded in the annals of the observatory.

THE GOVERNMENT AMENDMENTS TO THE UNIVERSITIES (SCOTLAND) BILL.

WITH the view of rendering the principle of affiliation of colleges clearer, and settling the relations of those colleges to the universities, the Secretary for Scotland is going to introduce certain amendments in committee. The most important of these are the following: The words "affiliation" and "incorporation," are to be struck out of the Bill altogether, and replaced by "added to." On Clause 6, which deals with the powers of the University Court, it is proposed that that body shall have power to administer and manage the whole revenue and property of the University, including the contributions for university purposes from any college which may hereafter be added to the University, provided always that no member of a university court who represents any college which may hereafter be added to the university shall sit or vote

as a member of such court, while it is engaged in the administration or management of any university funds or property, other than the contributions to be severally made by the university and any such added college, as hereinafter enacted. The following new clause is to be introduced after Clause 14. The Commissioners and, after the expiry of their powers, the University Court, may if they think fit make ordinances to extend any of the universities by adding new colleges to them, under regulations to be laid down by the Commissioners, subject to the following conditions: 1. The university court and the college, which it is proposed shall form part of the university, shall be consenting parties. 2. The approval of the Universities Committee shall be signified. 3. The college shall have been under its existing constitution placed on a permanent footing, and shall be sufficiently endowed, in the opinion of the Commissioners. 4. The university and any college or colleges which may be added to it shall severally contribute for the general purposes of the university, as increased by such addition, such annual sum as the Commissioners may determine. 5. When such college is established and on a permanent footing, and under its constitution the college funds are managed by persons other than the teachers, such funds shall continue to be managed as heretofore, subject to the control and review of the university court. 6. The university court or any college which under this act shall have been made part of the university may resolve that such college shall cease to form part of such university.

IRELAND.

THE portrait of Dr. John Halahan, Professor of Anatomy and Midwifery, 1788, and that of Dr. Croker King, first president, have been presented to the Royal College of Surgeons by the surviving relatives of those gentlemen respectively.

THE LOCAL GOVERNMENT BOARD AND DR. MAGNER.

WE learn that the Local Government Board for Ireland have refused to sanction Dr. Magner's appointment as medical officer of Timoleague Dispensary unless he gives a written promise not to connect himself further with any illegal combination or conspiracy while holding office. Dr. Magner has replied to a communication from the Board to this effect, that if they expect him to resign his membership of the National League before obtaining their sanction to his appointment, he must refuse to give any such undertaking.

FEES FOR EXAMINING LUNATICS.

DR. BLAKE, of Tuam Union, lately examined a lunatic, and obtained a magistrate's order for his fee; but, on applying to the guardians for the amount due, it was refused. He applied again, and the guardians, instead of paying, which they ultimately must, directed their clerk to write to Dr. Blake, pointing out the great injustice that would be done the ratepayers if the fee was required to be paid; that they considered his position such that he should be slow to take advantage of an order which simply was giving paupers relief. Most people, we would imagine, would regard the refusal of the guardians to pay the fee demanded as an act of injustice towards Dr. Burke.

UNVEILING OF A PORTRAIT OF THE QUEEN AT THE ROYAL COLLEGE OF SURGEONS, IRELAND.

ON Tuesday, May 22nd, His Excellency the Lord Lieutenant of Ireland unveiled a full-length portrait of Her Majesty in the Royal College of Surgeons, at Dublin. There was a very large and distinguished attendance. The portrait, which is by Mr. Catterson Smith, represents the Queen standing on a dais, attired

in a black satin dress trimmed with white lace. She wears a miniature crown, and the blue sash of the Order of the Garter. Dr. Anthony H. Corley, President of the College, read an address, to which the Lord Lieutenant made a suitable reply. In the evening Dr. Corley entertained a large and distinguished company at dinner in the Albert Hall. Among those present were the Lord Lieutenant, the Lord Chief Justice, the President of the Royal Academy of Medicine in Ireland (Dr. Robert McDonnell, F.R.S.), Lord Justice Fitzgibbon, the Provost of Trinity College, the Lord Chancellor, Dr. Fitzgibbon, Colonel Sir West Ridgway, Sir Robert Ball (Astronomer Royal), and Sir George Porter. The only toasts proposed were "The Queen," "The Prince and Princess of Wales," "The Lord Lieutenant of Ireland," "The President of the Royal College of Surgeons," and "The Universities and the Medical Corporations of Ireland." The company then proceeded to the board-room, where some excellent singing was listened to. The evening passed off brilliantly.

PRESENTATION TO DR. A. H. CORLEY, PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS.

ON Monday last a number of the pupils, past and present, of the Carmichael College of Medicine met to present an address to Dr. Corley, President of the College of Surgeons, and Lecturer on Surgery in the Carmichael School. The address was accompanied by a silver salver and a pair of handsome claret jugs. Dr. Gordon, who occupied the chair, bore testimony to Dr. Corley's popularity and eminence. Dr. Corley made a suitable reply.

THE AMALGAMATION OF DUBLIN SCHOOLS.

ON Friday, May 18th, a special meeting of the Fellows of the College of Surgeons was held, pursuant to requisition, for the purpose of considering the question of amalgamation of schools. Dr. Corley presided. The subject was introduced by Mr. Thomson, who pointed out the disadvantages which resulted from a multiplicity of schools in Dublin, and concluded by moving: "That, having regard to the interests of medical education in Dublin, it is desirable to diminish, as far as possible, the number of private schools, and that, with a view to carrying out this principle, it be an earnest recommendation to the Council to take such steps as may be necessary to effect, on equitable terms, an amalgamation of the existing private schools with those of the Royal College of Surgeons." Dr. Kidd seconded the motion, which was supported by Dr. McDonnell, Professor Thornley Stoker, Mr. Barton, and Mr. Wm. Stoker, and opposed by Professors R. Macnamara and Hamilton, and Mr. Wharton. A division then took place, with the result that the motion was carried by 39 to 16. It was further directed that a special meeting of the Fellows should be summoned to examine any scheme of amalgamation. The schools which it is thus sought to unite with the College School are the Carmichael and the Ledwich. The difficulties in carrying out such a union are great, but they are by no means insurmountable. Certain professors and lecturers would, of course, retire, and for a time there would be more than one occupant of several of the professorships; but seeing that the three schools have about 500 pupils altogether, and that the majority of these would still be retained, the pecuniary result would be satisfactory even at once. As the staff diminished the value of the chairs would be considerable. Mr. Thomson, in his speech, very properly urged the necessity of having such subjects as anatomy and physiology taught by men whose whole time could be devoted to them, and he pointed out that it was only in this way that the scientific reputation of the Dublin School could be raised. The subject has now made a distinct advance, the proposal having for the first time been approved at a meeting of the Fellows, and it is to be hoped that nothing will interfere to prevent its being examined in a fair spirit.

GIBSON AND WIFE V. JEFFRIES AND HILLS.

MAY we appeal to the readers of the JOURNAL on behalf of Messrs. W. C. Jeffries and A. P. Hills, the defendants in an action tried last July at Guildford before Mr. Justice Cave, and reported in your issue of August 13th? Damages to the amount of £500 were then sought to be recovered on the ground of alleged negligence and unskillfulness in the use of forceps during the confinement of Mrs. Gibson, one of the plaintiffs. The jury found for the defendants, and no medical man can read the report of the trial without feeling that the action ought never to have been brought, and that any practitioner who applies the forceps and accidentally ruptures the perineum, or any medical man who is compelled by illness to employ a *locum tenens* is liable to be treated as were Messrs. Hills and Jeffries.

Although costs were given against the plaintiffs, the latter not being in a position to pay, Messrs. Jeffries and Hills will have to pay their own law costs, amounting to £150, and are just now being pressed for payment by the solicitors. There are special and personal reasons known to us that make this a particularly deserving case, and, while it is impossible to remedy the injury, anxiety, and worry through which Messrs. Hills and Jeffries have had to go, we hope that the law costs will be met by subscription among their medical brethren. We would further suggest that this is a case which would be most appropriately dealt with by small subscriptions from a large number of medical men, as it is one deserving such widespread sympathy. The trustees of the "Bower and Keats Fund" have just contributed £50 towards the expenses of Messrs. Jeffries and Hill, but a balance of £100 still remains to be provided.

Subscriptions will be acknowledged in the JOURNAL, and may be sent to Mr. Kettleby, 10, George Street, Hanover Square, W.

GRAILY HEWITT, M.D.,
GEO. GRANVILLE BANTOCK, M.D.,
F. DAWTREY DREWITT, M.D.,
C. B. KETTLEBY, F.R.C.S.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The third general meeting of the present session will be held in the Bell Library and Medical Institute, Cleveland Road, Wolverhampton, on Thursday, May 31st. The chair will be taken by the President, Mr. W. D. Spanton, at 3 o'clock in the afternoon. The following papers will be read:—Dr. C. A. McMunn: Excretion of Reduction Products of Hæmatin in Disease. Dr. Alfred H. Carter: Practical Considerations on the Nature and Treatment of Chronic Cardiac Disease. Mr. E. Hurry Fenwick, London: The Electric Illumination of the Bladder and Urethra, and its Value in the Diagnosis and Treatment of Obscure Vesico-Urethral Diseases. Dr. McMunn will show a simple method of adapting a photographic camera to the microscope.—T. VINCENT JACKSON, Wolverhampton.

HAST YORE AND NORTH LINCOLN BRANCH.—The annual meeting will be held at the Infirmary, Hull, on Wednesday, May 30th, at 1.30 p.m. Gentlemen who intend to make any communication, or to propose any resolution, are requested to inform the Secretary not later than May 20th.—E. P. HARBRY, Honorary Secretary, 80, Spring Bank, Hull.

MIDLAND BRANCH.—The annual meeting will be held at Nottingham on Thursday, June 14th, at 2 P.M. Members desirous of reading papers, exhibiting cases, etc., are requested to communicate with the Secretary before May 24th. Candidates for election by the Branch Council must send in their forms of application by the same date.—W. A. CARLINE, M.B., Honorary Secretary, Lincoln.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at the Devon and Exeter Hospital, Exeter, on Tuesday, June 26th, under the presidency of Dr. John Woodman, F.R.C.S. Notices of motion or communications to be intimated to the Honorary Secretary without delay, and it will facilitate arrangements if members will inform the Honorary Secretary as soon as possible if they hope to be present at the meeting. The following motion was passed at the Council Meeting on May 2nd:—"That inasmuch as the annual meeting assumes more or less the character of a day of recreation, and with a view of encouraging the district meetings, the business of the annual meeting shall be confined to the President's address, the business of the Branch, the exhibition of cases or of specimens with notes, and the annual dinner."—P. MAURY DEAS, Wotton House, Exeter, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—A meeting for the exhibition and discussion of microscopic specimens will be held on May 31st, at 3.30 P.M., in the dissecting-room of the College of Medicine, Newcastle-upon-Tyne. The Secretary will be glad to hear from any of the members who have interesting slides of any description. After the meeting there will be an informal dinner at 5 P.M., at the Douglas Hotel.—G. E. WILLIAMSON, 22, Eldon Square, Newcastle-upon-Tyne, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—The annual meeting will be held in Liverpool about the 13th of June. Gentlemen wishing to read papers or show cases are requested to communicate to CHAS. ED. GLASCOTT, M.D., 23, Saint John Street, Manchester, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held in the Birmingham Medical Institute, on Wednesday, June 14th, at 3.30 P.M.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—A meeting of the above District will be held in the board-room of the new hospital, at Hastings, on Tuesday, June 12th. Dr. Bagshawe will preside. The Chairman, Mr. Ticehurst, and Dr. Penhall, will contribute short papers on cases. Gentlemen interested in hospital construction will be at liberty to inspect the new building. Communications as to papers, etc., should be addressed to T. JENNER VERRALL, 97, Montpellier Road, Brighton, Honorary Secretary.

BATH AND BRISTOL BRANCH.—The sixth ordinary meeting of the session will be held at the Museum and Library, Bristol, on Wednesday evening, May 30th, at half-past 7 o'clock, G. F. BURDER, M.D., President. The following cases will be exhibited at 7.30 P.M. precisely:—Dr. F. St. John Kemm: Graves's Disease treated with Strophanthus. Mr. J. Michell Clarke: Pseudo-Hypertrophic Paralysis. The following communications are also expected:—Mr. J. Ormerod: Spina Bifida, with Specimens. Mr. C. F. Pickering: The Treatment of Discharge from the Ear. Dr. J. G. Swayde: The Hour of Delivery. Dr. H. Waldo: Embolic Hemiplegia.—E. MARKHAM SKERRITT, R. J. H. SCOTT, Honorary Secretaries, Clifton.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The annual meeting for the election of officers will be held at the Forest Hotel, Chingford, on Thursday, June 7th, at 6 P.M. At 6.15 P.M. (sharp) the members and their friends will dine together. A. DURHAM, Esq., President of the Branch, will preside. Tickets, 5s. each, exclusive of wine. Members wishing to be present are requested to communicate with the Honorary Secretary not later than Saturday, June 2nd.—J. W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

SOUTH MIDLAND BRANCH.—The annual meeting of the above Branch will be held at the Blechley Park Hotel, Blechley, on Thursday, June 14th, at 2.45 P.M. The new President, H. VEASEY, Esq., invites the members to luncheon at the same place previously to the meeting, from 1.30 to 2.30 P.M., at which meeting and luncheon every qualified medical man will be a welcome visitor. Gentlemen accepting the invitation are requested to intimate the same to the Honorary Secretary not later than June 11th. The arrangements for a combined meeting this year of the Cambs and Hunts and South Midland Branches having fallen through, the informal reciprocal visits of members, to whom it may be convenient, at the respective meetings, would be most agreeable, and are hereby invited. Agenda:—Usual business of annual meeting. Resolution on subject of "Fees to Medical Witnesses," etc. Communication from Chairman of Parliamentary Bills Committee on Subject of "Lunacy Acts Amendment Bill" (see JOURNAL, May 12th, p. 1028). The following gentlemen will be proposed as new members of the Association and Branch: John Henry Lloyd, Esq., Bedford; J. Nell Whitfield, Esq., Northampton; A. E. Godfrey, Esq., and Weatherley, Esq., Northampton Infirmary. Gentlemen wishing to read papers for discussion, cases, etc., are requested to send the titles of the same without delay to the undersigned. The following have been promised: Mr. Milligan: Case of Strangulated Umbilical Hernia: Operation for Radical Cure: Recovery. Dr. Jones: Physical Indications in Heart Affections.—C. J. EVANS, Honorary Secretary, Northampton.

PERTHSHIRE BRANCH.—The next meeting of this Branch will be held in the Lecture Hall of the Perthshire Natural Science Society, Tay Street, Perth, on Friday, June 1st, at 4 P.M. The President, Dr. Trotter, in the chair. Agenda:—Dr. Trotter: Scarlet Fever during the Puerperium. Dr. W. B. GOWANS: Case of Poisoning by Hydrochloric Acid, with Specimen. Election of a Representative to be present at the annual meeting of the Association in Glasgow during August.—W. B. GOWANS, M.D., Secretary, 6, St. Leonard's Bank, Perth.

DORSET AND WEST HANTS BRANCH.—The next meeting will be held at Sherborne, on Wednesday, May 30th. The business meeting will be held at the Yeatman Hospital, at 2.30 P.M. The following are the agenda:—Election of Branch Council and of new members. Election of a representative of the Branch on the Council of the Association. Election of a representative on the Parliamentary Bills Committee. Place and date of the summer meeting. Dr. John Robert Thomson, to move the addition of the following words to By-law 8 relating to the election of members of the Branch Council, "Personal canvass will disqualify." Dr. William Vicary Snow, to propose a resolution on the

recent action of the Committee of Management of the Dorset County Hospital. Discussion: Pleuritic Effusion. Communications: Dr. Leach: Four cases of Empyema. Dr. Isambard Owen (London): Some Points of Interest in connection with Collective Investigation. Mr. Marsh: Short Notes of a case of Lawson Tait's Operation for Extension of Perineum, with an Uncommon and Unfortunate Termination. Dr. Greves: A case of Cerebral Tumour (specimen), with Remarks on the Diagnosis of Intra-Cranial Tumours Implicating the Cortex of the Brain. Dr. Davison: A case of Infantile Scurvy. Dr. Mac Donald: On Epilepsy, with Notes of a Case and Pathological Specimens. Dinner at the Digby Hotel at 6.30 P.M.; charge, 6s. each, without wine.—WILLIAM VAWDREY LUSH, M.D., Weymouth, C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.
A MEETING of this District was held at the Greyhound Hotel, Croydon, on Thursday, May 10th, at 4 P.M.; T. A. RICHARDSON, Esq., of Croydon, in the chair.

Communications.—Papers, abstracts of which will be found at p. 1114, were read by Dr. GOODHART, Mr. BRUCE CLARKE, and Dr. PHILPOT.

Dinner.—After the meeting, seventeen members and visitors dined together.

METROPOLITAN COUNTIES BRANCH: WESTERN DISTRICT.
A MEETING was held on Wednesday, May 16th, at the St. George's Union Infirmary, Fulham Road, Brompton, S.W. Dr. CHARLTON BASTIAN, F.R.S., Vice-President of the district, was in the chair, and about twenty members and visitors were present. The minutes of the preceding meeting were read and confirmed.

Chronic Ulcer of the Tongue.—Mr. BUTLIN, F.R.C.S., read notes of three cases of chronic ulcers of the tongue, in which the disease had resisted all medicinal treatment, and even scraping and freshening the edges. The ulcer was removed in each case by the knife by incisions passing deep into the substance of the tongue. The disease had existed for from eighteen months to three or more years. The author recommended the adoption of this method of treatment in cases of long-standing lingual ulcers in which other measures failed to cure.—A discussion ensued, in which Drs. BASTIAN, JAMIESON, and Mr. NOBLE SMITH took part.

Orthopedic Appliances.—Mr. NOBLE SMITH gave a demonstration of his more recent modifications of appliances in orthopedic surgery. Light splints in place of heavy instruments; the substitution of metal rods, which could be bent by the surgeon, for the highly-tempered irons usually made; the simplification of joints in instruments used after operations for club-foot, to save complication and expense; and the limitation of the restraining influence of all apparatus to the parts absolutely requiring restraint, were among the more noticeable points referred to. The treatment of contracted and relaxed joints and the application of fixation apparatus to diseased spines were also included in this practical demonstration.—A discussion followed, in which Drs. BASTIAN, JAMIESON, SHELDON, and Messrs. BUTLIN, S. BURTON, and STEELE joined.

Cases.—Dr. WEBSTER, the medical superintendent of the Infirmary, then exhibited patients suffering from diseases of much clinical interest, including a marked case of pseudo-hypertrophic paralysis, lateral sclerosis, and a rare form of skin disease.

Votes of Thanks.—The proceedings closed with the usual votes of thanks.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.
A MEETING of the above district was held at the Hospital, Gravesend, on April 27th, R. J. BRYDEN, Esq., in the chair.

Next Meeting.—It was decided that the next meeting should be held at Maidstone in November, and that Dr. Shaw should be requested to preside on the occasion.

Election of Honorary Secretary.—A. W. Nankivell, F.R.C.S., was unanimously re-elected Honorary Secretary of the District for the ensuing year.

Communications.—The following papers were read and discussed. 1. Dr. P. HORROCKS: On Puerperal Fever. 2. Dr. TANSNILL: On Symmetrical Gangrene.

Dinner.—Twenty-eight members and visitors subsequently dined at the New Falcon Hotel.

BEQUESTS.—Sir Francis W. Grant, Bart., of Monymusk, Aberdeenshire, has bequeathed £1,000 to the St. George and St. James Dispensary.—Lady Tite, widow of Sir William Tite, C.B., has bequeathed £800 to the Hospital for Women, £100 to St. George's Hospital, and £100 to the Royal Free Hospital.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

THE fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc. (Hon.), F.K.Q.C.P.I., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate.

An Address in Medicine will be delivered by Thomas Clifford Allbutt, M.D., Consulting Physician, Leeds General Infirmary.

An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

A Special Address on his "Recent Investigations in Surgery" will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

All the rooms required for the purposes of the meeting will, by the kindness of the authorities, be provided in the University of Glasgow.

Humanity Class Room.

A. MEDICINE.—*President,* T. McCall Anderson, M.D. *Vice-Presidents,* W. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries,* J. McGregor Robertson, M.D., 400, Great Western Road, Glasgow; Robert M. Simon, M.D., 27, Newhall Street, Birmingham.

Chemistry Class Room.

B. SURGERY.—*President,* George Buchanan, M.D. *Vice-Presidents,* James Dunlop, M.D.; Charles Robert Bell Keetley, F.R.C.S. *Honorary Secretaries,* David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pye, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

Medical Jurisprudence Class Room.

C. OBSTETRIC MEDICINE.—*President,* Thomas More Madden, M.D. *Vice-Presidents,* William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries,* William Walter, M.D., 20, St. John Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

Greek Class Room.

D. PUBLIC MEDICINE.—*President,* Henry Duncan Littlejohn, M.D. *Vice-Presidents,* James Christie, M.D.; D. Page, M.D. *Honorary Secretaries,* Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

Hebrew Class Room.

E. PSYCHOLOGY.—*President,* James C. Howden, M.D. *Vice-Presidents,* James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries,* A. R. Urquhart, M.D., Murray House, Perth; Alex. Newington, M.D., Ticehurst, Sussex.

Anatomy Class Room.

F. ANATOMY AND PHYSIOLOGY.—*President,* John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents,* R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries,* John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

Law Class Room.

G. PATHOLOGY.—*President,* Sir William Aitken, M.D., LL.D., F.R.S. *Vice-Presidents,* Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries,* G. Sims Woodhead, M.D., 6, Marchhall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

Midwifery Class Room.

H. OPHTHALMOLOGY.—*President,* Thomas Reid, M.D. *Vice-Presidents,* J. R. Wolfe, M.D.; C. E. Glascott, M.D. *Honorary Secretaries,* Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Freeland Fergus, M.B., 41, Elmbank Street, Glasgow.

Biblical Class Room.

I. OTIOLOGY.—*President,* Thomas Barr, M.D. *Vice-Presidents,* John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries,* Johnstone Macfie, M.D., 23, Asbton Terrace, Glasgow; James Black, F.R.C.S., 16, Wimpole Street, London.

English Literature Class Room.

J. DISEASES OF CHILDREN.—*President,* Walter Butler Cheadle, M.D. *Vice-Presidents,* James Finlayson, M.D.; Henry Ashby,

M.D. *Honorary Secretaries,* George S. Middleton, M.D., 23, Sandyford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

Conveyancing Class Room.

K. PHARMACOLOGY AND THERAPEUTICS.—*President,* James Morton, M.D. *Vice-Presidents,* John Dougall, M.D.; Theodore Cash, M.D., F.R.S. *Honorary Secretaries,* Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

Divinity Class Room.

L. LARYNGOLOGY AND RHINOLOGY.—*President,* Felix Semon, M.D. *Vice-Presidents,* George Hunter Mackenzie, M.D.; Peter McBride, M.D. *Honorary Secretaries,* D. Newman, M.D., 18, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

9.30 A.M.—Meeting of 1887-1888 Council. Randolph Hall.
11.30 A.M.—First General Meeting. Report of Council. Reports of Committees. Service in the Cathedral. Bute Hall.

8.30 P.M.—Adjourning General Meeting from 11.30 A.M. President's Address. Bute Hall.

WEDNESDAY, AUGUST 8TH, 1888.

9.30 A.M.—Meeting of 1888-89 Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings. Address in Medicine by Thomas Clifford Allbutt, M.D., F.R.S. Bute Hall.

THURSDAY, AUGUST 9TH, 1888.

9.30 A.M.—Address on his Recent Surgical Investigations by William Macewen, M.D. Bute Hall.

11 A.M.—Meeting of Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings. Address in Surgery by Sir George H. B. Macleod, M.D. Bute Hall.

7 P.M.—Public Dinner. St. Andrew's Hall.

FRIDAY, AUGUST 10TH, 1888.

10.30 A.M. to 1.30 P.M.—Sectional Meetings. Address in Physiology by John G. McKendrick, M.D., F.R.S. Bute Hall.

SATURDAY, AUGUST 11TH, 1888.

EXCURSIONS.

ANNUAL MUSEUM.

THE Annual Museum will be held on August 7th, 8th, 9th, and 10th, in the Examination Hall of the University of Glasgow, and will be arranged in the following six Sections:

SECTION A.—Food and Drugs, including Antiseptic Dressings, and other Chemical and Pharmaceutical Preparations. (Honorary Secretary, R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Street.)

SECTION B.—Pathology, comprising Casts, Models, Diagrams, Microscopical Preparations, and Micro-organisms. (Honorary Secretary, J. Lindsay Steven, M.D., 34, Berkeley Terrace.)

SECTION C.—Anatomy, comprising Special Dissections, Methods of Mounting, Abnormalities, Drawings, Medals, etc. (Honorary Secretary, J. Yule Mackay, M.D., 34, Elmbank Crescent.)

SECTION D.—Physiology, consisting of Apparatus, Microscopes, Microtomes, and Microscopical Preparations of Normal Histology. (Honorary Secretary, J. McGregor Robertson, M.A., M.B., C.M., 400, Great Western Road.)

SECTION E.—Instruments and Books, including Appliances—Medical, Surgical, and Electrical. (Honorary Secretary, J. Macintyre, M.B., C.M., 173, Bath Street.)

SECTION F.—Sanitation (1) Domestic Sanitary Appliances, embracing all improvements applicable to the Treatment of the Sick in Private Dwellings. (2) Personal Hygiene, including Dress and Gymnastic Appliances. (3) Ambulances, Carriages, and all other Appliances used for the Conveyance and Treatment of the Sick and Wounded, either in Civil, Naval, or Military Practice. (4) Drawings, Models, and Apparatus illustrative of the Ventilation, Lighting, and Draining of Hospitals. (5) Hospital Furniture. (6) Sanitary Appliances in connection with Educational Institutions and Public Buildings. (Honorary Secretary, I. 2, 3, Robert Pollok, M.B., C.M., Pollokshields; Honorary Secretary, 4, 5, and 6, A. W. Russell, M.A., M.B., C.M., Western Infirmary.)

Intending exhibitors should communicate as early as possible with the Secretary of the Section in which they propose to exhibit, as the Museum Catalogue must be complete one month before the date of meeting. Inquiries as to advertisements in the Catalogue should be sent without delay to Dr. Thomson, 3, Melrose Street, Glasgow.

Honorary General Secretaries of Museum Committee, A. Ernest Maylard, B.Sc., M.B., 54, Berkeley Terrace; R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Terrace.

FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Oxypropylendiisoomylamine.—Common Salt in Migraine.—Hygiene of Newborn Infants.—Vaccination Institution.—Hydrophobia in France.

At a meeting of the Société de Biologie on April 21st, M. E. Louise read a note upon the action of oxypropylendiisoomylamine on the circulation and respiration. From a considerable number of experiments on dogs that had undergone tracheotomy, it appeared that the inhibitory action is destroyed by the influence of the poison, and the heart's action becomes violent and disorderly; the pressure increases in the arteries, and the vessels of the nervous centres receive a rush of blood, causing disturbance. During the fits the heart is tetanised; this causes general congestion of the veins, which no doubt helps to prolong the epileptiform attack. The animals during the minor attack express terror or fury, which is naturally, as in the convulsive fits, the result of the anatomical connections between the brain and the heart, which render constant the exchanges and reciprocity of action between the two organs. At the same time that the heart is affected there is considerable diminution in the number of inspirations and augmentation of their amplitude.

The *Annales de la Société Médico-Chirurgicale de Liège* indicate the prevention or cure of migraine by the ingestion of a certain quantity of salt. The treatment was discovered by chance. Dr. Rabow advised a young man suffering from *petit mal* and aura to swallow some kitchen salt at the first symptoms of the aura, according to the method of Nothnagel. The prescription was carried out with success. The patient's aunt, who had suffered from migraine for several years, also adopted the plan of taking a half-spoonful or so of salt at the first appearance of the symptoms which preceded her attack of migraine. She succeeded in preventing the access, or at least of subduing it at the end of half an hour. Dr. Rabow, encouraged by this observation, employed the same remedy in other cases with equally good results. In six cases sea salt administered at the beginning of the access has produced remarkable results. With some patients, however, the method has failed. It is probably to some reflected phenomena that the above result is due.

At the meeting of the Association Française pour l'Avancement des Sciences, on April 2nd, a note from Dr. Haro, of Montpellier, was read, on a new decision of the municipality concerning the hygiene of young mothers and newborn children. Dr. Haro suggested to the Mayor of Montpellier to join to the *livret* the first principles of hygiene for women during pregnancy and confinement and newborn children. The Mayor received the proposal favourably, and at the session of the Conseil Municipal, March 7th, it was decided that the instructions drawn up by Dr. Haro, and approved by the Conseil Départemental d'Hygiène, should be added to the *livret* presented to newly married couples by the civil officer.

The formation of a Medical Institute for Vaccination, which has long been contemplated, is about to be accomplished. A commission has been formed, composed of MM. Peyron, Levrand, Vaillant, Chautemps, Dubrisay, Risler, Brouardel, Priust, Du Mesnil, Lépine, Bezançon, Mourlan, Bandouin des Salles. This Commission has consulted MM. Chauveau, who founded the Institute for Vaccination at Lyons; Nocard, director of the Vaccination College of Alfort; Vaillard, who is appointed vaccinator at Val-de-Grace; Chambon and Launay, vaccinators; Gallois and Bouvard, architects. The result of the inquiries made by this Commission will be submitted first to the Council of Inspection, and subsequently to the Municipal Council.

A Hygienic and International Exhibition will be opened at Ostend on June 3rd; particulars concerning which may be had by applying to the secretary, M. L. de Vriese, rue des Regnesses, Ghent.

M. Léon Colin, in his report on the death, caused from hydrophobia, of the soldier Marinot, draws attention to the great increase of this malady, and urges the enforcement of the measures unanimously voted by the Academy of Medicine. M. Pasteur being of the same opinion, the Hygienic Council appointed a commission to draw up a notice, which is to be posted up publicly. In this notice it is stated that hydrophobia being considerably on the increase, all dogs found wandering alone will be seized, those

without collars to be killed immediately, those with collars will be kept three days, and killed if not claimed.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

THE change of weather has had the best effect on the condition of His Majesty the Emperor. Sir Morell Mackenzie on May 17th for the first time allowed his illustrious patient to be brought into the magnificent park of Charlottenburg Castle. There he spent some time in a large and lofty tent which had been constructed for him in the quietest part of the garden, and afterwards drove in a low carriage drawn by a quiet old pony, a present from his royal mother-in-law. The experiment turned out very favourably. The evening fever, which already before had nearly totally disappeared, did not recur. His appetite and sleep are excellent. His vigour and elasticity of better days are beginning to return. He can already walk without help through the rooms of the castle, and he is in excellent spirits. It may be added that Professor Virchow, who has just returned from Egypt, could not find any carcinomatous cells in the sputum, but only pus cells. Though this negative result does not of course prove anything, it is naturally enough looked upon as encouraging by the German public. Though there is no longer any doubt about the malignant nature of the growth, this sudden and unexpected improvement gives grounds for hopes that the life on which such vast issues depend may still be prolonged for some time.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

The Glasgow Meeting of the Association.—Pollution of Loch Long and Loch Gailhead.—Glasgow Botanic Gardens.—Andersonian Chemical Society.—Compensation for the Loss of an Eye.—Health of Greenock.—Vital Statistics for Scotland.—Orphan Homes of Scotland.

ARRANGEMENTS for the meeting at Glasgow are now very well advanced. The various sectional office-bearers are busy arranging for papers and discussions, and details for the accommodation of sections within the University have been definitely settled. Socially the meeting promises to be a marked success. The Corporation of the city and the University authorities are heartily co-operating with the various entertainment committees to make the visit to Glasgow a memorable and enjoyable one. There have been already arranged a *conversazione* to be given by the Principals and Professors of the University, a *conversazione* to be given by the Corporation of the city, and a garden party in the Botanic Gardens to be given by the Faculty of Physicians and Surgeons. Then it is expected that the Committee will be able to provide for the members visiting the International Exhibition, which has already achieved a phenomenal success, and ought to be to members of the Association a source of much attractive interest and pleasure. For the Saturday's excursions, no fewer than ten separate tours have been arranged, so that strangers will have an opportunity of seeing all that is finest in the firth, lake, and hill scenery, for which the west and middle of Scotland are famous.

Memorials from inhabitants of the shores of Loch Long and Loch Gailhead have been prepared for presentation to the Secretary for Scotland craving for immediate action being taken by the Government on the lines indicated by the recent report of Mr. Fletcher. The fishermen have also memorialised the Government on the subject.

The Corporation of Glasgow and the proprietors of the Botanic Gardens are likely to come to some agreement which will permit of the gardens being opened for the public enjoyment at a moderate charge. The gardens have been closed because of the Corporation calling for payment of £50,000 lent on the security of the gardens. This call the proprietors could not meet. The gardens have thus been shut up pending a decision being arrived at as to what is to be done with them. They are opened in the meantime only temporarily, the main question not yet being settled.

Professor Crum Brown, of Edinburgh, lectured to the Andersonian Chemical Society on May 18th on "Some Points of Interest in Chemical Theories." He expressed and illustrated the view that chemical theories, if not combined with a living knowledge of the actual facts and relations, were a poor sort of algebra, and that common sense was worth a bushel of formulae. Professor

Dittmar, who presided, moved a vote of thanks, and thanked Professor Crum Brown for having broken a lance in favour of common sense as an essential element in all chemical investigations.

In the Sheriff Court of Glasgow a boy has been awarded £65 as compensation for the loss of his left eye. He was in the employment of the Clydesdale Iron Works, and was set to fix a punch in a punching machine. In doing so part of the apparatus broke and a fragment struck his eye, destroying it. The sheriff decided that the boy was ignorant of the work and unqualified for it, and ought not to have been set to do it. He therefore awarded damages and expenses.

Dr. Wallace, the Medical Officer of Health of Greenock, reports that during April the death-rate was lower than at any time since 1875. The total mortality during the month was 94, equal to a rate of 15.6 per 1,000. In the same time 11 cases of infectious disease were reported, including 1 of typhus fever, 1 of scarlet fever, 3 of measles, 3 of whooping-cough, 1 of diphtheria, and 2 undefined.

The thirty-third annual report of the Registrar-General was recently issued. The estimated population of Scotland at the middle of 1887 was 3,991,499, of whom 1,934,215 were males and 2,057,284 females. During the year there were registered 124,375 births, 74,500 deaths, and 24,851 marriages. For every hundred estimated population there were 3.12 births, 1.87 deaths, and 0.62 marriages. The births show a lower proportion than in any previous year. The deaths were rather less in proportion in the preceding year, and the marriage-rate is a little in advance of that for 1886. The excess of births over deaths is 49,875. The highest birth-rate in the eight chief towns was in Paisley, the lowest in Perth. In the former city it is 370 per 10,000, and the birth-rate for Glasgow is 369, the Perth rate is 275. Of the total number of births, 43,057, 8.46 per cent. are illegitimate, namely, 3,643. In Aberdeen the percentage is 10.6; in Glasgow, 8.3; in Edinburgh, 8.5; in Paisley, 6.5, and in Greenock, 5.4. Of the total births in the eight towns, 22,025 were of males and 21,032 of females, the proportion of boys to girls being as 104.7 to 100. The deaths in these towns were 23,068 (males, 13,793; females, 14,275), representing a rate of 216 in every 10,000. The Paisley rate was 260 per 10,000; Glasgow, 231; Aberdeen, 218; Dundee, 212; Greenock, 198; Edinburgh, 197; Perth, 184; and Leith, 175. In all cases except Glasgow and Leith, these rates are an increase over those of 1886; and in all cases except Aberdeen and Paisley, they show a decrease on the mean for the preceding ten years. As to deaths among children under five years of age, 74 out of every 1,000 succumbed in Glasgow, in Paisley the number was 72, in Edinburgh 56, and in Perth 52. Of the total mortality the deaths among children made 47.3 per cent. in Greenock, 44 per cent. in Glasgow, 35.1 per cent. in Edinburgh, and 34.8 per cent. in Leith. The marriage-rate was 79 per 10,000, or a total of 10,266. In Glasgow it is highest at 86, and in Greenock lowest at 62. In the eight principal towns only 4 deaths from small-pox were recorded during the year.

On May 17th 120 boys and girls rescued by the Orphan Homes of Scotland sailed from the Clyde for Canada, under the care of Mr. Quarrier, the founder of the Homes. Mr. Quarrier explained at a farewell meeting that between 400 and 500 children had been rescued in the previous twelve months, and that there were at present 1,100 children in the Homes. During the year he had received money to build two new houses, and the total money received had been £14,000. He had rescued during the past seventeen years something like 5,000 children, and he calculated that that meant a saving in rates of about £200,000.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Post-graduate Course.—Funeral of Dr. Rich.—The "Cat."—Meeting of Sanitary Inspectors.

A POST-GRADUATE course of lectures is being delivered at the School of Medicine by the professors and demonstrators. The entries have been fairly numerous. This is the first time that a course of this kind has been attempted in Liverpool, and the success of the scheme that has been already attained augurs well for its future.

The funeral of the late Dr. A. C. Rich, whose early death was recorded in the JOURNAL of May 19th, took place on that day, and was attended by a large and representative gathering, both of members of the profession and of the general

public. A detachment of the 5th Lancashire Volunteers, to which regiment the deceased was surgeon, was present at the cemetery, and the path to the grave was lined by a number of the *employés* in the Liverpool postal and telegraph service, of which he was medical superintendent. A contingent of police constables was also present, the men wearing the badge of the St. John Ambulance Association, in connection with which Dr. Rich was a frequent lecturer; and there also attended representatives of charitable institutions which had enjoyed his gratuitous services.

A somewhat lively correspondence has lately appeared in the daily papers with regard to the punishment of criminals by flogging with the "cat." At the recent assizes several prisoners convicted of violence to the person were sentenced to the lash, and one of the leading Liverpool journals expressed a fear that by its use our large prisons would be converted into a kind of shambles. The "cat" consists of nine thin cords, eighteen inches long, fastened to a wooden handle twelve inches in length. The cords are not knotted, but the free ends are fastened off with fine twine. When applied it does not cause an abrasion, and the resulting ecchymoses have generally disappeared before the end of a week.

At a meeting of the Association of Sanitary Inspectors of Great Britain, held here on May 19th, resolutions were carried in favour of the due qualification of inspectors, and fixity of tenure of office; and setting forth the need of a uniform Public Health Act for the whole kingdom.

CORRESPONDENCE.

RESEARCH AT THE COLLEGE OF SURGEONS.

SIR.—In your last issue appeared an announcement inviting Fellows and Members of the College to apply for the privilege of using the new laboratories of the College of Surgeons in Lincoln's Inn Fields, and you were able to publish the conditions under which the privilege can be obtained, and the subjects of research which it is proposed shall be carried on. To those of your readers acquainted with research work, the conditions of study as laid down by the Council cannot be other than a marvel. Any Fellow or Member of the College, when applying to be permitted to work in the laboratory must send in a prospectus or description of the proposed investigation with as complete a list as possible of the necessary apparatus and instruments he will require. This has to be approved of by the Council. If the applicant is successful in his application to carry on the research he proposes, he is prohibited from undertaking any new line of research other than that originally approved by the Council without their previous sanction. If any assistance be required the investigator may provide it, but the person, or persons, proposed must be approved by the Council. It seems almost incredible that any committee, any one member of which was acquainted with research work, could have drawn up such a set of conditions. The merest tyro at research work knows full well that the conditions required by the Council are impossible. Everyone with even a slight knowledge of research work before beginning an investigation of a subject has some ideas as to how he will conduct his researches; these he may doubtless submit to the Council, but if he has had much previous experience in original work he knows full well that such a programme is utterly worthless. Before he has completed the preliminary investigation of his subject he will as likely as not find it necessary to modify considerably or even entirely change the mode of his procedure. This, however, he is prohibited from doing by the conditions under which he is permitted to use the laboratory without the consent of the Council.

It is by no means an exaggeration to assert that an experienced investigator would, in all probability, have to go to the Council six or eight times in the course of an investigation on a single subject for permission to alter his programme, each time submitting to them a course of investigation, which further research would prove useless, or yield only negative results. It is only by experience and results obtained during each stage that even a highly trained investigator can determine the course and methods he must adopt in order to work out a subject successfully. Exactly the reverse of this is expected by the Council of the College, who

expect him to apply with all the methods ready cut and dry. Unless the conditions of study are modified in this respect, the Council are taking, without doubt, the most effectual way to obstruct good research work. This is much to be regretted, as it is in their power to bestow a great boon on those members of the profession who are able and willing to carry out work in which we, as a nation, are far behind our neighbours on the Continent.

It is evidently not the purpose of the Council to provide an experienced head of the laboratory who shall give counsel and assistance to those working in the laboratory, but it seems strange that the investigator must be further handicapped by requiring to have the person or persons from whom he obtains such assistance approved of by the Council. When we contrast the regulations required by the Collège de France, the various German universities, and the University of Cambridge, of those who are willing to carry on research within their walls, we are forced to the conclusion that only inability to be absent from London for a sufficiently long period would induce men to use the Collège laboratories. In the former they are untrammelled by any hard and fast lines such as are laid down by the Collège of Surgeons, and they have likewise the advantage of the assistance in their researches of a professor or superintendent of the laboratory of great experience in research work, to whom they may at once apply for counsel and advice.—I am, etc.,

A FELLOW OF THE COLLEGE.

THE CHAIR OF HYGIENE AT NETLEY.

SIR,—The announcement made in the JOURNAL of May 19th that it is proposed to appoint Deputy Surgeon-General Marston, C.B., to the Chair of Military Hygiene in the Army Medical School, has created what is known as a "sensation" throughout the service at home, and will doubtless be regarded with like astonishment in all parts of the world where this JOURNAL circulates. Dr. Marston is a medical officer of ability—no one disputes the fact, and his best friends do not say that his public services have been overlooked. There is, however, an objection to this appointment which should be fatal to it—Dr. Marston is not a chemist. Is it right and fitting, is it even decent, that the successor to Professors Parkes and De Chaumont should be a man of whom such a thing can be truthfully said? It is true that this officer during the illness of the late professor delivered, as we have heard, some very good lectures on hygiene, embracing such parts of this great subject as did not require any special chemical knowledge; but it is equally true that he took no part in the special laboratory instruction, which, as is well known, formed the most important part of the course under Professors Parkes and De Chaumont. Dr. Marston himself would be the first to give a reason for this, to wit, incapacity. It is no discredit to Dr. Marston to say that he is not a master of this branch of science. We cannot be specialists on every subject, but if this appointment is made, the discredit will lie at the doors of those who made it.

There is only one word of three letters in the English language that will adequately characterise what will be an injury to the school, and an insult to the memory of the eminent men who filled this responsible post with honour to themselves and advantage to the State. I should not write thus strongly but that I know that my indignant sentiments are also those of the great mass of the

ARMY MEDICAL DEPARTMENT.

ELECTRICITY IN GYNÆCOLOGY.

SIR,—May I ask Mr. Lawson Tait to substantiate or withdraw a remark made by him in the JOURNAL for May 19th to the effect that I had proposed electricity "for the arrest of hæmorrhage in cases of ruptured tubal pregnancy?" I think I may safely assert that such a preposterous proposal never entered anyone's head but Mr. Tait's, and I now challenge him to bring forward the least particle of evidence upon which a rational man could found such a reckless assertion. What I have proposed and still confidently recommend is the electrical treatment of extra-uterine gestation in its early or pre-rupture stage. This plan of treatment has been for many years successfully employed in America, and is now thoroughly established and adopted by the most eminent gynæcologists of that country. I have used it, and have the honour of being the first in Britain to publish a successful case. It was related at the Brighton meeting of the Association; and Mr. Tait, who says: "He is not aware that any opposition, or abuse, or ridicule, has been directed towards the advancement of electrical

treatment," speaking after the reading of the paper, said: "He offered objections of the very strongest kind against the use of the electric current in such cases because he considered it as one of the most nonsensical proposals which had ever been submitted to a surgical audience."

Mr. Tait also maintained that electrical treatment ought to be carried out by an accomplished electrician. Now, the two cases of extra-uterine gestation treated in this country before mine were done according to the advice and with the assistance of an accomplished electrician, and in both cases a dangerous electrical method was adopted, ending in the death of both women. The position of the electrician to the gynæcologist is similar to that of the organ-blower to the organist; one supplies the force, the other directs it. But by a mechanical arrangement easily mastered the organist can blow with his foot and play with his hands. So ought the gynæcologist to master the use of the battery and direct its force with safety and efficacy, for the management of a battery can be learnt in as many hours as it takes years to make a skilled gynæcologist. What does an electrician know about the passage of a sound, or the selection of a safe spot for galvano-puncture, or the condition of a patient necessary to render the use of electricity safe?

I quite agree with Dr. Playfair that the gynæcologist is the only person in a position to carry out the details of electrical treatment without risk. It matters not whether the effect of the galvanic current be polar or interpolar, or whether the catalytic results originate in caustic, electrolytic, or cataphoric actions, or in the influence which electricity has upon the vasomotor or trophic nerves. The electrician can give us theories on these subjects, but the clinical experience of the gynæcologist must decide whether the battery is to take its place as an important electro-therapeutic agent and be permanently used by the gynæcologist.—I am, etc.,

JAMES H. AVELING.

Upper Wimpole Street, W., May 21st.

TEA AND TEETH.

SIR,—Your correspondents appear to have been unaware that in the cities of the United States of America, where tea is consumed in much smaller quantities than in this country, the teeth decay more rapidly than with us. The climate, the many indigestible articles of diet, the extreme nerve-tension of the Americans, and other causes affecting the nerve and general health of that great people tend to induce a dyspeptic condition which always seemed to me to be largely responsible for their premature dental decay.

At the same time there can be little doubt that the white bread and tea (a common though defective staple diet of too many of our own population) is a frequent cause of gastric trouble. Next to tea, alcohol, by its depravity of the digestive apparatus, has always seemed to me to interfere with tooth nutrition and soundness.

It is to be hoped that the correspondence on this subject in your columns will draw permanent attention to the great need for a judiciously-selected, nourishing, non-stimulating, and wholesome dietary.—I am, etc.,

NORMAN KERR, M.D.

42, Grove Road, Regent's Park, London, N.W., May 21st.

SIR,—The alleged influence of excessive tea drinking upon the teeth seems to excite so much interest, that it may be well to bring the matter to a definite and useful issue. It may be taken as an indisputable fact that tea can have no direct effect upon either the teeth or the tissues of the mouth leading to dental disease, and whatever effect it produces in that direction can be brought about only through its influence upon digestion on the general health. There are so many factors in the remote causation of dental disease, that it must be very difficult to demonstrate the exact part which any one of them may take, but there cannot, as some of your correspondents seem to suppose, be any difficulty in the clear recognition of any dental disease co-existent with tea drinking.

Dental diseases are few in number, simple in nature, distinct in character, and easily classified and named. Caries (decay), with its sequels inflammation of the dental pulp (nerve) or periosteum, are by far the most common of dental maladies; and in so far as tea drinking might aid in inducing dyspepsia or any affection accompanied by vitiation of the oral secretions, so far would it become a factor in exciting caries.

A correspondent who writes of dental disease and tea drinking among factory hands, will find many other things in the regimen

of these people to account for the fact which he observes. They usually earn good wages, their food is superabundant and ill cooked; they sometimes take too much beer and coarse spirit; their work is largely sedentary, and carried on in the warm, often moist, atmosphere of imperfectly ventilated rooms, so that they mostly suffer from chronic dyspepsia, and commonly accept it as an evil of life from which there is no escape. Add to this that tooth-brushes are unknown among these communities, and that the teeth remain from childhood covered with tartar, and with the *débris* of food, epithelium, and secretions—a decomposing mass constantly giving rise to formation of acid capable of dissolving enamel—and we have enough to account for the early onset and rapid progress of tooth decay from which they suffer. Some correspondents write, but rather vaguely, of maladies affecting the gums and roots of the teeth. There are well known diseases of this kind. Some of them very much resemble diseases of the hair—various kinds of baldness. In many of these instances, the patient's health being good and the teeth free from ordinary decay (caries), the teeth slowly loosen, and are lost through very gradual absorption of the alveoli, very little or no inflammation being present until towards the end. In most cases the symptoms commence with inflammation, appearing to affect simultaneously the free edge of the gum and the alveolar periosteum. The gum and alveolus slowly waste, the bone in many instances more rapidly than the gum. There is a discharge, varying in quantity, of mucus from within the loosened swollen border of the gum. Tartar may be deposited in vast masses on the exposed surfaces of the roots, but often exists only in the form of small hard black nodules beneath the gum. The disease may affect one tooth only, but more commonly attacks several at the same time, gradually extending to the whole set. The inflammation usually is extremely chronic, with occasional subacute, and, in late stages of the disease, acute exacerbations extending throughout the alveolar periosteum of the affected teeth. This disease, sometimes called pyorrhœa alveolaris, if not a disease of modern life, seems on the increase at the present day. It is probably not commonly of local origin, but beyond the fact that it is usually associated with some form of general ill-health or dyscrasia, it is impossible as yet to determine its etiology.

If correspondents interested in this subject would make accurate diagnosis of the dental diseases which they find associated with tea drinking, the first necessary step in settling the question broached will have been taken, and I venture to express a very decided opinion that tea drinking and tooth decay will be found very rarely, if ever, to exist as cause and effect, or to have any other than a merely *post hoc* relation.—I am, etc.,

40, Wimpole Street.

HENRY SEWILL.

THE RELATIVE VALUE OF THE BROMIDES.

SIR,—For the last two or three years I have thought that the basic element was the cause of some of the uncomfortable symptoms produced when the iodide or bromide of potassium has been prescribed in large and continual doses; and with the intention of, if possible, avoiding them, I have, both in my hospital work and in private practice, prescribed the soda salts instead of the potassium salts, and with marked advantage to some of the unpleasant symptoms, but with no corresponding diminution of the beneficial effects of these drugs.

I would especially mention the loss of appetite, the emaciation and nausea which occasionally happen to patients who have for long had the iodide of potassium prescribed, and the severe epigastric pain which sometimes follows the like administration of bromide of potassium. We should bear in mind that the potassium is most usually given only as a vehicle for the acid element, and it stands to reason that if we can find a more wholesome vehicle that vehicle ought to be employed. But there is moreover another reason, namely, the combining weight of potassium is 39.04, while that of sodium is only 22.99. The combining weight of iodine is 126.53, and that of bromine is 79.75. From these data we calculate that every 10 grains of bromide of potassium contain 6.72 grains of bromine, and that every 10 grains of bromide of sodium contain 7.76 grains of bromine, so that in order to prescribe the same weight of bromine we must give, instead of 10 grains of bromide of potassium, only 8.6 grains of bromide of sodium. So also with the iodide of potassium, a 10-grain dose is represented by a 9-grain dose of iodide of sodium.

Thus we see we are actually giving a smaller quantity of what we contend is a more wholesome vehicle when we prescribe the sodium salt. It is true that at present the sodium salts are little

more expensive than the potassium salts relatively to the amount of the acid element contained in them, but this is probably because the demand for the sodium salts is so much less than for the potassium salts. Soda is really less expensive than potass, so that if the demand for the soda salts increased, they would diminish in value, and would in the end become relatively cheaper than the potassium salts.—I am, etc.,

ROBERT CORX, M.D., F.R.C.P., Assistant Obstetrical Physician to St. Thomas's Hospital.

THE PROPOSED SUPPLEMENTAL CHARTER OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—As an independent Member of the College, I have read with regret that an attempt has been made to patch up the differences at present existing between the Council and Members of the College, by omitting from the proposed supplemental charter certain points assumed to be the only ones in dispute.

Should this attempt succeed it is quite plain that needful reform will be indefinitely postponed, as the Members will have lost the advantage which they now possess in the necessity for a revised charter, and will be as far as ever from having a reasonable voice in the management of their own affairs and the administration of their own property.

I would further suggest that there is no good reason why either Fellows or Members should be, as at present, debarred from borrowing their own books, a privilege which is enjoyed by our American *confrères*, who can even have the books sent by mail to any part of the United States.—I am, etc.,

EDWARD HAUGHTON, M.D.

Upper Norwood, S.E., May 19th.

THE SANITARY CONDITION OF HAILEYBURY COLLEGE.

SIR,—You state in your comments on Dr. Stevenson's last analysis of the well-water (published in the *JOURNAL* of May 19th) that you "have no desire to impugn the quality of the Haileybury water." Your sincerity will, I feel sure, allow me space to point out that, in the course of those comments, you do "impugn" it—unfoundedly, I venture to think—through misapprehension and incorrect statement of the actual facts, and consequent confusion of the inferences drawn from them.

First, in his report, published in the *JOURNAL* of April 23th, your commissioner stated: "I understand that Dr. Stevenson, of Guy's Hospital, has been lately supplied with a sample (of water) for analysis, which will probably throw some light on its present quality." Your commissioner, at the time of his visit to Haileybury, was made aware of the existence and receipt of Dr. Stevenson's previous analyses, if he did not actually examine them; and—since in my letter to him of April 9th I had stated that "a sample of this clearer water is again in Dr. Stevenson's hands for analysis"—it was natural to infer that it was to this, the latest sample, that he referred in the passage I have quoted from his report.

It so happened that this sample miscarried; Dr. Stevenson, wrote to me, under date April 13th, that it had not reached him. Accordingly, fresh samples (of water presenting identical physical characters) were sent to him on April 18th. When, therefore, in your note to my letter, published on May 5th, you challenged the production of "Dr. Stevenson's last analysis, with his notes and remarks thereon, which we presume are by this time in the possession of the College authorities," it was but natural, in all good faith, to send you precisely what you had asked for, and what appeared to be all that you required, namely, the full report of the "last analysis," and the only one made subsequently to those which Mr. Bailey Denton knew to be already in existence at the time of writing his report.

Under these circumstances, was it quite fair to imply that the report sent to you by me had been substituted for the copy of a "previous analysis more applicable to the point at issue," you at the same time not publishing the remarks which I sent therewith, and which explained Dr. Stevenson's reference to the "organic impurities found in the water lately?"

Had you definitely asked for the reports on the earlier analyses, I have little doubt that they would have been at once supplied, accompanied by Dr. Stevenson's letters referring to them, and much modifying a former expression of opinion. At the present time I am not in a position to anticipate in this respect the exhaustive report which is to be laid before the Council on May 23rd.

You remind me that the sample of April 18th "was taken at a very favourable time during the holidays." In return, let me point to the equally favourable analysis (of "a phenomenally pure water"), dated October 11th, 1887—the middle of a full term.

Further, the analysis and report for which you asked (and which, you stated, you would "gladly publish") on May 5th were in your hands on the early morning of May 7th, and their receipt was acknowledged by you. The report was not published until May 19th. This may have been unavoidable, but the apparent delay in the acceptance of your challenge certainly tended to prejudice the position of Haileybury in the minds of some of your readers.

Secondly, in justice to both Dr. Stevenson and myself, I ask for the grounds of your statement (on p. 1079) that a sample of water submitted for analysis, "according to Dr. Shelly, was stated by Dr. Stevenson to have been 'most discoloured.'" That an analyst should state respecting a chalk-water that it was "most discoloured" would, of course, be strong *prima facie* evidence of its impurity; but no such phrase nor any like it occurs in any of Dr. Stevenson's analyses, reports, or letters respecting the Haileybury water; and I have no recollection of having attributed to Dr. Stevenson any expression which he did not use. It is, I submit, unfair to Haileybury to publicly state that Dr. Stevenson at any time described the water in these terms, or that I said he did so.

Thirdly, in justice to Haileybury, I ask the grounds for your statement that samples of water were sent to Dr. Stevenson for analysis "on or about Lady Day" (and again, more definitely, "on March 23rd"), because, on this quite erroneous statement, and in conjunction with the comparatively scanty rainfall which preceded that assumed date, is based the further inference that there was no "cause, atmospheric or otherwise for the discoloration of the deep water in the chalk" at the time when the sample of discoloured water was submitted for analysis.

Now for the facts. The authorities at this time were anxious to submit a sample of discoloured water—and that the darkest obtainable—for analysis. On "March 23rd," and after the fall of "only 1.65 inch of rain" (more correctly, 1.90 inch), the well-water was still bright and clear; and let me repeat, as an absolute fact, constantly verified and quite beyond mere theorising, that the well-water becomes discoloured *only* after *prolonged* and *heavy* rain. Indeed, it was not until April 3rd (that is, eleven days after than the date given by you), when nearly 4 inches (not "only 1.65 inch") of rain had fallen, and after there had been twenty-two (not "twelve") days of rain, that the water was found to be really tinged with yellow and suitable for the special purpose intended. Samples were accordingly sent to Dr. Stevenson on that day (April 3rd). All the above facts were accessible to your commissioner. It was the analysis of this water which was, as you state, in possession of the school authorities on April 7th. It reached them only that morning; it could not be handed over to Mr. Bailey Denton when he called on the master that morning (though he was told of it), as it was required for the meeting of the Council at midday. It was not subsequently asked for.

I hold no brief for Haileybury. To me—to all of us there—it would be vastly more satisfactory to detect, and thus to abolish, a definitely insanitary blot, than to be harassed by obscure and insidious inroads of disease. But I do plead for a fair statement of facts. The JOURNAL possesses a wide circulation, and wields a yet wider influence. The public is often more readily persuaded of evil than braced to impartial judgment. I believe your sincere impartiality may be trusted to correct the misstatements as to facts which I have pointed out, and to retract the false conclusions to which such statements would, if not corrected, obviously lead your readers.

Finally, may I remind such of your readers as are directly interested in Haileybury that the Council will almost immediately have before them a report—minute, lengthy, and most exhaustive—on the whole subject of the recent illness, prepared with most painstaking diligence by an expert whose distinguished ability in his department of hygienic investigation is acknowledged, and who was specially recommended to the Council by the Medical Officer of Her Majesty's Local Government Board as a man eminently fitted for such work?—I am, etc.,

CHAS. EDWD. SHELLY, M.B. Cantab., etc.,
Medical Officer, Haileybury College.

Hertford, May 21st.

THE APOTHECARIES' HALL AND THE TITLE OF ITS NEW LICENCE.

SIR,—The licence of the Society of Apothecaries is, as your correspondent of last week writes, "a full qualification" in medicine, surgery, and midwifery, and it gives to its holder the right to use the excellent title of "Apothecary," which is a designation, in the present day, far more respectable than that of "Doctor." By registering the qualification its holder acquires a right to take and use the additional title of "Surgeon," so that a registered apothecary may describe himself on his door plate, or in any other way, as of yore, "Surgeon, Apothecary, and Accoucheur." For general practitioners, what descriptions can be more respectable; what so respectable, so genuine, so honest?

Your correspondent is so unaware of the fact that the Medical Council have no power to alter the titles conferred by the licences granted by our examining bodies, that he modestly expresses a "hope" that the Council will, upon his request, anonymously made, "take up and decide at once" the question of his title, which, for want of information and reflection, he thinks should be represented by the letters "L.M. and L.S. Lond." Now, what do the public know or care about the initials of our qualifications? To the profession and to lawyers, "L.M. Lond." would imply "Licentiate in Midwifery of the Royal College of Surgeons," which would render any apothecary taking that title, unless he possessed it, liable to criminal proceedings.

It is most lamentable and amazing that members of our profession take no trouble to ascertain the legal value, the scope, the privileges of even their own qualifications, let alone the qualifications of others with whom they have to compete. Only on Friday last a young gentleman practising in Brighton as a general practitioner, without any English qualification whatever, but with two Scotch degrees of the year 1882, asserted in conversation with me, quite innocently and positively, that anyone holding a foreign degree only could put "Dr." on his door and practise in England without fear of legal molestation. However, the gentleman to whom this conversation referred knew better, for upon my demanding of him his christian name for the purpose of a prosecution by the Alliance, he wisely and at once took down his illegal description; but, for all that, the matter, as regards his employer, and who is the most to blame, will be laid before the Medical Council.—I am, etc.,

R. H. S. CARPENTER.

Stockwell Road, May 21st.

NAVAL AND MILITARY MEDICAL SERVICES.

VOLUNTEER MEDICAL ASSOCIATION.

A DEPUTATION will wait upon the Right Hon. the Secretary of State for War, on Tuesday, June 5th, at 1 P.M., relative to the needs of the Volunteer Medical Service. Those volunteer surgeons who are desirous of joining in the deputation are requested to communicate their names at once to the Honorary Secretary of the Association, Alfred Lingard, Surgeon, 3rd M.A.V., at the offices, 26, King William Street, Strand, and to meet at such place at 12 o'clock on the day named.

DEFENCE FUND FOR THE ARMY MEDICAL DEPARTMENT.

OBSERVER writes: I hope the suggestion in a recent issue of the JOURNAL will not be lost sight of, and that a defence fund may be started to protect the interests of the medical staff. I have no doubt sufficient funds will be available, if some person in an independent position, will only set the "ball rolling."

ARMY MEDICAL STAFF.

VERBUM SAP. writes: The only way for medical men to put an end to the treatment they now receive in the service is to agitate for being formed into a corps on the lines of the Royal Engineers. No other course is open to them, and they must be prepared to accept the regimental allowances and pay of a scientific corps. If one such corps can take care of itself, why should not another?

A civilian not content with his position had better enter the service, but let him beware of the reserve, or any half-and-half measures, as dangerous. When Mephistopheles cajoles and is tolerated, the dungeon is nigh and the shackles soon riveted.

MIDLAND VOLUNTEER MEDICAL ASSOCIATION.

At the third annual meeting of this Association, held at Birmingham, the invitation of Lord Burton to hold the annual field-day at the encampment of the 2nd Volunteer Battalion, North Staffordshire Regiment, in August was accepted. Surgeon-Major H. M. Morgan, of the above regiment, was elected President.

Several alterations and additions were made to the rules, among which was one the effect "that all medical officers of yeomanry, cavalry, militia, and

volunteers shall be eligible as members, and that all medical officers retiring with the right to wear the uniform of their regiments, and surgeons holding combatant commissions in the above forces may become (or remain) members of the Association." Surgeon E. L. Freer was re-elected Honorary Secretary.

The question of amalgamation with the Volunteer Medical Association was discussed, and it was decided that the President and Secretary (both members of the Council of the Volunteer Medical Association) should lay the subject before that Council at their next meeting, and report to the members at a special general meeting. The Royal Warrant for a reserve of medical officers was also discussed, opinions being somewhat divided, though it was generally considered to be an unsatisfactory result of the promises foreshadowed.

It was decided to bring the subject again forward at the special general meeting, and in the meantime for members to elicit the feeling of officers of the Medical Staff and the volunteer and medical press upon it as far as possible. The subscription to this Association is 5s. per annum, payable to Edward L. Freer (Honorary Secretary), 7, Newhall Street, Birmingham.

THE NAVY.

DEPUTY INSPECTOR-GENERAL M. W. COWAN, M.D., has been promoted to be Inspector-General. His previous commissions are dated: Surgeon, July 13th, 1854; Staff-Surgeon, September 30th, 1864; Fleet-Surgeon, November 9th, 1876; and Deputy Inspector-General, June 11th, 1883. He served in the Black Sea during the Russian war, and landed at the attacks on Kertch and Yenikale; he had temporary charge of the Russian wounded in the hospital at the latter place; he has received the Crimean medal with clasp for Sebastopol, and the Turkish medal.

Fleet-Surgeon ALEXANDER TURNBULL, M.D., has been promoted to be Deputy Inspector-General. He entered as Surgeon August 12th, 1859; became Staff-Surgeon August 19th, 1870; and Fleet-Surgeon June 2nd, 1880. He has no war record.

The following appointments have been made at the Admiralty: C. J. MANSFIELD, M.B., Surgeon to the *Duncan*; D. T. HOSKYN, M.B., Surgeon to the Plymouth Division of the Royal Marines; J. F. DONOVAN, Surgeon to the *Thunderer*.

THE MEDICAL STAFF.

SURGEONS S. O. STUART and A. DODD, on return from leave in England, are directed to do general duty in the Bombay District, Northern Division, Aden.

Surgeon-Major E. M. D. FITZGERALD, M.D., died on April 26th in Ceylon, at the age of 42. He entered the service as Assistant-Surgeon October 1st, 1867; became Surgeon March 1st, 1873; and Surgeon-Major October 1st, 1879. He does not appear to have had war experience.

Surgeon WILLIAM BATLEY, formerly of the 98th Foot, died at Chichester on May 19th, aged 69.

ARMY MEDICAL RESERVE.

SURGEON CHARLES TANFIELD VACHELL, M.D., 1st Glamorganshire Artillery Volunteers, to be Surgeon-Major (ranking as Major).

The under-mentioned officers to be Surgeons (ranking as Captains):—Acting-Surgeon ROBERT ROSS BROWN, 3rd Volunteer (Kent) Brigade Cinque Ports Division, Royal Artillery (late the 1st Kent Artillery); Acting-Surgeon WILLIAM RICHARD DAMBRILL-DAVIES, 5th Volunteer Battalion the Cheshire Regiment (late the 5th Cheshire Volunteers); Surgeon JAMES DUNCAN, M.B., 7th Lancashire Rifle Volunteer Corps; Acting-Surgeon JOHN PAYNE MASSINGHAM, 1st Shropshire and Staffordshire Artillery Volunteers; Acting-Surgeon JOHN SUTCLIFFE, 2nd Volunteer Battalion of the Duke of Wellington's West Riding Regiment (late the 6th West Riding of Yorkshire Volunteers).

THE INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON A. H. HILSON, M.D., Bengal Establishment, officiating Surgeon-General Gwalior and Saugor Districts, is appointed to officiate as Inspector-General of Civil Hospital, Bengal, during the absence on privilege leave of Deputy Surgeon-General A. J. Cowie.

Sir BENJAMIN SIMPSON, M.D., K.C.I.E., Bengal Establishment, Surgeon-General and Sanitary Commissioner with the Government of India, has leave of absence for 183 days on medical certificate.

The under-mentioned gentlemen have also obtained leave of absence for the periods specified:—Surgeon-Major JOHN BENNETT, Bengal Establishment, Medical Officer to the Maharajah of Patiala, for 300 days on medical certificate; Surgeon H. W. G. MACLEOD, Bengal Establishment, for 182 days on medical certificate; Surgeon-Major P. A. WEIR, M.B., Bengal Establishment, Principal Assistant, Opium Agent, Benares, for one year; Surgeon D. F. DYMOTT, Madras Establishment, Officiating Inspector of Vaccination and Deputy Sanitary Commissioner, for three months; Surgeon A. P. FERGUSON, Bombay Establishment, for six months in extension on medical certificate.

Surgeon-Major W. C. COLES, M.D., F.R.C.S., retired, Bombay Establishment, died on May 17th at Bourton-on-the-Water, Gloucestershire, in his 71st year.

THE VOLUNTEERS.

THE under-mentioned gentlemen are appointed Acting-Surgeons to the corps specified:—CHARLES APERILL, 5th Volunteer Battalion Cheshire Regiment (late the 5th Cheshire); R. T. MEADOWS, M.B., 2nd Volunteer Battalion Duke of Cornwall's Light Infantry (late the 2nd Cornwall).

Surgeon and Honorary Surgeon-Major J. VANCE, M.D., of the 4th Volunteer Battalion Essex Regiment (late the 4th Essex), has resigned his commission, which dated from May 3rd, 1867; he is permitted to retain his rank and uniform.

Surgeon and Honorary Surgeon-Major T. W. THURSFIELD, M.D., 2nd Volunteer Battalion Royal Warwickshire Regiment (late the 2nd Warwickshire), has also resigned his commission, with permission to retain his rank and uniform; his appointment bore date November 14th, 1868.

Mr. H. G. READ has been appointed Surgeon to the London Division of the Volunteer Medical Staff.

At the 33rd annual festival dinner of the Poplar Hospital for Accidents, held last week, the Secretary (Lieutenant-Colonel Fenehan) announced subscriptions amounting to £1,349 1s. 9d.

MEDICO-LEGAL AND MEDICO-ETHICAL.

THE L.S.A. AND SURGICAL FEES.

M. and L.S.A.L.—An L.S.A. reduces a fracture of leg; the case terminates quite satisfactorily; the patient disputes the payment (£3 3s.), being thus advised by a new medical practitioner in the town, as the L.S.A. is not also a M.R.C.S. Is not the L.S.A. entitled to his fee?

* * * In reply to our correspondent's special question we are constrained to admit that, although he is indisputably morally entitled thereto, he cannot legally enforce payment of his fee of £3 3s. in the case in question, inasmuch as a person registered with a medical qualification only cannot recover for professional attendance in a surgical case, and *vice versa*. For any medicines, however, which he may have prescribed as subservient to the surgical attendance, he is entitled to charge for and recover. Comment on the new medical practitioner's reputed advice to the patient is unnecessary.

A HYPOTHETICAL CASE.

J. E. C. writes: A, B, and C are practising in the same district (residing, say, within a mile of each other). A is desirous of removing, and succeeds in securing a purchaser (D.) for his practice. Are B and C committing any breach of professional honour or etiquette in competing for appointments held by A, and which they know A is using his influence to have transferred to D, as his successor? The case is a hypothetical one; consequently, there are no attendant conditions to be taken into consideration.

* * * In the absence of knowledge of the attendant essential conditions of the "hypothetical case" submitted, we are not in a position to advise J. E. C. thereon further than that, if the vacancy of the appointment alluded to is advertised, or otherwise publicly made known, and there are no surrounding circumstances which dictate abstention from opposition to D, as the proposed successor to A, we see no valid ethical objection to B, and C, competing for the appointment.

A MEMBER.—The prolonged and evidently deliberate omission of the resident medical practitioners to return "A Member's" call of courtesy, constitutes a regrettable breach of professional etiquette, and, to our mind, indicates but too clearly a feeling of other than fraternal regard for the newcomer, whose advent must necessarily more or less interfere with their respective practices.

UNIVERSITY INTELLIGENCE.

PROFESSORIAL CHANGES IN FOREIGN UNIVERSITIES.

DOCENS DR. ENGELHARDT has been appointed as an Extraordinary Professor of Gynaecology at the University of Jena.

DR. JOS. BAUER, Extraordinary Professor in the University of Munich, has been named an Ordinary Professor of the Propædeutic Clinic there.

DOCENS DR. HERMANN HAAS, of Prague, recently died in that town owing to typhoid fever contracted in the practice of his profession.

DR. CURSCHMANN, the Director of the Hamburger Städtisches Krankenhaus, has received and accepted a call to Leipzig as Director of the Medical Clinic there, in the place of Professor E. Wagner.

DR. GEIGEL has been named Docens for Internal Medicine at Würzburg.

PROFESSOR SILVESTRINI, of Parma, has been named Ordinary Professor in the Medical Clinic at Palermo.

DR. A. RIVA, Extraordinary Professor at Pisa, has been named an Ordinary Professor in the Medical Clinic at Parma.

DR. S. KOSTJURIN has been appointed Ordinary Professor of General Pathology at Charkom.

DR. PODWYSSOTZKI, jun., has been named Extraordinary Professor of General Pathology at Kiev.

CAMBRIDGE.

CAVENDISH COLLEGE.—An examination will be held on Tuesday, July 24th, and following days, according to the results of which it is intended to award eight scholarships of £30 a year, provided that candidates of sufficient merit present themselves. Candidates must be under 18 years of age on October 1st, 1888, and may offer for examination one or more of the following subjects: classics, mathematics, natural science, modern languages. The scholars elected will be required to come into residence at Cavendish College in October, 1888, and commence study for a tripos or the engineering course. Medical students may conveniently combine their medical work with the course for the natural science tripos. It is also intended to offer in June, 1889, three scholarships of £30, to be competed for by students of the College who will then have resided not longer than one year. The College fee for board, lodging, and tuition is £25 for each of the three university terms, and £15 for residence (optional) in the Long Vacation. Further information can be had on applying to the Bursar, Cavendish College, Cambridge.

At the Congregation on Thursday, May 24th, Mr. Squier Hinnell, of Pembroke College, was admitted to the degrees of M.B. and B.C.; and Dr. Stegfried Ruhemann to the degree of M.A. *honoris causa*.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

STATISTICS OF NOTIFICATION OF DISEASE.

THE following table, drawn up by Dr. Biddle, of Kingston, gives for the twenty-eight large towns of England the zymotic death-rates for each of the six years, 1881-86, together with the averages before and after the enforcement of the notification clauses. The towns are grouped so that the average death-rate may be obtained for each of three conditions—namely, (1) where no system of notification is in force; (2) where the householder alone is under the penal clause; (3) where it is compulsory for both householder and medical attendant to notify.

Dr. Biddle's figures show that the zymotic death-rate is greater

Zymotic Death-rate per 1,000 in the Twenty-eight Large Towns of England.

For the Six Years, 1881-86, inclusive.		London.	Brighton.	Plymouth.	Bristol.	Wolverhampton.	Birmingham.	Liverpool.	Leeds.	Sheffield.	Hull.	Cardiff.	Norwich.	Nottingham.	Bradford.	Portsmouth.	Leicester.	Derby.	Birkenhead.	Bolton.	Manchester.	Salford.	Oldham.	Blackburn.	Preston.	Huddersfield.	Halifax.	Sunderland.	Newcastle.
1881	...	3.6	2.2	1.5	2.3	2.2	2.7	4.5	2.9	2.7	6.1	1.7	1.7	4.0	<u>2.0</u>	3.4	4.2	2.0	<u>2.1</u>	2.5	<u>2.3</u>	2.9	2.3	2.8	2.5	1.4	2.9	2.7	2.6
1882	...	3.5	4.2	2.1	2.4	3.3	3.5	4.4	3.5	2.9	5.0	3.3	2.5	4.4	<u>3.3</u>	4.4	3.0	2.3	<u>2.9</u>	4.5	<u>3.8</u>	3.9	2.8	4.5	5.5	2.8	<u>1.7</u>	<u>5.7</u>	<u>3.3</u>
1883	...	2.7	2.3	2.1	1.2	1.6	3.1	4.5	4.0	4.0	3.2	2.5	1.0	2.1	1.5	<u>2.2</u>	2.4	1.5	1.8	<u>2.2</u>	<u>3.6</u>	<u>3.3</u>	1.5	2.8	4.3	1.7	1.0	2.5	4.3
1884	...	3.3	1.7	2.0	1.8	3.8	3.9	4.5	4.9	4.2	3.5	4.8	3.1	3.8	2.4	<u>3.0</u>	4.0	2.3	2.2	4.3	3.6	4.2	3.4	4.0	5.2	1.7	2.4	3.5	3.2
1885	...	2.8	1.4	2.3	2.3	1.9	2.0	3.6	2.2	2.7	1.2	5.0	2.1	2.3	1.6	<u>3.3</u>	3.4	1.5	2.5	1.9	3.1	3.4	2.0	2.6	4.2	1.4	1.1	<u>5.3</u>	4.4
1886	...	2.7	1.9	3.0	2.2	3.8	3.1	3.1	3.4	2.9	2.4	3.1	3.5	3.0	2.2	5.1	2.8	1.8	2.3	3.8	3.1	3.8	2.7	4.3	5.8	1.6	<u>2.3</u>	<u>2.6</u>	2.5
Town Averages.	Before Notification	3.1	2.3	2.2	2.0	2.8	3.1	4.1	3.5	3.2	3.6	3.4	...	...	2.0	3.3	...	...	2.1	...	2.3	3.4	...	...	...	...	2.3	3.9	2.9
	After	...	...	...	...	...	...	...	...	...	...	...	2.3	3.3	2.2	3.5	3.3	1.9	2.3	3.2	3.4	3.7	2.5	3.5	4.6	1.8	1.7	2.8	3.6

Group I.

Group II.

Group III.

GROUP I: 3,168, say 3.17.

GROUP AVERAGES.

GROUP II: 2,689, say 2.67.

GROUP III: 3,138, say 3.14.

In these towns there is no compulsory notification, and the average of 3.17 is equivalent to 20,830 deaths from zymotic diseases, on average in one year, out of a population of 8,606,411.

In these towns the single (householder's) notification is in force. The percentage of 2.67 is equivalent to 1,413 deaths from zymotic diseases, on an average in one year, out of a population of 529,163.

These towns were under the dual system either during the whole period or during the years below the thick line, but under no system whatever above such line. The average of 3.14 applies only to those years when the dual system was in operation, and is equivalent to 6,145 deaths from zymotic diseases, on average in one year, out of a population of 1,958,233.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons, 5,410 births and 3,398 deaths were registered during the week ending Saturday, May 19th. The annual rate of mortality, which had declined from 18.9 to 17.6 per 1,000 in the three preceding weeks, rose again during the week under notice to 18.9. The rates in the several towns ranged from 14.2 in Nottingham, 15.3 in Leicester, and 16.3 in Halifax to 23.5 in Salford, 24.5 in Norwich, and 25.6 in Blackburn. In the twenty-seven provincial towns the mean death-rate was 19.7 per 1,000, and exceeded by 1.8 the rate recorded in London, which was only 17.9 per 1,000. The 3,398 deaths registered during the week under notice included 140 which resulted from whooping-cough, 43 from diarrhoea, 49 from diphtheria, 37 from scarlet fever, 32 from measles, 30 from "fever" (principally enteric), and only 9 from small-pox; in all 330 deaths resulted from these principal zymotic diseases, against 329 and 288 in the two preceding weeks. These 330 deaths were equal to an annual rate of 1.8 per 1,000; in London the zymotic death-rate was 1.8; it also averaged 1.8 in the twenty-seven provincial towns, and ranged from 0.0 in Plymouth and in Halifax to 3.5 in Blackburn, 3.7 in Salford, 3.8 in Wolverhampton, and 4.4 in Sheffield. Measles caused the highest proportional fatality in Nottingham and Wolverhampton; scarlet fever in Bolton, Cardiff, and Blackburn; whooping-cough in Manchester, Salford, and Sheffield; and "fever" in Salford and Wolverhampton. Of the 39 deaths from diphtheria recorded during the week under notice in the twenty-eight towns, 29 occurred in London and 3 in Norwich. The 9 fatal cases of

after than before the Act is enforced, except in two cases—namely, Halifax, in which the death-rate declined from an already good average 2.3 to 1.7, and Sunderland, where only one year is given to afford an average for the after state of things; and even here the record has been beaten in a previous year.

In Portsmouth the effect of the Act has been to raise the zymotic death-rate from 3.3 to 3.5 per 1,000; in Manchester the zymotic death-rate was only 2.3 per 1,000 in the year preceding the Act, but has averaged 3.4 since; in Salford it has risen from 3.4 to 3.7; and in Newcastle it has plunged from 2.9 to 3.6. Dr. Biddle adds: "If the calculations based on the appended table be correct, as I believe they are, and we further wish to know what the respective effects of the single and dual systems would be, if enforced over a population of 30,000,000, we find that the former would save 15,000 lives per annum, whilst the latter, if not positively destructive of life, would be of no sort of compensatory value as a death-preventive."

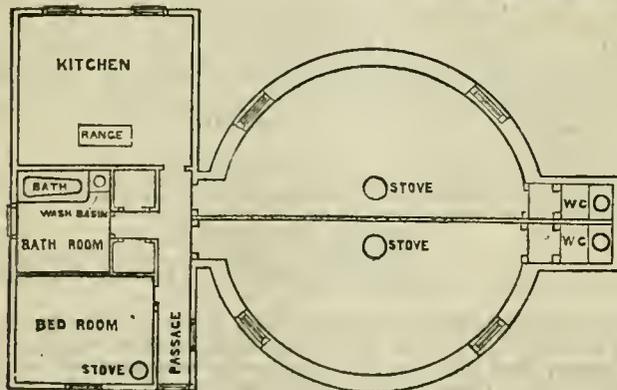
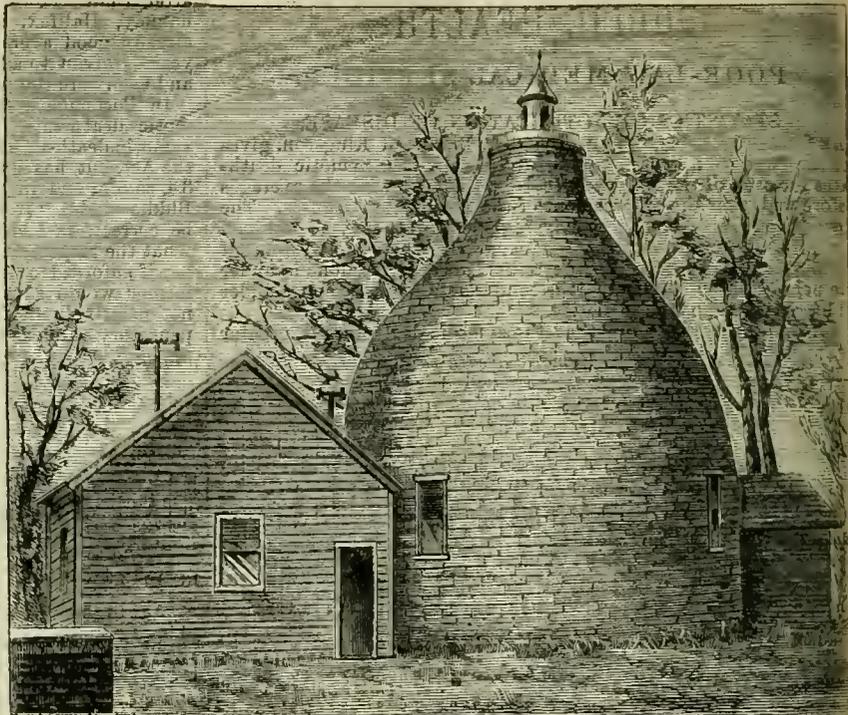
small-pox included 8 in Sheffield and 1 in Bristol. The number of small-pox patients in the Metropolitan Asylums Hospitals on Saturday, May 19th, was 6, not one having been admitted during the week. These hospitals also contained 915 scarlet fever patients on the same date, which showed an increase of 11 upon the number at the end of the previous week; 82 cases were admitted during the week, against 91 in the previous week. The death-rate from diseases of the respiratory organs in London was equal to 3.5 per 1,000, and was slightly below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, May 19th, 900 births and 488 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had been 19.5 and 21.1 per 1,000 in the two preceding weeks, declined to 19.3 during the week under notice, but exceeded by 0.4 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Paisley and Greenock, and the highest in Edinburgh and Glasgow. The 488 deaths in these towns during the week under notice included 41 which were referred to the principal zymotic diseases, equal to an annual rate of 1.6 per 1,000, which was below the mean zymotic death-rate during the same period in the large English towns. The highest zymotic rates were recorded in Edinburgh and Glasgow. Eleven fatal cases of whooping-cough and 10 of measles were recorded in Glasgow. The mortality from diseases of the respiratory organs in these towns was equal to 3.8 per 1,000, against 3.5 in London.

SWINTON SMALL-POX HOSPITAL.

THIS hospital, which is represented in the accompanying sketch and plan, consists of a circular brick building 30 feet in diameter, with a wooden floor and a wooden ceiling at a height of 11 feet 3 inches. It is divided into two wards by a double boarded partition down the centre. There are four windows and four 8-inch fresh air inlets, and two outlets in the ceiling. There is a closet for each ward built outside the brickwork, but communicating with the ward by double doors. The hovel is surmounted by one of Boyle's 3 feet air pumps, which, with an average wind, entirely renews the air in the building four times per hour.

The administrative department is built adjoining of double lined boards, and roofed with boards covered with a waterproof felt. It consists of an entrance passage, a kitchen 16 feet \times 14 feet, containing a cooking range, a bath-room 10 feet \times 8 feet with hot and cold water, two pantries, and a nurses' bedroom 12 feet \times 10 feet, all 10½ feet high. There is one tortoise stove in each ward, and a smaller one in the nurses' room. The cost for erection was £128; for stores, bath and fittings, £44; for 16 beds and furnishing, £50 18s.; total, £222 18s.



THE CLOSURE OF CONTAMINATED WELLS.

Two recent magisterial decisions with regard to the closing of contaminated wells—one at Enfield and the other at Birmingham—have called the attention of medical officers and others to the powerlessness of the Public Health Act to ensure the closure of wells containing contaminated water. At a meeting of the Society of Medical Officers of Health, held on Friday, May 18th, presided over by Dr. A. HILL, of Birmingham, this important question was discussed.

Mr. LLOYD raised the question what, in the words of the 70th section of the Public Health Act, constituted "water injurious to health?" The presence of sewage matters in a potable water even when in large quantity, appeared not necessarily to do so, though if the sewage contained the germs of disease, it would. Was the chemist, by means of variation in the chemical composition of the water, able to detect the injurious one? In reply, he said Dupré, Frankland, and Wanklyn had shown that no sufficient chemical variation to be of a decisive character existed. It was equally impossible to prove the presence of disease germs by the methods of the bacteriologist, and such proof, even though possible, was practically prohibited. Recognising these facts he had, when re-

porting upon contaminated water, simply stated the water contained sewage, and was therefore unfit for drinking purposes, and this had sufficed in most cases to ensure the closing of the wells; but recently a contested case at Enfield was lost, on the ground that the report did not use the words of the Act. Enfield it was stated, had for several months past been suffering from more or less continued diphtheria, the source of which the Local Board of Health had been actively engaged in trying to discover. A sample of the water submitted to him on December 20th, gave the following result. Total solid matter, 83.72; loss on heat, 7.00; oxygen absorbed, 0.157; chlorine, 8.40; equal to common salt, 13.84; nitrogen as nitrates, 2.28; free saline ammonia, 0.084; organic albuminoid ammonia, 0.008. He, therefore, condemned the water as containing sewage, and as totally unfit for drinking purposes. The owner of the well disputed his report, and an analysis on his behalf was made by Mr. Gregory, who found practically the same result, with the exception of the nitrates, which he gives as 4.22, and who reported "a perfectly safe water to use for drinking and domestic purposes, being free from any trace of sewage contamination." In view of the conflicting evidence, the magistrate decided to send a sample to Dr. Bell, at Somerset House, and he, in his report, stated that his results did not differ materially from the previous analyses. It was evident, he thought, from the large quantity of saline matters present, that it passed through a stratum of earth largely charged with sewage or organic refuse, and carried down with it various products resulting from the oxidation of the organic matter which, though not dangerous to health, was very objectionable. As to how such a sentence came in the Act, he thought it was taken for granted that the mere presence of sewage in potable water was *prima facie* evidence that the water was injurious, and that view was supported by the fact that in the Sixth Report of the Rivers Commission on Domestic Water Supply, river water receiving sewage, and shallow well waters were designated dangerous without any consideration of the quantity of pollutions. So long as Somerset House was made the court of appeal, it practically amounted to an inability to close polluted wells.—The CHAIRMAN referred to his own recent experience at Birmingham in a case commented on in the JOURNAL last week. He did not consider the average chemist fit to be an arbitrator of the physiological significance of a polluted well, because chemistry by itself was totally inadequate to decide the question whether the pollution

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was injurious or not. Microscopy was equally inadequate to answer the question. He knew only one test, and that was the one of illness or death produced by the use of the water. If after the drinking of polluted water such marked effects were produced as seen in the case of the Broad Street pump during the cholera epidemic of 1866, then the medical officer would have no difficulty. Such proofs were not to be got in the case of all polluted waters, and the only other course for them to pursue was to condemn all waters found polluted with animal and excrementitious matters. Unfortunately they had not the arbitration of the question in their own hands. They were settled for them by the special pleading of lawyers, who impressed their views on the minds of magistrates, without any special training in chemistry, physiology, or law. Dr. Hill pointed out how difficult it was to prove drinking water to be absolutely "injurious to health," and he thought the intention of the Legislature was to say "dangerous," hence all their difficulties. The lawyer would say, "If, after drinking that water for twenty-five years, a man still remains in perfect health, do you mean to say that that can be injurious?" He (Dr. Hill) did not mean to say anything of the kind. He contended that it was a dangerous water, and might become injurious at any moment. It was, he contended, impossible to bring a case of the kind before the Court with any prospect of a verdict. It was an important question which affected the whole kingdom. Individually they had no power. In such cases the medical officer should have the support of a barrister, and not be left alone to fight the battle, as he had been, against two leading barristers and six London chemists. They must, he said, bring all the combined influence they could upon the Legislature, and agitate for an alteration of the expression "injurious" in the Act to what no doubt was intended and alone was reasonable, namely, "dangerous."—Dr. RIDGE said the occurrence of four cases of typhoid in one of five houses supplied by a shallow well ten feet distant from the houses in gravel soil, gave rise to the proceedings referred to. They had every condition likely to produce pollution of the water, if there had been the least leakage of any of the numerous drains.—Mr. SHIRLEY MURPHY: I suppose Dr. Bell did not state it was injurious to health?—Mr. LLOYD: "Not absolutely dangerous" were his words.—The CHAIRMAN said he had known a well with 0.005 of organic ammonia produce typhoid fever and a number of cases and death.—Dr. DUFFIELD expressed surprise that no reference was made by Dr. Ridge to the enteric fever cases. Physiological proof was wanted, and there it was. They would like to know something about them.—Dr. RIDGE said he was unable to supply the information.

It was proposed and resolved to refer the cases in question to counsel for consideration, and to take such steps as they might deem advisable.

GUARDIANS AND MEDICAL OFFICERS.

WE are very glad to be able to announce that the Local Government Board has refused to confirm the resolution of the Holborn guardians, calling upon Mr. Marshall to resign his office of medical officer to their schools at Mitcham. It is satisfactory to know that members of the medical profession are not always to be ridden over by Boards of Guardians at their sweet will. No doubt the support accorded to Mr. Marshall by his professional brethren at Croydon has assisted the Local Government Board to come to a right decision in his case.

SIR ROBERT RAWLINSON ON METROPOLITAN SEWAGE.

THE sewage precipitation works of the Board of Works at Barking and Crossness fill Sir Robert Rawlinson as a sanitary engineer with astonishment and as a ratepayer with indignation. He considers that the outfalls ought never to have been established, and that the present outlay of more than a million sterling, and half a million per annum to keep the works going, can only aggravate existing evils. The sludge precipitation and sludge barges would be huge and costly abominations. The officials of the Board were wilfully sinning against light and evidence obtained by themselves and furnished by Royal commissioners. They ought to know that the only way to deal with crude sewage economically was to irrigate the land with it, as at Berlin, and at scores of places in England—Birmingham, Bradford, Doncaster, and others. He recommended that conduits should be made from Barking and Crossness to Canvey Island or to the Fens, and arrangements made for the application of sewage on the road from both sides of the sewage conduits, and in time every gallon of sewage would

be taken—would be used and paid for by the adjoining farmers and landowners. It is well known that Sir Robert Rawlinson's view as to the application of sewage to land was expressly recommended by Lord Bramwell's Commission, but no action has hitherto been taken with that object.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

JARROW (Population, 30,000).—*Typhus Imported*.—Dr. Campbell Munro refers as usual to the depression of trade in this borough in his report for the year 1886. It is again satisfactory to observe that, notwithstanding the depression was felt with exceptional intensity during the year, the health of the town did not appear to be much affected by it. The death-rate, which in 1885 was 22.1, fell to 20.7. Besides a lower death-rate, the town enjoyed an unusual freedom from infectious disease, the number of cases notified being lower than in any year since 1880. The zymotic death-rate was 3.9, as compared with 4.4 in the previous year. No case of small-pox appeared in the borough during the year. Although measles was excessively prevalent in 1885, only 3 cases were notified in 1886, one of which proved fatal. Dr. Munro mentions that the medical men of the town have been requested by the council to notify all cases of this disease, although it was not compulsorily notifiable under the Jarrow Improvement Act. Of the cases of fever notified during the year, 2 were of typhus and 22 of enteric fever. Each of the typhus cases was imported, and from the second case the disease spread to 3 other members of the household, one of whom died.

KIDDERMINSTER URBAN. *Prevalence of Measles and Sore Throats: Value of Hospital*.—Mr. Corbet is to be congratulated on the satisfactory state of his district, as shown by the decreasing mortality during the past few years, especially in 1887, when the death-rate fell to 16.9 per 1,000. The deaths from zymotic diseases were fewer than in any year since 1884. Measles was the most extensively prevalent, 226 cases coming under notice, whilst doubtless there were many others which were not made known to the authority. Mr. Corbet testifies to the valuable assistance afforded by the Borough Hospital in preventing an epidemic of scarlet fever; 31 out of 49 cases were admitted, and only one death occurred. In the autumn months sore throats were very prevalent in the higher parts of the town. The cases were more troublesome than severe. Inquiry and search were made, but no reason could be assigned for the malady. Seven cases of true diphtheria occurred, of which 5 were fatal.

HOLSWORTHY RURAL (Population, 9,008).—*Diphtheritic Throat Affections Prevalent: Influence of Schools*.—This district was exceptionally free from epidemic disease during 1887. Dr. Linnington Ash states that of the seven principal zymotics, three only were seriously prevalent, namely, diphtheria, whooping-cough, and diarrhoea. The death-rate from these causes was 0.6, out of a general rate of 15.2 per 1,000, and related to six deaths only. The general sickness throughout the year was greatly below the average. There was a remarkable absence of pulmonary diseases, which are usually the scourge of the district, and Dr. Ash considers it more than probable that 1887 will be one of the healthiest years on record. One death from diphtheria was registered, but an epidemic of a disease of a very suspicious character and wide-spread, was prevalent in the northern part of the district. Dr. Ash describes the cases as mild, and partaking of the nature of simple ulceration of the tonsils, with sympathetic glandular enlargement around the throat. There was no evidence of fibrinous exudation characteristic of diphtheria, nor any subsequent symptoms of paralysis. Other medical men shared Dr. Ash's doubts as to the precise nature of the affection, but all agreed that it was eminently infectious. The cases were so numerous that the schools closed themselves by reason of the non-attendance of scholars. Dr. Ash thinks there is increasing evidence of the operation of elementary schools as an important factor in the spread of these epidemic diseases, and of the necessity for closing them on the first approach of any such disorder. The absence of any provision for isolation, and for the precise disinfection of clothing, is a serious hindrance to the effective management of cases, and renders the more necessary an immediate recourse to all available means of precaution. Dr. Ash stigmatises the rude and ignorant use of disinfectants as employed in this part of the country as "a waste of money, a delusion, and a danger."

BATH.—*Imported Small-pox.*—The usual evidence of longevity in Bath is again shown in the annual report of Dr. Brabazon by the fact that of 1,094 deaths during 1886, 117 were of persons aged 80 and upwards. The principal factors in the general mortality were diseases of the respiratory organs and constitutional diseases. Dr. Brabazon reports a very low rate of zymotic mortality—0.4 per 1,000. Whooping-cough was the most active agent in producing this result, causing 15 deaths out of the total of 22 for the year. Nearly all the cases of zymotic disease had their origin without the city. The most serious occasion for anxiety was in the beginning of the year, when small-pox was introduced from Bristol, and, being unrecognised, the patient was allowed to visit his friends with the disease in the pustular stage upon him. Several cases followed, all of which were removed to hospital. One death resulted. Revaccination was carried out and the houses disinfected, and by these means the outbreak was restricted to the districts in which the first case occurred. The corrected death-rate is stated to be 18.03 per 1,000.

RIVER TYNE PORT.—*Thorough Supervision of Shipping.*—Mr. Henry E. Armstrong states, in his report for 1887, that the diminished prevalence of cholera abroad, and its absence from the Tyne, as also the small amount of other infectious sickness coming under observation during the year, are matters for general satisfaction. Owing to the decline of the former disease, the vessels arriving from foreign infected ports were much fewer in number, and, consequently, the work of supervision required in this particular was less arduous than before. At the same time the record of ships inspected during 1887 is, except that for the year 1885, when cholera was so prevalent, the largest since the formation of the sanitary authority. Cases of sickness, infectious and otherwise, to the number of 218, were inquired into, and dealt with as occasion required. Six vessels from abroad reporting "all well" to the customs officers were subsequently found to have cases of serious illness on board. Nine patients were admitted to the Floating Hospital, including 3 cases of scarlet fever, 2 of enteric fever, and 1 of small-pox. They were all discharged cured. As usual, the movements of all vessels reported from suspected places were carefully watched, and deaths at foreign ports or at sea were inquired into. It would be well if the supervision of shipping at all our ports were carried out with the system and thoroughness which characterise the work on the Tyne.

TORQUAY (Population, 25,000).—*Favourable Statistics.*—The account of zymotic diseases given by Mr. Paul Q. Karkeek in his report for 1887 may be considered very favourable. Seven deaths only were assigned to these causes, or a rate of 0.28 per 1,000. The cases notified to the authority were 2 of diphtheria, 13 of enteric fever, and 32 of scarlatina. These last were all of a very mild type; 3 were traced to direct importation; a group of 9 were associated with a school; 10 occurred in one parish; and in the others the source of infection could not be traced. Of the 13 enteric fever cases, most were due to sanitary defects, 2 were imported, and 1 was a nurse who contracted her illness while in the discharge of her duties. There was but little autumnal diarrhoea, although the season was unusually dry, and only 3 cases proved fatal; 1 of these was choleraic, and rapidly killed an adult whose health had been previously much enfeebled. The total number of deaths was 333, the smallest figure for twenty-three years. Deducting the deaths of 44 visitors, the death-rate for 1887 was 11.5 per 1,000.

FEES FOR ATTENDANCE ON PRIVATE BILL COMMITTEES.

SANITARY AND POLICE.—It is impossible to lay down a general rule, but, as a rough indication, we would state that a charge of ten guineas a day, and all hotel and travelling expenses, while attending in London to give evidence before a Private Bill Committee, would not be too high if our correspondent were not in the service of the authority; a reduction might then be reasonably expected.

IRISH LUNATIC ASYLUMS.—Dr. W. Z. Myles, Senior Assistant at the Richmond District Asylum, Dublin, has been appointed Superintendent of the asylum at Kilkenny in succession to the late Dr. Barry Delany. The salary is £550 per annum, with allowances.—The Lord Lieutenant has authorised the expenditure of £3,500 for the completion of the sanitary improvements at the Richmond District Lunatic Asylum, and £250 for repairs of the Limerick Lunatic Asylum.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, May 18th.

The Royal College of Surgeons.—Dr. FARQUHARSON asked the Vice-President of the Council of Education whether he would lay upon the table a copy of the petition for reform in the constitution of the Royal College of Surgeons of England, signed by 6,000 Members of the College, and addressed to the Lord President of the Privy Council, together with a copy of the statement and contentions in support thereof made to the Lord President by the deputation of members which waited upon him on November 11th, 1887; and whether he would state if that statement was referred to the President and Council of the College for reply; whether any reply was received; and on what grounds the Privy Council had, in the absence of any reply, and without further communication with the Members of the College or their representatives, decided to negative their request for such reform.—Sir W. HART DYKE, in reply, said there would be no objection to lay on the table a copy of the petition and statement of the Members of the Royal College of Surgeons. The statement was referred to the College, and the receipt acknowledged. The Privy Council subsequently decided to strike out the contentious clauses from the draft charter, and the College had agreed to accept the supplemental charter on those terms.

OBITUARY.

JAMES RIGBY, M.R.C.S.E., L.S.A.

WE are sorry to record the death on May 5th, after a somewhat protracted illness, of Mr. Rigby, who occupied a high and honourable position in the profession at Doncaster, where he had practised for thirty-four years. The deceased gentleman was a native of Stockport, born in November, 1825, and commenced his professional career at a time when the old apprenticeship system was still in operation. He was articled to the late Dr. Rayner, of Stockport, one of the earliest graduates of the London University, and subsequently entered at University College, where he passed through his curriculum with great distinction, obtaining gold medals in chemistry and materia medica, silver medals in anatomy and physiology, and certificates of proficiency in other subjects. He also obtained the gold medal awarded by the Apothecaries' Society for general proficiency. He passed the first M.B.Lond. examination in 1848, but did not proceed to take the degree. After qualifying he was elected in 1850 house-surgeon to the Stockport Infirmary. In 1854 he joined the late Mr. Russell, of Doncaster, in partnership, an arrangement which terminated by mutual consent in 1858. In that year Mr. Rigby commenced practice for himself. Associated with the Doncaster Infirmary from its establishment in 1867, and being one of its first surgeons, he held for nineteen years the appointment of honorary surgeon to this institution, retiring in 1886 as consulting surgeon. In 1861 he was elected honorary surgeon to the Doncaster Dispensary, in succession to Dr. Withers Moore, who at this time removed to Brighton. His predilections were for surgery, and he soon acquired a reputation as a successful operator, and was one of the first to perform lateral lithotomy in Doncaster. Towards the end of 1887 he began to show signs of failing health. He had suffered for many years from a discharge from the right ear, pointing to some form of intra-cranial suppuration. In spite of a certain brusqueness of manner, his strict professional integrity and uprightness of conduct, and his quick insight into the nature of disease, were recognised by a select *clientele* to whom he was much endeared, and who knew how to value and appreciate his many sterling qualities. His funeral, which took place on the 7th, was attended by most of his medical brethren and a large and representative gathering of his fellow townsmen.

SANITARY INSTITUTE OF GREAT BRITAIN.—At the annual general meeting held at the Parkes Museum on Wednesday, May 16th, Professor W. H. Corfield, M.A., M.D. (Chairman of Council) in the chair, a report was presented by the Council on the work of the institute during last year, and on the Congress at Bolton in the autumn of 1887. The Chairman gave an address, and the officers for the ensuing year were elected.

INDIA AND THE COLONIES.

INDIA.

WE regret to hear from Madras the sad intelligence of the death of Surgeon-Major John Prendergast, from drowning, at Kirkee. The deceased officer and a subaltern of artillery, Lieutenant Falziner, were out together in a small boat on the Moola Mootha river, when the light craft was capsized by a sudden gust of wind, both the occupants being precipitated into the water. Both lives were lost. Dr. Prendergast's commission dated from March 1st, 1874. He was promoted to the rank of Surgeon-Major when stationed at Quetta, two or three years ago; thence he was transferred to Purandhur, going to Poona in January last, to act as Brigade-Surgeon for Dr. Gaye. Dr. Prendergast received a spear wound in the lungs at Tel-el-Kebir, while in attendance on the wounded, and was for a time dangerously ill at the hospital at Juez. He was stationed at Wanowrie in 1878.

THE Surgeon-General Moore Memorial Fund is, we learn from Bombay, making satisfactory progress. The subscription list, which already shows a substantial sum, includes 500 rupees from His Highness the Gaekwar of Baroda. It has been provisionally determined that the memorial will take the form in the first instance of a bust or portrait, and that any other funds available shall be used to found a medical scholarship or prize; the question, however, will be submitted to a general meeting of the subscribers.

In the list of the Queen's birthday honours, consisting of promotions in and appointments to the Most Distinguished Order of St. Michael and St. George, in the *London Gazette* of Thursday, occur the names of William Raymond Kynsey, Esq., Principal Civil Medical Officer and Inspector-General of Hospitals of the Island of Ceylon, and Anthony Colling Brownless, M.D., Chancellor of the University of Melbourne, who have been appointed Ordinary Members of the Third Class, or Companions of the Most Distinguished Order.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and physiology for the Diploma of Fellow at a meeting of the Board of Examiners on May 21st, 22nd, and 23rd, and when eligible will be admitted to the pass examination, namely:—

H. S. Ballance, King's College; A. E. Berry, Owens College, Manchester; G. F. Blacker, University College; C. C. Braine, Charing Cross Hospital; F. Calder, Bristol Medical School; W. T. Clegg, Liverpool Infirmary School of Medicine; L. Cobbett, St. Thomas's Hospital; A. T. Collam, Charing Cross Hospital; W. C. Devereux, Middlesex Hospital; C. Douglas, St. George's Hospital; T. A. Duker, St. Thomas's Hospital; W. F. Parcombe, St. Bartholomew's Hospital; A. G. Francis, St. Bartholomew's Hospital; J. Galloway, Aberdeen and London Hospital; T. C. Grey, Bristol Medical School; F. Johnson, St. Bartholomew's Hospital; R. Johnson, University College; O. M. Jones, London Hospital; A. S. Kenny, King's College; H. B. Luard, Cambridge and St. Thomas's Hospital; R. H. Lucy, London Hospital; F. H. Napier, St. Bartholomew's Hospital; T. Redmayne, Cambridge and London Hospital; R. H. Russell, King's College; W. T. H. Spicer, St. Bartholomew's Hospital; A. Street, Leeds and Cambridge; E. Teichmann, Queen's College, Birmingham; J. L. Thomas, St. Bartholomew's Hospital; W. T. Thomas, University College; M. L. Trechmann, Edinburgh and St. Bartholomew's Hospital; A. L. Vernon, St. George's Hospital; G. Wilkinson, Cambridge University.

MEDICAL VACANCIES.

The following Vacancies are announced:

ALTINGLASS UNION.—Medical Officer, Duplein Dispensary. Salary, £135 per annum, and fees. Applications to Captain Heighton, J.P., Honorary Secretary, Donard House. Election on June 13th.

ERKS COUNTY ASYLUM, Wallingford.—Assistant Medical Officer as *Locum Tenens*. Two guineas per week, with board, etc. Applications to J. Harrington, Esq., Medical Superintendent.

IRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL.—Acting Surgeon. Applications by May 26th to J. R. Hartley, Esq., 13, St. Paul's Square, Birmingham.

BOARD OF WORKS FOR THE WANDSWORTH DISTRICT.—Medical Officer for the Parish of Clapham. Salary, £75 per annum, with increase. Applications by June 12th to the Clerk to the Board, East Hill, Wandsworth.

RECON INFIRMARY.—Resident House-Surgeon. Salary, £100 per annum, with furnished apartments, etc. Applications by June 6th to the Secretary.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon. Salary, £140, with apartments, etc. Applications by June 2nd to the Assistant Secretary.

CHELSEA HOSPITAL FOR WOMEN.—Resident Medical Officer. Salary, £60, with board and residence. Applications by May 31st to the Secretary.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40, with board and lodging. Applications by June 6th to the Secretary.

CHILDREN'S HOSPITAL, Birmingham.—Resident Medical Officer. Salary, £30, with board and lodging. Applications by June 6th to the Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant Physician. Applications by June 7th to the Secretary.

COUNTIES ASYLUM, Carlisle.—Assistant Medical Superintendent. Salary, £120, with board. Applications by May 29th to Dr. Campbell, Carlisle, Carlisle.

FOLKESTONE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer. Salary, £150, with fees and unfurnished apartments. Applications by June 6th to the Secretary, 47, St. Michael's Street, Folkestone.

FULHAM UNION.—Resident Medical Superintendent of Infirmary, and Medical Officer of the Union Workhouse. Salary, £350, with residence, etc. Applications by June 5th to the Clerk to the Guardians.

GENERAL INFIRMARY, Leeds.—Ida Convalescent Home, Cookridge.—Resident Medical Officer. Honorarium of £25 for six months, with board and lodging. Applications by June 1st to W. H. Brown, Esq., 19, Queen Street, Leeds.

GORDON HOSPITAL FOR FISTULA, etc., Vauxhall Bridge Road.—Assistant Surgeon. Applications by May 23rd to the Secretary.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square.—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications by May 26th to the Honorary Secretary.

KING'S COLLEGE HOSPITAL.—Assistant-Surgeon. Applications to the Secretary.

LONDON TEMPERANCE HOSPITAL, Hampstead Road.—Surgeon. Applications by June 18th to the Secretary.

METROPOLITAN ASYLUMS BOARD; DARENTH SCHOOL FOR IMBECILE CHILDREN, Dartford.—Assistant Medical Officer. Salary £120 per annum, with board and lodging, etc. Applications by May 31st to W. F. Jobb, Esq., Norfolk House, Norfolk Street, Strand.

METROPOLITAN ASYLUMS BOARD; WESTERN FEVER HOSPITAL, Fulham, S.W.—Clinical Assistant. Board and lodging. Applications to the Medical Superintendent at the Hospital.

NORTH LONDON CONSUMPTION HOSPITAL, Hampstead and London.—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications by June 2nd to the Secretary.

OWENS COLLEGE, Manchester.—Professor of Surgery. Applications by June 9th to the Registrar.

QUEEN'S COLLEGE, Birmingham.—Assistant Medical Tutor. Applications by June 20th to the Secretary.

ST. PETER'S HOSPITAL FOR STONE, etc., Henrietta Street, Covent Garden.—House-Surgeon. Honorarium, 25 guineas, with board, lodging, etc. Applications by May 29th to the Secretary.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon. Salary, £120, with board, lodging, etc. Applications by June 18th to the Secretary.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, etc. Applications by June 18th to the Secretary.

UNIVERSITY COLLEGE, LONDON.—Professor of Botany. Applications by May 30th to the Secretary.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea.—House-Physician. Honorarium of £50, with board and lodging. Applications by June 2nd to the Secretary.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea.—House-Surgeon. Honorarium of £50, with board and lodging. Applications by June 2nd to the Secretary.

WELLINGBOROUGH AND DISTRICT MEDICAL INSTITUTE.—Medical Officer. Salary, £280, and fees, with dwelling-house, etc. Applications to G. Bayes, Esq., Jackson's Lane, Wellingborough.

WESTPORT UNION.—Medical Officer, Westport No. 2 and Louisburgh No. 2 Districts. Salary, £39 per annum, and fees. Election on June 24th.

MEDICAL APPOINTMENTS.

BIDWELL, L. A., M.R.C.S., L.S.A. (Extension), appointed House-Surgeon to St. Thomas's Hospital.

BRISTOWE, H. C., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

BULSTRODE, H. T., M.B., B.C. Cantab., L.R.C.P., M.R.C.S. (Extension), appointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

CALVERT, J. T., M.B. Lond., L.R.C.P., M.R.C.S. (Extension), appointed Non-Resident House-Physician to St. Thomas's Hospital.

COOK, S. B., L.R.C.P., M.R.C.S. (Extension), appointed Assistant House-Physician to St. Thomas's Hospital.

COOKE, O. W., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

CRISP, E. H., L.R.C.P., M.R.C.S. (Extension), appointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

GOODY, F. S., L.R.C.P., M.R.C.S., L.S.A. (Extension), appointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

HOBHOUSE, E., M.B., B.S. Oxon., M.R.C.S. (Extension), appointed Resident House-Physician to St. Thomas's Hospital.

JAMES, C. H., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

LOTZ, H., L.R.C.P., M.R.C.S. (Extension), appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

LEARD, H. B., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., appointed Resident House-Physician to St. Thomas's Hospital.

NEWSHOLME, Arthur, M.D., D.P.H. Lond., appointed Medical Officer of Health to the Borough of Brighton, *vice* H. P. B. Taaffe, M.D. Lond., deceased.

ROBERTS, Sidney M.P., M.B., M.R.C.S., appointed Senior Physician to the Sheffield Public Hospital, *vice* W. R. Thomas, M.D., resigned; also appointed Lecturer on Medical Jurisprudence at the Sheffield School of Medicine.

SANSON, H. A., L.R.C.P., M.R.C.S. (Extension), appointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

SOLLY, R. V., L.R.C.P., M.R.C.S., appointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

SPEMCE, M. H., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., appointed Ophthalmic Clinical Assistant to St. Thomas's Hospital.

STABB, E. C., L.R.C.P., M.R.C.S., L.S.A. (Extension), appointed House-Surgeon to St. Thomas's Hospital.

WATSON, John, M.B., appointed Junior Assistant House-Surgeon to the Hull Royal Infirmary, *vice* F. Savery, M.R.C.S., resigned.

WHEATON, S. W., M.B. Lond., L.R.C.P., M.R.C.S., appointed Resident Accoucheur to St. Thomas's Hospital.

WINDELE, John T., M.D. Aberd., appointed Certifying Surgeon under the Factory Acts for Ovenden and district, *vice* J. Hodgson Wright, M.R.C.S., appointed to the Halifax District.

WOAKES, Arnold, L.R.C.P., M.R.C.S., appointed Surgeon to the London Throat Hospital, *vice* E. Law, M.D. Edin., resigned.

YOUNG, P. W., L.R.C.P. and S. Edin. and Glasgow, appointed Medical Officer to the Parish of Loche, Stornoway, *vice* D. Sinclair, M.B., resigned.

PARKS FOR THE PEOPLE.—A park of fifteen acres in extent has been presented by the Earl of Dartmouth to the inhabitants of Morley in Yorkshire, in commemoration of the Queen's Jubilee.—Ravenscroft Park, Hammersmith, comprising an estate of thirty-two acres, has been jointly acquired by the Metropolitan Board of Works and the Vestry of Hammersmith, at a total cost of £58,000, and has been thrown open to the public.

IN MEMORIAM.—In the church of Westerham, of which place the late Mr. Charles R. Thompson was a resident, a handsome stained-glass window has been placed and an eagle lectern supplied, from a sum amounting to £350, subscribed by his friends for the purpose of raising on the anniversary of his death a fitting memorial to his memory.

LEGAL APPRECIATION OF MEDICAL SERVICE.—The Montpelier *parquet* has distinguished itself by a fit of economy at the expense of its medico-legal experts. Three professors of the Faculty of Medicine, having had their fees diminished by one-third, have retaliated by a resolution declining to give any expert evidence at all in future.

A BACTERIOLOGICAL INSTITUTION AT CRACOW.—A bacteriological institution for the treatment of rabies after Pasteur's method has recently been established at Cracow, Galicia.

DIARY FOR NEXT WEEK.

MONDAY.

CROONIAN LECTURE OF THE ROYAL SOCIETY, Royal Institution, Albemarle Street, 9 P.M.—Professor Kühne, of Heidelberg: Ueber die Entstehung der vitalen Bewegung (On the Source of Vital Movement).

TUESDAY.

WEST LONDON HOSPITAL, 5 P.M.—Clinical afternoon.

WEDNESDAY.

COLLEGE OF STATE MEDICINE, Burlington House, 4 P.M.—Inspector-General John M. Macdonald, F.R.S.: The Organisms occurring in Fresh Water, and the Hygienic Importance of their Presence.

HOSPITALS ASSOCIATION, Town Hall, Westminster, 5 P.M.—Annual meeting, Dr. J. S. Bristowe, F.R.S., in the chair.

FRIDAY.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital), 5.30 P.M.—Cavendish Lecture: Sir William Stokes: The Altered Relation of Surgery to Medicine.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 0d., which should be forwarded in stamps with the announcement.

DEATHS.

PEIRCE.—On May 11th, at Newlands, Redditch, Emily Maria, the dearly loved wife of James E. Peirce, J.P., M.R.C.S. Eng., L.S.A. Lond.

STRANGE.—On May 10th, very suddenly, at 42, Foregate Street, Worcester, Caroline Susan, wife of William Strange, M.D.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M. Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department).

WEDNESDAY.....10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M. St. Bartholomew's St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 5 P.M.: King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M. Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.; West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu, F., 1.30; Skin, M, Th., 1.30; Dental, M, W, F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M, Tu, F., 1.30; Eye, M, Tu, Th, F., 1.30; Ear, Tu, F., 12.30; Skin, Tu., 12.30; Dental, Tu, Th, F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu, Th, S., 2; o.p., M, W, F., 12.30; Eye, M, Th., 1; Ophthalmic Department, W, 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu, F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M, Th., 1.30; o.p. W, S., 1.30; Eye, W, S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu, F., 1.30; o.p., W, S., 1.30; Eye, W, S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical daily, 1.30; Obstetric, Tu, Th, S., 2; o.p., W, S., 9; Eye, Tu, Th, S., 2.30; Ear, Tu, F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu, F., 9.

ST. GEORGE'S.—Medical and Surgical, M, T, F, S., 1; Obstetric, Tu, S., 1; o.p., Tu., 2; Eye, W, S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu, F., 1.45; o.p., M, Th., 1.30; Eye, Tu, F, S., 9; Ear, M, Th., 3; Throat, Tu, F., 1.30; Skin, M, Th., 9.30; Electrician, Tu, F., 2; Dental, W, S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M, Th., 2; o.p., W., 1.30; Eye, M, Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu, F., 1.30; Children, S., 12.30; Dental, Tu, F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M, Tu, Th, F., 1.30; Eye, M, Tu, Th, F., 2; Ear, S., 1.30; Skin, W., 1.45, S, 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu, F., 3; Eye, M, Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W, S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

OLD MEMBER wishes to know how a young widow (poor) can obtain training as a nurse; where, and at about what expense.

QUIRER asks: Is there any home or institution where the wife of a deceased medical man could be received? She has no means and is hypochondriacal.

THE USE OF COCAINE IN DENTISTRY.

W. W. asks for the experience of those who have tried the injection of cocaine in tooth extraction on the following points: The amount of the drug to be injected into the gum; the time to elapse before extracting after injection; and the cases in which it would not be desirable.

OCCIPITAL HEADACHE.

R.C.S., L.R.C.P. writes: I have now a patient under my care who, for some years, has suffered from a dull, continuous pain of neuralgic character over her occiput and parietal bones, which becomes worse after meals, fatigue, or excitement, and is almost completely relieved by rest in bed, or lying on a couch, or in an armchair, so as to get pressure on the occiput. There is no apparent rheumatic, stomach, liver, or other organic affection. The secretions and excretions are all normal. He is 34 years old, robust, non-smoker, total abstainer, and has always led a very moral and methodical life. Having tried many remedies without much relief, I shall be pleased if some of the readers of your valuable JOURNAL will suggest a treatment for me.

TREATMENT OF LOCOMOTOR ATAXY AT AACHEN.

J. JAS. J. L. RATTON (63, Lee Park, Blackheath, S.E.) writes: A patient suffering from progressive locomotor ataxy underwent the special treatment at Aachen last August. He returned in a decided state of mercurialism at the end of a month, and his constitution was so far broken down that I had some doubts about his pulling through. His gums were so much affected that he would not eat well for about another month. He was advised at Aachen to return again this spring, to renew the treatment for a short course. I am doubtful about the advisability of his doing so, as he has improved as regards his symptoms of his disease, and gained in weight. I fear that a second mercurial course may do more harm than good.

I should be greatly obliged to any of your readers experienced in this matter or their advice on the point.

INUNCTION IN SCARLET FEVER.

CROCOCCLUS writes: In the treatment of scarlet fever, is it a fact that the carbolic acid in carbolic oil for external inunction has any germicidal effect, or is plain oil just as useful, and, if so, is any application known which will both prevent the scales flying about and destroy the germs?

ANSWERS.

FINAL EXAMINATION FOR L.R.C.P.LOND.

R.C.P.LOND. writes: The books usually read for this examination are, on *Medicine*, Bristow or Roberts; *Midwifery*, Leishman or Playfair, preferably the latter; *Diseases of Women*, Hart and Barbour or Galabin, both excellent books; and shortly before the examination, Hall's *Aids to Obstetrics* and Dr. Carter's *Elements of Medicine*.

NOTES, LETTERS, ETC.

WE are asked to state that Mr. C. Lovegrove (Flixton) passed the M.D. examination, second division, of the University of Trinity College, Toronto, on April 5th.

THE LUCE FUND.

	£	s.	d.
Donations up to May 6th	33	7	0
Anonymous Donor	50	0	0
Mr. T. A. White (Switzerland)	1	0	0
Dr. W. A. Satchell	1	0	6
Dr. Barron	0	10	6

Further donations in aid of Mrs. Luce will be gratefully received by Dr. SHEPPARD, 64, Durning Road, Liverpool, or by Dr. CATON, 31, Rodney Street, Liverpool.

BAYFIELD DEFENCE FUND.

R. E. BELLAMY (17, Wimpole Street) writes: Please place the following additional subscription to the Bayfield Defence Fund:—

	£	s.	d.
Mr. T. A. White, M.R.C.S.	1	0	0

A SIMPLE MEANS OF DIAGNOSIS IN CHEST DISEASES.

GEORGE F. P. NICHOLS, B.A., M.B. Cantab., writes to express the opinion that in cases of pneumonia or pleurisy in which we are doubtful of the existence of fluid in the chest, the syringe is not sufficiently used. He says: "For several years, whenever I have felt that knowledge on the point would be useful, I have used this means, not only in the chest, but the liver and elsewhere. It is well to first sponge the skin with a strong carbolic lotion, and make the puncture through lint wetted with some antiseptic, and I generally close the wound with a little piece of wool soaked in collodion. I have never known any harm result, nor have I ever heard of any; that it is almost painless, if done quickly, I know from personal experience. In Dr. Hood's paper in the JOURNAL of May 19th on 'Empyema following Pneumonia,' I see he uses this method, but apparently as a last, instead of a first, resource."

FUGITIVE OEDEMA OF THE EYELIDS.

B. ILLINOWORTH (Acerington) writes: Dr. Tom Robinson has directed attention to an affection which, though not mentioned in works on medicine, is frequently met with in practice. I have seen about six cases of it in four years in a population of 6,000.

The oedema is as often unilateral as bilateral; it is confined to the lower lids; and it is accompanied by great pain in the temporal region of the affected side. In one case which I saw the swelling was so pronounced that it gave me the impression of having originated in a gumboil, and, without inquiring as to the first appearance of the affection, I prescribed for the douloureux. Next day the patient was much worse, and completely prostrate with pain and sleeplessness. I then gave half-drachm doses of the spirits of ammonia, and cured the disease in about twenty-four hours.

It is, I think, due to passive congestion in the infra-orbital region, causing a mechanical block to the passage of venous blood, and consequent local serous effusion. It would appear to bear a close relation to migraine, which is curable by remedies such as ammonia and antipyrin, and always accompanied, if not actually caused, by great cardiac debility.

MANAGEMENT OF FEVER CASES.

MR. DAVID DAVIS (Builth, Breconshire) writes: Yesterday, Sunday, I was called to see a little boy, aged 8 years, the son of a gentleman residing in this town, and found him suffering from scarlet fever. Amongst other symptoms I found that his bowels were somewhat constipated, and ordered him a mild aperient, giving him at the same time a febrifuge mixture. I directed that he should be kept warm, and the temperature of the room regulated to about 55° F. On calling to see my patient again in the evening, Mr. T., the father, in course of conversation, remarked that it was very singular that doctors disagreed so much, and on my asking for an explanation, he showed me a book written by Mr. Pye Henry Chavasse called *Advice to a Mother on the Management of Her Children, and on the Management of their more Pressing Illnesses*, in which he had marked the following sentences: "On accounting give opening physic. Aperient medicines are, in my opinion, highly improper and dangerous both before and during the period of eruption. It is my firm conviction that the administration of opening medicine at such times is one of the principal causes of scarlet fever being so frequently fatal. What is the first thing to be done? Send the child to bed, throw open the windows, be it winter or summer, and have a thorough ventilation, for the bedroom must be kept cool, I may say cold."

Now, Sir, is not the above quotation in direct opposition to the teaching of the present day? I am under the impression that attention to the bowels, a slight febrifuge mixture, and keeping the patient in bed in a warm room, are alone necessary in simple scarlet fever. I have advised Mr. T. to put Mr. Chavasse's book on one side, and listen only to my directions. I am of opinion that much harm might be done by parents reading such works and acting on suggestions such as those quoted. Am I right or wrong?

IDIOSYNCRASY WITH REGARD TO ANTIPIRYN.

MR. U. K. DUTT (70, Portsdown Road, W.) writes: Having heard of a complaint from one of my patients with regard to the taste of antipyrin tablets, I took one before going to bed. The taste was a little bitter, but not at all disagreeable. I let it gradually dissolve in my mouth. No sooner had I finished it than a violent itching, tingling, and burning sensation was felt on the hard and soft palate, and the mucous membrane of the back and top of the nose, followed by sneezing. This I attributed to a cold draught, and took no notice of. But before it had disappeared I felt considerable itching and burning over several spots on the arm and forearm; then on the abdomen, chest, and back; on the penis and foreskin, in successive order; later on the thighs, and then on the hands, and then on the legs, and finally on the feet, back, and lastly on the soles. This was the order of manifestation, and the intensity at one particular spot lasted for two or three minutes, and when it began to diminish there, it began to increase elsewhere in the order indicated. The whole thing subsided in about half an hour. I thought an urticarial rash was coming out, but on the most careful examination I could discover no rash. I always have had urticarial rash a little after eating tinned lobsters, crabs, etc., and the sensation before the rash appears was almost identical.

I have tried another dose of 5 grains to-day with the same result. No appearance of rash is to be seen, even by daylight.

This seems to me to suggest an explanation of the anodyne effect of antipyrin in very large doses as used by Professor Germain Sée. This drug probably exalts the function of sensory nerves, or, at any rate, makes them more irritable in small doses, and then exhausts their irritability or function of feeling pain, and thereby the anodyne effect is produced. Would the body heat be lowered through its influence upon the sensory nerves, the vasomotor system being in intimate connection with the sensory nerves?

PERFORATION OF AN EYEBALL WITH THE KNOT OF A WHIP.

MR. H. PERRY DUNN (11, Nottingham Place, W.) writes: In answer to Dr. Sanctuary's letter in the JOURNAL of May 5th, I quite agree with him that the explanation of the detachment of the knot in my case of perforation of the eyeball (which I am reported to have said was due to the thong having become heated) is not the right one. The only possible explanation of the accident is that which Dr. Sanctuary gives, and which I previously had attempted to make plain at the meeting of the Society on April 6th.

NEALE'S "DIGEST."

DISAPPOINTED writes: I quite endorse the opinion of your correspondent, recorded in the JOURNAL of April 21st, respecting the *Medical Digest*. I found it long since to be a delusion and a snare, pure and simple, in the absence of the volumes of the medical journals (do themselves a library) to which it refers.

UNIFORM OR SWALLOW TAIL.

A MEMBER writes: I hope the following suggestion may meet with approval. It has been the subject of discussion in several quarters; I therefore venture to bring the matter before our members, and test their views.

Should, at our annual meetings, the invitations to the *conversations* and public dinner be marked "uniforms to be worn if possible"? By this means our gatherings would become more brilliant than ever, especially as so many of our members now hold commissions in the army, navy, and auxiliary forces, besides numerous others who may be entitled to wear uniform.

If this matter should meet with approval, I hope the Glasgow Executive Council will take the lead and set the example this year.

THE MANAGEMENT OF CLINICAL THERMOMETERS.

VERDANT GREEN writes: Does everybody know how, when, and where to shake down the mercury in his clinical thermometer? Never attempt to lower the mercury until it has had time to cool. How is it possible to reduce 104° to 85° whilst the metal is in a state of expansion. Wait a few minutes, or better still, until you arrive at the next house, before doing the shaking down.

THE NEW SCHEME FOR THE M.D. ST. ANDREWS.

MR. B. JONES (Leigh, Lancashire) writes: May I be allowed to point out, in reply to numerous inquiries, and to remove misapprehension, that in the new regulations which we seek to obtain at St. Andrews, the number of candidates receiving the degree of M.D. will not be limited, as at present, to ten in each

AN ADDRESS ON PERNICIOUS ANÆMIA, WITH JAUNDICE, AND CASES SIMULATING IT.

*Delivered before the East London and South Essex District of the
Metropolitan Counties Branch.*

By J. S. BRISTOWE, M.D., LL.D., F.R.S.,
Senior Physician to St. Thomas's Hospital.

In this paper I have no intention of attempting to throw any light on the etiology of pernicious anæmia, but I propose to myself simply to give the clinical history of two cases of the disease that have been under my care, to compare them with certain other cases of disease to which they present some resemblance, and to make such comments as suggest themselves.

It will be, perhaps, convenient that I begin by defining pernicious anæmia, as I understand it, and enumerating its more important and characteristic symptoms. Pernicious anæmia is an affection in which, without any organic lesion that has hitherto been discovered sufficient to account for it, without any recognised malarious or similar influence, without any apparent climatic or dietetic default, the blood undergoes progressive deterioration, especially in regard to the number and quality of its corpuscles, and in which the symptoms the patient presents are mainly such as depend on gradual increasing bloodlessness.

This definition, so far as I have gone with it, necessarily includes chlorosis or the anæmia of young women, which usually goes along with some derangement of the menstrual function, and which, almost without exception, if not always, is curable by the judicious administration of iron; and I must confess that it seems to me impossible at the present time to make any trustworthy distinction between the chlorosis of girls and pernicious anæmia, save such as depends on the age and sex of the patients and on the effects of treatment. Chlorosis occurs among young women, and is curable by iron; pernicious anæmia occurs among men and women, usually above the age of 30, and iron is generally without beneficial influence. Nevertheless, I believe, as most physicians believe, that there is a fundamental difference between them; and, moreover, I suspect that the affections now grouped together and labelled "pernicious anæmia" will hereafter be found to belong to several categories.

Pernicious anæmia, for the most part, comes on gradually. The patient progressively loses the warm tint of health, until at length not only his cheeks, but his lips and tongue, the inner surface of his eyelids, his ears, and his finger nails become almost white. Shortness of breath and liability to palpitation come on, phenomena which at first are slight and observed only when he is ascending stairs or undergoing exertion, but afterwards become more or less continuous, or at any rate induced by very slight causes. The action of the heart gets feeble, variable in rate, and sometimes irregular. A hemic murmur usually develops over the pulmonary area. Venous bruits become recognisable in the veins of the neck. The patient complains of noises in the ears, more especially at night-time and when lying down. Dropsical effusions take place into the connective tissue, and mainly in the lower extremities. There is a marked tendency to hæmorrhage from the nose, the mouth, the stomach, the bowels, on the surface and into the substance of internal organs, and beneath the skin. And especially hæmorrhage takes place into or about the retina. The digestive functions commonly suffer; the appetite usually fails; dyspeptic symptoms, with sickness after food, are of frequent occurrence; and, as a general rule, the bowels are constipated. The urine is for the most part unaffected, but sometimes it presents traces of albumen. The patient gets more and more feeble, unable to bear exertion or exposure to cold; but usually there is no great degree of emaciation. He becomes apathetic and forgetful, yet often irritable and fidgety; and if death ensues (as probably it does sooner or later) he sinks from exhaustion, not infrequently preceded by coma, or from some intercurrent complication.

The colour of the skin is usually such as might be caused only by extreme bloodlessness, but not infrequently there is a distinct yellow tinge (affecting also the conjunctivæ), which may be so intense as to be mistaken for that of ordinary hepatic jaundice. But it is unassociated with any disease of the liver; no biliary pigment (at any rate as a rule) finds its way into the urine; and it is due, no doubt, not to the absorption of bile, but to the destructive changes going on in the blood corpuscles and the escape of their colouring matter into the blood serum. The blood becomes thin and watery; and under the microscope there is found considerable and for the most part proportionate diminution of both white and red corpuscles. The blood in several of my own cases was very carefully examined by my pupil, Dr. Copeman, whose observations are published in the last volume of the *St. Thomas's Hospital Reports*, and partly confirm those of previous writers, but present a few additional items of information. He shows that the red corpuscles may be diminished to 30 or 40 per cent. of their proper number—other observers have found them still more largely diminished; that they are mostly smaller, paler, and less consistent than usual, and tend to alter in shape, and especially to become elongated, and to break down; that they do not usually run into *rouleaux*; that mixed up with them are other corpuscles of very small size, and usually of deeper tint than even healthy corpuscles; that the blood-serum has, in some cases, an amber-yellow hue, and that in some, crystals of hæmoglobin (which in healthy blood are hard to obtain) appear spontaneously when the blood is undergoing desiccation. The breathlessness is no doubt mainly cardiac, depending on feebleness of circulation, the effects of which are necessarily exaggerated under the influence of exertion or excitement; but dyspnoea may be partly due also to œdema of the lungs occurring as a part of general anasarca. This general dropsy, though not always present, is a common incident of the disease, and may become very considerable. Both dropsies and hæmorrhage seem to depend partly on poverty of the blood, partly on weakness of circulation, and on thrombosis, which both of these conditions tend to produce. Noises in the ears, which are sometimes rushing, sometimes steam-engine like, sometimes musical, almost always come on sooner or later. They are more or less continuous, and evidently venous. They are sometimes the chief source of complaint on the part of the patient, and frequently prevent him from sleeping. They are related, causatively, to the co-existent venous murmurs in the neck and the hæmic murmurs at the base of the heart, and are, I am inclined to think, the product of a flaccid condition of the vascular walls and relative emptiness of vessels.

I have already pointed out that the urine is sometimes of normal quality and of normal colour to the last, a point of some interest, inasmuch as it implies a continuous and relatively increasing drain on the red corpuscles. In addition to the restlessness and irritability not infrequently observed, and the coma which occasionally supervenes towards the close, patients sometimes have delusions and become maniacal, occasionally suffer from temporary blindness, and occasionally also lose voluntary power and feeling, more especially in the lower extremities. The temperature for the most part is either normal or subnormal, but not infrequently patients present febrile rises which may be either occasional or more or less persistent, but are rarely high.

Finally, although in a large proportion of cases the disease is progressive, and proves fatal in the course of a year or two, undoubtedly there are many cases in which more or less perfect recovery takes place, a recovery attended, however, with liability to relapse.

The first case of what is now generally termed pernicious anæmia which I ever saw—at any rate, to pay it special attention—came under my care in my out-patient practice at St. Thomas's in October, 1857, and was brought by me under the notice of the Pathological Society exactly thirty years ago. The patient was a clerk, 26 years old. During the previous five or six years he had been dyspeptic and fanciful; and during the last two his temper, naturally placid, had been getting irritable and peevish. In 1852 he had had what he termed a "stomach attack," which lasted two or three months, and was followed by some impairment of vision. A few months afterwards he had had a similar but slighter attack; and during the next three or four years he had suffered from two or three relapses, in the last two of which he stated that he had been slightly jaundiced.

His present illness had come on gradually during the preceding six months, with depression of spirits, vertigo, loss of appetite,

trembling in the knees, and pains in the jaws and face. Slight jaundice had been added to the other symptoms after about two months, and latterly occasional matutinal vomiting of bilious fluid. There had been no epigastric uneasiness or vomiting after food; the bowels had been variable, but generally constipated.

He was spare, anxious-looking, and universally though not deeply jaundiced. There was neither general dropsy nor ascites, no fullness or increased dullness in the region of the liver, and no uneasiness or tenderness in that situation. The heart's sounds were normal, the pulse rapid, small, and weak, and the functions of the lungs were healthily performed.

He continued attending as an out-patient until January 19th, up to which date there was certainly no improvement in the symptoms. The jaundice was much the same at the end as at the beginning; the vertigo and occasional headache, the morning bilious vomiting, with feelings like those of sea-sickness, and the condition of his nutritive functions, of his evacuations, and of his physical powers remained unaltered. On two or three occasions he had complained of weight at the chest after food, and for a week of a dull pain to the right of the umbilicus.

On January 19th he was admitted under my care, and died on February 4th. From the 19th to the 2nd there was not much variation in his symptoms. He was extremely weak and somewhat emaciated, with a rapid, feeble pulse. He complained generally of a feeling of giddiness, and of pain about the eyes, especially when he moved. His tongue was pale, and occasionally furred; his appetite was variable. He suffered much from thirst, and frequently vomited bilious fluid. The bowels were generally constipated, and the motions pale, though not wholly untinged by bile; and his urine was high-coloured. The skin was dryish, and both it and the conjunctivæ were very decidedly jaundiced. He complained occasionally of dimness of sight and deafness. His sleep was generally undisturbed.

On February 2nd he suffered more than usual from the deafness and dimness of sight, and occasionally rambled. During the ensuing night and the next day these symptoms, and especially the delirium, increased, and he was at times violent; but he understood what was said to him, and would answer rationally. He continued in the same state (gradually sinking however) until 4 A.M. on the 4th, when death took place.

Various plans of treatment were carried out, but none with obvious benefit; at one time he was dosed with nitric acid and cinchona, at another with iodide of potassium and gentian, at another with iodide of mercury, at another with alkalies.

The corpse was universally but slightly jaundiced, and very pallid. There was some œdema of the back parts of the lungs. The heart was rather large, its substance was pale and soft, and its inner surface especially pale and mottled. Several of the smaller branches of the pulmonary artery were filled with firm but unadherent fibrinous coagula. The liver was somewhat enlarged, but of normal consistence, and of a uniform yellowish-brown tint. The bile-ducts and the gall-bladder were entirely healthy. The spleen weighed one pound, but was normal in texture. All other organs were sound. The muscular tissue of the heart, and especially those parts that were mottled, presented well-marked fatty degeneration, and the liver cells contained for the most part a good many small oil globules. The blood was everywhere remarkably pale and watery, but did not display any preponderance of white corpuscles.

Among the remarks which I appended to my case are the following: "During the progress of this case the persistence of jaundice led me to regard the liver as the organ at fault." "It would be useless now to state the precise diagnosis at which I arrived, for the *post-mortem* examination showed that the liver was structurally healthy, and that there was no essential disease of any other organ."

"Was the case an example of that mysterious form of fatal jaundice" (I referred to so-called malignant jaundice) "which Dr. Alison first described? There may be some reasons for answering this question in the affirmative, but there is at least one important fact against it; the case under consideration was essentially chronic. But was the case really one of fatal jaundice at all? I must confess that on reviewing and comparing the history of the patient during life, and the results of the *post-mortem* examination, there seems greater reason to believe that his death was due to severe and progressive anæmia than to any affection of the liver; that the case was, in point of fact, one of anæmia, attended or followed by jaundice. I founded this opinion, partly on the fact that the patient was ailing, and probably anæmic be-

fore the jaundice made its appearance; partly on the symptoms which manifested themselves while he was under observation, and which, with the exception of the jaundice, were precisely those of anæmia, and partly on the state of the organs as revealed after death, none of them being positively diseased, but several being in such a condition as one ordinarily finds them to be after long-continued deterioration of the blood. If the view here suggested be correct, the case is allied to those examples of anæmia to which Dr. Addison alludes in the commencement of his work on *Diseases of the Suprarenal Capsules*."

That this case was a typical case of pernicious anæmia, and that the jaundice observed was the kind of jaundice not infrequently met with in this disease, I have long had no doubt.

The next case I shall venture to quote is one in which there was also well-marked jaundice, and in which, for several reasons, the true nature of the disease, at any rate what I am disposed to regard as the true nature of the disease, was for some time overlooked.

E. B., a young woman, 27 years of age, was admitted under my care on January 11th, 1886. She had been a patient of mine eleven years previously for rheumatic fever, and two years afterwards was again admitted with rheumatism and pericarditis. I have not looked up the particulars of her illness on these occasions; but I have a distinct recollection that in one of these attacks she was exceedingly ill, and for some length of time in considerable danger. Since that time she has been liable to rheumatic pains and to shortness of breath.

Her present illness was of nine months' duration. At its commencement she went into the Brighton Hospital, where she remained six months. While there jaundice seems to have come on gradually, and she seems also to have had an attack of acute pneumonia, in which her temperature rose to 105° F. In November she came for a short time into St. Thomas's, was jaundiced, and I believe was thought to be suffering from gall-stones. She was then sent to a convalescent hospital. While there the jaundice became more intense, and she suffered much from pain in the region of the heart and right hypochondrium, and from shortness of breath. The catamenia had been absent during the whole period of her illness.

State on Admission.—She was a well-nourished woman, complaining mainly of weakness, shortness of breath, and pain in the præcordium and both hypochondriac regions. She was somewhat anæmic, and presented a general saffron-yellow tint of skin and conjunctivæ. The lungs were healthy. The cardiac dullness was somewhat extended; and the apex-beat in the fourth interspace in the mid-clavicular line. The sounds were healthy, but for the fact of a rough, scratchy systolic murmur in the pulmonic area. There was a rounded lump (apparently part of the liver) to be felt just below the tips of the eighth and ninth cartilages on the right side. Otherwise the abdomen was normal. The tongue was coated; the bowels were confined, but the motions were normally stained with bile, and the urine presented copious urates, but no trace of biliary colouring matter or of bile acids.

During January and February her condition varied, and was by no means satisfactory. She suffered from pains, sometimes persistent, sometimes paroxysmal and severe, referred chiefly to the right hypochondrium, but sometimes to the left, sometimes to the præcordium, and sometimes to the loins. The nature of these pains was not clearly made out; but they were occasionally thought to be due to the passage of gall-stones; occasionally thought to be connected with old adhesions (which undoubtedly existed) of the pericardium; occasionally—and perhaps, on the whole, more commonly—were attributed to congestion of the liver secondary to the cardiac affection. But no gall-stones were found, the motions were always bilious, and the urine never contained any bile-pigment.

She had pains and throbbing in the head, and a sound as of rushing water in the right ear. She suffered also from time to time from slight but obvious rheumatic inflammation of some of the joints. Her pulse was feeble, variable in rate, sometimes irregular, and rarely over 80. Her respirations were often quick and laboured, and occasionally were at the rate of 48 in the minute. She suffered from pretty constant nausea, and occasional attacks of sickness, and twice had epistaxis. During all this period the temperature was almost always slightly above the normal, and not infrequently rose to 100° or 101°, and on two successive days, when the patient felt specially ill, and was complaining of considerable præcordial pain, it rose to 103.2° and 103.4°.

June 2, 1888.]

During all this time the patient's symptoms were assumed to be due directly or indirectly to the maladies from which she had so long suffered; namely, embarrassed action of heart, dependent on adherent pericardium, secondary engorgement of the liver, and recurrent attacks of very slight rheumatism, and it may be added that the right lobe of the liver became more obvious than it was at first below the ribs, and that some enlargement of the spleen also was detected. But she was steadily becoming more and more anæmic, and, early in March, I began to suspect that her symptoms might be largely due to this progressive anæmia. Her eyes were then examined, and it was found that the optic discs were reddened and swollen, the veins were pale and scarcely differing from the arteries in colour, and there were a few choroidal hæmorrhages. The blood (examined by Mr. Copeman) was pale, coagulated rapidly, and contained an excess of fibrine; the red corpuscles were only 36 per cent. of the normal, and on drying broke down with the formation of hæmoglobin crystals. She was now treated with liquor arsenicalis, at first five and later ten minims, three times a day. For the first week or two the anæmia seemed to increase; then manifest improvement took place. She gradually lost her pains and discomforts, and her sense of nausea; she became stronger, and some degree of rosiness returned to her cheeks and lips and finger-nails. On March 19th her eyes were re-examined, and the hæmorrhages were found to have increased considerably in number; but a further examination, on April 3rd, showed that the retinitis had largely subsided and the hæmorrhages almost disappeared. On the same dates the blood also was tested and found improved in quality. The report on April 3rd was to the effect that the blood-corpuscles were larger, more uniform in size, of better shape and colour than they had been a month previously, and that they now formed 60 per cent. of the proper number. Moreover, though they did not run into *rouleaux*, they did not break down when a drop of blood was dried; and hæmoglobin crystals could not be obtained.

She was discharged fairly well on April 21st. She had then lost all her abdominal and thoracic pains, her headache, her nausea and sickness; her yellowness had diminished, though it had not actually disappeared; she had become rosy; her strength had greatly improved, and she had been getting up indeed every day for the last month; her temperature had become normal; she slept well and ate well, and expressed herself as feeling far better in health than she had been for twelve months; but the hæmic cardiac murmur remained, and there was still enlargement of the liver and spleen.

It is important to note that no improvement took place in this patient during the first seven or eight weeks of her residence in the hospital, but that during the last seven or eight weeks, while she was kept under the influence of arsenic, her recovery was progressive and rapid.

There can be no reasonable doubt, I think, that both of the above cases were true examples of pernicious anæmia, and that the light jaundice present was due not to hepatic disorder, but to decomposition of the blood. That the cases were misinterpreted (the former during the whole of the patient's lifetime, the latter during the greater part of her illness) admits, I think, of reasonable excuse. The former case occurred at a time when idiopathic anæmia (apart from chlorosis) had scarcely been studied, and in the latter case the anæmia became engrafted, as it were, on the presence of lesions, which were themselves competent to produce jaundice. I have quoted them, indeed, in preference to other cases which I might have quoted, largely on account of the difficulties they presented in the way of correct diagnosis, but also because of the close relationship there appears to be between the variety of pernicious anæmia they illustrate and the anæmia present in the cases which I now proceed to narrate.

A. T., a girl of 15, was admitted under my care on June 29th, 1887. She had, on the whole, enjoyed good health, excepting that for nearly five years she had been jaundiced, and three years ago was my patient in the hospital with much the same symptoms as those she was now suffering from. Her present illness was of three months' duration, and during all the time she had complained of pains in the side, especially on walking, and latterly of feeling drowsy. She had been laid up for the last week.

State on Admission.—She was a well-nourished, and not specially anæmic girl; but she presented a general saffron-yellow tint, the conjunctivæ being coloured as well as the rest of the surface. She complained only of weakness, and of pain in the right side and in the abdomen. The thoracic organs were perfectly healthy. The spleen was much enlarged, extending down

to the umbilicus; it was freely movable, and presented the usual notch. The liver did not descend below the ribs. In other respects the abdomen was normal, presented no tumour or fluid, and there were no enlarged veins in its walls. There had been no hæmorrhages, and there were none now. The appetite was fair; the bowels were somewhat confined, but the motions were coloured with bile. The urine had a specific gravity of 1015, presented a mere trace of albumen, and was quite free from bile-pigment. The blood contained what appeared to be a fairly healthy proportion of red corpuscles, but there was a slight increase of white. The red corpuscles did not form definite *rouleaux*, but ran into irregular masses. They were of normal shape and colour.

She was in the hospital seventeen days, during which time she was restored to her usual state of health; but the jaundice, the spleen, and the condition of the blood underwent no change. Her temperature was always normal; her pulse varied from 64 to 86. There was no further record of the presence of albumen in the urine.

For some two or three months she continued to visit me as an out-patient, but no further improvement was noted. She was treated during the time she was under my care with iodide of potassium and mercury.

A. R., single, aged 22, came under Dr. Ord's care on September 21st, 1886. She had been a patient of mine in 1879, and of Dr. Ord's in 1884 and 1885. She had complained mainly of weakness, shortness of breath, headache, and pains about the body. She does not seem ever to have had rheumatism or any other serious acute illness; but ever since she had been under observation she had presented a loud systolic murmur, most marked at the left base, which Dr. Ord (I believe) regards as due to some congenital cardiac defect. She has been jaundiced for some years.

State on Admission.—She was a dark-haired, well-nourished girl, markedly anæmic, and at the same time presenting slight but unmistakable jaundice, both of the skin and of the conjunctivæ. The cardiac dulness was not unduly extensive, and the apex of the heart impinged in the fourth interspace, an inch within the nipple line. A well-marked systolic murmur, loudest at the left base, was audible over the whole cardiac area. A venous hum was audible in the neck. The lungs were healthy. The liver extended for an inch and a half below the ribs, but was smooth and free from tenderness. The spleen was very large; its anterior edge (which presented a deep notch) approached the umbilicus; its lower end reached the anterior superior spine of the ilium; it was quite smooth and free from tenderness. There was no ascites, and no enlargement of the superficial abdominal veins. The blood was unduly pale; the red corpuscles were irregular in form, many being oval, and did not form *rouleaux*; there was no excess of white corpuscles. The urine had a specific gravity of 1012, was acid, free from albumen, sugar, bile-acids, and bile-pigments, but presented many uric acid crystals and amorphous urates. The stools were of natural colour. Her pulse was quick; her temperature a little above the normal. She was treated with 5 minims of liquor arsenicalis three times a day.

The patient's symptoms varied somewhat while she was in the hospital. Her pulse was generally rapid and at times irregular; she generally had more or less œdema of the legs and ankles; she had attacks of pain in the sides and in the back, and she felt weak. On one occasion she had epistaxis. The blood was examined on several occasions, and the examinations in the main confirmed the description above given; the red corpuscles, however, were found to be diminished by about one-fourth. The urine never presented any bile-pigment or bile-acids, albumen, or sugar. Her jaundice continued, but on the whole she improved, and she left the hospital on November 10th.

She was again admitted under Dr. Ord's care on July 25th, 1887. She had then been getting poorly for a couple of months, suffering from short breath, nausea and debility. On admission she was practically in the same state as before. There was great anæmia, and light but well-marked jaundice. The blood had undergone no change. The red corpuscles were generally oval or irregular in form, and did not run into distinct *rouleaux*; but the white corpuscles were thought to be relatively increased in number. The urine still contained no trace of bile, and was otherwise healthy in composition. The cardiac murmur persisted, the liver still just emerged from beneath the ribs, and the spleen still extended down to the anterior superior spine of the ilium. She was treated with hypophosphite of soda (ten grains three times a day), to which was subsequently added five grains of the citrate of iron and ammonia.

Again she improved in health; but left the hospital still anæmic, still jaundiced, and with a large spleen, on August 26th.

That the last two cases were of the same nature there can scarcely be a doubt; and that they presented many characters in common with the first two is also obvious. The identity between the last two is implied by the association in both of chronic enlargement of the spleen, chronic yellowness of conjunctivæ and skin, simulating hepatic jaundice, and deterioration in the quality of the blood. It is true that in one of the patients there was a loud cardiac murmur, venous *bruits*, and marked bloodlessness, with such changes in the blood as are found in advanced pernicious anæmia; and that in the other the heart's sounds were healthy, no venous hums were observed, the anæmia was scarcely noticeable, and the microscopic changes in the blood were only slight. But I confess I have a suspicion that the cardiac murmur was hæmic, and, at any rate, all the other differences just enumerated are only such as might be explained by the different stages of anæmia the cases had severally attained.

The resemblances between the last two cases and the quoted cases of pernicious anæmia were mainly the presence, in both series, of jaundice without discoverable disease of the liver, alteration in the quality of the blood with loss, or tendency to loss, of red corpuscles, and the kind of weakness which attends progressive anæmia. Indeed, it might, I think, be argued that they were all four cases of pernicious anæmia, or, at any rate, of the same form of disease; inasmuch as, in addition to the resemblances above enumerated, enlargement of the spleen was present in all. It will be recollected that in my first case, although enlargement of the spleen was not observed clinically, the organ weighed a pound at the necropsy; and that, in the second case, some enlargement both of the liver and of the spleen was detected during life. But, on the other hand, the long duration of the last two cases, and the fact that the patients were both girls, of an age at which ordinary chlorosis is common, pernicious anæmia rare if not unheard of, render this view of their nature improbable. I believe, although I do not pretend to adduce adequate proof of the correctness of my belief, that the first two and last two cases really belonged to different categories.

It may be asked, To what was the large spleen in these cases due? In the last two cases there was no reason to believe it was of malarial, of syphilitic, or of ricketty origin; there was nothing that could have induced lardaceous degeneration; there were no tumours of lymphatic glands or disease of other organs to suggest the presence of lymphadenoma; neither the symptoms nor the condition of the blood was compatible with leucocythæmia; and, lastly, there were no sufficient grounds to attribute the splenic enlargement to portal obstruction. In the first case the structure of the enlarged spleen seemed to be healthy; in the second case it is of course possible that the enlargement of the organ was consequent on portal congestion.

The fact, however, that the spleen was enlarged in all four cases suggests the inquiry whether there was any relation between the presence of jaundice and this enlargement. It is admitted, I believe, by physiologists that one function of the spleen is to cause the disintegration of effete red corpuscles, and that the serum of the blood in the splenic vein is tinged with the dissolved hæmoglobin derived from this source. It seems not unlikely, therefore, that (whatever may be said as to the first two cases) in the last two cases the enlargement of the spleen was connected with an undue destruction of red corpuscles in this organ, and the discharge into the blood-stream of a larger amount of dissolved hæmoglobin than could be got rid of by normal physiological processes, and hence the general staining of the blood-serum and the general yellow tint of the body. But, at any rate, the jaundice in no case presented the characters of jaundice from obstruction of the hepatic ducts, and there is no sufficient ground for attributing it in any one of the cases to disease or disorder of the liver.

The different characters of the cases I have brought forward and the different kinds of treatment adopted in them make it impossible to deduce from their clinical history any valuable information as to the effects of treatment. If my paper had been devoted to the subject of pernicious anæmia alone, I should have been able to confirm the general belief that cases of this disease are in large proportion fatal under any kind of treatment; but I should have been able to show that many cases which appear to be of the same kind undergo great improvement or get well, and that (as is now generally held) arsenic seems to have in a large number of cases a strikingly beneficial influence over the progress

of the disease. Of this beneficial influence my second case is a good illustration.

A CASE OF EXTRA-UTERINE GESTATION CURED BY ABDOMINAL SECTION TWO HOURS AND A HALF AFTER RUPTURE.

By G. ERNEST HERMAN, M.B.LOND., F.R.C.P.,
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THE following case has more than one point of interest. First, I believe it is unique in the shortness of the interval between rupture and operation. Very few cases of extra-uterine gestation have been operated on while the patient was in collapse from the first hæmorrhage; in most of the published cases hæmorrhage had stopped, and the patient had rallied before the operation was done. I do not know of any case in which the operation was done so soon as two hours and a half after rupture. This promptness of interference was due to the patient's good fortune in being in hospital at the time of rupture.

Secondly, the case is unusual in the lateness of rupture. Tubal gestations usually rupture before the end of the third month, while this one went on for about four months.

Thirdly, if the diagnosis of the first illness be correct, the case is an instance of two successive extra-uterine pregnancies in the same patient, first in one tube, then in the other. There may have been an identical morbid condition of the right and left tubes which occasioned the failure of the ovum to reach the uterus.

Fourthly, the uterine *souffle* was distinctly heard. This is so rare in extra-uterine gestation that it has even been maintained that the presence of a uterine *souffle* justifies the conclusion that a pregnancy is uterine. The case now reported shows that this general rule is not without exception.

H. N., aged 24, admitted December 16th, 1885. (The notes on this occasion were taken by Mr. H. J. Hawthorn.) Until the present illness she had always had good health. She began to menstruate at 15, and was regular every month, the flow being scanty, and only attended with slight pain. She was married at 18, and had two children, the last ten months ago; labours easy; no miscarriages. During the whole of the last pregnancy, and for a month after delivery, she had a copious yellow discharge, and her womb seemed to come down. After the last confinement she was regular, without pain, till September 4th. From this date till October 20th, she saw nothing. She then had a slight discharge of blood, and this recurred every week till five weeks ago, since which time she has been losing continuously and copiously. About five weeks ago, on getting into bed after passing water, she was seized with faintness and a cramp-like feeling at the bottom of the stomach; she broke out into a cold sweat, shivered, and her husband said she looked very white. This cramp-like pain continued severe for about three days and then improved, but soon recurred, and has continued on and off ever since, often preventing her from sleeping. For two or three days after the first attack of pain micturition was painful and the urine scanty. There was no trouble in defæcation.

On admission patient complained of pain in the back and lower abdomen, and was losing blood. The abdomen was tender, and the muscæ held very rigid. *Per vaginam* a hard, convex, very tender swelling was felt, occupying the left posterior quarter of the pelvis, and pressing the uterus forwards and to the right. The sound entered 3½ inches. Temperature was 100° F.

A week after admission the hæmorrhage became slight, but it continued until January 6th. After this date, throughout the patient's stay in hospital, there was no hæmorrhage. No decidua membrane was noticed in the discharge. The temperature, all the time the patient was in hospital, never exceeded 100°.

The pain continued much the same as on admission, generally severe, but with occasional remissions, for about six weeks. Then it improved, and at the beginning of February was only slight and occasional. The mass in the pelvis remained of about the same size for at least a month, and then began to gradually become smaller, harder, and less convex. Patient was discharged on February 14th, 1886.

March 23rd she came to report herself. She felt quite well. Swelling in pelvis smaller than when in hospital. Patient men-

struated last week, the first time for eleven weeks, without pain, flow copious.

The diagnosis made at the time was that the swelling behind and to the left of the uterus was either a dilated Fallopian tube, which was suggested by the position of the tumour and the severity and persistence of the pain, or a hæmatocele from a ruptured extra-uterine gestation. The latter supposition was based on the history of amenorrhœa, followed by a sudden illness, attended with pain, faintness, and pallor. The course of the case seems to me to accord with this diagnosis rather than with the former. It is far from certain, but many cases have been published as "cures" of extra-uterine gestation by electricity in which the diagnosis rested on no better grounds. Had electricity been used in this case, it might perhaps have been erroneously credited with the cure.

The patient came again to the hospital, and was readmitted on February 9th, 1888 (the notes on this occasion were taken by Mr. C. J. Kirton, clinical clerk). She said she had been perfectly well since leaving the hospital until the last four months. She had menstruated regularly and painlessly, the last time being in October, 1887, after which she saw nothing until December 25th, when she menstruated, the flow being rather more copious, but otherwise as usual. Nothing like a membrane was observed in the discharge. In this interval she had noticed nothing that made her think she was pregnant. After December she saw nothing, and she then thought she was pregnant. About December 20th she began to have pain after passing urine. Throughout January, 1888, she had pain in the back and lower abdomen, chiefly on the right side, so bad as to oblige her to keep her bed; this pain she described as continuous, not paroxysmal, and not relieved by lying down. Her appetite became bad, and at times she felt faint.

On the morning after admission she was examined by the resident accoucheur. Her general condition at that time was not such as to suggest any imminent danger; she walked to and from the examination couch. The abdomen was tender on pressure, and there was a rounded swelling rising out of the pelvis as far as to a little below the umbilicus. On vaginal examination the cervix was found pushed forwards, and behind it was a large rounded swelling feeling very much like a retroverted gravid uterus. The sound entered $3\frac{1}{2}$ inches, in the normal direction. A distinct uterine *souffle* was heard over the abdominal swelling. The temperature was normal.

A little before one o'clock on February 10th the patient was suddenly seized with violent pain in the abdomen, so severe as to make her feel faint; she became distinctly pallid, broke out into a cold sweat, and her pulse became small, rapid, and weak. Dr. Herman saw her shortly before three o'clock. The symptoms clearly pointed to internal hæmorrhage, and the history and previous physical signs made it probable that this might be due to a ruptured extra-uterine gestation. Therefore at 3.20 P.M. (that is, as soon as the necessary preparations could be made) Dr. Herman opened the abdomen, first by a small exploratory incision about an inch in length, which gave exit to a quantity of fluid blood. The diagnosis being thus confirmed, the incision was extended to $2\frac{1}{2}$ inches. Much fluid and clotted blood was then expressed by pressure on the abdominal walls. Then a fœtus of about four months' intra-uterine age, which was lying free (except for its umbilical cord attachment) among the bowels was removed. The placenta was found attached, at least mainly, to the right Fallopian tube. This was pulled up and removed, together with the ovary, the stump being tied with the Staffordshire knot. No attempt was made to search for or remove such part of the placenta as might not be attached to the tube. The peritoneum was then washed out with clean warm water. A large drainage-tube was put in, reaching to the bottom of Douglas's pouch, and the wound closed in the usual way. The pulse when the operation was begun was 150. After its completion (4.10 P.M.) 152.

In the evening (8.30 P.M.) the pulse had sunk to 138. The drainage tube was removed on the following day, but it appeared from the subsequent course of the case that this may have been rather too soon, for on the fifth day the patient complained of some abdominal pain, and the temperature rose to 100.5°. On the sixth day there was a discharge of dark bloody fluid from the wound, and the temperature on this and the following day reached 101. It then gradually sank, and after the fourteenth day did not exceed 99. On the eighth day a small drainage-tube was inserted. The discharge continued sanguineous for about five days, and then

became slight and purulent. The drainage-tube was gradually shortened.

March 17th. Patient got up.

March 30th. Discharged feeling quite well.

ON THE TREATMENT OF INJURIES OF THE ABDOMINAL VISCERA.

BY BRIGADE-SURGEON C. H. Y. GODWIN, M.S.,
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THE freedom with which surgeons have been for some time dealing with disease of the abdominal and pelvic viscera with such remarkable success has had a considerable effect in stimulating surgeons to inquire whether it was not possible for them to take bolder steps in the treatment of perforating wounds of the abdomen, a class of injury hitherto most fatal in character, whether as the result of stabs or of gunshot wounds. Moreover, the dread of interfering with the peritoneum has, in a measure, passed away, since it has been found that if antiseptic precautions are duly taken, the peritoneum is as tolerant of treatment as any of the other serous membranes in the body.

With a view of inquiring more particularly into the nature of gunshot wounds of the abdomen, and the best methods of treating them, Dr. C. T. Parkes, Professor of Anatomy in the Rush Medical College, Chicago, performed a series of experiments upon dogs by inflicting upon them intentionally gunshot wounds. He operated in this way upon 39 dogs in all; the bullet was of large size—38 or 44 calibre—and the firearm possessed great penetrating and lacerating power. Several most important lessons have been taught by these experiments.

Dr. Parkes says: "There was not manifested in any case any recognisable evidence of shock aside from that following great loss of blood. The transit of the bullet made no noticeable impression upon the pulse or respiration. In every instance where signs of severe prostration became manifest through change in respiration or weakening of pulse, there was found profuse hæmorrhage to account for such condition."

Intense and prolonged shock has always been recognised as one of the most marked symptoms of a perforating wound of the abdomen. By these experiments Dr. Parkes finds himself unable to disassociate this symptom from the condition caused by severe internal hæmorrhage. He tabulates the following conclusions:—

1. Hæmorrhage following shot wounds of the abdomen and intestines is very often so severe that it cannot be safely controlled without abdominal section.
2. Extravasation of the contents of the bowel after shot injuries thereof are as certain as the existence of the wound.
3. No reliable inference as to the course of the bullet can be made from the position of the wounds of entrance and exit.
4. The wounds of entrance and exit should not be disturbed in any manner, except to control bleeding or remove foreign bodies when present.
5. Several perforations of the intestines close together require a single resection including all the openings. Wounds destroying the mesenteric surface of the bowel always require resection.
6. The best means of uniting the wounded intestine after resection is by the use of fine silk thread, after Lembert's method.
7. Wounds of the stomach, small perforations, and abrasions of the intestine can be safely trusted to the continued catgut suture.
8. Every bleeding point must be ligatured or cauterised.
9. Primary abdominal section in the midline gives the best command over the damage done, and furnishes the most feasible opening through which the proper surgical treatment of such damage can be instituted.

Supposing we have before us a wound of the abdominal parietes, the first thing that we shall wish to know is, Does it penetrate? and, if so, are any of the viscera wounded? What symptoms can we rely upon as diagnostic of a wound of the viscera? If the wound is due to a bullet, and supposing it to have passed out, the experiments teach us that we can really form very little idea of its track by comparing the position of the wounds of entrance and exit.

Dr. Parkes remarks: "Nothing can be more uncertain and erratic than the track of a missile through the body."

Sir William Mac Cormac, in speaking of wounds of the bowel,

says: "When the injured intestine is prolapsed through the wound, or the contents of the tube escape externally, the diagnosis is clear; but these occurrences are the exception. Tympanites and discharge of blood *per anum* are valuable symptoms when present; but neither may appear directly after the injury. Emphysema, when it occurs in the wound neighbourhood, is said to be pathognomonic. Shock and pain vary so much as to afford no useful guidance."

On the other hand, the experiments show us that it is nearly certain that if there is penetration there will be injury to the contents. Now, nearly all cases of injury to the intestines prove fatal, and the mortality is due either to hæmorrhage or to septic peritonitis; hence the necessity of a diagnosis without delay. If we are prepared to act upon the probability that, if there is perforation there will also be a wound or wounds of the viscera, can there be any valid reason against our determining the fact of penetration by probing the wound? Heretofore, when the treatment of this class of injuries was merely of an expectant nature, the rule undoubtedly was not to interfere with the wounds, except to arrest hæmorrhage or to remove a foreign body; but when the knowledge is critical, can any harm be done by inserting a perfectly clean aseptic probe? This, I presume, we should do, taking at the same time every precaution that was possible not to disturb the parts unnecessarily, feeling sure that, if we waited for symptoms to develop—or, in other words, for symptoms of septic peritonitis to commence—it would then be too late for an operation. The urgency of an operation is also pressed upon us by the fact, illustrated in these experiments, that when a blood-vessel in the abdominal cavity is wounded, it continues to bleed, the blood poured out does not coagulate, nor does the vessel contract or retract, so that death from hæmorrhage can easily follow the injury of a very small vessel.

This excessive and persistent hæmorrhage from small vessels in the closed cavity of the abdomen is illustrated in another class of cases—namely, in the intraperitoneal hæmatocèle following rupture in cases of tubal pregnancy.

Mr. Lawson Tait writes in the JOURNAL, March 13th, 1886: "In my experience of intraperitoneal hæmatocèle, amounting to something like fifty-three or fifty-four cases, when I have verified the condition, either by *post-mortem* examination or *ante-mortem* abdominal section, the only cause of the condition was the rupture of a tubal pregnancy. In these cases there was a more or less extensive hæmorrhage, occasioned by the rupture of small vessels within the abdominal cavity."

When, however, the abdomen is opened and air admitted, the blood coagulates, the vessels contract, and the natural hæmostatic efforts are called into play. Hence, in the future in these cases, if we hope to save life, we must operate at an early period. There is also another reason forcing us on to the operation. Supposing the intestine to be wounded, there is the certainty of extravasation of its contents, which is equally sure to be followed by septic peritonitis.

If, then, we decide to operate, we choose the middle line, and leave the bullet or knife wounds alone. We should choose the middle line, because here the edges of the wound can be kept in good apposition, because the *linea alba* is less vascular than other parts, because the section of it unites very readily, because there is a less thickness of parts to cut through than if we attempted to divide the muscular walls themselves, and, lastly, because an incision through the *linea alba* gives us more room and greater freedom of manipulation than any other form of incision. Having opened up the abdomen we next proceed to examine the intestines, and if we found only a linear clean-cut wound, we should sew it up by either a continuous or Lembert's suture with fine silk; ascertain that there was no bleeding vessel left untied, then proceed to wash out the cavity with a warm boric or other antiseptic solution, and close the wound. But if the wounds of small intestine were due to a bullet, and were several in point of number, if near together, it will be evident that a resection of the injured gut will have to be carried out.

This has been done in several instances, and quite recently Mr. Barker reported a case in the JOURNAL, March 17th, 1888, when he says: "The wounded gut having been excised, the margins of the bowels were united together by a continuous suture on both sides, and the cut edges of the bowel having by this means been apposed on their proximate aspect, they were united by a continuous suture of fine silk taking up the serous and muscular coats just at the edge, the needle coming out at the cut margins at each stitch. A second row of interrupted silk sutures was

now introduced to reinforce the first. These took up the serous and muscular coats just beyond the first row. This was done on November 21st. The man died on the fifth day, when it was found that union had taken place thoroughly between the cut ends, and the bowel was not obstructed in any way. Tested with considerable pressure it was perfectly air- and water-tight."

Dr. Parkes thought that the Lembert suture alone was quite as efficacious as the more complicated forms of suture, which all require much time and patience to introduce. He describes that the chief difficulty is always to be found at the mesenteric border, where it is difficult to get the serous surfaces in contact owing to the separation of the layers of the peritoneum just before enclosing the bowel, forming thus a triangular space, where the bowel may be said to be not covered by peritoneum.

The cavity of the abdomen must be thoroughly well cleansed, and in these cases there is this difference between operations undertaken for disease and those necessitated by injury. When abdominal section is performed for disease, a simple washing out will suffice; but if there has been a wound of the intestines there will also have been fecal extravasation, and hence there will be greater trouble in the washing out, and some sponging will be possibly unavoidable. Sponges once used to remove fecal extravasation should not be used again in the same operation. In bringing the edges of the abdominal parietes together, it is recommended that the sutures should be passed through the entire thickness of the walls, including both peritoneum and skin, and everything between them; drainage-tubes do not seem to be invariably necessary. When in Paris, attending the Congress of Surgery, held in March last, I witnessed M. Pozzi, when closing the abdomen after an ovariectomy, first sewed the edges of the peritoneum together by a continuous catgut suture; then in like manner the muscular aponeurotic walls; then he included in his interrupted sutures the thickness of the walls external to the muscular coat. He described this in a paper at the Congress, as giving excellent results as regards a firm and unyielding scar. For the different forms of suture that have been recommended for wounded intestine, I would refer to Sir W. Mac Cormac's monograph on *Abdominal Section*, 1887.

In conclusion, I submit that if a person is now brought to hospital with a penetrating wound of the abdomen, laparotomy should at once be undertaken on the grounds that if no viscera are found wounded, the patient's condition has not been greatly altered, and if the intestine is wounded, we are quite sure that septic peritonitis will speedily bring about a fatal termination; but of course all such operations should be undertaken as grave and serious measures, and every antiseptic precaution should be taken to ensure a satisfactory result.

On the other hand, with reference to soldiers in the field, the question is somewhat different, and I cannot help feeling greatly the force of some remarks of M. Delorme, a French army surgeon at the Val-de-Grâce, who, in a paper read at the late Congress, says, when contrasting the case of the wounded soldier with that of the wounded citizen: "Suffering from intense shock, often moribund, he has at first to wait for many long hours before he can be removed, and then not until he has been subjected to some rough and improvised carriage can he receive the aid of the ambulance surgeon, who will have none of the nice appliances of the operating theatre, but merely such as are barely sufficient for the common operations of field surgery. There would not be the quietude necessary for carrying out a delicate and prolonged operation. The very excitement of the combat has affected all alike; time presses. Absorbed as he is by hundreds of cases urgently demanding his aid, the utility of which in their cases is undoubted, can he be blamed who, in circumstances so wretched and unfavourable as these, does not stop to hunt after a wounded intestine?"

However, at first the same objection was brought against antiseptic surgery in the field, yet Russian and German surgeons overcame the difficulty in their last war, and English army surgeons since then have done the same with considerable success. Let us, therefore, hope that, under its salutary influence, army surgeons will yet find a way to succour their comrades, even though they be afflicted with a penetrating wound of the abdomen.

Note.—Works referred to: *Gunshot Wounds of the Small Intestines*. By C. T. Parkes, M.D., Professor of Anatomy, Chicago.—*On Abdominal Section*. By Sir Wm. Mac Cormac, F.R.C.S.—*Troisième Congrès Français de Chirurgie*; "Retraction Complète d'un Kyste Hydatidique du Foie." By M. Pozzi, de Paris. "Les Plaies de l'Intestin par les Projectiles de Guerre." By M. Delorme, du Val-de-Grâce.—B. M. J., March 13th, 1886, and March 17th, 1888.

TWO CASES OF ENTEROSTOMY.

By F. BOWREMAN JESSETT, F.R.C.S. ENG.,
Surgeon to the Cancer Hospital.

CASE I. Gastro-Enterostomy.—A man, aged 50, was admitted into the Cancer Hospital on January 22nd, 1887, suffering from intense pain in the pyloric region, accompanied by most violent vomiting and retching shortly after taking food. He had experienced considerable pain in the epigastrium for more than two years; this had not increased very much until within the last few months, though he had from time to time vomited what he described as "coffee-grounds." He had had gastric fever two years ago; he had not been able to eat any solid food for over a twelve-month. In October, 1886, the pains in the epigastrium very much increased, so much so that he was almost afraid to take anything. In December he was seized with most violent vomiting, which lasted almost without intermission for three weeks, the vomited matter consisting of mucus, froth, and "coffee-grounds," and a substance which he described as being like green paint.

The pain continued to increase until his admission into the hospital, but the vomiting had nearly ceased, only occurring occasionally, and during his stay in the hospital before the operation there were no "coffee-grounds" present, the vomited matter consisting nearly entirely of the food he had taken, mixed with a little mucus. He had lost flesh very much of late, and was in such terrible pain that he begged to have something done to endeavour to relieve him. He at present suffered from great tenderness over the pylorus, and although there was no distinct tumour to be felt, yet on deep pressure there appeared to be a good deal of thickening, probably fibrous thickening, of the pylorus, possibly of a malignant character.

It was decided to perform laparotomy, with a view of making a more careful examination of the parts; accordingly, on February 6th, 1887, the patient being placed under the influence of ether, I proceeded to open the abdomen by a median incision extending for about three inches between the ensiform cartilage and umbilicus. The stomach and omentum were discovered to be in their normal condition, but the pylorus appeared to me to be abnormally thickened, and there being no other cause present to account for the violent pain and vomiting, it was decided to proceed to perform gastro-enterostomy.

This was accomplished by pushing the omentum on one side and drawing out about four inches of the jejunum, at the same time withdrawing a portion of the stomach. These parts were supported all round by warm carbolised sponges. Two small apertures were made in the mesentery, close to the intestinal attachment, about three inches apart, and a piece of india-rubber tubing was passed through either opening and made to encircle the gut, thus preventing all circulation of the contents of the bowel. The loop of gut was now laid upon the portion of the stomach to be opened, and a longitudinal fold of the latter, about an inch and a half from the great curvature, was pinched up between the finger and thumb of the left hand, together with a corresponding piece of the gut.

I now cut through the serous and muscular coats of both the stomach and gut, and, still holding the parts between my left finger and thumb, I united the posterior edges of the wound by a continuous suture, the suture passing through the two outer coats of the divided viscera. In this way the serous surfaces were closely united from end to end before either viscus was opened; this row of stitches was carried about a quarter of an inch beyond the incision in the coats of the bowel. I next opened the stomach and intestine by dividing the mucous coat with scissors. All bleeding points were taken up and ligatured with fine catgut as divided. A small quantity of mucus and fluid escaped, which was caught in the sponges. After carefully cleansing the cut surfaces, I proceeded, by means of interrupted sutures of fine silk, to unite the anterior edges of the opening, adopting the Czerny-Lembert stitch. The opening was now securely fastened, but to make it more secure I inserted another row of sutures outside the first, and about an eighth of an inch from it; this row of sutures was introduced with great care through the serous and muscular coats only.

The parts were now dropped back into the wound, and the "toilet" of the peritoneum being complete, I closed the external wound, and replaced the patient into bed. The wound was dressed with iodoform wool.

The patient bore the operation fairly well, and passed a tolerably good night; there was very little retching, and he slept at intervals. He complained of a good deal of pain the next day in the epigastrium; the temperature remained normal. He was fed with enemata of peptonised beef-tea and brandy, and forty minims of liq. opii every four hours. As he complained of a sharp pain in the epigastric region, a hypodermic injection of morphine was given. All went on well until the 10th, three days after the operation, when the patient complained of pain and a feeling of nausea, and slight tenderness on pressure over the wound.

February 10th. Wound dressed for the first time; union appeared to be complete; at midnight of this day he complained of great pain, was slightly confused when awake, and began to vomit thick brown fluid of a most offensive odour; the vomiting lasted until 5 A.M., and at intervals all the next day. Half a pint of warm water, with Condry's fluid, was administered by the mouth and retained. Brand's essence, a teaspoonful every hour, was given. The vomiting now ceased, but the patient got gradually weaker, and died on the night of the 16th, rather more than ten days after the operation.

The *post-mortem* examination revealed that the union between the stomach and jejunum was perfect. There was no peritonitis, and no fluid had escaped from the junction of the intestine and stomach into the peritoneal cavity, notwithstanding the violent retching he had. The cut edges of the mucous membrane had quite united, and there was no other cause discoverable to account for the vomiting than the "kinking" of the gut, which caused all the biliary and pancreatic secretion to be pressed back into the stomach instead of passing by the natural channel.

There was a cicatrix of an old ulcer just at the pylorus, which was somewhat constricted and thickened, probably cicatricial stenosis, but there was no malignant disease. Possibly this was a case in which Loreta's method of dilating the pylorus might have been practised with advantage.

CASE II. Case of Duodenostomy for Cancer of Pylorus. Death One Month after the Operation.—E. W., a married woman, aged 43, eleven children, the youngest 9 months old. No history of cancer nor of phthisis in family; had had much domestic trouble. Patient was admitted into the Cancer Hospital on May 23rd, 1887. She had suffered considerable pain after eating since the birth of her last child nine months ago. During the last three months she had vomited after everything she had taken; during this period she had taken pills and aperients of different kinds frequently. The bowels were never open more than once a week. She vomited about half an hour after everything she took, food returning much as when swallowed; the vomit was very brown, and "all of a boil." Two weeks before admission it was of a very dark colour, like dark blood.

Present Condition.—The abdominal parietes are very atrophied, the movement of the intestines being quite plainly visible. The stomach is seen to be much distended, reaching nearly to Poupart's ligament. In the median line, occupying a position just above the umbilicus and slightly to the left, is a hard, nodular, freely movable growth, the size of a Tangerine orange, continuous with the dilated stomach. After a consultation with my colleagues, at the patient's urgent request that something might be done for her, it was determined to perform laparotomy with a view of attempting to remove the diseased mass, and failing that, either to perform gastro-enterostomy, jejunostomy, or duodenostomy.

On June 4th, the patient being placed under the influence of ether, I proceeded to make an incision about three inches long midway between the umbilicus and xiphoid cartilage. All bleeding points were stopped by pressure-forceps before opening the peritoneum; when this membrane was divided the mass of disease about the size of an orange presented itself in the wound. The mass was freely movable, and had contracted no adhesion whatever to surrounding parts. The disease extended about two inches along the lesser curvature of the stomach. The mesenteric glands were found to be enlarged, the lumbar glands free, the liver healthy.

Owing to the very exhausted condition of the patient on the table, and the state of the mesenteric glands, it was not deemed advisable to subject her to the major operation of pylorotomy, although it was scarcely conceivable to imagine a more suitable case so far as the disease was concerned. From the weight of the growth the attachments of the duodenum were much stretched so as to allow of the portion of gut just beyond the disease being easily drawn into the wound. This was done, and the duodenum

stitched to the parietes, the abdominal wound closed in the usual way, and the patient returned to bed.

The patient bore the operation very well and passed a good night.

June 5th. The patient comfortable; complained of thirst; to have small pieces of ice to suck; temperature normal; pulse 96; to be fed entirely by peptonised beef tea enemata.

June 6th. Complained of slight pain over epigastrium; abdomen soft and flaccid; no tenderness. Tongue moist and clean; temperature normal. The enemata had been administered in three-ounce doses every four hours, and the urine drawn off every six hours. She slept fairly well during the night.

June 7th. The bandage was removed, the wound looked quite healthy, and as the bowel seemed to be firmly attached to the parietes I made an opening into it with a tenotomy knife, large enough to admit a No. 14 catheter. Three ounces of peptonised beef-tea were injected into the duodenum and retained; this was ordered to be repeated every six hours. Abdomen quite flat; no pain; temperature normal.

June 9th. Removed stitches from abdominal wound; powdered starch ordered to be dusted over the abdomen around the opening into the gut.

The patient progressed favourably until the 13th, when the beef-tea returned through the wound shortly after being introduced, and there was a considerable flow of bile from the wound; five grains of sodæ carb. were now added to each injection of beef, and an ounce of port wine was ordered with each enema of beef-tea.

The patient's strength was well maintained; the temperature continued normal, and she was free from pain, but complained of great thirst. As the skin around the wound was looking red and inflamed, I ordered a powder consisting of equal parts of acid. boracic, powdered starch, and oxide of zinc; the parts to be washed at each feeding with carbolised water.

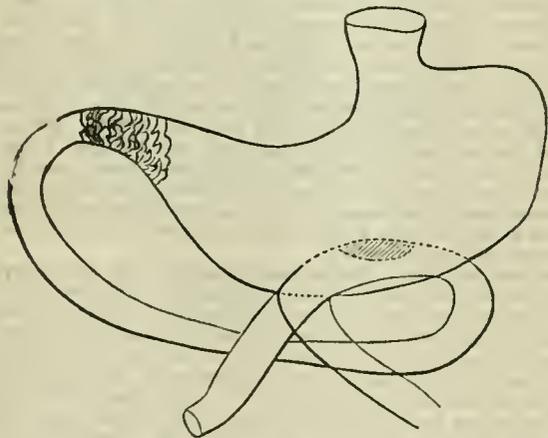


Fig. 1, representing the jejunum united to the stomach on the anterior aspect, the dotted line showing how the kinking may take place.

On June 14th, instead of the ordinary peptonised beef-tea, I substitute zymïn ʒss; with sodæ carb. gr. x. in a powder to be added to each injection of beef-tea. This powder answered admirably. The remainder of the stitches were removed.

June 16th. The patient vomited four porringersful of fermented fluid. This was evidently the collection of gruel, etc., she had been allowed to take the last few days. She was ordered to take nothing by the mouth in future. The stomach was washed out with a quantity of warm Condé's fluid and water, with much benefit. She seemed somewhat easier after this, but the stomach was enormously dilated, and distinct succussion was perceptible. The patient from this point gradually got weaker, and died on July 3rd, exactly one month after the operation.

Had this patient applied earlier, I have little doubt but what pylorotomy or gastro-enterostomy might have been practised with every chance of success; but, as I have said, she was so exhausted that an operation involving any great strain upon her strength would have been impossible. But there is no doubt that the operation performed gave her considerable comfort during the last few weeks of her life.

REMARKS.—The first of these two cases illustrates well how successfully a gastro-intestinal fistula may be formed so far as the union of the stomach and jejunum are concerned. It also suggests a few not unimportant modifications that, in my opinion, might be with advantage adopted. The vomiting that followed the operation was undoubtedly due to kinking of the jejunum just beyond the seat of union with the stomach, preventing the passage of the gastric and pancreatic fluids, and bile. The operation as performed in this case was planned as is usual, so as to bring up a loop of the jejunum as near its origin as possible, and fastening it to the anterior wall of the stomach (Fig. 1). This, of necessity, causes a great risk of the gut doubling upon itself at its efferent end. Now it appears to me that it would be far better to fasten the gut to the posterior wall of the stomach (Fig. 2). This can be done in one of two ways merely by turning the great omentum and colon up and dividing the transverse mesocolon, and thus drawing a portion of the stomach through the opening, and fastening it to the jejunum close to its duodenal origin, or by dividing the gastro-colic omentum in front, and fastening the posterior wall of the stomach to the anterior portion of the last portion of the duodenum. That these two operations would be attended with slightly more difficulty than the operation at present adopted there can be no doubt; but the advantages to be derived are so obvious, that I think the extra trouble would be well repaid.

I would here draw attention to the practice of Dr. Senn, of Milwaukee. He has made numerous experiments on dogs, and adopted the following plan. Instead of stitching the stomach and intestine together, after the Czerny-Lembert method, which he justly says is most tedious, and prolongs the operation considerably, he provides himself with two plates of decalcified bone about two inches in length, an inch in width, and a quarter-of-an inch thick, with a longitudinal opening in the centre five-eighths of an inch long by one-sixth of an inch wide. Four perforations for the sutures are made near the margin of the oblong perfora-

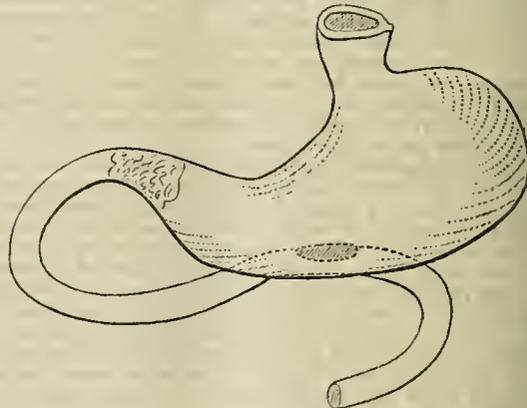


Fig. 2, representing the jejunum united to the stomach on the posterior aspect, the dotted line representing the union behind the stomach.

tion, one at each end, and one at each side. The sutures are attached to these plates by threading two fine sewing needles each with a piece of aseptic silk, twenty-four inches long, which are tied together. The threads are then fastened to the surface of the plate by another thread passing through the perforation in the shape of a loop, and fastened to the back.

The stomach being drawn forward into the wound, a longitudinal incision is made in the anterior surface, and the perforated disc of bone introduced. The lateral sutures armed with needles are now passed through the entire thickness of the walls of the stomach, half way between the angles of the wound. A similar incision is now made into the intestine at the junction of the duodenum and jejunum. The second plate of bone is introduced, and the margins of the wound punctured by the lateral armed sutures when the two wounds are brought *vis à vis*, and the corresponding sutures tied. The serous surfaces of the stomach and intestine over an area corresponding to the size of the plates are then brought into accurate permanent contact by the tying of the sutures. The animals he operated upon recovered, notwithstanding they were allowed to eat immediately after the operation, and the diet was not selected or restricted.

That this method of operating has much to recommend it I think there can be no doubt, as the time occupied in the operation is reduced, according to Dr. Senn, to from fifteen to twenty minutes.

Surgeons in this country doubtless will decline to adopt this method of operating until such time as they have convinced themselves of its feasibility, as, in the first place, the method of passing the sutures through the whole of the coats of the stomach and intestine is directly opposed to all rules of intestinal surgery of the present day. Dr. Senn, however, illustrates his paper with numerous cases in which he has operated in this manner successfully on dogs, under the most adverse circumstances; and, if his reports are to be relied upon, I see no reason why similar operations should not be performed upon the human subject.

These operations on the dead body are perfectly easy of performance, and the time occupied is not a tithe of that consumed in the ordinary operation. In any case I think the subject is well worthy the most careful consideration of surgeons who practise in this department.

A CASE OF INTESTINAL OBSTRUCTION TREATED BY LAPAROTOMY: RECOVERY: REMARKS.¹

By HOWARD MARSIL, F.R.C.S.

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EMMA D., a housekeeper, aged 34, who had previously enjoyed good health, except for occasional dyspepsia, was suddenly attacked with intense abdominal pain immediately after an action of the bowels on the 8th of last November. With great difficulty she crawled up to bed, and when seen, half an hour afterwards, by Dr. Qualtrough, of Upper Holloway, was still complaining of very severe pain, persistent in character, but aggravated by frequently recurring paroxysms. There was neither tenderness nor distension of the abdomen. Pulse and temperature normal. Dr. Qualtrough gave her a hypodermic injection of morphine, and ordered her a little ice to suck, and a small quantity of milk and soda-water occasionally. Six hours later she vomited the half digested contents of the stomach. For the next four days, during which she was seen also by Dr. Keateven, she remained in much the same condition. Vomiting occurred twice or three times each day; there was no action of the bowels, but flatus was passed. She still complained of considerable griping pain, and there was fulness of the abdomen, with slight tympanites; the temperature was not raised, and the pulse remained under 90. She presented no appearance of general illness, and said that, except for the pain, she felt well enough to be up. I first saw her on the 13th, five days after the commencement of the attack. She then looked rather pinched and anxious, and was becoming weak; the temperature was normal, and the pulse 85. Sickness had occurred several times during the day, and was increasing in frequency; the bowels had not acted, but flatus was still passed; the abdomen was distinctly, but only moderately, tympanitic; it was tender on pressure in the neighbourhood of the umbilicus.

On the 14th, after a consultation at which Mr. Thomas Smith, who had been previously sent for, was present, and who gave me his valuable assistance, I opened the abdomen in the middle line, below the umbilicus, and on following the small intestine—by tracing it onward from the distended loop which presented itself in the wound, and returning each three or four inches before another portion was drawn out of the wound—I came to a part that seemed fixed. Passing my finger along this, I could feel that a loop had slipped through a hole, apparently about three-quarters of an inch in diameter, in the mesentery. The mesentery in this spot seemed of normal thickness and pliability, and the edge of the opening was so yielding that I could readily stretch it with my finger-nail sufficiently to allow the loop of intestine to be drawn out. The loop was somewhat congested, and the lines above and below, at which it had been constricted, could be distinctly seen, but evidently strangulation had been only partial. The abdominal cavity, which contained a considerable quantity of blood-stained serum, was thoroughly sponged out with weak

carbolic lotion (1 in 80), and the wound was closed with China silk sutures.

After the operation the patient was allowed nothing by the mouth but small fragments of ice, amounting in the first twenty-four hours to less than two ounces. She was fed by the rectum, and kept slightly under the influence of morphine by hypodermic injections. A soft enema tube was passed about six inches into the rectum, and retained there to facilitate the escape of flatus. Twelve hours after the operation the pulse was 84, quiet and regular, and the temperature was 98.4° F. The patient occasionally ejected, without straining, a little bilious fluid. She was tranquil and free from pain.

November 14th. Pulse and temperature normal, tongue clean and moist, no abdominal distension, flatus passed freely from the tube in the rectum; no sickness. Diet: one teaspoonful of beef-tea or peptonised milk alternatively, every hour, and a little ice to allay thirst.

November 15th. A quiet but almost sleepless night. General condition as yesterday, but she was wasting quickly, and complained of intense thirst. To take food in rather larger quantities every hour.

November 16th. Very restless, and in great general distress: very prostrate. Was now frequently sick, ejecting bile-stained fluid. Pulse 100, temperature 101°. Had passed a small green motion, with severe griping pain referred to the umbilicus. At 7 P.M. an enema of warm soap and water was given. This produced a large evacuation of green-coloured soft fæces. The result was remarkable. Before the enema vomiting was frequent, and the patient was so exhausted that her case seemed hopeless, and it was thought that she would not live through the night. Directly after the bowels had acted she fell asleep, and slept quietly and soundly for three hours, and the vomiting entirely ceased.

November 17th. Abdomen distended. She complained of very severe griping pains, which made her grind her teeth. To be fed entirely by the rectum. A yellow evacuation was passed after an enema. She was very restless and thirsty.

November 19th. No vomiting or abdominal pain. Delirious at night; trying to get out of bed. Pulse 125, weak and running. She was very prostrate. To have two teaspoonfuls of beef-tea or milk every hour; rectal feeding to be continued. Hypodermic injection of morphine (one-sixth of a grain) about twice a day.

November 21st. Had a severe attack of retching and purging this afternoon. Was very weak, yet she looked better. Copious herpetic eruption about the mouth; aphthæ on the tongue. The wound had, with the distended condition of the abdomen, reopened to the width of an inch and a half, and a coil of small intestine covered with granulations was exposed. The abdominal wall to be well supported with strapping and a bandage.

November 26th. Still very weak; frequent hiccough; much retching and diarrhoea. Skin covered with a bright red, very irritating eruption; great emaciation; tongue dry; pulse 120.

November 30th. Too weak to move in bed; hiccough continued; considerable distension of the abdomen; pulse 120; temperature 98°.

December 2nd. Much better; tongue moist; passed solid motions; retched only occasionally. Wound slowly closing; distension subsiding.

From this time she gradually recovered. By January 10th she was taking usual diet; the bowels acted naturally; the wound was nearly healed, and she was steadily gaining flesh and strength. She is now quite well.

REMARKS.—No clearer indication could be given of the progress of abdominal surgery than the doubt that at first presents itself, whether this case contains anything that qualifies it for publication. Numerous examples of completely successful operations, involving much more extensive interference with the intestines, have been reported; and thus, in some respects, this instance is commonplace. Yet I believe it should be recorded. In the first place, it is an example of recovery after laparotomy for internal strangulation. In this aspect it is now happily far from unique. Yet the list of such cases is much less extensive than it ought to be, and the instances in which a fatal result follows mechanical obstruction are much more numerous than they are destined to become when sufficient evidence has been collected to persuade those who still hesitate (*a*) that when symptoms which clearly point to the existence of mechanical obstruction are present, it is as incumbent on the surgeon to open the abdomen as it is to operate when there is reason to believe that an external hernia is strangu-

¹ Read before the East and West Sussex District of the South-Eastern Branch.

lated; (b) that the operation must be performed early; (c) that the risk which the operation involves is so comparatively small that it cannot be justifiably urged as a ground for delay.

Secondly, the case is of value because it illustrates and emphasises the fact that symptoms which till recently have been ascribed to peritonitis often depend on what may be called "secondary obstruction"—that is, on obstruction due to the paralysed condition of the gut at the point of injury. The recognition of this fact constitutes one of the most important advances that have lately been made in respect to cases of internal strangulation.

The mode of onset of the attack, and the symptoms observed in the first two or three days of the patient's illness, were of doubtful interpretation. The sudden onset of severe pain that followed the action of the bowels and the development of sickness were strongly suggestive of mechanical obstruction, but their meaning was obscured by the fact that flatus was freely passed, and that there was scarcely any distension or tympanites. Evidently if obstruction was present it was not complete. Another feature that increased the uncertainty of the case was that the patient, for the first two or three days, had the appearance of being in almost her usual health.

These apparently conflicting symptoms were explained and reconciled at the operation. There had been little distension, but persistent sickness, because the obstruction was in the small intestine—I think it was as high as the middle of the jejunum. The patient did not look pinched or collapsed, and flatus was still passed, because the opening through which the gut had slipped was placed in the mesentery, where that structure was too thin and membranous to produce complete obstruction, or even at first to cause any serious injury to the intestinal wall. But in the course of three or four days the continuance of sickness, the fact that no fæces were passed, the appearance of distinct though still moderate tympanites, and the gradually increasing distress of the patient forced the conclusion that mechanical obstruction must be present.

The operation itself was easily performed, as there was only slight distension of the intestine. It is now well understood that the state of the intestine in this respect is one of the most important points in regard to laparotomy for obstruction. Distension adds greatly to the difficulty of every stage of the operation. So far is this the case that in any instance of obstruction the amount of tympanites must always be taken fully into account. Few recoveries take place when it is considerable, and in any case in which operative interference is contemplated the increase of tympanites ought to be regarded as a warning against further delay.

I have had several opportunities of testing the value of searching for the obstruction, not by introducing the hand, but by taking the loop that first presents in the wound, and tracing it onward by drawing out three or four inches for examination and then returning them, so that no more than six inches are ever out of the wound at the same time. In this way the intestine may be traced upwards towards the duodenum, or downwards towards the ileum, till the obstruction is reached, with very little delay, and with no danger if the manipulation is gentle. If, having traced the gut up to the duodenum or down to the ileum—for he cannot tell with certainty in which direction he is travelling—he has found no obstruction, the operator must trace his way in the opposite direction, taking, however, very great care that he does not drop the loop and so break the continuity of his examination.

To relieve her as soon as possible from the discomfort and danger of gaseous distension, I availed myself of the practice recommended by ovariotomists, of raising the patient's shoulders, so that she could the more easily expel flatus from the mouth; and I also introduced a soft tube about six inches into the rectum. Through this, for some hours, flatus continued to escape, to the great comfort of the patient. Both these expedients for removing gas from the intestinal canal should, I think, be adopted in cases of this kind.

The favourable manner in which she bore the operation was remarkable. When I saw her, about six hours afterwards, her pulse was 84, her temperature was normal, and she showed but small traces either of the operation, or of her previous illness.

The return of sickness on the third day after the operation, and the manner in which it was treated, deserve careful observation. It was due, I think there can be no question, to the fact that the piece of intestine that had been partially strangulated was still paralysed, so that the fecal material that was passed into it from above lodged, and so renewed the obstruction. It then became a question whether the intestine would recover its peristaltic

action, and so overcome the obstruction, or whether the obstruction would persist till death occurred from vomiting and exhaustion. It was when the patient's life was thus in the balance that the enema was given, in the hope that it might be the means—by unloading the lower bowel, reducing distension, and indirectly stimulating the flaccid piece of intestine into action—of restoring the patency of the canal. Fortunately this result was attained, and all the symptoms of obstruction disappeared, and did not return. When sickness, coupled as it is so likely to be, with increasing distension, returns in cases of this kind, three courses present themselves: 1. To give an enema; 2, to give an aperient by the mouth; 3, to fasten a distended loop of small intestine to the edges of the abdominal wound and open it. In the present instance the enema secured all that was required, and put an entirely new aspect on the case. Mr. Lawson Tait and others have shown the excellent result that may follow the use of aperients in intestinal distension following some cases of abdominal section, not directly involving the intestine. Aperients, however, must obviously be used with very great caution when obstruction depends on paralysis of the intestine after strangulation, for the condition of the gut at the seat of injury must be a matter of doubt, and the action of an aperient might be followed by perforation. To open the small intestine in the abdominal wound is a step that will avert death in some cases, and the damaged condition of the gut at the point of strangulation and the necessity for immediate relief from obstruction may fully justify its adoption. But it has some serious drawbacks. The patient is generally so exhausted that an anæsthetic, and the sickness which it may provoke, the reopening of the wound, and the necessary disturbance and exposure are each a source of danger. And there is also the highly important question whether, in the exhausted condition of the patient, and in the presence of vomiting, should this continue, safe union will take place between the intestine and the abdominal wall, so that there shall be no escape of fæces into the peritoneal cavity. There is the further point that we are unable to say what part of the intestine will present at the wound, and, therefore, that we cannot be sure that the opening may not be so high up as seriously to interfere with general nutrition. Which of the three alternatives should be adopted must depend on the circumstances of each case; but there is reason to hope that the timely use of an enema, when the symptoms of obstruction return after laparotomy, will often have a valuable effect—at least, it should be tried before anything more serious is undertaken.

When, in consequence of the weakly condition of the patient, the distension of the abdomen, and the retraction of the edges of the wound, the latter reopened, a coil of the small intestine was exposed over an area of nearly six inches in length by two in width. But no harm followed, for the peritoneum covering the gut had become united with that lining the abdominal wall, and the peritoneal cavity was safely shut off. In two other cases I have met with the same condition. In both, as in this instance, the wound gradually closed, and no intestinal protrusion occurred.

It was apparent at one time that the patient was suffering severely from the want of food. She wasted rapidly, complained of intense thirst, and was so prostrate that she could not move even her legs without assistance; her pulse was weak and thready, her face deeply wrinkled, her eyes dull, and her conjunctive congested. But the danger in this direction had to be incurred, for when she was allowed food by the mouth sickness at once returned, and would have been quickly fatal to her. The inability to take food by the mouth persisted till the ninth day after the operation.

JEJUNAL ENTERECTOMY FOR THE CLOSURE OF AN ARTIFICIAL ANUS OF EIGHTEEN MONTHS' STANDING: RECOVERY.

By THOMAS SINCLAIR, M.D., F.R.C.S. ENG.,
Professor of Surgery in Queen's College, Belfast.

THERE appears to be less hesitation in adopting the relatively severe measure of resection of the bowel in the treatment of abnormal intestinal openings than prevailed some time ago. Doubtless some of these conditions yield to simpler plans, such as pad and bandage, plastic operations of various kinds, the use of enterotome clamps and the like, but we have too

many opportunities of proving their inadequacy, not to mention the positive risks attending the employment of some of these means, particularly those last alluded to. Moreover, the anatomical relations are not so uniform in a series of cases as to admit of a routine treatment, some inviting the clamp method, others, without a pronounced *éperon*, contra-indicating resort to it. Frequently also plastic operations, involving transplantations, are attempted under circumstances that offer little or no prospect of success. The following case is illustrative of some of these points, enterectomy being resorted to after failure of the pad and bandage and plaster plans to effect a closure.

The subject was a farm labourer, aged 60 years, who stated that eighteen months prior to his admission to the Royal Hospital, Belfast he had been acutely ill for some days with a groin swelling. The swelling burst; something black escaped, after which the intestinal contents issued freely. Evidently there had been sloughing of a femoral hernia of the right side at this date. Shortly thereafter, according to the patient, the opening showed an inclination to close under the treatment of his previous medical advisers, but latterly had become much larger in spite of this treatment. A considerable quantity of the chyme now flowed from it, more especially when he was not recumbent. Being high up in the alimentary canal this resulted in the loss of much flesh and strength. As it was growing rapidly worse, and as he was quite unfit for work, he was anxious to have some operation done for its cure. Although a moderate amount of faeces passed by the normal channel, an examination of the parts was unfavourable to the adoption of the milder measures. A plastic operation was impracticable, from the very dense cicatricial puckering extending widely around the opening, so dense that the spermatic cord and Poupart's ligament could not be felt in it. A large projection from the anterior lip of the proximal bowel, which could not be repressed, offered another obstacle. Dupuytren's plan by the enterotome clamp was unsuitable, from the want of a safe spur, the flexion of the bowel being only moderately acute. Simple enterorrhaphy, after liberation of the coil from its parietal adhesions and paring of the edges of the opening, suggested itself; but the opening involved more than two-thirds of the circumference of the gut, hence enterorrhaphy would have nearly obliterated the lumen of the gut. Enterectomy remained as the only open course.

Rest in bed for more than a week, with a castor-oil purge every third day, an enema on the evening before and another on the morning of the operation formed the preparatory course. A three and a half inch incision through the artificial anus along Poupart's ligament, with a circular dissection gradually deepened round the opening, was the first step. The spermatic cord was disentangled with much difficulty from the hard cicatricial mass, but the deep epigastric artery was so engaged in it, and so much in the way, that it was double-ligatured and divided. Poupart's ligament and the deep crural arch were also cut before the intestine could be liberated from its intimate connection with these parts. This separation of the bowel, conducted with a view to injure it as little as possible, was tedious, bloody, and difficult. Drawing the coil out upon the thigh, the abdominal wound was plugged with aseptic sponges, and the removal of the segment of bowel proceeded with on the lines recommended by Sir William Mac Cormac in his masterly oration on Abdominal Section for the Treatment of Intra-peritoneal Injury. The intestine was clamped above and below with pieces of drainage-tube held by Wells's forceps, a simple plan which answered very well. Scissors were used for the section, the bowel being cut obliquely to its axis, so as to remove three inches from the concavity, and four and a half from the convexity. This oblique section involved the ligation of ten arteries in the edge of the section. The mesentery was divided close to the gut by successive snips, ten arteries requiring ligatures were tied, and the edges of the mesentery, none of which was cut away, were stitched together. Next, two fine stitches on either side were so introduced as to exclude the nearest uncut terminal arteries, into the sides of the mesenteric triangle near its base, in order to bring them together, and cover as far as possible that part of the gut uncovered by peritoneum. By this means two of the three most important intestinal stitches became capable of insertion by Lembert's method; only the central one was a muscular coat suture merely, and this was much buried by its two immediate neighbours, turning the serous coat well inwards at a point where otherwise this is difficult to accomplish. Two dozen Lembert's stitches were introduced in one row, at intervals of two lines, no stitch being tightened till

all were passed. Ordinary cambric needles were used, and fine carbolised silk for all sutures and ligatures. The edges of the pucker in the mesentery, now folded and redundant, were brought together by a few points of suture, the more efficiently to support the intestinal sutures at this critical spot. Everything having been well flushed with warm boric lotion, the coil was reduced, and the parietal wound closed as far as practicable by silver sutures, a drainage-tube being left in its superficial part, but not reaching into the abdominal cavity. Iodoform, salicylic wool, and an elastic roller completed the dressing.

The operation occupied upwards of two hours, and the ether was so managed that one ounce sufficed for the whole operation. Having regard to the fact that the enterectomy involved a portion of the jejunum, which, from the great number and depth of the valvulae conniventes was judged to be a portion situated high up in this part of the alimentary canal, the after-treatment was carried out with much caution. Opium, to the extent of fifteen minims of the tincture thrice in the twenty-four hours, was given to minimise peristalsis and intestinal secretion for the first eight days. At no time was it pushed so far as to affect the pupils. Indeed there was no other indication for its employment but that alluded to.

Anything likely to escape complete digestion in the stomach and to excite pancreatic and intestinal activity was withheld as long as possible. Even simple fluids were given in sips, and thirst attended to chiefly by tepid water injections into the rectum. The only things given by the mouth for the first eight days were sips of water, kali water with spirits, and tea without milk. During this time four nutrient enemata, consisting of four ounces of pancreatised milk with two spoonfuls of Brand's essence, were administered on each of the first three days. For the next four days pancreatised beef-tea and pancreatised milk enemata, six to eight ounces each, were given alternately, four during each day. For two more days rectal feeding, in the form of predigested beef suppositories, was continued; but plenty of milk-whey and tea were now given by the mouth, and some lemon juice. On the tenth day after a spontaneous action of the bowels, pancreatised beef-tea and milk were given by the mouth, and rectal alimentation was abandoned. On the following two days, toast, butter, fish, milk, and beef-tea were allowed, and after the fourteenth ordinary meals. Flatus had passed *per anum* freely from the second day forward, and on the tenth the bowels acted of themselves, an event which synchronised with the only febrile temperature (100.4° F.) recorded throughout.

The dressings were removed for the first time on the sixth day, when the incision was found united by first intention, and the silver sutures and drain-tube were withdrawn. The central portion, corresponding to the artificial anus, the edges of which had been refreshed at the operation, subsequently granulated, and was closed before the end of the month. On account of the dense contraction here it was not possible to expedite this closure by suture or plastic operation. The patient rose upon the twenty-second and was discharged on the twenty-eighth day, the parietal wound having closed and the bowels having regained their natural function.

Mr. A. E. J. Barker, in a very interesting communication to the JOURNAL of March 17th upon Laparotomy for Penetrating Gunshot Wound of the Abdomen, has shown by the *post-mortem* examination of one of his cases treated by enterectomy that six days suffice for sound union between the ends of the gut. Possibly a shorter abstinence from food by the mouth than ten days in the present instance would, in the light of this observation, have been sufficient; but the adequacy of rectal alimentation was so pronounced that hunger was not complained of by the patient during this interval. Though quite willing to feed him by the mouth at the end of the first week, it appeared judicious to wait a few days, until either some urgency on the patient's part or some change in his general condition demanded more thoroughgoing nourishment. Mr. Greig-Smith justly remarks in his work upon *Abdominal Surgery*, "under the best form of rectal alimentation yet devised the patient steadily loses ground." Nevertheless one could not have observed the after-course of this case without admitting that the value of rectal feeding was considerable. The patient certainly lost flesh, but the healthy behaviour of the wound and comparative freedom from hunger attested the value of predigested nutrient enemata.

The other noteworthy features in this instance are: the sufficiency of a single row of Lembert's sutures of silk, and the treatment of the mesentery. No triangular segment of mesentery was

excised, and much care was taken to narrow the space between its layers, where it joins the intestine, so as to secure as perfect coaptation of the serous layers at this spot as possible.

CLINICAL MEMORANDA.

FUGITIVE IODISM: ŒDEMA OF EYELIDS.

W. J. H., aged 30, on May 7th complained of frontal neuralgic headache, which had varied in intensity during the preceding ten days. He could not bring to mind having had headache before, but had been, during several years, inconvenienced by an irritable catarrhal condition of his fauces and naso-pharynx. Having applied a chloroform preparation of aconite root with a camel hair pencil horizontally to the forehead from side to side, a full inch above the eyebrows, I prescribed as follows:—R Liq. ferri iodidi, ℥ij; aq., ℥vj; ℥j ter. Soon after the second dose the patient felt a severe cold had come upon him quite suddenly—sneezing, a very copious and steady flow of watery fluid from the left nostril, sufficient to saturate two handkerchiefs. This ceased in one hour as abruptly as it had occurred. Coincident with its cessation a puffiness of the eyelids on the corresponding side ensued; this increased, and on retiring the patient's lids were completely closed. He slept well, and the morning following his eye presented the appearance of having been stung by an insect, as described by Dr. Tom Robinson. The left eyelids, both upper and lower, were equally tumid with a semi-transparent rosy fulness, which the patient said was less than on retiring the night before. There was neither subconjunctival œdema nor any discharge from between the lids. The conjunctiva presented a diffuse pinkness. Over both cheeks, but nowhere else on the body, was an urticarial erythema, fainter on the left than on the right cheek. He felt well; his headache had gone. On May 10th, the phenomena had completely vanished.

REMARKS.—Here is seen a person with a decided catarrhal dyscrasia suddenly attacked with fugitive œdema of the eyelids sequent upon a free catarrhal outpour from the nasal mucous membrane. So far, the symptoms being limited strictly to the one side lends weight to the idea that an extension of the same catarrhal process into the neighbouring loose connective tissue, though this was not related by immediate continuity, had occurred. Another view may be taken; that the transient œdema of the lids was associated with an impediment in the course of the efferent lymphatic circulation occasioned by the turgidity of the nasal mucous membrane.

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EXCESSIVE THIRST A SYMPTOM OF MALIGNANT DISEASE.

In a case of malignant disease which came under my care lately, certain symptoms were present which seemed rather difficult of explanation, and may I think be considered unusual. The case was briefly as follows. About three months before her death I was called to see a woman, aged about 50, who had been suffering from dyspeptic symptoms for about five months previously. At this time she complained of pain, nausea, vomiting, and other symptoms of gastric derangement. A tumour was to be felt in the epigastric and right hypochondriac regions, evidently involving the liver and intestines. The case ran a rapid course. About three weeks before death, the most extraordinary thirst came on which nothing could appease. It used to come on in paroxysms, and although her friends tried to keep too much fluid from her, she would clutch wildly at any vessel, and pray for more. Her husband used to say to me, "Her thirst is terrible, surely there must be some great heat in her." I may say that what she drank used almost all to come back again. Constipation, which was troublesome all along, became absolute for the last ten days, evidently from pressure of the tumour on the gut. There was no increase in urinary secretion or febrile symptoms.

Brecon.

W. R. RICE, M.B. Dub.

SURGICAL MEMORANDA.

ON THE TREATMENT OF SEBACEOUS TUMOURS.

MANY people, the subjects of congenital sebaceous tumours and "wens," object to having them removed, on the score that the remedy is worse than the disease, and the after-consequences may be serious.

The following is the method I have adopted in such cases, and with marked success. With a cataract knife (Graefe's) puncture the cyst, and gently squeeze out the contents; then introduce a very small piece of nitrate of silver. On the following day, by means of a pair of forceps, the capsule of the cyst can be withdrawn, just like the shell of a bean, without any portion being left adherent. In no case has there ever been any return of the growth or any ill effects.

The method, if tried, will be found to have many advantages apart from its simplicity and thoroughness.

Rotherham.

T. MURRAY ROBERTSON, M.D. Edin.

PERICHONDRITIS OF THE LARYNX: TRACHEOTOMY: RECOVERY.

THE following particulars of a case which occurred in my practice eight years ago may be of some practical interest at the present time.

R. W., aged 39, pointsman on a railway, consulted me for a troublesome hoarse cough, attended with difficulty in breathing. He had all the symptoms of a severe attack of laryngeal catarrh, and was treated by poultices and counter-irritation, together with the usual remedies and inhalations. The case continued to get worse, the difficulty of breathing increased, and the patient could only articulate in a whisper. On laryngoscopic examination of the larynx, it was found red, swollen, and ulcerated. There was also thickening and tenderness externally. He was now put on large doses of perchloride of mercury, with iodide of potassium and cinchona, at the same time keeping the patient in a warm atmosphere, inhalations being continued. The patient still continued to get worse, and Dr., now Sir Walter Foster saw the patient in consultation with me; he advised the continuance of the treatment, but to be in readiness to perform tracheotomy should the symptoms of dyspnoea increase. The patient got worse, and on the following morning at 5 A.M., I found him so bad, and suffocation impending, that I immediately, with the aid of my then assistant, Mr. Welch, opened the trachea and inserted the tube. The result was immediate relief of the patient's suffering; from being cyanosed he recovered full power of breathing, and became calm and natural in colour. I kept him in a warm atmosphere, with hot sponges constantly applied over the orifice of the tube, and continued the medicinal treatment as before.

The case went on well, the cough gradually lessened, the thickening of the larynx and ulceration subsided. Later on a piece of exfoliated cartilage was coughed up and the expectoration daily diminished, and at the end of one month from the operation, I deemed it advisable to make an attempt to do without the tube. I first experimented by removing it for a few hours, keeping him under close observation the whole time; finding he seemed no worse, I continued to let him remain without it, and at the expiration of a month from the removal of the cannula, the external wound had healed, and the patient continued to breathe quite freely.

The patient is still alive and has had no return of the disease, and but for some feebleness of voice is quite well.

REMARKS.—The success of this case appeared to me to be due to the removal of the cannula at the time when the larynx had so far recovered as to enable the patient to breathe fairly well without it, as the presence of it, acting as a foreign body, seemed to set up some irritation in the trachea, causing exuberant granulations to appear around the orifice of the wound.

FRANCIS HOLLINSHEAD, M.R.C.S. Eng., and L.S.A. Lond.

Selly Oak, near Birmingham.

URTICARIA DIFFUSA VEL FEBRILIS OCCURRING AFTER OVARIOTOMY.

SOME time ago I removed a small ovarian tumour from a young lady, aged 25. The operation was a very simple one, and the wound healed rapidly, all the sutures being removed by the seventh day, and the pulse and temperature being both normal by that date. Late on the following night I received an urgent message saying "that my patient had been taken with vomiting, and was complaining of pain in the back, headache, and sore throat. The temperature had gone up to 101, and the pulse to 120, and a red rash had come out over her face and chest." When I arrived at the house I found the patient in a state of great excitement owing to the nurse in her fright having said something about scarlatina. Her face was flushed, and her neck, shoulders, and body were covered with a bright red rash. She complained

of swelling and soreness in her throat, and of burning and itching of the skin. Her temperature was over 102°, and the pulse 130. The bowels had acted well, and there was no scantiness of urine. She had not eaten fish or meat, but was still on light diet. In fact there was nothing to account for the attack except that she had on that day heard of the sudden illness of her mother, an old lady of 65 years. The vomiting, pains in the back, sore throat, headache, high temperature, and quick pulse rather alarmed me at first, but the suddenness of the attack and breaking out of the rash, together with the burning and itching of the skin and the state of the tongue, led me at once to diagnose urticaria diffusa. I gave her a dose of white mixture, and ordered 20 grains of sodæ picarb. every two hours, and a lotion of the same, ℞ss. ad ℞j, to allay the itching. I attempted to reassure her, but she was so nervous and excited about her condition, refusing to believe it was other than scarlatina, that I had to give her a full hypodermic injection of morphine in order to quiet her. By the next morning the rash had left the body, but was still visible on the limbs, and within twenty-four hours it had quite disappeared, and the pulse and temperature became normal. The rash was not allowed by desquamation.

I take it that this form of urticaria, attended with a diffuse rash instead of the usual distinct wheals, is uncommon, and might, with such symptoms as were met with in this case, be easily mistaken for scarlatina at first sight. So far as I could judge, this attack was not brought on by any error of diet, and I should be inclined to attribute it to some disturbance of the nervous system.

A. C. BUTLER-SMYTHE, F.R.C.S.ED.

Brook Street, W.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF
GREAT BRITAIN, IRELAND, AND THE COLONIES.

NORTHAMPTON GENERAL INFIRMARY.

ANEURYSM OF THE INNOMINATE ARTERY: SIMULTANEOUS LIGATION OF RIGHT SUBCLAVIAN AND CAROTID ARTERIES: ARREST OF THE DISEASE.

(Under the care of Mr. PERCIVAL.)

[From notes kindly supplied by Mr. ANDLAND and Mr. WEATHERLY.]

F., aged 43, a charwoman, married, was admitted on July 24th, 1887, under the care of Mr. Percival. Her family history presented nothing of importance, except that her mother, grandmother, and her sister had died of phthisis. She seems to have been healthy all her life, her only illness having been an attack of typhoid fever when

hard skin. There is a pulsating tumour just above the right sterno-clavicular joint, and bulging to the tracheal side of the sternomastoid. It projects upwards about an inch above the clavicle, and is about an inch across; its lower limit cannot be defined. It is distinctly pulsatile, lateral expansion being well marked; is only slightly tender to the touch; the skin over it is not reddened, nor is there any sign of inflammation. The patient complains of a good deal of pain in it at times; her rest is much disturbed, and there is occasionally a certain amount of dyspnoea at night. The voice is distinctly affected, the patient being only able to speak in a husky whisper. It is difficult to get a good view of the glottis, but the false cords are swollen, and there is some paralysis of the right vocal cord. The pulse differs greatly on the two sides of the body, as shown by the sphygmographic tracings given below.

There is a loud rough *bruit* heard in the tumour and over the upper part of the sternum. The patient complains of difficulty of swallowing, and has lately been subject to severe headaches, which are increasing in intensity. No signs of old syphilis can be detected. She was placed on a very limited diet, and 20 grains of iodide of potassium in infusion of gentian given three times daily. An ice-bag was also applied to the swelling, but caused such pain that it was discontinued after the first day. She was kept strictly in bed, and perfect quiet enjoined. This treatment was continued till September 25th, when the patient was heartily sick of it, and anxious for something else to be done. The tumour had meanwhile considerably increased, probably to double its size on admission; the pulsations in it were very strong; there was more pain and dyspnoea, and the voice had sunk to quite a low whisper; the nights were very sleepless, and some prominence of the eyeballs was noticed about this time. On this date, therefore, the patient being placed under ether, Mr. Percival first tied the subclavian in the third part of its course, and then the common carotid; the only noticeable feature in the operation being the difficulty of finding the carotid artery, which was pushed so much outwards by the aneurysm that it was almost at the outer border of the sternomastoid muscle. Both arteries were tied with chromicised catgut ligatures, and both ends of the ligatures were cut short; a small drainage-tube was inserted in each wound, silk sutures applied, and the wounds dressed with iodoform powder and Gamgee tissue. The right arm was enveloped in cotton-wool, also the right side of the neck and head. Twelve hours after operation, the patient was very comfortable, complaining only of slight pain in the head, and some numbness and tingling in the right arm, which was, however, quite warm. After this she went on remarkably well. On the third day the dressings were removed, and the wounds found to be healed by primary union, except where the drainage-tubes had been inserted; these were now removed, and in two more days the wounds were quite healed and gave no more trouble. There was no pulsation in the temporal or radial arteries. She took her food well, and the numbness in the right arm gradually disappeared.



years old. She has two daughters alive and well, and has had besides three children, one born dead, another which died of some severe skin eruption which she describes as small-pox (*syphilis*?), and another which only lived three weeks. She first noticed the

October 10th. The patient had been kept quite quiet in bed; the tumour was certainly smaller and firmer, but with still much pulsation in it and a loud *bruit*; the voice, dyspnoea, and other symptoms had also improved.



tumour two years ago, and it had been slowly increasing in size since then. The patient is a very thin woman, with a very dry

October 30th. Though the patient had been constantly kept quiet in bed, the tumour seemed to have increased slightly, and the

voice was again weaker. She was, therefore, put on a lower scale of diet, and 10 grains of iodide of potassium, with 20 drops of tincture of digitalis, given three times a day.

November 7th. The digitalis was increased to 25 minims.

November 10th. The digitalis had caused such faintness, without exercising any appreciable effect on the tumour, that it was discontinued, and the following mixture substituted: Pot. iod. gr. xxx, vin. antimonialis ℥ xv, tinct. opii ℥ iv, dec. sarzæ co. ℥ i, three times a day.

December 21st. The iodide and antimony had had a marked effect in lowering the force of the circulation; the pulse in the left wrist was very small and weak—in fact, perceptible with difficulty; the tumour was smaller again, and felt harder and firmer, but there was still much pulsation in it, and also *bruit*. Shortly after this date all medicines were discontinued, and the patient was allowed gradually to get up a little more each day without any harm resulting to the swelling; and on January 21st, at her urgent request, was allowed to go home, the tumour being about the size of a bantam's egg, and distinctly pulsatile, but feeling considerably firmer.

April 20th, 1888. The patient presented herself for examination. The tumour was still the size of a bantam's egg, but much firmer; distinct *bruit* over it, traceable up the right side of neck, but nowhere else; no right brachial or radial pulse; no right temporal pulse. Sight good, and equal; no deafness. Heart's apex beat in fifth interspace, in line drawn vertically through the nipple; extent of heart's dulness increased; no *bruits*; heart-sounds clear; voice quite good and strong; still some slight laryngeal cough at times. No difficulty of swallowing, and much less headache. The right arm was slightly smaller than the left, and felt weaker after working some little time. The patient said she felt quite well and strong, and had been doing all her house work and washing. She was anxious to continue her occupation as a charwoman, but was advised not to do too much hard work again—an admonition to which she will probably pay little attention.

REMARKS.—Though an absolute cure cannot be claimed for this case, it still, in my opinion, deserves to be put on record, on account of the complete arrest of all dangerous symptoms. It is now seven months since the operation; the patient has for three months resumed all her active duties, not only without causing any increase in the tumour, but with such comfort that she is anxious to get back to her ordinary hard and laborious occupation. The only medicine that seemed to do good was antimony; this was continued for several weeks until the pulse was most distinctly affected, and it seems to me to have largely contributed to the good result in this case when the tumour began again to increase after the operation.

CHIRING CROSS HOSPITAL.

SUBPERIOSTEAL REMOVAL OF HALF OF LOWER JAW; RECOVERY, WITH ALMOST ENTIRE RESTORATION OF THE BONE AND PERFECT MASTICATORY MOVEMENT.

(Under the care of Mr BELLAMY.)

[From notes by Mr. G. GOLDNEY.]

FLORENCE W., aged 6, was admitted on January 21st, 1887, with extensive necrosis of the left half of the lower jaw. She had already been operated upon, and excision of the entire bone from the outside advised by a hospital surgeon. This the mother would not consent to; and she was placed under Mr. Bellamy's care.

On admission, the child had a most marked strumous aspect, the left side of the face being enormously swollen, the swelling extending over the temporal region. There was a sinus just in front of the external auditory meatus and one below the angle of the jaw.

On January 30th Mr. Bellamy enlarged the opening in the superior sinus, and removed the condyle, ramus, and angle, and opened up the remains of the sinus just under the angle. The periosteum was free and loose and retained the original form of the bone in a most remarkable manner.

February 1st. The discharge was profuse and very offensive, although the cavity had been drained antiseptically. On the 7th the swelling began to decrease, and the discharge was quite healthy. On the 14th a small spicula of bone was found loose and removed from near the symphysis.

The child made an uninterrupted recovery, with the exception of some slight paralysis of the orbiculares palpebræ and oris.

Seen on April 24th, 1888. The two sides of the face are nearly equal in size; there is a small cicatrix behind the angle of the jaw; and on manipulation the new jaw feels somewhat nodulated, no doubt soon to mould itself into proper form. The articulation seems to be perfect, and the movements of the jaw as free as possible. In fact, there is no deformity at all. The teeth behind the first bicepsid have gone.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, MAY 25TH, 1888.

W. H. BROADBENT, M.D., F.R.C.P., President, in the Chair.

Conclusions of the Myxœdema Committee.—Dr. ORD, as the Chairman of the Myxœdema Committee, read the following conclusions. He admitted that the time taken up in the investigation was protracted, but he claimed that when the results were known the time would not appear out of proportion. 1. That myxœdema is a well defined disease. 2. That the disease affects women much more frequently than men, and that the subjects are, for the most part, of middle age. 3. That clinical and pathological observations respectively indicate, in a decisive way, that the one condition, common to all cases, is destructive change of the thyroid gland. 4. That the most common form of destructive change of the thyroid gland consists in the substitution of a delicate fibrous tissue for the proper glandular structure. 5. That interstitial development of fibrous tissue is also observed very frequently in the skin, and with much less frequency in the viscera, the appearances presented by this tissue being suggestive of an irritative or inflammatory process. 6. That pathological observation, while showing cause for the changes in the skin during life, for the falling off of the hair and the loss of the teeth, for the increased bulk of the body as due to the excess of subcutaneous fat, affords no explanation of the affections of speech, movement, sensation, consciousness, and intellect, which form a large part of the symptoms of the disease. 7. That chemical examination of the comparatively few available cases fails to show the general existence of an excess of mucin in the tissues adequately corresponding to the amount recorded in the first observations, but that this discrepancy may be in part attributed to the fact that tumefaction of the integuments, although generally characteristic of myxœdema, varies considerably throughout the course of the disease, and often disappears shortly before death. 8. That in experiments made upon animals, particularly on monkeys, symptoms resembling, in a very close and remarkable way, those of myxœdema have followed complete removal of the thyroid gland, performed under antiseptic precautions, and with, as far as could be ascertained, no injury to the adjacent nerves, or to the trachea. 9. That, in such experimental cases, a large excess of mucin has been found to be present in the skin, fibrous tissues, blood, and salivary glands; in particular the parotid gland, normally containing no mucin, has presented that substance in quantities corresponding to what would be ordinarily found in the submaxillary gland. 10. That the full analysis of the results of the removal of the thyroid gland in man demonstrates, in an important proportion of the cases, the fact of the subsequent development of symptoms exactly corresponding with those of myxœdema. 11. That, in no inconsiderable number of cases, the operation has not been followed by such symptoms, the apparent immunity being in many cases probably due to the presence and subsequent development of accessory thyroid glands, or to accidentally incomplete removal, or to insufficiently long observation of the patients after operation. 12. That whereas injury to the trachea, atrophy of the trachea, injury of the recurrent laryngeal nerves, injury of the cervical sympathetic, and endemic influences have been, by various observers, supposed to be the true causes of experimental or of operative myxœdema (*cachexia strumipriva*), there is, in the first place, no evidence to show that, of the numerous and various surgical operations performed on the neck and throat, involving various organs and tissues, none, save those in which the thyroid gland has been removed, have been followed by the symptoms under consideration; that in many of the operations on men, and in most, if not all, of the experimental operations done by Professor Horsley on monkeys and other animals, the procedure avoided all injury of surrounding parts, and was perfectly

aseptic; that myxœdema has followed removal of the thyroid gland in persons neither living in, nor having lived in, localities the seat of endemic cretinism; that, therefore, the positive evidence on this point outweighs vastly the negative, and that it appears strongly proved that myxœdema is frequently produced by the removal, as well as by the pathological destruction, of the thyroid gland. 13. That whereas, according to Clause 2, in myxœdema women are much more numerously affected than men, in the operative form of myxœdema no important difference of the same kind is observed. 14. That a general review of symptoms and pathology leads to the belief that the disease described under the name of myxœdema, as observed in adults, is practically the same disease as that named sporadic cretinism, when affecting children; that myxœdema is probably identical with cachexia strumipriva; and that a very close affinity exists between myxœdema and endemic cretinism. 15. That while these several conditions appear, in the main, to depend on, or to be associated with, destruction or loss of the function of the thyroid gland, the ultimate cause of such destruction or loss is at present not evident.—The PRESIDENT congratulated the Society on the completion of this important investigation, and said their thanks were due to the Committee for the enormous work and the zeal and ability which had enabled them to present this summary of the report, and practically the report itself, during the present session. When they heard the conclusions and imagined the enormous amount of investigation and research and inquiry which was embodied therein, four years seemed a comparatively short period for the completion of such a labour. The report would make the present session memorable. It reflected the greatest possible credit upon the Society. It was the most important work yet carried out in its name. Already the labours of the Committee had served to stimulate the carrying out of similar investigations in Germany, where men had been first convinced of the reality of the disease from the labours of the Society and its Committee. He thought the members could hardly thank sufficiently the authors of the report, in which it appeared that the only person not heard of was Dr. Ord, the chairman and director of the investigation. His name, nevertheless, would for all time be associated with the literature of the disease.

Two Fatal Cases of Acute Intussusception occurring in Infants, aged 3 and 4 months respectively.—Mr. R. W. PARKER related particulars of these cases. He drew chief attention to the uncertain onset, and to the absence of symptoms indicative of acute strangulation, such as the *post-mortem* examination proved in these cases to have existed. The pain was not excessive and was short in duration; vomiting occurred only during the first twelve hours, and only after taking the breast; in neither case was much blood-stained mucus discharged from the rectum; and there was never any straining or tenesmus. Constipation was the most important feature. The author argued that the absence of some of the most classical symptoms, or their very slight prominence, was a bad rather than a good sign, especially so in cases where an intussusception was, from other indications, known to exist. Thus, if the gut were tightly strangulated it would quickly become gangrenous, and therefore painless, and as the circulation through the gut would be arrested nothing could pass from it or through it, hence constipation, as well as an absence of blood and mucus. The difficulty of satisfactorily treating such cases was dwelt on.—Dr. FORDYCE BARKER (New York), in response to an appeal from the President, expressed his sense of the compliment, and said that he had seen quite a number of these cases. In early stages of the malady he would inject glycerine in small quantities, such as one or two drachms, with equal quantities of water, until toleration was established; and then continue such injections until quite a large amount was used. He thought that surgery did not seem to offer much chance of curing the condition.—Mr. HARRISON CRIPPS remarked that there was not complete absence of blood-stained mucus, as dwelt upon by Mr. Parker, in his case, though it was present only in small quantities. As to treatment, he was glad that Mr. Parker had called attention to the danger of injecting water, except in an early stage. He had had a similar accident himself, and had since been very careful as to the amount of pressure employed, except quite at the beginning. The patient was a girl, 18 months old, with symptoms which had lasted four or five days. The intussuscepted bowel was felt two inches from the anus. Water was gently injected, and the bowel receded; the head was then inverted, and more water used. The child became faint, vomited, and in two or three minutes died. At the *post-mortem* examina-

tion the strangulated bowel reached to within five inches of the anus. There was a rent of considerable size just below it, and water and oil were found in the peritoneal cavity. The injection had been made very gently with a Higginson's syringe. Another interesting case which came under his notice was that of a child 7 months old with a history of a fortnight's illness, with vomiting and what the mother called diarrhoea, but which turned out to be the passage of the characteristic blood-stained mucus. The symptoms, however, had passed off during the two days just before the child was seen, and the mother had only brought the child along on account of something "sticking out of his back passage." On examination, something that looked like part of a red herring was seen projecting, on gently drawing out which it was seen to lead to what looked like a healthy intestine. Mr. Cripps contented himself with cutting off the slough, and admitted the child under Mr. Baker. The child remained in the hospital for about a month, during which time every day the house-surgeon removed a piece more of this extruded slough. Ultimately the child left perfectly well, but died of scarlet fever eight months later, when a *post-mortem* examination was made, the specimen being now in the hospital museum. The most extraordinary condition of things was found, the small intestine being found directly attached to the anus. There was no trace of ascending, transverse, or descending colon, nor rectum, which must have come away as a slough. This case showed what Nature would sometimes do if she was only given a chance. Early in these cases he advised a trial of injections or laparotomy and the unravelling of the intussusception. Later, where there was much vomiting, he recommended Nélaton's operation, the opening of the most prominent coil of intestine through the abdominal wall. Large quantities of feculent matter would pass by the new opening, whilst Nature might be able to remove the invaginated bowel, and possibly leave the intestine patulous.—The PRESIDENT remarked that no member had spoken of the use of gaseous instead of liquid injections.—Mr. PARKER, in reply, said that, should another opportunity occur, he should remember Dr. Fordyce Barker's suggested plan of treatment. The blood-stained discharge was very slight in his case, and only occurred at the beginning. At the latter part of the case it came only when the finger was introduced into the rectum. In Mr. A. E. Barker's case, which was to have been read there that evening, the tumour was felt from the front of the abdomen. Early treatment he thought should consist of enemata of water, which was possibly better than air, as one could easily calculate the quantity of water which was injected.

Rupture of Intestine without External Wound.—Mr. HERBERT PAGE described two such cases. He said that the interest attaching to the paper by Mr. Mayo Robson and the discussion upon it on February 10th had led him to contribute two cases in which laparotomy was fully considered; moreover, one of them exemplified a point to which no reference was made on that evening. Case I was that of a man aged 50, over whose right iliac region a cab had passed on the morning of April 5th, and who was admitted into St. Mary's Hospital the following day in great pain and with very marked collapse. Rupture of intestine was diagnosed, but the amount of collapse seemed entirely to forbid laparotomy. There was no improvement during the day, and he died the next morning, forty-four hours after the accident. A rupture of the small bowel was found four feet and a half above the ileo-cæcal valve; and, in addition to some smaller contusions in the cæcum and neighbouring ileum and much mesenteric extravasation, there was a knuckle of deeply-congested gut an inch and a half in length. It was thought that, even if laparotomy could have been done soon after the accident, when diagnosis probably could not have been at all sure, and the ruptured portion had been satisfactorily dealt with, this other piece of bruised intestine could hardly have been left alone. The danger of leaving it—namely, of secondary perforation from sloughing—was by no means imaginary, as was shown by the history of the second case, that of a lad aged 18, who was butted in the belly—left iliac region—while at play with some other boys. He instantly had intensest pain, and when admitted to St. Mary's, sixteen hours afterwards, on July 27th, gave a history of incessant vomiting since the accident. There were external signs of severe contusion, and marked evidences of local peritonitis to which his symptoms were regarded as due, but there was nothing specially suggestive of perforation, or of the need for opening the abdomen. Opium was accordingly given, and during the next three days there was undoubtedly improvement. On the night of the 30th, however, there was sudden and alarming col-

lapse. He rallied from this, and for three days seemed doing well again, but on August 3rd collapse returned. From this there was no decided rally, and he died on August 6th. Necropsy revealed extensive hypogastric peritonitis, and offensive pus in the left iliac fossa, where the blow had been sustained. A perforation was found in the small intestine, in the centre of a deeply congested sodden portion. This opening had thickened edges, and was surrounded with lymph. It was believed that this perforation occurred only on the fifth day after the accident, as the result of the sloughing of a portion of severely contused gut, and the author pointed out that had laparotomy been done when the lad first came to the hospital, no more difficult question could well have presented itself than that of determining whether this contused piece ought or ought not to have been resected. In neither of the cases was it thought that the chances of successful laparotomy were anything but the very poorest, but yet, as laparotomy alone gave a hope of life, it was, perhaps, right to operate, even though gravity of symptoms and uncertainty in diagnosis seemed to forbid it. It must be rare to meet with cases of abdominal injuries where there was no complication of any kind, or in which a simple rupture in one place was the only lesion, and these were considerations to be borne in mind when laparotomy was undertaken or entertained.—Mr. CROFT read the notes of a similar case in a man, aged 34, admitted on March 16th, 1887, having been injured in a row seventeen hours before. On admission his temperature was 103°. He at once cut down, and found three different lesions: a ruptured ileum, a lacerated mesentery, and a perforated omentum. The peritoneum was irrigated with a warm solution of boracic acid. An artificial anus was made, but it was found necessary to close this. On the second operation, on April 4th, the laceration was sutured, the operation taking two hours and a quarter, and the man being very prostrate. The man died thirteen hours after the operation from sheer exhaustion. He considered the case to be a crucial one in the history of intestinal surgery, as showing that resection of the bowel might be safely undertaken even when acute septic peritonitis had been set up. He strongly advocated early exploratory laparotomy, with resection if necessary. In cases of doubt an exploratory incision should always be made. He would divide the cases into three classes: 1, those in which laparotomy was done for exploratory purposes; 2, those done later, where the diagnosis was already established; 3, those later still, in which septic peritonitis had occurred. Everything was in favour of exploratory laparotomy, as stated in an able paper by Dr. Chavasse. If the abdomen were opened with all precautions, the patient was afterwards no worse off than before, even if no lesion of intestine were found, whilst, if a distinct laceration of the bowel had occurred, then was the time to operate. He thought the establishment of an artificial anus was not so successful as resection of the injured intestine and immediate closure of the external wound. In his own case he had followed the advice of several eminent metropolitan surgeons. The operation saved the man's life at the time; but in consequence of the malnutrition resulting from the too early escape of partially digested food he could not bear the tedious second operation of resection of the bowel. Had the resection been done at first he believed the life would have been saved. When the case was known to be one of ruptured intestine the surgeon should promptly decide in favour of resection. The peritonitis already established might be thereby abolished by the antiseptic method of operation.

Case of Stone in which Lithotomy was Performed Twice within Two Months.—Dr. WARD Cousins (Southsea) described the case, and said that it suggested the purely local character of some urinary formations. The patient, aged 40, a fish dealer, was admitted into the Royal Portsmouth Hospital in January, 1882. There was no family history of gout, rheumatism, or urinary trouble. He had suffered thirteen years from renal and vesical symptoms, and had constantly passed small stones and gravel; altogether he had discharged over half a pint. He had been a great sufferer, and during the nine months before his admission he had been confined to bed. The urine was extremely offensive, and loaded with muco-pus. It often contained blood and small clots. The left loin was extremely tender and painful, and he had had many attacks of orchitis in the same side. On sounding there was no ring or thud, but the bladder was filled with an immovable mass. Two ounces and a quarter of stinking concretion of the consistency of fresh mortar were removed by lateral lithotomy. He left the hospital well in a month. Three weeks later he returned with a stone lodged in the neck of the bladder. After many failures to

seize it with long forceps, and other efforts to return it into the bladder, so that it could be crushed, median lithotomy was performed. He was again discharged, apparently well, in three weeks. During the past six years he had enjoyed good health, and had daily carried on his business. The urine had been frequently examined. It still contained a trace of muco-pus and albumen. No renal elements had been detected by the microscope. The urea was always a little below the normal, varying from 1.3 to 1.7 per cent. Since the operations he had never passed any gravel or particle of stone. He was in good health on May 20th, 1888. The dried concretion removed from the bladder at the first operation, and also the urethral calculus extracted at the second operation, were exhibited. Dr. Cousins then remarked that the history of the case, the symptoms, and the persistent discharge of small concretions clearly indicated that the patient was the subject of chronic calculous pyelitis, and that part of the renal gravel passed along the urinary passages and escaped through the urethra, while another portion was trapped in the bladder. At the time of the operation the calculous mass presented throughout a uniform appearance. In consistency it resembled fresh mortar, and there were no traces within it of concentric deposition. An analysis of the symptoms suggested the presence of a compound renal and vesical disease, although the most urgent manifestations pointed clearly to disorder of the bladder. A group of renal symptoms, radiating from the left groin, were present throughout the illness, but these were in a measure overlapped by the characteristic signs of bladder trouble. The composition of the urine, however, and the continuous discharge of small concretions, rendered the existence of chronic pyelitis or nephro-pyelitis clearly evident. With reference to the treatment, the dangerous and prostrate condition of the patient suggested an immediate effort to clear out the bladder, and to establish continuous drainage. The presence of a foreign body of some kind was certain from the examination; at the same time, the absence of any click or thud, the roughness of the surface, and the immobility of the mass, rendered it probable that some complication would have to be encountered. The lateral incision was selected for the purpose of obtaining a thorough exploration of the bladder. The operation insured a free and incontinent escape of urine with complete rest for the diseased organ, and removed at once all painful micturition and straining. It permitted, moreover, the effectual drainage and washing out of the diseased vesical cavity. The cystotomy had a very beneficial influence over the whole urinary tract, as the discharge of all the renal products was secured directly after their formation. The second lithotomy was done to relieve the acute sufferings of the patient after many failures to remove the calculus through the urethra, or to return it into the bladder, so that it could be seized with a lithotrite. During the last six years the patient had enjoyed good health. The old vesical symptoms had never recurred, and he had never passed a particle of calculous matter. Still the cure was not actually complete. The urine contained a few pus cells mixed with epithelium shed from some part of the lining membrane of the urinary passages. Ought the case to be regarded in the light of a local trouble, and all its manifestations the outcome of a chronic calculous pyelitis? Or, on the other hand, must it be considered as a constitutional disease? The subjects of urinary concretions were generally described as labouring under some sort of diathetic tendency. Sometimes the existence of a special diathesis was only a conjecture, and pathological processes limited to the urinary track itself were quite sufficient to explain the precipitation and concretion of the ordinary constituents of the urine. The disorder in this case probably broke out in the pelvis of one kidney by the occurrence of a pyelitis. Then followed the deposition of the uric acid in the solid form. At the same time the inflammatory elements themselves served as points of deposit for the formations. The cause of the pyelitis was obscure, and whatever morbid forces might have been active during its initial stages, when once it was established it could be fairly regarded as the chief factor in the production of the renal gravel and small concretions. With a concentrated condition of the urine, a persistent obstruction to its discharge, and the presence of muco-purulent secretion, some of the exciting causes were present which tended towards the deposit of calculous matter, without an abnormal increase in the excretion of uric acid.—Dr. ORD thought the consideration of the case very important, and suggested that a committee should report upon it.—Dr. MAGUIRE referred to Sir W. Roberts's researches upon the matter.—The PRESIDENT nominated Dr. ORD, Dr. MAGUIRE, and Dr. GARROD, with Dr. WARD Cousins, as a com-

mittee to report upon the case, and expressed the hope that the report might be concluded in time to permit of its publication with Dr. Cousins's case in the forthcoming volume of the Society's *Transactions*.

The session then terminated.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, MAY 17TH, 1888.

WM. SEDGWICK, M.R.C.S., President, in the Chair.

Value of Antiseptic Precautions in Internal Urethrotomy.—Mr. BRUCE CLARKE drew attention to the fact that though this operation had been advocated for many years in certain cases of stricture, which did not yield readily to dilatation, yet it had never been generally accepted by surgeons. This was due partly to the fact that its results were not supposed to be good, and partly to the dangers of the operation itself. As to its results, it was often urged that the worst strictures were always those in which urethrotomy had been performed. Of course, this was perfectly true, but it would be fairer to state that it was only the worst strictures that were submitted to urethrotomy. If strictures were neglected after the operation they of course recurred, and this gave a certain currency to the idea that it was the internal urethrotomy that had made them relapse. The dangers of the operation itself were, he maintained, dependent on septic fever; and it depended either on self-infection from a septic urethra or on dirty instruments. The latter source of infection could be easily guarded against by the thorough cleansing of instruments and catheters, whilst the purification of the urethra was no easy matter. To effect this, however, as far as possible, the urethra should be irrigated with sublimate 1 in 2,000 for several days beforehand, and when the stricture had been divided, the bladder should be washed out with a similar solution, and then with hot water at a temperature of 105° F. After this a catheter should be tied in for twenty-four hours. By this means the urine came very little into contact with the urethra, and septic infection was avoided. Fifteen cases were related in which the plan had been tried by the author, and he alluded to some others in which he had suggested the plan to other surgeons. The results were very successful.—Mr. SWINFORD EDWARDS said that in the last six internal urethrotomies which he had performed he had not only carried out the suggestions laid down by Mr. Bruce Clarke in his paper, but had administered boracic acid in ten-grain doses three times a day for two days before the operation, and for a few days subsequently, with a view of sterilising the urine, as suggested by Dr. Palmer in the *American Medical Practitioner and News*, August, 1887. In none of these cases did urinary fever supervene; but brilliant as was internal urethrotomy, he believed that the time was soon coming when it would be almost, if not entirely, supplanted by electrolysis for strictures in the deep or fixed urethra, which were unfitted for the simple treatment of dilatation.—The PRESIDENT spoke in favour of corrosive sublimate as an antiseptic; but he regarded the prolonged suppression of urine and the other severe symptoms which had followed the operation in the case referred to early in the paper as more due to shock than to blood-poisoning.—Mr. BUCKSTON BROWNE was interested in finding that in an advocate of electrolysis in the treatment of urethral stricture still practised the operation of internal urethrotomy. He should like to know why electrolysis was not employed in the cases just detailed. He had practised internal urethrotomy now for fifteen years, and had never lost a case; he therefore knew nothing of septicæmia as following the operation. He took great care to insure the utmost cleanliness of all instruments employed. He entirely dissented from Mr. Clarke's view that urethral fever was of septic origin, and maintained that the most perfect antisepticism would never do away with urinary fever in certain cases, after urethral operations, because the fever was caused by urethral shock or irritation acting reflexly through the nervous system upon the excretory renal apparatus.

EPIDEMIOLOGICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 9TH, 1888.

R. THORNE THORNE, M.B., President, in the Chair.

Age, Sex, and Season in Relation to Scarlet Fever.—Dr. WHITELEGGE read a paper in which he said that a detailed analysis of upwards of 6,000 notified cases showed that the liability to scarlet fever was slight in infancy, reached its maximum in the fourth or fifth year, and diminished every year afterwards. The severity

of attack, however, was greatest in the first two years of age, and lessened year by year throughout childhood and adolescence; in adult life there was apparently a slight increase again, the reality of which was open to doubt. Females were more liable to attack than males at all ages after infancy, and notably between 20 and 35 years, when the charge of children gave special facilities for infection; but the attacks in males, though less numerous, were more severe, and the death-rate was consequently higher among males in childhood. The scarlet fever death-rate reached its maximum in the third year of life in both sexes. Forty-two per cent. of the cases and 65 per cent. of the deaths occurred in the first five years of life; 40 and 26 per cent. respectively in the second quinquennium, and 11½ and 5 per cent. in the third. The advantage of postponing an attack was twofold; each year of age beyond the fifth diminished the susceptibility to attack, and each year of postponement lessened the average severity of attack if it should occur. Probably about two-thirds of the adult population had escaped attack altogether. As regarded season, the maximum of cases and of deaths occurred in October, and the minimum in April. It was probable that a scanty rainfall was favourable to the spread of disease. Besides the annual or seasonal curve, it was possible to construct a weekly curve, showing the number of attacks upon each day of the week. The result of this experiment in regard to 1,100 cases in Nottingham was to indicate a marked reduction in the number of attacks on Wednesdays, presumably due to less facility for infection on Sundays. Diphtheria and enteric fever were now known to be affected by other influences besides the accident of exposure to contact with previously infected persons. Scarlet fever had many points of resemblance to these two diseases, notably in its seasonal curve, and in this and other respects was in strong contrast to the typically infectious diseases such as small-pox, whooping-cough, and measles. One exceptional mode of infection in scarlet fever had been brought to light by Mr. Power's Hendon inquiry, but was probably not of frequent occurrence. Infection from a previous case was the obvious explanation of many cases of human scarlet fever, and might be true of all, or nearly all; but it could not be the whole truth. Some further explanation was needed to account for the well-marked seasonal and other variations in the prevalence of the disease.—In the discussion which followed, the PRESIDENT, Dr. MURRAY, Dr. LAWSON, Dr. MCKELLAR, Dr. E. C. SEATON, and Mr. BUTTERFIELD, took part.

SOUTH INDIAN BRANCH.

FRIDAY, FEBRUARY 3RD, 1888.

Deputy Surgeon-General S. B. ROE, M.B., C.B., Vice-President, in the Chair.

Traumatic Pleuropneumonia.—A case of pleuropneumonia following an accident to the chest was reported by Surgeon-Major E. F. DRAKE-BROCKMAN. The wheel of a dog-cart passed over the lower part of the right chest, and, though there was considerable pain in that side, with depression of the shoulder, and a painful catch on deep inspiration, no evidence of fracture of the ribs could be obtained. The patient had a sharp attack of pleuropneumonia, but recovered. Mr. Drake-Brockman commented on the rarity of the occurrence of internal injury to the lung and pleura by an accident which did not cause any damage to the external structures or ribs.—Surgeon-Major MACKINNON stated that inflammation of lung frequently occurred in prize-fighters after pugilistic encounters, even when no external marks of violence were present, the cause being probably traumatic.—Surgeon-Major BRANFOOT mentioned a case he had seen in which no injury to any of the ribs was detected after a most careful examination during life, but at the *post-mortem* examination one rib was found fractured, and pleural effusion had also taken place.—Brigade-Surgeon SIBTHORPE had also met with a case in which it was impossible to detect fractured ribs during life.

Subperitoneal Uterine Fibroid.—Surgeon-Major BRANFOOT showed a specimen of subperitoneal fibroid tumour of the uterus which had become the seat of primary cancerous deposit. The patient was a Hindu, aged 50. The growth was adherent at its upper and posterior part to the intestines, with a small abscess-cavity between the coils of the intestine and the left Fallopian tube and left ovary. There was much thickening also at this spot, with soft cancerous growth invading the mesenteric glands. The lumbar and left axillary glands were also much enlarged by secondary growth.

Mycetoma.—Surgeon F. CLARENCE SMITH exhibited a patient

who was suffering from fungus disease of the right hand and right axillary region. The disease had existed in the palm of the right hand for probably about five years, but he had been able to do agricultural work until two years before admission, when he fell off the top of a hut six feet high, the palm of his right hand at the time of the fall striking the earth, causing two days' pain; this gave a still greater increase to the size of the hand; and the fingers, which were until then unaffected, also swelled. At the same time the pain shot up the inner side of the arm to the axilla, where in a few days small nodular growths appeared. After detailing the condition of the sinuses in the axilla and palm which existed when the patient was shown, Mr. Clarence Smith observed that he had been able to discover only one other recorded case in which the disease clearly seemed to have been spread by the lymphatics to the glands above the seat of the disease, and pointed out that implication of the axillary glands immediately followed a blow on the affected hand. He had not found any previous record of a case in which the axillary glands were affected. The other case in which glands above the seat of the disease were affected was that recorded by Mr. D. Dymott (*Indian Med. Gaz.*, 1881); in that case the glands of the groin were diseased.

ROYAL ACADEMY OF MEDICINE IN IRELAND.
SECTION OF SURGERY.

FRIDAY, APRIL 13TH, 1888.

A. H. CORLEY, M.D., President, in the Chair.

On Suprapubic Lithotomy and Vesical Suture.—Mr. KENDAL FRANKS read a paper on this subject. The dangers of former methods were septic infection, urinary infiltration, and injury to the peritoneum. These were met by antiseptics, suture of the bladder, and by a combination of vesical with rectal distension. He then referred to the case of a man, aged 65, who had suffered from stone in the bladder for two years. He was a tall, large, heavy man, with a deep perineum and a large prostate, and on account of these conditions the suprapubic operation was performed on May 10th, 1887, the rectum and bladder having been both distended. The distance of the prevesical fold of peritoneum from the pubes was three inches. Three stones were extracted of nearly equal size, shape, and weight, without any facets, and weighing in all 666 grains. The bladder was sutured—first, by Lembert's method, with catgut, and then a second row of sutures, continuous, were inserted so as completely to cover in the first row. The external wound was drained from the prevesical space to the upper angle of the wound, and the bladder was drained with a soft rubber catheter, passed *per urethram*, which was kept *in situ* for five days. The bladder wound healed by first intention, and at no time was there any leakage of urine through the wound. The patient passed water without the aid of a catheter on the twelfth day and subsequently. The drainage-tube was retained in the wound until the tenth day, and Mr. Franks explained that this was done to prevent any mischief being done should the bladder sutures not hold. He recommended that the drainage-tube should always be retained in the external wound for at least seven days, as statistics showed that the vesical suture might yield as late as the sixth day. The patient was out of bed and walking about the wards on the fourteenth day. The calculi were uric acid, and measured $1\frac{1}{2}'' \times 1''$, $1\frac{1}{2}'' \times 1\frac{1}{2}''$, and $1\frac{1}{2}'' \times 1\frac{1}{2}''$ respectively. Mr. Franks showed that the objections to the vesical suture were more theoretical than real, and that when it succeeded it attained the ideal in suprapubic cystotomy. Statistics showed that up to 1886 it had been performed fifty-six times, and had succeeded in seventeen cases, being a percentage of 32 per cent. Since 1886 a few cases only had been published. The causes of failure in suturing of the bladder in the high operation were—(1) an anatomical one, that the external coat of the bladder in this region was fibrous, and not serous; (2) a thinned and diseased condition of the bladder walls; (3) injury to the edges of the wound by the manipulations employed to extract the stone; (4) a putrid condition of the urine. The advantages of suture were a shortened convalescence, ten days being on an average gained, and an effectual preventive against urinary infiltration.

Suprapubic Lithotomy.—Mr. F. ALCOCK NIXON read notes of the case of a gentleman, aged 81, who had, fifty-seven years before, suffered from "bleeding from the bladder and a stoppage of water." The bleeding occurred at intervals every five or six years for fifty years. The bladder was opened above the pubes, and two calculi were removed, one weighing 2 ozs. 30½ grs., the other

150½ grs. They were composed of the ammoniaco-magnesian and calcium phosphates. The bladder was sutured and drained, a tube was placed in the abdominal wound, and a catheter retained in the bladder. The temperature, which was 101° F., became normal on the evening of the third day; the urine became acid; the patient was quite free from pain, able to take food well and enjoy long periods of sleep. On the fifth day he died suddenly from syncope, from which he previously suffered on several occasions. After death the wound in the bladder was found to be healed, except about half an inch in the centre, from which urine had escaped through the abdominal wound for a short time on the second day, while the catheter was plugged with a blood-clot. There was no trace of peritonitis or of cellulitis.

Vesical Tumour removed by Suprapubic Cystotomy.—In the unavoidable absence of Dr. HEUSTON, this paper was read by Dr. ALFRED SCOTT. The patient, aged 48, suffered for four years from symptoms of vesical irritation, accompanied at gradually decreasing intervals by hæmorrhage of an arterial character, which for the later five months came freely at each period of micturition in a considerable quantity. A tumour was diagnosed by sounding, situated on the right side of the bladder, in addition to which a roughened condition of the bladder throughout was noticed. The presence of the large tumour was also demonstrated by rectal examination. The bladder being now washed out, a portion of the tumour came away, which was proved by Dr. Alfred Scott to be papillomatous in its nature. On March 15th, 1888, the bladder was opened by the usual suprapubic method, and a tumour somewhat larger than an orange, composed of three lobules, attached to the right wall of the bladder by narrow pedicles, was removed, as were also a number of smaller growths about the size of hazelnuts. The hæmorrhage, which was very copious, was at once controlled by a solution of tannic and gallic acids, subsequent to which the bladder was illuminated by the electric light, and then a stream of a weak solution of hazeline was passed into the bladder until it returned clear. The bladder was now closed, except sufficiently to allow of the introduction of a drainage-tube, care being taken to close the areolar spaces in connection with the bladder-wound. Subsequent to operation the patient progressed favourably for twelve days, the urine becoming normal in its character; but then the temperature suddenly rose to 104.2 F., the patient became delirious, and, although the temperature was subdued by quinine within twenty-four hours, the patient gradually sank and died sixteen days after operation. Dr. Bewley, pathologist to the Adelaide Hospital, performed a *post-mortem* examination, and found that there was no peritonitis, the bladder being firmly united to the abdominal parietes at the seat of the wound, which was healthy. The bladder was contracted; the anterior wall normal; the posterior thickened and cutting hard. In the centre of this surface a space about the size of half-a-crown, was covered with white flocculi of seemingly gangrenous tissue; this was the seat of the removed papilloma. The spleen and kidneys were healthy, there being no evidence of septic infection.—Mr. W. THORNLEY STOKER said that Mr. Franks had not referred to what was attracting a good deal of discussion in connection with suprapubic lithotomy; namely, the class of cases in which that operation should be selected. As far as any rule had yet been established on the subject it was this, that suprapubic lithotomy was to be performed in the adult in cases where the stone was too large to admit of its probably successful removal by perineal operation; that is, where the stone exceeded two ounces in weight, or where, because of its hardness or the great size of the prostate, there was not a likelihood that lithotripsy would be successful. Another question was as regards its performance in children. The suprapubic operation ought to be selected in all cases of stone in the bladder in children where lithotripsy could not be performed, as it did not endanger the child's procreative apparatus. There was a remarkable difference in the mortality of children on whom the operation was performed on the Continent as compared with those at home. While the mortality on the Continent was over 20 per cent., it appeared from Sir William Mac Cormac's paper that up to March last there had been 33 cases operated on in England without one death. Among adults, the mortality following the operation would be found to be about the same as that in the lateral operation for lithotomy—20 or 22 to 30 per cent. But in Dublin the mortality in perineal operations had not been so high. The suprapubic operation was one that had not as yet arrived at perfection, because, like many other operations, it was undergoing development since the introduction of antiseptics, and he looked forward to the time when the mor-

tality of from 20 to 30 per cent. would be materially diminished. —Mr. TOBIN suggested, with reference to the different expedients of obtaining room to make an incision, holding the patient's legs aloft. He had tried the experiment on a subject in the *post-mortem* room. Having half filled the bladder, he measured the amount of space uncovered by the peritoneum, while the subject was lying flat on the table. He then raised the subject, holding the legs aloft, and on measuring again he found he had double the space with the subject in the raised position that he had when prone.—After some remarks by Mr. J. H. SCOTT, Mr. M'ARDLE said that on the successful suturing of the bladder suprapubic lithotomy would greatly depend; and hence he called attention to a method which contra-indicated double suture as usually applied—namely, what was styled by Brenner "lace suture." After separating the mucous from the muscular coat, a thread was passed round the wound in the bladder through the *umbucosa*, two or three millimètres from the wound-border. A second thread was next passed through the muscular layer, three or three and a half millimètres from the wound-border, going round the wound in the same way, being further from the wound at its angle. The sutures were then drawn and tied in the order of introduction, so that all the walls of the bladder were collected into a dense mass at the point of the opening. In experiments on dogs it was found that the bladder thus closed withstood much higher fluid pressure than after button or ordinary double suture. He did not advocate this suture where the bladder wall was normal, since the usual double suture had succeeded in all cases favourable for its application; but when the bladder-wall was thinned or softened he would expect from the lace suture the best results. Brenner, its originator, claimed for it, among other advantages, that the bladder became functionally active immediately, and the catheter need not be retained; that the wound surface was very small, and healed quickly; and that the scar was thick and solid, and that only two small threads were left in the wound.—Deputy Surgeon-General JOYNT did not think that a case had been made out for suprapubic lithotomy to displace the lateral operation, with which he had been familiar in India, where he had operated in not less than one hundred cases. Out of that number he could only recollect one fatal case, and whether that was due to the operation or not he could not now say. He could understand, however, that the suprapubic operation would be an acceptable one in women, there being a good deal of trouble in operating on them. He had had cases in which he removed stones one inch and a half in circumference from young girls by dilatation of the urethra, aided by incision.—DR. CHANCE inquired what measure of distension was advisable, having regard to the fact that exploration was sometimes followed by a sharp attack of erythronitis.—MR. THOMSON was glad to hear Deputy Surgeon-General Joynt, whose great experience in India carried authority, say a word in favour of lateral lithotomy. With regard to removing big stones by the suprapubic operation, another operation was being practised now in India very successfully, in which there was no cutting at all; namely, an operation introduced by two distinguished graduates of Irish Universities—Surgeon-Major Keegan and Surgeon-Major Meyer. The results they had had from the crushing of stone quite eclipsed any from the cutting operations, and they were not deterred by the number of stones in the bladder. He believed the dangers in the suprapubic operation were not less than with lateral or median perineal operations, and that as large stones had been removed by the lateral operation as by the suprapubic.—THE RESIDENT said that Irish surgeons should speak with humility of the subject; for Dease had written that stone was a very rare affection in Ireland. Even after lithotrity had been introduced and established, Mr. Peel, one of the best operators in the city, used to protest he could not see in a cut in the perineum any such dangers as were imagined by some operators. At present cholapaxy, where it could be carried out, seemed most successful, and least trouble to the patient. He did not think enough had been said of the dangers of the lateral operation to rush to the suprapubic as a substitute. There were some cases in which the suprapubic might be the best, but it was not so in all.—MR. STANLEY took a more hopeful view of the future of suprapubic lithotomy, than had been taken either by the President or Mr. Thomson. As compared with the lateral operation, the suprapubic had many advantages. It was absolutely safe as regarded hæmorrhage, and nothing could be cut that would do harm. As Dr. Stoker observed, in children suprapubic lithotomy would become the recognised operation as not endangering the procreative

organs. The reason he himself performed the operation, the subject of his paper, was not because there were three stones present, but because there was great difficulty in sounding on account of an enormous prostate, and the perineum was so deep he could only get his finger half way up the prostate through the rectum. Moreover, the man being 65 years of age, he thought it was a case in which suprapubic lithotomy was indicated. The two great dangers of suprapubic lithotomy were also those of lateral lithotomy; namely, infiltration of urine and blood-poisoning; but, in suprapubic lithotomy, antiseptics could be adopted to a degree inadmissible in lateral lithotomy. Moreover, death from urinary infiltration was not a result very much to be feared. As regards Dr. Chance's question, the degree of distension would depend on the size of the rectum and the age of the patient.—MR. NIXON also replied. He had determined on the suprapubic operation from the condition of the urine, the condition of the bladder, and the large size of the stone, and also because he suspected there was a second stone, which turned out to be the case. He had no doubt that syncope was the cause of death. The patient had been afflicted with hæmorrhage of the bladder for over fifty-seven years. From an experience of one case he was not prepared to lay down a hard-and-fast rule as to the cases in which the suprapubic operation should, or should not, be performed.

REVIEWS AND NOTICES.

In Memoriam.—PHYSIOLOGICAL AND PATHOLOGICAL RESEARCHES. By the late T. R. LEWIS, M.B., F.R.S. Elect, Surgeon-Major A.M.S., Assistant Professor of Pathology in the Army Medical School. London: Published by the Lewis Memorial Committee. 1888.

THIS handsome volume, arranged and edited by Professor Sir William Aitken, F.R.S., and Surgeon-Major G. E. Dobson, F.R.S., and A. E. Brown, B.Sc., is published as a memorial of the late Dr. LEWIS, whose lamented death was due to fatal illness contracted in the active discharge of his scientific investigations at Netley. It consists of a reprint of his scientific reports and papers, with a biographical sketch and portrait of the author. The editors obtained the willing consent of Dr. D. D. Cunningham, of the Bengal Medical Service and Professor of Physiology in the University of Calcutta, for including in the volume papers and reports which were the joint production of Dr. Lewis and himself.

When Drs. Lewis and Cunningham were passing through the course of instruction in the Army Medical School in 1868, the attention of the scientific world was called to the fungoid theories of cholera, propounded by Hallier and De Bary. At the suggestion of the professors, the above-named gentlemen were sent to Germany to study this theory, not only under its expounders, but also under Pettenkofer and other eminent German physiologists. Thus prepared Drs. Lewis and Cunningham went to India, and were appointed by the Government to enter on a special investigation on the causation of cholera. The editors say: "Their first report was published as an appendix to the 'Sixth Annual Report of the Sanitary Commissioner with the Government of India, 1870,' and in the same way most of their subsequent work on this and kindred subjects from time to time appeared."

In March, 1870, Dr. Lewis first discovered nematoid worms in a living condition in a specimen of milky urine in Calcutta; an abstract of his report on this discovery was published in this JOURNAL, November 19th, 1870. It was in July, 1872, that he found the *filaria sanguinis hominis* in the blood of a Hindoo suffering from chyluria. The editors refer to the "full and masterly account" by Dr. Lewis of what is known of this disease in Quain's *Dictionary of Medicine* under the article Chyluria. We have only space to refer our readers to the work before us for the many valuable papers on physiological and pathological subjects on which Dr. Lewis wrote, and more particularly to the one in which he quietly extinguished Koch's comma-bacillus, which he showed to be "an old friend under a new name," a spirillum broken up by manipulation, even demonstrating the accuracy of his opinion by showing a "comma-bacillus" existing in the saliva of Professor Max von Pettenkofer himself.

The editors have paid an eloquent tribute to the value of Dr. Lewis's work, the nobleness of his character, and the loss science sustained by his untimely death; and the number of service sub-

scribers to this goodly and beautifully illustrated volume show how much the late Dr. Lewis's labours in the field of science were appreciated by his brother officers.

The Army Medical School has indeed been unfortunate in the too early deaths of Parkes, De Chaumont, and Lewis. Had the last-named survived to this day, the universal voice of the medical services of the British and Indian armies would have named him as a fitting successor to the late Professor of Hygiene. This chair his great chemical knowledge, and the whole scope and tendency of his researches, as demonstrated in this posthumous collection of his papers, show that he was eminently qualified, more perhaps than any of his contemporaries, to fill with distinction to himself, benefit to the State, and in full harmony with the traditions of a post made famous by the eminent men whose names will always be associated with it.

FIFTH REPORT OF THE STATE COMMITTEE ON LUNACY OF THE COMMONWEALTH OF PENNSYLVANIA. Harrisburg: 1888.

THIS Report bears marks of praiseworthy activity. The efforts made to rescue the insane poor of Pennsylvania from neglect and ill-treatment have been untiring, and the result has been an immense alleviation of human suffering. Much remains to be done, but there is every reason to believe that this energetic Board will continue its work until the dependent, helpless class now unprovided for, as well as those able to pay at least a part of the cost of their maintenance, will be able to secure prompt admission into the State hospitals.

It is needless to say that the fearful abuses which have crept into the management of the insane in the States are not peculiar to America. Probably no country can boast of having been free from them; certainly England cannot. The Legislature was slow to provide accommodation. It was left for philanthropists, as in our own country, to move in the matter, and it was only when public feeling was aroused, to a large extent by a lady, Miss Dix, that the Legislature was induced to provide State hospitals for the insane. There has, however, always been a large mass of lunacy outside the hospitals, and lunatics have suffered greatly from their miserable treatment in almshouses and human pig-styes. There are now five large hospitals for the insane provided, containing 4,222 inmates. In this special work, the above mentioned had an enormous and unique influence. Of this remarkable woman, we observe a biographical sketch in a recent number of the *Journal of Mental Science*, with a portrait, which conveys a striking impression of the force and dignity of her character.

It is satisfactory to learn that while in 1885, of the 65 almshouses in the State, 36 contained insane patients, in 1886 the number was reduced to 27, and in 1887 to 21. Again, in 1883, when the State Committee of Lunacy began its work, there were 1,610 insane in county poor-houses; in 1884, there were 1,161; in 1885, 1,057; in 1886, 875; and in 1887, 898, thus showing a decrease of 612 in county poor-houses. In private hospitals and licensed houses there are 567, in the Philadelphia hospital 509, and in prisons 63; making a total, with the 4,222 in hospitals, of 6,259.

A number of instances are given in which the Committee investigated the condition of patients stowed away in private houses or elsewhere, and, finding them in a very unsatisfactory and degraded state, had them removed to hospitals for the insane. No one can read this Report without seeing that the labours of the Committee are of the utmost value, and that they have vastly improved the condition of the insane in Pennsylvania.

Valuable Appendices succeed the Report, containing maps of the districts in which hospitals are placed, and plans of asylums. A remarkable feature of this section is the introduction of a series of such plans of asylums in other countries. Application was made by the Board to Dr. Hack Tuke for copies of plans of typical hospitals for the insane in Europe, with the result that these were procured from England, Scotland, Germany, and France. Such a collection renders the Report before us a document of permanent value for reference, not only for Americans, but for those who are interested in asylums for the insane in other lands. The English Commissioners in Lunacy might do worse than follow the example of the Pennsylvania State Committee on Lunacy in the preparation of their annual reports.

The Chairman, Dr. Morton, and the Secretary, Dr. Ourt, appear to be indefatigable in their labours, and deserve well of their State and country.

GENERAL COUNCIL

OF

MEDICAL EDUCATION AND REGISTRATION.

SESSION 1888.

Friday, May 25th.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

THE minutes of the last meeting were read, amended, and, as amended, confirmed. The Council then resolved itself into a Committee to continue the consideration of the recommendations comprised in the report of the Education Committee.

Instruction in Fevers.—The REGISTRAR then read the Rev. Dr. HAUGHTON's motion (second recommendation):—

"That candidates for the final examination be required to produce evidence that they have, so far as local circumstances will permit, studied fevers for not less than three months under recognised clinical instructors."

Sir DYCE DYCKWORTH said that in London the recommendation would only apply to small-pox and scarlet fever. He urged that men could hardly be expected to devote themselves exclusively to the study of fever for the whole three months.

Dr. GLOVER repeated his question as to whether the instructor might be a private practitioner, and whether "fever" meant zymotic diseases.

Professor HUMPHRY expressed a hope that the Council would not pass this resolution, seeing that it was very doubtful whether, if passed, it could be carried into effect. He deprecated recommendations bearing on special subjects, as tending to specialisation. If they suggested devoting three months to fever, why not three months in a lunatic asylum or skin hospital? One advantage of studying in the London Hospitals was that no such specialisation had yet taken place.

Dr. KIDD said that their object should be to make good general practitioners, and not specialists, but he thought that to send young men out into the world who had not seen anything of fever was little less than a scandal. He suggested that the best plan would be to address a recommendation to the schools to devise a means.

Dr. WILKS protested against placing fever among the special diseases. It was a most useful and necessary part of the ordinary curriculum of medicine.

Dr. STRUTHERS said that in many places infectious diseases had been sent away to special hospitals, and, so far, they had not the authority from the civic authorities to visit these hospitals. Doubtless if the Council made the recommendation the authorities would pay attention to it.

Mr. MACNAMARA thought that a means might be found, and suggested that the authorities at fever hospitals should be induced to admit students. In Dublin they were not only permitted, but invited, to attend.

Rev. Dr. HAUGHTON said the resolution was not his own, but was proposed by him on behalf of the Committee. He disagreed with parts of the resolution. He was prepared to put "fevers" instead of "fever," but he protested energetically against the introduction of the word "zymotic," which was bad Greek, worse English, and false in theory. He said that Professor Humphry seemed to proceed on the assumption that what could not be taught in three months in the lecture room at Cambridge ought not to be taught elsewhere.

Dr. STRUTHERS then moved the following amendment, which was seconded by Mr. WHEELHOUSE:

"That it is desirable that candidates for the final examination should have availed themselves of the opportunities within their reach of acquiring a practical knowledge of fevers."

The amendment was negatived.

A second amendment was moved by Sir JOHN SIMON, and seconded by Dr. PETTIGREW:

"That this recommendation be remitted to the Education Committee for further consideration."

This amendment was also negatived.

The original motion was then read from the chair and carried, 12 being for and 9 against.

Attendance on Labours.—Dr. KIDD moved the adoption of the third recommendation (seconded by Dr. LEISHMAN):

"That every student should be required either to attend for three months the indoor practice of a lying-in hospital, or to have

been present at not less than twelve labours, at least three of which he should have conducted personally under the direct supervision of a registered practitioner."

He said that six months' attendance in a lying-in hospital would do a student more real good than any other way of attending midwifery. He said the admission of a "registered practitioner" was the result of a compromise, as was the number (12) embodied in the resolution.

Dr. LEISHMAN objected to the assumption that when a student had attended 20 cases all had been done that was required. The great thing was that the student should receive proper instruction. He said that, in one school at any rate, the qualification for recording attendance on a midwifery case was touching the bedpost, so that a man who had touched twenty bedposts would be held to have attended 20 cases. The four or five cases which a man attended in Edinburgh were much preferable, seeing that attendance on midwifery cases involved a very serious loss of time.

Dr. GLOVER proposed as an amendment—
"That in this resolution the number 20 be substituted for that of 12."

He said that, having regard to the extreme importance of this branch of study, he must take the opinion of the Council as to the number. He said that the number (6) of attendances required by the Scotch schools was a discredit to the Council and to the examining bodies. Not only were not more than six cases required, but no proof was insisted upon as to how they were attended. He had been told that as a matter of fact the men did not attend even the six cases. In the majority of cases labour was over before the student arrived. He said that twelve cases did not afford a good opportunity of seeing any abnormality. The English bodies required twenty, and the Irish thirty.

Sir WILLIAM TURNER said it was quite true that the University of Edinburgh at present only asked for attendance on six cases, but steps were now being taken to bring about a condition of things almost identical with that shadowed forth in the terms of the resolution. He said that three factors had to be considered, namely, the student, the examining body, and the gravid woman.

Dr. Glover's amendment were agreed to, he doubted whether they could find a sufficient number of gravid women for the purpose.

Dr. HERON WATSON pointed out that the number of pregnant women was often not sufficient to provide even the six cases. Whatever the advantage might be of several students attending together, it was certainly not to the advantage of the woman. He suggested that students in the vacation might be enabled to attend cases with a practitioner, but he thought it was a mistake to lay down any hard and fast rule.

Mr. BRUDENELL CARTER explained how matters were carried on in London, taking the maternity of St. George's Hospital as a model. While the Council should not impose conditions on the Scotch Universities which they might not be able to carry out, that would not justify their pulling down the level of the London schools.

Dr. Glover's amendment was then negatived by 19 votes to 7. Dr. KIDD, speaking to the original motion, said he had voted for the amendment because he thought twenty better than twelve, but a hundred would be better than twenty. He regarded it as an act of justice. He then warmly defended the lying-in hospitals as at present conducted.

The PRESIDENT said that the resolution did not prevent men attending twenty cases, or more if they wished to.

The motion was then agreed to *nem. con.*

Hospital Attendance.—It was moved by Dr. STRUTHERS and seconded by Mr. WHEELHOUSE, that the fourth recommendation be as follows:

"In regard to hospital attendance: That means be taken to ascertain the regularity of the attendance; that every student shall, as far as possible, have served as dresser and as medical clerk, and have availed himself of the opportunities of attending the ophthalmic and other wards or hospitals for special cases; that the designation 'clinical instruction' be substituted for the designation 'clinical lectures;' that there be regulated clinical instruction to limited numbers; and that the certificate entitling the attendance has been, during a stated number of months, on 'hospital attendance with clinical instruction.'"

Dr. STRUTHERS explained that the recommendation was the outcome of a deliberation as to how the system of practical education could best be improved.

On Mr. MACNAMARA's suggestion, it was agreed to discuss the clause paragraph by paragraph.

Mr. MACNAMARA then discussed the means of ascertaining the attendance of students at clinical instruction, pointing out the failings of the various systems employed, and asked for some practical suggestion in this direction.

Mr. TRALE pointed out that to obtain satisfactory results the same students must follow the teacher, with which object in view they at Leeds had adopted the plan of subdivision into classes, which, he said, worked very well.

Mr. BRUDENELL CARTER said that the recommendation, as addressed to examining boards, was unnecessary and absolutely impracticable, and he should therefore vote against it.

Sir WALTER FOSTER characterised the recommendation as an excellent example of grandmotherly legislation, of which they had had too much in the past. If the examinations were made more thorough and more practical, the teaching would follow suit. He proposed to omit the entire paragraph.

Sir JOHN SIMON said the Council should not go into details which they might safely leave to the bodies concerned. He asked how the University of London was to ascertain regularity of attendance?

Dr. LEISHMAN expressed his satisfaction at finding that the recommendation was not to the taste of the Council. He said it would be absurd to send this recommendation down to the examining boards which had no direct control over the schools.

Mr. MITCHELL BANKS advocated that the subject of clerkships and dresserships should, at any rate, receive attention, seeing that certain bodies only required attendance at hospitals and did not insist on either of these posts.

Rev. Dr. HAUGHTON desired to get rid of the resolution altogether. They had special reasons in Dublin for trusting to examination rather than to registers of attendance. He said that the competition between the various hospitals there was very keen, and it was to their interest to get hold of the fees from the students without troubling too much about their attendance.

After some further discussion, in which Sir W. TURNER, Dr. BRUCE, and others took part, Dr. STRUTHERS, after condemning the University of London as a failure for the very reason that it could exercise no effective supervision over its students, said that, in view of the terms of Clause 15 of the existing recommendations of the Council in regard to the Final Professional Examination, he would ask leave to withdraw his motion, and, with the permission of the Council in Committee, the clause was accordingly withdrawn.

Instruction in Pathological Anatomy.—It was moved by Dr. STRUTHERS, and seconded by Mr. MACNAMARA:

"That greater attention be given to instruction in pathological anatomy than is required in the curricula of some of the examining bodies, and, with this view, that a course of not less than three months' lectures on pathological anatomy with practical instruction should be included in the curriculum of all the examining bodies, and that it should be made a separate subject of examination."

Sir WALTER FOSTER suggested that this and the remaining recommendations should be all withdrawn.

Dr. STRUTHERS suggested ironically that they should go back and withdraw the whole of the recommendations. He said that the study of pathology in this country was very much behindhand, although a question of the utmost importance; and he dilated on the shortcomings of pathological instruction in England.

Dr. TUKE, as the representative of a body which did not include pathology in its course, hoped the Council would pass the resolution.

Dr. WILKS said it ought to be made clear that by practical instruction they did not mean *post-mortem* examinations. He observed that the ignorance of men in respect of *post-mortem* appearances was something colossal. He could supply abundant examples of such ignorance, many of them having occurred in cases in which a fellow-creature's life was involved. He maintained that proper facilities were not afforded at Edinburgh for such instruction.

Sir WM. TURNER defended Edinburgh from the aspersions cast upon its system of pathological instruction.

Dr. WILKS would have liked to ask Professor Humphry how much direct experience students obtained at Cambridge?

Dr. HERON WATSON hoped that the student would not be burdened with an additional course, for which he would have to pay extra.

After some further discussion the motion was put to the vote and carried.

The Council then adjourned.

Saturday, May 26th.

JOHN MARSHALL, F.R.C.S., F.R.S., President, in the Chair.

THE meeting having been formally opened, the Council resolved itself into committee to continue the discussion of the recommendations embodied in the report of the Education Committee.

The Study of Insanity.—It was moved by Dr. TUKE and seconded by Dr. BANKS that the sixth recommendation should be as follows:

"That it is desirable that candidates for examination be required to have availed themselves of the opportunities within their reach of studying insanity."

Dr. TUKE pointed out that the study of insanity did not receive the amount of attention to which its intrinsic importance entitled it—in fact, that it was to all intents and purposes neglected. He urged that, both in the interests of the public and of the profession, it was desirable to put an end to a condition of things which was simply disgraceful.

Sir JOHN SIMON objected to the clause on the same ground that he had objected to its predecessor, namely, that it tended to specialisation.

A discussion ensued as to the means of giving effect to the recommendation if passed, and the motion was then put to the vote and carried by a large majority.

Curtailment of Lectures.—Mr. WHEELHOUSE moved that the seventh recommendation be as follows:

"That, in order to afford due time for clinical work, it is desirable that the number of systematic lectures be diminished."

The motion was seconded by Sir DYCE DUCKWORTH, but after a brief discussion it was withdrawn, by permission of the Council in committee, and the following motion by Dr. LEISHMAN, seconded by Dr. BRUCE, was substituted:

"That, in order to afford due time for clinical work, it is desirable that the number of systematic lectures be restricted, and that it be referred to the Education Committee to consider in what cases and to what extent this restriction should be applied, and to report to a subsequent meeting of the Council."

The motion was agreed to.

Subdivision of Examinations.—Mr. MITCHELL BANKS moved that the eighth and last recommendation should be amended to read as follows:

"That extreme subdivision of examinations for admission to the *Medical Register*, by allowing candidates to present themselves for the various subjects of examination separately, is prejudicial to sound professional education, and should be discouraged; and that this resolution be referred to the Examination Committee for their consideration and report."

He said that, while it was not fair to the student to require him to keep up too many subjects at one time, he thought the system of subdivision encouraged "grinding" more than any other system. He believed that such a recommendation, emanating from the Council, would influence the examining bodies.

Dr. KIDD, in seconding the above amendment (which was substituted for the original motion), expressed his approval of the object in view.

Dr. STRUTHERS praised the system adopted in Dublin of sessional examinations. He urged that it was impolitic to separate certain subjects, such as anatomy and physiology, which went naturally together, though no useful object would be attained by compelling the student to go up for, say, anatomy and chemistry together. He strongly disapproved of what he called the "dot and go one" system of the London Colleges.

After some remarks by Mr. BRUDENELL CARTER, Dr. GLOVER, and Mr. BANKS, the motion was agreed to.

The Council having resumed, it was moved by Mr. WHEELHOUSE, seconded by Dr. STRUTHERS:

"That the recommendations passed by the Council in Committee be received and entered on the minutes."

Sir JOHN SIMON suggested that the discussion by the Council of the resolutions should be delayed until a future meeting. He said that at least one resolution (No. 2, as to fevers) did not express what was intended by its proposer as to obliging the student to attend a special hospital where the general hospital did not give the necessary instruction.

Rev. Dr. HAYDON said that it was only in cases where fever

was not taught in the general hospital that they wished to insist upon the three months' course in a special hospital.

The PRESIDENT then read the resolution moved by Sir John Simon:

"That the report be referred to a future meeting of the Council for further consideration."

Mr. MITCHELL BANKS characterised the motion as preposterous, seeing that it would involve going over the ground again on that future occasion.

Dr. LEISHMAN objected to Sir John Simon's remark that the terms of Clause 2 were by no means those of the framer of the motion. He said that he perfectly understood and agreed with the motion as expressed in the terms thereof, and he objected to any attempt to adjust it so as to acquire a signification different from that which the Council had intended should be given to it.

Sir WALTER FOSTER said that the motion would have for effect to stultify themselves. He would have preferred that the work had been got through in sufficient time to enable the Committee to devote an evening to its consolidation. He said he perfectly understood what was meant by the fever instruction clause, and the designation of the instructor had purposely been left open.

Dr. GLOVER hoped Sir Walter Foster would at once take the opinion of the Council, for if it came up in October the whole thing would have to be gone over again, which would be an unconscionable waste of time.

Sir JOHN SIMON said that an economy of time might be a waste of character. What they did ought to be well done. They had already referred back two of the resolutions, and he proposed to refer that one also.

Dr. LEISHMAN said that as regarded No. 2 Clause, Dr. Haughton had begun by saying that it was not his motion, but that of the Committee, so that whether or not the terms were those preferred by Dr. Haughton did not matter.

Dr. STRUTHERS, speaking as the unhappy chairman of the Education Committee, objected to their being referred back. He moved that the Council adopt the recommendations.

Sir JOHN SIMON, with the consent of the Council, then withdrew his resolution, and the motion of adoption was agreed to.

Examination in Common Diseases.—Dr. GLOVER moved:

"That it be a recommendation to the examining bodies to include in their final examinations of candidates tests of their knowledge of common diseases and their treatment."

He said that unless they could get additional attention to the study of common diseases, it was of very little avail to hope to improve the curriculum. He thought such a recommendation was the logical conclusion of what had already been done.

Dr. HERON WATSON asked what was meant by "common diseases?" Was it "common and unclean?"

Sir DYCE DUCKWORTH resented the motion, as an insult to the examining boards of London.

Sir WILLIAM TURNER moved that "the Council proceed with the next business," and this was carried. The motion therefore fell through.

Aconitine in the Pharmacopœia.—The PRESIDENT read a letter from Dr. Thudichum, which was printed in the programme for the day's proceedings, bearing on the variable strength of the substance described as aconitine in the *Pharmacopœia*.

Dr. QUAIN protested against such letters being put into the programme, otherwise they would have endless communications of that kind. With regard to the particular letter, the *Pharmacopœia* Committee had gone very carefully into the subject. He said there was no preparation of aconitine for internal use in the *Pharmacopœia*.

On Mr. MACNAMARA'S motion, the letter was referred to the *Pharmacopœia* Committee, the President being requested to inform Dr. Thudichum what had been done.

The reports of the Finance Committee and of the Income and Expenditure Committee were received and entered in the minutes.

Defective Information.—It was proposed by Dr. STRUTHERS and agreed to:

"That the table showing results of preliminary examination in 1887, entered in the minutes of May 22nd (pp. 28, 29), be referred to the Education Committee, together with the examination papers indicated in the last column of the table as 'sent,' and that the Registrar be requested to apply to the examining bodies for any further information the Committee may desire."

Inspectors' Reports.—It was moved by Sir WILLIAM TURNER, and seconded by Dr. STRUTHERS:

"That the reports of the inspectors of the final examinations in medicine, surgery, and midwifery, along with any observations on the reports which the bodies inspected may make, be remitted to the Examination Committee for consideration and report to a future meeting of the Council."

Sir WILLIAM TURNER discussed the proper course to be followed with these reports, which he said was defined by the Medical Act (1886).

Dr. GLOVER observed that some expressions in the President's address seemed to indicate an intention to modify the reports, a course he strongly objected to.

The PRESIDENT said that he had asked to be associated with a sub-committee in order to discuss what to do with the reports. All he proposed was that they should be made clear and consistent with the object of the report, redundancies being eliminated. His object was twofold: (1) that the reports should contain an explicit conclusion, explicitly expressed; and (2) to strike out redundancies. Such alterations as might be deemed necessary would only be considered in the presence of the inspectors themselves.

The motion was then agreed to.

Distribution of Registration Fees.—Mr. MACNAMARA proposed: "That the fee paid for registration of the qualification or qualifications which admit a practitioner to the *Medical Register* should in future be credited to the Branch Council of the division or divisions of the kingdom in which the qualification or qualifications were obtained."

He said that the subject had been broached for the first time ten years ago, when he was chairman of the Registration Committee. The General Medical Council had no money and no income of their own, beyond the profit on the sale of the *Pharmacopœia*, the principal source of its revenue being the percentage rate based on the receipts of the Branch Councils. He said the whole intention of the Acts would be frustrated if the Branch Councils collapsed. He then discussed the present financial condition of the Irish Branch Council, which had a balance of £194 7s. 10d. It might be said that the Irish Branch Council was extravagant, but that was a matter for the consideration of the Council. He urged that the English Branch Council was unduly favoured in being able to meet just prior to the meeting of the General Council, which the other Branch Councils could not do. He maintained that after educating and examining men in Ireland, they ought to be credited with the registration fees. He had calculated that under the present system some £17,000 had gone to swell the exchequer of the English Branch Council, which should properly have gone to the others.

Dr. QUAIN, in replying to the cry of "justice for Ireland," criticised the expenditure of the Irish Branch Council, and compared its financial condition with that of the Scotch Branch Council. The money had been spent in holding unnecessary and uncalled for meetings, and the remedy lay in a more economical administration. He observed, moreover, that the fees which were paid in to the English Branch Council legally accrued to that Council, and could not be alienated even with the consent of the Council.

Dr. BRUCE moved "the previous question," but this was promptly negatived.

Sir WILLIAM TURNER, in seconding the motion, said the matter had been considered by the Scotch Branch Council, and it was not exclusively an Irish question. He urged that the usefulness of the Branch Councils was curtailed by this diminution in the fees accruing to them. He thought that in future the fees should be credited to the Council of the division where the man took his qualifications. He said the proposal was a reasonable one, and no objection should be raised to it; but, in view of Dr. Quain's contention as to the competency of the Council to modify the present system, he would leave the matter until a future occasion to be followed up.

Mr. CARTER moved, seconded by Dr. BRUCE,

"That the subject of Mr. Macnamara's motion be referred to the President, with power to consult the legal advisers of the Council on it, and particularly as to the competency of the Council to make an order to the effect of that proposal."

Sir JOHN SIMON suggested that the fee ought rather to go to the Branch Council of the place in which the holder of a qualification intended to practise.

The Rev. Dr. HAUGHTON observed that the result of this resolution would only be to postpone the discussion pending an opinion as to the legality of the proposal.

Mr. Carter's motion was then agreed to.

A motion brought forward by the Rev. Dr. Haughton in reference to the commencement of medical study by dental students, was withdrawn, it being pointed out that the proposal was unnecessary.

The Council then proceeded to elect the various committees.

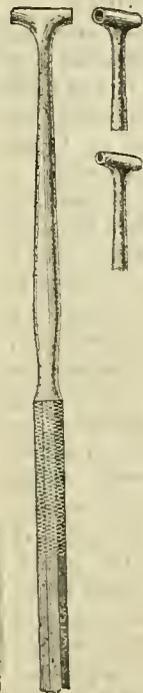
Mr. CARTER called attention to an advertisement issued by H. F. Partridge, and to the names of certain registered medical practitioners appended thereto.

The Council then adjourned.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW COMEDONES EXTRACTOR.

THE early and complete removal of comedones in the treatment of sebaceous acne is so important for the purpose of preventing the secondary consequences disfiguring to the patient, that I venture to draw attention to the accompanying illustrations of two simple steel instruments intended to supersede the use of the watchkey.



The smaller of the two, shaped like a pencil-case, I have found a valuable aid if held between the thumb and forefinger immediately above the pin of the spring stylette, the knob at the end resting in the palm of the hand.

The barrel being placed over the comedo, considerable and almost painless pressure can be applied with the surrounding flat and bevelled edge of the instrument, with the result of dislodging the accumulated sebaceous secretion.

The use of the spring stylette easily empties the barrel when filled.

The longer instrument, of simpler construction and attached to a handle, is better suited to the patient's own use before a mirror, as the hollow cross-piece placed at right angles to the shaft allows of unobstructed view.

The circular openings are of unequal diameter, to suit the varying size of the comedones.

The instruments have been made for me by Messrs. Weiss and Son, 287, Oxford Street, W.



J. HERBERT STOWERS, M.D., Physician to the Department for Skin Diseases at the North-West London Hospital.

SELF-DIGESTING WHOLE-MEAL BREAD.

(SAVORY AND MOORE.)

At the request of Dr. W. B. Cheadle, Messrs. Savory and Moore have produced a judicious variety of their malted food—namely, one made with whole-meal flour. It possesses all the advantages of whole meal, combined with those of diastatic foods. It is rich in albuminoids (12 per cent.) and phosphates. When mixed with milk, in the manner directed on the label, it forms an unexceptionable food, of excellent flavour. It is an improvement upon malted foods made with ordinary flour and malt meal only.

SEATREE'S CUMBERLAND BROWN BREAD MEAL.

(SEATREE AND SONS, LIVERPOOL.)

WE have received a sample of the above flour, and of a loaf of bread baked from it. Both are of the highest quality. The flour consists of whole meal, with 11.2 per cent. of albuminoids and 1.6 per cent. of fat. The loaf was exceedingly well baked and perfect in every way, free from excess of cellulose, which not infrequently, in coarsely-prepared whole meal, leads to irritation of the bowels and diarrhoea.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

 The British Medical Journal.

SATURDAY, JUNE 2ND, 1888.

 THE GENERAL MEDICAL COUNCIL.

THE forty-fourth session of the General Medical Council has been singularly uneventful, and it is easy to sympathise with the exclamation of an impatient member that if it had never been held the profession would not have been appreciably the worse. The greater part of the session was taken up by the customary academic discussions on suggested improvements in the existing arrangements for medical education, and especially for clinical instruction in certain subjects. Perhaps the most important piece of work was that done on Thursday, when a case in which a registered practitioner had acted as cover to an unqualified person, who was thereby enabled to carry on a medical practice as though he were a legally qualified practitioner, was heard. After a somewhat prolonged investigation, the practitioner in question admitted that he had inadvertently committed the offence, stated that he had discontinued the practice, and promised not to offend so again. The President administered to the erring practitioner a severe rebuke, which ought to be taken to heart by any who may have been tempted to commit a like indiscretion, for this plea of ignorance cannot be indefinitely repeated in the future. Though the Council in the two cases hitherto brought before it has wisely tempered justice with mercy, the time will assuredly come when the large penal powers which it possesses will be put in force. The practice of "covering" unqualified persons has no legal or moral justification, it inflicts a serious injury upon the public, and is a wrong to the profession. Upon this point the medical profession is, we believe, entirely at one with the Council. The employment of genuine pupils as assistants is an entirely different thing, and it may be authoritatively stated that so far from wishing to hamper this custom, it is the desire of the Council to favour the extension of the system. An attempt has been made to throw dust in the eyes of general practitioners by mixing up the two things, but they are essentially distinct, one being a useful part of the medical curriculum, the other a covert attempt to evade the law. The employment of an unqualified assistant is, however, only to be permitted under proper safeguards, and not either in complete substitution for the services of the principal or under circumstances in which due personal supervision and control are not or cannot be exercised by the principal.

The President stated that no less than seven cases of alleged "covering" had been brought to his notice, though in one

only had the evidence adduced justified the holding of an inquiry. The Council declines to take any share in the initiation of such inquiries, and assumes that it is only called upon to act in a judicial capacity; consequently, the labour of collecting evidence and sustaining the allegation before the Council, sitting in this judicial capacity, falls upon private individuals. This is much to be regretted, as it requires considerable moral courage to incur the possible odium which would attach to the failure to establish charges of "covering." The duty, it will seem to many, ought to be assumed by the corporations which have granted licences to practise to the accused persons. The corporations themselves possess certain disciplinary powers which could not be better employed than in sustaining or anticipating the action of the Council.

The greater part of the session was spent in the discussion of the report by the Education Committee. Its recommendations were in the end adopted with few alterations, and with only one important omission. By some one or other of the licensing bodies every one of these recommendations is already acted upon, though probably none are at present following all. The most important is that which states that, in order to afford due time for clinical work, it is desirable that the number of systematic lectures be diminished. This recommendation opens up a very important subject, for it will have to be recognised, sooner or later, by the corporations that the value of such lectures has been very much altered by the development of medical literature and by the increased complexity and extent of the subjects dealt with in the systematic courses. On the one hand, the lectures are rapidly falling in the estimation of students, who do not find them as indispensable as when textbooks were few and imperfect; and on the other, lecturers are compelled to deal in any single course with only a fraction of the whole subject, as when a lecturer on medicine limits himself to diseases of the chest or of the nervous system, which he finds afford more than sufficient material for one session. More will be heard of this matter, as it has been referred to the Education Committee to consider in what cases and to what extent the systematic lectures ought to be restricted; but it may be doubted whether any of the other recommendations will have much practical effect.

To tell students that they ought to avail themselves of the opportunities within their reach of studying fevers and insanity, is to give them very excellent advice, but as part of the requirements of examining bodies under existing conditions of keen competition among medical schools, the recommendation would, it is to be feared, be a dead letter. As to the third and fourth recommendations, it will be a surprise to many people that they should yet have to be made; that it should still be necessary to recommend that a course of pathological anatomy with practical instruction should be included in the curricula of all the examining bodies, and that every student ought to be required to be present at twelve and to conduct three labours is hardly creditable to the regulations now in force.

The first recommendation related, in the words of the President, to the "various substitutes for the beneficial purposes attained by the now extinct pupilage;" the main objection to the recommendation is that it would have the effect of prolonging the curriculum for six months, or of curtailing

the attendance in hospital. The last recommendation enters upon very debatable ground, although it was adopted without much discussion. The tendency of recent years has been towards the subdivision of examinations, and it may be doubted whether the University of Cambridge, for instance, would have adopted the practice if it were really so "prejudicial to sound professional education;" the recommendation may, however, do good by calling attention to the subject and preventing abuses.

It is worthy of note that the Council now consists of its contemplated number of thirty members, including the President; this has been brought about by the expiration of the term of office for which Dr. Matthews Duncan was nominated by the Crown. The vacancy thus created has not been filled up.

Sir John Simon having withdrawn from the Executive Committee, which he found too great a tax upon his health, his place was supplied by the election of Mr. T. P. Teale, who has been for twelve years a member of the Council.

DR. GASKELL AND THE MARSHALL HALL PRIZE.

SINCE the institution of the Marshall Hall prize ten years ago, it has very justly been looked upon as the blue ribbon of one division of the studies of medicine and physiology—that which deals with the nervous system. It is awarded only once in five years, and as yet there have been only three men who have received this very high compliment. The first two were men of not only English, but it might truly be said of European, reputation in their investigations of the nervous system by observation of disease and by the method of direct experiment—Dr. Hughlings Jackson and Dr. Ferrier; and now to these has been added a third, Dr. W. H. Gaskell, F.R.S. Though he graduated at Cambridge nearly twenty years ago, and became M.D. of that University in 1879, he has not turned his attention to the practice of his profession, but has kept it steadily fixed on some of the problems of physiology; and of those many problems he has chosen some of the most delicate and difficult, and has spared himself no trouble or expense to arrive at an accurate and complete solution. The magnificent opportunities which the University of Cambridge has been able to put at the disposal of its students in its great physiological laboratory, under the guidance of Professor Michael Foster, have never been more fully appreciated or put to worthier use.

The study of the influence of the nervous system on the heart and on all parts of the circulatory system is one of the most puzzling not only to the beginner, but to the advanced student. It is here first that he comes across the phenomena of inhibition of function by an efferent nervous impulse which everywhere else is an excitant; an inhibition, too, which does not seem when more closely analysed, and even after the arguments of Bernstein, to resolve itself into the withdrawal of a constant normal stimulus unconsciously supplied and conveyed by a nerve, but is the immediate and direct result of the application to the conveying nerve of anything that usually acts as a stimulus to the full excitement of the nervous action. Time may familiarise

us with such conceptions, but it does not render it more easy to realise them satisfactorily. In dealing with such questions in the spirit of accurate criticism, there is much difficulty in experiment owing to the extreme anatomical complexity of the course of the nerve fibres, both of the cerebro-spinal and the sympathetic system. There are some which both normally and under an artificial stimulus increase the rapidity of the rhythmical action of the heart, like the so-called *nervus accelerans*, which probably originates in the medulla.

Dr. Gaskell has done excellent work in showing, by most laborious and careful dissection and experiment, the points of origin, combination, and separation of the accelerator, sympathetic, and inhibitory fibres; and demonstrating by a comparative examination of the snail, the frog, the tortoise, the rabbit, the cat, the dog, and man, the gradual evolution and differentiation both of function and of structure, so that in man the same nerve fibre cannot be both inhibitory and motor, or accelerator. That is a considerable and valuable contribution to a very large question. As to the accelerating fibres, he has shown good cause why they had better be called "augmentor," as they not only increase rapidly, but strength of contraction of the auricles in cold-blooded vertebrates, and of the ventricles also in the warm-blooded. The process of inhibition might be supposed to be at the periphery, destructive or catabolic, constructive or anabolic (that is, leading to an ultimate increase of energy), or neutral and producing inhibitory effects by interference with some simultaneous process, just as two sets of motor vibrations on the same cord may interfere with one another so as to produce rest. Dr. Gaskell's view, which is based on researches dating from before the International Congress of 1881, is that the inhibitory action is anabolic, and that though the heart's action is stopped for the time, yet its subsequent action is so much the stronger as to more than balance the arrest. The "augmentor" influence, on the other hand, for the time quickens and strengthens, but ultimately exhausts.

"One fact," to quote his own words, "seems to be coming to the front, namely, that weak stimulation is most effective in the direction of inhibition, and strong stimulation in the direction of excitation;" weak stimulus of the sciatics slows the vaso-dilators; "the stimulus which produces by its inhibitory effects the condition of hypnotism is essentially a weak one." From the minute and prolonged consideration of a part of the nervous system, Dr. Gaskell is proceeding, by careful steps, to a more general survey of the largest and most fundamental divisions into what he calls "somatic" and "splanchnic" nerves, and the application of these divisions, even to the cranial nerves, in which he confirms and extends Van Wijhe's researches.

The conclusive way in which he has demonstrated the dropping of the investment of medullary sheath by some fibres at various points in the course of the nerve and its meaning was excellently illustrated by some magnified photographs thrown on the screen during his lecture at the Royal Medical and Chirurgical Society's rooms last week, and commanded the entire approval of his distinguished and numerous audience. The value of his strong independent individuality and concentration on his work was very widely felt.

THE SURGERY OF THE URETER.

SEVERAL bold surgeons have recently attempted or suggested different methods of closing, catheterising, or compressing the ureter. Dr. Tachmann, of the German Hospital, has constructed a hollow instrument, resembling a lithotrite. The blades are separated when this "ureter-forceps," as he terms it, is introduced into the bladder, and slipped along the base till it touches the posterior wall. On closing the blades, they will grasp the elevated ridge of mucous membrane, representing the very oblique course of the ureter through the vesical walls. By dint of practice on the cadaver, this delicate operation may be performed on the male as well as on female patients. Fifteen minutes are said to be sufficient for the purpose of keeping the ureter closed while the urine secreted by the opposite kidney runs from the hollow outer blade of the forceps, and is preserved for testing. In this manner, not without obvious precautions, the surgeon may discover if one or both kidneys be diseased. Mr. Hurry Fenwick has contrived a ureter-aspirator. In one case, at least, he succeeded in blocking the right ureter with clot by means of this ingenious instrument. The patient was a middle-aged man, suffering from severe hæmaturia due to traumatic malignant growth of the right kidney; when the "clottage," as Mr. Fenwick termed it, was performed, no distinct tumour could be felt. From the date of the "clottage," till the patient's death, six months afterwards, there was no recurrence of the hæmaturia, which for fourteen months previously had been violent and persistent. Dr. P. Müller has contrived a ureter-compressor, somewhat after the principle of Mr. Davy's now well-known lever. He took into consideration the anatomical relations of the ureter in its course along the pelvic walls. On introducing the finger into the rectum, feeling for the spine of the ischium, and then passing the finger about an inch and a half upwards towards the pelvic brim, the ureter can there be compressed against the bony wall of the pelvis. In women this compression may be effected through the vagina. Dr. Müller has constructed a special compressor. It forms an angle; the short arm is fixed by a bandage to the thigh after compression, and bears a hinge so that the instrument may be bent to a convenient angle, whilst the long arm bears a bag at its free extremity. The patient is placed on his side, and the long arm is passed about five inches into the rectum. The bag is left flaccid till it has been properly introduced, it is fitted with rubber tubing, which is placed in communication with a long glass pipe ending in a funnel. About four pounds of mercury are poured into the bag, the ureter is then compressed to the extent of at least four-fifths of an inch. Dr. Müller has effected compression in one instance only on the living subject. He further proposes to compress the ureter against the pelvic brim through the abdominal walls, by means of a pad.

Dr. Axel Iversen, of Copenhagen, has boldly opened the bladder by suprapubic section, so as to inspect the urine as it escaped from both ureters. The patient was a man aged 38; he suffered severely from discharge of purulent urine, which contained no tubercle bacilli, neither was there any swelling or any localised pain, to prove whether the disease were unilateral or bilateral. Calculous pyelitis was diagnosed. The bladder was opened,

and its cavity illuminated by the electric light. A continuous stream of pus issued from the orifice of the left ureter. From the right came an almost clear fluid. This was carefully examined and found to contain some red corpuscles, abundance of epithelium from the upper and middle part of the urinary tract, and a considerable quantity of hyaline and glandular casts. On that account Dr. Iversen gave up all intentions of removing the left, the evidently suppurating, kidney, nor did he deem it necessary to perform nephrectomy, seeing that the pus could be seen to flow as freely from the ureter as it would have escaped through a lumbar incision. The patient recovered from this remarkable exploratory operation. The above-named surgeons may partly be considered pioneers in a new and not unimportant branch of surgery. That there remains room for much improvement they would, we trust, be the last to deny.

A COURSE of lectures on bacteriology will be given by Professor Klein, F.R.S., for the College of State Medicine in the theatre of the Chemical Society, Burlington House. The first lecture will be given on June 4th at 4 P.M., and the course will be continued on succeeding Mondays at the same hour.

AID IN CONVALESCENCE.

THE convalescent work of the Charity Organisation Society is one deserving of public recognition and support, and we may express the hope that the sum of £1,500 required for the provision of the necessary summer beds may be shortly forthcoming. This appeal is signed by Dr. W. M. Ord, St. Thomas's Hospital; Dr. J. C. Steele, Guy's Hospital; Dr. Broadbent, St. Mary's Hospital, and others.

A FISH AND POULTRY JURY.

THE Sanitary Committee of the Corporation of Leeds have sanctioned, as an experiment for twelve months, the appointment of a "fish and poultry jury," to assist the sanitary officials in deciding as to food supposed to be unfit for human consumption. The committee will select three names from a list supplied by the dealers, to constitute the jury. This plan is said to work well in some other towns.

RICHMOND PARK.

THE Duke of Cambridge will probably receive a great deal more sympathy in the course which he is understood to be pursuing in opposing the proposal to hold the National Volunteer Rifle Meeting in Richmond Park than some of our daily contemporaries appear to expect. The park is one of the largest, as it is certainly the most beautiful, of London's lungs, and the establishment of extensive rifle ranges in it will very seriously curtail the privileges of the public. Wimbledon common is now for six weeks in the hands of the Rifle Association—a fortnight for preparation, a fortnight for the meeting, and a fortnight for removing, as far as possible, the traces it has left—and it is astonishing that anyone should regard with equanimity the subjection of Richmond Park to such an indignity.

ALCOHOLIC TRANCE.

THE first special study of alcoholic trance was embodied in a paper read by Dr. T. D. Crothers, to the Medico-Legal Society of New York, in 1881. In a second paper read to the American Medical Association, Dr. Crothers deduced the following conclusions from various clinical reports which have since been published:—I. Alcoholic trance is not an unusual condition in in-

tricity. The victim is generally an automaton, and acts without memory or consciousness of passing events. 2. This trance state is distinct from epilepsy, hysteria, or any known forms of mania, and is found associated with some unknown conditions following alcoholic poisoning, continuously or at intervals. 3. The condition is probably one of brain-exhaustion, followed by a lowering of consciousness, or a suspension of nerve force in certain directions. There is profound disturbance of the brain centres, with impaired and lessened sensibility. In some recorded cases the subject has gone about his daily work, the abnormal state being revealed only on an unexpected call for mental energy, producing confusion and stupor instead of adaptability to new conditions. In other cases the subjects had done unusual acts; for example, a city banker suddenly took to delivering tracts in the slums, but subsequently remembered nothing of the incident. In other cases some unusual line of conduct seemed to grow out of the surroundings or some old buried idea came to the surface, as in the instance of a merchant suddenly declaring aloud to all whom he met that he would kill an old schoolmaster who punished him in boyhood.

FIRE PREVENTION.

If there were any further proof needed of the lamentably inadequacy of our means of affording escape to the inmates of a burning building, it would be afforded by the calamitous fire which broke out soon after 6 o'clock on Wednesday morning last at a draper's shop in Edgware Road, by which five persons lost their lives. The absence, in the present case, of any fire escape was due to an extraordinary rule which provides for their removal at 3 A.M., when the greater part of Londoners are in their beds. But for this strange arrangement, the unfortunate persons who lost their lives by this disaster would have been saved. Great responsibilities rest upon the owners of large establishments where a large number of persons are housed; it is clearly their duty to provide adequate means of escape. The question ought to be considered whether all such establishments ought not to be placed under restrictive regulations by by-laws framed for the purpose by the local sanitary authority.

THE CENTENARY OF THE LINNEAN SOCIETY.

THE centenary of the Linnean Society was celebrated on May 24th by a meeting at which eulogiums of Linnæus, of Robert Brown, of Charles Darwin, and of George Bentham were pronounced. It is interesting to note that two of the eminent biologists to whom his honourable duty was intrusted, Sir Joseph Hooker and Professor Flower, are both members of the medical profession, and that, of the two recipients of the gold medal of the Society on this memorable occasion, one was Sir Joseph Hooker, and the other Sir Richard Owen, who became a Member of the Royal College of Surgeons in 1826, and a Fellow in 1843. On May 25th a *conversazione* was held in the rooms of the Society, at which all the memorials of Linnæus in the possession of the Society were exhibited, together with many other interesting objects.

A HARDWORKING WOMAN.

THE death is announced of Miss Martha Petrovna Grabovskana, the first female medical practitioner who has settled in the important Siberian city of Tobolsk, where she had entire charge of the female department of the city hospital and lunatic asylum. She lectured also at the School of Midwifery, and had a considerable private practice; in addition to her multifarious duties, she found time to pursue scientific investigations. One of her researches had reference to the hygienic effect of treating hospital walls with corrosive sublimate; for this purpose she is stated to have made fully 100 experiments in the laboratory. She was also much occupied in bacteriological research. Working sixteen hours a day, as this young lady is said to have done, tells, however, on the

strongest constitutions, and it is not much to be wondered at that she succumbed. Before going to Siberia, she was for a time chief of Professor Slavianski's clinic.

PROFESSOR DONDERS.

PROFESSOR DONDERS attained on Sunday last his seventy-first year, an age at which the Dutch law compels him to resign his professorship in the University of Utrecht. At the festivities by which the occasion was celebrated a large number of distinguished men, not only from all parts of Holland and the Dutch colonies, but from this and other countries, assembled. An address was presented to Professor Donders, recognising his forty years' services to science and humanity. The Professor announced that he desired the memorial fund to be appropriated to assisting young physiologists and ophthalmologists at the University. The King conferred the distinction of Commander of the Golden Lion on Professor Donders, and the Government was represented at the ceremony by the Home Minister. King Humbert sent him the Order of the Crown of Italy, and Sir Joseph Lister congratulated the Professor on behalf of the Royal Society of England. A medal was also struck commemorative of the day's ceremony. Professor Donders declared that, although he was leaving the University, he had not finished his task. A banquet was given to him in the evening.

THE RISKS OF A GENERAL HOSPITAL.

THE question whether a general hospital can be regarded as a nuisance to a residential neighbourhood has recently been raised in the law courts, and will probably be still further investigated. Whatever the final decision may be, it is clearly the duty of every hospital to take special precautions to prevent infectious persons found in the out-patient room, either from exposing to the risk of infection other patients in the institution, or the public who may chance to meet these persons on their return home. The actual requirements for such a hospital in London are (1) telephonic communication with the central offices of the Metropolitan Asylums Board; (2) rooms set apart for the isolation of infectious cases occurring either in the out-patient department or in the wards; (3) an ambulance for the removal of those persons who are unwilling or unable to obtain admission into hospitals for infectious diseases. Many institutions have already adopted these precautions, and it is well that the attention of others should be directed by the case to which we refer to the need for following their example.

A RISK OF TRAVEL.

THE reported indisposition of the Duke of Edinburgh from drinking impure water at a foreign station gives prominence to what is perhaps the most usual and frequent source of danger in foreign and Continental travel. Many of the sanitary authorities who have looked into the question have from time to time uttered warnings to Continental travellers as to the dangers of the ordinary drinking water to be found abroad. The pollution of table water at foreign hotels and houses is due to a great variety of causes. The water-supply of foreign cities is as a rule, to which there are only few exceptions, taken from sources lamentably liable to sewage pollution, either in open streams or uncovered reservoirs, or from defective sanitation in the house-supply. A large part of the domestic supply of drinking water is, moreover, from surface wells, which are constantly liable to sewage filtration. An examination made only a few years since, of syphons of sparkling "seltzer" in a great Continental city disclosed the fact that they were horribly polluted with sewage, and that the effervescent fixed air with which they were charged only served to conceal unutterable contaminations of a most dangerous kind. Sir Henry Thompson and Dr. Herman

Weber, who have both given attention to the subject, are very emphatic in their counsel to travellers to avoid ordinary drinking water abroad. The easiest and most agreeable means of avoiding the danger is the habitual use of a pure natural mineral water in lieu of the doubtful drinking water of the hotel or the private house. When the Prince of Wales went to India he took with him a large supply of the kind, and successfully avoided this risk. Another method in which safety is sought is by invariably boiling the water before drinking it. This, however, involves more trouble than many people are willing to take, and makes the table-water flat and insipid. This insipidity may be relieved by squeezing fresh lemons into the water. But for those who cannot always be bothered with the boiling-pot or troubled with performing this little domestic operation before taking a draught of drinking-water, it would be wise when travelling abroad to select as a table-water a natural mineral water of undoubted purity rather than run the risks of blood-poisoning, typhoid, and diarrhoea to which so considerable a number of travellers at present fall victims, finding death and disease where they are seeking health and pleasure. The instances of typhoid, blood-poisoning, diarrhoea, and dysentery, of which we hear this year from Italy and Egypt, are very lamentable, and for the most part avoidable.

MYXEDEMA.

THE usual scanty attendance of members at a "last night" meeting, when a massacre of the innocents is to be expected, did not obtain at the closing meeting of the session of the Clinical Society on Friday last, when a full house, which included Dr. Fordyce Barker, of New York, assembled to hear the conclusions arrived at by the Committee of the Society, which for years has been considering the whole question of myxœdema. These conclusions, which were read by Dr. Ord, the Chairman of the Committee, will be found in full at page 1162. It is nearly four years since this Committee was appointed, during the presidency of Sir Andrew Clark, and the labour has been enormous. The whole question has been investigated in every way that could tend to throw light on this complex subject, and the result has been the volume shortly to be published, which will be found a mine of information concerning myxœdema and its immediate congeners. The name of the Chairman of the Committee, Dr. Ord, will henceforth be indissolubly associated with the literature of myxœdema, in conjunction with that of Sir William Gull, who, some fifteen years ago, first accurately described the clinical features of the disease, though the name which he applied to it has since been altered. Altogether, the Society, and British medicine generally, are to be congratulated on the completion of this most important work. By it the relationship subsisting between myxœdema and disease, or absence of the thyroid gland, seems to be placed beyond all doubt, though the ultimate cause of the loss of function of the thyroid gland has not yet been determined.

THE MEDICAL DEFENCE UNION.

THIS useful union of medical men has been reconstituted, and is now entirely controlled and administered by medical men, whilst it seems calculated to be able to fulfil the defensive requirements of members of the profession. Mr. Lawson Tait is the President, and the Vice-Presidents and other members of the Council are well-known men, practising in various parts of the United Kingdom. One of the new articles of association states that:—"The Council may, after due investigation, undertake the conduct or defence of, or assist in conducting or defending any proceedings, whether of a strictly legal nature or otherwise, concerning or affecting any member of the union who may desire their assistance, providing that the cause of action, or of the proceeding, or

the action or the proceeding, have not arisen or been commenced prior to the date of the commencement of his membership of the union." Only those actions, therefore, which originate after the date of membership can be undertaken by the union. That some society of the kind has been needed seems to be generally admitted, though there is probably some diversity of opinion as to what sort of association it should be. There are now 449 members of the Medical Defence Union, to which large additions should be made, that the society may be the better able to pursue successfully its career. Besides conducting the defence of its members against any legal proceedings, the union will endeavour to suppress unauthorised practitioners by their prosecution. The subscription is fixed at ten shillings a year, and a call on the members to contribute funds for the purpose of the union, in proportion to the guarantee of each, is liable to be made. The name of the secretary is Dr. Leslie Phillips, 393, Moseley Road, Birmingham.

THE THYROID GLAND IN GRAVES'S DISEASE.

RECENT investigations have given probability to the hypothesis that some, if not all, of the symptoms of Graves's disease are to be traced to derangement of the functions of the thyroid gland. The enlargement of this gland is an early symptom, though not generally the earliest, being preceded by some acceleration of cardiac action, and it is, on the whole, doubtless more probable that both are dependent on some one cause than that either is the consequence of the other; the possibility that the anæmia and other symptoms of cachexia may be due to the thyroid lesion ought not to be overlooked. Cases have been recorded within the last eight or nine years in which the symptoms of Graves's disease have been observed to disappear after an operation on the gland; to this limited series Dr. Gauthier, of Charolles, has contributed a sixth (*Lyon Médical*, lviii, 22). In this case a cyst developed after four years and was tapped; the operation was followed by intense inflammation and suppuration, but the patient recovered freed from all the symptoms of exophthalmic goitre, except some cardiac palpitation. Though the cure was not permanent, the patient being as bad as ever seven years after the operation, the case is extremely interesting in the connection above referred to.

THE GERMAN EMPEROR.

WHILST the whole civilised world must rejoice at the relatively favourable turn which the malady of the German Emperor has recently taken, it is important from every point of view that the true significance of the facts should be clearly understood, and that hopes should not be excited which are doomed to disappointment. The illustrious patient has, no doubt, recovered to a considerable extent from the severe local inflammation which not long ago caused him so much suffering, and even placed his life in jeopardy; and this result is, of course, in itself highly satisfactory. It may be well, however, to remind the public that this distressing complication was after all only an accident of the disease, the essential nature of which remains unaffected by its disappearance. The negative result of Professor Virchow's last microscopic examination is of no clinical importance, as the eminent pathologist would no doubt be himself the first to admit; and we are sorry to have to say that hardly any greater weight can be attached to his reported failure to detect any glandular enlargement in the Emperor's neck. Apart altogether from the fact that in this, as in other cases, there may be secondary deposits in glands too deeply situated to be felt, it is not by any means the rule for malignant disease beginning within the larynx to affect the related lymphatic glands. The statement attributed to Professor Virchow by a lay contemporary that he could now say positively that the disease is not cancerous is simply incredible. Medical men, who are accustomed to have their clearest utter-

ances misinterpreted and distorted in the most grotesque way, even by exceptionally intelligent persons, will have no difficulty in understanding how such a misconception might arise without in the least impugning the good faith of the reporter. Such misstatements, however, obtaining as they do the widest currency on the authority of journals which, in all ordinary matters, are entitled to the highest respect, do harm; and in calling attention to a particularly flagrant example, we think it our duty to protest against the gross carelessness, or rather, utter recklessness, with which medical subjects are too often treated in the general press.

RECENT OBSERVATIONS ON TUBERCULOSIS.

THE stimulus given by Koch's discovery of the tubercle bacillus to a closer clinical observation of tubercular affections has resulted in a clearer understanding of some of the exceptional manifestations of tubercular disease. One of the most interesting additions to our knowledge in this respect is the proof, which is being continually strengthened by fresh observation, that the so-called dissection, anatomical, or *post-mortem* tubercle is really a manifestation of local tuberculosis, acquired by inoculation. Finger has lately published a case in which a man who had tubercular disease had suffered from five of these dissection warts, which preceded the development of general tuberculosis, and in which microscopical examination showed the tubercle bacillus. Steintal (*Monat. f. Prakt. Derm.*, 1888, p. 437) relates the case of a woman who was inoculated with tubercle on the skin of the hand through washing the clothes of her phthisical husband. Meyer (*Ibid.*, p. 283) has related a case in which a child was infected with local tuberculosis of the genital organs by the wound made in the rite of circumcision being sucked by the operator, who was the victim of tubercular disease; and at a recent meeting of the Medical Society at Copenhagen Dr. Salomon, sen., stated that he also had observed cases of tubercular infection produced in the same way by ritual circumcisers who practised suction. On account of the dangers of the transmission of syphilis and tubercle in circumcision, Dr. Salomon, sen., advocated that the rite should be performed under precautions laid down by the authorities.

THE CROONIAN LECTURE OF THE ROYAL SOCIETY.

THIS lecture was delivered in the Theatre of the Royal Institution on Monday, May 28th, by Dr. W. Kühne, Professor of Physiology in the University of Heidelberg, who selected for his subject The Causation of Vital Movements. After briefly reviewing the ideas usually held regarding the phenomena of life, he proceeded to show the functional as well as the morphological unity of all living matter. He showed that the cause of protoplasmic movements could only be internal, residing in the contractile substance itself, and could only consist of chemical processes taking place within the mass itself; and experimental researches had shown that there was a striking agreement between the irritability of protoplasm and that of muscle. The transition to the very highly-developed motor apparatus which distinguishes the animal kingdom from almost its lowest stages, namely, the bicellular apparatus consisting of separate cells united together for one purpose, one of which presents the exciting nerve, the other the obedient muscle, was traced. Some beautifully-prepared specimens were exhibited, showing that the termination of nerves in muscles was localised, and that the endings did not pervade the whole muscles. Portions of muscles free from nerves were demonstrated to twitch when stimulated. It appears that contact of the muscle-substance with the non-medullated nerve suffices to allow the transfer of excitation from the latter to the former. In order to answer the question whether one muscle can excite another, the lecturer gave a remarkable experimental proof that one muscle must have excited a second electrically.

ETHERISATION: AN UNRECOGNISED DANGER.

IT is not uncommon to read at the end of the description of some prolonged operation a statement to the effect that when the patient was put back into bed it was found necessary to use several hot water bottles to restore heat to the chilled surface; the fall of temperature which has impelled surgeons so constantly to resort to this expedient has been generally attributed to the combined effects of exposure during the operation and shock. Dr. H. A. Hare, of the University of Pennsylvania, has pointed out (*Therap. Gaz.*, May, 1888) that another factor must be taken into account. Observation on patients in the University Hospital showed that the difference in the rectal temperature before and after operation might amount to as much as three degrees, and a comparison of the effects observed after various operations appears to prove that the whole of the effect could not be attributed to shock and exposure, but that a large, possibly the greater, part was due to ether, which was the anæsthetic used. This view found confirmation in the result of some experiments on dogs: by continuous etherisation for an hour, giving five drachms of ether every five minutes after the animal had been brought thoroughly under the anæsthetic influence, the normal rectal temperature of the dog was reduced as much as from 8° to 10° F. Dr. Hare's inquiry suggests that it would sometimes be well for surgeons to combat this antipyretic action of ether by warm applications during the time that the patient is on the operating table.

SCOTLAND.

PROFESSOR WILLIAM STIRLING, of Victoria University, Manchester, formerly Professor of Physiology in Aberdeen University, has been appointed Thomson Lecturer in the Free Church College, Aberdeen, for the session 1888-89. The subject of his lectures will be The Physiology of Nutrition.

SUICIDE BY SWALLOWING SULPHURIC ACID.

A SECOND case of this form of suicide has happened in Glasgow. The attempt, however, has not as yet proved successful, as the patient, a man of about 40 years of age, was promptly submitted to treatment in the Royal Infirmary, and has now partially recovered from the immediate effects of the poison. It is altogether unprecedented that two cases of this uncommon form of suicide should have been admitted to the Royal Infirmary within one week.

HEALTH OF GLASGOW.

DR. J. B. RUSSELL's usual fortnightly report to the Health Committee of the Town Council notes as a remarkable fact that no death from fever had been recorded in the fortnight. In the preceding two weeks there had been three. Dr. Russell had gone back over his records as far as 1882 without discovering another example of a fortnight without a single fatal case of typhus, enteric, or undefined fever.

THE EDINBURGH UNIVERSITY UNION.

THE Edinburgh University Students' Union is fast approaching completion, and a further effort is on foot to present the building to the University free of debt, with which, in spite of the gallant efforts at the Fancy Fair, the undertaking is still encumbered. The latest move has proved a great success. The Theatre Royal was engaged for three nights of the week, and amateur theatrical performances of more than ordinary merit were given by the students and their friends. The pieces rendered were "Our Boys," "The Serious Family," and "Round the Corner." The audience was numerous and most enthusiastic.

THE EDINBURGH STUDENTS AND THE BOLOGNA OCTOCENTENARY.

THE Students' Representative Council of Edinburgh University recently approached the *Senatus Academicus*, with a view to obtain the countenance and assistance of that body in connection with the sending of a student representative to the commemoration festival at Bologna. The *Senatus* has cordially acceded to the students' request, and has granted a sum of twenty guineas towards the project. The Council has nominated Mr. Constable, one of their number, to be representative.

GLASGOW POOR CHILDREN'S FRESH AIR FORTNIGHT.

THIS scheme is now in full operation. On April 25th the first detachment of children left Glasgow for a fortnight's holiday, and on May 2nd a second party was despatched, the total number of children being 250. It has been decided to continue boarding out the children with respectable cottagers, as a preferable arrangement to building a home. The applications for the benefits of the scheme are already numerous.

GLASGOW CHARITY FOOTBALL CUP FUNDS.

THE Committee of the Glasgow Charity Cup met in Glasgow on May 21st, and distributed the funds raised by the season's matches. A total sum of £1,050 was divided among the various charities, of which the Royal and Western Infirmaries received each £100, Ophthalmic Institution £40, Eye Infirmary, Ear Hospital, and Sick Children's Hospital, each £20; Maternity Hospital, Blind Asylum, City Orphan Homes, and Broomhill Homes for Incurables, each £30; convalescent homes received £105, institutions for the deaf and dumb £45, Dispensary for Skin Diseases, Anderson's College Dispensary, Glasgow Medical Dispensary, Children's Fresh Air Fund, Society for Prevention of Cruelty to Animals, each £10; and similar sums were awarded to a large number of other institutions. The total sum now distributed by this Committee reaches nearly £8,000.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

AT the meeting of this Society on May 23rd, Dr. I. McIntyre showed an electric lamp that could be used with the vaginal speculum. A small, easily adjusted holder was fastened on the outer rim of the speculum, and the stem of the lamp inserted into it. The lamp could then be moved up the speculum as far as necessary. Dr. McIntyre also demonstrated, with the aid of an artificial bladder, Leiter's cystoscope for illuminating and examining the interior of the bladder. Dr. R. Pollock exhibited Allen's uterine dilators, and read notes of two cases in which they had been successfully used:—(1) removal of a dead child retained *in utero*; (2) a case of placenta prævia. The special advantage claimed for the dilators was that they could be introduced in the undilated condition of the os and cervix. The President (Dr. Wallace) then gave an interesting account of a recent visit he had made to the clinique of Dr. Apostoli, Paris.

ST. ANDREW AMBULANCE ASSOCIATION.

THE stall of this Association at the Glasgow Exhibition is one of very considerable interest both to the profession and the public. It is fitted up with the waggon, litters, stretchers, and apparatus used and provided by the Association for first aid to the injured. These are admirable alike in design and workmanship. Special notice may be made here of the hinged pit-stretcher with cover, lately designed to meet the provisions of the Coal Mines Regulation Act, 1837. On this stretcher the patient may be strapped down—the trunk, arms, and legs being strapped independently—and so conveyed up from the pit bottom in either a vertical, a

horizontal, or a sitting posture. The stretcher is also fitted with forked feet, so that it can be placed on ordinary lutch axles and wheeled along the underground rails. The Association has now been in existence for six years, and has earned a widespread reputation for usefulness. It has centres in nineteen towns and districts, chiefly in the West of Scotland, and by means of the classes taught around these centres it has given ambulance instruction to over 18,000 persons. It has also provided eighteen beautifully-equipped ambulance-waggons, and placed them at the call of any person by day or night, whenever an accident occurs, free of all cost and responsibility.

UNIVERSITIES (SCOTLAND) BILL.

THE Students' Representative Councils of the Universities of St. Andrews, Glasgow, Aberdeen, and Edinburgh have prepared a memorial for presentation to the Government respecting the Scottish Universities Bill. In this petition the memorialists pray that the Bill should be amended by providing for increased student representation in the University Court; by providing for student representation on standing committees; by defining the relations between the Commissioners on the one hand and the Students' Representative Council and the students generally on the other; by defining the relations between the Council and the Court and between the Council and the Senate; and by referring to the consideration of the Commissioners, the body by whom professorial appointments should be made.

GLASGOW UNIVERSITY.

THE new clock and bells erected in the tower of the University have now been completed. The clock is on the same principle as that of Westminster, and has been erected under the superintendence of Canon Cattley, of Worcester. The frame of the clock is of cast iron, 6½ feet long, 2 feet wide, and 1½ feet deep, and rests on beams built into the tower wall to prevent vibration. The whole of the wheels are of gun metal, and the pinions and arbors are of the best steel. The clock has three parts: the going portion, the striking, and the quarters. The hammer which strikes the hours weighs 120 pounds, and is lifted 10 inches. The main wheels of the striking gear are 20 inches in diameter. The pendulum is compensated for variations in temperature. It beats 1½ second, and the bob weighs 3 cwt. When it has been completely regulated the error should not exceed 2 seconds a month. An automatic apparatus stops the striking of the quarters during the night, and starts them again in the morning. The clock is not at present provided with dials, but provision has been made for their addition at any future time. They would be 11 feet in diameter. The total weight of the clock is 2½ tons.

IRELAND.

BELFAST SOCIETY FOR PROVIDING NURSES FOR THE SICK POOR.

THE annual meeting of this excellent Society was held on May 23rd, in the hall of the Young Men's Christian Association, under the presidency of Sir James Haaslett, Mayor of Belfast. The report showed a slight falling off in the ordinary subscriptions, but substantial amounts had been received from bequests and donations. The nurses had during the year attended 871 patients, of whom 19 were cases of cancer, 167 cases of ulcers, abscesses, burns, etc.; 171 cases of phthisis, 99 cases of pulmonary affections other than phthisis, and 138 cases of general debility. The object of the Society is to afford continuous and efficient aid to the sick poor who prefer to remain in their own houses rather than remove to a hospital; and it aims at preventing the improvidence and lack of self-respect which are apt to be fostered by indiscriminate alms-

ving. The report mentioned that some ladies had invited several of the nurses to spend their much needed holiday at their houses in the country, and commended this example to the attention of their friends of the institution.

THE GALWAY INFIRMARY.

LAST week in the Queen's Bench division, counsel applied on behalf of Dr. Kinkead, of Galway, that the conditional order for a *warranto*, granted in December last, be made absolute, notwithstanding the cause shown by Mr. Henry Pesse, J.P. The proceedings arose out of an election to the position of surgeon to the infirmary, when Dr. Colohan was elected. It appeared, however, that several of the electors who voted were not qualified, not having paid the amount to constitute them governors more than twelve months previously. Dr. Colohan however served notice admitting that he was not duly elected. The court made the conditional order absolute. A new election will now be necessary.

EPIDEMIC DISEASES.

AN epidemic of measles has prevailed in Skibbereen and the adjoining district for the past couple of weeks. In the commencement it appeared to be of a mild type, but last week some bad cases occurred and nine deaths took place. The schools of the parish have been closed to prevent the disease spreading. The outbreak of fever in Abbeyleix Union has not been so serious as was anticipated, and the disease so far has been of a mild type. The medical officer has complained of the great deficiency of sanitary accommodation in the hospital.

OVERCROWDING IN CORK WORKHOUSE.

AN inspector of the Local Government Board has drawn the attention of the guardians to the fact that there are many old persons in the hospital wards of the workhouse who would be in the infirm wards if proper accommodation existed in the latter. The Visiting Committee have accordingly recommended the guardians to provide such accommodation in these infirm wards as would obviate the necessity of retaining any inmate in the hospital excepting those who may require medical care. The medical officers have also pointed out that occasionally in the hospital two sick people have to be placed in one bed.

ROYAL COLLEGE OF SURGEONS IN IRELAND: ANNUAL MEETING.

THE annual meeting of the Royal College of Surgeons will be held on Saturday, June 2nd, and the election of President and Council will take place on the following Monday. Dr. Fitzgibbon, Vice-President, will go to the Presidency; and for the Vice-Presidency there are two candidates, Drs. Frazer and Meldon. For the Council there are several new candidates, namely, Messrs. E. Fitzmaurice (Tralee), J. B. Kelly (Drogheda), Conolly Norman, Theodore Stack, R. F. Tobin, J. Lentaigne, F. T. Heuston, J. B. Story. The subject of the biennial presidency will again be brought forward by Mr. Thomson, who has given notice that he will propose the following motion:

"That the Council of the College having failed to carry into effect the recommendation of the Fellows adopted at the annual meeting in June, 1887, namely: 'That it be recommended to the coming Council to take the opinion of the Fellows by letter on the question of biennial presidency, as suggested in the resolutions of Council of March 17th, 1887, and of June, 1883, and that a meeting of the College be then called to consider the matter;' it is hereby resolved that the declaration of the Fellows, that a President of the College may hold office for two successive years be re-affirmed; that this rule shall take effect from June, 1890; that the Fellow who may be selected as President at the annual election in that year may so hold his office for two years; and that it be a recommendation to the Council to take such steps as may be necessary to give effect to this resolution."

The necessity of some change which will make the office of President less "cheap" is forcing itself upon the Fellows at large, and the Council has been negligent in not carrying out previous recommendations on the subject. It is not unlikely, therefore, that the motion, or something in its spirit, will be adopted. From the report it appears that the College has a sum of £10,000 placed on mortgage at 4½ per cent. and £2,000 in New 2½ Stock. The total expenditure was £5,182 7s. 7d. A committee has considered the question of appointing a Professor of Pathology, and having reported in favour of that course, the Council has taken steps to obtain the necessary alteration of by-law.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

At a meeting of the Central Committee of the Association of Members of the Royal College of Surgeons, held on Thursday afternoon, May 31st, the following petition was signed and transmitted to the Privy Council:—

TO HER MOST GRACIOUS MAJESTY THE QUEEN IN COUNCIL.

THE HUMBLE PETITION OF THE UNDERSIGNED MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND SHEWETH:

1. That your petitioners are Members of the said Royal College of Surgeons, and of the Association of Members thereof.

2. That on the 3rd day of May, in the year 1887, a petition signed by four thousand six hundred and sixty-five Members of the said College, including your petitioners, was presented to your Majesty's Privy Council, setting out the claims of the Members of the said College to a just share in the administration or control of the property and affairs of the said College upon grounds of public policy and of equity, having regard to the original constitution, history, and office of the said College.

3. That a deputation of delegates representing a large proportion of the Members of the said College, including also a large number of the Members thereof, attended before Your Majesty's Privy Council on the 11th day of November, 1887, in support of the said petition, and conveyed to the Right Honourable the Lord President their request to be heard by counsel in support of their said petition, if Your Majesty should not otherwise be advised that their claims ought to be permitted.

4. Your petitioners are informed and believe that no communication relative to the said petition has since been addressed either to the said Association of Members of the Royal College of Surgeons of England, or to the members of the said deputation, or to the signatories of the said petition.

5. Your petitioners are further informed and believe that although a copy of the statement made on the eleventh day of November, 1887, when the said deputation was received, has been submitted by Your Majesty's Privy Council to the President and Council of the Royal College of Surgeons, no answer to the said statement or to the contentions of the Members of the said College has been made by the President and Council of the College.

6. Your petitioners have heard with surprise that a proposal has nevertheless been made to the President and Council of the said College signifying an intention to grant a supplementary charter limited to certain points in which, so far as your petitioners are informed, the aforesaid claims and rights of your petitioners are not recognised in any way; but, on the contrary, the existing elements in the constitution and administration of the said College against which your petitioners and the Members generally protest will be further strengthened.

7. Your petitioners therefore humbly pray that Your Majesty will be graciously pleased to refer the matter in this present petition, together with the said petition signed by 4,665 Members of the said College hereinbefore referred to, and the statement submitted on the eleventh day of November, 1887, for the consideration of your Majesty's Privy Council, or some of the members thereof sitting in judicial capacity, with power to hear all parties interested in the matter of these said petitions by counsel and otherwise; and to receive evidence thereon, and humbly to advise Your Gracious Majesty in the premises as to Your Majesty may seem fit. And your petitioners, as in duty bound, will ever pray.

THE AMERICAN MEDICAL ASSOCIATION.

THE thirty-ninth annual meeting of the American Medical Association was held in Cincinnati, Ohio, on May 8th, 9th, 10th, and 11th, and was well attended. The Association was welcomed by the MAYOR, and also, in the name of the medical profession, by Dr. C. G. COMEGYS, who referred at length to the services rendered in the early part of the century by Dr. Daniel Drake, who had been instrumental in the creation of the Medical College of Ohio and of the Cincinnati Hospital.

President's Address.—The President, Dr. A. Y. P. GARNETT, of Washington, delivered an address in which he made certain proposals for improving the present standard of medical education in the United States; a radical and thorough reform was needed, for though facilities for education were excellent the systems of study were defective, and the preliminary education of students was insufficient. The ratio of practitioners of medicine to the population was 1 to 580, which was greater than in any other country in the civilised world. He suggested the formation of a committee, with members from every State, in order to bring pressure to bear on local legislatures, and to promote the establishment of a Board of Examiners in every State.

Address on Medicine.—Dr. ROBERTS BARTHOLOW, of Philadelphia, delivered an address, during the course of which he observed that the science of therapeutics was hindered by the unnecessary complexity and superfluity of pharmacopoeial preparations. He recommended more extensive use of the alkaloids as affording singleness and simplicity of action; jaborandi, for instance, contained two alkaloids, pilocarpine and jaborine, with dissimilar actions, and when the crude drug was prescribed there was not the same certainty of obtaining the desired result as when the alkaloid was prescribed; opium and nux vomica were also quoted as examples of this. In conclusion, he referred to the effect of the galvanic current on congestion and on the products of inflammation (as in stricture). He considered the electrolytic method full of therapeutic promise.

Address on Surgery.—Dr. E. M. MOORE, of Rochester, New York, who delivered the Address on Surgery, after some general remarks on the modern methods of treating wounds, the bloodless method of operating, and the application of the aseptic principle to abdominal surgery, quoted Volkmann's statistics of compound fracture of the leg, which showed 339 deaths in 885 cases in civil hospitals before the introduction of the antiseptic system, and 75 cases treated since its introduction without a death. He discussed the treatment of compound dislocation of the ankle, and expressed the opinion that amputation was seldom necessary. He recommended continuous irrigation with warm water as a most effective means of preserving the vitality of the contused soft parts; the malleoli and their attachments to the astragalus should be preserved if possible; the parts should be immobilised in plaster-of-Paris at first, but very delicate passive movements should be begun early and continued systematically; in this way the movements of the joint would in most cases be perfectly preserved. Referring to the treatment of caries, he strongly recommended the employment of hydrochloric acid (1 in 20), which he had been led to regard as one of the greatest advances in surgical therapeutics.

Address on State Medicine.—The address on State Medicine was delivered by Dr. H. P. WALCOTT, Chairman of the State Board of Health, who sketched the history of that Board since its establishment in 1869. During the period that the Board had been in existence the zymotic death-rate had declined from 25.6 to 19.0. Ovariectomy was justly regarded as one of the greatest triumphs of American surgery, but by comparing the annual death-rate of Massachusetts from ovarian dropsy with the reduction effected in a single town by an efficient Board of Health, he showed that the adoption of sanitary reforms in a community of 30,000 people had saved more lives annually than could have been saved by the operation of ovariectomy in the same period in a State containing two million people. He strongly urged the creation of a strong and efficient central health authority, the National Board of Health having been allowed by the neglect of Congress to fall into a state of hopeless lethargy.

Intestinal Surgery.—A series of interesting papers on intestinal surgery were read in the Section on Surgery and Anatomy.—Dr. L. S. McMURTRY reported a case of typhlitis in which laparotomy was performed; the cæcum was found to be gangrenous in spots, and laces had become extravasated. The edges of the perforations were trimmed, the openings were made elliptical in shape,

and then closed by suture. The patient, who was a member of the Association, made a good recovery, and was present at the meeting.—Dr. GROSS (Philadelphia) advocated early operation, and thought that in ambulatory typhoid with perforation operation afforded a fair chance of life.—Dr. SENN read a paper on rectal insufflation with hydrogen gas as a means of ascertaining the existence of injury of the gastro-intestinal canal by penetrating wounds of the abdomen. Hydrogen gas was perfectly innocuous and unirritating, and when injected into a serous cavity or connective tissue was rapidly absorbed. In man a pressure of from one-third to two pounds was sufficient to effect the passage of the ileo-cæcal valve, and the gas could be made to pass the entire length of the intestinal canal from the anus to the mouth. Wounds of the stomach could be diagnosed by inflation from the mouth. The gas was slowly injected from a rubber balloon holding 16 litres. A demonstration was given on a dog which was wounded in the abdomen with a pistol; the presence of the gas was recognised at its points of issue (mouth or wound) by ignition.

Apostoli's Method.—Dr. F. H. MARTIN read a paper in the Section on Obstetrics and Gynaecology on the value of galvanism in the treatment of fibroid tumours of the uterus according to Apostoli's method. He said that small tumours might be completely absorbed by the application of strong currents, and that hæmorrhage might be promptly cured by the local coagulating effect of the positive pole applied to the interior of the uterus; accompanying severe neuralgias were relieved by three or four applications. Except in cases where hæmorrhage or excessive leucorrhœa existed, he considered that the intra-uterine electrode should be in all cases negative. He governed the strength of the current by the area of the intra-uterine electrode, and recommended 23 milliampères for each square centimètre of active surface. Each sitting should last five minutes when the maximum current was employed, and the applications should be intermenstrual. Since the adoption of the flexible intra-uterine electrodes and Dr. Apostoli's vaginal galvano-puncture, extra-uterine puncture was only advisable, if at all, as a last resource. Where every effort to enter the cervical canal failed, it was justifiable to make a negative galvano-puncture in the presenting part of the obstructing mass so as to form an artificial canal, which took the place of the impermeable canal in the future treatment. He recommended that all instruments should be made thoroughly antiseptic, and that the vagina before a vaginal puncture was made should be thoroughly wiped out with bichloride solution (1 in 3,000). The method when carefully applied need not be, in his opinion, either painful or dangerous to life.—Dr. MARCY (Boston) considered the method most important, and had used it during the past winter with much, though not unqualified, success.—Dr. A. B. CARPENTER (Cleveland) advised that a small dosage should be used at first, and that patients should be required to rest for an hour at least after the application.¹

THE NATIONAL HEALTH SOCIETY.

A NUMEROUSLY-ATTENDED meeting of the National Health Society was held on Monday afternoon at Grosvenor House, under the presidency of the DUKE OF WESTMINSTER, for the purpose of distributing certificates of proficiency to the 250 successful candidates, principally ladies, in the ambulance and nursing classes. Among those present were the Duke and Duchess of Westminster, Sir T. Spencer Wells, Sir James and Lady Crichton Browne, Mr. Ernest Hart (the Chairman of the Society), Dr. Farquharson, M.P., and others, who filled both the great rooms.

The DUKE OF WESTMINSTER said the National Health Society could not be measured in its importance by the amount of pecuniary support it had received, for that was of a very slender nature. The Society had been of great use not only for the actual work in which it had been engaged, but also with regard to the way in which it had fostered the interest in the whole question, and had stimulated others to establish the Sanitary Aid Association and other associations of a similar sort. They were making, he said, a good start in connection with the Queen's Jubilee Fund. The amount of money was not very large, but he hoped they might effect a lodgment in St. Katharine's Hospital, which, though now a very useless institution, would, he trusted (and the Queen had expressed her willingness in this direction), eventually be a great centre, and that its funds would be devoted to establishing and training nurses for the sick poor. His Grace

¹ For most of these particulars we are indebted to the telegraphic report published in the *Medical Record* of New York.

cluded by expressing his willingness to place a site in Buckingham Palace Road at the disposal of the Society, which would be available for the purpose of a model sanitary building. The certificates were then distributed by the Duchess of Westminster.

Mr. ERNEST HART, the Chairman of the Society, in proposing a vote of thanks to the lecturers, among whom he mentioned Dr. Schofield, Mr. Owen Lankester, Mr. Edgar Willett, Dr. Gell, Miss Womersham, Miss Barnett, Dr. Parry Jones, Dr. Jessop, Dr. B. Connor, Mrs. Shiel; and, among those in the provinces, Dr. Lambly, Dr. Crossman, Dr. Dove, Dr. Roberts, and Dr. Prosser. He referred to a fear to which utterance had been given in a medical paper that those students who had passed through the courses of National Health Society lectures might, on the basis of such instruction, be tempted to regard themselves as fully trained nurses, or perhaps even as medical men or medical women. He wished it to be clearly understood that such was not their desire, and those who had attended to the teaching knew it was no part of their programme to attempt to give in that course anything like a technical professional education. There was no rivalry between their ambulance and that of the St. John Ambulance Association. They proceeded on parallel lines, but nowhere met. Mr. Hart referred to the absence of even a rudimentary knowledge of physiological science from school teaching, a defect which in Board schools this Society was doing something to remedy.—Sir SPENCER WELLS endorsed the resolution, with words of warm commendation of the scope of the Society's teaching and of its efficiency. He was well acquainted with the excellence and value of the lectures. Among the ladies who came up for certificates was Miss Wells.

Dr. SCHOFIELD, in replying for the lecturers, recommended the candidates to take up a course of lectures on domestic hygiene which, in view of the fact that it was believed that nearly 250,000 people died annually from preventable disease in this country, was of far greater importance than domestic surgery.—Dr. GELL spoke of the high standard they insisted should be maintained by the candidates.—Mr. OWEN LANKESTER said the thanks of the Society were due to those ladies on whom the success of the lectures so much depended. He stated that, so far from the ambulance work of their Society being regarded as being in rivalry with that of the St. John Ambulance Association, the latter society had expressed themselves delighted that the Society had taken up so good a work.

Sir CRICHTON BROWNE, in proposing a vote of thanks to the Duchess of Westminster, said there was no society to which they gave their generous aid more worthy of encouragement than the National Health Society. The best way to preserve health was to prepare for disease, and many of the ills that might be avoided by a little kindly foresight. It was the supreme duty of every man, woman, and child, to take the best of their opportunities. Our list of diseases increased as civilisation advanced.—Dr. FARQUHARSON, M.P., endorsed the motion.

The DUKE responded, observing that the Duchess was perhaps delighted for the distribution, inasmuch as she herself held a certificate.

A vote of thanks to the Secretary closed the proceedings.

THE RABBIT PEST IN AUSTRALASIA.

The idea that the only effectual means of checking the rapid increase of rabbits in Australia must be sought in some other form of life is an old one; at first it was proposed to introduce animals such as cats, ferrets, and stoats, which prey upon rabbits, but, as might have been foreseen, under the conditions of the problem, this scheme has proved quite inadequate. The predatory animals increased and multiplied, and preyed upon the rodents, the latter increased and multiplied still faster, and more than doubled their serried ranks. The idea that some form of infectious disease, capable of self-multiplication, might be utilised to decimate the rabbits on a large scale seems to have suggested itself to several persons independently. The first suggestion made, to the use of the virus of tuberculosis, was universally felt to be ineffective, because it failed to meet the primary condition that the disease virus used for the purpose must be incapable of injuring human beings or stock animals.

Legislative Action.—M. Pasteur's appearance as a competitor for the prize of £25,000 for the discovery of a means of exterminating the pest has somewhat precipitated matters, and the Legislative Assembly of New South Wales has found it necessary to

take action. The official papers printed by order of that Assembly show that three proposals have been formally made, and that the investigation of two had already been commenced before M. Pasteur's proposal was received.

Rabbit Scab.—The earliest seems to have been that made by Professor Watson, of the Adelaide University. He proposed to introduce a form of itch to which rabbits are liable; if untreated it is stated to be a serious disease, leading in time to glandular suppuration, and death from septicæmia and exhaustion. As, however, the disease runs a prolonged course, it causes much suffering to the animals, and the proposal is open to the charge of unnecessary cruelty; moreover, it is possible, if not probable, that sheep might become infected. On the whole, it is not surprising that the report of Mr. Edward Stanley, the Government veterinarian for New South Wales, who went to South Australia to observe the experiments which were in progress, was, on the whole, unfavourable to the proposal. Another scheme, proposed by Drs. Ellis and Butcher, is, as the report of the New South Wales Board of Health points out, wanting in precision, but the leading idea, to study any spontaneous outbreaks of disease among rabbits in crowded warrens, is sound; it might be comparatively easy to favour the spread of such a disease.

M. Pasteur's Scheme.—M. Pasteur's proposal, formally made in a letter dated from Paris on January 8th in this year, has already been fully detailed in these columns; it is founded upon the observation that rabbits are extremely susceptible to fowl-cholera, the virus of which can be easily cultivated. It was this microbe in which M. Pasteur first observed that diminution of virulence under special conditions of growth to which he applied the term "attenuation." The microbe has one advantage for the purpose in view, since it is easily destroyed by prolonged exposure to the air, or to moderate temperatures. The disease is easily communicated to rabbits by soaking their food in fluids in which the microbe has been grown, and it would seem that it rapidly spreads in the warrens. The New South Wales Board of Health, in reporting upon M. Pasteur's scheme, has taken the same view as was expressed in this JOURNAL when the proposal was first made public; recent researches in bacteriology, and especially those of M. Pasteur himself, show that clearer evidence than has yet been adduced is required to prove beyond doubt that the introduction of this virulent disease might not directly or indirectly produce, among human beings, disastrous results, as yet unsuspected; the Board truly observes that if it were to be found that such injurious results followed either to human beings or to stock animals, it would then almost certainly be beyond the power of any authority to remedy the mischief which had been done. If the scheme is to be tried, the plan proposed by Dr. Camac Wilkinson, of Sydney University, in an excellent letter (certain personal references apart) addressed to the Board of Health, ought certainly to be adopted. He suggests that a suitable island should be chosen, stocked with rabbits and every form of useful animal found in the colony, and that M. Pasteur's method should be applied to this isolated community; the method would then be tested with some approach to scientific precision, and the results of the experiment, which we have reason to believe will be made, will be awaited with great interest.

Intercolonial Commission.—An Intercolonial Rabbit Commission has been appointed; the members of the medical profession upon it constitute a majority; they are: for New South Wales, Dr. MacLaurin (President of the Board of Health), and Dr. C. Wilkinson, M.L.A.; for Victoria, Professor Allen; for South Australia, Drs. Stilling and Paterson; for Queensland, Dr. Baucroft. New Zealand is also represented on the Commission.

AMBULANCE INSTRUCTION TO POLICEMEN AND RAILWAY SERVANTS.—It is satisfactory to see, from the reports which so frequently reach us, that a knowledge of first-aid and ambulance work is fast spreading among railway servants and policemen. To no class of men probably is this knowledge likely to be of such advantage, and the St. John Ambulance Association is doing a good work in promoting and directing its extension. Last week about forty guards, porters, policemen, and platelayers, in the service of the London and South-Western Railway, went through a number of ambulance manoeuvres at Waterloo Station, and the manner in which they performed their drill reflected credit on Mr. S. Osborn, F.R.C.S., who directed the proceedings. Seventeen constables and two officers of the constabulary of Colchester, who had successfully passed the examination of the St. John Ambulance, were recently presented with certificates and badges.

ST. JOHN'S HOSPITAL.

At the annual General Board of Governors of the St. John's Hospital for Diseases of the Skin, held at the Criterion on Thursday, Lieut.-Colonel MERCIER, who, in the absence of a vice-president (the hospital being at the present moment without a president), took the chair, expressed himself very satisfied with the present condition of the affairs of the institution.

The SECRETARY read the report, which stated that there had been a reduction in the debt of the hospital of over £300, and an increase of patients. Reference was made to the three actions against newspapers now pending, on which Mr. Alderman GOULD stated as they were *sub judice* they were compelled to be silent. Reference was made to a circular signed by Messrs. W. J. Raymond and Samuel Hill, Honorary Secretaries of the Investigation Committee, and sent to the Governors, advising those who had the true interests of the hospital at heart to hold aloof until the inquiry instituted had been completed. Attention was called to the question asked in the House of Commons as to the "wilful misappropriation of funds" of the hospital.

Mr. GOULD observed that the only charges made against the hospital were those of discrepancies in the accounts. The Home Secretary had written to the authorities for an explanation, which he received, and having inquired into the matter, he replied that he could discover no reason which would justify any interference on his part.

The report was carried with two dissentients. The Duke of Teek was elected President of the Hospital, and a Board of Management, consisting of nine old members, eight new members, and a representative from the subscribing lodges of the Foresters and Odd Fellows was elected.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at the Devon and Exeter Hospital, Exeter, on Tuesday, June 28th, under the presidency of Dr. John Woodman, F.R.C.S. Notices of motion or communications to be intimated to the Honorary Secretary without delay, and it will facilitate arrangements if members will inform the Honorary Secretary as soon as possible if they hope to be present at the meeting. The following motion was passed at the Council Meeting on May 2nd:—"That inasmuch as the annual meeting assumes more or less the character of a day of recreation, and with a view of encouraging the district meetings, the business of the annual meeting shall be confined to the President's address, the business of the Branch, the exhibition of cases or of specimens with notes, and the annual dinner."—P. MAURY DEAS, Wonford House, Exeter, Honorary Secretary.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual meeting of this Branch will be held in the Birmingham Medical Institute, on Wednesday, June 14th, at 3.30 P.M.

METROPOLITAN COUNTIES BRANCH.—*Preliminary Notice.*—The annual meeting of this Branch will be held at the Holborn Restaurant on Wednesday, June 27th, at 5.30 P.M. President, Arthur E. Durham, Esq., F.R.C.S.; President-elect, C. Brodie Sewell, M.D. Dinner at 7 P.M.; tickets, 7s. 6d. each, exclusive of wine.—GEORGE EASTEN, M.B., E. NOBLE SMITH, F.R.C.S., Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The annual meeting for the election of officers will be held at the Forest Hotel, Chingford, on Thursday, June 7th, at 6 P.M. At 6.15 P.M. (sharp) the members and their friends will dine together. A. E. Durham, Esq., President of the Branch, will preside. Tickets, 8s. each, exclusive of wine. Members wishing to be present are requested to communicate with the Honorary Secretary not later than Saturday, June 2nd.—J. W. HUNT, Honorary Secretary, 101, Queen's Road, Dalston.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The annual meeting will be held at the Zoological Gardens, Regent's Park, on Thursday, June 14th, 1888. A. E. Durham, Esq., F.R.C.S., President of the Branch, will preside. Mr. Frank E. Boddard, Prosecutor to the Zoological Society and Davis Lecturer, will lecture at 5 P.M. on "Dinosauria," at which members are invited to attend. Election of Vice-President, Representative Member of Council, and Secretary for the ensuing year. All the present officers are eligible for re-election. Dinner at the Restaurant in the Gardens at 6.30; morning dress. Tickets, 6s. each, exclusive of wine. Members desirous of being present are asked to signify their intention before June 12th, to the Honorary Secretary, GEORGE HENTY, M.D., 302, Camden Road, N.

METROPOLITAN COUNTIES BRANCH: WESTERN DISTRICT.—The next meeting will be held on Tuesday, June 5th, at the St. Marylebone Infirmary, Ladbrooke

Grove Road, Notting Hill, W. The chair will be taken at 8.30 P.M. punctually, by H. Charlton Bastian, M.D., F.R.S., the Vice-President of the District. Business—1. Minutes of preceding meeting. 2. Election of Vice-President. Members of Council of the District, and Representative on Council of the Branch. The present officers of the district, not having served an entire year, will be proposed for re-election. 3. A paper will be read by Henry Power, Esq., M.B., F.R.C.S., Ophthalmic Surgeon to St. Bartholomew's and the Royal Westminster Ophthalmic Hospitals, on Certain Points in the Treatment of Injuries of the Eye. 4. A few cases of clinical interest will be introduced by John R. Lunn, Esq., F.R.C.S. Ed., Resident Medical Superintendent of the St. Marylebone Infirmary.—C. ARTHUR PATTEN, Honorary Secretary, Marpool House, Baling.

SOUTH MIDLAND BRANCH.—The annual meeting of the above Branch will be held at the Blechley Park Hotel, Blechley, on Thursday, June 14th, at 2.45 P.M. The new President, H. Veasey, Esq., invites the members to luncheon at the same place previously to the meeting, from 1.30 to 2.30 P.M., at which meeting and luncheon every qualified medical man will be a welcome visitor. Gentlemen accepting the invitation are requested to intimate the same to the Honorary Secretary not later than June 11th. The arrangements for a combined meeting this year of the Cambs and Hunts and South Midland Branches having fallen through, the informal reciprocal visits of members, to whom it may be convenient, at the respective meetings, would be most agreeable, and are hereby invited. Agenda—Usual business of annual meeting. Resolution on subject of "Fees to Medical Witnesses," etc. Communication from Chairman of Parliamentary Bills Committee on Subject of "Lunacy Acts Amendment Bill" (see JOURNAL, May 12th, p. 1025). The following gentlemen will be proposed as new members of the Association and Branch: John Henry Loyde, Esq., Bedford; J. Neil Whitfield, Esq., Northampton; A. E. Godfrey, Esq., and — Weatherley, Esq., Northampton Infirmary. Gentlemen wishing to read papers for discussion, cases, etc., are requested to send the titles of the same without delay to the undersigned. The following have been promised. Mr. Milligan: Case of Strangulated Umbilical Hernia: Operation for Radical Cure; Recovery. Dr. Jones: Physical Indications in Heart Affections. Dr. Goldsmith: A Question as to the Etiology of some Nervous Diseases of Children. Mr. Bull: Obscure Abdominal Tumour; Abdominal Section; Recovery. Mr. Evans: The Royal Colleges and the Society of Apothecaries.—C. J. EVANS, Honorary Secretary, Northampton.

MIDLAND BRANCH.—The annual meeting will be held at the Masonic Hall Nottingham, on Thursday, June 14th, at 2 P.M. After the transaction of the usual business a proposition to amend Rule 6 will be laid before the meeting. Papers, etc.: Mr. Edgar M. Crookshank: On the Alleged Origin of Certain Diseases from the Lower Animals. Mr. Frank Pope: A Case of Diabetes, probably of Traumatic Origin. Mr. R. C. Chicken: New Form of Bone Forceps for Sequestromy. Dr. George Elder: Remarks on Cases of Peritonitis treated by Abdominal Section. Dr. H. Handford: The Influence of Position on Cardiac Murmurs, and on the Treatment of Heart Disease. Mr. Frank Hodger will exhibit a patient on whom he has operated for Cataract of Each Eye by different Methods. Luncheon will be provided by the President-elect, at the place of meeting, at 1 o'clock. The dinner will also take place at the Masonic Hall, at 5 o'clock. Tickets, 7s., exclusive of wine.—W. A. CARLINE, M.D., Honorary Secretary and Treasurer.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.—The annual meeting of this Branch is appointed to be held at Ely on Friday, July 6th. Members wishing to make communications, to exhibit specimens, or to propose new members are requested to signify their intention to Dr. Anningson, Cambridge for insertion in the order of proceedings.—BUSHELL ANNINGSON, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting will be held in the board-room of the hospital, at Hastings, on Tuesday, June 12th at 3.30 P.M. Dr. Bagshawe will preside. The following papers are promised: The Chairman: A Case of Chyluria. Mr. Titchhurst: A Case of Addison's Disease, with a Rare Form of Skin Eruption (Drawing to be shown). Dr. Penhall: A Case of Nephrotomy. Dr. Talford Jones: Mercury as a Diuretic. The dinner will take place at the Palace Hotel at 5.30 P.M.; charge, 6s., exclusive of wine.—T. JENNER VERRALL, Honorary Secretary, 97, Montpelier Road, Brighton.

SOUTH WALES AND MONMOUTH BRANCH.—The eighteenth annual meeting of this Branch will be held at the Infirmary, Cardiff, on Wednesday, June 27th. Further particulars in circulars. Members wishing to read papers, etc., are requested to send titles to Dr. Sheen before June 10th.—A. SHEEN, M.D., Cardiff, D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

YORKSHIRE BRANCH.—The annual meeting of the Yorkshire Branch will be held in the Museum of the Yorkshire Philosophical Society at York on Wednesday, June 27th, when the representatives of the Branch on the General Council and the officers for the ensuing year will be elected. Members intending to read papers and show specimens, are requested to communicate in advance with ARTHUR JACKSON, Secretary, Sheffield.

SOUTHERN BRANCH.—The fifteenth annual meeting will take place at the Grosvenor Hotel, Queensgate, Southsea, on Thursday, June 14th. The general meeting will be held at 1 P.M. The President-Elect, H. B. Norman, Esq., has kindly undertaken to provide refreshments at the hotel. In accordance with the by-laws, two gentlemen will be elected at this meeting as Representative of the Branch on the Council of the Association for the ensuing year. The address will be delivered by the President-elect at 2 P.M. During the afternoon the members are invited to visit the Dockyard, the old Victory, H.M.S. Ternan and other places of interest. Dinner at 6 P.M.; charge, 5s., exclusive of wine, etc. The Committee request that those gentlemen who intend to be present at the dinner will send in their names on or before Wednesday, June 13th.—J. WARD COUSINS, Honorary Secretary and Treasurer.

LANCASHIRE AND CHESHIRE BRANCH.—The fifty-second annual meeting of this Branch will be held at the Medical Institution, Hope Street, Liverpool, on Wednesday, June 13th, 1888, at 2.30 P.M. Order of Business:—Introduction of

the new President. The new President's Address. The Report of Council. Election of Office-bearers: President-Elect, Vice-Presidents, Honorary Secretary. Election of Representative Members on the Council of the Association. Election of new Council. Choice of place for holding next annual meeting. Election of two members to serve on the Parliamentary Bills Committee. Grant to Epsom College; Notice of Motion: It will be proposed to make a donation of twenty-five guineas to the Epsom Medical Benevolent College out of the funds of the Branch. Miscellaneous Business. Medical and Surgical Communications.—Dr. Walter: Notes of a case of Total Extirpation of the Uterus per Vaginam. Dr. Glyn: A note on a New Method of Treating Chlorosis. Dr. Johnson Martin: How to prevent Small-pox, and how to spread it. Mr. R. Harrison will show the Electric Endoscope. Dr. Alexander: Hysterectomy for Uterine Cancer (patient). Mr. Shears: Xerosis of the Conjunctiva with Night Blindness. Dr. Imlach: The Use of Stimulants and Narcotics by Women. A small museum of drawings, photographs, and selected pathological specimens. Dinner.—The members will dine together at the Adelphi Hotel, Liverpool, at 5.30 P.M. Tickets, 7s. each (exclusive of wine).—CHARLES E. GLASCOTT, M.D., General Secretary, 23, Saint John Street, Manchester.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE annual meeting of the above District was held at Canterbury on Thursday, May 24th, Dr. PARSONS in the chair.

Honorary Secretary.—Dr. TYSON was re-elected Honorary Secretary for the ensuing year.

Next Meeting.—It was arranged that the next meeting be held at Hythe, and that Dr. LOVEGROVE be asked to take the chair.

Papers.—Mr. RAVEN read a paper on Tendon Reactions in Health and Disease. Mr. BRIAN RIGDEN read Notes of a Recent Epidemic of Measles, which gave rise to a good discussion, in which Mr. F. WACHER, Mr. JAMES REID, Mr. G. RIGDEN, Mr. PUGIN THORNTON, Dr. GOGARTY, Dr. BOSWELL, Mr. RAVEN, Mr. WHITEHEAD REID, Mr. GARRAWAY, and Mr. SIDNEY WACHER took part.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

THE fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc.(Hon.), F.R.Q.C.P.I., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate.

An Address in Medicine will be delivered by Thomas Clifford Allbutt, M.D., Consulting Physician, Leeds General Infirmary.

An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

An Address on his "Recent Investigations in Surgery" will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

All the rooms required for the purposes of the meeting will, by the kindness of the authorities, be provided in the University of Glasgow.

Humanity Class Room.

A. MEDICINE.—*President,* T. McCall Anderson, M.D. *Vice-Presidents,* R. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries,* J. McGregor Robertson, M.D., 400, Great Western Road, Glasgow; Robert M. Simon, M.D., 27, Newhall Street, Birmingham.

Chemistry Class Room.

B. SURGERY.—*President,* George Buchanan, M.D. *Vice-Presidents,* James Dunlop, M.D.; Charles Robert Bell Keetley, F.R.C.S. *Honorary Secretaries,* David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pye, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

Medical Jurisprudence Class Room.

C. OBSTETRIC MEDICINE.—*President,* Thomas More Madden, M.D. *Vice-Presidents,* William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries,* William Walter, M.D., 20, St. John Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

Greek Class Room.

D. PUBLIC MEDICINE.—*President,* Henry Duncan Littlejohn, M.D. *Vice-Presidents,* James Christie, M.D.; D. Page, M.D. *Honorary Secretaries,* Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

Hebrew Class Room.

E. PSYCHOLOGY.—*President,* James C. Howden, M.D. *Vice-Presidents,* James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries,* A. R. Urquhart, M.D., Murray House, Perth; Alex. Newington, M.D., Ticehurst, Sussex.

Anatomy Class Room.

F. ANATOMY AND PHYSIOLOGY.—*President,* John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents,* R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries,* John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

Law Class Room.

G. PATHOLOGY.—*President,* Sir William Aitken, M.D., LL.D., F.R.S. *Vice-Presidents,* Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries,* G. Sims Woodhead, M.D., 6, Marshall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

Midwifery Class Room.

H. OPHTHALMOLOGY.—*President,* Thomas Reid, M.D. *Vice-Presidents,* J. R. Wolfe, M.D.; C. E. Glascoff, M.D. *Honorary Secretaries,* Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Freeland Fergus, M.B., 41, Elmbank Street, Glasgow.

Biblical Criticism Class Room.

I. OTOTOLOGY.—*President,* Thomas Barr, M.D. *Vice-Presidents,* John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries,* Johnstone Macfie, M.D., 23, Ashton Terrace, Glasgow; James Black, F.R.C.S., 16, Wimpole Street, London.

English Literature Class Room.

J. DISEASES OF CHILDREN.—*President,* Walter Butler Cheadle, M.D. *Vice-Presidents,* James Finlayson, M.D.; Henry Ashby, M.D. *Honorary Secretaries,* George S. Middleton, M.D., 23, Sandford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

Conveyancing Class Room.

K. PHARMACOLOGY AND THERAPEUTICS.—*President,* James Morton, M.D. *Vice-Presidents,* John Dougall, M.D.; Theodore Cash, M.D., F.R.S. *Honorary Secretaries,* Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

Divinity Class Room.

L. LARYNGOLOGY AND RHINOLOGY.—*President,* Felix Semon, M.D. *Vice-Presidents,* George Hunter Mackenzie, M.D.; Peter McBride, M.D. *Honorary Secretaries,* D. Newman, M.D., 18, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

9.30 A.M.—Meeting of 1887-1888 Council. Randolph Hall.

11.30 A.M.—First General Meeting. Report of Council. Reports of Committees. Bute Hall.

4 P.M.—Service in the Cathedral. Sermon by the Very Rev. John Caird, D.D., LL.D., Vice-Chancellor and Principal of the University of Glasgow.

8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address. Bute Hall.

WEDNESDAY, AUGUST 8TH, 1888.

9.30 A.M.—Meeting of 1888-89 Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Second General Meeting. Address in Medicine by Thomas Clifford Allbutt, M.D., F.R.S. Bute Hall.

THURSDAY, AUGUST 9TH, 1888.

9.30 A.M.—Address on his Recent Surgical Investigations by William Macewen, M.D. Bute Hall.

11 A.M.—Meeting of Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Third General Meeting. Address in Surgery by Sir George H. B. Macleod, M.D. Bute Hall.

7 P.M.—Public Dinner. St. Andrew's Hall.

FRIDAY, AUGUST 10TH, 1888.

10.30 A.M. to 1.30 P.M.—Sectional Meetings.

3 P.M.—Concluding General Meeting. Address in Physiology by John G. McKendrick, M.D., F.R.S. Bute Hall.

SATURDAY, AUGUST 11TH, 1888.

Excursions.

ANNUAL MUSEUM.

THE Annual Museum will be held on August 7th, 8th, 9th, and 10th, in the Examination Hall of the University of Glasgow, and will be arranged in the following six Sections:

SECTION A.—Food and Drugs, including Antiseptic Dressings, and other Chemical and Pharmaceutical Preparations. (Honorary Secretary, R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Street.)

SECTION B.—Pathology, comprising Casts, Models, Diagrams, Microscopical Preparations, and Micro-organisms. (Honorary Secretary, J. Lindsay Steven, M.D., 34, Berkeley Terrace.)

SECTION C.—Anatomy, comprising Special Dissections, Methods of Mounting, Abnormalities, Drawings, Medals, etc. (Honorary Secretary, J. Yule Mackay, M.D., 34, Elmbank Crescent.)

SECTION D.—Physiology, consisting of Apparatus, Microscopes, Microtomes, and Microscopical Preparations of Normal Histology. (Honorary Secretary, J. McGregor Robertson, M.A., M.B., C.M., 400, Great Western Road.)

SECTION E.—Instruments and Books, including Appliances—Medical, Surgical, and Electrical. (Honorary Secretary, J. Macintyre, M.B., C.M., 173, Bath Street.)

SECTION F.—Sanitation (1) Domestic Sanitary Appliances, embracing all Improvements applicable to the Treatment of the Sick in Private Dwellings. (2) Personal Hygiene, including Dress and Gymnastic Appliances. (3) Ambulances, Carriages, and all other Appliances used for the Conveyance and Treatment of the Sick and Wounded, either in Civil, Naval, or Military Practice. (4) Drawings, Models, and Apparatus illustrative of the Ventilation, Lighting, and Draining of Hospitals. (5) Hospital Furniture. (6) Sanitary Appliances in connection with Educational Institutions and Public Buildings. (Honorary Secretary, 1, 2, 3, Robert Pollok, M.B., C.M., Pollokshields; Honorary Secretary, 4, 5, and 6, A. W. Russell, M.A., M.B., C.M., Western Infirmary.)

Intending exhibitors should communicate as early as possible with the Secretary of the Section in which they propose to exhibit, as the Museum Catalogue must be complete one month before the date of meeting. Inquiries as to advertisements in the Catalogue should be sent without delay to Dr. Thomson, 3, Melrose Street, Glasgow.

Honorary General Secretaries of Museum Committee, A. Ernest Maylard, B.S., M.B., 54, Berkeley Terrace; R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Terrace.

Honorary Local Treasurers, Joseph Coats, M.D.; Jas. B. Russell, M.D.

Honorary Local Secretaries, John G. McKendrick, M.D., F.R.S., 45, Westbourne Gardens, Glasgow; James Christie, M.D., Hillhead, Glasgow; John Glaister, M.D., 4, Grafton Place, Glasgow.

FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Treatment of Blepharospasmus.—Action of Antipyretics on the Liver.—Pseudo-tuberculosis.—Canadol as a Local Anæsthetic.—Concentrated Solution of Boric Acid.—Naphthol B as an Antiseptic.—Wasting of the Muscles of the Chest in Phthisis.—Contra-indications of Antipyrin.

At a meeting of the Société de Médecine de Paris on March 24th, M. A. Dehénne read a note upon the treatment of tonic blepharospasmus by section of the supra-orbital nerve. Tonic blepharospasmus, the only form of this affection which is really dangerous, is not common. The contractions, which are often painful, are incessant, and last from several seconds to several minutes. The patients are unable to walk out of doors unaccompanied, and can follow no occupation which requires the use of the eyesight. When the affection is of old standing, the attacks, which occur from twenty to forty times daily, are accompanied by the following phenomena: the space between the eyelids is contracted, the eyebrow falls down over the upper eyelid, there are incessant clonic spasms in the lids. Neurotomy is the only treatment which has proved effectual in checking the contractions. In most cases section of one supra-orbital nerve suffices. The operation is performed as follows. The course of the supra-orbital nerve is marked with ink as far as the junction of the inner and middle thirds of the eyebrow. The skin is pinched up between the thumb and finger; a vertical fold is thus formed, at the bottom of which a small bistoury is introduced, about one centimètre above the eyebrow, with the blade parallel to the sur-

face of the skin. The bistoury is then withdrawn, and the neurotome, which is merely a blunt-pointed bistoury, with a slightly convex blade, is introduced in the same way. On reaching the vasculo-nervous bundle, the instrument is turned round and rested against the frontal bone. A series of cuts are then made until the periosteum is reached. The neurotome is then placed in its former position, and is rapidly withdrawn. Strong pressure is made by means of a coin wrapped in cotton-wool in order to prevent any subcutaneous effusion of blood. A compress bandage is applied. Tonic contractions entirely cease immediately after the operation, but clonic contractions sometimes persist for a few days longer. The first patient operated on by M. Dehénne in 1879 was a woman of 52, who had suffered from the affection for three years. Both supra-orbital nerves were divided, and immediate recovery ensued. Six months later the spasms reappeared. Electric stimulation, with continuous currents, which had been ineffectually applied before the operation, were completely successful after it. M. Dehénne cited a recent example of the admirable results of neurotomy in tonic blepharospasmus. The patient, a woman of 58, had suffered from double blepharospasmus for five years. The tonic contractions had begun three years after the appearance of clonic blepharospasmus. M. Dehénne divided the left supra-orbital nerve, in which the tonic form of the affection was most pronounced, on February 25th, 1888. The tonic contractions immediately ceased, and the patient was able to open her eyes. Since the operation all spasms in the eyelids have disappeared. M. Dehénne has performed neurotomy in other cases with similar success.

L'Union Médicale of April 14th publishes some interesting observations on the action of antipyretics, especially antipyrin, upon the liver, by MM. R. Lépine and Porteret. One of these observers has already proved that under certain circumstances aniline helps the disintegration of nitrogenous substances, and decreases the production of heat. One naturally inquires whether pyretics might not therefore retard the formation of hepatic glycogen. To elucidate this point, experiments have been made on guinea-pigs. It was first ascertained that the ordinary quantity of glycogen contained in their liver varies not only with their size and nourishment, but is also unequal in the case of animals of the same weight and apparently subject to the same circumstances. A number of guinea-pigs having been placed under the influence of pyretics, MM. Lépine and Porteret found at least one-fifth more hepatic glycogen, and a slight diminution of hepatic sugar. Another experiment showed that the suspension of the transformation of glycogen into sugar is in part the result of a direct action upon the hepatic cells.

M. L. Dor has reported a case which is probably similar to those described to the Academy of Medicine by Messrs. Charrin and Roger, on March 19th, and it was in consequence of this case, which occurred between the months of April and July, 1887, that he undertook the researches the result of which he now publishes. This malady is infectious, and resembles tuberculosis. The symptoms are, first, a tumour, often resembling an abscess; when it appears spontaneously it is found in the tongue or in the inner walls of the mouth. Secondly, glandular swelling in the groin when the inoculation has taken place in a posterior part, and cerebral when the original abscess is in the mouth; numerous metastatic granulations of a cheesy nature, resembling either round tubercles or irregular nodules, cauliflower-like in form, varying from the size of a pin's head to that of a pea. Thirdly, microscopic examination has shown that the malady is not tubercle, nor leucæmia, nor pyæmia, nor generalised sarcoma, the pustules being composed of a peculiar fermented species of leucocytes.

Dr. Plouckhine, in the *Revue de Thérapeutique Médico-chirurgicale*, April 15th, recommends canadol, a hydrocarburet distilled from American naphtha, as a local anæsthetic. It is a transparent liquid, very volatile and smelling like benzine; it is insoluble in water and in alcohol, which renders it superior to ether. It causes rapid cold in the first minute, like ether, but does not, like this substance, continue to lower the temperature in the ensuing minutes. The anæsthesia produced by canadol is complete in sixty seconds, and employed as an anæsthetic in cases of minor operations completely subdues all pain.

According to M. A. Cabanès, in the *J. de Méd. de Paris*, April 15th, a new way has been discovered of dissolving a large quantity of boric acid in distilled water. It is known that it has hitherto been possible to dissolve more than 4 or 4.50 grammes of this antiseptic in 100 grammes of water, which is not strong enough completely to destroy all micrococci. The new solution

is as follows: boric acid, 120 grammes; calcined magnesia, 10 grammes; aquæ destill., 750 grammes. It is possible that bichloride of magnesia is formed; at any rate, there remains in solution a considerable excess of boric acid.

In a communication recently made by Professor Bouchard to the Académie des Sciences, he states that naphthol β is an excellent antiseptic for external use. But what is more important, it would appear to be the most efficient agent for intestinal antiseptics, particularly on account of its slight solubility, which prevents its absorption and allows it to remain a long time in the intestine without poisonous effects. A daily variable dose of 1 gramme of naphthol per kilogram of weight of the animal may be administered without danger.

Dr. F. Bompard has lately made an interesting communication to the Société de Médecine de Bordeaux on atrophy of the thorax in phthisis. The following is a summary of his conclusions;—1. Muscular atrophy is frequent in tuberculous subjects; 2, it is met with in the neighbourhood of pulmonary lesions, and specially at the apex of the thorax; 3, it presents the following characters: (a) diminution of volume; (b) subsidence of prominences; (c) exaggeration of hollows; (d) diminution of strength; (e) diminution of electrical contractility; 4, it may be an early symptom; 5, it is sometimes accompanied by sharp pains in the muscles which are undergoing atrophy; 6, it constitutes a complication of pulmonary phthisis in augmenting the difficulty of breathing, and in this manner contributes to hasten the progress of the disease. It is, therefore, most important to combat this form of muscular atrophy, which is common, particularly at the outset of the disease, when a cure may still be hoped for. For this purpose nothing can be better than chamber gymnastics, already so much recommended by M. Peter in 1879.

Some time ago, M. Huchard called attention at the meeting of the Société de Thérapeutique to the contra-indications of antipyrin. He said the drug should be used sparingly in diseases such as typhoid fever, in which the kidneys served as emunctories, as it diminished the secretion of urine. On the same principle he gave 8 grammes a day to a woman suffering from meningomyelitis, who passed from 24 to 28 litres of urine in 24 hours. This quantity was reduced to 5 litres under the influence of antipyrin. M. Huchard therefore suggested the use of antipyrin in analogous cases, such as diabetes, for instance. M. Dujardin-Beaumez expressed a similar opinion. Antipyrin should no more be given than opium or salicylate of soda when the kidneys were diseased. These substances being eliminated by these organs, might possibly be absorbed into the organism with toxic effects. M. Dujardin-Beaumez had tried antipyrin in two cases of polyuria, the amount of urine being diminished in both cases. M. Huchard added that arterio-sclerosis should not be treated by antipyrin, even when the kidneys were not affected.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Professor Haab on General Gonorrhæal Infection.—Transmissibility of Molluscum Contagiosum.—Transfusion of Blood in Carbonic Oxide Poisoning.—Electrolysis in Hypertrophy of the Prostate.—The Berne Cremation Society.—Septuple Labour at Castagnola; the Ruttigen Chapel in Memory of a Septuple Labour.

At a meeting of the Gesellschaft der Aerzte, in Zurich, Professor Haab read a paper on a generalised or constitutional gonorrhæal infection developing consecutively to specific urethritis. He often met cases of gonorrhæal iritis and irido-cyclitis, as well as of conjunctivitis originating without any direct transmission of the urethral discharge. In the cases of the latter kind no gonococci were present in the conjunctival secretion, the disease usually running a mild and favourable course. He further cites a striking case of general infection after urethral gonorrhœa, where death was threatening in consequence of extreme exhaustion caused by a continuous, uncontrollable fever of many weeks' duration. The man was suffering from effusions into his knee and elbow joints, abscesses in the left axilla, prolonged obstinate cystitis, and double ophthalmia of the severest kind, ending in complete destruction of one eye, and serious disorganisation of the other. No microbes were found in the articular exudation, but the axillary abscess was found to contain staphylococcus.

Professor Haab seems to think that this case is an instance of a mixed general infection with gonococcus plus staphylococcus.

Professor Haab also states that he has succeeded in inoculating molluscum contagiosum into his own forearm. Having rubbed into the part a portion of the contents of a freshly extirpated nodule (and nearly forgotten all about it), he found, about six months afterwards, a typical nodule at the site of the inoculation. When the growth had reached the size of a hemp-seed he extirpated it in order to examine its structure microscopically. The structure proved to be absolutely identical with that of the primary nodule which had served for the inoculation. As is known, the number of successful experiments of the kind is as yet very scanty (Retzius, etc.).

In the *Correspondenz-Blatt für Schweizer Aerzte*, No. 8, 1888, p. 258, Dr. Siegfried Stocker, of Lucerne, relates a case of poisoning by carbonic oxide, where transfusion of human blood was successfully employed after all other means of resuscitation had utterly failed. The patient, a senior engineer to the Gotthard Railway, a powerfully-built man aged 50, went to bed (at an hotel in Goeschenen) in the best health and spirits. The next morning he and a companion were found in an unconscious state, and apparently dying. The stove (closed in the night) contained half-consumed coal and wood. The patient's friend was brought to his senses in twenty hours by means of cutaneous stimulation, ether injections, artificial respiration, and electrification of the phrenic nerves. But the patient remained in a seemingly hopeless state even after persistent and energetic resuscitating efforts of the same kind carried out for 48 hours. As a last resource, transfusion was resorted to; 500 grammes of blood were drawn from the patient's median vein, and 110 grammes of defibrinated human blood injected into the same vein. In about two hours very gradual improvement set in. It was only on the third day after the transfusion that the temperature, respiration, and pulse became normal, while extreme prostration and mental weakness continued for a long time. In fact complete recovery took place only two months later. According to Heinecke (1885), international literature contains twenty-three cases of blood-transfusion in carbonic oxide poisoning. Of these, recovery ensued only in eight. The success, therefore, is certainly not very brilliant; still Dr. Stocker believes that the procedure is decidedly indicated in all such cases where no improvement follows in spite of persistent treatment by fresh air, rubbing and brushing the cutaneous surface, faradisation of the phrenic nerves, etc. The author lays stress on free venesection as an essential condition of success, since it is imperatively necessary (1) to relieve the intense congestion of the internal organs which is invariably present in the cases under consideration; and (2) to eliminate some portion of the poison and its injurious products (including disintegrated blood-corpuscles). On the other hand, the introduction of healthy blood is also thought necessary, though the quantity need not be considerable. A saline transfusion in the cases in question seems to be quite useless.

In the *Revue Médicale de la Suisse Romande*, May 20th, 1888, p. 282, Dr. Roux, house-surgeon to L'Hôpital Cantonal, in Lausanne, writes that since August, 1887, he has employed electrolysis in six cases of enlargement of the prostate. He places the positive electrode of an ordinary galvanic apparatus on the abdomen, while the negative one is brought in contact with long steel needles, which are plunged into the gland through the rectum as deeply as $1\frac{1}{2}$ or 2 centimètres. The circuit having been closed, a weak current is allowed to pass; its strength is then gradually increased to 70 milliampères in the course of one to three minutes, and maintained at this height for two and a half to five minutes, after which it is gradually diminished. Then the needles are thrust into another portion of the prostate, the procedure being repeated, as a rule, two or three times at a sitting. Pain (frequently about the abdomen, sometimes about the gland) is said to be intense. One of the patients, aged 70, did not come again after a sitting with five *piqures*. Another, aged 74, with an enormous prostate (about the size of an orange, according to the estimate of a "confère un peu enthousiaste"), left the hospital with the gland diminished to a third of its former volume. A third man, aged 72, returned several weeks after a single sitting with such a striking diminution of his prostate that no further treatment was found necessary. A fourth patient, aged 70, who had been admitted with very bad symptoms, left the hospital after three sittings in the course of six weeks, feeling perfectly satisfied with his state. On re-examination, on the eve of the author's present communication, the prostate was found to have

undergone a marked reduction in size. A fifth, aged 77, in whom electrolysis was repeated five times, at present shows "a general diminution of the gland, whose surface is now covered with nodules, ridges, and depressions, which were entirely absent before the treatment." The sixth case is still under treatment. The general conclusions drawn by Dr. Roux from this series are: (1) that electrolysis actually enables us to diminish the volume of a hypertrophied prostate; and (2) that this simple, easy, and harmless method most decidedly deserves a further and more extensive trial.

The Berne Society for Cremation (*Feuerbestattungsverein*) was opened on May 15th. M. Gobat, a member of the Cantonal Government (*Regierungsrath*) has been elected the first President of the new society. The administration of the latter includes Dr. Schwarzenbach, the well-known professor of chemistry at the local university. The number of members registered during the first sitting has reached 308. This is not a bad figure for a town inhabited only by 50,000 candidates for burial of all kinds. *Ceteris paribus*, a London Cremation Society should show something like 26,000 members.

According to the *Bund* of May 10th, at the village of Castagnola, near Lugano, the wife of the local Communal President, aged 38, has been recently delivered, at full term, of six living children, every one of which, however, died in the course of a few hours after their birth. This startling event has induced a correspondent of the *Berner Volkszeitung* of May 19th, p. 2, to publish the following statement, which, he says, can be very easily verified: Many years ago a woman, residing at the village of Fullenbach, near Olten, was safely delivered of seven living, though tiny, infants. Since the nearest church at the time was at Olten, the seven children had to be carried to that town to be baptised. It happened that one of the rustic godfathers somehow lost one of his future godchildren on the way, the accident being discovered only after the napkins and wrappings had been carefully examined at the church. The happy father of the seven, plunged now into the very depths of unhappiness, registered a solemn vow to the Holy Mother that if "the lost child was found alive he would erect on the self-same spot a chapel dedicated to Her Holy name." The infant was soon found safe and sound, lying at the left bank of the river Aar, about 500 steps from the Aarburg Bridge, close to Ruttigen, where there now stands the chapel as erected by the father, true to his solemn promise. An official document, relating in detail to all these obstetrical and other events, is said to be exhibited within the chapel for the public edification.

CORRESPONDENCE.

BIENNIAL ELECTION OF PRESIDENT, ROYAL COLLEGE OF SURGEONS IN IRELAND.

SIR,—I think the time has arrived when, in the interests of the Irish College of Surgeons, the Council and Fellows at large should definitely decide that the office of President should last for more than one year.

The present system of electing a new President every year, owing to the altered condition of the College, has disadvantages too numerous to mention, and by instituting biennial elections much unpleasantness would be avoided, besides saving the College to a great extent from the unseemly contests for the post of Vice-President, which have been so common for the last few years.

The London College of Surgeons, where it would be easy to select a suitable President annually, owing to the number of distinguished aspirants for the position, do not adopt the system, but allow the President to hold office for two and sometimes three years, as is the case this year, when Mr. Savory takes the presidential chair for the third time in succession. The matter will be brought before the Fellows of the College at their next annual meeting, and I sincerely trust this much needed reform will be no longer delayed.

In order not to affect the present candidates for office the system might commence from June, 1890.—I am, etc.,

L. H. ORMSBY, F.R.C.S.I., M.D.,

Surgeon to the Meath Hospital and Co. Dublin Infirmary.

Member of the Surgical Court of Examiners, R.C.S.I.

Dublin, May 26th.

THE TREATMENT OF AURAL EXOSTOSES.

SIR,—Sir William Dalby, in the *JOURNAL* of May 26th, is reported to have made some remarks before the Royal Medical and Chirurgical Society, on "the removal of bony growths from the external auditory canal," in which he claims to have operated with the dental drill since 1874.

I have hitherto been under the impression that I had the satisfaction, on October 4th, 1877, of performing the first operation in England for double aural exostosis by means of drilling. This was published by me shortly afterwards. Since that time I have put on record several series of such cases, the results of which, as Roosa¹ has been good enough to observe, "justify all that Matthewson claims for the operation." Reviewing these cases, I see no reason to doubt the correctness of my original statement as regards the genesis of bony excrescences in the ear, that is, that they are commonly the result of mechanical irritation, and that a frequent source of this irritation is sea-bathing. It has again lately been recommended to use the chisel in preference to the drill for the removal of aural exostoses; but, inasmuch as drilling carefully performed is pre-eminently a safe and effectual operation, it is by no means apparent why a far rougher if readier method of procedure should be held in favour.

Now that, chiefly, as I am given to understand, through my persistent advocacy and practice, operation by drilling has come to be very generally recognised as one of the legitimate and indeed most valuable of the resources of the aural surgeon, it is desirable, I think, that I should draw attention to certain points in connection therewith. As, however, I have at present in preparation a series of some twelve fresh cases, to which I hope to add three to be treated this week, I do not purpose here to deal with this subject generally. First, I may mention that I have found it desirable to discard the crossbar at the end of the drill-holder, the use of which I recommended in the *JOURNAL* for April 30th, 1887, inasmuch as it hinders the access of light to the meatus. The steel guard which I long since recommended is, in fact, all that one requires for the protection of the ear, and it serves also the purpose of acting as a guide for the drill.

I have next to mention that prolonged experience in the treatment of deafness due to aural exostoses has taught me that the drilling of their apices is all that is absolutely necessary, as good hearing is maintained through a very small opening. It would appear from a report in the *JOURNAL* for May 26th of a paper read on the 22nd before the Royal Medical and Chirurgical Society that Sir William Dalby has lost sight of the fact that what the surgeon has to aim at in dealing with aural exostoses is not so much the removal of a tumour in bulk from the ear as the obviation of any deafness that it may cause. "In some of these cases of exceedingly hard, bony tumours in the external auditory meatus," we read, "it was found sufficient to bore a hole through their base, for that damaged their nutrition, and led to their death and removal by easier means." As, however, on the admission of Sir William, the boring of this hole is "no easy matter," and as, moreover, it is unquestionably both tedious and fraught with risk, I fail to perceive the advantage of its performance. If, further, as I have abundantly proved, a single operation by drilling suffices for all practical purposes, the death and the subsequent removal of the tumour, by means however easy, even with the most long-suffering of patients, does not appear to be a desideratum.

Not the least surprising statement in the report in question is that "burrs made of the best steel in the world were sometimes destroyed to the number of twenty or thirty before any serious impression was made, when they were revolving at a rate of 3,000 times a minute."

It seems impossible to avoid the conclusion herefrom, that the instruments referred to, whatever their original quality, must have been improperly tempered, or were otherwise unadapted for their purpose at the high rate of velocity employed, for in all my cases of ivory exostosis (and the first I operated on more than ten years ago), I have successfully used identically the same burrs.—I am, etc.,

GEORGE P. FIELD.

34, Wimpole Street.

¹ See *Treatise on Diseases of the Ear*, 6th ed., p. 486, where, also, the author remarks that "Field, of London, seems to have had the most experience in the use of the dental engine for the removal of exostoses."

THE UNIVERSITY OF DURHAM AND THE M.D. FOR PRACTITIONERS.

SIR,—In your report of the proceedings at the General Medical Council on Tuesday, May 22nd, the following paragraph occurs: "Dr. Glover asked for information as to the examinations of the University of Durham of practitioners of over fifteen years' standing. He said there were no examinations of greater interest to the profession generally."

Taken as it stands, this does not explain the meaning or object of the inquiry. You will perhaps allow me to say, therefore, that Dr. Glover asked the Registrar, Mr. Miller, if the statement in the table of passes and rejections, that the University of Durham had rejected the whole of the candidates for the practitioners' degree of the year 1887 was correct? The Registrar replied that the statement was incorrect, and arose from a printer's error, the correct numbers having been received from the University, that is, 8 rejections, 8 passes.

On inquiry, the Registrar of the University of Durham College of Medicine, at Newcastle, sent a note stating the same facts.—I

GEORGE Y. HEATH, M.B.Lond.,

Representative of the University of Durham in the
General Medical Council.

St. George's Club, Hanover Square.

THE MEDICAL COUNCIL AND THE COVERING CASE.

SIR,—In regard to this case, one cannot help feeling that the powers of the Medical Council are too limited. So far as the person covering is concerned, the power they possess, namely, to strike the offender off the *Register*, is ample, but with regard to the person covered, I cannot help thinking that the Council ought to have power to punish both, immediately and prospectively. Most certainly no person convicted of having practised regularly, by the aid of a cover or otherwise, ought to ever be registered, no matter what qualifications he may eventually obtain. With regard to the case lately before the Medical Council, I have every reason to believe that the real offender will not cease to practise in one way or another. I should say more, that the Medical Council should, in the case of such offender holding any office under the Crown, lay the facts of such offence before the advisers of the Crown, leaving it to them to take such steps as are of gravity of the case may require.

Finally, I hope that medical men throughout the country will do as I have done, and so stamp out this kind of parasite.—I

B. LUMLEY, M.R.C.S.

Northallerton.

MARSHALL AND SHAW DEFENCE FUND.

SIR,—Allow me further to trespass on your courtesy, and through your columns thank those who have so kindly and liberally contributed to the above fund, thereby relieving Dr. Marshall and myself to a great extent of the heavy legal expenses incurred in defending the recent lunacy action brought against us. I have succeeded, while clearing my character of the gross charges brought against me, in obtaining the approval of my professional brethren in my endeavours to uphold the honour and interests of the profession was of itself a sufficient reward for the many worries and anxieties entailed by this lawsuit. I regard it as a practical proof of sympathy as given in support of a cause other than personal, but I recognise and appreciate the individual kindness thus shown by so many professional friends, and I desire to express my warm appreciation of this token of their approval of good will.—I am, etc.,

HENRY MARSHALL, M.D.

Clifton, Bristol, May 26th.

SIR,—Will you permit me in your columns to return my thanks to the many generous contributors to the above-mentioned fund? Of the amount subscribed, £221 have been handed to me by the treasurer, Dr. E. Long Fox, and my legal expenses, so far as they are at present known, amount to about £330.

It is much to receive so substantial a contribution towards defraying the expenses of the late legal proceedings against Dr. Marshall and myself; it is infinitely more to know that under a prosecution for the simple discharge of a professional duty we receive the sympathy and moral support of those whose opinions we most highly value.—I am, etc.,

J. E. SHAW, M.B., C.M.

11, Lansdown Place, Victoria Square, Clifton, Bristol,

May 30th.

THE HORSE TAX.

SIR,—I think no medical man will deny that, on rare occasions, he uses his horse for pleasure, just as does the butcher, baker, etc. The latter, however, will have no tax to pay, and herein is one of the hardships to medical men.

Could not the Government be petitioned to reduce the amount of the tax by, say, one-half—making a third classification—where a horse is kept partly for work and partly for pleasure?

I imagine that if some such suggestion as this is acted upon, it will remove much of the present opposition to a tax which will apply so unjustly to us.—I am, etc.,

JOHN J. LANGSTON, L.S.A.

Newington, Sittingbourne, Kent, May 28th.

DIPHTHONGS IN MEDICAL AND SCIENTIFIC TERMS.

SIR,—I wish to call attention to a circular from the editor of the *Philadelphia Medical World*, which contains the following statement: "Please notice the stand we have maintained for the past year in regard to the use of diphthongs, discarding them altogether except in the formation of the genitive singular and nominative plural of Latin nouns of the first declension." Although a wish has sometimes been expressed that "diarrhoea" should give place to "diarrhea," and so forth, this innovation is hardly popular amongst standard English medical writers. Scholars strongly object to the reduction of "æ," as well as "œ" to "e," there being no warrant for such a change. Should the diphthong be suppressed, "—rhea" would probably be correct; but judging from philological evidence too complicated for discussion, "hemorrhage" ought to be written "hamorrhage" (pronounced "hay-morrhage"), rather than "hemorrhage." Again, in a leader on "Technical Terms and Medical Study" in the *JOURNAL* for December 24th, 1887, p. 1393, in reference to the craze of purists for "pure Anglo-Saxon words," it was observed: "Strange to say, by the way, some of these purists often object to diphthongs, which abounded in Anglo-Saxon, and whilst historians, who have really studied that language, write about 'Ælfred the Great,' medical authors think that we might as well take to spelling 'hæmorrhage' 'hemorrhage.'" British and American writers and editors ought hardly to abolish the two diphthongs without duly consulting classical scholars, who are also authorities in English composition.—I am, etc.,

φιλόλογος.

INTERMITTENT HÆMATURIA.

SIR,—The case of this disease related by Mr. Berkeley Hill in his clinical lecture on hæmaturia is of great interest. In May of last year I read before the Clinical Society an account of a case of hæmaturia due to bilharzia (which is published in vol. xx of the *Transactions*), and up to about that time no instance of the origin of the disease in this country had, I believe, been recorded. It appeared, therefore, that the continued observation of cases in this country would throw some light either upon the natural duration of life of the adult parasite, or on the possibility of the embryo reaching maturity within the human body without the intervention of an intermediate host—a very unlikely proceeding. Should the two cases originating in this country, and recorded by Mr. Berkeley Hill and Mr. Reginald Harrison, be supported by the discovery of others, the results of this method of observation will lose much, though not all, of their value. The case that I have recorded, originating in Natal, has now been under observation in this country more than two years and a half. Ova of the bilharzia have been found on every occasion when sought for, and still continue to be passed. The patient was much depressed at first on learning the nature of his malady, but has otherwise been in good health, and now is quite robust, playing football in the season once or twice a week. The loss of blood in the case related by Mr. Berkeley Hill seems to have been very excessive.

With regard to the hatching of the ova in urine I am satisfied I have observed this occasionally, though usually they remain unaltered for several days until they are killed by an advanced state of decomposition of the urine. When placed on a slide, in urine, under a cover glass I have watched dozens of the embryos escape from the shell, which the weight of the cover glass appears to help to rupture. The embryos continue to swim about actively in the urine for several hours.

The ova are readily preserved in glycerine diluted with about one-third water. I have numerous specimens that have been preserved in that manner and that have remained in good condition already for two years and a half.—I am, etc.,

Nottingham, May 28th.

H. HANDFORD, M.D.

LONDON UNIVERSITY: PRELIMINARY SCIENTIFIC (M.B.) EXAMINATION.

SIR,—A Royal Commission having been appointed to take evidence with regard to the development of higher education in London, one hopes that the result will be the establishment of a teaching university worthy of the importance of the metropolis, with its huge population and great position in the civilised world. If a teaching university be established and the present University remain simply an examining body, as it is at present, could not the Senate and Convocation be induced to do something to improve the position of the medical undergraduates?

The Medical Faculty is the most heavily weighted in the University, and the greatest impediments and difficulties appear to be thrown in the way of candidates for its degrees. No student is regarded as a student in medicine until after he has passed the preliminary scientific examination, notwithstanding that possibly he might have completed a year or two of hospital work before that date; and then a considerable period must elapse in which hospital lectures, etc., must be attended, between the intermediate and final M.B. examinations.

The preliminary scientific is an extra examination, as it were, no corresponding one being required in any of the other curricula. It is not a mere preliminary science examination to medicine, but a severe test, requiring at least twelve months' residence at some college or institution where science is well taught in the classroom and laboratory, and also considerable application on the part of the student, who should be endowed with fair brain-power. The severity of this examination has been recognised by the Senate in allowing candidates to divide the subjects into two parts, to be taken at different times, so that a student, if he be successful, may have to undergo five examinations before he can take his degree of M.B., whereas in Arts, Science, and Law he can only three.

Does this appear to be equitable or fair? It seems to me that medical students, having to undergo a special scientific training after matriculation and before they can be allowed to commence their professional studies, ought to have some particular designation given them—such as "Licentiates in Science"—instead of merely describing themselves as having passed the preliminary scientific examination. The organic chemistry of the intermediate M.B. may be added to the subjects of the preliminary scientific, so that subsequent studies may be entirely professional, and all those who had passed the scientific examination should be termed "Licentiates in Science." The character of this and matriculation cannot be less, if it be not more, than the B.A. in some of the older universities.

If the Senate and Convocation would give some more distinctive mark to those who had passed this examination, it would be a great incentive to candidates, as well as improve their position very considerably in the eyes of the world. The University of St. Andrews confers the designation of LL.L. on ladies who pass in certain subjects laid down by the Senatus and professors of that University; and, as the University of London is merely an examining body, surely it may do something to sweeten the hard struggles of many of its undergraduates. Of course all Licentiates in Science would be in *in statu pupillari*, as at present, and have no voice whatever in university matters.—I am, etc.,

R. CLIFFORD.

NAVAL AND MILITARY MEDICAL SERVICES.

THE MEDICAL RESERVE.

A CORRESPONDENT, "Vigilant," asks the profession and all who may contemplate joining the Army Medical Reserve, to consider, while the warrants relating to the regular medical service are so easily set aside or played ducks and drakes with, what assurance would be reservists have that they may not be tripped up and befooled with equal disregard of terms? They may think they are safe under certain conditions, but the "exigencies of the service" under Mr. Stanhope's Bill for extended powers over the militia and volunteers will place them completely in the clutches of the War Office, and send them for general duty all over the country; they will have no hold over their corps, or their corps over them. Any of them who have private practices worth conserving will find them absorbed on their return home by rivals, who, not entrapped by vain military medical titles, have an eye to real business in civil life.

THE OLDEST VOLUNTEER.

Mr. JAMES WILLIAMS, F.R.C.S., J.P. (Mount Pleasant, Brecon), writes: In the JOURNAL of May 12th, under "Volunteers," I find: "Surgeon and Honorary Surgeon James Williams, of the 1st Volunteer Battalion South Wales Borderers, late 1st Brecknock, has also resigned, with permission to retain his rank and uniform; his appointment was dated April 15th, 1862."

I wish this inaccuracy corrected. My appointment bears date November 15th, 1859 (enclosed for your inspection). I was enrolled in August three months before, making me presumably "the oldest volunteer in the kingdom," having served continuously for twenty-nine years, and having accompanied my regiment twice to Aldershot, and notably last year, to show our beloved Queen the loyalty and nationality of Brecknock Welshmen, accompanied by the emblematic goat in the march past, and myself honoured by my townsmen as the "Jubilee" mayor. Taking these claims into consideration, I asked the "highest military authorities" permission to remain with the regiment a little longer, as we are to be brigaded this year in our own town with other county regiments. My appeal was refused in the usual stereotyped fashion, and the favour asked not granted. This kind of treatment to an old volunteer of nearly thirty years' standing requires some explanation.

INSPECTION OF A BATTALION OF VOLUNTEERS.

SURGEON-MAJOR writes: It is, I believe, becoming increasingly common for the regimental bearers to march past under command of a surgeon, taking their position in rear of the battalion. May I ask if there is any authority for this?

Does Section 355, Part III, Manual for Medical Staff Corps, apply; and, if so, how is it that stretchers are so frequently carried, as they are strictly forbidden by the last paragraph? If it be right to march past, what is the position of the surgeon in command; and should he salute as the combatant officers do? I shall be glad to receive information on the above points, as although my men have repeatedly marched past, and sometimes with stretchers, I have never felt quite sure that it was right; and one likes more authority than the commendation of the inspecting officer.

. "At annual inspections of volunteer corps, the corps stretcher bearers will parade and be inspected as such under the medical officer" (*vide* Volunteer Regulations, Part I, Sec. VI, para. 517). There is no authority (except general sanction) for the march past of regimental bearers under command of surgeon.

Sec. 355, Part III, Manual of Medical Staff Corps, applies as far as the duties of regimental bearers in giving first aids and conveying the wounded to an ambulance wagon or the collecting station.

Stretchers are carried by bearers, as regimental waggons are rarely provided. The position of the surgeon is in rear of the centre of his bearers; he salutes with the hand, not, as the combatant officers, with the sword.

ARMY MEDICAL STAFF.

REGIMENTAL M. O. writes: "Verbum Sap," is not yet tired of agitation. Is he aware of the contrast that has been wrought in the last few years between the old "regimental" officer and the present semi-civilian rankless "doctor"? It is possible the authorities may tire of agitation, especially now as they are strengthening their hands by daily filling up the reserve lists. I fear a doctor in the army must remain one. If things go on as at present, civilians, pure and simple, will have medical charge of our army in the distant future. Before agitation, let medical officers unite and pull together; had they done this in time, they would not be in the condition they are in at present.

THE NAVY.

THE following appointments have been made at the Admiralty: G. A. CAMPBELL, Fleet-Surgeon, to the *Impregnable*; C. W. MAGRANE, Staff-Surgeon, to the *Lion*; J. F. DONOVAN, Surgeon, to the *Thunderer*; M. H. ACOCK, Surgeon, to the *Orlando*, additional; ANTHONY GORHAM, Fleet-Surgeon, to the *Impregnable*; ROBERT GRANT, Fleet-Surgeon, to the *Téméraire*.

THE MEDICAL STAFF.

SURGEON G. D. HUNTER has been seconded for service with the Egyptian army.

Surgeon F. W. C. JONES, serving in the Bombay command, having returned from Burmah, is posted to general duty in the Bombay district, Northern Division, and Aden.

Surgeon-Major C. C. PIPER died at Guildford on May 21st, at the age of 63. He entered the service as Assistant-Surgeon September 12th, 1855, and was promoted to be Surgeon and Surgeon-Major successively, retiring on half pay February 7th, 1876. He had no war record.

ARMY MEDICAL RESERVE.

SURGEON AND HONORARY SURGEON-MAJOR BURFORD NORMAN, of the 1st Volunteer Brigade, Southern Division, Royal Artillery (late the 1st Hampshire Artillery) is appointed Surgeon-Major (ranking as Major).

THE INDIAN MEDICAL SERVICE.

BRIGADE-SURGEON H. COTTER, M.D., Bengal Establishment, is appointed Deputy Surgeon-General with temporary rank, *vice* Acting Deputy Surgeon-General A. H. Hilson, M.D., appointed Officiating Inspector-General of Civil Hospital, Bengal.

Surgeon-Major W. D. STEWART, Bengal Establishment, is granted furlough in and out of India, on private affairs, for 1 year and 243 days.

Surgeon A. W. ALCOCK, M.B., Bengal Establishment, is appointed to the medical charge of the 2nd Punjab Infantry, *vice* Surgeon W. A. Sykes.

Surgeon-Major J. M'CONAGHEY, Bengal Establishment, Civil Surgeon of Bari Bankee, is appointed to officiate as Civil Surgeon of Fyzabad, during the absence on deputation of Dr. O'Brien.

The services of Surgeon C. W. OWEN, C.M.G., O.I.E., Civil Surgeon of Nynee Tal, are placed at the disposal of the Government of India, Foreign Department.

Surgeons J. HOLT, T. H. GRIFFITH, J. L. T. JONES, and W. E. JENNINGS, are brought on the strength of the Bombay Establishment, from April 22nd, the date of their arrival at Bombay.

Surgeon J. GARVIE, Bengal Establishment, is appointed to the officiating medical charge of the 13th Bengal Lancers, *vice* Surgeon W. Cunry, M.B., granted leave out of India.

Surgeon A. COLEMAN, Bengal Establishment, is appointed to the officiating

medical charge of the 17th Bengal Lancers, vice Surgeon S. H. Henderson, recommended for leave in India.

Surgeon H. HENDLEY, Bengal Establishment, is appointed to the civil medical charge of Dalhousie.

Surgeon-Major B. O'BRIEN, Bengal Establishment, Civil Surgeon of Fyzabad, is appointed to officiate as Civil Surgeon of Cawnpore, during the absence on privilege leave of Brigade-Surgeon J. H. Condon.

Surgeon H. P. DIMMOCK, Bombay Establishment, is appointed Civil Surgeon of Sukkur, vice Surgeon-Major M. L. Bartholomewsz, M.B., C.B., transferred.

Brigade-Surgeon G. Y. HUNTER, Bombay Establishment, Presidency Surgeon Third District, is allowed furlough to Europe for six months, on medical certificate.

Surgeon-General M. C. FURNELL, M.D., C.I.E., late of the Madras Establishment, died at Monte Carlo on May 24th, aged 58. Entering the service as Assistant-Surgeon, February 7th, 1855; he attained the rank of Surgeon-General, April 5th, 1855. He served during the Indian Mutiny in 1858-59, and was present at the battle of Dowdapore, in Oudh, and in the pursuit of Beni Madho and Runmst Singh (medal). He was nominated Companion of the Order of the Indian Empire, May 29th, 1886.

THE VOLUNTEERS.

The resignation of Surgeon and Honorary Surgeon-Major H. MEADE, of the 2nd West Riding Artillery, announced in the *London Gazette* of May 4th, is cancelled.

Surgeon A. HAMILTON, of the 2nd Volunteer Battalion of the Cheshire Regiment (late the 2nd Cheshire), is granted the honorary rank of Surgeon-Major.

The undermentioned gentlemen are appointed Acting-Surgeons to the corps specified.—R. S. SMITH, M.B., 1st Volunteer Battalion Royal Highlanders (late the 1st Forfar); A. E. OBLING, 1st Volunteer Battalion Lincoln Regiment (late the 1st Lincoln); C. W. MACDOWELL, M.D., 22nd Middlesex (Central London Rangers).

THE PHYSICAL TRAINING OF SOLDIERS.

LORD WOLSELEY has consented to preside at a meeting to consider the physique of soldiers and their physical training, to be held at the Royal United Service Institution, next Wednesday, when the subject will be opened by Colonel Onslow, Inspector of Gymnasias at Aldershot.

MEDICO-LEGAL AND MEDICO-ETHICAL.

ATTENDANCE ON THE FAMILIES OF MEDICAL MEN.

B. N. asks whether it is according to professional custom for a doctor to make a charge for professional services to the child of another medical man, staying in a relative's house. The relative is charged with an account, but refers the doctor for payment to the child's father. Should the latter pay without demur?

** A clearly defined answer to our correspondent's question and its collateral hearing will be found in the following rule, extracted from the *Code of Medical Ethics*, page 53:

"All legitimate practitioners of medicine, their wives, and children, while under the paternal care, are entitled (not as a matter of right, but by professional courtesy) to the reasonable and gratuitous services—railway and like expenses excepted—of the faculty resident in their immediate or near neighbourhood, whose assistance may be desired. In the case, also, of near relatives who are more or less dependent upon a professional brother (other than wealthy), it will likewise be well, at his request, to forego or to modify the usual fee. On the other hand, a son or daughter altogether independent of the father, or the widow and children of a practitioner left in affluent or well-to-do circumstances, should be charged as ordinary patients, unless feelings of friendship, or other special reasons, render the attendant practitioner averse to professional remuneration; in such case the rule need not apply. Moreover, if a wealthy member of the faculty seeks professional advice, and courteously urges the acceptance of a fee, it should not be declined, for no pecuniary obligation ought to be imposed on the debtor which the debtee himself would not wish to incur."

SEALED TENDERS.

THE point involved in the question submitted by our Cape Town correspondent is apparently altogether so foreign to the general usage and custom, ancient and modern, of the profession, that, after careful research, we have failed to discover any ethical rule whatever bearing on the subject, thereby evidencing, to our mind, the belief that "tendering" for a paid medical appointment has hitherto been a thing unknown to the medical profession; otherwise, a rule in reference thereto would, we think, have been formulated with the view of guarding, as far as may be, against any apprehended abuse thereof. In the absence, therefore, of such a rule, we do not hesitate to express the opinion that, for any legitimate practitioner to send in a "sealed tender" for the medical appointment advertised in the *Cape Times* would be regrettable.

TOD HEATLEY AND ELLIOT AND FRY v. BENHAM.

THE SECRETARY OF THE QUEEN'S JUBILEE HOSPITAL writes: As an impression appears to prevail in some quarters that the "Queen's Jubilee" Hospital is to be closed in consequence of Mr. Justice Kekewich's judgment in this action (based on the decision of the late Master of the Rolls, that "some throat affections might be contagious," and so constitute a legal nuisance), and as such an impression is calculated to damage the hospital, will you kindly allow me to state that the injunction is not to take effect for six months from the date of the judgment, and in the meantime it will be appealed against, and, if necessary, to the highest tribunal, as the judgment affects all existing institutions; and, in the event of the judgment being upheld, the hospital will be carried on at other premises in the immediate neighbourhood?

UNIVERSITY INTELLIGENCE.

THE ROYAL UNIVERSITY OF IRELAND.

At the close of the Spring Examinations in the Faculty of Medicine, the Senate awarded the following honours and exhibitions.

Third Examination in Medicine.

First Class Honours.—J. M. Hall, Queen's College, Belfast; J. W. Wolfe, Queen's College, Cork.

Second Class Honours.—Eleanora L. Fleury, London School of Medicine for Women; J. Jackson, Queen's College, Cork.

Exhibitions.

First Class, £30.—J. M. Hall (disqualified by standing); J. W. Wolfe.

Second Class, £20.—E. L. Fleury.

At a public meeting of the University held on Friday, May 18th, the following degrees were conferred by the Vice-Chancellor.

The degree of Doctor of Medicine.

J. F. St. John Annesley, J. Clifford (*in absentia*), J. H. Corcoran, D. Crowley, J. Hunter, G. Love, J. J. Lynch (*in absentia*), D. McKee, M. Molony (*in absentia*), P. J. O'Brien, L. O'Clery, M. Semple, H. Smith (*in absentia*), J. W. Wilson.

The degree of Bachelor of Medicine.

T. E. Duane, W. R. Gore, J. J. Griffin, W. Kelleher, P. McKenna, A. E. Mahood.

The degree of Master of Surgery.

J. F. St. John Annesley, J. Clifford (*in absentia*), J. H. Corcoran, D. Crowley, R. B. Gorsuch, M.D., J. Hunter, J. J. Lynch (*in absentia*), D. McKee, P. McKenna, A. E. Mahood, C. W. Morgan, M.D. (*in absentia*), J. J. O'Brien, P. J. O'Brien, L. O'Clery, M. Semple, H. Smith (*in absentia*).

The degree of Master of Obstetrics.

J. H. Corcoran, D. Crowley, J. R. Davison, M.D., A. E. Mahood, H. Smith (*in absentia*), J. Tomb, M.D. (*in absentia*).

The degree of Bachelor of Surgery.

T. E. Duane, W. R. Gore, J. J. Griffin, G. Love, M. Molony (*in absentia*), J. W. Wilson.

The degree of Bachelor of Obstetrics.

T. E. Duane, W. R. Gore, J. J. Griffin, G. Love, M. Molony (*in absentia*), J. W. Wilson.

The diploma in Sanitary Science.

C. F. Knight, M.D.

The degree of Master of Arts.

M. Henry.

EIGHTH CENTENARY OF THE UNIVERSITY OF BOLOGNA.—The Senate has deputed Dr. Moffett, President of the Queen's College, Galway, and Dr. Dunne, one of the Secretaries, to represent the Royal University at the celebration of the eighth centenary of the University of Bologna.

RECOGNITION OF A CORK HOSPITAL.—The Senate resolved to add to the list of recognised medical institutions the Eye and Ear Hospital, Nile Street, Cork.

TRAVELLING MEDICAL SCHOLARSHIPS.—The Senate decided to modify the rules respecting the standing of candidates for the travelling medical scholarship, so that in and after the year 1889, any person who may have passed the examination for the primary medical degrees, either in the year in which the scholarship examination is held, or in the year immediately preceding, shall be eligible to compete for it.

REGULATIONS FOR B.Ch AND B.A.O. DEGREES.—The Senate decided to admit to the degree of B.Ch. all graduates who obtained medical degrees in this University in the years 1882 to 1887, inclusive, upon payment of the fee of £5, and upon passing an examination in operative surgery only, provided such graduates had obtained at least 50 per cent of the marks assigned to surgery at the medical degree examination. The Senate also decided to admit to the degree of B.A.O. all such graduates as above mentioned upon payment of the fee of £2, without further examination, provided such graduates had obtained at least 50 per cent of the marks assigned to midwifery at the medical degrees examination.

CAMBRIDGE.

ASSISTANT TO THE PROFESSOR OF SURGERY.—Joseph Griffiths, M.B., C.M. Edin., and D.P.H. Camb., has been appointed Assistant to the Professor of Surgery (Dr. Humphry).

EXAMINERS.—Dr. Donald MacAlister, Dr. Broadbent, and Professor Julius Dreschfeld have been nominated as Examiners in Medicine; Dr. Galabin and Dr. Gervis, Examiners in Midwifery; Mr. Wherry, Mr. Macnamara, and Mr. Willett, Examiners in Surgery.

EIGHTH CENTENARY OF THE UNIVERSITY OF BOLOGNA.—A congratulatory address has been prepared for presentation to the University of Bologna, upon the occasion of the eighth centenary of its foundation. Professor Adams, Professor Middleton, Dr.

Jebb, and Mr. Justice Denman, have been appointed to represent the University of Cambridge at the ceremony.

PRACTICAL COURSE IN HYGIENE.—A course of practical instruction in hygiene will be given by Dr. Anningson and Mr. Robinsen, M.A., at Cambridge during the long vacation. Short explanatory lectures will be given, but the greater part of the course will consist of practical laboratory work, including analysis, microscopy, and the cultivation and recognition of micro-organisms. Special attention will be given to the examination of air, water, and foods to meet the requirements of medical officers of health, and the principles of drainage and ventilation will be dealt with in lectures illustrated by diagrams and models. The course is not limited to persons who are members of the University. Further particulars will be found in our advertising columns.

VICTORIA UNIVERSITY.

In connection with the incorporation of the Yorkshire College with the Victoria University, the College Council has created two new professorships in place of the former lectureships in midwifery and pathology in the medical department. Mr. C. J. Wright has been appointed Professor of Midwifery, and Dr. E. H. Jacob Professor of Pathology and Morbid Histology. The Senate has elected Professors Eddison and Smithells its representatives in the Court of the University.

INDIA AND THE COLONIES.

AUSTRALASIA.

INTERCOLONIAL MEDICAL CONGRESS AT MELBOURNE.—The first Intercolonial (Australasian) Medical Congress was held in Adelaide last year; the next is to assemble at Melbourne, and it was originally intended that an interval of three years should be allowed to elapse, but as the Centennial Exhibition is to open during the next Australasian summer, it has now been determined to hold the Medical Congress in January, 1889, when the Exhibition will be in progress. The President is Mr. T. N. Fitzgerald, F.R.C.S.I.

INDIA.

THE Bombay European General Hospital is in a very unsatisfactory state, and the Government resolution imposing another delay of six months in carrying the extension scheme to completion is regarded as most disappointing. The Government years back admitted the urgent need of improved accommodation for the nurses, and the present shilly-shallying is causing great discontent.

KASHMIR MEDICAL MISSION.—The report of the Kashmir Medical Mission for 1887 shows that the area of the work is increasing; the number of patients exceeded all previous records, and there was a proportionate increase in the number of major operations. In addition to the patients seen at the base, nearly three months were spent in itineration, over 6,000 patients being treated in the various villages. The dispensary equipment on these journeys consisted of two coolie loads of concentrated mixtures, pills, or drugs in bulk, and surgical instruments. In one such journey of four days, 1,200 patients were seen, and 120 operations performed. A very large proportion of all the operations done were on the eye, and the majority of these for trichiasis. Mr. A. Neve and Dr. E. F. Neve, the medical missionaries, state that they now perform a modification of Stellwag's operation, the total number of eyes thus treated for trichiasis being about 900. Miss F. Butler, M.D., and Miss Hull, with probably other ladies, were expected to join the mission this year. Subscriptions are asked for, and may be paid to the Rev. J. Lowe, F.R.C.S., 56, George Street, Edinburgh.

OBITUARY.

WILLIAM A. RICHARDS, M.D. LOND.

WE deeply regret to have to record the death of Dr. William Alsept Richards, of Winchester, which took place on Tuesday, May 8th, at 16, Fitzroy Square, London, at the early age of 42, from hæmorrhage following an operation for fistula.

Dr. Richards, who was a native of Cornwall, had a very brilliant college career. He studied at King's College, London, where he

obtained an exhibition in Chemistry and Materia Medica, passing First M.B. in 1865, L.R.C.P. Lond., 1867, M.R.C.S. Eng., 1867, M.B. and Medallist in Medicine, 1868, M.D. Lond., 1871. He went to Winchester some seventeen years ago as house-surgeon to the County Hospital, and after remaining there about eighteen months went into partnership with the late Dr. Butler, with whom he remained until the death of the latter. Since then he enjoyed an extensive practice in the city and neighbourhood, being recently assisted by his brother, Mr. D. Richards, his pleasant and genial manners making a host of friends, to whom the news of his death came as a sad surprise, and by whom he is most sincerely mourned. He was one of the physicians to the County Hospital and medical officer to Winchester College, Hants County Constabulary, the City Police, and H.M. Prison.

MATTHEW BAILIE GAIRDNER, M.D. EDIN.

WE regret to announce the death of Dr. Matthew Bailie Gairdner, late of Crieff, which took place on May 18th. The deceased gentlemen, whose connection with the district as a medical practitioner extended over fifty years, was born in Glasgow in 1808. His family removing while he was a youth to Edinburgh, where his father held an appointment in the customs, he was brought up to the medical profession, and, as was the custom in those days, apprenticed to one of the leading city firms, Messrs. Bell, Russell, and Co. one of the partners being Russell, the professor of clinical surgery, and another, Ross, a well-known medical practitioner of Edinburgh. Two of his co-apprentices were Dr. Ormond, of Edinburgh, and Dr. Fraser Thomson, of Perth.

Commencing his medical studies at the age of 15, he obtained the licence of the Royal College of Surgeons at the early age of 19, and two years later (in 1830) he graduated M.D. at the University of Edinburgh. He held the appointment of house physician to the Fever Hospital in Edinburgh, and subsequently went to Comrië as private physician to Sir Robert Dundas, of Dunira. Here he soon acquired a large and lucrative practice. A few years later he removed to Crieff, and shortly after the passing of the Poor-law Act he was appointed medical officer of the Crieff Parochial Board, a post he held till three days before his death. He was also connected for some years with the local volunteer corps as assistant surgeon.

Dr. Gairdner was the intimate friend of the late Professors Simpson, Christison, and Symes. On the discovery of the operation for strabismus he operated extensively in the district. Among the minor operations, he was fond of hare-lip and club-foot cases. He was universally successful, and was able to boast that he never lost a case, even among his major operations. He was for many years a member of the British Medical Association.

SURGEON-MAJOR WILLIAM CAREY COLES, M.D. EDIN.

THIS distinguished administrative officer of the medical department of Bombay was the son of the Rev. Thomas Coles, of Bourton-on-the-Water, Gloucestershire, where he was born in 1817; he received his medical education at University College, the College of Surgeons, and Apothecaries' Hall, London, taking the Fellowes gold medal and his diplomas 1839-40. Between the latter year and 1843 he served on board the Honourable East India Company's troopship *Minerva* in the Eastern Seas, receiving two silver medals, one for the China war and the other for the taking of Canton. On his return to England he took the degree of M.D. at Edinburgh, in 1844. In the following year he obtained his commission as an assistant-surgeon in the Bombay army.

For several years he was employed in various appointments on general duty, serving at different times with the 78th Highlanders, the 20th Bombay Native Regiment, and the Madras Artillery; and as assistant civil surgeon and surgeon to the coroner and garrison surgeon at Bombay. In 1849 he was appointed Professor of Midwifery and Medical Jurisprudence in the Grant Medical College, and held these appointments until 1854, acting for some time in 1852-53 as principal of the College during the absence on furlough of the late Dr. Herbert Giraud. Having frequently acted from 1848 as secretary to the Bombay Medical Board, he was permanently appointed to that office in April, 1855, and continued to hold it to his retirement from the service in 1865.

It has been truly remarked that it was in this position that he made his reputation as an administrative officer of the highest efficiency and distinction. To great natural capacities for such duties as were now required of him he added habits of the most

indefatigable self-denying industry and of the exactest regularity in the distribution and despatch of his work. His benevolent character, genial and engaging manner, won for him many friends, and on his leaving India he was presented by his brother officers with a service of silver. Dr. Coles was in his 71st year.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DIPHTHERIA AT ENFIELD.

DIPHTHERIA has for a long time maintained itself in Enfield, and since 1873 scarcely a year has passed without deaths from that disease being registered in one or another portion of the district. During the last three years the number of such deaths has increased, and this increase has been coincident with a general prevalence of diphtheria over a wide area of country north of London. During 1886, in the Enfield district twenty-four deaths from diphtheria and four others from "croup" were registered, and during the first three quarters of 1887 cases continued to occur in various parts of the district. Towards the end of September last diphtheria began to be epidemic, especially in central Enfield, and between that time and the end of January of the present year 213 cases, of which forty-eight were fatal, were reported in the district.

At this stage, in consequence partly of the local panic, an inquiry was undertaken by the Local Government Board, and was entrusted to Dr. Bruce Low. But owing to the circumstance that, antecedent to its extension last autumn, diphtheria had persisted for several years in Enfield, and to the lapse of time since the commencement of epidemicity of the disease, Dr. Low's report, just published, does little more than review the chief conditions, so far as they could be learned, under which epidemic diffusion of the disease has occurred. A "sewer-gas" theory had locally most acceptance as the probable cause of the diffusion; but it is discarded by Dr. Low, who points out that, as a matter of fact, objectionable sewer emanations were complained of over a very wide area, whereas epidemic diphtheria was restricted to certain definable limits. Moreover, the first outbreak of the disease in September and October last was not in localities whence the chief complaint of foul emanations from sewers has come, but in another part of the district which has not been specially troubled in this fashion. The water-supply was also accused, but Dr. Low easily shows that accusation to be unfounded.

On the other hand, the medical officer of health's suspicions as to contaminated milk were ridiculed in some quarters, and few appear to have agreed with him in suspecting elementary schools as having had large concern in the spread of the diphtheria. In reality school attendance was the strongest influence in the spread of the disease. In one school, having an average attendance of 110 scholars, 28 had diphtheria in the course of a few weeks, and 11 of these died of the disease. Another school, situated at some distance from that already referred to, and still further from the locality of chief epidemicity of diphtheria in December last, supplied evidence of the same sort. Among several hundred houses having like conditions of population and sanitary and other circumstances, diphtheria tended to pick out (so far as fatal diphtheria was concerned, it did so without exception) families which sent children to the schools in question. Thus, of 20 families in Central Enfield invaded during the first three weeks of this year, at least 14 got their diphtheria in the persons of children attending those schools. The milk-theory of the medical officer of health is also borne out by some very convincing figures, but cannot be positively proved at this distance of time.

Many other influences tended to foster diphtheria in Enfield. Not a few instances came to light in which parents, accompanied often by children, had visited at houses where diphtheria existed for the purpose of condolence, of gossip, or of idle curiosity; and very commonly children, regarded by their parents as practically well after diphtheria, were sent to school without trouble on the part of anyone to obtain certification as to freedom from infection. So, too, as regards what appear to have been mild cases of diphtheria, people have been content to take advice from "chemists," who in turn have given medicine for "colds," "teething," and the like, with the result that, in several instances,

children having decided diphtheria have mingled freely with their fellows.

Again, there is a custom among the working class in Enfield, as, indeed, elsewhere also, of assembling children of the family in the sickroom to take their last leave of the relative dead or dying from infectious disease, and Dr. Low gives some instances in which children have even been brought from other districts to take part in such formal leave-taking. Domestic animals have also fallen under suspicion in the Enfield epidemic, cats being observed to suffer in considerable numbers from illness. Though there were no known causes of diphtheria occurring in the practice of the veterinary surgeons of the locality, yet they saw many cases of "influenza" at this time among animals. Several curious illustrations are detailed by Dr. Low.

Diphtheria is a disease around which a great deal of obscurity still hovers, and every fresh link in the chain of evidence is welcome. Much has been elucidated from time to time by the medical staff of the Local Government Board, but it is unfortunate that such opportunities of studying a sustained epidemic as has recently been afforded at Enfield should so often be lost. This is mainly owing to the smallness of the staff of inspectors, but is none the less unfortunate.

DISEASES OF THE RESPIRATORY ORGANS AT MIDDLESBROUGH.

It has been reported that a rapidly fatal epidemic, supposed to be due to noxious fumes emanating from a factory in the neighbourhood, prevails at Middlesbrough-on-Tees. We have made inquiries into the matter, and are informed by Dr. Malcolmson, the medical officer of health for the district, that there is no epidemic there traceable to noxious fumes. In common with all towns on that coast, they have had a large fatality from diseases of the respiratory organs (pneumonia, bronchitis, and phthisis), during the months of March, April, and the early part of May. Pneumonia, always very prevalent at Middlesbrough in the spring months, has this year been exceptionally prevalent, and the people of this district have suffered greatly from the east and north winds, the atmosphere this year being for a long time charged with moisture. The population is an iron-working one, and the labour, which is hard, is carried on in a hot atmosphere, which causes free perspiration; resting on the way home the men are prone to get sudden chills, and these circumstances are, in Dr. Malcolmson's opinion, sufficient to account for the exceptional fatality experienced during this, as in previous springs.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, May 26th, 4,911 births and 3,201 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality, which had been 17.6 and 18.9 per 1,000 in the two preceding weeks, declined again to 17.8 during the week under notice. The rates in the several towns ranged from 10.9 in Birkenhead, 11.6 in Portsmouth, 13.3 in Nottingham, and 15.7 in Derby to 22.8 in Salford, 22.8 in Norwich, 24.8 in Manchester, and 27.8 in Preston. The mean death-rate in the twenty-seven provincial towns was 18.8 per 1,000, and was 2.2 above the rate recorded in London, which did not exceed 16.6 per 1,000. The 3,201 deaths registered during the week under notice in the twenty-eight towns included 285 which were referred to the principal zymotic diseases, against 287 and 330 in the two preceding weeks; of these, 113 resulted from whooping-cough, 38 from diarrhoea, 36 from scarlet fever, 36 from measles, 29 from diphtheria, 25 from "fever" (principally enteric), and 8 from small-pox. These 285 deaths were equal to an annual rate of 1.6 per 1,000; in London the zymotic death-rate was 1.8; while in the twenty-seven provincial towns it averaged 1.4 per 1,000, and ranged from 0.0 in Portsmouth, and 0.5 in Birkenhead to 2.3 in Salford, 2.5 in Nottingham and 2.6 in Wolverhampton. Measles caused the highest proportional fatality in Nottingham and Derby; scarlet fever in Blackburn and Halifax; whooping-cough in Leeds and Salford; and "fever" in Derby and Hull. The 29 deaths from diphtheria in the twenty-eight towns included 19 in London, 2 in Liverpool, and 2 in Norwich. Of the 8 fatal cases of small-pox recorded during the week under notice, 3 occurred in Sheffield, 2 in Preston, 1 in Bristol, 1 in Oldham, and 1 in Hull. The Metropolitan Asylums Hospitals contained only 4 small-pox patients on Saturday, May 26th, and no new cases were admitted during the week. These hospitals also contained 891 scarlet fever patients on the same date, against 91 and 82

at the end of the two preceding weeks; there were 66 admissions during the week. The death-rate from diseases of the respiratory organs in London was equal to 2.8 per 1,000, and was considerably below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns 860 births and 529 deaths were registered during the week ending Saturday, May 26th. The annual rate of mortality in these towns, which had been 21.1 and 19.3 per 1,000 in the two preceding weeks, rose again to 20.9 during the week under notice, and exceeded by 3.1 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Leith and Dundee, and the highest in Glasgow and Perth. The 529 deaths in these towns during the week under notice included 51 which were referred to the principal zymotic diseases, equal to an annual rate of 2.0 per 1,000, which exceeded by 0.4 the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley, Greenock, and Glasgow. The 257 deaths in Glasgow included 13 from measles and 9 from scarlet fever. The mortality from diseases of the respiratory organs in these towns was equal to 4.0 per 1,000, against 2.8 in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, May 26th, the deaths registered in the sixteen principal town-districts of Ireland were equal to an annual rate of 23.3 per 1,000. The lowest rates were recorded in Galway and Sligo, and the highest in Lurgan and Drogheda. The death-rate from the principal zymotic diseases in these towns averaged 2.4 per 1,000, and was highest in Wexford, Lisburn, and Lurgan. The 165 deaths registered in Dublin during the week under notice were equal to an annual rate of 24.4 per 1,000, against 23.1 and 23.6 in the two preceding weeks, the rate for the same period being 16.6 in London, and 17.8 in Edinburgh. The 165 deaths included 17 which resulted from the principal zymotic diseases (equal to an annual rate of 2.5 per 1,000), of which 7 resulted from whooping-cough, 5 from scarlet fever, 2 from measles, 2 from diarrhoea, and 1 from "fever."

PENALTY FOR THE SALE OF UNSOUND MEAT.

At Dumbarton Police Court a sausage-maker and butcher was fined £10, with an alternative of 60 days' imprisonment, for having on his premises intended for sale or the manufacture of sausages a quantity of meat which the medical officer of health declared to be in a state of decomposition and unfit for food. When the meat was seized it was about to be cut up for sausages. The full penalty allowed was imposed, and was paid.

PAYMENT FOR ATTENDANCE ON A CASE OF ABORTION.

NOM. DE PLUME asks whether he is entitled to a fee under the following circumstances.

I attended a woman for abortion by an order from the overseer, and had to continue in attendance for about seven weeks, as she suffered from severe *post-partum* hemorrhage. I charged £2 in my half-yearly bill to the guardians, but they say I am not entitled to a fee, as it was an abortion. Of course I am aware that a case of abortion *per se* is not paid for, but I imagined that the long attendance afterwards entitled me to charge £2, as in a difficult labour.

*. "Nom de Plume" has no legal claim upon his guardians, but boards of guardians frequently entertain an application for remuneration under exceptional circumstances.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the first professional examinations in Anatomy and Physiology for the Diploma of Fellow at meetings of the Board of Examiners on May 23rd and 24th, namely:—

Balley, Robert Cozens, St. Bartholomew's Hospital.
 Box, Charles Richard, St. Thomas's Hospital.
 Caley, Henry Albert, St. Mary's Hospital.
 Corner, Albert, St. Bartholomew's Hospital.
 Fawcett, John, Guy's Hospital.
 Fox, Herbert, St. Bartholomew's Hospital.
 Moore, Joseph, St. Bartholomew's Hospital.
 Nall, John Frederick, St. Bartholomew's Hospital.
 Playfair, Hugh James Moore, King's College.
 Ronald, Arthur Edwin, Cambridge and St. Thomas's Hospital.
 Ross, Arthur MacLeod, Edinburgh University.
 Rouillard, Laurent Antoine John, St. Thomas's Hospital.
 Schorstein, Gustave Isidore, Oxford and London Hospital.
 Stevens, Cecil Robert, St. Bartholomew's Hospital.
 Waring, Holburt Jacob, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentleman has been admitted a Fellow of the College after examination.

H. M. Brabazon, M.B., B.S. Univ. Dub., L.K.Q.C.P.I., Indian Medical Department.

SOCIETY OF APOTHECARIES OF LONDON.—The following gentlemen having passed the Qualifying Examination in Medicine, Surgery, and Midwifery have received certificates entitling them to practise in the same, and have been admitted as Licentiates of the Society.

Ashe, Evelyn Oliver, of the London Hospital.
 Bour, Edouard François, of University College.
 Brett, William George, of Guy's Hospital.
 Gunton, George Andrew, of St. George's Hospital.
 Hughes, Samuel Henry, of St. Bartholomew's Hospital.
 McOscar, John, of the Middlesex Hospital.
 Part, John Shepley, of the Westminster Hospital.
 Williams, William Wilfred, of Guy's Hospital.

The following Licentiates passed the Qualifying Examination for the present Diploma.

Bately, Robert Godfrey, 169, High Street, Gorleston.
 Collier, William Henry, Brook House, Carbrook, Sheffield.
 Key, Augustus Cooper, 30, Wilton Place, Belgrave Square, S.W.
 Langston, John James, Newington, Sittingbourne.
 Smith, Ebenezer Thomas Aydon, 2, Alexandra Road, N.W.
 Stephens, William John, 41, Grand Parade, Brighton.
 Wordley, Alfred William, 8, Great Suffolk Street, S.E.

The following gentlemen passed the Surgical portion of the examination.

P. T. B. Beale, of King's College; W. H. Best, of the London Hospital; C. E. Dodd, of the Liverpool School of Medicine; W. G. Gray, of Belfast; F. Hues, of Queen's College, Birmingham; P. J. Le Riche, of University College; S. L. Melville, of the Liverpool School of Medicine; H. E. Owen, of the London Hospital; M. Tench, of the Middlesex Hospital.

The following gentlemen passed the Medical portion of the examination.

E. C. Masser, of Queen's College, Birmingham; W. G. Sargent, of the London Hospital.

MEDICAL VACANCIES.

The following Vacancies are announced:

BALTINGLASS UNION.—Medical Officer, Dunlavin Dispensary. Salary, £135 per annum, and fees. Applications to Captain Heighton, J.P., Honorary Secretary, Dooard House. Election on June 13th.

BERKS COUNTY ASYLUM, Wallingford.—Assistant Medical Officer as *Locum Tenens*. Two guineas per week, with board, etc. Applications to J. Harrington, Esq., Medical Superintendent.

BOARD OF WORKS FOR THE WANDSWORTH DISTRICT.—Medical Officer for the Parish of Clapham. Salary, £75 per annum, with increase. Applications by June 12th to the Clerk to the Board, East Hill, Wandsworth.

BRECON INFIRMARY.—Resident House-Surgeon. Salary, £100 per annum, with furnished apartments, etc. Applications by June 5th to the Secretary.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House-Surgeon. Salary, £140, with apartments, etc. Applications by June 2nd to the Assistant Secretary.

BUCKS COUNTY LUNATIC ASYLUM, Stone, near Aylesbury.—Assistant Medical Officer. Salary, £100 per annum, with board and lodging. Applications by June 8th to the Clerk to the Committee of Visitors, County Hall, Aylesbury.

CARMARTHEN UNION (Conwil District).—Medical Officer. Salary, £80, and also Officer of Health, £18 10s., and vaccination fees. Applications by June 7th to R. Browne, Esq., 5, Hall Street, Carmarthen.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £10, with board and lodging. Applications by June 6th to the Secretary.

CHILDREN'S HOSPITAL, Birmingham.—Resident Medical Officer. Salary, £80, with board and lodging. Applications by June 6th to the Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant Physician. Applications by June 7th to the Secretary.

DUFFUS PAROCHIAL BOARD.—Medical Officer. Salary, £35. Applications by June 23rd to John Nicoll, Esq., Inspector of Poor, Hopeman, N.B.

FOLKESTONE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer. Salary, £150, with fees and unfurnished apartments. Applications by June 6th to the Secretary, 47, St. Michael's Street, Folkestone.

FULHAM UNION.—Resident Medical Superintendent of Infirmary, and Medical Officer of the Union Workhouse. Salary, £350, with residence, etc. Applications by June 5th to the Clerk to the Guardians.

KING'S COLLEGE HOSPITAL.—Assistant-Surgeon. Applications to the Secretary.

LONDON TEMPERANCE HOSPITAL, Hampstead Road.—Surgeon. Applications by June 16th to the Secretary.

METROPOLITAN ASYLUMS BOARD: WESTERN FEVER HOSPITAL, Fulham, S.W.—Clinical Assistant. Board and lodging. Applications to the Medical Superintendent at the Hospital.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £30 per annum, apartments, board, etc. Applications by June 9th to the Honorary Secretary.

- NORTH LONDON CONSUMPTION HOSPITAL**, Hampstead and London.—Resident Medical Officer. Salary, £50 per annum, with board and lodging. Applications by June 2nd to the Secretary.
- NOTTINGHAM GENERAL HOSPITAL**.—Resident Surgical Assistant. Board and lodging, etc. Applications to the Secretary.
- OWENS COLLEGE**, Manchester.—Professor of Surgery. Applications by June 9th to the Registrar.
- PARISH OF LOCHS**, Stornoway.—Medical Officer. Salary, £140, house and rates free. Applications by June 23rd to H. McL. Ross, Inspector of the Poor, Lochs, Stornoway.
- PARISH OF ST. MARY ISLINGTON** (Third District, Lower Holloway).—Medical Officer. Salary, £100 per annum, with fees. Applications by June 6th to Edwin Davey, Esq., Clerk, Guardians' Offices, St. John's Road, Upper Holloway, N.
- QUEEN'S COLLEGE**, Birmingham.—Assistant Medical Tutor. Applications by June 20th to the Secretary.
- ROYAL LONDON OPHTHALMIC HOSPITAL**, Moorfields.—Curator and Librarian. Non-resident. Salary, £120. Applications by June 7th to the Secretary.
- ROYAL SOUTH HANTS INFIRMARY**, Southampton.—House-Surgeon. Salary, £100, board, lodging, etc. Applications by June 20th to the Secretary.
- SHEFFIELD GENERAL INFIRMARY**.—House-Surgeon. Salary, £120, with board, lodging, etc. Applications by June 15th to the Secretary.
- SHEFFIELD GENERAL INFIRMARY**.—Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, etc. Applications by June 15th to the Secretary.
- SURREY DISPENSARY**, Great Dover Street, Southwark.—House-Surgeon. Salary, £120, and furnished apartments. Applications by June 19th to the Subcommittee.
- VICTORIA HOSPITAL FOR CHILDREN**, Chelsea.—House-Physician. Honorarium of £50, with board and lodging. Applications by June 2nd to the Secretary.
- VICTORIA HOSPITAL FOR CHILDREN**, Chelsea.—House-Surgeon. Honorarium of £50, with board and lodging. Applications by June 2nd to the Secretary.
- WELLINGBOROUGH AND DISTRICT MEDICAL INSTITUTE**.—Medical Officer. Salary, £280, and fees, with dwelling-house, etc. Applications to G. Bayes, Esq., Jackson's Lane, Wellingborough.
- WESTERN GENERAL DISPENSARY**, Marylebone Road, N.W.—Junior House-Surgeon. Salary, £75, with apartments, etc. Applications by June 4th to the Secretary.
- WESTPORT UNION**.—Medical Officer, Westport No. 2 and Louisburgh No. 2 Districts. Salary, £39 per annum, and fees. Election on June 24th.

MEDICAL APPOINTMENTS.

- ANDERSON**, Douglas H., M.B., C.M.Édin., appointed Assistant Medical Officer to the Hull Borough Asylum, *vice* W. V. M. Koch, resigned.
- BARNES**, W. S., M.D., appointed Supernumerary Surgeon to the Colony of British Guiana.
- BLAKENEY**, J. H., M.R.C.S., L.R.C.P., appointed Resident Surgeon to the Birmingham General Dispensary, *vice* J. H. North, M.R.C.S., L.R.C.P., resigned.
- BEAY**, G. A. T., M.R.C.S., L.R.C.P., appointed House-Surgeon to King's College Hospital.
- BUCKENHAM**, John, L.R.C.P., M.R.C.S., appointed Medical Officer to Her Majesty's Prison, Cambridge, *vice* T. Hyde Hills, Esq., M.R.C.S., resigned.
- CHEATLE**, G. L., M.R.C.S., L.S.A., appointed Assistant House-Physician to King's College Hospital.
- DREW**, H. W., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Croydon General Hospital, *vice* A. Matthey, M.R.C.S., L.R.C.P., resigned.
- HENSLEY**, Arthur E., M.R.C.S., L.S.A., appointed House-Surgeon to King's College Hospital.
- HILL**, W. J., L.R.C.P., M.R.C.S., appointed House-Physician to the Bristol Royal Infirmary, *vice* P. Watson Williams, M.B., M.R.C.S., resigned.
- IRVING**, M. H. C., L.R.C.P. and L.R.C.S.Édin., appointed Supernumerary Surgeon to the Colony of British Guiana.
- JONES**, G. Carleton, M.R.C.S., appointed House-Accoucheur to King's College Hospital.
- ORD**, W. T., M.R.C.S., L.R.C.P., appointed Resident Surgeon to the Birmingham General Dispensary, *vice* S. C. Lawrence, M.R.C.S., L.R.C.P., resigned.
- PENNY**, J., M.R.C.S., L.R.C.P., appointed Assistant House-Accoucheur to King's College Hospital.
- THEOBALDS**, Owen L., M.R.C.S., L.R.C.P., L.S.A., appointed House-Surgeon to King's College Hospital.
- THOMPSON**, T. W., L.R.C.P.Éd. and L.M., M.R.C.S., appointed Medical Officer of Health to the Parish of Barnet, etc., *vice* C. E. Saunders, M.D., resigned.
- WARD**, Howard P., M.R.C.S., L.S.A., appointed House-Physician to King's College Hospital.

THE HOSPITALS ASSOCIATION.—The annual general meeting of the Hospitals Association was held recently at the Westminster Town Hall, under the presidency of Dr. Bristowe. In opening the proceedings, the chairman referred with regret to the resignation of Sir Andrew Clark, who was president of the association, and proceeded to deal at length with the questions of the registration of nurses and the Nurses' Pension Fund. In reference to the first subject, he said it had been found that it was neither feasible nor

acceptable to introduce that system at present. The Nurses' Pension Fund had been subjected to very considerable criticism, with which he dealt at length, and said that the success of the fund depended upon whether nurses could afford to make present sacrifices for the prospective benefits which it offered, and whether the friends of nurses would give adequate assistance in the matter. He based his hopes of its success upon the association of the eleemosynary element with the strictly commercial portion of the undertaking. The contributions of the public to the fund could not be regarded as charity, any more than pensions to those who had rendered public service. It would be disastrous if the fund were to fail. Mr. Henry Burdett, in seconding the motion for the adoption of the annual report, remarked that the question of failure had ceased to be a factor in the history of the National Pension Fund for Nurses, for arrangements had been made to issue 200 policies to nurses in this country, and many more forms of proposal were in process of preparation. One great difficulty they would have to meet in connection with the fund was, that they would have to provide for a number of people who had passed the age at which they could pay at the actuarial rate which would procure them the minimum pension they desired. That difficulty, however, had been met by its being decided to keep faith with the nurses who first registered themselves, and by guaranteeing to any nurse who would consent to give one-eighth of whatever her earnings were, that she should receive a minimum retiring allowance of 10s. a week. Mr. C. W. Sinclair Cox urged that the apathy of the public in reference to the deficiencies in hospital finances was due to the facts and figures not being freely published. Mr. Burdett denied this, and claimed that all the representative London hospitals were willing and anxious to encourage inquiry into all their affairs. The accounts were audited by professional auditors, and as the question affected £500,000 a year, it was desirable that that fact should not be ignored. Formal business was transacted, and the proceedings closed with thanks to the president.

WORSHIPFUL COMPANY OF PLUMBERS.—At the meeting of delegates terminated at Sheffield of the Operative Plumbers' Association of Great Britain and Ireland, ninety-seven of the chief towns of the kingdom being represented, the following resolution was moved by Mr. R. J. Lyne, delegate, Kensington Lodge, London, and seconded by Mr. T. Anderton, delegate, Liverpool:—"That this delegate meeting, having fully considered the system of registration of qualified plumbers established by the Worshipful Company of Plumbers, London, deem it worthy of adoption by the Association as a measure necessary in the interests of the trade and the public; and desire that the Executive Council do take steps to promote the extension of the system throughout Great Britain and Ireland, appointing representatives of the Association to act in the matter." It was supported by delegates from England, Ireland, Scotland, and Wales, and carried. The authoritative expression of opinion in favour of registration embodied in this resolution is the more satisfactory from the fact that the Company's registration system involves the technical training and examination of members of the craft. The decision must, therefore, tend both to the immediate extension of technical training classes for plumbers, and to that ultimate improvement of plumbers' craftsmanship for which there is obvious need in the interests of the public health.

The twelfth annual meeting of the British Medical Temperance Association was held on May 30th at 11, Chandos Street. The annual report showed a further increase in the number both of members and associates who are abstaining students, especially of the latter, who had increased 69 per cent., the total number being 387 members and 187 associates. A report of the result of the republication of the three medical declarations of 1839, 1847, 1871, stated that the first had been signed by 517 practitioners, the second by 526, the third by 537. One had signed the first only, 5 the second, and 22 the third. Names are still being added, and the list will be published when complete. Dr. H. W. Williams read a paper on "The Alcohol Habit and Medical Authority," in which he gave extracts from the published opinions of the two Cheynes, Dr. Beddoes, Dr. Hope, Sir B. Brodie, Dr. Grindrod, Dr. W. B. Carpenter, and Dr. Parkes.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.—The report of the sixty-sixth annual meeting of this deserving charity shows the amount of invested funds to be £11,047 2s. 4d. During the year £502 10s. had been expended in grants among seventeen annuitants, the sums ranging between £10 and £40. The roll of

benefit members numbered 284. The financial statement read showed a balance at the disposal of the Society of £11,025 15s. 5d. Sir James Sawyer suggested that out of the Society's income of £600 about £50 should be devoted annually to the relief of distressed medical men not members of the Society. On the proposition of Mr. Lawson Tait, seconded by Mr. C. A. Newnham, it was resolved to request the directors to consider what proportion of the funds of the Society they would recommend as a fund for casual relief. Dr. Warden was elected president, and Dr. Marriott president-elect. Dr. Harvey and Mr. Foster (Knowle) were appointed vice-presidents, Mr. Bartleet and Sir James Sawyer being re-nominated treasurers, and Dr. Savage honorary secretary. Mr. W. P. Whitcombe and Dr. Kennedy were appointed scrutineers, and Mr. T. H. Ranchill auditor. Three directors were balloted for, the result being that Messrs. H. M. Morgan (Lichfield), Priestley Smith, and Lawson Tait were elected.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The report presented to the annual general meeting of the Society, held on May 18th (the President, Sir James Paget, in the chair) showed 330 members; 5 had been elected during the year, 7 had died, and 7 resigned. Sixty-five widows were receiving relief and 8 orphans; 2 widows were admitted in 1887, and 1 had died. The grants for the year had been £2,774, the expenses £225. A legacy of £5,000 had been received from the executors of Sir Erasmus Wilson. The following gentlemen were elected directors in the place of the six seniors, who retired: Dr. Maurice Davis, Dr. Glover, Mr. W. Spencer Watson, Mr. W. A. Brailey, Dr. Matthews Duncan, and Dr. Buzzard. A special grant was made to a widow. A short history of the Society from its foundation in 1788, drawn up by the Acting Treasurer, Mr. Fuller, was presented to the meeting. Some proposed alterations in the by-laws were considered, and a vote of thanks to the President brought the proceedings to a close.

THE HABITUAL DRUNKARDS ACT (1879) AMENDMENT BILL NO. 2 passed a second reading in the House of Commons last week. It may be remembered that No. 1 Bill was withdrawn, owing to the development of opposition from an unforeseen quarter. The second Bill is the practical issue of an understanding with the Home Secretary, and the prospect of its passage through Parliament during the current session is, therefore, hopeful. It provides for a permanent instead of a temporary measure, the original Act expiring next year. It also legalises the appointment of a deputy to the licence of a retreat, under certain time restrictions. If carried as at present drawn the original and the amending Acts will be known by the less objectionable title of "Inebriates Act," following the designation of the South Australian Act of 1874.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.—The quarterly meeting of this Association was held at Bethlem Hospital on Wednesday, May 16th, at 4 P.M. The meeting, which was numerously attended, was presided over by Dr. Needham. Dr. Maudsley communicated "Some Remarks on Crime and Criminals," which was followed by a discussion, in which Drs. Hack Tuke, Rayner, Fletcher Beach, and Rogers, and Mr. Herbert Stephen took part. A special meeting of the association subsequently took place, at which the subject of Pensions was discussed, the matter being ultimately referred to the Parliamentary Committee.

NATIONAL PENSION FUND FOR NURSES.—The attention of the Council of the National Pension Fund for Nurses having been called to the fact that certain misleading statements have been reprinted from the *Lancet*, and circulated amongst the hospitals throughout the country, the Council announce that they are prepared to supply to the managers, officers, etc., of hospitals, copies of the reply, which has been prepared by Mr. King, the eminent actuary. Applications for copies (gratis) should be made to Mr. P. Grove, Secretary, 33, Old Jewry, London, E.C.

THE COLLEGE OF STATE MEDICINE.—The following gentlemen have been elected as associates of the College: William Henry Burke, M.B., Qual. Stat. Med. Dub. Surgeon Bombay Medical Department; Hugh Herbert Mason, Dip. Pub. Health Camb., Barking, Essex; Colin William McRury, M.D., Dip. Pub. Health Camb., Surgeon-Major Bombay Medical Department; R. R. Harvey Whitwell, M.B., B.Sc. Stat. Med. Edin., Bengal Medical Department; E. E. Stewart Davis, M.B., Qual. Stat. Med. Dub., Madras Medical Department; Allan Macfadyen, M.D., B.Sc. Stat. Med. Edin., Pinner.

HAMILTON AMBULANCE ASSOCIATION.—The annual meeting of the Hamilton centre of the St. Andrew Ambulance Association was held on April 19th, Dr. Loudon presiding. The report stated that, in accordance with the desire of the medical members of the executive, no new classes had been formed in Hamilton during the past session. Classes had, however, been formed in Larkhall, Blantyre, and at North Motherwell Colliery, and the constabulary class had been renewed under Dr. Lindsay, while last summer Dr. Beath conducted a military class. The ambulance waggon had been called out thirty-two times during the past fourteen months.

HOSPITAL SUNDAY FUND.—At the last meeting of the constituents of the fund, the attention of the Council was called to the contrast between the receipts from South London churches and chapels and the awards to South London hospitals and dispensaries, and they were invited to consider what changes, if any, were desirable in the rules for the administration of the fund. The Council had since had the matter under consideration, and had come to the conclusion that it was not desirable to make any departure from the present laws and constitution.

VACANT CORONERSHIP.—Dr. Macdonald, M.P., Dr. Henry Foster Burnes, Dalmaney House, Tufnell Park, and Mr. Eugene Yarrow, Old Street, City Road, are the candidates for the post of coroner for the newly-constituted district of North-East Middlesex.

THE Queen has been graciously pleased to accept a copy of Dr. Thorne Thorne's presidential address to the Epidemiological Society of London "On the Progress of Preventive Medicine during the Victorian Era."

THE Victoria Hospital, Southend, erected as a memorial of the Queen's Jubilee, was opened on Wednesday last by Mrs. Rasch, wife of Major Rasch, M.P.

MEDICAL MAGISTRATE.—Dr. Whitla has been appointed to the Commission of the Peace for Co. Antrim.

DIARY FOR NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor A. E. J. Barker: On the Operative Treatment of Tubercular Disease in Joints.

ODONTOLOGICAL SOCIETY, 8 P.M.—Mr. F. F. Burghard: On some cases of Epulis. Mr. W. Mitchell: On some Observations on Metal Cap Crowns. Mr. Van Praagh: Casual communications.

COLLEGE OF STATE MEDICINE, Burlington House, 4 P.M.—Professor Klein, F.R.S.: On Bacteriology.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor A. E. J. Barker: On the Operative Treatment of Tubercular Disease in Joints.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown. Dr. Stevenson: An Advocacy for the more Extensive Use of Electrolysis in Gynaecological Practice, with an Addendum by Dr. Lovell Drage. Dr. Gibbons: Electrolysis in some Chronic Uterine Affections, with Illustrative Cases. Dr. John Shaw: The Constant Current in the Therapeutics of Gynaecology.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor A. E. J. Barker: On the Operative Treatment of Tubercular Disease in Joints.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

ALLAN.—On the 24th instant, at 1, Dock Street, London, the wife of Francis J. Allan, M.D., of a son (stillborn).

MOUAT-BIGGS.—May 23th, at Abbey Row, Malmesbury, the wife of C. E. F. Mouat-Biggs, M.R.C.S., L.R.C.P. Lond., of a daughter.

WOOD.—May 29th, at Sunderland, the wife of John C. Wood, L.R.C.S., etc., of a son.

MARRIAGE.

GAILLEY-WARD.—On the 24th instant, at the Parish Church, Leek, by the Rev. Clement C. Ward (brother of the bride), assisted by the Rev. Evans Belcher, Rector of Heather, and the Rev. C. B. Maude, Vicar of the Parish, John Alexander Gailley, M.D., of Leek, to Frances Ann, only daughter of John Ward, Esq., J.P., Southbank, Leek.

DEATHS.

FORD.—On May 27th, at the residence of Dr. Roberts, Avenue Hotel, Peckham Rye, London, Edward M. Ford, L.R.C.P. and L.R.C.S. Edin., aged 87, eldest son of Mr. M. Ford, Nottingham, deeply regretted.

PEMBERTON.—May 25th, at Edgaston House, Birmingham, aged 34 years Harvey, the eldest son of Oliver Pemberton, F.R.C.S. Eng.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital; Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department); Brompton.—10.30 A.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: St. Thomas's; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.; King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.; West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 3.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical daily, 1.30; Obstetric, Tu. Th. S., 2; o.p. W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p. Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p. M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p. W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

In order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

M.D. asks what has been ascertained to be the effect of cascara sagrada upon the secretion of milk, as to quantity and quality.

ANSWERS.

INQUIRER.—It is certainly not unprofessional.

INUNCTION IN SCARLET FEVER.

In answer to "Micrococcus" as to the value of inunction in scarlet fever, Mr. FRANCIS W. CLARK (Croydon) writes that the preparations of olive oil and carbolic acid, known as "carbolic oil," have been proved to possess no germicidal action. Should "Micrococcus" wish to use a germicidal inunction during the desquamative stage of the disease, he suggests that a preparation of olive oil containing about one drachm of ol. menth. pip. to the twelve-ounce bottle, would probably prove efficacious in destroying any parasitic virus that might be contained in the epidermic scales.

MR. JNO. BROWN (Bacup) writes: In the JOURNAL for August 13th, 1887, there is a short article on The Prophylactic Advantages of the Early and Continued Inunction of Carbolic Oil in Scarlet Fever. If "Micrococcus" will refer to it, he will see the rationale given for the use of carbolic acid.

THE USE OF APERIENTS IN SCARLET FEVER.

MR. JNO. BROWN (Bacup) writes: In reply to Mr. Davis's query, "Am I right or wrong?" in giving aperients before or during the eruptive stage, I should say as a rule it is not safe. For years I have been convinced that to give aperients is, as Mr. Chavasse states in his book, "dangerous before and during the eruptive stage." Keep the bowels confined until the rash is well out. Cases in which diarrhoea is induced by aperients often die of convulsions due to suppression of the rash. In other cases the rash comes out tardily, and the recovery is longer than usual.

CHEMICAL CONSTITUTION OF MINERAL WATERS.

SURGEON asks where he can find the best information as to the chemical composition of the mineral waters most generally in use.

* * * The Mineral Waters of Europe, by Tiehborne and Prosser James, is probably the handiest work, giving more detailed analyses than more general works.

OCCIPITAL HEADACHE.

DR. JOHN IRVING (Leytonstone) writes: If "M.R.C.S., L.R.C.P." will give his patient a large dose of quinine every night at bedtime, and follow it in the morning by a saline tonic, as indicated in the subjoined prescriptions, relief may result in a few days.

R Quinine sulphatis ʒij; acid hydrobromici dil. ʒiij; aq. ad ʒvj. M. ʒij ex aqua nocte sumat. R Magnesie sulphatis ʒvj; acid. sulphurici dil. ʒj; liq. strychnin. mur. ʒxx. Aq. ad ʒvj. M. Capiat unciam ex aqua mane ante cibum.

MR. J. BRINDLEY JAMES (Brindley House, Jamaica Road, S.E.) writes that in the treatment of this form of headache he had vainly exhausted all the habitually recommended pharmacopoeial remedies, until the introduction into official rules of Bishop's effervescent hydrobromate of caffeine, the use of which in such cases he speedily learned to appreciate.

NOTES, LETTERS, ETC.

HIGH ALTITUDES IN CONSUMPTION.

DR. C. R. DRYSDALE (late Physician to the North London Consumption Hospital, etc.) writes: The question of the best climate for patients suffering from consumption is so extremely interesting, that I should feel obliged if allowed to take part in the debate upon it. After trying all sorts of climates, and being fully cognisant of the admirable results obtained either at the Riviera, at Algiers, or Egypt, or by sending patients to Australia, New Zealand, or the Cape and back, I must say that experience teaches me that the most rapid arrests of that dangerous disease have occurred in such persons as have been able to reside a considerable time in stations such as Davos or Colorado. It is out of the question to ask you to afford space for the narrative of cases. I would only say that I naturally, as physician for many years to the North London Consumption Hospital, took the greatest interest in following out the careers of the poor patients that came under my care there. Their fate was usually a sad one; and the very first case I remember which was sent to Colorado made such an impression on me as to the value of residence in high altitudes, that I have never forgotten it. Subsequent experience has corroborated that impression; and, for my part, I should, in all suitable cases, advise patients to try high altitudes in preference to other climates. On a visit I made to Davos two years ago, I interrogated the peasants in the adjacent valley at Langwies, and found that consumption was not a cause of death among the people who reside there.

A SIMPLE MEANS OF DIAGNOSIS IN CHEST-DISEASES.

MR. S. BINGHAM writes: I can fully endorse the remarks of Surgeon F. F. Nichols relative to the value of using a syringe to determine the existence of fluid in the chest. Only recently, by the aid of an ordinary hypodermic syringe, I demonstrated its presence in the pleura of a patient in whom it had been previously overlooked. The value of this method was shown to me many years ago, while assisting Dr. Robert Macnab, of Bury St. Edmunds; and Dr. Douglas Powell, in his work on Diseases of the Lungs, points out its utility.

TEA AND TEETH.

DR. JOHN IRVING (Leytonstone) writes: A. B., with whom the writer is intimately acquainted, subsisted, until he was 28 years of age, upon the plainest diet, and drank no beverage other than milk or water. Neither tea, coffee, cocoa, nor alcohol ever tempted him; nevertheless, from 17 to 28 he was a martyr to toothache, and during that period had no less than eight decayed teeth extracted. Since then he has employed tea in moderation (two cups per diem), for social reasons, and for six years, though dental decay continues to advance, actual toothache has been much diminished. His mother lost most of her teeth in early life, and almost in the same order as the son, the upper molars and bicuspids going first. The father, on the other hand, never knew what toothache was until he was 45 years of age, but within ten years nearly

THE CAVENDISH LECTURE ON THE ALTERED RELATIONS OF SURGERY TO MEDICINE.

Delivered before the West London Medico-Chirurgical Society,
Friday, June 1st, 1888.

By SIR WILLIAM STOKES, M.D., CH.M.UNIV.DUB., F.R.C.S.I.,
Professor of Surgery, Royal College of Surgeons in Ireland.

No one having even a limited acquaintance with surgical history can fail to realise the great change that has recently taken place in the status of the surgical branch of our profession, as well as the remarkable alteration that has occurred in the relations it now bears to medicine.

In considering the important question as to the causes that have led to these changes, we may glance briefly at the relations that formerly existed between surgery and medicine. The two branches of our common profession became united in the first half of the fifteenth century, and a conjoint examination for admission to the fellowship of physicians and surgeons was established.¹ Unhappily, however, the alliance appears to have been a short-lived one, and the causes that led to the rupture are not very clearly understood, but were, I believe, probably connected with the maintenance of alleged vested rights. The breach was still further widened by the subsequent fusion of the surgeons with the Barbers' Company. In this, however, as Sir James Paget has rightly observed, there was not any real fusion, but rather an official junction with a view to the settlement of disputes and the fixing of limitations to the duties and functions of each company.

In the interests not only of the social but also of the scientific position of the surgical profession, the junction, such as it was, of these two corporations was undoubtedly a calamity, and it helped to give the physicians the vantage ground which they occupied so long, and in which they were still further strengthened by an enactment made in Elizabeth's reign, prohibiting surgeons from prescribing internal medicines. As a proof that the inferior position, socially and scientifically, was maintained up to a comparatively recent period, I may mention a fact which I learned from Mr. Colles, who informed me that his father, Abraham Colles, had stated that at the commencement of his professional career in Dublin, when a consultation on any important case was held, the surgeon was not, as a rule, permitted to be in the room where the physicians held their deliberations, but, after the consultation was over, he was informed whether his services would be required or not.

The junction not only kept the professions of surgery and medicine separated, but also doubtless had much to say to the long exclusion, or, at all events, feeble recognition of surgery in the academic systems of the old universities. It had also another unfortunate result, which was, that when surgery emerged from the Cimmerian darkness in which it had been during the Middle Ages, and its teachers began to recognise the fact that in order to advance something more was to be relied on than the aphorisms of Hippocrates or the dogmas of Galen, there was little sympathy shown to them, and scientific methods of investigation were looked upon generally with suspicion, while the results of scientific research were received almost with contempt.

Although from time to time during the sixteenth and seventeenth centuries there were physicians of undoubted ability and scientific aptitude, still no serious effort apparently was made by the bulk of the profession to strike away the feeble props of the tottering and antiquated tripod on which it had so long rested—namely, empiricism, dogma, and aphorism. The result of this was that as time went on, medicine as a science lost instead of gaining ground in public estimation, and often became the object of satire and ridicule. Of this ample evidence may be found in the writings of many authors and philosophers of eminence, such as Voltaire, Molière, Locke, and many others in more recent times. It was doubtless from observing the faulty way in which medicine

was studied and practised that Locke was induced to make the following observation: "Were it my business to understand physic, would not the safer way be to consult Nature herself in the history of diseases and their cures than to espouse the doctrines of the dogmatists, the methodists, or the chemists?"

What was mainly relied on was clinical observation; and nothing is more remarkable in the whole history of medicine than the length of time it took before the fact dawned upon the medical mind that clinical observation, when not supplemented by other scientific methods of research, is a lamp that affords in truth but a faint and glimmering light, a shifting quicksand on which it is indeed perilous to build. They did not recognise the truth epitomised by Mill, who has well said, "Observation without experiment (supposing no aid from deduction) can ascertain sequences and coexistences, but cannot prove causation." (*Logic* vol. i, p. 423).

The consequences of too exclusive a reliance upon methods insufficient for purposes of real advancement have been for medicine in the past most unhappy. I allude more particularly to the foundation and advocacy of various systems which prevailed at different eras—of, for example, the dogmatists, eclectics, methodists, pneumatists, astrologers, and alchemists, and in later times to the schools of Cullen, Brown, Broussais, and Hahnemann. All these many outcomes of various phases of opinion have caused the history of medicine to be rather "a succession of cycles, barren hypotheses, and fanciful systems," than one characterised by a slow but sure scientific progress. At rare intervals in its history brilliant meteors, no doubt, have flashed across the sky, but their light only tended to make the darkness more visible. They were too far in advance of their time to make their influence felt, and any attempt to supersede the older unreliable methods—to ring out the old and ring in the new—only met with discouragement, often with contempt. My father has often related to me how, when he was a young man, and when he introduced into the Dublin school, along with Graves, the methods of physical diagnosis advocated by Laennec and Louis, he was ridiculed, satirised, and even caricatured by his contemporaries. I dare say a large proportion of those present here to-day recollect, as I do, hearing various instruments of precision, now in the hands of every educated practitioner, stigmatised as "toys;" and I can even call to mind that a late medical colleague of my own, who rose to considerable eminence in his profession, and who, for the time he lived in, was a skilful histologist, thought it desirable to publish, at the commencement of his professional career, a *brochure* which he entitled *An Apology for the Microscope*. But one of the most signal proofs of the low estimate that in former times physicians had of the employment of methods of research now universally used may be obtained from the views on pathological histology of Laennec. He observed: "If the causes of severe disease are sought for in mere microscopical alterations of structure, it is impossible to avoid running into consequences the most absurd, and, if ever cultivated in this spirit, pathological anatomy, as well as that of the body in a sound state, will soon fall from the rank which it holds among the physical sciences and become a mere tissue of hypotheses founded on optical illusions and fanciful speculations, without any real benefit to medicine." An unfortunate anticipation, Dr. Hudson observed, as time and progress have proved. When men of the intellectual grasp of Laennec held such views, it is hardly to be wondered at that the rank and file among physicians continued to look unfavourably and with doubt on all such novel methods of research, and under these circumstances it is not surprising that medical therapeutics in the past, and I fear to a certain extent also in the present, has been based too often on that flimsiest and most worthless of all foundations—fashion: a fact which doubtless suggested to the eminent French physician the sage advice he gave to his pupils, "Employez vite ce remède pendant qu'il guérit encore!"

In making these remarks I trust it will not be considered that I wish in any way to cast discredit on the labours of past physicians in the advancement of medicine, knowing as I do that the very men who were thus sceptical of new methods could always point with just pride to splendid results obtained by them from time to time.

My object is only to account for the fact that in the last century the relations between medicine and surgery were still deficient in cordiality. Old antagonistic traditions and feelings survived, and the breach was only widened for the time by the new departure of surgery into hitherto untried methods of advance, by the renunciation of the exclusive reliance on mere

¹ See *Memorials of the Craft of Surgery in England*. From Materials compiled by J. F. South. London, 1836.

clinical observation, and by a general widening of the area of research.

And to whom are we mainly indebted for such development? This is a question that will at once be asked. Who placed our science on the solid foundation on which it remains and will ever rest? Who was it that tore asunder the fetters with which it was bound by a blighting empiricism, and loudly sounded those clarion notes of scientific truth which have their echo still. He who occupies as a biologist a position above all rivalry, and who by the magic wand of an all-powerful intellect struck the rock from which came the living water, and evoked the dormant scientific spirit of his age—that beneficent, ever-living, and never-failing spirit which, when honestly appealed to, has ever generously responded. It has been said by Malgaigne that in the Middle Ages surgery was a mere craft, that it was made an art by A. Paré and J. L. Petit, but was elevated into one of the noblest of sciences by John Hunter. Animated by no unworthy craving for worldly honour or love of gain, he lit up the dark and rugged paths of that science he loved so well and to which he devoted his life with a lamp which shed no borrowed light—one fashioned by ceaseless toil and illuminated by untiring genius. His one aim, the goal he ever strove for, the ambition of his life, was, in the unexplored regions of physiology, surgery, pathology, and anatomy, to unfurl the banner of truth, and, by doing so, to elevate and dignify the profession of his choice, and to render it and its sister branch of medicine one and indivisible. He was in truth—

One of the few, Nature's interpreters,
The few whom Genius gives as lights to shine.

His immediate successors, many of whom were also his pupils—namely, Abernethy, Cooper, Cline, Dupuytren, Colles, and many lesser stars—all worked more or less on the same lines that he did, but not unnaturally with a bias rather towards the clinical and operative aspects of surgery and surgical pathology than in efforts to advance it by physiological research. But the splendid work of those great surgical leaders I have mentioned cleared and prepared the way for the more complete adoption of Hunter's great principle in advancing surgery, which was, in Sir James Paget's words, that "he brought the scientific method into the study of the practice, and welded scientific knowledge with the lessons of experience." It is the recognition and adoption of this principle in the age in which we live and work that will ever constitute one of its greatest glories. It is one which finds its embodiment in Von Langenbeck's watchword, "From physiology to surgery, and from the microscope to the resection knife." It has mainly been the cause of bringing about the altered relations of surgery to medicine, and happily shattered the barriers between them which in days gone by were such fruitful sources of mischief, and kept our profession divided, powerless, and weak.

The last and most brilliant outcome of the adoption of this principle has been the establishment of Listerian antisepticism, which has enabled the surgeon to bring about not only a degree of perfection and exactness in the comparatively limited field of operative surgery in which until recently he confined himself, but also to advance much further, and in abdominal and thoracic diseases, and, lastly, in those of the brain and spinal cord, to achieve results that until recently never could have been seriously contemplated. This signal advance into the domain of medicine has not been made in any hostile and intrusive spirit, but solely to render aid—an aid which it must be gratefully acknowledged has happily often been reciprocated.

It has been granted to but few men who have been pioneers in any of the paths of science to have during their lifetime a full recognition of their labours and discoveries, and to see the practical application to human requirements of the new knowledge they had given to the world. Harvey's great discovery met with but a limited acceptance during his lifetime, and the same might be said of other scientists, some of whom, instead of having their views accepted, were persecuted for promulgating them; but many of those who now constitute the scientific vanguard of our profession have been privileged to witness not alone the acceptance of their theories but also the almost universal recognition of the utility of the practice which has been based thereon; and operative procedures have been undertaken and carried to a successful issue that not very long ago could never have been seriously thought of; and, lastly, a distinct advance has been made towards that goal desired by all—unity in the science of medicine.

I have already indicated the regions in which operative surgery

has so largely supplemented medicine. Did time permit, I would gladly dwell more in detail on what it has effected in this direction, such as the surgical treatment of pulmonary abscess, antiseptic paracentesis in pleuritic effusions, empyema, and pericardial effusion. Also in abdominal surgery, including exploratory operations in and excision of the kidney, removal of renal calculi, operations on the gall-bladder, on the intestines for obstruction, excision of the pylorus and other portions of the intestinal tract for cancer, and the many operations connected with the female organs of generation.

In connection, however, with a region that until recently has been held to be the exclusive province of the physician, I should like to speak very briefly. I allude to certain lesions of the brain, and the means we have at our disposal for their localisation. It is a subject of absorbing interest, and exercises largely, as you all know, the professional mind at the present day. There is no wonder that it should do so, for our anticipations as to what may eventually be done in this direction are full of hope and confidence. Having regard to the results already obtained, these are not, I feel assured, misplaced; but still cases do occur, and one of them was recently in my own practice, which strikingly bring home to us the undoubted and unhappy fact that, notwithstanding the admirable work achieved by Professors Ferrier, Yeo, Schäfer, Victor Horsley, Munk, Goltz, and others, in reference to the localisation of brain function, we must admit that we are still only on the fringe of the inquiry, so to say, and that much, very much, has yet to be done before any definiteness can be said to exist in the means at our disposal for the accurate appreciation of many of these cases. This will not, I believe, be determined with sufficient accuracy until much more light than is at present available is thrown, not only on cranio-cerebral topography, but also on the localisation of cerebral function. We are undoubtedly much nearer finality in the former than the latter, although the difficulties in the path are still extreme. The relations between the lobes and convolutions of the brain and the enveloping bones vary in different periods of life, and up to a certain age the growth and development of both do not proceed *pari passu*. The frontal eminence, as Cunningham, Topinard, and Péré have shown, overlies a different portion of the frontal lobe of the brain in the adult and the child, and the relations between the Sylvian fissure and the squamo-parietal suture, as first noticed by Foulhouze, also vary in different periods of life. Remarkable changes in the temporo-sphenoidal lobe have also been observed, both as regards its position and form, as age advances from childhood to adolescence. For example—as may be seen in these preparations—in the adult the frontal eminence corresponds to the first frontal fissure; in childhood the frontal eminence is found at some point upon the second frontal convolution, and occasionally on the third. Again, the Sylvian fissure varies in relation to the squamo-parietal suture. In the adult it may correspond to it or be placed immediately above or slightly below it, but in childhood it is always found considerably above it. The high position of the fissure in childhood appears to be due to a twofold cause—one, to the low stature, if I might so express it, of the squamous portion of the temporal bone, which afterwards grows upwards towards the fissure; and secondly, that at the earlier period of life there is relatively a much greater area of the temporo-sphenoidal lobe in relation to the vault of the cranium. This is seen when compared with the outer surface of the parietal lobe. The method of topographical localisation when the relations are more fixed or constant, as in adult life, suggested by Hare, gives for practical purposes undoubtedly the best and most accurate results.

As regards the localisation of function, however, it is regrettable that even between very high authorities so much difference of opinion exists, and that the whole subject is consequently in such an unsettled state. Take, for example, the temporo-sphenoidal lobe. According to Professor Ferrier we have here the situations of tactile sensibility, hearing, and taste, whereas Professor Schäfer holds that none of these are so placed. Again, the centre of sight has been localised by Munk and Schäfer in the occipital lobe, but Goltz has shown that this lobe can be removed without impairing vision, and that removal of the frontal lobe is attended with loss of sight.

Our clinical experience, too, at times adds largely to the difficulties we have to contend with in our endeavours to accurately appreciate the situation of cerebral lesions. I allude to cases in which we have motor disturbance without appreciable lesion to account for it, and the reverse, cases in which morbid conditions,

profoundly involving the motor areas, exist without causing any motor or sensory trouble whatever. In illustration of this, I may mention the leading particulars of a few cases, and in doing so trust it will not be supposed for a moment that I wish to depreciate or detract in the slightest degree from the great value of recent investigations in reference to the localisation of cerebral function.

The first of them that I would mention was one which was quite recently under my care in the Richmond Hospital, and was of exceptional perplexity. J. O'D., aged 40, a law clerk by occupation, and for many years of intemperate habits, was recently under my care in the Richmond Hospital. Two days previous to his admission he had been drinking to excess in a neighbouring public-house, and, for making a disturbance on his way home, was arrested. In the encounter which ensued with the authorities, it was said he was struck with a baton on the forehead, over the left eye. He was stunned by the blow but soon recovered. On the second day after receiving the blow he suffered pain, which was chiefly referable to the forehead, and in the evening he became heavy and drowsy. The day following he was aphasic, and he was then brought to the hospital. On his admission, a contused wound was found over the left eyebrow, and much subconjunctival ecchymosis. When speaking he was unable to form a complete sentence, failing generally to find the required verb. When the word he wanted was suggested to him he at once recognised it, but was unable to repeat it. He conveyed that he could remember the word he wanted easily, but could not say it. When shown a watch he was able to tell the time accurately and without hesitation, but when asked to write a sentence he failed, and wrote some disjointed words, but was able to write his name. In the evening the aphasia was more pronounced. He could tell the name but not the address of his employer. He said it was the same as a Christian name. On going through a list of names, he at once recognised the one he wanted when "George's Street" was mentioned. There was no paralysis at this time of the upper or lower extremities. Next day it was found that speech was completely lost. There was rigidity of the muscles of the jaw, and he was quite unable to open his mouth. The left forearm and hand were paralysed, and fingers clenched. The scapulo-humeral muscles on the left side were only slightly affected. He could grasp firmly with his right hand. The left pupil was irregularly dilated, and did not react to light. Vision was lost in it, and there was slight ptosis. When given a pencil and paper he could write his name, but very indistinctly. Patellar and plantar reflexes were well marked. The day following his condition was worse. In the evening he had an alleged rigor, which probably was a convulsive seizure. Next day all the symptoms were still more pronounced. The patient was now in a semi-comatose state, jaws rigidly closed, his respiration blowing, accompanied by constant grinding of teeth. Throughout his condition was perfectly apyrexial.

With such a history and train of symptoms, the conclusion was unavoidable that they were produced by mechanical pressure. The patient, who had never before manifested symptoms of brain disease, had received a severe blow on the left side of the head. This was followed by progressive motor aphasia, an irregularly dilated pupil, loss of vision, subconjunctival ecchymosis, ptosis, blowing respiration, rigidity of the muscles of the jaw, paralysis of the left forearm and hand, a convulsive seizure, and, lastly, coma. These symptoms seemed to clearly point to mechanical surface-pressure over the left motor area, over or in the neighbourhood of Broca's convolution, followed by basic complication, as evidenced by the implication of the third and fifth pair of nerves, producing the symptoms referable to the eye and the muscles of the jaw; and lastly, there was paralysis of the forearm and hand, which latter was the great difficulty in the case. The pressure, either hemorrhagic or inflammatory, I believe primarily involved Broca's lobe, and the basic complications I considered were probably due to extension of the effusion.

Having regard to the fact that the patient was clearly *in extremis*, and that trephining gave him what might be termed the shadow of a chance, I operated and removed a disc of bone over Broca's lobe, and the result being negative, I removed another a little further back. Neither operation revealed a source of pressure. The patient died the next morning, and the result of the necropsy was as negative in its results as the operation had been. There was neither hæmorrhage nor abscess; the brain substance was whiter and harder than normal, the condition observed so often in alcoholism. The only tangible changes observed were evidence of arachnoid inflammation, which was all the more re-

markable, having regard to the apyrexial condition of the patient throughout, and also a thickening and adhesion of the meninges over the upper portion of the right motor area, which presented no signs of recent development, and under which was a small patch of softening about the size of a large pea. A careful examination of the cerebral vessels failed to give evidence of the existence of embolism.

In this most remarkable and exceptional case, in which so many of the symptoms of cerebral pressure supervened on the receipt of a severe injury, it was, indeed, as surprising as it was disappointing to find that they depended on some condition independent of mechanical pressure, and it proves how far we are still, even when the symptoms are signal and pronounced, from being able in many instances to correctly estimate the phenomena in cases of cerebral lesion, and especially in those having apparently a traumatic origin.

Dr. Bennett has drawn attention to a remarkable case of monocrural paralysis, which was under the care of a disciple of Professor Ferrier, and the site of the supposed central lesion was carefully indicated on the skull. Subsequently the patient was under Dr. Bennett's care for epileptic seizures, which ultimately proved fatal, and which were attributed to renal disease. Having regard to the monocrural paralysis, a careful *post-mortem* examination was made, but without discovering any evidence of a lesion either of the brain or its coverings.

We have, too, on the other hand, cases recorded in which there has been marked intracranial disease invading the motor zones, but without producing any motor disorder, as, for example, in the remarkable case of subarachnoid cyst recorded by Professor Cunningham (*Journal of Anatomy and Physiology*, vol. xiii, p. 508). In this case the cyst—one of exceptionally large dimensions—was limited in front by the Rolandic fissure, below by the parallel fissure, above by the intra-parietal fissure, and posteriorly it reached the occipital lobe—and yet in this case there was no evidence whatever of impairment of motor or sensory power. Another case illustrative of the fact that serious lesions, involving the motor area, may exist without producing paralysis, is one recorded by Dr. Byrom Bramwell. In this a large sarcoma, growing from the dura mater, "had apparently destroyed the greater part of the motor area on the right side. So far as one could judge with the naked eye, the whole of the motor centres in the face and upper extremity were destroyed, and on microscopical examination the grey matter in this region seemed to have completely disappeared; and yet there was absolutely no paralysis" (*JOURNAL*, April 21st, 1888).

From these interesting but somewhat dispiriting facts—which, unhappily, remind us of the dense mist in which we are still surrounded—let us glance at the brighter side of the picture, and consider some of the cases that give us encouragement and tend to restore confidence.

The first I would allude to are four cases of subcranial hæmorrhage, which have recently occurred in Dublin, and for which the operation of trephining was performed. In all four cases the condition was correctly diagnosed, and in three of them the hæmorrhagic effusion was reached and removed, and the treatment followed by immediate relief and ultimate recovery.

Two of these cases presented features of exceptional interest. In the first, which was under the care of my colleague, Mr. Thornley Stoker, the patient had sustained a fall off a cart nine days previous to the operation, and was, at the time of its performance, in a state of complete left hemiplegia, was comatose, and the respirations 12 per minute. The diagnosis which was made, and proved afterwards to be correct, was that hæmorrhage over the right motor area, due to laceration of the middle meningeal artery, and probably associated with fracture, had occurred and produced at first partial left paralysis, and that the increased hemiplegia which subsequently occurred was due to renewed hæmorrhage. Trephining was performed over the fissure of Rolando, and the hæmorrhagic effusion reached and successfully removed; this was promptly followed by relief, and an uninterruptedly good recovery was made. This case is of special interest in one particular, being signally illustrative of the doctrine of Ferrier, that the absence of anesthesia is, in such cases, indicative of the lesion being limited to the motor zone, and the brachial monoplegia also pointed to this alone being implicated.

The second case, which was under Mr. Ball's care, was one of motor aphasia, which came on after the patient had received a blow on the head with an open penknife ten days previous to his coming under observation. The cicatrix of the wound was

over the squamous portion of the temporal bone. There was an absence of any paralysis of the voluntary muscles, but the aphasia was distinct and progressive, both word-blindness and word-deafness being well marked. Trephining was performed, and the wound was found to be a penetrating one, involving both bone and dura mater, and a small subdural blood-clot was removed, which, it was believed, was situated in the Sylvian fissure. The recovery in this case was complete. In a third case of subcranial hæmorrhage, which Mr. Thomson has recorded, the operation of trephining and the removal of an epidural blood-clot was attended with an equally satisfactory result.

As a remote result of intracranial hæmorrhage another case, which was under the care of Mr. Kendal Franks, is noteworthy. The patient was a young man, aged 25, who commenced to suffer from severe epileptic seizures six years after he sustained a fall on the top of his head from a height of nine feet, and was treated by bromides continued without intermission for over a year, but without influencing the attacks, except occasionally to lengthen the interval between them. Trephining was performed, and a subdural blood-cyst, pressing on the left frontal lobe of the brain, was discovered. The cyst was then cleared out and drained. Immunity from the seizures for three months was the result; there was then a recurrence of them, but they were much slighter than before. A second trephining was then performed, and although the result of this was negative as regards disclosing anything further to cause cerebral disturbance, the condition of the patient since the operation has been most satisfactory, and he is now apparently free from the attacks which formerly were of such frequent occurrence.

In two cases of traumatic cerebral abscess—one epidural and the other subdural, and both of them illustrative of the pathological fact first noticed by Dease as to the late appearance of cerebral trouble after cranial traumatism—I trephined, and in one of them the result was very remarkable. The operation was performed seven weeks after the injury, which was a blow over the left temple. At the time the operation was performed the patient was clearly in *extremis*—motor and sensory paralysis complete, and coma, following convulsive seizures, profound. On raising a disc of bone at the situation where the injury was received no pus was to be seen, and on laying open the dura mater the result was equally negative. I then passed the needle of a hypodermic syringe into the brain substance as far as it would go, and to my great satisfaction found, on drawing up the piston of the instrument, that I had reached the abscess. I removed an ounce and a half of pus, and then washed out the cavity with a weak carbolic solution. The relief obtained by the evacuation of the abscess was immediate, and before the patient left the operating theatre he was able to articulate distinctly. His recovery was rapid and uninterrupted, and he returned to his usual avocation, which was that of a plasterer. As regards the situation of the trephine opening, I may mention that it was three quarters of an inch to the left of the mesial line, and an inch in front of the coronal suture. It corresponded to a point close to the junction of the supero- and meso-frontal convolution. After evacuating the contents of the abscess cavity, in order to ascertain the size and direction of the latter, I passed the little finger of my left hand cautiously into it. By doing so I was able to ascertain its limitation anteriorly, laterally, and inferiorly. Externally and inferiorly its limitation must have been formed by Broca's lobe, but posteriorly and inferiorly, although I passed my little finger in as far as possible, the limit of the cavity was not reached, and I believe the abscess possibly involved the lateral ventricle.

The final outcome of this remarkable case, if disappointing, is of much interest. For nearly nine months after the operation the patient remained perfectly well, and quite able to follow his usual avocation. It was then stated that he got a "fit," from which he recovered, and he returned the following day to his work. The morning after this he was found in bed in a state of complete insensibility, and he was then brought for the second time to hospital. Right hemiplegia was complete, and both plantar and patellar reflexes lost; his face was pale, but lips deeply cyanosed. Pulse 160; respirations 60; temperature 101.8°. He had frequent convulsive seizures after he came to hospital.

Thinking it possible that these symptoms might be due to the formation of a second abscess, I reflected the flap I made originally at the trephining operation and, on opening the dura mater, through some thickened cicatricial tissue gave exit to some bloody serum; I then passed a blunt-pointed director downwards and backwards to a distance of 5 centimètres, but did not reach any

pus or other fluid. A director was then passed downwards and slightly forwards, when a considerable quantity of serous fluid came gushing out. From this situation I removed six drachms of sero-sanguineous fluid dotted with white-coloured flakes. The effect of the operation was to reduce the pulse from 150 to 100, and the temperature from 105.1° to 104.6°. The patient, however, never rallied, and died the day following.

I might dwell on other cases of cerebral abscess illustrative of the beneficial results obtained by trephining and drainage, more particularly that published by Dr. Gowers and Mr. A. Barker, where the abscess occurred in the temporo-sphenoidal lobe, and depended on otitis media, and Dr. Greenfield's, which also depended on the same cause. Trephining and evacuation in both these cases were attended with the best results.

The operative efforts in cases of abscess, tumours, and epilepsy of Professor Victor Horsley, Mr. Alexander, Dr. Macewen, Mr. Godlee, and Dr. Roberts, of Philadelphia, are such as to give the greatest encouragement and hope that in the near future we may be able to undertake the operative treatment of such cases with a confidence we cannot yet possess.

There are many points of interest connected with these remarkable operative efforts that I have mentioned which, did time permit, I should like to dwell on. But in truth the discussion in any minute way of the technicalities of either the diagnosis or therapeutics of such cases seems, on an occasion like the present, hardly appropriate, such being more suitable for consideration at the ordinary meetings of your Society, where in the scientific crucible the golden ore of experience and research is tested, and the pure metal—that having the genuine ring of truth in it—is elicited and refined.

From what has been said it must be conceded that surgery can no longer hold in any sense the subordinate position to medicine which she occupied so long. So far, at all events, as physical conditions are concerned, surgery has undoubtedly advanced medicine in no small degree, and in doing so accomplished much in the direction of dispelling the factitious and unreasonable division of the two branches of the profession. It has also been its safeguard against irregular and unrecognised lines of practice, for no important surgical proceeding can be based upon such, at least in the public mind.

At the same time we must acknowledge that of late years, at all events, surgery is indebted to medicine. From Professor Ferrier's work, for example, brain surgery has to a large extent been the outcome, although without Listerian antisepticism little of what was done could have been accomplished. One of the best instances that could be mentioned of the good results that have been obtained by the combined work of a physician and surgeon is that of Dr. C. Allbutt and Mr. Teale, of Leeds, whose researches on scrofulous cervical glands, pulmonary abscess, and other conditions existing on the boundary line—one every day increasing in breadth—between medicine and surgery, are doubtless familiar to all present. In truth, the more investigation is pursued in this direction the more likely is it that surgical possibilities in many other medical cases than those I have mentioned will become recognised. One of the immediate and most salutary consequences of this overlapping or fusion of our work has been the gaining for the profession at large of a vast increase of influence and public confidence—more, it may be safely said, than has been gained by any of the other professions in the same time, and which has been obtained not because it has mastered so many of the secrets of disease or injury, but, as an eminent living statesman has observed, "Because the world was well aware that the very highest of human abilities were addressed in ample quantity to the business of the profession, and that their abilities were addressed to it with all the zeal and all the judgment which they could expect from human capacity and assiduity in any of the pursuits of life."

And now, what next? Are we on the threshold of unexplored regions of research, or have we arrived at the hopeless deadlock of finality that some maintain we have reached? We should reject so disheartening a suggestion, and fearlessly pursue our course, relying not alone on biological research, but also on improvement in surgical precision and of surgery, more particularly in its operative aspects.

As regards the future progress and development of medicine it has been said by an eminent scientist, but I think unphilosophically, that present research forces on us the conclusion that in order to appreciate the etiology and prevention of disease we must in future rely rather on chemical than on biological inves-

tigation; but considering, among other things, the results obtained by the recognition of parasiticism as an etiological factor in the production of disease, and the great probability of being able in the near future to recognise it as such in affections in which it has not yet been demonstrated, it is clear that we must not rely exclusively on either one or other of them, but rather to the outcome of researches in the many branches of natural science on which both medicine and surgery are based.

But there are other things we should do as well as not do. Among the latter, we should not yield to the tendency that exists in the present day to abandon the principle of unity of research, and to run into narrow specialistic grooves of work.

In certain branches of surgery and medicine, just as in law and other departments of human learning, specialism is doubtless not only inevitable but useful, but it is when there is undue extension of the principle that the harm is effected, leading as it doubtless does to what has been so well termed by Dr. Richardson a "centrifugal disintegration"—one which is tending to tear our science into shreds. It has been said by the apologists of specialism that what it loses in breadth it gains in depth; but it should be remembered that it is not always the deepest wells that furnish the clearest water; nor in mining operations is it the narrowest shafts that always lead to the purest metal.

Another error that is too often made, and which is fraught with peril to true advancement in surgery especially, is the premature publication of cases, and the danger that exists in consequence of drawing erroneous conclusions therefrom. In illustration of this I would allude, among many other examples that might be mentioned, to the records that have appeared so often of alleged successful results obtained after operations for lingual cancer. It must be admitted by all possessing operative experience that there are few surgical procedures that, as a rule, in their ultimate results are so disappointing as these. This disease seems, in truth, like an impregnable fortress, for ever proof against the sternest artillery of our art, an invulnerable enemy that apparently may be vanquished, but never conquered. To those who give unquestioning credence to the rosette statistics so frequently published of the treatment of cases of lingual cancer—cases in which permanent relief is too often triumphantly stated to have been obtained—this may, perhaps, appear too discouraging a picture, but these published results are as a rule so distinctly opposed to my clinical experience that on reading the records alluded to, in which success appears to be the rule and the want of it the exception, it is hard to avoid surprise and regret that so many have been found to prematurely publish records which, my belief is, are of necessity misleading. The custom of too early publication of such cases is the main factor in preventing a true estimate being formed of the value of such interference, and must tend to damage the worth of statistics as a means of establishing surgical truth.

In reference to this point Sir James Paget's words are very applicable. He observes, speaking of what good operative surgery may do when practised with prudence in the treatment of malignant disease: "It does not do all we want; the disease returns even after complete removal of the diseased parts. All that is locally wrong may be removed, the local portion of the disease may be deemed cured, but something remains or after a time is renewed, and similar disease reappears, and in some form or degree is usually worse than the first, and always tending towards death" (*On Cancer and Cancerous Diseases*, p. 25).

I hope I shall not, in making these observations, be understood as in any way depreciating operative surgery in such cases. Far from it. It sometimes cures, usually prolongs life, at all times gives relief; but in reference to cancer and its treatment it must I fear be confessed that as yet "we see through a glass darkly." We have only reached a sort of halfway house on the road, beyond which we are not likely to get until many of the problems connected with the disease are elucidated, such as the relations, if any, which exist between it and other specific diseases, notably syphilis; how far we are justified in regarding it as primarily a local disease; the nature of the *materies morbi* or microbe, or whatever is the agency that develops the phenomena of cancer; and, again, if a disease has a parasitic origin—and probabilities seem to point in that direction—to determine what are the circumstances which at one time render the organisms quiescent, dormant, and apparently harmless, and at another time which rouse them into dangerous activity? These, as well as many other problems, must be solved before the therapeutics of cancer can be placed on a sure and scientific basis.

In connection with the all-important question of the origin of cancer, it has often occurred to me as remarkable that the question as to what part syphilis takes in its development has not been more frequently a subject of consideration. I confess to a growing conviction, based on a tolerably long clinical experience, that in the early life-history of cancer it is not so much a direct etiological factor, so to say, but rather tends to promote a condition favourable to the development of the entity, whatever it may eventually prove to be, which plays so important a rôle in the first act of a drama which as a rule has so tragical a termination.

Recently Professor Lang, of Vienna, has drawn attention to this subject, and has given the particulars of a series of cases which illustrated the tendency to the development of carcinoma on a syphilitic base, and he alluded to similar cases recorded by Mr. J. Hutchinson and Professor von Langenbeck. My colleague, Professor Hamilton, has also detailed to me the history of two remarkable cases which were signally illustrative of the development of cancer occurring during the treatment for secondary syphilis, the disease appearing in the groin, and running a rapidly fatal course. Did time permit I could also adduce instances illustrating the close affinity between the two diseases. I allude more particularly to cases of ulcerated lingual gummata, which ultimately presented the characters, clinical as well as histological, of epithelioma. In reference to this subject Mr. Hutchinson observes: "The statistics are wholly wanting as yet which would enable us to give any confident opinion as to whether the damage the tissues receive from a syphilitic infection makes them more prone than before to take on the erratic modes of growth which constitute cancer. In the case of the tongue, the association of the two is so common that it is difficult to avoid an impression that syphilis must exercise some degree of predisposing influence." (*Syphilis*, By J. Hutchinson, 1887.) Mr. C. Heath also is of opinion that one of the causes of the increase of cancer of late years—a fact noted by the Registrar-General—is the greater spread of syphilis (*JOURNAL*, April, 1888). If these views be ultimately endorsed—and who in the present state of our knowledge can say they cannot?—how largely does it add to the imperative duty that devolves on us to make, with all the powers at our disposal, efforts to dissipate the public prejudice that exists to bringing about a re-enactment of, I trust, the temporarily laid aside Contagious Diseases Acts, and how greatly does it intensify the grave responsibilities of all who unhappily, under the baneful influence of that mischievous sentimentalism which has done so much to sap the judgment and good sense of so many men as well as women, thwart and hinder efforts which, when made, have been proved to all unprejudiced persons to be fraught with good to mankind, not merely now, but for untold ages to come.

The elimination of this dread scourge of the human race is not a national, it is a cosmopolitan question. It is one not so much for the therapist as for the statesman. "The time has come," said Marion Sims, "when we can no longer shut our eyes to its evil influences, and we must deal with it plainly, as we deal with other great evils that affect the general health of the people. If yellow fever threatens to invade our precincts, we take steps to arrest its progress at once. If cholera sounds the alarm we immediately prepare to defend ourselves against its ravages. If small-pox infects our borders we circumvent and extinguish it; but a greater scourge than yellow fever and cholera and small-pox combined is quietly installed in our midst, sapping the foundations of society, poisoning the sources of life, rendering existence miserable, and deteriorating the whole human family."

I might adduce much, and, to unprejudiced minds, conclusive evidence as to the beneficial effects of the Acts in protected districts, not only as regards the diminution of the disease, but also in reference to the good moral effects of them; but on the present occasion I will, in connection with the former, content myself with mentioning one fact. It is mentioned in an able paper on this subject by my colleague, Mr. W. Thomson (*Medical Press and Circular*, April 30th, 1879). In 1874 the 50th Regiment came to Dublin, an unprotected station. It was previously for seven months at Aldershot and Colchester, protected stations. The length of time was practically the same that the regiment spent in both the protected and unprotected stations, as was also the average strength of the regiment during the two periods. The admissions per 1,000 men, while protected, for syphilis was 11.97, and while unprotected 118.81, and it should also be stated that during the first period there was the adverse influence of 13 per cent. fresh recruits, while there were no enlistments in the second. Other facts equally striking could be mentioned, proving how

potent for good the Acts might be made; but the one I have adduced speaks, in my opinion, trumpet-tongued in their favour.

But encouraging as the results of the Acts have been, it is not from such partial legislation as that contained in them that we can look for any great or permanent improvement. This need not be expected until statesmen and philanthropists of all nationalities shall combine in endeavouring to crush the enemy in our midst, that every day brings in its train disease, destitution, and death, not alone to the guilty, but also to the guiltless, and transmits a bitter inheritance of sorrow and suffering to the innocent yet unborn. And yet to the efforts made to mitigate or stamp out the disease the strongest opposition is made by those "friends of humanity" whose perverted notions of right and religion make them give an insensate opposition to a movement which, if carried out effectually, would put such a check on immorality and diminish so largely diseases among all mankind. When we consider the suffering, blighted hopes, the loss of life that the disease unchecked carries in its wake, we cannot but realise the fact that although sentiment is a mercy, it may be one that for a nation is the most costly—and for humanity, the most cruel.

The task of dissipating many of these prejudices and errors of persons of doubtless good intention as a rule, but of weak intellectual fibre, and which, in more than one instance, have culminated into what has become a real calamity for mankind, is one that all can undertake, no matter what their abilities or mental powers may be. If it be not possible to have a position in the scientific vanguard of our profession, much may be done in supplementing the work of those whose strength and whose work have enabled them to get there. Men of much creative genius are, as they ever have been, rare in their generation. But those without this may not the less be "true sons of their century," for it is the men of order, the men who work with method, earnestness, and truth, that do the great mass of the world's work. If they have not strength to carry a votive tablet to the Temple of Truth, they can at all events assist in fixing and cementing it; and fortunate it is that such is the arrangement made by the One Perfect Workman, for it shows us the importance—nay, necessity—of mutual help which must exist so long as men's qualities, mental powers, and tastes are so diverse.

In future, the relations between surgery and medicine being now so happily altered, the physician and surgeon will work in unison, the labours of the one supplementing those of the other, their mutual jealousies and differences forgotten, or relegated to the hazy traditions of a past that has but little interest to anyone, save, perhaps, the historian or the antiquary. This union for the good purposes of mutual help will bring us increase of strength, of confidence, and hope, and assuredly prove that we are all, so to say, of the same guild, all animated by the same worthy ambition, by the same desire to "allow," as Lord Bacon said, "the spials and intelligencers of Nature to bring in their bills," and all animated by the same fair aspiration to discover, collect, and replace the scattered fragments of that precious crystal of truth, which, it has been said, fell from, and was given to us, from heaven.

THREE LECTURES

TUBERCULAR JOINT-DISEASE AND ITS TREATMENT BY OPERATION.

Delivered at the Royal College of Surgeons of England, June, 1888.

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN.—I shall doubtless best show my deep sense of the great honour you have done me in placing me in the position I occupy to-day by addressing myself at once to the task confided to me, with no more preface than a frank admission of my consciousness that the treatment of the subject chosen is worthy of far higher powers than I can hope to bring to bear upon it.

In selecting for the subject of these lectures some of the

questions involved in the operative treatment of tubercular disease of joints, I ventured to think that the time had come for a reconsideration of our position in this field of surgery. Within the last few years two great events have occurred, which may be said without exaggeration to have affected this subject to its very foundation. I allude to the general acceptance of the theory of antiseptic, or, as it may now be better styled aseptic, wound treatment, and the discovery of the true nature of what is known as tubercular disease. But, though the theories of a sepsis and of the parasitic nature of tubercle have already taken deep root in the surgical mind, reading and observation have convinced me that as yet they have not had that profound effect upon the daily operative treatment of scrofulous joint affections which they are destined to have when more thoroughly familiar to the profession at large. I have thought therefore, that to review this subject in the light of these two theories would not be a useless task, especially as the observations and researches bearing upon many of the questions involved are widely scattered, and more or less inaccessible to the ordinary reader; and, although it has been a labour of love to me to collect, study, and weigh these, and to test them in practice, I can easily believe that to many practitioners this might be a task demanding larger privileges than I have been fortunate enough to enjoy.

Step by step real and solid progress has been made in the operative treatment of joint affections in past years; but to those who look closely into the subject now in the light of these two events, it seems probable that these improvements will soon be left far in the distance by the achievements of the near future. The territory before us is large, and as yet its borders only have been cultivated. The object of these lectures will be to inquire whether, with our improved resources, we are not now better able to meet and overcome its hostile forces; and whether, with the increased light thrown upon some of its darkest spots, we have not already augmented its yield of fruit, and are not justified in looking for a still more abundant harvest.

In this survey, which must of necessity be brief, I cannot traverse all the ground already broken, but I do cherish the hope that I may be able, at all events, to make an outline sketch of our present position and of the ground before us, and thus perhaps assist in preparing the way for further steady advance.

If one were asked to furnish a good single illustration of the evolution of surgery from the condition of a mere handicraft to the dignity of a science, one could hardly do better than point to the change which has lately come over the surgeon's mode of regarding and dealing with what has hitherto been generally spoken of as scrofulous joint-disease.

In order to give this illustration its full force, it would be necessary, in the first place, to point out the various steps in the process of reasoning which had led to the substitution of the more exact term "tubercular" for the vague expression "scrofulous," and to trace the gradual crystallisation of the former term into its present more precise meaning. It would be necessary, further, to show how this gradual growth of knowledge had influenced not only the selection of cases, but also the actual mechanism of operation, and converted procedures which formerly seemed to demand little more than an acquaintance with the anatomy of a joint and the exercise of manipulative dexterity into a test of all those processes which go to make the success of a delicate experimenter in physics or chemistry. In this inquiry it would soon become abundantly evident that the old days of the showy *tour de maitre*, as applied to excision, had passed away, and had given place to a better era, in which the principles of physiology, chemistry, physics, and biology are applied to overcome difficulties and to repel forces either quite unknown or wholly misinterpreted in former times.

This, Sir, I am aware, is but hinting in homely phrase at what you have so eloquently and philosophically expressed on this spot in your Hunterian oration, the influence of which upon surgical thought cannot be overrated.

Remembering your words I am emboldened to pass on without apology to a review of the question on the lines indicated, and the consideration of those first principles which ought and actually do guide us now in excising diseased tissue from scrofulous joints; and though this review can only be brief, I fear, nevertheless, I shall have to claim the indulgence of many here to whom much that I have to say must be already familiar.

First in order among the numerous questions bearing upon the operative treatment of tubercular mischief in joints comes the

inquiry as to the nature of the disease so characterised; and before all things, we have to decide whether it is not the same as that hitherto spoken of as "scrofulous." To an audience such as I have the honour of addressing, I need hardly give all the reasons in detail for regarding them as identical; but I may be permitted, perhaps, *in order that my position may be defined*, to recall to your minds the leading facts which have been gradually accumulating in support of this view.

To some this may appear unnecessary, but I cannot forget that, up to a comparatively recent period, it was generally taught that scrofula and tuberculosis were two distinct diseases; also that many surgeons at home and abroad, who do not perhaps enjoy the privileges of closely following the rapid advances of pathological investigation, are still under the dominion of the same view. Further, the importance of settling this question is not only amply attested by the number of earnest workers who have devoted themselves to its study, but, as I hope to show, by the bearing it has upon the treatment of joint-disease, whether by or without operation.

The first great step towards a settlement of this matter was the gradual recognition of the fact that tuberculosis, as it presented itself in internal organs, was a well defined disease, producing definite tissue changes. That the result of the latter in their earlier stages was the formation of peculiar bodies having a well-defined structure recognisable in any tissue of the body, and liable, as they grew older, to certain secondary changes of a degenerative kind. These bodies, which received the closest attention in the lungs, soon came to be recognised in many other organs, both in the miliary form as well as in larger aggregations. Differences, to be sure, were noticed among them, but these were soon seen to be due to the stage of growth in which they were examined. The small miliary tubercle differed in its outward appearance from the larger caseating nodule; but, soon, intermediate forms were found, and it was observed that the larger body sprang originally from a focus identical with the smaller, and had only changed in so far as its more central portions had undergone fatty or caseous degeneration. It was observed further that when such a nodule broke down upon a surface exposed to the air it rapidly liquefied, the walls of the resulting space became more or less inflamed, and threw off not only its own proper necrotic fatty debris, but actual living leucocytes in the form of pus. We had, then, the tubercular cavity, say in the lung, secreting pus, and throwing off caseous detritus, and in the walls of which vessels of greater or less calibre were eroded, and often bled freely. Moreover, it was noticed that patients in whom these deposits could be demonstrated in the lungs frequently became affected similarly, and often fatally, in other parts, such as the joints, the brain, or intestines, and that the deposits in these parts underwent identical degenerative changes in the course of time.

Then came the recognition of the fact that the offspring of such patients appeared to be peculiarly prone to chronic joint-affections, besides enlargements of the lymphatic glands.

Further, it was noted that in these chronic affections of the joints and glands, characterised from time immemorial as "scrofulous," the ultimate result of the tissue changes was the production of caseous foci identical with those known as "tubercular" in the lungs.

Again, in innumerable cases of apparently primary scrofulous joint-disease, it was observed that, sooner or later, the lungs, brain, intestines, or kidneys became affected with typical tubercular disease. Ultimately, a careful microscopical study of the tissues of such joints revealed the fact that the initial lesion of joint scrofula was histologically the same as that of lung tuberculosis, and that typical tubercles could be demonstrated in them with the same ease as in the lung, and undergoing the same degenerative changes.

This would almost appear enough to establish the identity of the two diseases, but, in addition, there was a mass of clinical evidence accumulated, which pointed in the same direction. The age of the patients most commonly affected was in both cases usually the same; the conditions of life favourable to the development of scrofula and tubercle were shown to be closely allied. The general appearance of the patient was as nearly as possible alike in the two conditions; the variations of temperature, pulse, appetite, and body-weight, according as the disease was advancing or retrograding, were nearly parallel in the two affections.

But, though all these facts seemed to point very clearly to the identity of scrofula and tuberculosis, it was not until the disco-

very of the bacillus tuberculosis and its demonstration in the initial lesions of the two affections that positive proof was actually forthcoming. Almost at the same time Koch and Baumgarten pointed out that in typical tubercular and scrofulous nodules this organism could invariably be demonstrated by different methods of preparation, to which it is not necessary further to refer. Their researches were soon supported by a whole army of bacteriologists, both abroad and at home, and among our countrymen none has done more in this direction than Mr. Watson Cheyne. And it is a noteworthy fact that many of those who at first, on the strength of their own observations, had stood out most firmly against the theory of the specific or parasitic nature of tubercle have since become its most ardent supporters, and, moreover, have given in their adhesion to the view that this bacillus is the specific organism of tuberculosis. Among these may be mentioned Cohnheim, Klebs, and Schüller in Germany, and, I believe, the late Dr. Wilson Fox and Professor Burdon Sanderson in England.

But it was not alone on the constant discovery of the bacillus in tubercle, be it remembered, that the theory of its causal relation to tuberculosis was based. Experimental research soon showed that no substance not containing these organisms was capable of producing in healthy animals the disease in question; and, on the other hand, that substances in which they were present, if inoculated with due precautions, invariably produced the disease in certain animals, not only locally, but as a rule also generally throughout the system. It is true that experiments at first appeared to point in the opposite direction; but a repetition of them with proper precautions against error left no doubt on the subject. And not only was the inoculation of fresh tubercle shown to produce in all cases a definite tuberculosis, but it was also demonstrated that the organisms in question, cultivated for many generations in various media until all trace of contamination with matters from the original living tissue had been got rid of, were capable of producing this disease when introduced into the animal body, with as great certainty as deep sleep is produced by the hypodermic injection of morphine. Again, the bacillus could be obtained in any quantity from tubercles produced in internal organs by inoculation of these cultivations in distant parts, and could be multiplied *ad infinitum* by cultivation and propagated among some of the domestic animals with unerring certainty.

Now, it mattered little whether the tissue from which the inoculations were made was taken from a scrofulous joint or a typically tuberculous lung; the result was practically the same. And here we have, I think, the identity of the two diseases, tuberculosis and scrofula, proved to demonstration as clearly as anything is capable of proof by experiment.

The researches bearing upon these facts are far too numerous for detailed description. A mere enumeration of them would occupy more time than is placed at the disposal of a Hunterian lecturer. But to any candid mind they bear but one construction, namely, that tuberculosis and scrofula are diseases produced by the introduction into the animal body of a specific poison, and that this poison is always associated with the presence of the bacillus in question, if it be not actually the organism itself; and further, that without the presence of this organism typical tubercle does not exist.

But though we cannot follow here one tithe of the researches in support of this position, it will greatly promote the objects I have in view in discussing the nature and treatment of tubercle in joints if I am permitted briefly to sketch one typical inoculation experiment and its effects upon the tissues and organs. I will take, then, for illustration a well-known one as performed by Baumgarten, who is peculiarly qualified for such work by his profound histological research in other fields as well as this, an experiment which has been repeated by many other observers with the same results. The tissue changes here seen in the rabbit's eye have a close parallel in those demonstrable in tubercular disease in human organs, as is shown by Arnold's careful studies of the formation of tubercles in the lung. But as they can be followed in their various stages, and uncomplicated by ordinary inflammatory processes only in experimental inoculations on animals, the latter are taken for illustration.

In the experiment in question, a small fragment of caseating tissue is removed from a scrofulous joint or gland, with due precautions against contamination from without, and is inserted into the anterior chamber of a healthy rabbit's eye through an incision in the cornea (Fig. I, N.). The same operation is also performed at the same time on a large number of other rabbits' eyes. One or

more of these eyes is excised daily and placed in preserving fluid for histological examination.

Now, what is found?

In the first few days absolutely no change is observed, except the cicatrization of the corneal wound (Fig. I, N.) and the formation of a capsule of granulation tissue (Fig. I, Gr. K.) around the foreign body introduced. But from the second day on, a very evident increase of the bacilli is demonstrable within the inoculated fragment, until they are present in profusion. From this spot at which they first multiply they are now seen to spread rapidly. In the first place they permeate the granulation capsule (Fig. I, Gr. K.) around the caseous particle in enormous numbers, to which they communicate the blue colour seen in this enlarged drawing of Baumgarten's section. Subsequently they penetrate into the adjacent parts of the iris and cornea. In the latter they spread chiefly along the fresh scar tissue (Fig. I, N.), a fact of much significance to the operator, explaining as it does the occasional appearance of caseating foci in perfectly healed scars in the skin, perhaps weeks after an operation for deep-seated scrofulous disease.

On the fifth day scattered bacilli are seen in those portions of the cornea nearest to the point of inoculation, but without so far producing the slightest deviation from their normal histological texture. No traces of other species of organisms are to be seen with or near these immigrants, or throughout the whole iris or cornea.

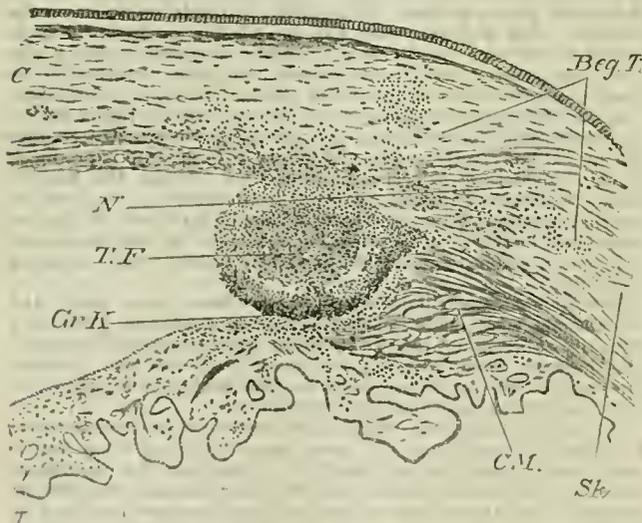


Fig. I.—Sk., sclerotic; C.M., ciliary muscle; I., iris; C., cornea; T.F., tubercular foreign body (the black dots represent bacilli); Gr.K., granulation capsule around latter packed with bacilli; N., new scar tissue in corneal wound with bacilli; Beg. T., beginning of tubercular hyperplasia around bacilli.

On the sixth day the bacilli are present in great numbers throughout the tissues of the cornea, which are still however practically unchanged. But at certain points, especially where the bacilli lie in dense groups, certain newly formed cells are to be seen, having the general appearance of endothelial or epitheloid elements, rather than of white blood or lymph corpuscles. Each day now adds to the hosts of invading parasites, which occupy an ever increasing tract of the tissues of the iris. The nearer to the point of inoculation, the more closely packed are they; the further off, the more scattered. Where the organisms are very sparse no histological changes are to be detected, but close to the point of inoculation young tubercles in the form of aggregations of epitheloid cells are now noticed, and a little later every intermediate form up to the perfect type of miliary tubercle with their lymphoid and epitheloid cells are to be seen, as in Fig. II, L.T. and E.T., which I have enlarged from Baumgarten's drawing of a microscopic section. These formations are constantly found associated with foci of bacillus proliferation, no organisms of any other kind being present. Moreover, in this experiment no tubercle, not even the smallest, is ever found at a spot free from the presence of bacilli, or having only a few of them. The amount of cell proliferation always corresponds to the richness in bacilli of the

nests of parasites. Thus developing and extending, the tubercular process advances further until on about the tenth or eleventh day a visible macroscopic iritis and keratitis is produced.

In the distant internal organs of the animals inoculated as above, an entirely analogous process of tubercularisation was observed by Baumgarten. This was best seen in the kidneys at about the fifth week after inoculation. Here the vessels of the

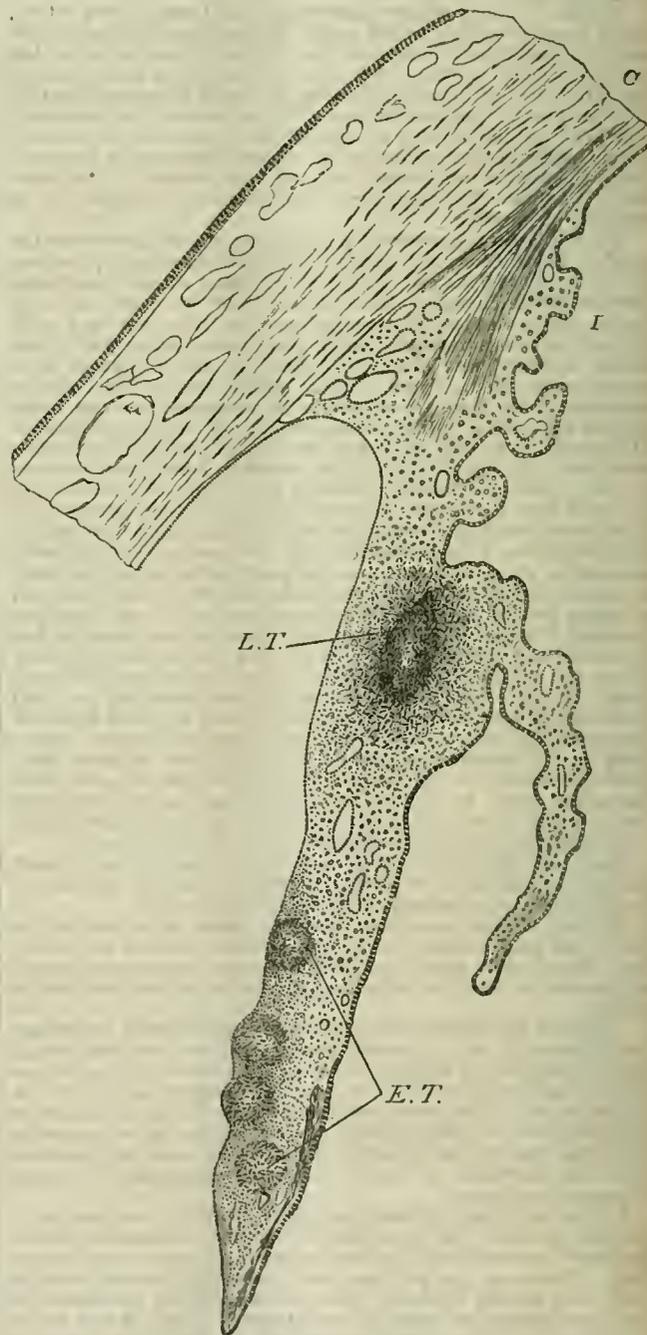


Fig. II.—C., the cornea; I., the iris; L.T., lymphoid tubercle of iris; E.T., earlier tubercles.

glomeruli were frequently found packed with bacilli, and, where the latter were spreading into the parenchyma around, typical tubercles were produced. Large numbers of bacilli were also excreted by the kidneys. Similar experiments have been repeated by many other observers with cultivated bacilli, and with exactly

the same results. The dosage of microbes was, however, shown by Mr. W. Cheyne materially to influence the rapidity of the development of the disease, a point of the utmost importance as bearing upon clinical experience.

The question now arises, Can we produce any clear evidence that anything similar to this direct inoculation of tubercle on the surface of the body ever takes place in the human subject? This question can, I venture to say, be answered distinctly in the affirmative, both as regards children and adults. Numerous cases have been put on record within the last few years which place the matter beyond doubt, and I cannot help thinking that other convincing cases must have come under the notice of some of those present here to-day. From the long list at our disposal allow me to select a few observations which are very striking, and which deserve to be familiar to all.

In a Continental town containing a Jewish community of some 9,000 souls, there were, during the months from February to May inclusive, nineteen children, all healthy, subjected to the rite of circumcision. Sixteen of the children were operated on by one man, the remaining three by others. In every case the bleeding was stopped, as was customary, by the application of the mouth to the prepuce and by sucking the latter. This part of the ritual is often carried out by different individuals, sometimes members of the family, sometimes by the operator. In the present instance the sucking was performed in ten cases by the functionary mentioned above as having circumcised sixteen of the children. In the remaining nine cases the application of the mouth to the prepuce was made by other members of the community. All these last nine cases recovered perfectly from the operation in the usual way; but the ten children in whom the bleeding was stopped by the application of the first operator's mouth all became affected with very serious disease between the eighth and twelfth day, and in precisely the same way. The wounds or scars in the prepuce first became the seat of nodules, then of unhealthy spreading ulcers, secreting but little. In about three weeks the inguinal glands became much enlarged in spite of vigorous anti-syphilitic treatment (the disease having at first been diagnosed as syphilis by Dr. Lehmann, under whose treatment the children were placed, and who records the outbreak with great care). In three cases these glands did not suppurate, but the patients died with all the symptoms of tubercular meningitis within a few months. In the remaining seven the glands suppurated, and four of these died, one of intercurrent diphtheria, three of "marasmus." Three of the ten children recovered, but only after years of suppuration in the inguinal glands and burrowing of sinuses under the skin. On looking into the matter Dr. Lehmann found that the operator on these ten children had been a patient of his own during the period of the outbreak, suffering from advanced phthisis of the lungs with cavities, characteristic sputa, night-sweating, etc., and who succumbed to this disease shortly after the last of these circumcisions in the month of May. He found that this patient had only applied his mouth to the prepuce in these ten infected cases, though he had circumcised sixteen, and that everyone of the ten were affected as above, while in the remaining six which he had circumcised, but in which the blood was sucked off by others, no evil result followed, nor in three other cases circumcised at the same period, though not by the same hand.

The careful way in which the details of this outbreak are given and the tables drawn up by Dr. Lehmann leave no room for doubt that the disease produced was local, and in several cases general, tuberculosis; and that it was inoculated into the prepuce from the mouth of the operator, who was dying of destructive tubercular lung disease at the time, and who became so weak at last that he had to be brought in a carriage from house to house for the performance of the rite in question.

I will not weary you by reciting all the cases of a similar kind which have recently been put on record, but will only mention that in many—notably those of Merkle, Holst, Elsenberg, and Pfeiffer—not only was the disease produced by the inoculation typically like tuberculosis, but the bacillus was fully demonstrated in the affected tissues. Pfeiffer's case, however, deserves a passing notice on account of its completeness.

The patient was a healthy veterinary surgeon, with a good family history, who, while dissecting a tubercular cow, punctured the joint of his left thumb. The wound soon healed, but was followed by induration of the scar, and later by swelling of the whole joint, which underwent the typical changes of a scrofulous synovitis, but without the formation of sinuses. Some

months later the patient began to show signs of pulmonary phthisis, which rapidly increased, and he died of this disease a year and a half after the wound of the thumb. The latter, which showed much swelling but an unbroken skin at death, was removed for special examination. The joint, on being laid open, showed all the destructive changes of scrofula both in the bones and synovial membrane; and in the latter, as well as in the broken-down material which filled the intervals between the bones, an unusually large number of bacilli tuberculosis were found. The microscopic appearance of the diseased tissues was also typically tubercular.

Such cases as those just described leave no room for doubt that tubercle can be inoculated in any part of the surface of the body, and may spread from the original point of entry throughout the whole system, until a fatal amount of general disease is produced.

Now, if the numerous facts of this kind already accumulated—of which those to which brief allusion has been made are only a sample—are capable of the interpretation put upon them, it is evident, in the first place, that a disease identical with human tuberculosis can be produced at will in animals by the inoculation from man of the products of strumous degeneration, and of the organisms obtained from them by repeated cultivation; also that the disease so induced may manifest itself locally before ultimately becoming general, and may remain localised for some time. It is also clear, from many experiments, that its tendency to become a general disease varies *ceteris paribus* directly with the number of the specific organisms present at the original point of inoculation, and that without these organisms no tuberculosis can be produced. Further, it is evident that the same disease can be produced in the human body in exactly the same way and subject to the same conditions.

But a number of other interesting and important facts have also been brought to the front in the extensive researches which have been made in this field—facts which have long been foreshadowed by clinical experience, and have only awaited proof by experiment. Among these, one of the most important is the influence of the condition of the soil upon the growth of the organism.

As of the pyogenic microbes so also of the bacilli tuberculosis. It may be said that they have to do battle in the animal economy with the vital forces of the tissue in which they are first deposited, and that these are in a large number of cases sufficient for their overthrow, or at all events sufficient to arrest their multiplication and dispersion throughout the body. In the case of the human being it has been shown, by accidental inoculation, that though they may be introduced in a thoroughly active form they may, if the body is healthy, be arrested in their development and kept at bay until finally eliminated or destroyed; but if the vitality of the individual or part be low, that they have a great tendency to multiply and spread. Schüller's long and admirable series of experiments, which must be familiar to many here, place this beyond all doubt as regards animals, and our clinical experience of scrofulous inflammations in man confirms the view. We know, for instance, that those who are weakly from inheritance or bad hygienic surroundings are most liable to these diseases, and also that those tissues and organs whose vitality has been lowered by injury or disease are specially prone to become the seat of tuberculous affections. Children again are more frequently a prey to scrofula than adults whose tissues are in their full vigour. Again, it has also been proved beyond cavil, that tubercular disease is auto-inoculable, that the introduction of the poison at one spot does not give immunity from inoculation at another, but further than this, that it is particularly liable to be grafted from one part of the body on to another. The importance of a full recognition of this last fact cannot be overrated in considering the operative treatment of tubercular joint-disease, and it will be necessary to refer to it over and over again.

We must now glance briefly at the ordinary modes of introduction of the tubercular poison into the human body before considering its behaviour towards the structures of the joints in particular.

Ever since the disease in question was first defined, the respiratory passages have been recognised as the point of attack at which the human body most frequently suffers. And clinical and pathological experience has shown that it is from this tract of mucous membrane that the infection most commonly spreads to the other parts of the system. The mode of this infection has been so often demonstrated by experiments on animals as to require only a passing notice here. Not only has it been shown that the injection of phthisical sputa or crude tubercular matter, or the bacillus tuberculosis derived pure by cultivation from it

into the air passages will produce typical tuberculosis of the lungs, but it has been observed that even healthy animals of certain species simply living with others thus affected speedily develop the same disease; and again, that healthy animals placed in an atmosphere contaminated by tuberculous dust are soon similarly affected. Not only has all this been proved by many independent observers, but the various stages of the disease from the first initial lesion of the catarrhal mucous membrane to the fully developed general tuberculosis have been traced step by step in animals thus dealt with.

And when we come to consider these experiments, and to compare their results with our clinical experience of phthisis in the human body and its minuter pathology we cannot doubt for a moment that its etiology is the same in both cases.

Next in the order of frequency comes the infection of the system through the alimentary tract. That disease was frequently propagated in the latter by direct inoculation due to the swallowing of phthisical sputa had long been suspected by clinical observers; but by others the presence of tubercular ulcers in the intestinal mucous membrane of patients suffering from pulmonary phthisis was regarded simply as evidence of the general infection of the blood with this poison, and that, once introduced, it could break out secondarily in almost any organ whose vitality was lowered by local diseases. Experimental researches have, however, proved that primary inoculation may take place in the intestinal mucous membrane without any lung disease through the medium of food contaminated with tubercular elements. Animals fed upon such food have developed the disease in the intestine readily, while other animals of the same species fed upon similar articles of diet but uncontaminated have remained healthy, though placed in exactly similar surroundings.

But perhaps the most striking illustration of this mode of infection through the medium of the alimentary tract is furnished by a series of the most interesting observations made by Bang on tubercular disease of the udders of cows. After describing this disease in detail, he goes on to show that it is associated with the presence in the diseased udders of countless bacilli tuberculosis, and ultimately with the characteristics of general bovine tuberculosis. And, further, he shows that the organisms can be demonstrated in the milk of such an udder, and that such milk will produce typical general tuberculosis when supplied as food to sucklings or rabbits, or when injected into their peritoneal cavity.

The special knowledge of this observer, and the care with which his investigations were conducted, leave no room to doubt the correctness of his conclusions, which are also confirmed by Bolinger's demonstrations of bacilli in the milk of tubercular cows and its infective properties. That this infection also frequently takes place by means of milk in the case of children there is every reason to suppose, and, moreover, there are cases on record in which even healthy adult individuals, living an isolated life amid the healthiest surroundings, away from other causes of infection, have become tubercular from a diet consisting largely of the milk of *perlsüchtige* cows. The most convincing instance of this is to be found in the case of certain shepherds in the Swiss hills mentioned by Klebs. Amongst these hardy men, living in the purest air and apart from other unhealthy individuals, acute tuberculosis has been shown to have been produced by a diet consisting almost exclusively of bread and the milk of cows suffering from the same disease. Klebs has also described the case of a healthy St. Bernard dog fed upon bread and the milk of a *perlsüchtiger* cow, with the result of producing general tuberculosis.

There is one other supposed mode of introduction of the tubercle virus into the human system to which I should like to direct your attention for a few moments, namely, that by inheritance. I am aware that here I am on disputed ground. But after a careful study of the evidence on this point *pro* and *con.*, I feel bound to express the opinion left in my mind, inasmuch as this opinion will influence considerably what I have to say later on in regard to the operative treatment of tubercular disease. Now, I must confess that the theory which I was always taught, and which I have hitherto held, that tubercular disease is directly inherited in the parasite form in a large proportion of cases, appears to me no longer tenable. There is a vast amount of evidence on this point, and the literature of the subject one can hardly even think of without a shudder. That the organism of tubercle may be transmitted from a diseased mother to the fetus *in utero* in animals has no doubt been shown by Johnne in one single case. But it is a significant fact that Johnne himself—with his special knowledge of the subject and his great oppor-

tunities amongst animals for study, and believing in the possibility of such transmission—writes in 1885 that the case he then described was the first certain one of fetal tubercle placed on record. It is also a remarkable fact that numerous other specially competent observers have failed to find evidence of tubercle in fetuses born of tubercular animals, or found *in utero* after death from the disease in question; and, so far as I can discover, typical tubercle has never been demonstrated beyond question in a human fetus at birth, or taken from the uterus after death, in spite of frequent search. But, even if it were occasionally found in the fetus, this would only show that such an infection was possible as an exception, but it would not account for the enormous amount of tubercular disease observed among very young children. We are, therefore, led to look for other possible methods of infection besides that from the mother *in utero*; and there are so many, as I have endeavoured to show above, that we are in no difficulty. Children born of parents debilitated with phthisis may inherit a low vital energy, but be without a trace of parasitic disease at birth. But, with inherited debility, they are peculiarly fitted to become a fruitful soil for the propagation of the tubercle bacilli if implanted on them; and in a household in which phthisical people live together there are countless ways in which an infant may acquire the disease from them. In the first place, the mother's milk may introduce the organism into the child; her breath may infect it; the dust of the house, contaminated by sputa, may carry the poison into its lungs or alimentary tract, or deposit it on an abrasion of the skin. Indeed, it seems almost difficult to explain how a child born weakly and brought up among consumptive people can escape more or less infection in one or other of these ways briefly alluded to. At all events, the prevalence of tuberculosis among the children of consumptives is easily accounted for without any resort to the theory of inheritance.

Without going further into this very interesting question of inheritance, I will venture to say that anyone who will carefully study the evidence bearing upon it, and especially Wahl's exhaustive paper, will come to the conclusion that, although tuberculosis can certainly be inherited, such an occurrence is excessively rare, and that, in the vast majority of cases met with, the disease has been acquired, most probably, from the surroundings of the patients or from the food supplied to them.

It is highly probable, however, that there is such a thing as hereditary predisposition to tubercular disease among the offspring of consumptive parents; in other words, that their tissues are a peculiarly fertile soil for the growth of the organism once introduced; but wherein this predisposition consists—whether in anatomical or physiological deviations from the normal, or simply in a general loss of that unknown quantity "vital energy"—is still a mystery.

When once engrafted upon one of the surfaces of the body, the bacillus tuberculosis is disseminated throughout the latter in a variety of ways. In the first place, though it has not been proved to possess the power of locomotion, its mode of spreading from a point of inoculation strongly suggests this. In Baumgarten's experiments on the eye mentioned above, the position of individual bacilli in the outskirts of the primarily infected spot can hardly be explained by their transport by any known tissue current. For instance, they spread by preference into the cornea along the fresh scar tissue of the recently healed incision (Fig. I, N.), in which, of course, there would be no vessels of any kind during the first few days; and, unless they travel by virtue of some power inherent in themselves, it is hard to account for their presence here at all. A few, of course, may be carried in the interior of wandering leucocytes, but this does not explain the movements of the majority, many of which are found apart from the leucocytes. They have also been shown to have the power of penetrating the walls of the venules and arterioles from without, and of so gaining access to the blood-stream.

But leaving this question as to their power of moving themselves from place to place to be settled by future observation, the other modes in which they are spread through the body demand brief notice. There can be little doubt that, in the vast majority of instances, they are primarily taken up by the lymphatics, and pass from these into the blood-current, to be carried by the latter secondarily into distant parts of the body. But, as a rule, the glands nearest to the point of inoculation arrest the progress of the organism more or less completely. It must not be forgotten, however, that the walls of a large lymphatic vessel such as the thoracic duct may be secondarily infected from proximity to an inde-

pendent focus of caseation. From a vessel so infected an abundant supply of bacilli may be furnished direct to the circulation, no glands intervening to offer a barrier. Through the coats of the pulmonary vessels they have also, as already stated, been observed to pass directly into the circulation; but they probably do so to a very small extent as long as the walls of the vessels are unbroken by inflammation. But it is quite otherwise when a vein, whether in the lung or elsewhere, lies in close apposition to a caseating focus of tubercular disease. In such a case the wall of the vessel may be eroded, and the contents of the caseous abscess may be poured directly into the venous, and from this into the general circulation. This has actually been demonstrated by Weigert, in an interesting series of cases, to have taken place, and to have been followed by rapid general tuberculosis. A knowledge of this fact ought to have an important bearing on the operative treatment of tubercular caseating foci. It is very easy to imagine how easily surgical interference may give rise to this mode of general infection when we remember the constant presence of dilated thin-walled veins around the walls of caseous abscesses, and the ease with which they may be torn. Again, the rough handling of a tubercular joint, even without any cutting operation, may complete the rupture of a vein already partly eroded by its proximity to a caseating process, and may regularly inundate the venous blood-stream with the products of the latter. We have all, I suppose, seen rapid general tuberculosis follow upon some disturbance of a scrofulous joint by injury or surgical interference, and such a sudden inroad of the products of the local disease into the venous circulation would best explain such an occurrence. The beneficial effect of absolute rest too in limiting tubercular processes may be no doubt explained in part by absence of this dispersion of bacilli through eroded vessels, rest giving the latter time to erect barriers against the encroachment of the organisms by means of ordinary plastic phlebitis.

But it is to the lymphatics that we must look as the ordinary carriers of the microbes from their first landing-place; and it is fortunate that this is so, for in a large proportion of cases the lymphatic glands appear to have the power of arresting their further progress until they either die or in some way their dangerous powers are curtailed. There is every reason to suppose that in many cases the bacilli are arrested completely in the glands and never get any further. But it is equally probable that in a large proportion of cases they or their spores pass quickly through them in greater or less number, and gain an entrance into the blood. It is also more than likely that they, or their spores, often pass on from the glands into the circulation after a long and comparatively quiet sojourn in the former, perhaps amounting to years, and only become dangerous on being disturbed and widely distributed through the circulation. The importance of this power of the lymph glands to arrest the organisms and prevent their contamination of the whole blood-stream is, of course, enormous; for, once they have entered the blood, they find a most fruitful soil for their propagation, and not only this, but they are carried to every part of the system, and can select among the organs and tissues one or more spots specially suited, either physiologically or pathologically, for their propagation. That certain organs and tissues are peculiarly liable to be attacked by this disease has been well known for a long time past; but the conditions determining the point of attack have not been so well understood. Undoubtedly the view that injury to a part predisposed it to tuberculosis is quite correct, whether this injury consist of disintegration of tissue, with extravasation of blood, or disturbance of its functions, or only amount to impairment of those forces which go to make up what is briefly termed its "vitality."

But besides the influence of external agencies in predisposing to tubercular growth, there appears to be in certain spots in the body some inherent suitability of soil for the cultivation of the bacillus tuberculosis depending upon their physiological conditions. In other words, with the organism in the blood of an individual not unfavourably influenced as regards one part or another by external agencies, the bacillus appears to prefer to make its home, as a rule, in certain tissues, and to leave others unaffected.

The pia mater of the child furnishes, perhaps, the best example of what I mean, the medulla of the bodies of the vertebrae the next best. Both of these tissues in the child are as far removed from the action of injury, or, indeed, of any external influence, as possible, and yet the frequency with which they become the seat of tubercular disease is proverbial.

It would be interesting to examine the various aspects of this

particular question at greater length, but I am obliged to content myself to-day with this very brief allusion to it. Enough has been said, I hope, to indicate the line of reasoning I have been led to adopt as regards the nature of tubercular or scrofulous disease, and which I shall venture to pursue in its direct application to joint-disease in my next lecture.

ON HYDROPHOBIA AND ITS "TREATMENT."

ESPECIALLY BY THE HOT-AIR BATH, COMMONLY TERMED

THE BOUISSON REMEDY.

BY VICTOR HORSLEY, F.R.S., ETC.,

Surgeon to the National Hospital for the Paralysed and Epileptic, Professor Superintendent of the Brown Institution, Professor of Pathology in University College, and Assistant-Surgeon to University College Hospital.

HYDROPHOBIA being a disease of which the true pathology was scarcely known until a few years ago, indeed almost until M. Pasteur began his remarkable investigations, has always been regarded by the quack and the impostor as a fair field of enterprise. The authoritative statements employed by such therapeutical pirates to foist their methods and nostrums upon the much beguiled public commonly include the prominent expression of some popular belief. Amongst such beliefs must be placed the ubiquitous confidence reposed by the laity in the active secretion of sweat as an efficient means in getting rid of the *materies morbi* of acute specific diseases. It is a very widespread notion that if there is such a poison in the body, it can be "sweated out," just as it used to be generally believed (though now only by a particular sect) that the exercise of religious faith would, if energetically resorted to, get rid of a malady. The application of this sweating treatment in the shape of hot baths to the relief of rabies is of very ancient origin: and, under the belief referred to, it has been largely employed and advocated by irresponsible persons of every degree.

The practice of subjecting hydrophobic patients to hot air baths, however, received support from a French physician of professional repute, Dr. Bouisson. This gentleman seems to have suffered from symptoms, most of which resembled those of hydrophobia; but, from the account he gives of his trouble, his diagnosis that he was really suffering from that disease may well be called in question. Acting on the belief that he was so stricken, he entered a hot-air bath with the idea of terminating his existence, but he gradually became calmer, and soon the symptoms totally disappeared. Struck by these circumstances, he strenuously advocated the use of the hot-air bath in hydrophobia, and published cases in which he thought he had successfully combated the disease. He stated that if the patient were placed in the bath on the first day that the symptoms manifested themselves, a cure would be infallibly obtained. If only on the second day, that the cure was possibly uncertain, and that the treatment was hopeless if begun as late as the third day. Since Dr. Bouisson's papers were published, many patients, actually or supposititiously suffering from hydrophobia, or in whom the occurrence of the disease seemed possible, have been treated on this plan. All those patients who have been reported by respectable practitioners to have been suffering from genuine hydrophobia have died in spite of the Bouisson treatment.

Instances of its employment by such practitioners will be referred to presently. In spite of the failure of this procedure an attempt was made in the recent epidemic of 1885, and subsequently, to secure its trial by the profession. As might be supposed, its adoption is principally urged by those who are, for obvious reasons, opposed to the progress of medical science, the paid antivivisectionist agitators. These persons spread broadcast glowing misrepresentations of the system, and raise, as I have myself seen, many false hopes, and so cause much pain in the minds of the patient and his friends. For instance, one of their agents, a Rev. J. P. Wright, made the assertion that "Eighty cases had been already cured by this method, and only one doubtful case was chronicled." (The *Zoophilist*, January, 1888, p. 152.) It is deeply to be regretted that certain medical practitioners—to wit, Dr. Bell Taylor, of Nottingham, and Dr. Clarke, of Clapham, have countenanced the statements of these people, and advocated the trial of such treatment on man. What the "antivivisectionists" clearly desire is that the profession at large should make a series of experiments on man to see whether this Bouisson treatment is worth going on with or not. Most of us,

however, believe that we can more fitly fulfil our duty towards our neighbour by testing new remedies, not upon his body, but upon that of one of the lower animals, and it was with the object of averting such wholesale human "vivisection" that I instituted a series of experiments (that is, carried out the Bouisson treatment) upon lower animals (rabbits) suffering from rabies or hydrophobia. I was careful to carry out this treatment, not only therapeutically, but also prophylactically, but I regret to say that it favoured rather than hindered the course of the disease, death being invariably the result in each case.

The experimental method adopted was as follows. I inoculated by the usual subdural method eleven animals with what M. Pasteur calls the *virus fixe*—that is to say, the pure virus of the

tion commenced prophylactic treatment with the hot-air bath, as will be seen in Table III. This treatment antedated by two days the onset of the symptoms, and so expedited the fatal result. There is, therefore, no question in my mind but that this measure exerts a very unfavourable therapeutical influence upon patients suffering from hydrophobia by diminishing their resistance to the disease.

I will now proceed to describe in detail the method of experimentation, and afterwards will discuss the effect which it appears to have had upon the human patient in those cases where it has been tried in indubitable cases of hydrophobia.

A. Bouisson Treatment of Rabbits.—The rabbit is an animal which is sensitive to the action of heat, and in which, conse-

TABLE I.
(1887-1888)
VIRUS FIXE.

NUMBER	DATE OF INOCULATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	STATE OF SYMPTOMS ON 15TH DAY OF BATH
1	5/2								15/2 BATH		+						VERY PARETIC
2	5/2								3/3 BATH		+						MUCH LESS PARESIS THAN NO. 1
3	7/2								15/2 BATH								VERY EARLY STAGE. SOME PARESIS. MUCH RIGIDITY
4	7/2								15/2 BATH		+						MARKEDLY PARETIC
5	7/2								20/2 BATH								MARKEDLY PARETIC
6	7/2								20/2 BATH								MARKEDLY PARETIC
7	7/2								20/2 BATH								COMMENCING PARESIS DULL AND SHAKY
8	7/2								20/2 BATH								MARKED PARESIS OF HIND LEGS
9	7/2								20/2 BATH								COMMENCING PARESIS OF HIND LIMBS
10	7/2								20/2 BATH								MARKED PARESIS OF HIND LIMBS
11	7/2								20/2 BATH								MARKED PARESIS OF HIND LIMBS
12	7/2								20/2 BATH								MARKED PARESIS OF HIND LIMBS
13	7/2								20/2 BATH								MARKED PARESIS OF HIND LIMBS
14	7/2								20/2 BATH								MARKED PARESIS OF HIND LIMBS
15	7/2								20/2 BATH								SHAKY AND VIGOROUS EARLIEST COMMENCEMENT

disease, which, in the series that I possessed, produced its first symptom almost invariably upon the eighth day after inoculation, sometimes, but more rarely, as will be seen by Table I, on the ninth day. I also inoculated three rabbits with virus taken from the medulla of rabid dogs of the street, such virus usually producing, as is well known, its first symptom about the sixteenth day, but in certain rarer instances in the manner of the *virus fixe*—namely, from about the seventh to the ninth day. (See Table II.) These fourteen animals I placed in a hot-air bath, according to Dr. Bouisson's suggestion, directly they showed the first distinct symptoms of the disease. Finally, I inoculated two other animals with the *virus fixe*, and on the third day after inocula-

tion, the effects of the hot air can not only be readily observed but also seen to continue long after the animal has been removed from the bath. Bearing in mind the statements made by the advocates of the system as to the therapeutic advantage to be gained by employing a high temperature in a more or less continuous manner, the rabbit appeared to be an animal which specially lent itself to such a mode of treatment, for by keeping it at a high temperature for some hours and then removing it one was able as a rule to prevent the onset of heat paralysis, and at the same time to obtain the continuance of the effect of the bath, for example, in the elevated body-temperature, etc. The bath consisted of a roomy wooden chamber with glass front and window at the back,

there being at both ends a suitable aperture fitted outside with a ledge for the resting of the head of the animal in the fresh air surrounding the box. As the aperture was, of course, considerably larger than the neck of the rabbit, the interspace was blocked by soft cotton wool. My object in keeping the animal's head in the outer air while the body and limbs were subjected to the hot air was to provide against the possibility of its general vitality being depressed by the carbonic acid, etc., which was doubtless present in the heated air of the chamber, the said air being obtained from an iron funnel and pipe (this opening into the bottom of the chamber), heated by a large Bunsen burner. A thermometer passing through the roof of the chamber recorded the temperature.

conscious and dies comatose, usually in from three to four days after the appearance of the first symptom. In Table I it will be seen with what remarkable, indeed mathematical, regularity the symptoms ran their course, with a rapidity slightly (as in Table I) or markedly (as in Table III) accelerated by the treatment.

2. The effect of the bath. (a) On the normal animal. When a healthy rabbit is placed in a hot-air bath which is, to begin with, at the temperature of the room, and rapidly, that is within thirty minutes, raised to 75° C. = 147° F., the respirations of the animal steadily but quickly increase in number, the rate of the heart also being accelerated, and the temperature of the body rising to a variable height, usually one-half or more degrees

TABLE II 1887

RAGE DES RUES **RABIES OF THE STREETS VIRUS** **STATE OF SYMPTOM**

N ^o OF EXP ^t	DATE																					ON DATE TREATMENT	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		21
5	1/12																						VERY EXCITABLE SOMNOLENCE PARESIS
6	1/12																						VERY MARKED PARALYSIS
10	1/12																						WITH MARKED PARALYSIS OF HIND LIMBS

The animal's condition could thus be easily inspected during the treatment, and the exposure of so small a portion of the body surface as the head to the cooler air doubtless exerted none but a beneficial effect. In two instances, Experiments 6 and 8, Tables I and II, it will be seen that the animals succumbed to heat paralysis. These were cases in which the disease was extremely marked, Experiment 6 being one of those remarkable instances in which the virus from the rabid dog of the streets occasionally evokes the first symptom and causes death within the minimal period, namely, that of the *virus fixe*. In these cases I was endeavouring to counteract the obviously more intense action of the malady by more prolonged bathing, but of course the injurious effect of the bath found little resistance in the central nervous system already overwhelmed by the disease, and so produced the fatal result.

This leads me now to speak first of the appearance of the symptoms calling for the treatment by the bath, secondly, of the action of the bath upon the normal and upon the rabid animal.

Centigrade. Occasionally, however, the rise in the number of respirations is preceded by a slight fall. The elevation of the temperature and acceleration of the heart and respiratory rhythm are maintained for some hours after the animal is removed from the bath, and gradually return to normal. *b*. On the rabid animal. The diseased rabbit when placed in the hot chamber exhibits the same series of phenomena, but, as might be expected in a more violent, that is exaggerated, manner, and this in proportion as the disease has exerted its destructive influence upon the nerve centres. Thus, in Experiment 2 (see Table IV), on the third day of treatment the rise of temperature of the body (rectal) was most remarkable. The temperature of the animal at the moment of its being placed in the bath was excessively low, it being at the end of the disease, namely, 24.5° C. In two hours and a half it had shot up to 39° C., that is a gigantic rise of no less than 14.5° C. = 26° F.

I have 69 charts of the curves, indicating the temperature of the chamber, the rise of the temperature of the body from the be-

TABLE III 1888

VIRUS FIXE **"PURIFIED" VIRUS** **NOT ENDURING INHIBITORY PERIOD**

N ^o OF EXP ^t	DATE											STATE WHEN FIRST TREATED	
		1	2	3	4	5	6	7	8	9	10		11
1	1/12												NORMAL
2	1/12												NORMAL

THE SIZE OF THE LETTER S INDICATES THE RELATIVE SEVERITY OF THE SYMPTOMS.

1. The initial symptoms. As is well-known, in the rabbit rabies is rarely (see Table I, Experiment 15) accompanied by the excitement so usually seen in other animals. Consequently the first symptoms observed in this animal is the paresis of the hind limbs, this occurring in all cases of rabies, furious or not. When this was distinctly present in the running or jumping movement of the animal it is expressed in Table I, under the term "marked paresis." It constituted an admirable means of detecting with certainty the onset of the characteristic symptoms of the malady. It will not be out of place to add that in the further progress of the disease the animal becomes more and more paralysed, and that from being apathetic at the commencement, it rapidly becomes un-

ginning to the end of the experiment and the variation in the respiratory rhythm. Analysis, however, of these numerous observations would take me beyond the scope of the present paper, and therefore I will content myself with simply exhibiting the chart, showing these phenomena in the instance just referred to (see Table IV).

I will now mention the general effect upon the rabic symptoms. These may almost be entirely summed up as being exacerbated. If the animal was taken out before the respiratory acceleration became excessive, it was occasionally noticed that, when previously apathetic, it might be more excitable, but, as a rule, that if the apathy were well marked to start with, the rabbit

was rendered more unconscious. In all cases it was much weakened by the heat, and this exhaustion and diminution in the vigour of the animal explains, I believe, the effect of the treatment in man in those cases where it reduced spasm.

The unsteady, shaky gait of the animal was always exaggerated, as also the paralysis.

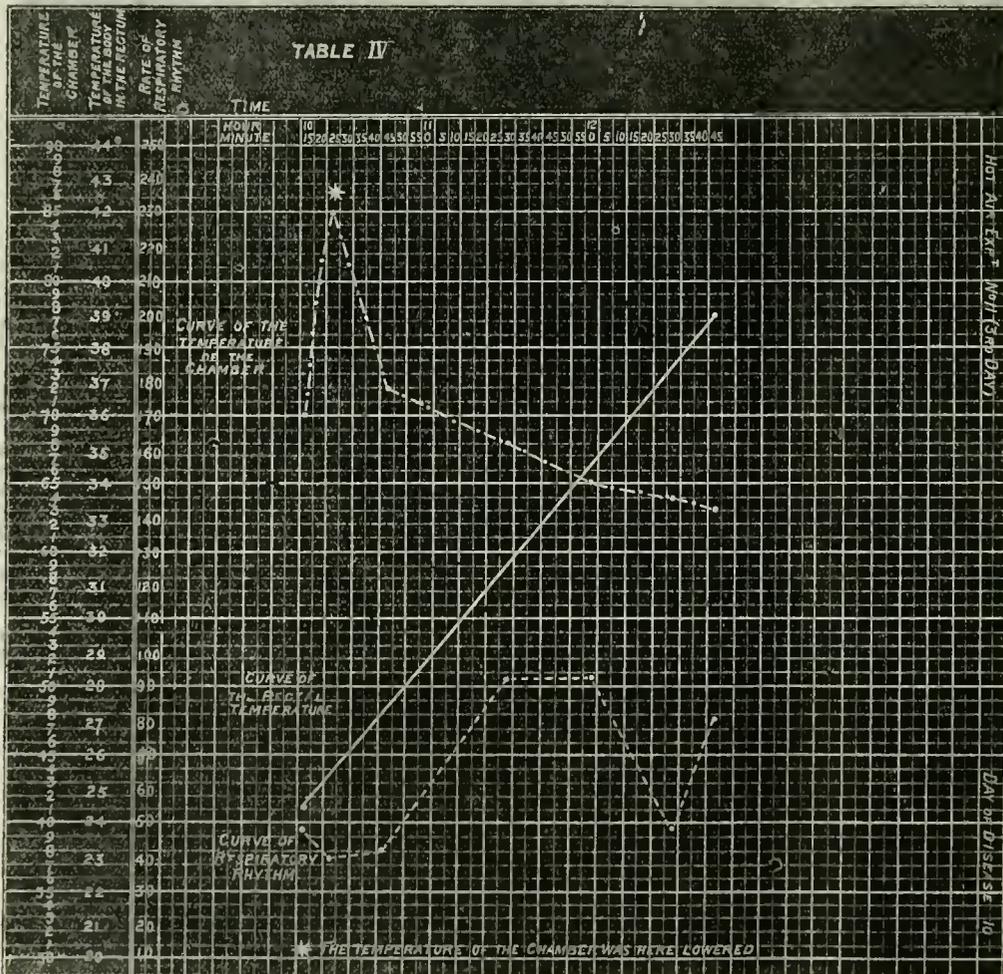
Apart from the effects described, the usual influence of heat upon secretion was made obvious. Ordinarily there was a free flow of saliva and urine, and the intestinal peristalsis was notably increased. The hypothetical excretion of the poison might thus be supposed to have been in full activity, but the only effect upon the animal was sedative—that is, that of further exhaustion.

B. Prophylactic Treatment by the Hot-air Bath.—With a view of giving the treatment a trial before the disease had shown itself, I employed it prophylactically in two cases, as shown in Table III. In each instance the bath was employed as already described, but

patient was much comforted, became drowsy, and ultimately slept for half an hour. This result can but be considered as a very gratifying one, if regarded in its true light, namely, as a palliative not curative effect. As Mr. Southam states it did not "prevent a fatal issue."

On the other hand, instances are recorded in which the hot-air bath caused distress. Thus in a case published by Dr. Southey (*Medical Press and Circular*, 1887, p. 72) the bath was administered on the evening of the first day of the spasm; "he now had a vapour bath, during which he complained greatly of the heat, and he perspired freely." The next day "he absolutely refused the vapour bath." This patient, being a genuine case, of course died.

If an efficient palliative, the hot-air bath would be an adjunct to a sedative course of treatment; for in Mr. Southam's case it clearly exhausted the nerve centres, so that they no longer painfully reacted to reflex stimulation. The exact counterpart of this exhausting effect we have seen in the rabbit similarly treated



in each case, also, as shown in the table, the symptoms commenced on the sixth day, that is, two days prematurely, and one animal actually died at the end of the eighth day, instead of as usual at the end of the eleventh. The others died at the end of the ninth day. This indicated so unmistakably the general injurious effect of the treatment, that it was unnecessary to pursue the investigation.

I will now give two instances in which the bath has been described to have produced an effect upon the hydrophobic human patient. The only genuine case I am aware of in which distinct "benefit" can be attributed to the bath alone is that reported by Mr. Southam, of Manchester. In Case v (? Case VI) *BRITISH MEDICAL JOURNAL*, 1881, p. 815, it is expressly stated that after exposure to the hot air the spasms became much less marked, the

The consideration of this point suggests that this is the time to ask ourselves upon what definite plan we ought to treat this disease. Are we to go on attempting to cure it by experimenting upon human beings with substances like curare, or, as suggested by the antivivisectionists, with the hot-air bath; or shall we adopt what seems to me to be the only justifiable course, namely, assuage with all the narcotics at our disposal the sufferings of the patient, until we shall have found out the real antidote by experiment upon the lower animals, especially upon that one (the rabbit) in which the disease takes its painless form, paralysis, a form of which that remarkable veterinarian, Mr. Youatt, said with prophetic force thirty-seven years ago; "I very much regret that I never instituted a course of experiments on the production and treatment of rabies in this animal. It would have been attended

with little expense or danger, and some important discoveries might have been made" (*The Dog*, by William Youatt, 1851). Surely the public, at any rate, who place themselves in our hands, under these the worst of circumstances, would unhesitatingly choose to be helped to die painlessly. And in following such a course no practitioner would be violating, by neglect, the great ethical principle of his profession, that he should endeavour as far as lies in his power to preserve life as well as alleviate pain. For there is no single case of reputed cure of developed hydrophobia by drugs or other means that will bear close investigation. Neither has anyone succeeded in arresting by these methods the march of the symptoms when once distinct in an experimental animal, although an enormous series of drugs have been tried, notably by Mr. Dowdeawell (*Proceedings of the Royal Society*). Nor have workers in this direction been able, by the use of drugs, to imitate in the slightest the protection afforded by M. Pasteur's system of inoculation. Of the ability of that system to overtake and check the development of disease, if applied within a reasonable time after inoculation, and under the ordinary circumstances, there is no longer any doubt, but it is powerless against the developed symptoms. There remains for us, therefore, the determination of our action in those cases where M. Pasteur's system has failed, or where it has not been applied. I hope I have shown sufficient reason that that action should, in the present state of knowledge, be simply palliative (by the employment of the most powerful narcotic drugs), and that all tentative treatment by drugs or the hot-air bath, being quite powerless to cure, and, consequently, cruel, should be abandoned.

A NOTE ON METHYLENE AND OTHER ANÆSTHETICS.

By SIR SPENCER WELLS, BART., F.R.C.S.
Surgeon to the Queen's Household.

EARLY in May I received from Berlin a sample of "methylene-chloride," manufactured by Riedel, of that city, with a paper on some of the different specimens of that anæsthetic by five other chemists, from a recent number of the *Pharmaceutische Zeitung*. I was informed that Professor Bardeleben had tried, and had been quite satisfied with, Riedel's methylene. Inhaling a little myself, it appeared to me very much like the methylene most used here, but rather stronger; so I asked Dr. Day to make some comparisons of it with that to which we have been accustomed for many years past. And having to operate at Manchester on May 13th, and at Liverpool on the 14th, I took some with me. At Manchester I had to do splenectomy; and Dr. Scott, who had administered ether in Edinburgh for Dr. Keith for two years, preferred ether to anything he had not used before. So he gave ether, with most satisfactory result. I never saw more quiet or complete anæsthesia, and I am glad to say that the patient has done well; but for two or three hours after the operation she had a flushed face, hot forehead, and excessively rapid pulse. I could scarcely count it, but it was certainly over 150. I supposed that this might be due to the altered circulation following removal of the large spleen; but Dr. Scott said that Dr. Keith had remarked to him upon the occasional occurrence of very rapid pulse after his operations. As I could not remember such rapidity after methylene, I was somewhat confirmed in my dislike to ether. I have seen it used alone, or after nitrous oxide, and I have never been quite pleased with the effects. Once Dr. Matthews Duncan and I simply examined a lady after the use of gas and ether, and for twenty-four hours afterwards she was in a state of hysterical, almost maniacal, excitement, which would have been alarming after any severe surgical operation; and more than once I have had to deal with troublesome bronchial irritation after the use of ether. At Liverpool, on May 14th, I performed ovariectomy assisted by Dr. Grimsdale and his son, and Dr. Rawdon (who had been accustomed to the use of methylene) used the sample of Riedel's preparation which I had with me. At first the action seemed rather quicker than usual, but towards the end of the operation, although it was unusually short, it was difficult to send the vapour through the tube of Junker's apparatus, and Dr. Rawdon noticed that the rapid evaporation had led to the partial closing of the tube by a sort of snow, or frozen vapour. This I had never noticed with the London methylene. The patient went

on remarkably well after the operation, so on May 16th Dr. Day used the new methylene for a lady in London for whom I performed ovariectomy. This was also a very short operation, but the patient's face was flushed and her head hot for several hours afterwards, though neither pulse nor temperature was much raised. On the 22nd I did a laparotomy at Gloucester with Mr. Edis, and Mr. Cuthbert preferred to administer chloroform, as being more accustomed to it. It answered admirably, and the patient, like the others, went on quite well. This I have often observed when chloroform has been given for me. The reasons I gave up the use of chloroform as a rule were not only the reports of the deaths to which it had led, but my own observation. I have only once seen a death from chloroform; that was in Paris, when Dr. Waters of Chester and I stood beside Malgaigne while he amputated at the shoulder-joint. But I nearly lost a patient in the Samaritan Hospital while I was removing a breast, Dr. Snow Beck giving chloroform; and twice in private practice, while Mr. Clover was giving chloroform vapour from his bag, I have had to suspend the operation for a time, and resort to artificial respiration during ovariectomy.

It was these cases which led me, at first with the help of Dr. Richardson, and afterwards of Dr. Junker (who devised the admirably simple inhaler which is called after him) to use methylene as a rule, and other anæsthetics only exceptionally. Once in Pomerania, when about to remove an enormous ovarian tumour, none of my German colleagues would give anything but chloroform, to which they were accustomed. The patient was very weak, and I very much preferred methylene; so I showed an intelligent nurse how to administer it, and she did it quite effectually and safely. I mention this to show that any supposed difficulty in the administration of methylene by Junker's apparatus is a mistake. Since 1872 I have preferred methylene to any other anæsthetic.

In the Address on Surgery at Manchester in 1877, I said: "Given properly diluted with air, the vapour of chloromethyl has, in my experience of more than ten years with more than 1,000 operations of a nature unusually severe as tests of an anæsthetic, proved without a single exception applicable to every patient, perfectly certain to produce complete anæsthesia, relieving the surgeon from all alarm or even anxiety; and its use has never been followed by any dangerous symptom which could be fairly attributed to it." And I went on to say: "I wish I could speak as confidently of the chemical composition of the fluid sold as bichloride of methylene as I can of its anæsthetic properties; but whatever may be its chemical composition, whether it is or is not chloroform mixed with some spirit or ether, or whether it really is bichloride of methylene, I am still content with the effects of the liquid sold under that name, when properly administered." And more than ten years' additional experience has confirmed me in the opinions so expressed. Professor Tyndall told me that no chemist could make pure bichloride of methylene under ten shillings an ounce, and that when made, it would not keep a week. Others said a mixture of chloroform and methylic alcohol would act as well, but on trial it did not; neither did the A.C.E. mixture of the Committee of the Royal Medical and Chirurgical Society; neither does this new preparation of Riedel's. Last week Dr. Day gave it for me in a case of amputation of a breast. The tube became so choked with snow before I began the operation that the patient could not be made unconscious, and we had to give chloroform, neither of us very willingly, as we had just heard of a patient having become so near death under chloroform that the surgeon had to do tracheotomy with a pocket-knife before animation could be restored.

Surprised at the obstruction of the tube by the new preparation, I wrote to Professor Bardeleben, and he replied on May 29th as follows: "We have made the same observation on artificial snow, and the obstruction of the tubes in using Riedel's methylene-chloride with Junker's apparatus. No doubt it is dependent on the cold produced by the rapid evaporation. We have another objection to make to this new anæsthetic substance. The anæsthesia is effected very slowly, and is not of long duration; and the nausea and vomiting begin often before complete anæsthesia has been attained."

Accordingly, until some better anæsthetic is brought forward, I shall remain content with the bichloride of methylene, made as first proposed by Dr. Richardson. I have never known it to fail, and I have never once been alarmed, or even made uneasy, by its effects in any one of more than 2,000 operations, many of them of unusual severity or duration.

ON RARE DISEASES AND EXCEPTIONAL SYMPTOMS.

BY JONATHAN HUTCHINSON, F.R.C.S., F.R.S., LL.D.,
Emeritus Professor of Surgery at the London Hospital.

(Continued from page 1150, Vol. 4, 1887.)

XXX.—FRACTURE OF THE TEMPORAL BONE CAUSED BY A BLOW ON THE CHIN.

A FOOTMAN looking on at a cricket match received the ball as he says "deliberately" on the tip of his chin. He was almost knocked down by the blow, but did not actually fall. He felt somewhat stunned, and immediately afterwards recognised that he was deaf in the left ear. When he got home his fellow-servants "laughed at him because his face was all on one side." After this he had complete facial paralysis and almost complete deafness, but both gradually improved. When I saw him four months later the facial paralysis was not perceptible unless his muscles were thrown into action. He could use most of them fairly well, but could not frown on the left side of his forehead at all (occipito-frontalis), nor could he whistle, as the left half of his mouth remained flabby. He could close the left eye well; he could hear a watch two inches from the ear. There was nothing amiss with the membrana tympani, and he had never had bleeding either from nose or ear.

It seemed certain that in this case there must have been a fracture of the petrous bone caused by the condyle being violently driven against it. In no other way could the simultaneous paralysis of the auditory and facial nerves be accounted for.

XXXI.—CASE OF PSEUDO-HYPERTROPHY OF THE MUSCLES OF ONE LOWER EXTREMITY FOLLOWING ŒDEMA FROM VENOUS OBSTRUCTION.

The case which follows seems worthy of record as an example of overgrowth of muscles as the result simply of retarded blood-current.

A gentleman who consulted me about a skin-disease of no great moment told me that he had one weak leg, and that it was larger than the other. In this I was much interested, and at once got him to let me examine the limb. He had, as he had said, on the left side a splendid calf, whilst that on the right was decidedly poor. The contrast to the eye was very marked, and it was confirmed by measurement, for the girth of the left calf was nearly 14½ inches, whilst the right measured less than 13 inches. There was a difference also in the thighs, but it was not so conspicuous; there was no œdema of the limb excepting a very little just where the edge of the boot touched. Over the whole calf the contour of the muscle was well marked, and I could not detect the slightest evidence of thickening of the skin or of effusion into the cellular tissue. A curious point was that the patient said that although the muscles of his left limb looked in such excellent condition, yet they were more easily tired than those of the right. If he walked far he always found his left leg tire first. There were no varicose veins in the limb until the ham was reached, where a few were present, but of no great size.

The history of the case pointed to venous obstruction by pressure, with possibly implication of the lymphatics. Mr. M. had lived in India, and whilst there, twelve months before I saw him, he went through an attack of typhoid fever. He brought to me his medical report, which described a severe illness with profuse hæmorrhage from the bowels and a painful swelling in the left iliac fossa, which caused venous obstruction. The obstruction lasted some months, and was attended by considerable general swelling of the limb. It was when at length this swelling cleared away, that the muscles were found to be hypertrophied. In reference to the possible suggestion that it may have been that the muscles of the other limb had wasted, and thus caused a relative disproportion, I may say that although Mr. M. was thin and out of health, he was not so in any extreme degree, and that the size of the larger calf was obviously out of proportion to his general build. Even if it were preferred to say that the venous obstruction simply prevented waste rather than caused overgrowth, we should still have an illustration of the same law.

I am well aware that instances of overgrowth from retarded blood-supply are well known, as, for example, in cases of elephantiasis and its ally, "one leg œdema." In all those, however, that I have seen, something of the nature of permanent œdema was present, and the overgrowth was rather of cellular tissue

and skin than of muscles, or, at any rate, the muscles were concealed in the general thickening. In this instance there was no thickening whatever of skin, but the muscles resembled those of pseudo-hypertrophy.

XXXII.—TUMOURS OF THE NECK, ILLUSTRATING THE LAW OF INCREASING RATIO OF GROWTH IN PROPORTION TO SIZE ATTAINED (POPULATION INCREASE).

I adduce the two woodcuts here given in order to illustrate



several points in reference to the pathology of tumours. One is from a photograph given me by the late Sir W. Fergusson, and the other from a patient under the care of Mr. Edwards, of Keston. In each instance, the tumour had been growing for upwards of a quarter of a century before it attained the encumbering dimen-



sions exhibited. In neither case had it caused any pain or other inconvenience to the patient excepting from its bulk, but in both it was at last the cause of death. In Sir W. Fergusson's case the patient, wearied by the distress caused by the increasing mass, at length took courage to have it removed, and came home from India for that purpose. He sank after the operation. In the

other case the tumour eventually inflamed and sloughed in parts, and caused death by exhaustion.

The cases are of interest as showing to what enormous size tumours developed in connection with the side of the face or neck may eventually attain. Presumably they were originally formed over the parotid (or, perhaps, the submaxillary), and were in part cartilaginous and in part fibro-cellular. I cannot in either give any details as to their nature or precise relations to the glands.¹

Some years ago, in a communication to this JOURNAL, I drew attention to the important clinical fact that the growth of tumours, innocent as well as malignant, often illustrates the law of increase of population. It is rapid in ratio with size attained, or, in other words, in ratio with the number of the cell elements. Thus a tumour which for many years may have grown so slowly that the patient was led to hope that it might never much incommode him, increases its rate of growth every year, and finally develops with dangerous rapidity. This had been remarkably the fact in these two patients. The knowledge of this law may often induce us to urge the timely removal of innocent tumours which as yet cause no inconvenience.

ON THE USE OF CODEINE TO RELIEVE PAIN IN ABDOMINAL DISEASE.

By T. LAUDER BRUNTON, M.D., F.R.S.

Lecturer on Materia Medica and Therapeutics, and Assistant Physician, St. Bartholomew's Hospital.

I HAD intended to bring the subject of this paper before the British Medical Association at its last meeting, but I was unfortunately prevented from attending, and delayed publication of this paper for several reasons, one of which was the desire to obtain a larger experience of the utility of the drug. The relief of pain may be classed next to the saving of life, and must perhaps sometimes be even put before it as the chief duty of the physician. As yet no drug has taken the place of opium as a general analgesic, though the use of crude opium is now frequently replaced by the subcutaneous injection of morphine, the most active of the alkaloids it contains. In abdominal pain many practitioners still have a preference for the use of opium, as compared with that of morphine, and this very preference is sufficient to make one ask whether it may not have some foundation in the presence of other active principles along with morphine in opium, and if so, to inquire which active principle it is that helps to allay pain.

Thanks to its recommendation by Dr. Pavy, codeine is largely used in the treatment of cases of diabetes, but at present its use is almost confined to this disease, and it is rarely employed for other purposes, excepting perhaps that of soothing cough or irritation in the throat.

Codeine was discovered by Robiquet in 1832, and two years afterwards its action was tested upon himself by Gregory,² who found that instead of causing sleep, it rather caused excitement, and had also a slight laxative tendency. It was applied therapeutically by Barbier³ in 1834, who noticed that it seemed to have a special action upon the sympathetic system, and found that it was of great use in lessening pain in persons presenting symptoms of irritation in the solar plexus. Such symptoms are pain in the epigastrium, spreading to the sides and back, and associated with a feeling of burning, anxiety, depression, more or less tenderness of the epigastrium, with sighing, lack of energy and tendency to faint. Occasionally the pain may cause symptoms of collapse, palpitation, and vomiting. In such cases Barbier gave a grain of codeine in a tablespoonful of syrup, and repeated it if necessary in one or two hours with the best results. From his observations he came to the conclusion that codeine acts chiefly upon the sympathetic nervous system, and especially upon that part of it which is in the region of the stomach; that it is a most useful remedy in abdominal neuroses depending upon disordered condition of the nervous plexus in the abdomen, and

especially those in the gastric region; that it does not disorder the digestion, and rather aids than interferes with the action of the bowels. He found also that it produced sleep with tolerable certainty, and that this sleep was never followed by heaviness in the head or stupidity, but, on the contrary, persons who had taken it felt happy, and were disposed to be cheerful on awaking. About twenty years later, in 1856, Robiquet's⁴ son undertook some observations on the action of the drug which his father had discovered. The results he obtained, however, did not quite accord with those of Gregory or of Barbier, and it is possible that the discrepancies may have been due to more or less impurity in the drug employed. In large doses he found that it caused an unrefreshing sleep, followed by a period of confusion of thought; occasionally nausea and vomiting were produced. In small doses he found it of great service in hypochondriasis, relieving nervousness, irritability, and all the discomforts from which patients affected with this disorder are apt to suffer.

Shortly afterwards Berthé⁵ made a much more full and complete investigation of the physiological action of the alkaloid. Amongst other things he confirmed Barbier's observation that it had a specific action upon the sympathetic, and found that it lessened the irritability of the intestine to such an extent that a dog which had received 15 grains of arsenic along with $7\frac{1}{2}$ grains of codeine exhibited neither vomiting nor purging, nor any other symptom excepting drowsiness, while another dog which had received a similar dose of arsenic without the codeine began to suffer in the course of an hour from severe pain, vomiting, and bloody diarrhoea, and indeed presented well-marked symptoms of arsenical poisoning, although it ultimately recovered. These experiments suggested the idea to me that codeine was likely to be of service in abdominal pain, and I proceeded to try it, with very satisfactory results. The class of cases in which I have used it is, I think, somewhat different from those in which it has previously been recommended, because while Barbier, Aran and others have chiefly employed it in gastralgia and painful disorders of the stomach, I have used it chiefly in pain affecting the intestine and lower part of the abdomen. The kinds of cases in which I have used it have been very varied. As examples I may shortly describe one or two. In one case which I saw with Dr. Eccles, there was high temperature, intense pain in the right iliac fossa, with considerable swelling, so that there could be little doubt that there was inflammation around the cæcum, although examination after the acute symptoms had subsided showed that there was also pelvic cellulitis. In this case one grain of codeine, given in the form of a pill, relieved the pain at once, and repetition of the dose whenever the pain began to return prevented its becoming at all severe.

In another case, seen with Dr. Philpot, of Croydon, a lady, aged 50, had pneumonia of the right base, a greatly dilated heart with very irregular action, pulse so rapid and weak that it could hardly be counted, and pain over the epigastrium and spreading out from it. She was slightly jaundiced, and a tumour was felt in the right lateral abdominal region, which descended with respiration, but was partly covered by intestine, and could be moved from side to side, so that it seemed to be renal rather than hepatic. As no *post-mortem* examination was obtained the exact diagnosis could not be established, but the administration of codeine in half-grain doses relieved the pain, as Dr. Philpot said, "as if by magic."

In another case, seen with Dr. Pardington at Tunbridge Wells, there was pain in the abdomen depending upon a mass of impacted fæces in the transverse colon. In this case codeine seemed to be especially indicated, as one wished to relieve the pain without interfering with the action of the bowels. In grain doses codeine relieved the pain, and the use of copious enemata, aided by washing out the stomach, cleared away the impacted mass which had given rise to the disturbance. I have tried codeine in cases of long-continued abdominal pain for which no definite cause could be assigned, as no tumour could be felt, and the functional disturbance did not seem sufficient to warrant a diagnosis of malignant disease. I have tried it in cancer of the liver and pancreas with success in relieving pain, and also in numerous cases where the age of the patient, the presence of diarrhoea, tenderness on pressure, and visible peristaltic movements, and thickening of the gut, easily perceptible on palpation, led to the diagnosis of malignant disease in the intestine, although inability to obtain a *post-mortem* examination prevented the confirmation of the diagnosis. In such cases I generally begin with half a grain, in the form of a pill made up with extract of gentian, three times a day; and if this

¹ Sir W. Fergusson's case is probably published, but after some search I am unable to find a reference. In the other there was no *post-mortem* examination. A photograph of a case almost precisely similar to Mr. Edwards's patient was shown to me during a recent visit to Glasgow by Dr. Paterson. In the museum of the Richmond Street Hospital, Dublin, is the portrait of a man, aged 54, from whom Mr. Hutton removed a tumour of somewhat similar kind and size. It weighed six pounds, and contained cysts. Hunter successfully removed one which weighed ten pounds, and had been sixteen years growing (College of Surgeons' Museum, Ag 62). See Paget's Lectures, vol. II.

² Gregory, *Journ. de Pharm.*, February, 1834.

³ Barbier, letter to Acad. de Méd., *Schmidt's Jahrb.*, vol. ii, p. 267.

⁴ Robiquet, *Gaz. des Hôp.*, 1856, xxix, 517.

⁵ Berthé, *Moniteur des Hôp.*, 1856, iv, 590, 601, 692, 1052.

is insufficient to control the pain I increase the dose to a grain, and give it as frequently as seems necessary. As a rule, I find that it does not produce drowsiness, nor has it interfered with the digestive functions.

To sum up, the results I have obtained from the administration of codeine have satisfied me that it has a powerful action in allaying abdominal pain, and it can be pushed to a much greater extent than morphine without causing drowsiness or interfering with the respiration or with the action of the bowels. It is, therefore, specially indicated in such a case as Dr. Philpot's, which I have already mentioned, where the dilated heart and consolidated lung tended to make one afraid of morphine. Codeine is also specially indicated in a case like Dr. Pardington's, where one wished to relieve the pain without interfering with the action of the bowels. On the other hand, in cases where there has been much diarrhoea, as in some cases of malignant disease of the colon or rectum, the absence of any tendency to lessen peristaltic movement is rather a disadvantage to codeine as compared with morphine or opium.

I have found that in cases of long-continued enteralgia without organic disease, it has continued to relieve pain for months together, without the dose being increased beyond one grain three times a day, and I found the same to be the case where the presence of a tumour, in addition to other symptoms, had led to the diagnoses of malignant disease.

It is interesting to follow the vicissitudes of a drug, and to notice how its use extends or diminishes until at last it finds its right place and maintains it. Thus digitalis, while mentioned in the London *Pharmacopœia* of 1721, was excluded from that of 1746. It again appeared in 1788, and since then it has held its place.

Possibly codeine, after falling into almost complete disuse as an analgesic for many years may again regain a more or less important place amongst the remedies which enable us to relieve pain.

ON THE TREATMENT OF TUBERCULAR LEPROSY BY EXCISION.

By BEAVEN RAKE, M.D.LOND.,

Medical Superintendent of the Leper Asylum, Trinidad.

MODERN pathology tends to show that leprosy is a parasitic disease. However that may be, I have for some time been of opinion that a good deal may be done in the way of local palliative treatment by excision of tubercles. Having lately had an opportunity of testing the truth of my conviction, I will first briefly describe two cases, and afterwards make a few remarks.

CASE I.—J. J., aged 14, a negress born in Trinidad, was admitted to the Leper Asylum on November 5th, 1884, with one year's history. She was a well-developed, healthy-looking girl. The forearms, hands, and fingers were covered with large tuberculated masses, and there were similar isolated masses on the forehead, cheeks, nose, and chin. As she wished to have something done to improve her appearance, I determined to try the effect of free excision.

On January 1st, 1885, she was put under chloroform, and tubercles were ligatured and excised from the *alæ nasi* and above the eyebrows.

On January 22nd more tubercles were removed from the end and side of the nose.

On January 29th a large mass of tubercles about two inches long was removed from the chin without chloroform, as she took the anæsthetic very badly.

On February 7th she was given chloroform, and a flat mass of tubercle about an inch and a half square and half an inch in height was removed from the right cheek; the edges of the wound were rubbed over with strong nitric acid.

On March 5th about two square inches were removed from the left cheek without chloroform. The edges of the wound were trimmed with scissors so as to bring them level with the surrounding skin. She made but little complaint of pain.

On March 31st some small tubercles, which had sprouted from the *alæ nasi* since the operation of January 1st, were removed. A slight recurrence at the upper margin of the cicatrix on the right cheek was also removed with scissors, also a tubercle about three-eighths of an inch in diameter from the bridge of the nose.

On April 14th the following was the condition of the cicatrices: Right cheek: cicatrix $2 \times 1\frac{1}{2}$ in.; small scab in centre; small

patches of tubercle at lower and inner margin. Left cheek: cicatrix $2\frac{1}{4} \times 2$ in.; small scab remaining; a few small islands of tubercular tissue scattered about in cicatrix. Over right eyebrow: cicatrix $1\frac{1}{4} \times 1$ in.; small growth of tubercles at upper and inner margins. Over left eyebrow: cicatrix $\frac{1}{4}$ in. diameter; growth at edges. Chin: crescentic patch $2 \times 1\frac{1}{4}$ in.; lower part occupied by cicatrix, upper part by rather exuberant tubercles encroaching on the lip. Right side of nose: cicatrix $1 \times \frac{1}{2}$ in.; growth of small tubercles all down outer side. Left side of nose: triangular patch; cicatrix in centre; tubercles at edges. There was a recurrence of small tubercles round the nostrils and tip of the nose, at the edges of the cicatrices. There were a few untouched tubercles on the forehead and over the glabella.

On April 23rd a small tubercle was removed from the lower lip.

On September 29th the tubercles over the eyebrows and nose were found to be sprouting more, and at her own request the tubercle over the right eyebrow was further removed on October



6th. A superficial incision was made all round at the junction of healthy with infiltrated skin. The tubercle was then lifted up and snipped off with scissors. Strong glacial carbolic acid was rubbed over, and then tannin powder sprinkled over so as to form a crust. No chloroform was given, and she made no complaint of pain.



The more thorough cauterisation on this occasion was suggested by the recurrence of small tubercles on the margins of the old cicatrices. This recurrence appeared to be due to escape of some of the tuberculous tissue, and it was hoped, by freer excision, and cauterisation with such a powerful bactericide as glacial carbolic acid, to prevent lateral extension. It will be seen that this method was more fully carried out in the next case.

Magenta showed swarms of the bacillus lepræ in the excised tubercles. She was put on four minims of liquor arsenicalis three

times a day on January 26th, and this was increased to six minims on March 31st.

The accompanying woodcuts are from photographs taken before and after operation. It must be noted that some tubercles had been already removed from above the eyebrows, and from the *alæ nasi* before the first photograph was taken, but this does not materially affect the comparison.

CASE II.—R. G., aged 12, negro, born in Venezuela, was admitted to the Leper Asylum on September 16th, 1881, with a three



years' history. Large tuberculated masses involved the trunk and extremities, but these were especially exuberant on the face and ears, producing a degree of disfigurement which I have never yet seen equalled in tubercular leprosy. On April 11th, 1885, he was given chloroform, which he took remarkably well. A large mass of tubercles, about 3 by 2 inches, was excised from the forehead. There was a good deal of hæmorrhage. The raw surface was treated as above described, with carbolic acid and tannin. This method was adopted in all subsequent operations. The cicatrix was complete by April 25th.



On April 18th numerous tubercles were excised from the left cheek, over an area of about four square inches.

On April 25th more tubercles were removed from the left cheek, over an area of about two square inches, also from the left side of the chin.

On May 5th, about one ounce of tubercles was removed from the right ear and *alæ nasi*.

On May 12th tubercles were removed with scissors from the left ear, also from the right side of the chin and lips, also a few from the bridge of the nose.

On May 28th nearly all the scabs had fallen, and his appearance was so much changed that he was not recognisable.

The areas of cicatricial tissue were roughly calculated as follows: Forehead: $3 \times 1\frac{1}{2}$ in. Each cheek: $4 \times 3\frac{1}{2}$ in. Chin: $2\frac{1}{2} \times 2\frac{1}{2}$ in. Each ear: $2 \times \frac{1}{2}$ in. Total area about 27 square inches.

Most of the tubercles were preserved in spirit and weighed, and their total weight was calculated at about four ounces.

On June 20th he was found to have an attack of yaws, which, however, had passed by September 22nd.

On December 4th it was noted that there was practically no return of tubercles in the ears. There were firm, smooth cicatrices on the face. Those pieces of tubercle which had escaped removal by knife or scissors had grown a little, but not more than $\frac{1}{4}$ to $\frac{1}{2}$ inch; where the knife or scissors had gone more deeply there was no return. On the *alæ* of the nose the tubercles had grown rather more—about $\frac{1}{2}$ inch—but here it was not practicable to remove them without more or less destroying the nose. Over the forehead and eyebrows the tubercles were stationary.

In this case, also, magenta showed swarms of bacilli in the excised tubercles. On April 21st he was ordered four minims of liquor arsenicalis three times a day, but there was some difficulty in getting him to take the medicine regularly.

The accompanying illustrations, showing the face before and after operation, will serve to give some idea of the relief afforded.

I have at present in the asylum two milder cases which are undergoing similar treatment. Though the result can be at the best but palliative, it seems worthy of consideration in such a disfiguring disease as tubercular leprosy. It may be objected that this treatment is practically the same as that pursued by the late Dr. Beauperthuy. An all-important distinction lies in the use of the knife or scissors—a detail which I believe was not adopted by him. Free excision combined with caustics gives a more rapid, clean, and effectual cicatrix than the use of caustics alone. Assuming, as a working hypothesis, that leprosy is a parasitic disease, it is hoped that the use of two powerful germicides—one, arsenic, internally; the other, strong carbolic acid, externally—may kill, at any rate, some of the bacilli, and thus hinder if not prevent recurrence. In point of fact, on examining tubercles after the use of arsenic, I found in some cases fewer bacilli, but this may have been a mere error of experiment, and of course a large number of comparative observations will be necessary. The tannin powder is used with the idea of forming crusts to protect the granulating surfaces and so prolonging the local action of the carbolic acid.

Another important effect of this treatment is to lessen the amount of ulceration. Tuberculated tissue ulcerates much more readily than sound skin, and thus often works its own cure to a certain extent. This was very marked in the second case. Before operation the large masses on the ears were constantly raw and ulcerated. After operation a small firm cicatrix formed, and one could scarcely recognise the site of the former tubercles.

A SECOND SUCCESSFUL CASE OF EXTRACTION OF GLASS FROM AN EYE,

AFTER A LODGMENT OF SEVEN YEARS AND A DAY

By T. H. BICKERTON, M.R.C.S.,

Oculist, Liverpool Royal Infirmary.

IN the JOURNAL for April 28th I recorded the case of a gentleman, from whose left eye a piece of glass, which had lodged there for a little more than ten years, was successfully extracted, and it is curious that, within a few weeks, another similar case should have come under my care. The history given to me by the patient is as follows.

W. C., aged 33, received at midnight on January 12th, 1881, a severe wound of the right eye, owing to the bursting of the glass water gauge of a boiler, and was, in consequence, admitted into hospital. About three months later the eye was "needled," and the patient eventually returned home, with fair vision (C+ 3" 23, C + 2½ J 8), and with all inflammation gone. In 1883 the eye was hit with a piece of rope; it inflamed, was very irritable, and watered much, and opinions were divided as to the necessity of its removal. Eventually sedative treatment was selected, and after some months the eye again settled down. In May, 1885, inflammation recurred, this time without apparent cause, and it disappeared in about a fortnight. In the autumn of 1885 the eye again received a trifling knock, the inflammation being again allayed by hospital treatment, and after a short time he was able to return to work. In the beginning of July, 1887, the eye was slightly flicked with a piece of bagging. A fortnight later, the irritation not subsiding, an adhesion between the iris and the cornea was successfully divided (September 17th, 1887), and after

nine days he left hospital. On October 3rd, 1887, he started work, and whilst bending down to lift a sack, he was struck by a lightning shock of pain, which, starting at the supra-orbital notch, passed along the right side of the head as far as the occiput, and this acute pain occurred almost every time he bent his head down, and often on moving it from side to side. He therefore did his work holding the head in the erect posture, but in spite of this the pain now and again attacked him, and the eye becoming greatly irritable, he was again compelled to seek hospital treatment. This time a large iridectomy was performed upwards (October 15th, 1887), but the redness and irritability not subsiding, and the pain continuing, the removal of the eye was determined on. In this decision the patient acquiesced, but his employer objecting, he now came under my notice, November 8th, 1887. The right eye was very red, irritable, and watering much on exposure to light; V C + 12 D $\frac{1}{2}$: C + 14 D a few words of Ja +. Just below the centre of the cornea there was a small cicatrix, and it was easy to see that an adhesion to the iris had existed here. A large upward iridectomy pupillary space was occupied by capsular remains. The iris was attached firmly to these remains below and on the outer side, but it was free on the inner side. By means of careful oblique



Line of Incision | Glass, actual Size. | Glass in Situ.

illumination, and when the eye was turned in certain directions, there could be seen lying in the anterior chamber, in the sinus between the cornea and iris, and not imbedded in the latter, a piece of glass, which appeared to be quite a quarter of an inch long, and was of considerable breadth. The position of the glass was not quite horizontal, its inner end being slightly tilted upwards. The treatment adopted was rest, in the hope that the eye might again settle down, and allow the extraction to be performed under the best possible conditions.

The redness and irritability did slowly subside until January 11th, 1888, but on that morning the patient awoke with much pain in the eye, and, as an examination of it showed that the glass had moved, its inner end being still more tilted up, and that the vascularity of the eye had greatly increased, further delay was considered inadvisable. Therefore, on January 13th, 1888, the eye having been put thoroughly under the influence of cocaine, the method of operation which had been practised in the former case was again resorted to. An oblique corneal incision was made by puncture and counter-puncture with a Graefe's knife across the front of the cornea, at the junction of the lower third with the upper two thirds. A curette was introduced between the lips of the wound, and passed on in front of the iris, to a position behind the glass, in order to fix it, and a fine pair of forceps being now put in, the glass was seized at the fourth attempt, and removed entire.

By the next day the anterior chamber had re-formed, there was no iritic adhesion, and the eye was absolutely free from pain. Recovery was uninterrupted, and on February 10th the patient was able to return to his work with the eye in a perfectly quiet condition, and up to the present day (May 18th) the eye has remained absolutely free from all pain and irritation. The weight of the glass, kindly taken by Mr. Rawson, Professor Campbell Brown's assistant, was .01331 grammes; its dimensions, taken by Mr. Chattock, Professor Oliver Lodge's assistant, were, greatest length 6.4 millimètres; greatest breadth, 2.7 millimètres, and it may be mentioned that the actual breadth was much greater than had been expected from the appearance which the glass presented when in the eye.

THOMAS'S OPERATION FOR REMOVAL OF BENIGN TUMOUR OF THE FEMALE BREAST.

By ALEXANDER JAMIESON, M.A., M.D., M.R.C.P.,
Consulting Surgeon to the Imperial Maritime Customs in China,
Shanghai.

THE recognised risk of adenomata of the female breast developing into recurrent fibro-cystomata has always prompted me to urge early extirpation of these tumours, and most surgeons follow, I imagine, the same practice. A seriously deformed breast is, how-

ever, in the estimation of the majority of young women, a disproportionate price to pay for the avoidance of a danger which at worst is only probable. Therefore when in 1882 Dr. Gaillard Thomas, of New York, brought forward an operation for the removal of benign mammary tumours without visible mutilation, I felt confident that the new method would be extensively tried. Whether this has been the case or not I cannot say. It is at least certain that few cases, if any, have been reported in European journals. The ratio of benign tumours of the breast to malignant is everywhere small; and in semi-civilised countries it is smaller than in Europe and America, for the simple reason that in such countries a tumour in any locality and in either sex is invariably disregarded until by its size, by the pain it excites, or by its factor, it renders life intolerable to the patient or his neighbours. Accordingly, putting together four cases operated on by me since the publication of Dr. Thomas's paper, and one by Dr. Boone, my colleague at St. Luke's Hospital for Chinese, out of the five two were European women, one an American, one a half-caste living under foreign conditions, and only one was pure Chinese.



The operation is begun by an incision exactly following the fold between the skin of the thorax and that covering the breast in its lower semi-circumference. The length and precise position of the incision depend on the size and situation of the growth, but at all events when the breast is allowed to fall, the line followed by the knife must be invisible, except perhaps at one or other extremity. On reaching the muscles the gland is dissected from the chest sufficiently to enable it to be turned upwards, exposing its posterior surface. This is incised along a radial line over the tumour, and the latter removed. The gland is then replaced, its cutaneous surface remaining completely uninjured. In all the five cases to which I have referred, healing was immediate under antiseptic dressing.

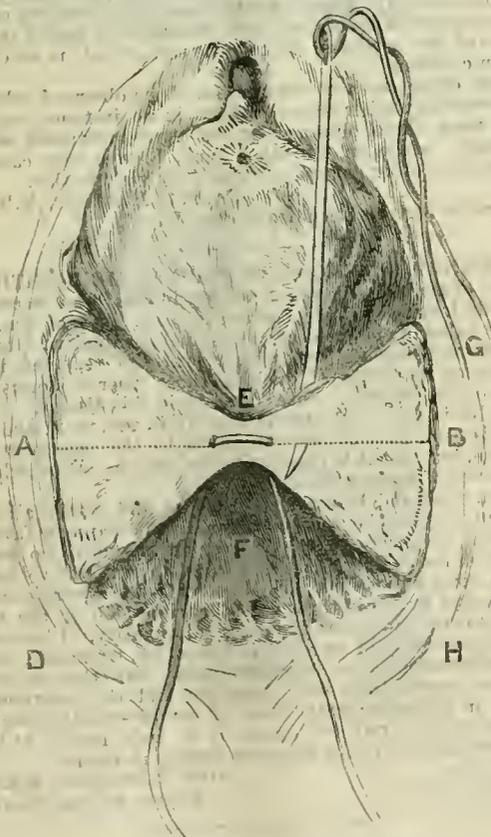
The accompanying woodcut from a photograph taken two months after operation well represents what, so far, has been the invariable result. In this instance the patient was an American,

aged 26, who had received a blow on the left breast five years before. A tumour the size of a small orange had formed in the substance of the gland midway between the nipple and the axillary periphery, taking about six months for its development. It varied in size under excitement and menstruation, but was never smaller than as described above. It gave rise to severe spontaneous pain and was extremely sensitive to pressure. With its removal all these symptoms disappeared. Histologically it was a tubular adenoma with no cyst formation.

ON CATGUT SUTURES IN THE OPERATION FOR RUPTURED PERINEUM.

By G. ERNEST HERMAN, M.B.LOND., F.R.C.P.,
Obstetric Physician to the London Hospital, etc.

DURING the last few years I have done the operation for ruptured perineum in a manner somewhat different from that usually described. The method I now follow depends essentially upon the use of fine catgut for the sutures. I describe the operation as in a case of complete rupture through the rectal sphincter. I make the raw surface by splitting the recto-vaginal septum.¹ The raw surface so produced may be described as forming two triangles, a right and a left (C D E and G H E), the base of each (C D and G H) being the skin of the perineum, the sides being formed by the mucous membrane of the rectum and that of the vagina, the apices being truncated and meeting in the middle line. A line



Drawn by Dr. W. Ambrosé Kibbler (diagrammatic).

(A B) may be imagined drawn through the middle of each triangle, so as to bisect its base; this line I shall mean when I speak of the middle of the raw surface. The first suture is entered at the junction of rectal mucous membrane and raw surface, close to the apex of the triangle, and brought out in the middle of the raw surface; entered again at the middle of the raw surface on the opposite side, and brought out as close as possible to the junction

¹ I learned this method of making the raw surface fourteen years ago, from my colleague, Mr. W. Warren Tay.

of raw surface and rectal mucous membrane. This suture is then tied, and the ends held out of the way with forceps. (The diagram shows the first suture passed, but not tied, and the second suture being put in. This is for the sake of pictorial clearness, but it is better to tie each suture before putting in the next, and it is convenient at this stage not to cut off the ends, because by them the parts can be pulled upon if it be wished.) The second suture is put in at the junction of vaginal mucous membrane and raw surface, brought out at the middle of the raw surface, a little nearer the base of the triangle than the first suture, entered at a corresponding point in the middle of the raw surface on the opposite side, and brought out as close as possible to the junction of vaginal mucous membrane and raw surface; this is then tied. The third suture is entered at the junction of rectal mucous membrane and raw surface, still nearer the base of the triangle, and so on, sutures being entered alternately from the rectal and vaginal aspect until the two triangles of raw surface have been completely brought into apposition. When all except a strip of raw surface parallel with the base of each triangle (C D, G H) has been brought together, the apposition of the bases is completed by transverse sutures, through the skin of the perineum. It is well not to tie the last pair of sutures (vaginal and rectal) until these transverse stitches have been put in. When the stitching is complete, the ends of all the sutures are cut short. The rectum is washed out twice a day for the next fortnight. The stitches are not removed. At the end of a fortnight usually all trace of them has disappeared.

For the majority of cases of complete perineal rupture, this mode of stitching, with fine catgut alone, is quite enough. But in some cases the laceration has been in the beginning attended with sloughing, and then there may be much cicatricial tissue about the parts which have to be brought together, so that they cannot be approximated without much strain on the stitches. In that case it is well, before sewing up with catgut, to pass a single deep stitch of silkworm gut through the recto-vaginal septum in the usual way, so that this may relieve the strain on the fine catgut.

The chief advantage of this method of operating is that no sutures have to be removed; and in the bad cases last described, only one suture. The removal of wire sutures, and even of silkworm gut, causes a good deal of pain to the patient. By the use of a large number of stitches there is a larger surface brought into contact, there is less strain on each stitch, and little, if any, suppurative in the suture tracks. The perineum produced is thicker and larger than that which results from the puckering effect of the ordinary method of suture. The only disadvantage of this method is that the operation takes rather longer in performance.

A continuous catgut suture has been recommended for recent rupture of the perineum: and it might also be used for the secondary operation. But it has this disadvantage, that if the catgut breaks, then the whole suturing has to be done over again; or if the knot slip, then the whole gets loose. With an interrupted suture as here described, if one stitch break, it is only that stitch which needs replacement; and if one or two knots should slip, the others hold the parts together, and it makes little difference.

For a rupture which does not go through the sphincter, only one set of stitches is required. Here the advantage of catgut is decided, for, the operation once done, all the after-treatment wanted is to keep the parts clean: no sutures have to be removed.

OBSTETRIC MEMORANDA.

ABORTION IN DOUBLE UTERUS.

CASES of double uteris are comparatively rare, but it is very probable that many of them are overlooked. The following is a brief record of a case which came under my observation lately, and which presents several points of interest.

Mrs. E., aged 28, consulted me on February 27th last, on account of severe metrorrhagia and pain in the lower part of the abdomen. Menstruation, which commenced at 14, was regular and painless until Christmas, 1887. At that time she had been married for four months and, although there had been no cessation of menstruation, she fancied, from a feeling of weight in the pelvis and a slight increase in size, that she was pregnant. On December 26th she was attacked with severe pelvic pain and

flooding. She states that amongst the clots expelled there was a large firmer body, and that soon after this came away the flooding ceased. Six weeks later menorrhagia and pain returned, and continued until the day before I saw her.

Dr. Cullingworth very kindly examined the patient with me, and together we made out the following points. Ostium vaginae wide, admitting two fingers. Vagina normal in lower part; at upper third a loose fleshy septum was found, dividing the upper part of the vagina into two equal lateral portions. Each compartment contained a cervix, resembling the normal nulliparous cervix, each os externum being closed. The bimanual examination was unsatisfactory on account of the tension of the abdominal muscles. Two uterine sounds were introduced, one into each cervix. In the first part of their course they ran parallel, but were separated by a septum; higher up they diverged, each tip running outwards from the middle line. No enlargement of either uterine cavity was made out. With the sounds still in position the abdomen was now examined, and two distinct uterine fundi were felt, separated by an interval of about two inches, the tip of each sound being plainly felt through the abdominal wall. *Per rectum*, the lower part of the uterus could be felt, but the point of divergence could not be made out.

It was thought advisable, before proceeding to more active treatment, to try the effect of rest for a few days, and accordingly the patient was ordered to remain in bed, and the pain was relieved by opiates. On March 2nd the hæmorrhage returned, and she expelled a solid substance about two inches long and one inch broad, which, on examination, proved to be a piece of placenta. After this her recovery was rapid; the discharge ceased, all pain disappeared, and a fortnight later she was going about as usual.

REMARKS.—The malformation in this case was that known as uterus duplex bicornis. An important point is the fact that the vagina was double at its upper part but single below. In the majority of cases of uterus duplex bicornis the septum extends the whole length of the vagina, so that there are two external orifices.¹ It is not difficult to understand how the abnormality should have been unsuspected both by the patient and by her husband; even on vaginal examination the case was one which might have passed as normal, for the septum was so lax that it was easily flattened against either side of the vagina, and in this way one cervix was covered up and concealed. A very similar case is described by Lumpe,² who believed that the lower part of the septum had been detached by coitus. The cause of the hæmorrhage was not quite clear at first, but, from the history, it seemed probable that it was due to some retained products of conception, and this view was confirmed later when the portion of placenta came away. At the time of examination, however, there was no hæmorrhage, both uterine orifices were closed, and there was no appreciable difference in the size of the two uterine cavities. The continuance of menstruation during pregnancy in a double or partially double uterus is uncommon; it is noted only in two out of seventy cases collected by Kussmaul. From the patient's description of the expelled ovum I believe the abortion occurred at the third month. Statistics tend to show that abortion is not more likely to occur in a double uterus than in a normal one, but I am inclined to think that the abnormality in this case was alone the cause of the abortion, as I was unable to assign any other reason why it should have occurred. Possibly the continuance of menstruation may have had something to do with it.

ARCHIBALD DONALD, M.A., M.D.,
Surgeon to St. Mary's Hospital, Manchester.

OBSTRUCTION DURING LABOUR FROM MALFORMATION OF VAGINA.

On February 9th I was called to attend a primipara, aged 24. She had been ten hours in labour. The os was fully dilated; the head presenting, and found to be prevented from descending by a broad band of tissue stretching antero-posteriorly across the vagina. With each pain this band became taut, and encircled the head, arresting its progress. Its exact relations could not now be ascertained. After waiting some hours delivery was effected with difficulty by forceps, without any tearing of the tissues.

On careful examination of the parts ten days after delivery, I found that the vagina was double, being divided into two compartments by a septum, attached in the middle line along the

anterior and posterior walls of the vagina, and extending from the cervix uteri to about an inch from the vaginal orifice. At its cervical end the septum was attached in front of and behind the cervix, but was free opposite the os, forming a crescent in which the cervix lodged. It was possible to pass the finger from one side of the vagina to the other through this opening. This septum was so stretched and displaced during labour as to appear as the fleshy band above described. The child was small, otherwise division of the septum would probably have been necessary. The uterus was apparently normal. The patient was not aware that she was in any way malformed.

This case may with advantage be compared with that described by Dr. Fleischmann, in the *Prager Medicinische Wochenschrift*, and quoted in the *JOURNAL* of March 10th.

Grays, Essex.

HERBERT C. MALE, M.D., M.R.C.S.

THERAPEUTIC MEMORANDA.

TREATMENT OF ECZEMA.

DURING the last two years I have been treating all cases of eczema which have come under my care, whether acute or chronic, in the following way:

The part or parts affected with eczema are first bathed with warm water, so as to clear the surface. A soft cloth is then lightly placed over the surface thus bathed, in order to dry it, and then the following ointment is smeared over the part thus prepared: R Zinci oxidi, ℥j; bismuthi subnitratris, ℥j; vaseline, q.s.

This method of treatment has been especially useful in cases of eczema of the head and behind the ears, which is so often met with in children.

While other cases of eczema have been observed which have been treated by other means, I have in no instance seen results better than those obtained by the above-mentioned method of treatment; while, on the other hand, I have seen cases which have resisted other methods of treatment yield to this.

FRANCIS HAWKINS, M.B., C.M.

Henrietta Street, Cavendish Square, W.

ANTIPYRIN IN CEREBRO-SPINAL MENINGITIS.

The list of maladies for which antipyrin has been recommended is already long, but I have one to add to it. It is of the greatest possible value in epidemic cerebro-spinal meningitis. Its success in this disease depends less on its property of reducing temperature than on its power of quelling those "nerve storms" which are one of the principal causes of death in this disease.

Its value is all the greater in that it is not, as in the case of other diseases, only a mere addition to the armament of the physician, but that it is practically the only medicine which is a real "remedy" against the disease.

Opium, ergot and belladonna, bromides, and aconite all do good service in allaying the terrible pains, and perhaps in favourably influencing the course of the disease, but they have no power of warding off impending death, while antipyrin I have found to fulfil all three indications. The necessary doses vary somewhat, but forty-five grains in three doses distributed over the evening and night is the most usually successful quantity. I have not yet had an opportunity of trying it in idiopathic, traumatic, or tubercular inflammations of the meninges, but the pathological conditions, apart from the causation and the symptoms, are so allied in character with those of cerebro-spinal fever that I would suggest a trial and expect it to yield results at least as favourable as those of the remedies already in vogue.

GUY N. STEPHEN, M.R.C.S.,
Cyprus Medical Service.

Nicosia.

SURGICAL MEMORANDA.

NATURE'S SURGERY.

SURGEON-MAJOR MARK ROBINSON, I.M.S., has forwarded to us the account of a curious deformity observed in a prisoner at the gaol, Thyetmyo, Burmah.

The man is 65 years of age, named Nape; he was lately admitted into gaol for dacoity. He is a leader of dacoits, and has been concerned in a hundred dacoities or more, the distortion of his left arm giving him great value in the eyes of these men. They be-

¹ Von dem Mangel, der Verkümmerng und Verdopplung der Gebärmutter. A. Kussmaul. Würzburg, 1850.

² Wiener Wochenbl., 1856; No. 22.

June 9, 1888.]

ieve that such things render a man bullet-proof, and therefore a desirable leader.



The man states that up to fifteen years ago the left arm was as good as his right; that then an abscess formed at his elbow from, he says, no particular cause; the abscess burst, and a large wound was formed. Through this wound all the bones of the arm came



away, one whole, but he was not clear which. At the present time there is not a vestige of the humerus, ulna, or radius to be felt in the arm. The hand is quite useless; the only movement that he can give the limb is by the motion of the scapula, which moves freely.

TUMOUR OF THE BLADDER RECURRING AFTER REMOVAL BY SUPRAPUBIC CYSTOTOMY.

In the JOURNAL (October 16th, 1886) I published an account of a case of multiple papillomata of the bladder, removed the previous May by suprapubic cystotomy; in the last note, four months after operation, the patient's condition was described as very favourable, as he was then free from bladder symptoms, with the exception that slight traces of blood occasionally appeared in the urine, especially after any active exercise.

The subsequent history of the case is worthy of record. The following December blood was from time to time present in the urine in considerable quantity. In January, 1887, micturition began to be painful, and attended by considerable difficulty; the symptoms of obstruction gradually became more marked, until at length almost complete retention of urine was produced. On February 5th, after straining violently in futile attempts to pass water, the suprapubic cicatrix, which hitherto had been firmly closed, suddenly gave way, and a fistulous opening formed, through which the urine found an exit. Four days later he was admitted into the hospital in an extremely exhausted state, all the masses of growth also protruded. Death took place on the fourth day after admission from suppression of urine and anæmia.

At the necropsy the bladder was found full of soft villous growth, of considerable size, springing from the base, lower part of the anterior and posterior, and both lateral walls. The summit was free, except that here and there several small tufts the size of peas were scattered over it. Both kidneys were in a condition of hydronephrosis, and the ureters were dilated. The lower portion of the sacrum was infiltrated with a new growth of a pale, greyish-red colour, of firm consistence, but sufficiently soft to be readily cut with a knife; there was no connection between it and the bladder, the intervening tissues being quite free from any deposit. The other parts of the body were healthy.

Microscopical examination of the recurrent tumours (sections of which have been kindly made for me by my friend, Dr. Raiton) showed them to be papillomata apparently taking on sarcomatous action, for the fibrous stroma of their deeper parts was extensively infiltrated with groups of small round cells; the deposit in the sacrum consisted of a similar small, round-celled growth infiltrating and causing destruction of the osseous tissue.

The case is interesting for several reasons.

1. It shows that papillomata, when sessile and multiple, as the primary growths were, are apt to rapidly recur.
2. It illustrates the fact that the recurrent tumours, under these circumstances, may take on malignant (sarcomatous) action, and be accompanied by secondary deposits in other parts.
3. The reopening of the suprapubic wound, after it had been firmly healed for a period of eight months, in consequence of the recurrent tumours blocking the vesical orifice of the urethra, and interfering with the escape of the urine, is, I believe, unique.

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Manchester.

CASE OF PUNCTURED WOUND OF THE PERITONEUM, WITH PROTRUSION OF THE INTESTINE: RECOVERY AFTER OPERATION.

SHORTLY after midnight on August 31st, 1886, A. M., aged 9 years, fell through the drawing-room window at a dancing party on the spike of an iron railing, causing a piece of small intestine, about the size of a clenched fist, to protrude. The spike entered about two inches above the middle of Poupart's ligament on the right side.

Whilst the boy was being chloroformed I covered the intestine with a large piece of lint, squeezed out of hot water, to protect it from dust and retain natural warmth. Reduction by gentle taxis being impossible, I enlarged the opening about half an inch, and then cautiously returned the bowel completely within the abdominal cavity. One suture was inserted through the deep structures, including the peritoneum, and four superficial ones then applied. Some clear fluid escaped from the abdominal cavity, but very little hæmorrhage occurred. The wound was dressed with a compress of lint and a spica bandage. The boy was then carried to bed, and a pillow placed under his knees to keep the thighs flexed on the abdomen. Nothing but water and small doses of liq. opii sed. was given for two days, after which liquid food only was allowed during the ensuing week. On the third day after the accident the wound had almost completely healed by primary union, so that I removed the superficial sutures and dressed the wound with strips of strong rubber plaster to prevent risk of the edges gaping. The deep suture did not come away until the tenth day. The intestine was exposed and constricted for nearly two hours.

The boy made a complete recovery, his temperature at no time rising higher than 100.4° F., so that on the seventeenth day after the accident he was able to move about with a pad over the seat of injury, and without the slightest tendency to hernia.

No antiseptic precautions other than extreme care and cleanli-

ness were possible, as I was obliged to operate in the drawing-room about 2 A.M. He is now, more than a year and a half after the accident, strong and healthy, without any tendency to ventral hernia.

THOMAS DONNELLY, M.D., F.R.C.S.I.,

Assistant Physician to the Whitworth and Hardwicke Hospital,
Medical Officer to No. 1 East Dispensary District.

Dublin.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

ST. MARY'S HOSPITAL.

CASES OF EAR DISEASE.

(Under the care of Mr. FIELD.)

CASE I.—*Suppurative Meningitis Caused by a Bead in the Ear.*
—Mary C., aged 3 years, came under Mr. Field's care on February 9th, 1888, for purulent discharge from the right ear, into the middle meatus of which, owing to attempts at removal from the external meatus, a round blue bead had been thrust some five weeks previously. The patient had already for some time been in a highly feverish condition.

Mr. Field passed a fine hook into the hole of the bead, and so was able, though with difficulty, to extract it. The otorrhoea, which by the time of the operation had become slight, on the following day ceased. There was then some tenderness, but no redness or œdema, over the mastoid process; the temperature ranged from 98.5° to 101° F., and the pulse from 140 to 160. Great restlessness, intractable vomiting, and constant screaming supervened on the evening of the 10th, and persisted till the 14th.

On the 11th the bowels were opened by castor-oil. The morning temperature was 103.8°, the evening 98°. Slight retraction of the head was now observable. With increase of this last symptom there was next day distinct *tache cérébrale*; retraction of the abdominal wall was, however, absent. By Politzerisation air, but not pus, could be forced through the rent membrana. The supra-mastoid region was still somewhat tender, though normal in appearance. Three leeches were applied behind the ear, and a grain of calomel was given.

On the 14th coma set in, the pupils beginning to dilate and becoming insensible to light, but there was no optic neuritis. The temperature, 101° in the morning, rose to 103° at night. Another leech was applied. During the two following days the coma grew profounder, but the retraction of the head and the *tache cérébrale* were less distinct.

On the 16th, as the existence of a localised collection of pus in or about the cerebellum appeared probable, a small aperture was trephined, after consultation with Mr. Page, Mr. Pepper, and Dr. Phillips, who were in hospital, in the squamous portion of the temporal bone, three-quarters of an inch above and behind the right mastoid foramen. The dura mater, which bulged considerably into the aperture, was punctured, and a director inserted into the brain substance, with the effect of setting free, not pus, but a large quantity of cerebro-spinal fluid, presumably from the lateral ventricle. The temperature and pulse now improved for a time. The occipital bone was next trephined below the level of the right lateral sinus, and two inches behind the external auditory meatus. No pus, however, was obtained by the use of a director. The patient survived the operation only about six hours, dying comatose.

Post-mortem examination of the brain and membranes revealed flattening of the convolutions and partial obliteration of the sulci of the convexity. There was much greenish puro-lymph in the meshes of the pia mater, in largest amount over the right temporo-sphenoidal lobe, and the convolutions bounding the posterior limb of the fissure of Sylvius, and at the base, chiefly about the anterior extremity of the fissure. It was in considerable quantity over the parts corresponding to the floor of the third ventricle, and over the pons, and the under surface of the cerebellum, and to a less extent, over the medulla. The brain substance in general was sticky, and its vessels were engorged. The ventricles were dilated with turbid cerebro-spinal fluid. No focus of suppuration could be found in the brain, nor was there any discoloration or per-

ceptible abnormality of the dura mater covering the roof of the tympanum. The right seventh nerve was, however, soft and pulpy where it emerged from the internal auditory meatus, also the right tympanic membrane had disappeared, and the middle ear was full of pus.

The moral of such histories as the above cannot be too often enforced. Instead of conveying the child at once to a hospital for treatment by one accustomed to deal with aural affections, the mother, first with a hairpin, and four doctors subsequently with all sorts and conditions of forceps, made frantic and ineffectual efforts to remove the errant bead, and succeeded only in pushing it through the tympanic membrane, and fatal meningitis was set up. Nearly all the deaths that have been occasioned by foreign bodies in the ear might have been avoided by the adoption of proper modes of treatment. In the particular case just related, the use of a syringe and warm water would probably have sufficed in the first instance. Had there been swelling in the meatus, this could have been relieved by applying a leech behind the ear, after which the extraction might have been easily accomplished. Furthermore, when the bead was actually in the middle ear, its timely removal might have been effected by the use of a suitable instrument.

CASE II.—This case affords a striking example of the extensive ravages that may be wrought by neglected ear disease. A. P., an anæmic-looking girl, aged 14, with a family history of phthisis, was admitted November 24th, 1887. When quite young she had suffered from scarlet fever, which had left her with a large perforation in the left membrana tympani. She had three years before been under the care of Mr. Field for mastoid abscess, and this had been successfully treated by an incision down to the bone to release pus. Now, on her readmission to hospital, pus was flowing from the ear, and over the left mastoid there was again a large swelling, which, it transpired, had for weeks been poulticed at home. Much pus was evacuated by a free opening reaching through the periosteum, but some was found to have burrowed a passage alongside the sheath of the sterno-mastoid.

The patient was subsequently placed under chloroform and ether, and Mr. Page, at Mr. Field's request, explored the sinus in the neck, discovering that it communicated with the anterior mediastinum, and pus followed when an incision was made one inch and a half above the clavicle at the inner edge of the left sterno-mastoid. The patient took the anæsthetics very badly, and it was abundantly manifest that nothing could be done for her. She died December 15th, 1887. The necropsy proved her to have been the subject at once of empyema, pyæmia, pericarditis, pleurisy, and suppuration in the left lateral sinus. She had, in fact, come under treatment too late for any chance of recovery.

The salient *post-mortem* features may be briefly stated as follows: Rigor mortis marked; dorsal hypostasis. Excess of sub-arachnoid fluid, chiefly in the cerebellar fossa. Pus and broken-down blood-clot in the left lateral sinus, the pus proceeding from a carious and discoloured portion of its bony wall over the mastoid cells. Suppuration through the mastoid foramen to the tissues beneath the insertion of the left sterno-mastoid. No trace of suppuration immediately outside the skull, but a probe passed through the incision in the neck reached to within an inch of the mastoid process. Brain substance wet; active congestion of the vessels of the pia mater; and excess of ventricular fluid. A large quantity of puro-lymph in the right, and of serum in the left pleural cavity. Right lung collapsed and slate-coloured, but mottled; the pleural surfaces covered with lymph; scattered abscesses in the parenchyma seen on section. Left lung partly collapsed, with substance throughout congested; buttery lymph over part of diaphragmatic surface and lower edges; an abscess pointing beneath the pleural surface of the outer part of upper lobe, and other abscesses here and there. Excess of serous fluid in the pericardium. Sub-pericardial and sub-endocardial petechiæ both absent. The kidneys both congested, and exhibiting cloudy swelling.

CASE III.—S. P., omnibus conductor, aged 31, came to the hospital as out-patient January 2nd, 1888. Six weeks previously he had suffered pain in the left ear, which grew worse until, after a fortnight, it was relieved by offensive otorrhœa. This ceased two weeks later; the earache then increased, and the tissues over the mastoid swelled, causing the helix to stand out prominently from the head. First three, and two days later five, leeches were applied over the mastoid. On the 9th Mr. Field incised the swelling deeply, letting out a considerable quantity of pus. By the 16th the patient, having passed a week in hospital, was completely restored to health.

CASE IV.—M. J., a nurse, aged 28, admitted January 2nd, 1888, had lost both parents by consumption, and one of her two sisters had abscesses in the neck. Five years before coming to hospital the patient had a discharge from the right ear, an abscess having burst into it. Since then there had been a little otorrhœa at intervals of about a month. Near the middle of November, 1887, she experienced much general headache, which after a fortnight became localised in the right ear. This discharged freely, and was poulticed. The patient was recommended by her medical man to use hot chamomile flowers and to drop a mixture of oil and laudanum into the ear. Otorrhœa, however, persisted, and after a week a swelling formed over the mastoid, which gradually implicated the face. The patient was then sent to Mr. Field, in the out-patient department, who, on December 31st, extracted a polypus and ordered the application of eight leeches to the swelling. This he incised two days later precisely as in the last-mentioned case, setting free a large accumulation of pus. It was found that water syringed into the abscess escaped through the external meatus. On January 9th the first incision had closed up, and a small abscess lower down was opened by the house-surgeon, Mr. Norton. On the 22nd both the swelling and the discharge had disappeared, and the patient left the hospital in all respects well except for a large perforation in the membrana tympani.

Both the last two cases of mastoid abscess are of the type most commonly met with, dangerous in the extreme if neglected, but in almost every instance yielding readily to treatment, the important factor in which is an early, and deep, and long incision over the mastoid down to and through the periosteum, so as to afford the freest possible exit for pus.

GENERAL INFIRMARY AT LEEDS.

CASE OF OPTIC NEURITIS ASSOCIATED WITH CHLOROSIS.

(Under the care of Dr. EDDISON and Mr. TEALE.)

[Reported, with remarks, by T. WARDROP GRIFFITH, M.B., Professor of Anatomy, Yorkshire College; late Resident Medical Officer to the Infirmary.]

This patient, a kitchenmaid, aged 26, was admitted on June 3rd, 1887, complaining of dimness of vision. She stated she had had but poor health for some time, but that the failure of sight dated back only three weeks. It commenced with pain and lachrymation in the right eye, and in two days she was almost totally blind in that eye. The left eye was not affected, she said.

On admission the patient, who was rather a delicate-looking young woman, with bad teeth and slight enlargement of one gland at the angle of the jaw, was seen to be markedly anæmic. Menstruation was said to be normal in point of frequency, but the flow was scanty. There was a loud venous hum at the root of the neck, and a systolic *bruit* in the pulmonary area. The vision was R. = shadows; L. = $\frac{1}{2}$, and Jäger 1 at 8 inches. Pupils—right, active; left, rather sluggish. There was very well marked optic neuritis in the right eye, with much swelling of the papilla, extending into the surrounding retina a short distance, slight obscuring of the vessels, and a few small hæmorrhages. No glistening spots of exudation were seen. The left eye presented similar appearances, but they were much less marked.

A full examination of the patient failed to elicit evidence of disease of any of the organs of the body. Repeated examination of the urine failed to detect albumen. No history of injury could be made out, nor any history or evidence of syphilis.

On June 6th, the patient was put on a mixture containing in each dose liq. arsenic hydrochl. \mathfrak{v} , and tinct. ferri perchl. \mathfrak{xv} , and on a pill containing ferri sulph. grs. \mathfrak{ij} , ext. aloës soc. gr. \mathfrak{j} , and ext. nucis vom. grain $\frac{1}{2}$, each to be taken three times daily. The pills were increased to two, three times daily, on June 19th.

About June 10th it was noted that her sight had begun to improve. On the 23rd the neuritis was unquestionably less than on admission, and on July 9th the vision was Jäger 20 with the right eye.

On examination now, the edge of the disc was much more distinct. She was then sent to the seaside, and continued the medicine and pills without interruption.

On November 16th, 1887, she sent me a specimen of writing corresponding to Jäger 3, which she could easily read with her right eye.

REMARKS BY DR. T. WARDROP GRIFFITH.—In the JOURNAL of May, 1881, Dr. Gowers has a valuable paper, giving full details of three cases in which optic neuritis, associated with chlorosis,

cleared up under treatment with iron. In one of the cases stellate spots were observed round the macula, but in none does the vision seem to have been so profoundly affected as in the case now recorded.

Dr. Gowers comments on the resemblance of the optic neuritis in those cases to that found in cerebral tumour, and, as bearing on this point, I append brief notes of two cases that I had the opportunity of observing in the clinics of Drs. Churton and Barrs, to whom I am indebted for permission to refer to them.

1. A girl, aged 19, attended the out-patient department for many months with the usual symptoms of chlorosis. She had well marked neuro-retinitis, strongly resembling that found in Bright's disease, but beyond this no evidence was made out of gross intracranial lesion. One day she fell on the ice, striking her head. Three weeks afterwards she was admitted into the infirmary, having been wildly delirious for two days. Her pupils were dilated; her temperature varied from 99° to 102°, and she died on the third day after admission, apparently from syncope. On *post-mortem* examination we found a tumour, with the naked-eye appearances of a tubercular mass, occupying the inner aspect of the right occipital lobe. The membranes at the base of the brain were thickened and opaque. There was some effusion, but no grey granulations could be made out.

2. A servant girl, aged 22, fairly healthy-looking, but rather anæmic, was admitted complaining of general weakness and pain in the head of two years' duration. The pain, which was sometimes in front and sometimes behind, varied in severity, but was always on the right side. There was occasional vomiting, but always after food. There was no aural discharge. Menstruation was generally regular, but the discharge was scanty, and then there was slight œdema of the feet towards night.

On examination, the scalp was found tender on the right side, the hair markedly grey behind, this being of recent date. Lungs normal; faint systolic *bruit* all over cardiac area; urine varied in amount from 76 to 86 ounces; no albumen; specific gravity, low; sight slightly impaired; Hm = 1 D. Distinct swelling of optic discs, with blurring of margins and very distinct curving of vessels. She was put on sulphate of iron pills, which she continued pretty regularly. The neuritis steadily diminished, and, when I saw her a year subsequently, the discs were absolutely clear, and the sight normal.

CIVIL HOSPITAL, CALCUT, MADRAS PRESIDENCY.

PUNCTURED WOUND OF CHEST INFLICTED BY AN ELEPHANT.

(Under the care of Surgeon-Major H. D. COOK, M.B., Civil Surgeon, Calcut.)¹

R. N., aged 55, was admitted on January 15th, 1888. On admission his condition was as follows. He was unable to sit up; decubitus on left side, with body inclined well over to the right, head resting on left hand, right arm approximated to side, with hand close to face. There was a penetrating wound (fleshy) of the right side of the chest. The wound of entrance was four by three inches, irregular in shape, and situated six inches from the spine, opposite the fourth dorsal vertebra, and an inch and a half below the middle third of the spine of scapula. The wound of exit was four and a half inches long, clean cut, and extended downwards and outwards, from a point three inches above and to the inner side of the right nipple, but was in no part of its course lower than two inches above the horizontal nipple line. The wound of entrance was offensive and sloughy with sero-purulent discharge. Two lacerated bits of muscles were exposed, evidently portions of the deltoid and infra-spinatus muscles. The whole of the integument over the shoulder was swollen and œdematous, and had an erysipelatous blush. The parts were too swollen and painful to be thoroughly examined.

He stated that on the day previous to his admission, while he was employed with his elephant (he is a mahout) drawing timber, a Mopilla crossed in front of the animal, who suddenly became excited, and chased the man about a hundred yards; that he then struck the animal by way of punishment with a small stick he had, who promptly resented his punishment by throwing him to the ground, and striking him with one of his tusks over the right shoulder, penetrating the muscles of the chest, and emerging in front below his armpit. After inflicting this injury the man states that he turned over on his back, when the elephant placed one foot on his chest with the intention of crushing him; but

¹ Communicated to the South Indian Branch of the British Medical Association.

this he prevented by suddenly drawing his knife and stabbing the elephant in the trunk, when the animal turned and fled. The accident occurred at Cuttady, a small place on the backwater some twenty miles from Calicut. The wound was syringed and dressed with perchloride of mercury lotion 1 in 2,000. Charcoal poultices were also applied to the wound of entrance.

The case is still under treatment. At first there was a great deal of constitutional disturbance and abundant discharge from the anterior wound. The parts are now, however, looking healthy, and there is every prospect of a speedy recovery.

ROYAL PRINCE ALFRED HOSPITAL, SYDNEY.

ANEURYSM OF AXILLARY ARTERY: ELECTROLYSIS: LIGATURE OF SUBCLAVIAN: CURE.

(Under the care of Mr. G. T. HANKINS.)

[Reported by J. McALISTER, M.B., B.S., and E. G. BLAXLAND, M.R.C.S.E., L.R.C.P.]

J. C., aged 64, widower, no history of alcoholism or syphilis, had met with frequent severe accidents during a long life in the bush, but was not aware that the left shoulder or arm had ever suffered any special injury; he was quite well up to some months ago, when he first felt aching in the left arm and numbness of the fingers.

Admitted September 23rd. Five weeks ago he first detected a lump in front of the shoulder, from which time the pains in the arm became worse; there was no pain over the swelling itself, which, when first detected, seemed about the size of a goose's egg, and had not increased much since.

The tumour was situated below the outer third of the clavicle, which was slightly displaced upwards; it filled up the hollow in front of the shoulder, and could be felt from the axilla; it was distinctly pulsating, and over it a loud systolic murmur was audible. Pulse at left wrist more feeble than at right; heart's action intermittent; urine normal. The patient was first admitted into the medical ward under Dr. Shewen, and placed under appropriate medical treatment for a week—rest, low diet, and iodide of potassium in full doses; but as the pain in the arm increased, and the tumour appeared to be getting larger, surgical treatment was decided on. It was very difficult to compress the subclavian artery sufficiently to stop pulsation, and Esmarch's bandage could not be borne on account of severe pain. Before resorting to ligature, it was determined to try the effect of electrolysis.

On September 30th four insulated steel needles were passed into the tumour and connected with the positive pole, the negative pole of the battery being connected with a large wet clay electrode on the chest after the manner of Apostoli. A current of 140 milliampères, produced by a battery of 47 bichromate cells arranged in series, was passed through the aneurysm. At the commencement of the operation an elastic bandage was placed on the arm, and attempt was made at the same time to compress the subclavian, but both had to be given up on account of the pain produced. Chloroform was then administered, but the patient became so unmanageable that it was discontinued.

On withdrawing the needles after the current had been passing for thirty minutes, the uninsulated portions, about one-third of an inch, were found to be nearly eaten away. The aneurysm then appeared to be more solid and the expansion less marked, although still very perceptible.

On the following day some further improvement was noticed; but on the third day from the operation the pulsations became stronger, and the tumour began to increase in size, though still more solid than before treatment. Ligature of the subclavian was then decided on, and performed by Mr. Hankins on October 4th.

The operation was in this case very easy, the artery being found rather high in the neck, and apparently quite healthy, the tense cord of the brachial plexus proving the best guide to it, as the scalene tubercle could not be easily reached. The external jugular vein was divided between two ligatures, also a smaller vein just over the artery; no other vessels were seen, and no blood to speak of was lost. The artery was tied with carbolised catgut, when all pulsation in the tumour immediately ceased. The wound was closed with horsehair sutures, a small drainage-tube inserted at the outer angle, and dressed with dry sublimate gauze. The arm was then wrapped in cotton-wool and a flannel bandage. Feeble pulsation in the radial was first noticed twenty-six hours after the operation, but the pulse could not be counted until thirty-two hours had elapsed, when it was very soft and faint. There was no pain and no pulsation in the tumour.

The wound healed by first intention, and the patient had no bad symptom. Thirty-one days after the operation the tumour, compared with a cast taken by Mr. McAlister, the house-physician, before treatment, showed a considerable diminution in size, but it did not feel very hard, although quite free from tenderness or pulsation.

The patient was now anxious to leave the hospital, but was cautioned against using his arm until the swelling had become absorbed.

REPORTS OF SOCIETIES.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

FRIDAY, APRIL 20TH, 1888.

JAMES LITTLE, M.D., President, in the Chair.

Migrainous Headache.—The PRESIDENT read a paper on the value of a combination of salicylate of sodium and effervescent citrate of caffeine in migrainous headache. He said he was in the habit of directing the patient, when he awoke with any feeling of headache, to take twenty grains of the salicylate in a wineglassful of water, made effervescent by the addition of a dessertspoonful of the granular citrate of caffeine, and, if necessary, to take a second or even a third dose at intervals of two hours. The effervescent caffeine made the dose a very palatable one, which the salicylate alone was not, and probably rendered it more useful; but that the good effect was not due to the caffeine was proved by the fact that the author had seen it relieve persons who had previously used the caffeine alone without benefit. It did not appear to lose its effect, as a patient, to whom Dr. Little gave it more than two years ago, said she found it as valuable as when she first began its use.—Dr. WALLACE BEATTY, testified to the value of the treatment suggested by Dr. Little.—Mr. COX had himself found that the active principle of tea and coffee had a powerful beneficial effect.—Dr. ATTHILL, speaking from a large practice, exclusively among females, said Dr. Little had suggested the combination to him two years ago, and, having prescribed it since in twenty or thirty cases, he had always found some benefit, and, in the majority of cases, the benefit was considerable. This form of headache, especially near the menstrual period, was accompanied by ovarian pain, and in such cases he administered twenty-grain doses of bromide of sodium.—Mr. JOHN J. BURGESS, in the case of a lady, aged 44, found that the most efficacious remedy was a full hypodermic injection of morphine. He also found fifteen-grain doses of antipyrin useful in relieving the headache.—Dr. J. W. MOORE felt justified in mentioning other remedies, having regard to the probable state of tension of the arteries about the head, as indicated by the rigid appearance of the temporal artery, and also the weak pulse. These remedies were nitroglycerine, the tabloids of the *Pharmacopœia*, and nitrate of amyl. He also gave one to two grains of butyl chloral every half hour until relief was obtained. As regards Dr. Little's combination, the good effect of the effervescent draught of salicylate of sodium and caffeine was probably due to the action of the salicylate of sodium on the liver. Once the bowels were freed, and the tendency to nausea was relieved, the headache disappeared almost like magic.—Mr. R. MONTGOMERY said he found that a combination of sulphate of magnesium, bicarbonate of potassium, and bromide of potassium, a wineglassful in the morning with a wineglassful of hot water, gave great relief.—Mr. W. F. WEST observed that he found thirty-grain doses of guarana every four hours gave marked relief.—Dr. FINNY said he had never used the President's combination, but felt satisfied that the profession would have reason to feel indebted for it. He had tried to anticipate the attack or nerve storm by a course of arsenic. Hence caffeine, as supporting the nervous system, was one of the best drugs, and would be most efficacious when the treatment was carried out by arsenic or some nerve tonic. The bromides were also most useful; and if the attacks were preceded by nerve symptoms, as deranged vision or perversion of the senses, such as hallucinations, he considered a full dose of bromide of potassium would be of great use.—The PRESIDENT, in reply, said the attacks were quite as common in men as in women—certainly among neurotic persons. He did not know that the combination would prove efficacious if the bowels were entirely neglected; but, on the other hand, no amount of purgation would keep off the attack. Those nerve storms were

more likely to occur at the menstrual period when they attacked women. Gastric pains were liable to make themselves felt at the menstrual period, but he did not attach much importance to these symptoms. When the combination he had recommended was not successful, a rather free hypodermic injection of morphine was the only thing to give relief. The advantages of salicylate of sodium were of wider application than those of antipyrin. No doubt, as Dr. J. W. Moore observed, the salicylate of sodium was a hepatic stimulant; for he had noticed the relief which it gave persons who upset the liver by too free living.

Saccharin in Chronic Cystitis.—The PRESIDENT read a note on the use of saccharin in chronic cystitis for rectifying the ammoniacal effluvia of the urine.—Dr. A. W. Foor asked whether the saccharin was more beneficial in the tubercular cystitis, or in the rheumatic, or in the gonorrhoeal, or simply in the mucous cystitis?—Sir WILLIAM STOKES inquired what was the *modus operandi* as regards the action of saccharin. He endorsed the President's view as to the great importance of thoroughly evacuating the bladder in all the forms of cystitis, especially in that associated with enlargement of the prostate in aged individuals. Advantage followed the exhibition internally, as well as the local application, of boric acid in five-grain doses, perfectly plain in water three times a day, and washing out the bladder with a weaker solution.—After some remarks by Mr. DOYLE, the PRESIDENT, replying, said the proper heading of his paper would have been "The Value of Saccharin in Ammoniacal Urine." The cases he had seen were not those of the ordinary cystitis at all, but where the urine had become ammoniacal in consequence of paralytic affection, or prostatic disease, or stricture. Saccharin had no effect on the cystitis, except so far as the cystitis was kept up by the ammoniacal condition of the urine. Tubercular cystitis was a rare affection. A little boy whom he saw in hospital with it was treated with saccharin, but it did him no good. His urine, however, was not ammoniacal.

Rare Form of Mental Disease.—Mr. CONOLLY NORMAN read a paper on a rare form of mental affection, first described by Griesinger under the name of *Grübelnsucht*. Since Griesinger's time, four or five cases had been recorded. The essential condition of the affection was the obsession of the mind by an impulsive concept taking the form of perpetual interrogation. The entire mental energy was occupied with constant questionings about indifferent matters. The patient described by Mr. Norman was tortured with a desire to read every scrap of written paper which she saw, and was unable to attend to her domestic duties through a constant impulse to investigate every detail of the most familiar things and most familiar operations. The illness began when she was about five months pregnant. She had borne children in very quick succession, and had been exhausted by lactation. There was also a moral factor in domestic troubles, and worry about money matters. The patient recovered under tonic treatment. Mr. Norman referred to the rarity of this affection, particularly among asylum patients; to the question of its causation; to its analogies to *folie du doute* and other forms of mental disease; and to the presence in the case which he described of nervous proxyms, such as had been recorded only by Berger among previous observers.—A discussion followed, in which Dr. A. W. FOOT, Mr. R. MONTGOMERY, Mr. S. M. THOMPSON, and Mr. JOHN MOLONEY took part.—The PRESIDENT had no doubt the form of insanity described by Mr. Norman was rare in asylum practice; but in ordinary general practice cases were met with from time to time in which the same train of symptoms was presented. Some years ago, a business gentleman consulted him, whose duty it was in his department to take the invoices and mark on the pieces of cloth the proportionate price to allow the regulation profit. He had been many years at this, and was so expert that, no matter what the fractions to which the invoice price descended, he could go on without making a mistake; yet he got into such a state of doubt that, even if the invoice price were only a shilling, he could not convince himself that he was right, though the man inside told him he was. Another case came under his observation in which a pharmaceutical chemist, failing to convince himself of the accuracy of weight or measure, could not carry on business, and life became almost intolerable. Thus, there were many similar cases in which there appeared to be a letting-go of common sense—a seeking for evidence of self-evident propositions. This occurred less frequently among persons of humble means than persons who had not the necessity of providing food and drink, and were able to indulge the vagaries of fancy. Such persons should try and cultivate what Sir Benjamin Brodie called "a happy recklessness

as to results," or seek the overpowering control of a masterful mind, which would not discuss the evidence of those things, but dogmatically assert them.—Mr. CONOLLY NORMAN replied.

NEW SOUTH WALES BRANCH: ADJOURNED ANNUAL MEETING.

FRIDAY, APRIL 6TH, 1888.

The Hon. Dr. J. MILDRED CREED, President, in the Chair.

PRESIDENT'S ADDRESS.

Progress of Medicine in Australia.—After some preliminary remarks on the business of the Branch the President said that the year in the life of the Association which had just terminated had been an eventful one in the history of medicine in Australia. The graduating as M.B. Sydney of the first students, six in number, who had obtained their medical education in the local medical school, was a memorable event. The first intercolonial medical congress had been held, and had been attended by medical men from all the Australasian colonies.

Regulation of the Practice of Medicine.—The Select Committee appointed by the Legislative Council to inquire into the state and operation of the laws for the regulation of the practice of medicine and surgery in New South Wales had led to some startling revelations (already mentioned in the JOURNAL), and had presented a report which had been unanimously adopted by the Legislative Council. Action had been pressed upon the Premier by a letter signed by Lieutenant-Governor Sir Alfred Stephens, the Chief Justice, Cardinal Moran, the Primate (Dr. Barry), the heads of all other religious denominations, the Mayor of Sydney, and the President of the Chamber of Commerce.

Registration of Births, Deaths, and Marriages.—The report of another Select Committee, pointing out the defective state of the law in the colony for the registration of births, marriages, and deaths, had also been unanimously adopted by the Legislative Council. Dr. Creed, as chairman of that Committee, had introduced a Bill into the House providing for the better registration of births, and enacting that, before disposal of a dead body by burial or cremation, the district registrar shall issue a permit; and that, before issuing such permit, he must be satisfied either by the certificate as to the cause of death from a legally-qualified medical practitioner, if one had been in attendance, or, if not, by police inquiry, that the death had occurred from natural causes.

Neglect of Vaccination.—Dr. Creed next referred to the constant peril in which the colony stood, owing to the terrible neglect of vaccination, which was optional, the result being that a very small proportion of children were vaccinated. The present rapidity of transit had immeasurably increased the risk of the introduction of the disease. It was true that the admirable health authorities had so far been able to completely isolate all cases; but this good fortune it would be absurd to expect always to continue; already the quarantine station was seldom free, and it sometimes happened that a fresh ship arrived with the disease on board before the crew and passengers of previous ones had been released. Sooner or later the type of the disease introduced would be of so virulent a character that it would spread like wildfire. He recommended the establishment of a commission to investigate every case in which evil effects were alleged to have followed vaccination.

Federal Quarantine.—The question of federal quarantine was still in abeyance, though the scheme formulated by the Hon. Dr. Mackellar had been adopted by the Australasian Sanitary Conference, which met in Sydney in 1884. The varying action of the colonies hampered commerce and increased the risk of the introduction of disease. There could be no doubt that infected persons should be removed, and the ship disinfected at the first port of call, instead of these measures being delayed until the ship reached its destination.

Cremation.—Cremation was legal in the Colony, and the recently formed Cremation Society, would shortly be able to undertake cremations. The proposal to cremate the bodies of persons dying in quarantine from infectious diseases, which was first made by the principal medical officer, Dr. MacLaurin, when an outbreak of cholera occurred on board the mailship *Dorunda*, in Queensland waters, had as yet no practical result.

Rabbit Pest.—Dr. Creed detailed the various proposals made for dealing with the rapid increase of rabbits (see JOURNAL of June 2nd, p. 1181), and observed that neither the Government nor the people of Australia would have any choice as to whether disease should be used for their extermination; pastoralists, threatened by ruin, would take the matter into their own hands. The only

choice the Government had was whether the use of disease should be supervised and the results recorded, or whether it should be left to rash and ignorant hands.

Concluding Remarks.—Dr. Creed referred to Mr. W. H. Paling's generous gift of an estate containing 450 acres, and an endowment of £10,000 for the establishment of a convalescent station. He uttered a word of warning as to the disproportionate number of medical practitioners who were coming from all parts of the world to practise in Australia. In conclusion, Dr. Creed referred to the success of the *Australasian Medical Gazette*, of which he is the editor, and thanked the Branch for the unvarying kindness displayed towards him during his term of office as President.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, MAY 16TH, 1888.

JOHN URQUHART, M.D., President, in the Chair.

Intubation of the Larynx.—Professor OGSTON gave an account of the method of intubation of the larynx, showed O'Dwyer's instruments for that purpose, and gave details of a case in which he had successfully employed intubation for the relief of croupous laryngitis.

Left Ophthalmoplegia Interna.—Dr. MCKENZIE DAVIDSON showed a female patient suffering from paralysis of the ciliary muscle and iris of the left eye. Otherwise the eye was normal, and the cause of the palsy exceedingly obscure.

Hyperæmia after Trauma.—Dr. MACKENZIE BOOTH read notes of a case of this nature where marked hyperæmia came on after a rupture of the drumhead from blowing the nose, and lasted nearly three weeks.

Recovery from Catarrh of Tympanum.—Dr. MACKENZIE BOOTH also detailed the case of an elderly gentleman who had suffered from advancing tympanic catarrh and its attendant deafness for many months, and who was relieved after the removal of a nasal polypus which had existed for many years.

Composite Photograph.—Professor OGSTON showed a composite photograph of the medical students forming the class of 1887-1888, taken by Messrs. G. W. Wilson and Co., Aberdeen.

Abscess of Liver.—Dr. GORDON showed specimen of abscess of liver, with glycerogelatin cast of the same. The case was that of a lad in whom the appearance was of doubtful import, and rendered the diagnosis exceedingly difficult.

Refraction Ophthalmoscope.—Dr. MCKENZIE DAVIDSON exhibited and explained the mode of use of Jessop's Refraction Ophthalmoscope

SOUTH INDIAN BRANCH.

ANNUAL MEETING.

FRIDAY, MARCH 2ND, 1888.

Surgeon-General G. BIDIE, M.B., C.I.E., President, in the Chair.

PRESIDENT'S ADDRESS.

Position of the Branch.—THE PRESIDENT, in beginning his address, showed that the Branch was in a flourishing condition; it now numbered 71 members, and had held eleven meetings during the year 1887. He referred to the bond of union which membership of the Association afforded, and dwelt on the great educational work which, directly and indirectly, the members of the medical services in India were doing.

The Educational Work of the Medical Services.—In thirty-two years, the period of the President's service, the number of civil hospitals in the Madras Presidency had increased from 38 to 349, and these institutions, small as some of them were, were yet the advanced posts of the movement to put skilled medical aid within reach of the entire population. Many lives were yearly sacrificed to the ignorance of native quacks, who still largely relied on incantations and charms. Even the better class of them clung to a system which was a feeble echo of the doctrines of Galen, while their anatomical knowledge was comprised in the doctrine that the navel is the principal seat of life, and the origin of all the vessels. The native population would not consent, even if it could afford, to pay fees which would remunerate educated men and women, and the only course which could be recommended was to render the native practitioners less dangerous to their patients; more could not be hoped. This might be done perhaps by disseminating cheap and simple literature, suited to the comprehension of the native practitioners, and by encouraging them to visit the hospitals.

Vaccination.—Though vaccination had been introduced into Madras in 1802 it was still in a backward state; not more than 17 per cent. of the children born were protected, and during the

twenty years ending 1885 the average annual mortality from small-pox in Southern India was 33,000. Vaccination from the calf had now been introduced, and the most bigoted and superstitious were thus left without the least excuse for continued opposition.

Sanitation in Southern India.—The annual average mortality from cholera, small-pox, fevers, and bowel complaints in the Madras Presidency was 330,000, and the task of stirring the natives to remedy evils traceable to the neglect of centuries was almost, but not quite, hopeless. The natives required to be taught to help themselves; India absorbed one-fourth of the gold and one-third of the silver produced throughout the world, and the country contained an enormous amount of dormant capital secreted in the bowels of the earth or locked up in useless jewelry; the people ought to be encouraged to invest their savings in loans for municipal and local improvements. Already town and village communities were beginning to recognise the extreme importance of pure water and removal of sewage as preventives of sickness. Future progress would largely depend on the energy, knowledge, tact, and sagacity of the officers of the medical service. The efforts made in India to exterminate cholera would be critically watched by the whole civilised world, which had grown to resent the devastating epidemics which moved westward from India, to devastate the cities, to restrict the intercourse, and to interrupt the trade and commerce of Europe. He did not shrink from the ordeal, feeling confident that his medical brethren of all grades would in this contest, as on the battlefields of former days, show that they could and would do all that men could do.

Surgical Cases.—A series of surgical cases were communicated by Surgeon-Major COOK, M.B., Civil Surgeon, Calicut. (1.) A case of severe compound and comminuted fracture of the thigh, involving the knee, in a native, aged 25. Amputation was refused, but the patient eventually did well, and left the hospital in ten weeks, though with a short leg and stiff knee. (2.) A case of comminuted fracture of the femur complicated by an extensive lacerated wound, in a native, aged 40. The patient did well, and recovered in two months, with little shortening. (3.) A case of gangrene of the left forearm due to improper treatment of a fracture of the bones by a native practitioner; the radius had entirely disappeared, and the upper half of the ulna, which was exposed and banging down, was removed. Symptoms of tetanus set in, but passed away under treatment by bromide of potassium and chloral hydrate. (4.) Another case of gangrene of the arm after native treatment of a fracture. The arm was amputated, but tetanus set in on the fifth day, and the patient died on the tenth day. (5.) A case of obliterative arteritis leading to spontaneous gangrene of the foot, in a woman, aged 39. Amputation was performed in the lower third of the leg. The patient recovered, and was discharged on the twenty-fourth day. (6.) A case of penetrating wound of the right lung in a native, aged 25. Air passed in and out of the wound, from which bright frothy blood also escaped. The sputum was blood-stained. The wound measured 4 inches by 2 inches, and extended through both pectoral muscles and the third rib. The patient had an attack of pneumonia, but was discharged well on the twenty-seventh day. (7.) A second case of penetrating wound of the lung, in a native woman, aged 25. The wound, an inch long, was situated just below the inferior angle of the right scapula; air passed in and out, and the immediate neighbourhood was emphysematous; there was also a wound of the mamma, from which milk flowed (the woman was suckling). She was discharged well on the thirty-fourth day. (8.) A case of wound of the abdomen with protrusion of omentum, in a native, aged 30. The omentum was washed and returned; the patient recovered without fever, and was discharged in a fortnight. (9.) Abdominal wound in a boy, aged 9, dividing the ensiform cartilage and exposing the anterior surface and border of the left lobe of the liver, which protruded from the wound, but was uninjured. The liver was pushed back, and the wound closed by sutures and strapping. (10.) Another case of penetrating wound of abdomen, in a boy, aged 12. The transverse colon could be seen through an aperture which admitted the forefinger. The boy recovered. And other cases, some of which will be published in full.

Specimens.—Brigade-Surgeon SIBTHORPE: Comminuted Extracapsular Fracture of Left Femur.—Surgeon J. SMYTH, M.D.: (1) Thrombosis of Veins; (2) Rheumatic Endocarditis affecting Mitral Valve; (3) Cyst Worm from Subperitoneal Tissue of Sheep; (4) Dislocated Testicle; (5) Glioma of Cerebellum and Medulla Oblongata, and Cyst of Cerebellum.

REVIEWS AND NOTICES.

NOUVELLE ICONOGRAPHIE DE LA SALPÊTRIÈRE: CLINIQUE DES MALADIES DU SYSTÈME NERVEUX. Publiée sous la direction du Professeur CHARCOT, par PAUL RICHER, GILLES DE LA TOURETTE, ALBERT LONDE. Janvier et Février. No. 1. Paris: A. Delahaye and E. Lecrosnier. 1888.

SOME years have elapsed since the publication of *L'Iconographie Photographique de la Salpêtrière*, an album of photographs and text, treating chiefly on the phenomena of hysteria in women, and published, under the direction of Professor Charcot, by Bourneville and Regnard. Since then, Professor Charcot's *clinique* has undergone many and important changes, both as regards materials, appliances, and the *personnel* of the department. To the original infirmerie, containing only female patients suffering from chronic diseases, there have been added new wards for the treatment of male patients and acute cases, and a *poli-clinique* corresponding to our out-patient department. The organisation and subdivision of the work was as complete as possible, and in the hands of assistants who have already become distinguished workers themselves. M. Richer still figures as the *chef de laboratoire*; the clinical and pathological work is done by the *chef de clinique*, assisted by a number of *internes*; and, amongst former *chefs*, we have a whole series of distinguished names, such as Cornil, Bouchard, Pierret, Pitres, Brissaud, Féré, Marie, and others. An excellent museum and a clinical laboratory supplement this branch of the *clinique*; the electrical apparatus, of the most elaborate description, both for physiological investigation and therapeutic application, is entrusted to M. Vigoureux; the ophthalmic department is under the direction of M. Parinaud; whilst M. Londe acts as photographer, and, presiding over the whole, like the chief of a military "general staff," we have Professor Charcot himself. Whilst every facility is given for the study of nervous diseases, in their physiological and pathological relations, therapeutics is not forgotten; and amongst the latest additions, we notice a complete system of baths, which will stand comparison with any of the best hydropathic establishments.

With such material and appliances, and so perfect an organisation, we can well imagine that each case is worked out in its fullest details; and the *Nouvelle Iconographie* will be welcomed by many besides those more especially interested in nervous diseases.

The work is edited by Messrs. Richer, Gilles de la Tourette, and Londe, under the direction of Professor Charcot, and published in two-monthly fasciculi, the first of which has just appeared. Though the authors modestly state, in the preface, that their intention is to make accessible to "others the numerous figured documents which accumulate day by day in the albums of the Salpêtrière," a glance at the first number shows that the scope of the work covers a much larger ground; and that, in the *Iconographie*, we have not simply a photographic representation of interesting cases, but rather a series of able articles, on new or little recognised points in aid of diagnosis and treatment of nervous diseases. Thus, in the first article, M. Gilles de la Tourette gives an exact description of the attitude and walk in hysterical hemiplegia, studied with the help of the graphic method, and illustrated by two excellent photographs. The second article is by Paul Richer, on the Morphological Anatomy of the Lumbar Region. The relation of the external configuration of the human body to disease has occupied the attention of several observers, and has lately been taken up again by Charcot and his pupils. In a recent number of the *Archives de Neurologie*, Babinski draws attention to the deformity of the hip produced by a hysterical affection; in the article before us, Richer speaks of the median prominence in the lumbar region of the spine which occurs normally, but which may be so exaggerated as to simulate a spinal deformity. That this is not generally known is shown by the history of a patient, who suffered from syphilis and hysteria, but in whom the spinal projection and the obscure nervous symptoms were held to be due to some organic spinal disease. On this hypothesis the actual cautery was applied, the indelible marks of which, together with the spinal lumbar protuberance, are well depicted in the photograph accompanying the article. The third article (the first part of which only appears in this number), by Paul Bloek, treats of Fibro-tendinous Retractions. This peculiar affection, the true nature of which has been recognised by Charcot, occurs in the course of spasmodic contrac-

tures, especially hysterical contractures, and is characterised by the persistence of the deformity during the chloroform narcosis. It is amenable to treatment by surgical interference—that is, cutting through the contracted and altered tendons—a treatment which, in the cases figured in this article, has given most satisfactory results.

The part concludes with a prototype of a picture by Albert Dürer, illustrating the passage in the Acts of the Apostles (chapter iii, 1 to 9) where St. Peter says to the crippled beggar, "Rise up and walk." This photograph is taken from a work, shortly to be published by M. Charcot, on the artistic representation of deformities, and of diseases in general. Charcot ingeniously shows that, in the picture before us, Albert Dürer had for his subject a person affected with leprosy, the characteristic features being given with such exactness that we can recognise that the leprosy, at the beginning of the sixteenth century, was of the same type and nature as the affection seen at the present day; the face, and especially the lips, show the nodular variety, the forearm and hand the atrophic form, with the characteristic atrophy of the interossei, and the flexed position of the forearm depicted with wonderfully correct anatomical details.

The foregoing brief account of the contents of the first part of the new *Iconographie* abundantly shows that, besides the collected *Leçons sur le système nerveux*, besides the numerous publications in the various journals, and the many important theses written by his inspiration, the indefatigable founder of the "Salpêtrière School" has enough material left for the publication of a great work, full of important and original matter, which is destined materially to advance our knowledge of those obscure and complex diseases, in the study and recognition of which M. Charcot has for a long time taken and kept the lead.

The work is got up in an excellent way. The style is easy, clear, accurate, and concise, and the illustrations numerous and of truly artistic merit.

A STUDENTS' MANUAL OF PSYCHOLOGY. Adapted from the *Katechismus* of F. Kerehner by DROUGHT. London: Swan Sonnenschein and Co.

THE publishers deserve credit for the series of educational books which they are translating and publishing. This manual is neatly got up, well printed, and handy. The medical student who is aiming at the higher degrees is expected to have some knowledge of mental pathology, and it is better for him if he have been trained to classify and define nervous processes. Psychology, though one of the most venerable and interesting of studies, has till recently been founded solely on introspection, and not on any really scientific basis.

Workers nowadays are eagerly rushing in to till the neglected fields of study, and already there are many followers of Herbert Spencer. The future of psychology will rest with careful observation of the development of the various mental faculties, and later the recording the variations in health and disease of the various sensory and other nervous reactions, and then studying the aberrant types and the effects of dissolution. This prospect is yet a distant one, and the workers must not suppose that they can discard all past knowledge which was gained by subjective study, and they must be as careful of the use of terms as their predecessors. The manual under notice is eminently well suited for the student who is preparing for the study of mental functions in health and disease. It is brightly and clearly written, and has nothing repellant to the "intelligent student." The author not only gives clearly the opinions of others, but quotes authorities freely. His point of view is neither one-sided, empirical, nor purely spiritualistic; and he devotes particular attention to consciousness, imagination, the feelings, emotions, and passions.

The book consists of an introduction and two parts. In the introduction a very useful and complete history of psychology is given. Naturally it is only an epitome, but it is a satisfactory and trustworthy one. In summing this up he says: "It is evident that no dualistic view, in accordance with which man consists of two contrasted substances, can solve the psychological problem." Strict idealism is just as untenable; and, when speaking against materialism, he says: "Facts permit us to conclude that there is reciprocity between these factors (soul and body), but not that they are identical. But experience teaches that body and soul rather lead a common life, with inseparable common developments." As to the method followed by our author, he says

that both the analytic and the synthetic have proved one-sided, and he prefers what he calls the "genetic." This method collects observations, but from established metaphysical standpoints. It proceeds, in the first place, like the investigation of Nature. It seeks to establish facts to find out a claim for them to mount to the universal cause of phenomena. But this genetic method then joins to this the speculative element, the inquiry into the nature of the soul, in order thence to comprehend phenomena. The observations include (1) the observation of one's own self, (2) one's own observation of others, (3) the self-observation of others, (4) the observation of others by others. On starting each fresh subject, an interrogatory is made, and the answer is clearly supplied, and any specially important words, or phrases are printed in italics, so that the salient points are readily recalled by the student.

In Part I the nature of the soul is considered, and consciousness is taken as the fundamental fact which is allowed by both idealist and materialist. The nature of consciousness is first studied, then the results of psychological research, and, finally, the metaphysical conception of the soul is developed. The questions are plainly stated, and the answers given are clear and concise; throughout the book there runs a pleasant humour, unusual for such a subject. Part II discusses the mental faculties, for though the author considers the soul to be substance which, as personality, animates the body and is a unity, yet it is not a mere homogeneity. In answer to the question, "What course will our discussion follow?" our author says: "Our Ego first becomes conscious of itself in ideation; we will, therefore, in the first place, treat of this. But since ideation is brought about by some perception, we have first to examine sensation; to this succeeds the discussion of feelings and of the phenomena of desire."

To discuss all this would be beyond the scope of a medical review, but we would recommend our readers to compare this work with that of Dr. Mercier on the *Nervous System and Mind*, recently published; for though the methods and the objects differ, yet both point to the more practical study of mental functions, which is the boast of the present time.

ESSAYS IN PREVENTIVE MEDICINE: Infection and Disinfection, the Health of Children, and the Period of Infection in Epidemic Diseases. By WILLIAM SQUIRE, M.D., F.R.C.P. London: J. and A. Churchill. 1887.

THE course of conduct to be pursued when an infectious disorder breaks out in a family ought to be determined from an intimate acquaintance with the natural history of the disease. There are few circumstances under which the opinion of the physician is more eagerly sought, and few under which the young practitioner appears to less advantage; the decision must be made on the moment and must be grounded mainly on the period during which infectivity is active. Measles, for instance, is infective before the rash appears, and is very frequently propagated at this early stage, so that it is hopeless to attempt to prevent its spread among those who have been in close contact with the patient up to the time of eruption; whereas scarlet fever is much less infective during the first day or two of sore throat than it afterwards becomes, so that an early separation gives good hopes of immunity. No man has contributed more to our knowledge of questions of this class than Dr. WILLIAM SQUIRE, and his essays here brought together contain much valuable information not only on average but also on exceptional periods.

The arrangement of the volume, which consists of detached essays written at various times, is somewhat defective, and the information on each disease is scattered, so that the labour of reading is needlessly increased, but no fault can be found with the matter of the book. The two essays "On Infection and Disinfection" and on "The Period of Infection in Epidemic Disease," read together, give a fairly complete account of the subject. Dr. Squire gives not only the results of his inquiries but also the cases upon which they are based, so that all the elements for forming an independent judgment are provided. He has some very judicious observations upon the nature of the processes which are going on during the period of incubation, and establishes that the variations in this period are to be traced to variations in the duration of the earlier of the two stages, of latency and of invasion, into which this period may be divided.

Dr. Squire makes one generalisation which will undoubtedly be found of considerable value, if only as affording a convenient help to remembering the facts; it has, however, a deeper significance,

being based on the natural characters of the diseases. He points out that the zymotic diseases, with regard to their behaviour in this respect, may be divided into two classes: (1) Diseases having a long incubation period, namely, variola, vaccinia, measles, "rubella" (rötheln), mumps, varicella, typhoid, and typhus; (2) diseases having a short incubation period, namely, scarlet fever, diphtheria, plague, cholera, yellow fever, diarrhoea, influenza, dengue, and erysipelas. Relapsing fever occupies an intermediate position; and whooping-cough, which would generally be reckoned in Class 1, in reality belongs to Class 2. The generalisation to which we refer is that infection is generally spread during the early or invasion stage of Class 1 and during the later stages of Class 2; the long period of invasion increases the chances of infection during that stage, while, as a rule, diseases of the class terminate suddenly, infection ceasing at a comparatively early period of convalescence; in the case of measles, for instance, the duration of personal infection probably never exceeds three weeks. The diseases in Class 2 present a marked contrast, for the short period of incubation minimises the dangers of infection during the onset of the disease, while the liability to relapses and to prolonged definite sequelæ extends the period during which infection is possible far into convalescence: in consequence, these diseases are most commonly spread at the end, during the period of convalescence, so-called. The use of the one term "convalescence" to express the stages which follow the subsidence of the pyrexial period of zymotic diseases is a little unfortunate; for, as Dr. Squire has well brought out by his classification, the virus of the disease may continue to be present during this time in an active state; though the patient has conquered the disease, it must not be forgotten that virus is still being eliminated.

A large number of problems which are constantly arising in practice are ably discussed by Dr. Squire; for instance, if children have visited at a house where scarlet fever subsequently breaks out, how long they must be kept from school, the proper time to send children who have had scarlet fever for change of air, and the infectivity of catarrh and of tonsillitis, to mention only a few. These and many cognate questions are dealt with in a second essay "On the Period of Infection in Epidemic Disease." The volume contains also a valuable practical essay on Infection and Disinfection, especially in its relation to domestic hygiene.

NOTES ON BOOKS.

Studies in Pathological Anatomy (especially in Relation to Laryngeal Neoplasms). (1) Papilloma. By R. NORRIS WOLFENDEN, M.D. Cantab., Senior Physician to the Throat Hospital, Golden Square, and SIDNEY MARTIN, M.D. Lond., Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park. (London: J. and A. Churchill. 1888.)—This pamphlet, which we understand is the first fasciculus of a projected systematic work, affords evidence of the great strides by which laryngology is advancing, and is, at the same time, an excellent example of the way in which a speciality ought to be studied. The conflicting opinions which have been expressed as to the prognosis in the case of the Emperor Frederick of Germany have shown the need for a thorough overhauling of the pathological facts with regard to laryngeal neoplasms. To this task Drs. Wolfenden and Sidney Martin have set themselves, calling in the aid of the most recent histological processes and the best art of the lithographer. Next to an examination of the specimens themselves, nothing can be more instructive than a study of the excellent coloured plates executed by Messrs. Danielsen. Each plate has a key plan, which is a useful guide to its comprehension. The authors detail the process used in preparing the microscopic specimens, and leave nothing to the imagination except the naked-eye appearances of the growth, an omission which they may be recommended to repair in future fasciculi. They express in very decided terms the opinion that the nature of a growth can be determined only by microscopical examination of a portion removed, but reserve for future discussion the diagnosis between papilloma and epithelioma, and the all important question whether papilloma degenerates into epithelioma. We understand that the fasciculus has already been translated into German, and will shortly be published in that language.

RETURNS just issued show that the death-rate in St. Petersburg has been unusually high this spring, namely, 40.9.

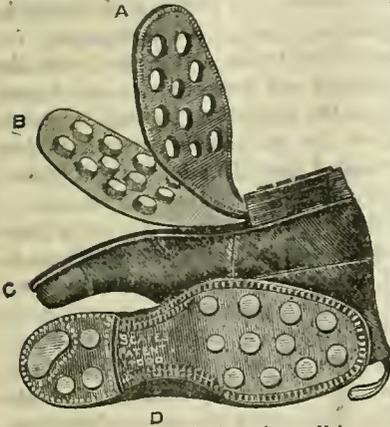
REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SCAFE'S WATERPROOF BOOTS.

A BOOT with a sole of a novel and ingenious construction, in which leather and india-rubber are combined, has been submitted to us.

A thin india-rubber sole (B) is inserted between the inside sole (C) and outside sole (A). The outside sole of leather is pierced by holes through which studs attached to the india-rubber sole are passed, and form slightly raised projections or cushions of india-rubber, which are said to wear equally with the sole. The boot as completed is represented at D. The boots are considered specially adapted to the use of the medical profession, as they are waterproof at the sole without being unduly

heavy; they are noiseless in walking, and the india-rubber studs prevent slipping and render them more durable. The boots it is thought would also be well adapted for Alpine work. They are the invention of Mr. Scafe, of the Leather and Rubber Boot Company, 20, Albion Street, Leeds.



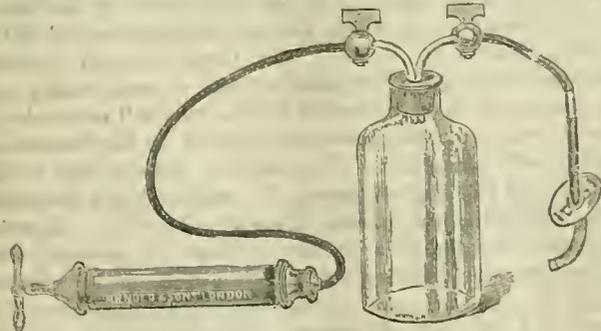
SCOTCH OATEN.

(CARR AND Co., CARLISLE.)

THIS preparation consists of the finest Scotch oats, carefully deprived of all husk, and so crushed that the form of the grain is still distinctly discernible. The cellulose amounts to only 1.2 per cent. Scotch oaten makes excellent porridge.

"MEMBRANE" ASPIRATOR FOR CASES OF DIPHTHERIA AFTER TRACHEOTOMY.

THIS instrument is intended to obviate the necessity of applying the mouth in order to suck out an obstruction from a tracheotomy tube in cases of diphtheria. It consists of a bottle in which more or less of a vacuum is produced by an exhausting syringe, and to which is appended a tube having a tapering nozzle of rubber or vulcanite which will fit into any tracheotomy tube. A pint bottle is of sufficient size, and the tapering rubber cork will adapt itself to many different bottles. The instrument has been so well made that a sufficient vacuum can be maintained for at least twenty-four hours. The bottle being kept exhausted (or it



can be rapidly exhausted), the nozzle only requires to be placed in the tracheotomy tube, the tap turned, and any fluid or membranous obstruction will be sucked up through the rubber tube into the vacuum bottle. In practice it will be found advisable to

exhaust the bottle night and morning, and to keep it by the bedside. It will then be ready for use at a moment's notice.

Although it may not be possible to have the above for every private case, its use in hospitals after tracheotomy for diphtheria will, it is hoped, be the means of saving valuable lives. At any rate, there should be no necessity for any surgeon to risk his own life by sucking at a tracheotomy tube to remove obstructions. The instrument has been made for me by Messrs. Arnold and Sons, of West Smithfield.

T. FREDERICK PEARSE, M.D., F.R.C.S.

THE SWISS MILK COMPANY'S PREPARATIONS.

THE Swiss Milk Company have added to their Pure Compressed Milk Extract (previously noticed in our columns), consisting of skim milk completely deprived of water, three very good and useful milk preparations; the most important is Pure Compressed Cream Milk, which represents the solid matter of whole milk, including all the fat of the original milk. The preparation is distinguished by being perfectly free from all rancidity; it is quite sweet, mixes readily with warm water, and thus yields good, palatable milk. The preparation represents the highest possible degree of concentration which can be attained, and is sure to be appreciated.

The same company manufacture a Sweetened Compressed Milk Extract, consisting of milk solids, with a moderate amount of cane-sugar, and Chocolate and Milk in Powder. Both are well made, sound, and of good quality.

PERFECT FOOD BISCUITS: WHEATENA BISCUITS.

(Messrs. S. HENDERSON AND SONS, Edinburgh.)

THE use of whole-meal flour as such, and in the manifold application in food preparations, is evidently becoming very general, judging by the numerous articles containing whole meal which are brought under our notice. The above biscuits are excellent whole-meal preparations. The "perfect food biscuits" are particularly rich in albuminoids, while the lighter wheatena are most palatable and nutritious. They form creditable additions to the list of high class biscuits made by Messrs. Henderson and Sons.

RIZINE.

RIZINE consists of whole rice grains completely deprived of husk and indigestible cellulose, cooked and crushed into very thin laminae, which readily swell up in warm water, and with very little further preparation form a food ready for the table. Rizine makes very good milk puddings, and is particularly well adapted, in conjunction with milk, for nursery use.

SALT'S "RUBY-BACKED" CLINICAL THERMOMETER.

MR. SALT (69, Corporation Street, Birmingham) has designed (in co-operation with Mr. Hlicks) and patented what he describes as a "new ruby-backed clinical thermometer." This is an elegant little instrument in a metal case, the novelty of which consists in the background of the index being of a ruby tint, whereby the mercury is rendered much more easily visible. It appears to be clearly and carefully scaled, and to be very accurate.

THE PNEUMATIKON.

MR. EDMUND F. T. PRICE, M.B., C.M. Edin., writes: In the JOURNAL of May 26th Mr. J. Brindley James describes, under the name of the "Pneumatikon," a respirator, which he has registered, and of which he gives a drawing.

I think it right to mention that a respirator similar in principle and construction, devised by Dr. Andrew Smart, of Edinburgh, has been in use here for some years.

Dr. Smart, in a lecture delivered to the Edinburgh Health Society, on the harmful effects of dusty occupations, and published in his book, *Germs, Dust, and Disease*, in 1883, showed and described this instrument as a "respirator designed to warm, filter, and medicate the air in its passage to the pulmonary organs."

The above facts are well known to me, as I assisted Dr. Smart in the out-patient department of the infirmary here, and consulted him before bringing the matter under your notice.

IODIFORM ERUPTIONS.—In the *Annales de Derm. et de Syph.*, 1888 (p. 190) two cases are related in which an eruption was produced by the application of iodoform. In one case the face was the seat of violent erythema, with the formation of small bullae; and in the other the lesions were not unlike those produced by a burn in the second degree. In each case, by the substitution of boracic dressings for iodoform dressings, the symptoms rapidly subsided.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 9TH, 1888.

THE FORTHCOMING GLASGOW MEETING OF THE BRITISH MEDICAL ASSOCIATION.

WE publish in another column the programme of the forthcoming meeting of the British Medical Association in Glasgow, being its fifty-sixth annual meeting. These preliminary particulars will make it sufficiently evident that the arrangements, scientific and social, are on a scale adequate to fill the frame of what will undoubtedly be one of the largest gatherings which this great Association has ever yet held in its long, prosperous, and brilliant course. Glasgow could not fail to be a great centre of attraction on many grounds. Its rank among the first cities of the Empire, and among the greatest seats of academic learning, scientific research, and practical medical teaching; its situation at the gate of the most picturesque scenery within the limits of the three kingdoms; the public spirit and hospitality of its municipality and its citizens; the numbers, energy, ability, and spirit of the medical profession of Glasgow and throughout Scotland, are all earnest of the brilliant reception which awaits the Association on this great occasion, and of the wide range, completeness, and attractiveness of the arrangements for ensuring success in all the departments of the work of such a meeting. The Association will meet in the newly completed and magnificent buildings of the University. The authorities have generously placed all the resources of this monumental building at the disposal of the Association, and have thus secured for its meetings halls and chambers fully adequate to the requirements of even so great a gathering as this, with all its numerous sections and committees.

To add to the attractiveness of the meeting and the admirable qualifications of the site, it is only necessary to mention that the University buildings looks down on the picturesque grounds on which is placed the great Exhibition which is now being carried on at Glasgow with such signal success. It is only to be feared that the immediate proximity of this unrivalled industrial and art show, which is now attracting hundreds of thousands of visitors weekly, may prove somewhat distracting to the members of the Association. As against such attractions, however, it will be noted that there will be provided scientific and practical material of extreme value.

A Committee has been appointed to compile a Handbook of the Medical Institutions of Glasgow, a copy of which will be presented to every member attending the meeting. The articles are written by gentlemen connected with the various

institutions described. The editorship of the volume has been entrusted to Dr. James Christie. Among the entertainments it may be mentioned that a *conversazione* will be given by the Professors of the University, at the University, on the Wednesday evening of the meeting, and a further *conversazione* by the Corporation of Glasgow, on Friday evening.

The meeting will be presided over by Professor Gairdner, and the addresses will be delivered by Dr. Clifford Allbutt, Sir George Macleod, Dr. Macewen, and Professor McKendrick. In all the Sections the practice is maintained of arranging for discussions on the leading clinical topics of the day, with the aid of those eminent physicians and surgeons who are known to be especial authorities on the subjects to be treated, and it is only necessary to inspect the preliminary programme (see page 1241 *et seq.*) to be assured that the scientific and clinical proceedings of the meeting will be of very marked interest.

The general affairs of the Association have singularly prospered throughout the year; its material progress continues to be most satisfactory, and its work is progressing in every direction. Of the number of new Branches which are seeking to affiliate themselves with the Association, or which are already in useful activity throughout the world, we speak elsewhere. It is impossible to regard this continued extension of the British Medical Association throughout the great dominions, colonies, and dependencies of the empire without feeling that such extension is full of promise for the social and scientific future of the profession. Through the medium of the JOURNAL the members of our common profession throughout Greater Britain are thus enabled individually and collectively to keep touch and to grasp hands. We on our side are strengthened and enriched by the new experiences of our brethren in the distant regions and various climates of this great empire. The great social problems as well as the scientific researches which occupy us become simultaneously the common possession of all our colonial and distant colleagues, and on our side we learn what are the new questions, the new goals, and the new solutions on which they are intent.

In other respects, also, the progress of the Association and its continually extending usefulness are plainly evident. The work of the Scientific Grants Committee and of its Research Scholars, and the work of the Collective Investigation Committee, afford solid evidence of the success with which scientific interests are being promoted. Progress will also be announced in a new direction in the draft report of the Therapeutic Committee, of which the foundations were laid at the recent meeting at Dublin. This Committee will probably arrange to secure the assistance of fifty or more leading men in different parts of the British Islands, who will undertake to investigate therapeutic questions suggested by the Committee, and record their results. The records of cases of busy practitioners will be obtained through the medium of the Branches, who will, in the first instance, discuss local results. Especial attention will be paid to the opinions of members who differ from the majority, and efforts will be made to distinguish the special causes or conditions of experience which may lead to such difference. This inquiry is in the hands of a most competent and highly skilled committee, and after examining the proposals now in hand for carrying out this scheme, we entertain no doubt that the future work of

the Therapeutic Committee is likely to be among the most valuable results of the associated action of the members of our society. The formation of the library, which is now being commenced under favourable auspices, will be an additional topic of congratulation, and generally it may, we believe, be said that rarely, if ever, has any meeting of the Association come into view under more agreeable, prosperous, and promising conditions than the great meeting which is to be held at Glasgow in August.

The Association has met only twice before on Scottish ground, and each time in Edinburgh. Its first meeting in Edinburgh was under the presidency of the philosophic Alison, and its second meeting under the distinguished chairmanship of Sir Robert Christison.

The first meeting was coincident with the great political success of the Association in obtaining from Parliament the Medical Reform Act, which was the Magna Charta of registered practitioners, which swept away territorial limitations to corporate influence, which enabled for the first time Scottish practitioners to practise freely in England as well as on their own soil, while it established an equal supervision over medical education. The announcement of the passing of the Act arrived in Edinburgh at the moment of the meeting, and was welcomed throughout the country with great enthusiasm. The influence of the Association has but yesterday been exercised with equal advantage in obtaining for the medical profession and for practitioners throughout the three divisions of the kingdom direct representatives on the Council; and the political influence of the Association, which has always been exercised for the benefit of the profession at large, apart from any individual corporate interests, grows day by day, under conditions which ensure that it will always have equally popular aims and equitable uses.

We publish elsewhere an account of what will undoubtedly prove very attractive to the great mass of our members attending the meeting, and that is the excursions already planned to the unrivalled scenery of the Highlands, and the innumerable attractions of the meeting in the land of Burns and Scott. Few members, probably, will leave Scotland without becoming more intimately acquainted with the rare beauties of its mountains, glens, and lochs, and without visiting some, at least, of the historic spots glorified by the genius of Scott and consecrated by association with Burns. It is but reasonable to anticipate that such a meeting will not only serve the purpose of scientific progress and intellectual recreation, but that it will also tend to widen the basis of fraternal union, and strengthen the bond of friendly intercommunication.

OUR DISTANT BRANCHES.

"*OPIFERQUE PER ORBEM DICOR*" might be a very appropriate motto for the British Medical Association, as it is indeed a suitable badge for the whole of our profession. The distant Branches of the British Medical Association in the Empire of India, and in the great Australian Continent, take to their work in a vigorous and able manner, which plainly testifies to their vital energy, and to the wide sphere of usefulness which they successfully occupy. Inspiring themselves with the traditions of professional unity and public effort which are the

watchwords of our work in Great Britain, and availing themselves of the free autonomous constitution which all our Branches enjoy, the most distant Branches of the Association, whether in Jamaica, British Guiana, or in the great dependencies, are addressing themselves vigorously not only to the cultivation of medical science and good fellowship, but also to the solution of the larger questions of social and sanitary administration, in which medical men when united—but only when organised and acting in concord—are able to exercise so powerful and valuable an influence.

Branches of the Association are now flourishing in Adelaide and South Australia, Melbourne and Victoria, Sydney and New South Wales; in the North-West Provinces of India, and in South India and Madras (to which will shortly be added a Branch in the Punjab); in Canada (Halifax); Bermuda, British Guiana, Jamaica, and Ceylon. Branches are in course of self-formation in the Mauritius, Tasmania, Kimberly (South Africa), and Malta. The circumstances of such Branches, the particular needs of the members for their mutual professional and social advantage and for the public good, necessarily vary very widely in countries so differently placed as to the surrounding population, administration, climate, and social organisation. We publish in another column abstracts of two addresses by the Presidents of distant Branches of our Association, which will be read with great interest. Our pages frequently bear evidence of the valuable clinical and scientific work which is being done in these Branches.

The address of the Hon. Dr. J. M. Creed to the Sydney and New South Wales Branch (formed in 1880) was chiefly concerned with administrative matters, which he discussed in a spirit at once practical and scientific. A scanty population engaged in pastoral pursuits does not miss laws providing for the registration of births and deaths, or restricting the practice of medicine by imperfectly trained persons, and finds in quarantine the readiest defence against the importation of infectious diseases, which at the worst can spread but slowly among a scattered people.

But in Australia these days are over, and nowhere, evidently, is this more keenly felt than in Sydney, which, according to the most recent information at our disposal, contains, with its suburbs, a population of 300,000. Dr. Creed, who, as a member of the Legislative Council, is intimately acquainted with the temper of the politicians of New South Wales, afforded in his address several illustrations of the difficulties which a young and growing community has to face when its urban population begins to assume large proportions.

One of the first and most pressing demands of sanitary reformers is an efficient system of registration of births and deaths, for upon a knowledge of the prevailing forms of fatal disease sanitary enactments must, so far as they are not drawn from the codes of other countries, be based, and by it the success of sanitary administration must be tested. The registration at present in force in New South Wales is very imperfect, but there seems to be some prospect that the Legislature may sanction the establishment of a more efficient system. The whole of Australia appears to stand at the present moment in a peculiarly dangerous condition as regards small-pox; vaccination is much neglected, chiefly it would seem owing to the absurd prejudices aroused by the clamour of the people called

"antivaccinationists." There seems to be no prospect that a law making vaccination compulsory could be passed in the present state of knowledge and political development in the colony, and the only remedy which can be suggested is the appointment of a special standing Commission to investigate every case of alleged injury following vaccination in the colony, and to report for the information of the public; in this way it is hoped that a healthier public opinion might grow up, and that in time it might become the rule rather than the exception for parents to have their children vaccinated. At present the whole country lives in a state of constant dread of the importation of the disease; the expenditure in quarantine stations, isolation, and inspection—the latter sometimes, it would seem, involving the use of a special train—must be considerable, but would of course be hardly worthy of consideration were there any good hope that such measures would be permanently effectual. People, however, who entertain such hopes deliberately take risks which they would not dream of incurring in ordinary matters of business; sooner or later the disease, as Dr. Creed said, will reach the country in a virulent type, will override the barriers raised by quarantine and isolation, and then it is to be feared that we shall witness such an epidemic as that which devastated Montreal.

One other point of great local, and of some general, interest was touched upon by Dr. Creed, who sketched the progress of the movement on foot to place the practice of medicine under proper regulations. At present the Australasian colonies appear to be overrun by untrained and incompetent practitioners who constitute a real danger to the general public, who are not able always to distinguish between knowledge and self-assurance. We published last autumn some excerpts from the evidence given before a Select Committee, appointed to inquire in New South Wales into the matter, but the title was not told, and the first effect of the publication of this evidence in the colony has been to convince leading men of all professions that some restrictions must be imposed which shall enable the public to draw accurate inferences. An important letter, signed by Sir Alfred Stephen (Lieutenant Governor), the Chief Justice, the Bishop of Sydney, Cardinal Moran, the heads of the other religious denominations, the Mayor of Sydney, and the President of the Chamber of Commerce, has been addressed to the Government, urging the necessity for immediate legislative action.

The topics which occupied Surgeon-General Bidie, C.I.E., in his presidential address to the South Indian Branch meeting in Madras, were also questions of sanitary legislation and administration, but the problems to be solved in India are, if possible, of greater complexity. The Indian Medical Service, which supplies the sanitary advisers of the Government of India, has to deal with a teeming population, steeped in ignorance and superstition, and ready to attribute the terrible devastation wrought by cholera, fever, and other zymotic plagues to the inscrutable decrees of fate. Dr. Bidie chose a striking comparison to bring home to us the enormous mortality caused every year in the Madras Presidency by cholera, small-pox, fever, and bowel complaints. He showed that the actual deaths produced by that pastime of princes, called war, were but a trifle numerically when compared with the mortality caused in Southern India by these four classes of dis-

ease. He stated that, in the fifty years ending 1886, the total losses to England, France, Germany, and Austria on battle-fields amounted to 368,000, whereas the annual mortality from the above mentioned preventable diseases in the Madras Presidency alone was 339,000. Dr. Bidie gives a deplorable account of the sanitary condition of the towns and villages studded through the country; by the filth and neglect of centuries they have been rendered terribly foul, and the people are only slowly being aroused to a consciousness of the consequences of their sanitary surroundings.

The statesmanlike character of Dr. Bidie's main proposal for remedying these defects will be generally appreciated. The first step must be to make the people themselves realise that the improvements must be carried out speedily, and that they must find the money; so far they have been treated too much as though they were paupers, and the habit of self-help has not been formed. India, it is said, absorbs about one-fourth of the gold and one-third of the silver produced throughout the world, and there is reason to believe that there is an enormous amount of dormant capital throughout the country buried in secret hiding-places, or locked up in useless jewellery. Dr. Bidie believes that if the people could be made to see the advantages of municipal and local improvements, this dormant capital might be utilised. He thinks that the capital necessary for carrying out such improvements might be borrowed at 3 or 4 per cent. if the loan were issued in small bonds (Rs. 10). It is certain that such a scheme would have to be worked by very judicious officials if it is ever to be successful; but there can be little doubt that if it could be floated, it would confer great benefits on the people, not only by the good effects produced by the public works undertaken, but also by facilitating loans to individuals and other financial and commercial transactions.

Dr. Bidie truly said that the efforts of the sanitary advisers of the Indian Government to exterminate cholera will be critically watched by the whole civilised world. How difficult the task is perhaps few of the critics understand, but Dr. Bidie is confident that his comrades will not shrink from the ordeal, and will do all that men can do. Still, men cannot work miracles, and the evils which exist can only be remedied by a judicious expenditure of capital, and by a plentiful stock of patience; the accumulated sanitary evils of centuries and the habits of scores of generations cannot be set right by legislative enactments. Unless the people can be won over to the side of the enactments, but little amelioration can be hoped for.

THE annual *conversazione* at the Royal College of Physicians of London will be held on Wednesday evening, June 27th.

THE second *conversazione* at the Royal Society, held on Wednesday evening last, was largely attended, and the ladies, for whose benefit it is mainly intended, were delighted by the exhibition of numerous scientific curiosities.

THE discussion on the papers on "Electrolysis in the Treatment of Diseases of Women," which were read at the Obstetrical Society of London on Wednesday night, June 6th, was adjourned to a special meeting of the Society to be held at 8 p.m. on Thursday, June 21st.

We regret to announce the death of Mr. De Bardt Howell, on June 5th. Mr. Howell had left his home near Elstree to walk a short distance to the station, when he felt indisposed, returned home, and in a few minutes expired. In consequence of this sad event Mr. Mark Howell, who has been in attendance upon the Emperor Frederick continuously since August last, has left Potsdam. His place will be supplied by Dr. Krause.

THE QUEEN'S BIRTHDAY.

The medical officers to the Queen and her Household were well represented last Saturday at the ministerial and official banquets, Sir William Gull, Sir Prescott Hewett, and Dr. Laking dined with the Lord Chamberlain; Sir Edward Sieveking with the Lord Steward; Sir William Jenner with the Master of the Horse; and Sir Spencer Wells with the Duke and Duchess of Buccleuch (Mistress of the Robes). The Marchioness of Salisbury's reception at the Foreign Office was attended by Sir James Paget, Dr. Laking, Sir Edward Sieveking, and Sir Spencer Wells.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

The election of three Fellows to fill the vacancy caused by the retirement, in due course of time, of Sir Joseph Lister, Mr. Cadge, and Mr. Bryant, will be held at the College on Thursday, July 5th, the ballot to commence at 2 o'clock. Sir Joseph Lister has positively decided not to offer himself for re-election; Mr. Bryant and Mr. Cadge will, we understand, appear in the field. It is probable that Mr. Pick (date of Fellowship 1866), Surgeon and Lecturer on Surgery, St. George's Hospital, will contest the vacancy. No provincial Fellow has as yet offered himself as a candidate. We may observe that all applications must be sent in to the Secretary of the College not later than Monday next.

MR. BRYANT.

On Thursday, May 31st, in the Anatomical Theatre of Guy's Hospital, a testimonial from the past and present students was presented to Mr. Bryant. The testimonial took the form of a handsome silver punch-bowl, with an illuminated book containing photographs of various parts of the hospital, and the names of the subscribers. Mr. Drew, the senior house-surgeon, in a few well-chosen words, presented these to Mr. Bryant, in the presence of the sisters and a large number of the students. Mr. Bryant then returned thanks for the handsome gift, and for the kind manner in which it had been given; he remarked that he had not severed his connection with Guy's; that he had been a student there for forty years, and hoped to remain a student still. One of his chief causes of regret at leaving was that he would no longer mix with young men. He then gave a few words of advice to those present, telling them not to rely too much upon their teachers, but to work for themselves. He concluded by expressing the hope that all would become successful members of the profession.

A SOURCE OF INFECTION.

To obstetricians, who need to be constantly on the look out for possible sources of puerperal septicæmic infection, the following case, revealing a somewhat unusual, or at least unexpected, source of danger, sent us by a correspondent, will have some interest:—"A few months ago," he states, "I confined a woman of her seventh child. Immediately after birth she developed unmistakable signs of so-called puerperal fever, which rapidly terminated in death. During and after the confinement I carried out the strictest antiseptic treatment. Part of the *post-partum* treatment consisted in washing out the uterus with an antiseptic twice daily; for this purpose I used an ordinary Higginson's syringe, with large catheter attached. The catheter I provided myself, taking care to use one which had never been used for any purpose before. The syringe

my patient provided me with was a new one. At the termination of the case I advised my patient's friends to burn the syringe and the catheter, this being, I thought, the surest way to prevent the possibility of subsequent infection from their being given out on loan. Quite recently I learned upon inquiry that the catheter had been burned, but the syringe had been "returned to the chemist" from whom it had been borrowed at a moderate charge per diem. The poorer classes are, it appears, in the habit of borrowing syringes in this way, and one at least of my professional neighbours sends his patients to the chemist to hire one when he finds they cannot afford to purchase. It is not difficult to see how, under these circumstances, puerperal septicæmia may be spread. I bought from the chemist one of the two syringes he keeps on hire; the other he told me had not been returned. 'Indeed,' he added, 'I lose on an average one in five months.' Although I put the one I secured beyond the possibility of future harm, unfortunately it is impossible to identify it as the one I used some months ago, which means that the stolen one is at large, possibly carrying with it puerperal septicæmic influences."

EXPERIMENTAL RESEARCH.

A PARLIAMENTARY paper just issued by the Home Office contains a report showing the number of experiments performed on living animals during the year 1887 under licence, distinguishing painless from painful experiments. The total number of persons licensed to perform such operations in England and Scotland was 82, all (save one foreign graduate) graduates of a British university, or Fellows or Members of royal colleges. Of these, 64 exercised their right. The buildings where such experiments are allowed to be made are 26 in number—9 in London, 9 in the provinces, 8 in Scotland. The number of experiments was 1,220, of which 582 were performed without anaesthetics. These were, with very few exceptions, simple inoculation experiments, and were consequently painless. The experiments were—physiological 237, pathological, 703, and therapeutical 280. The number of cases in which pain has been unavoidably inflicted during experiments conducted under certificates dispensing with anaesthetics, or with the killing of the animal on recovery, was 71—2 being physiological, 21 pathological, and 48 therapeutical. Comparatively few vivisections properly so called—that is, involving a distinct surgical operation on a living animal—were practised during the year. In all cases in which such experiments have been performed under the certificate dispensing with the slaughter of the animal before recovering consciousness, it has been made a condition that the wound should be rendered painless by antiseptic treatment, and, that failing, the animal should be destroyed. This condition has, the inspector believes, been faithfully fulfilled. The animals on whom pain was inflicted were 2 cows, 12 calves, 1 cat, 32 rabbits, and 24 frogs. In Ireland there are only four persons licensed, and the experiments, 11 in number, were all painless.

A REMARKABLE CASE OF NARCOLEPSY.

DR. CATON has recently had a remarkable case of narcolepsy in the Liverpool Royal Infirmary. The patient was a man, aged 37. He would fall asleep while standing, when selling articles in his shop, or even when walking in the streets. If he attempted to read or to sit in a chair he invariably fell asleep in a moment. During sleep a spasmodic closure of the glottis always took place, lasting nearly a minute. Violent contraction of the diaphragm and other respiratory muscles would come on, increasing in force, and the patient would get more and more cyanosed, until at length the violence of the inspiratory efforts partially roused him, and the spasm of the glottis yielded. Loud noisy respirations would now come on, and the cyanosis would disappear, to be followed by deep sleep and the same round of symptoms. This con-

dition has existed for six years, and constantly occurs by day and by night. When awake the patient is perfectly intelligent, and there is no evidence of organic disease. The kidneys are healthy, and secrete abundance of urea. Dr. Caton supposed that the symptoms were due to the formation of some narcotic alkaloid in the alimentary canal or the blood, and this view was strikingly confirmed by the results of treatment, most benefit being derived from a limitation of diet and the administration of charcoal and naphthalin thrée or four times daily. Under this treatment the drowsiness diminished considerably, and the spasm of the glottis disappeared altogether, but when the treatment was suspended for some time the symptoms returned.

MR. CHAMBERLAIN ON EDUCATION.

IN his recent speech at Birmingham, on the occasion of the opening of a new board school, Mr. Chamberlain made some remarks worthy of attention. As is well known, Mr. Chamberlain has long advocated free compulsory education under school boards, and in the speech to which we refer he dealt largely with this question, as well as with the present position of national and denominational schools. As a result of the analysis of statistics, accumulated since the passing of the great Education Act, some very unexpected results appear. In 1871 the accommodation in denominational schools was a little over 2,000,000; it is now 3,452,000, an increase of about 70 per cent. The average attendance was then 1,231,000; it is now 2,187,000, an increase of about 75 per cent. The grant in aid on the average attendance was then 10s.; it is now 17s., an increase of 70 per cent. It is thus seen that the national and denominational schools have not only continued to exist, but have grown enormously. This growth of the schools not under school boards is doubtless largely due to compulsory school attendance, and also in part to the existence of board schools, whose duty it is to receive all applicants, thus freeing the voluntary schools of many poor and troublesome children, who previously encumbered the educational work of the teachers and lowered the standard of results. In many cases the creation of a board school in a parish, by receiving the poorer children of the neighbourhood, has enabled the managers of the voluntary schools to raise their fees, and give better educational advantages. This competition may have its advantages, but it has certainly tended to crowd into many board schools a high percentage of poor, neglected, and ill-developed children. This is one of the reasons why we have often taken occasion to urge the public duty of inspection of board schools by some authority capable of examining the children as to their physical condition, reporting to the Board as to the number of defective and feeble children who exist in every large school, and who are unfit to work in the ordinary curriculum under the Educational Code. As Mr. Chamberlain says, there is no worse economy than stunting the education of the children. It is ignorant children that grow into criminals and paupers; and I wisely, therefore, he would rather spend £10 on the schools than £1 on the gaols and workhouses. The argument might be extended to the policy of sorting out the children of feeble and defective brain power, and making due provision for their education in auxiliary classes or schools, that they may not become paupers or criminals.

THE ELECTRIC LIGHTING OF THE PARKS.

IN connection with the public feeling which has been aroused by the recent outrage in Regent's Park, it may be hoped that official attention will be effectually directed to the question of rescuing the public parks from their present anomalous condition as unlighted and unguarded spaces, which at night are scenes of obstruction, danger, and demoralisation, instead of being areas of light and much-needed recreation. To aid this result it may not be inopportune to republish the following extract from the address

delivered in 1884 by Mr. Ernest Hart before the Society of Arts on the International Health Exhibition, its Influence and Possible Sequels:—"The practical demonstration which this exhibition, afforded of the eagerness of the English people to resort to healthful means of outdoor amusement was in itself a valuable result, and an important experience. The gardens, illuminated by the electric light and enlivened by music, were undoubtedly a great attraction.....I look upon this not merely as a means, but itself an end. It is no small thing to have acquired the conviction that our open spaces may be, and should be, much more largely devoted to the open-air recreation of the people than they are at the present moment. I say this now, without any intention of entering upon that large question, but with the specific desire to repeat (for it is only by repeating often that one can gain access to the minds of the majority who are all powerful in such questions) that it appears to me to be no small disgrace to this great metropolis that, in the very centre of its crowded districts, within an arrow's flight of the houses probably of most of us who are here, there lie great open spaces, such as Hyde Park (but what I say refers also to Victoria Park) which at night are dreary desolate areas of darkness, which are unlighted, which are dangerous to cross, which are unused in the evenings for any wholesome or moral purpose, which are often scenes for the display of some of the worst vices incidental to the lowest dregs of the population of the great City. Why should we not learn from the success of the music and the lighting of the gardens of the Health Exhibition, that our great parks should all be lighted by the electric light at night, and that throughout the spring and summer months the military bands should play there, and should make those places, which are now not only useless but scandals to the metropolis, the sites of healthful and innocent recreation? I have inquired from a good source what would be the cost of lighting Hyde Park by the electric light; and I am not speaking without data when I say that I believe that Hyde Park could be adequately lighted with the electric light, so that it might add to the resources of health and enjoyment for the teeming population surrounding it, at an annual expenditure of about £5,000. Nor is it likely that the example once set, it would end here. Our Eastern population have a right to the enjoyment of their parks in the evenings that could be conceded to the West."

THE CAVENDISH LECTURE.

THE earlier part of Sir William Stokes's Cavendish Lecture, which we publish this week, deals with a point in the history of medicine which has already attracted the attention of more than one writer both in this country and abroad, but there was still plenty of room for the view which Sir William Stokes, as a surgeon who has observed advances of his department during the present generation, has taken. Surgery has always been the handmaid of medicine, and however much individual practitioners may find it necessary to combine in practice the two departments of the one art, medicine may still, in one sense—that is, in order of time—claim precedence of surgery. The invasion by the surgeon of organs long believed to be beyond his reach is largely due to increased precision in diagnosis. Without the work of Ferriér and of Hughlings Jackson the surgeon would not know where and when to apply his trephine, and until the physician's powers of diagnosis have been still more increased and refined, obscure cases such as those so well described by Sir William Stokes must occur to disappoint the surgeon. It hardly seems necessary for surgery at this time of day to be sensitive about old social slights, for not even the greatest sticklers for an antiquated etiquette could claim more for medicine than that it is *primus inter pares*. The real phenomenon of the present age is the elevation of the apothecary, and his evolution into the general practitioner; the whole complexion of the profession has, indeed,

changed since a Court physician used to meet apothecaries at a certain hour at his coffee-house, and, after having symptoms described, advise as to the treatment of patients he had never seen, charging half a guinea for his opinion. It is only by extreme subdivision of the field of practice, and minute study of some chosen subject, that the so-called pure physician can now maintain his position.

OLYMPIAN WRATH.

THE customary placid calm of the Athenæum Club has been rudely disturbed by events arising out of a proposal made at the annual meeting to put an extra storey on the building at a cost of £20,000. The proposal was almost unanimously rejected, though it was urged that this was the only means of checking the annual deficiency in the income of the club. Had it been carried it was proposed to elect 250 new members, but being lost a committee was appointed to investigate the causes which led to an excess of expenditure over income, and [at the suggestion of several members who thought that an able and business-like medical man would strengthen the Committee, the name of Surgeon-General Balfour, F.R.S., was substituted in the balloting list for that of an eminent Queen's Counsel. This selection has been cancelled by the Committee, on the ground that no notice of the nomination had been given; but as no such notice was required, and the election took place in strict accordance with the by-laws, we hear the case will be brought before the law courts.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

WE may remind our readers that Mr. Bryant's two lectures at the Royal College of Surgeons on the causes, effects, and treatment of tension as met with in surgical practice, will be given on Monday and Wednesday next at 5 P.M., and the third lecture, on surgical interference in cranial injuries, on Friday at the same hour. Mr. Marcus Gunn's Arris and Gale lectures on light percipient organs will be given on corresponding days in the week following (June 18th, 20th, and 22nd), at the same hour. The customary syllabuses have been issued.

ENGLISH PRACTITIONERS PERMITTED TO PRACTISE IN SWITZERLAND.

AN eminent London physician forwards us the following telegram, received to-day from Switzerland (St. Moritz):—"A law permitting a limited number of English doctors to practise has been carried by an enormous majority." Our correspondent adds: "I forward this telegram to show you the successful result of the efforts of the BRITISH MEDICAL JOURNAL and its articles in favour of the English physicians. The law was carried in the Grosserrath of the Grisons, the Sanitatsrath having recommended that a commission should be appointed to consider the conditions and the proposals for practice. So the English doctors are much indebted to the BRITISH MEDICAL JOURNAL."

THE ROYAL COMMISSION ON UNIVERSITY EDUCATION.

THE various bodies concerned in University education in London appear to be all busily engaged in giving or preparing evidence for the Royal Commission on the Higher Education in London. On Saturday last, Sir George Young and Mr. Erichsen attended on behalf of University College, and it is understood that representatives of King's College will attend the next meeting on this day (Saturday). A committee appointed by the Senate of the University of London has met, and has selected witnesses to give evidence before a future meeting of the Royal Commission. The Committee of Convocation has also named representatives. The two Royal Colleges are not idle, for a meeting of the delegates was sum-

moned, at thirty-six hours' notice, to meet at the somewhat unusual hour of 9 P.M. on Friday evening, to consider a communication from the Royal Commission.

THE CASE OF SEXTUPLE PREGNANCY.

IT may be remembered that our Swiss correspondent last week mentioned an extraordinary case of multiple pregnancy which recently occurred at Castagnola, near Lugano, in Switzerland. A woman, aged 36, wife of the local *sindaco*, was delivered on May 4th of six children—four boys and two girls—at a birth. They were born alive, though prematurely, but they all died in a few seconds. Their united weight was only three pounds thirteen ounces, and the length of their bodies, which were perfectly well-formed, varied from $8\frac{3}{4}$ to $10\frac{1}{4}$ inches. The case, which is said to beat all previous *authentic* records of human fecundity, is vouched for by Dr. Francesco Vassalli, of Lugano, who attended professionally on the occasion, assisted by Drs. Bianchi, Reali and Solari, of the same place. Dr. Vassalli has reported the case in detail in the *Gazzetta Medica Italiana-Lombardia* of June 2nd, and an abstract of his account may be interesting. It has been stated that the woman had previously borne seven children in two batches of four and three respectively, but this is inaccurate. She was married only two years ago to a widower, aged 41, who had ten children by his first wife. There were no twins among these, but it appears that he has five cousins—brothers—each of whom is the father of twins. A sister of the patient has also borne twins on one occasion. The patient herself in the first year of her marriage had a boy who is now fifteen months old and in perfect health; she suckled him for eleven months, when she became aware that she was again pregnant. The catamenia had reappeared in the seventh month of her nursing, and the last period began on December 4th, and lasted six or seven days; conception must therefore have taken place in the early part of January. The patient suffered severely almost from the first from weakness of the legs and vomiting, and in the fourth month the abdomen was as large as it usually is at full term. On the morning of May 4th (being about the 115th day of pregnancy) whilst doing some light outdoor work, she felt a sudden desire to empty her bowels, and, on squatting down for the purpose, there was a gush of hot liquid from the vagina, which she recognised as amniotic fluid. She immediately went home, walking with much difficulty, on account of something which she felt protruding from the vulva. A neighbour was called in, who found a tiny fœtus hanging by the foot, which was speedily delivered. All this occurred within a few minutes. Dr. Vassalli was then summoned, and found the os only partially dilated, whilst an unruptured sac could be felt through it. There being no urgent symptoms, the patient was kept quiet, and, after passing a fairly good night, she got up the next morning to attend to her household duties, feeling quite well. Towards mid-day, pains came on with increasing violence, and she lost a good deal of blood. Seeing that abortion was inevitable, Dr. Vassalli thought it advisable to hasten delivery. He therefore punctured the membranes, and extracted a small fœtus by the foot. After tying the cord, he followed up the placental end with his right hand, till he came to another sac of fluid; this he also punctured, and delivered a third fœtus. Two more were extracted in the same way, the whole procedure occupying two hours. Fresh hæmorrhage now occurred, and the uterus did not contract. Dr. Vassalli therefore tied all the cords together, and made gentle traction, at the same time applying pressure to the womb. This failing, he introduced his hand into the uterus, and tried to bring away the placenta, which, however, he only succeeded in tearing, with the result of making the bleeding more alarming. Having no hæmostatics at hand, he sent for assistance, keeping his hand in the uterus meanwhile as a plug. It was four hours before help arrived; the

after-birth was then got away with some difficulty, a sixth fœtus enveloped in its own membranes being found attached to it. The patient bore the trying ordeal very well, and made a good recovery. The heads of the fœtuses were rather large relatively to the bodies, and the eyes were covered with the pupillary membrane. The genital organs were completely differentiated. There was only one placenta. The specimen has been placed in the museum of the R. Scuola Ostetrica, at Milan. Dr. Vassalli calls attention to the curious fact that Castagnola is rather remarkable for multiple births. From the official registers it appears that in a population of 585, from January 1st, 1876, to May 10th, 1888—that is, 13 years and 4 months—there was a total of 247 births. Of these 228 were single, and 19 multiple, the latter consisting of 5 cases of twins, 1 of triplets, and the present one of *sixtuplets*. The proportion of twin births, therefore, was 1 in 45, instead of Schröder's estimate of 1 in 89; and of triplets 1 in 228, instead of 1 in 7,910.

ANTHRAROBIN, A SUBSTITUTE FOR CHRYSAROBIN.

Dr. BEHREND (*Tierl. f. Derm. u. Syph.*, 1888, 2 IIeft, p. 261) has made experiments with a substance discovered by Professor Liebermann, of Berlin, named anthrarobin, which has an analogous action to that of chrysarobin and pyrogallic acid, being less active than the former and more active than the latter. It produces less inflammatory irritation than chrysarobin, and does not present the dangers of absorption which attach to pyrogallic acid. In dispensing it requires to be rubbed up with olive oil before being mixed up with the ointment basis. Ten and 20 per cent. ointments are used. Although it is insoluble in water, it becomes soluble by the addition of borax, and is also very soluble in alcohol and glycerine. Anthrarobin 10, borax 8, distilled water 80, is one formula; anthrarobin 20, borax 35, alcohol and glycerine each 90, is another formula. Anthrarobin stains the skin and linen, although not so intensely as chrysarobin, and so little irritation does it produce that it may be applied to the head and face, and even to the eyelids. The alcoholic tincture is preferred to ointment, and the action of this substance is much increased if the part is washed with soap, particularly potash soap, before it is used. It acted successfully in cases of psoriasis and erythrasma. It cures psoriasis less quickly than chrysarobin, but more quickly than pyrogallic acid.

SCOTLAND.

EDINBURGH PATHOLOGICAL CLUB.

THE Edinburgh Pathological Club, one of the most recent developments of scientific activity in Edinburgh, has increased its membership from twenty-five to thirty. The increase was made in consideration of the long list of applications for admission. Members are selected by ballot.

FAITH-HEALING AT DUNOON.

THE committee of the Dunoon Parochial Board, appointed to investigate this case, has presented its report, and fully corroborates the statements formerly made. The patient was prayed over and anointed with oil to cure her of paralysis, but became mad through religious excitement, and had to be removed to the asylum at Lochgilphead, where she still remains.

GLASGOW SOUTHERN MEDICAL SOCIETY.

THE last meeting of the session took place on May 31st. The President (Dr. McMillan) described a case of chronic cystitis in a young man, caused by the introduction of paraffin wax into the bladder. Lithotomy was performed, and paraffin and phosphatic calculi removed. Assisted by Dr. McIntyre he had illuminated

and examined the interior of the bladder with Leiter's cystoscope. This instrument was then shown to the Society by Dr. McIntyre. Dr. McIntyre also showed a ruptured popliteal aneurysm, for which amputation of the thigh had been performed by Dr. W. J. Fleming. The limb was much swollen by effused blood. The popliteal vein was completely occluded, and was adherent to the wall of the aneurysm. The patient had valvular heart disease, and a large aneurysm of the abdominal aorta. Dr. Erskine showed a sequestrum from the ear, consisting of the complete cochlea and some small fragments of the adjacent bone.

SANITATION OF THE MILK SUPPLY.

THE Glasgow Dairy Company, Limited, appears to be carrying on a well-organised effort to open throughout the city of Glasgow branches for the supply of milk and its products of guaranteed purity and excellence. The arrangements are under strict medical and sanitary supervision. A few years ago the milkshops in populous districts were in keeping with the insanitary surroundings of the farmyards and byres whence the supply came. These, it is said, are now giving place to shops where the trade is carried on not only with the requisite degree of cleanliness, but with surroundings which are pleasant to the eye and of primary necessity when dealing with dairy products. The arrangements for safeguarding the supply adopted by the Glasgow Dairy Company provide for the collecting of the milk in pitches, which are then strained and subjected to a course of refrigeration before delivery. All vessels are washed and cleansed by hot water and steam. The medical officer is Dr. Robert Bell.

WORKMEN AND THE VICTORIA INFIRMARY, GLASGOW.

At a meeting of workmen employed in the ironworks on the south side of Glasgow, a movement was set on foot for obtaining for working men some voice in the management of the Infirmary. Dr. Wallace, of Cardross, who addressed the men, explained the arrangement prevailing in Sunderland, where a penny per week or fortnight is given up out of their wages by the men. A fund is thus formed, under the control of a committee of the men, and payments are made out of the fund to the various charities, the men having also the privilege of electing representatives to the Infirmary Board of Management. The meeting approved of the proposal. Similar meetings are about to be held in connection with other works, and the scheme will shortly be put into operation.

GLASGOW SICK CHILDREN'S HOSPITAL.

THE dispensary in connection with this hospital is now rapidly approaching completion, and will soon be ready for the admission of patients. It is a handsome stone building, and will be admirably adapted for its purpose. In planning the internal arrangement, the architect has been very successful in his endeavours to simplify the work of the attendants and prevent confusion of patients. The central part of the building is a large octagonal hall or waiting room, and around this hall the various other departments are arranged. Patients will be admitted at one end of the building and pass out at the other. In a small entrance hall the cases will be registered and classified as medical or surgical, and will then be admitted to the waiting room, the medical on one side, the surgical on the other. The physicians' and surgeons' rooms are at opposite sides of the hall, and patients after having been attended to will not return to the hall, but will pass on to the apothecary's department. There the two streams of patients will again meet, and having received their medicine, pass out of the building. All the rooms are large and well lighted, and will be fitted up regardless of expense. The angles of the rooms, at ceilings and floors, are rounded off to prevent the lodgment of

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dust, and facilitate cleaning. As little wood-work is used as possible, free use being made of glazed enamelled bricks. The front part of the building consists of two storeys, and on the upper floor there is a committee room, sewing room, and other apartments. Outside of the main building there is a caretaker's house. In view of the early opening of the dispensary the directors of the hospital are now advertising for three physicians and three surgeons for this department, and numerous candidates are already in the field.

THE CHURCH OF SCOTLAND AND THE CONDITION OF THE POOR.

DR. J. B. RUSSELL'S lecture on *The City in which we Live*, published under the title of *Life in One Room*, some of the striking facts of which we quoted in our issue of March 10th, last, has attracted marked attention in high ecclesiastical circles. The General Assembly of the Church of Scotland, which has been holding its usual convocation in Edinburgh, has been invited by the Presbytery of Glasgow to give more attention to the condition of the people. The Glasgow Presbytery asked the Assembly to consider the misery and degradation in which a large percentage of the population of large cities lived, and declared that it was specially the duty of the Church of Scotland to care for the whole population, and to labour for their physical as well as their moral and spiritual well-being. They went on to urge the duty of the Church to devise new methods to aid in obtaining, for the poor, improved sanitary conditions and better dwellings, and in providing reading-rooms and other counter-attractions to intemperance. Dr. Donald Macleod, brother of the eminent Glasgow surgeon, referred directly to Dr. Russell's lecture, and noted that the number of people living in one-roomed houses, 126,000, was very close to the estimated numbers of non-churchgoers, 120,000. He considered it the duty of the Church to take up the question of the dwellings of the poor, and to create a public opinion on the subject which might issue in action of some kind. The Assembly enjoined Presbyteries to take what practical steps seemed to them possible and desirable, and resolved to issue a pastoral letter to the people, setting forth the duty incumbent upon all classes of society of co-operating in a united effort to amend a condition of things most injurious to the interests of morality and religion. If this be not a mere spasm of emotion which has passed over the Assembly, it may be the beginning of a movement destined to operate most beneficially in the interests of the physical well-being of the poor classes of the community, especially in large cities.

THE RECENT EPIDEMIC OF SORE THROAT IN EDINBURGH AND ITS RELATION TO THE MILK-SUPPLY.

At the meeting of the Edinburgh Medico-Chirurgical Society on Wednesday last (June 6th), Dr. G. Sims Woodhead and Mr. J. M. Cotterill read a paper of much interest on a curiously limited epidemic of sore throat, and suggested a relationship with the milk-supply. Mr. Cotterill was called to attend successively a large number of cases of sore-throat, occurring in an educational institution in the city. The grouping of the cases raised the suspicion of infection from a common source, and, after careful exclusion, Mr. Cotterill came to the conclusion that the mischievous factor was to be found in the milk-supply. This was accordingly suspended, when the sore-throat epidemic quickly disappeared. When the milk was recommenced sore-throats of a similar character appeared again. Then all the milk was boiled before use, when the epidemic similarly yielded. Dr. Woodhead's attention was accordingly called, and he instituted a careful examination into the condition of the cows from which the milk-supply in question was obtained. Most of the animals showed unmistakable signs of cow-pox in the scab stage. One cow, which had been

separated from the rest as specially healthy, and whose milk was devoted to the use of a hand-fed child, showed similar appearances. On inquiry it was discovered that the child, too, as well as other persons who had partaken of the special milk, suffered likewise from sore-throat of similar character. The clinical evidence thus appeared strongly to support the view that the milk was the medium of infection from the diseased animals. Dr. Woodhead then undertook a series of cultivations and inoculation experiments. He examined the matter from the teats of three of the diseased cows, and found streptococcus pyogenes in all; further, a very small bacillus in the discharge from two, and several other organisms in that from one. In the matter from the tonsils he discovered the streptococcus pyogenes, the slender bacillus, and a very small micrococcus. In two instances there was found, in addition, the short thick bacillus. By cultivation from these, and from the milk, no less than fourteen distinct organisms were separated. Of these, four were common to the milk, to the discharge from the sores, and to the tonsils, while seven were found common to the milk and the sores. It is possible that some of the others may be found common to the three sources, but so far they have not yet been obtained pure. Inoculation experiments were conducted on rabbits with the several pure cultivations whose derivation has been detailed. The results so far obtained have been entirely negative, the staphylococcus pyogenes amongst others not producing any effect, except a very slight amount of swelling and transient redness at the seat of inoculation. Inoculation was made by means of subcutaneous injection into the rabbit's ear.

IRELAND.

DEATH FROM HYDROPHOBIA.

A MAN named Harman died last Saturday, June 2nd, in Barrington's Hospital, Limerick, from hydrophobia. About three months ago, deceased was bitten in the hand by a stray cat, but no symptoms of the dread malady supervened until the evening of May 30th.

BELFAST ROYAL HOSPITAL: QUARTERLY MEETING.

THE usual quarterly meeting was held at the hospital upon May 28th, Mr. T. McClelland, J.P., presiding. The staff reported that during the quarter 532 intern patients had been treated, 88 operations had been performed, and the extern patients numbered 3,124. The financial report showed that the balance against the hospital, which was £823 at the end of the last quarter, was now £869. Two bequests, amounting to £1,000, had been received and invested on behalf of the hospital. Dr. Mackisack had during the quarter succeeded Dr. Dunlop as house-physician.

CORK DISTRICT LUNATIC ASYLUM.

A SPECIAL meeting of the governors was held recently for the purpose of taking into consideration the inadequate accommodation in the asylum at present. From the report of Dr. Dwyer, Resident Medical Superintendent, it appears that they had 103 inmates in the asylum over the certificated accommodation which included the hospitals. Should the latter be excluded, which contains 100 patients, there would be close on 200 patients over the certificated accommodation. Dr. Dwyer suggests that, when the additional building is constructed, it might be worth trying, in a small way, to copy the admirable institutions, the Royal Scotch Asylums, by converting a portion of it into accommodation for a better class of patients, whose friends would be prepared to pay according to the comforts bestowed on them. This would be a boon to people who object to private asylums, and the rates would not suffer, as they would more than defray their annual expenses.

After discussing the matter, and inspecting the sites proposed, the governors directed plans to be prepared for the erection of the building, to contain 300 persons, with one side for males and one for females.

THE GALWAY INFIRMARY.

WE are informed that the legal position with regard to the Surgeoncy to the Galway Infirmary was misrepresented in a paragraph published in the *JOURNAL* of June 2nd, page 1179, in so far as it was stated that the decision of the Court of Queen's Bench had rendered a new election necessary. Dr. Kinkead contends that the effect of the order is to validate his election, and has instituted proceedings to obtain a mandamus to place him *de facto* as well as *de jure* in possession of the appointment.

OUTBREAK OF RABIES.

PROMPT and vigorous action is now being taken by the police to check the spread of rabies which broke out some time ago in Tuam, and has lately spread with alarming rapidity. Many persons are said to have been bitten. On May 21st, a man who was fearfully lacerated by a rabid dog, which was ultimately destroyed, was with commendable activity on the part of the guardians despatched to M. Pasteur for treatment. The magistrates, on being made acquainted with the serious nature of the outbreak, issued special instructions to the police at the Belclare Barracks, who forthwith proceeded to every farm in the division, and shot all the dogs they could find. Another outbreak of rabies is reported from co. Armagh.

ROYAL MEDICAL BENEVOLENT FUND OF IRELAND.

THE forty-sixth annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held on Monday, June 4th, in the King and Queen's College of Physicians, Dublin; Dr. Little, President of the College, in the chair. From the report it appeared that the fund had suffered from the general depression, while the claims for relief had risen from 91 to 97. The grants amounted to £1,284, making a sum of £34,715 which had been distributed by the Society. A special "Jubilee" fund of £129 2s. had also been distributed. Mr. Thomson, Honorary Treasurer, submitted the statement of accounts, from which it appeared that the income was £1,608 5s. 11d., and the amount in bank stock £6,235 0s. 6d., which at present rates represents £18,586. The usual resolutions were passed, and the officers were elected for the ensuing year.

ROYAL COLLEGE OF SURGEONS, IRELAND.

THE annual election took place on Monday, when the following were chosen for the ensuing year:—*President*: Henry Fitzgibbon. *Vice-President*: Austin Meldon. *Secretary*: William Colles. *Council*: William Colles, Sir George Porter, George H. Kidd, Rawdon Macnamara, Edward Hamilton, Robert McDonnell, J. Kellock Barton, Philip Crampton Smyly, Edward H. Bennett, Anthony Hagarty Corley, Sir William Stokes, William Stoker, William I. Wheeler, J. Bellew Kelly, William Carte, Sir Charles A. Cameron, R. Theodore Stack, Kendal Franks, John Benjamin Story, Richard Francis Tobin. There were two candidates for the Vice-Presidency, Dr. Meldon and Dr. Frazer, the former being successful. Mr. Stack, Mr. Story, Mr. Kelly, and Mr. Tobin are new men. Mr. Corley, the outgoing President, headed the list for the Council, and it was felt that the vote of thanks to him for his conduct during his year of office was very well merited.

TREATMENT OF ECZEMA BY COLD POWDERS.—Dr. Veiel, in a paper on the treatment of eczema (*Monat. f. Prakt. Derm.*, 1888, p. 181), speaks highly of the soothing effects to be obtained in acute cases without exudation by the application of cold dry starch powder. Gauze bags filled with the powder are applied to the part, and kept cold by being covered with india-rubber bottles filled with ice and salt, which were frequently refilled.

ROYAL COLLEGE OF SURGEONS, IRELAND.

THE annual meeting of the Royal College of Surgeons, Ireland, was held on Saturday, June 2nd. Dr. A. H. CORLEY, President, occupied the chair.

The report from the Council, an abstract of which has already been published (No. 1431, p. 1179) was read.

Dr. CARTE bore testimony to the laborious duties of the Council during the past year.

Mr. THOMSON hoped that the Council would again try to divert the Carmichael prize fund into some more useful channel. The essays on Medical Education, which were periodically printed at great expense, were never read by anyone.

The PRESIDENT explained that at least one of the trustees offered strong opposition to the diversion of the fund to any other purpose. When the prizes were not awarded, and there was any balance on hand as a result, a sum had been handed to the Medical Benevolent Fund.

The report then passed.

Mr. WM. THOMSON then brought forward the motion of which he had given notice, namely:—

"That the Council of the College having failed to carry into effect the recommendation of the Fellows adopted at the annual meeting in June, 1887, namely: 'That it be recommended to the incoming Council to take the opinion of the Fellows by letter on the question of biennial presidency, as suggested in the resolutions of Council of March 17th, 1887, and of June, 1883, and that a meeting of the College be then called to consider the matter,' it is hereby resolved that the declaration of the Fellows, that a President of the College may hold office for two successive years be re-affirmed; that this rule shall take effect from June, 1890; that the Fellow who may be selected as President at the annual election in that year may so hold his office for two years; and that it be a recommendation to the Council to take such steps as may be necessary to give effect to this resolution."

He said the Council had failed in its duty to the College in not obeying its recommendation. Everyone admitted that change was necessary, but from the inaction of the Council a further period must elapse, during which the present bad arrangement must continue. He was prepared to accept any plan which would enable them to get the best men for the dignified position of the chair. That honour ought to be the reward of a life of professional activity and eminence; but there seemed to be a desire with some to reverse the natural order of events; sometimes the chair was taken by men who were not out of their professional teens, who had made no name by their works, and who rather sought success through the presidency. In saying this he only repeated what the Fellows said individually, and it was due to themselves to put an end to the system. In London, where there were plenty of men fitted to fill the office of President, the chair was occupied by the same person for more than one year, and it was absurd that in a city like Dublin they should have a change every year. An Ex-President should be raised above the rank and file; but at present he really went back to the ranks as soon as he left his office. He urged upon the Fellows to pass a resolution which would be effective in diminishing in some degree the evil of which they all complained.

Dr. MARTIN (Portlaw) seconded the motion. He said he had on a former occasion strongly opposed it, but he had since been converted to the necessity of such a change.

Dr. THORNLEY STOKER supported the motion.

Dr. CARTE and Dr. KIDD suggested that a motion should be passed referring the subject to the Council, asking them to submit a scheme to the College at an early date.

Mr. THOMSON accepted this suggestion, and a motion to this effect was unanimously passed.

The PRESIDENT expressed his cordial approval of the principle set out in the resolution. He had brought it before the College himself in 1874, when he was in a minority of three. He was glad to see that the Fellows were now in favour of a principle which he had then unsuccessfully brought forward.

Dr. E. HAMILTON submitted a motion rescinding the resolution of the special meeting of the Fellows in favour of the amalgamation of medical schools.

Mr. THOMSON rose to order. He submitted that no notice had been given of an intention to propose this motion, which was now sprung upon them.

The PRESIDENT pointed out that if a precedent were established now by allowing the motion to be discussed, it would be

a most inconvenient one, and he hoped Dr. Hamilton would withdraw it.

Dr. KIDD protested against a motion of this sort being sprung upon the meeting.

Dr. HAMILTON said the special meeting was not a legal one. The Fellows had not been sufficiently informed of it.

The PRESIDENT said he would not have summoned an illegal meeting.

Dr. HAMILTON said he had achieved his purpose in the discussion, and he would withdraw the motion.

The proceedings then terminated.

IRISH MEDICAL ASSOCIATION.

THE 49th annual meeting of the Irish Medical Association was held in the Royal College of Surgeons, Dublin, on Monday, June 4th, Mr. H. G. CROLY in the chair.

Dr. CHAPMAN, Honorary Secretary, read the report, which stated that the Council were full of hope that the Government would next session introduce a Bill providing retiring allowances as a matter of right to worn out and disabled union officers. On the subject of medical witnesses at inquests the report states:—

“Dr. Whyte, Coroner for Dublin City, kindly attended a meeting of the Committee of Council, when the subject was discussed at much length, when the following suggestions were agreed to. Some one or more medical gentlemen specially skilled as pathologists, and accustomed to make *post-mortem* examinations, who are good witnesses and thoroughly enjoy the professional as well as the public confidence, should be appointed by the State in cities and large towns, to be called on by the coroner when required. A medical gentleman who saw the deceased person at or shortly before death, or who was in attendance on deceased, ought to be called upon by the coroner, provided he can give evidence of any value or in any way material to the case; but in order that the ends of justice should be met, an expert should be always available to make a *post-mortem* examination in the event of the other medical witnesses not being such. Your Council consider that the State should be memorialised to empower a joint committee, equally represented by the Irish medical authorities, to appoint for Dublin city and the other cities and large towns of Ireland a medical gentleman in each, qualified to act as expert medical witness at coroners' inquests; and that the coroner or the jury should have power to require his services when deemed necessary or desirable.”

“In the annual report, adopted on June 7th, 1886, is to be found (at p. 159 *et seq.*) a copy of a letter addressed by the Council of this Association to the Local Government Board, remonstrating at the restrictions with regard to revaccination which a short time previously had been imposed by that Board in their new issue of regulations, which, notwithstanding, remain unaltered. The difficulties forecasted in that remonstrance have occurred in those neighbourhoods since visited by small-pox, and several dispensary medical officers, unaware of those restrictions, but actuated by a commendable desire to check the spread of that loathsome disease, at some inconvenience and expenditure of time revaccinated all persons who applied to them for that purpose, irrespective of their ages. Amongst the persons revaccinated were a small proportion of children under 12 years of age who did not bear evidence of sufficient protection against susceptibility to small-pox, judging by the cicatrices which resulted from primary vaccination. Your Council consider it advisable that the limit of age, or rather of youthfulness, for revaccination under ordinary circumstances, should be fixed at ten years, and at seven years when there is immediate danger of small-pox. With reference to the recent appointments of medical gentlemen to high official positions in public departments, your Council have received many letters from members of the Association protesting against the selection by Government of gentlemen not actually holding office in those departments. They trust that in future a preference may be given by Government to gentlemen of unquestionable ability and fitness still in the service, who are applicants for the office, instead of to others who, no matter how fit or able they may be, either have never held office in the department, or have, on promotion to some other more lucrative position, ceased to belong to the particular branch of the public service in which an important office becomes vacant.”

The report was adopted.

On the motion of Dr. THORNLEY STOKER, seconded by Dr. POLLOCK, a motion was carried condemning the present system of

supplying dispensaries with drugs by contract, and suggesting that there should be a central depot for supply.

The result of the ballot was then declared as follows:—

President: Andrew K. Young, Esq., Monaghan. *Vice-Presidents:* Leinster, Dr. Z. Johnson, Kilkenny; Ulster, Dr. F. Carre, Letterkenny; Munster, Dr. F. G. Mayberry, Kenmare; Connaught, Dr. J. O'Kelly, Ballinasloe; Drs. St. George Ashe, J. W. Boyce, R. Browne, William Carte, J.P.; A. H. Corley, H. G. Croly, Albert Croly, F. J. Davys, Edward Hamilton, W. J. Hepburn, A. H. Jacob, David Jacob, J. B. Kelly, J. Dillon Kelly, G. H. Kidd, R. J. Kinkead, G. J. Mackesy, James Martin, A. Meldon, R. McDonnell, F. V. McDowell, G. Morrogh, J. Molony, A. O'K. Nolan, T. Purcell, J. Ridley, W. Thornley Stoker, Tagert, William Thompson, Usher, William Wheeler. *Honorary Secretary:* Dr. Chapman. *Honorary Treasurer:* Dr. Minchin. *Auditors:* Dr. Henry W. Oulton and Dr. Arthur H. Benson.

The new PRESIDENT then took the chair, and expressed his sense of the honour conferred on him.

Dr. DELAHOYD moved:

“That the restriction imposed by the Local Government Board with regard to age for revaccination is unsatisfactory, from a public health point of view, and is opposed to the requirements of some Government departments, factories, and schools. That in the opinion of the Irish Medical Association the age for revaccination under ordinary circumstances ought to be ten years, whilst in the presence of an epidemic of small-pox the age ought to be fixed at seven years.

Dr. GREEN seconded the resolution, which was agreed to.

In the evening the annual banquet was held.

PROVISION FOR MEDICAL MEN AGAINST SICKNESS, ACCIDENT, ETC.

At the monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society, held on Wednesday June 6th—present, Mr. ERNEST HART, in the Chair, Dr. de Havilland Hall, Mr. S. W. Sibley (Treasurer), Mr. F. Wallace, Dr. M. Greenwood, jun.—after the transaction of the usual business and the passing of payments to sick members of £170 for the past month and an insurance claim of £200, the Chairman made a short statement as to the affairs of the Society. Although the financial year of the Society would not close until the end of the current month, sufficient was already known to prove it had been one of a very prosperous nature, whether tested by the numerical increase of members, the accumulation and investment of funds, or the important work of payment of sums during the illness of the members. It would be found that about 130 new members had joined during the year—a number above recent averages. This indicated the continuous and steady growth of confidence in the work of the Society. Though, of course, there had been some lapses, and, unfortunately, several deaths among the members, they could already look forward to a time in the near future when they might confidently count on having an effective membership of over 1,000. With reference to the reserves, they might anticipate an addition to the investment of at least £7,000 on the year, and might count on a total by the end of the current month and close of the financial year of £25,000, which had been and was being invested in the most remunerative manner consistent with principles of the highest financial security. The importance and great professional value of the distribution of sickness pay made by the Society would be at once apparent from the fact that the year's work would probably show disbursements under this head of about £1,800, paid to considerably more than 100 claimants, while the claims still remain below the ratio of sickness provided for in the tables. They were of a character which abundantly proved the urgent need for the Society, and were very interesting from their diversified character and the proof they afforded of the liability of medical men to certain risks impossible to foresee or to avert. Thus, payments to members had been made during the year in fifteen cases of accident, totally disabling from practice, some of them of a very severe nature. One was a particularly striking case, the accident having happened to a member during the first six months of his membership, and forming the foundation of a claim under which he had received over 100 guineas, having sustained a compound fracture which disabled him for several months. Then there had been payments made in respect to nine cases of fever, some of them of a severe character. There had also been a number of cases of affections arising from chill and exposure to which, particularly in the

winter, the practitioner was necessarily peculiarly liable. While the great majority of cases were, happily, of temporary disablement the Society had already experience of that severe class of illness which developed into practically incurable maladies, and in those cases had been able to do good and useful work by the payment of what was really a permanent allowance during the remainder of the life of the afflicted members. It was an essential and useful part of the work to be able to deal effectively with such cases. Several insurance claims had been met by immediate payment in full and without any deductions such as insurance societies sometimes made in such cases. Thus it would be seen that the work of the Society on behalf of the profession was progressing most successfully and beneficently, and that the good sense and self-respect of the members of the profession were leading them, in increasing numbers, to provide against the calamities of illness, accident, or permanent disablement, against which, till now, they had no means of effectually providing, and which had reduced so many to great straits, and had caused others so much severe anxiety during periods of illness, when above all times their minds should be free from such pain and pre-occupation.

Prospectuses of this Society, proposal forms, and all particulars may be obtained, free of cost, from the Secretary, Mr. C. J. Radley, 26, Wynne Road, Brixton, London, S.W.

THE VOLUNTEER MEDICAL SERVICE.

ON Tuesday last an influential deputation of medical men connected with the Volunteer Service had an interview with Mr. Stanhope at the War Office, in order to draw his attention to the insufficiency of the medical organisation of the force, and to the anomalous position in which the medical officers at present stood. Mr. Stanhope was accompanied by Surgeon-General Sir Thomas Crawford, Director-General of the Army Medical Department. Colonel Howard Vincent, C.B., M.P., introduced the deputation.

Surgeon-Commandant NORRIS, of the London Volunteer Medical Staff Corps, stated that the Volunteer Medical Service was really without any organisation, though several attempts had been made to bring the medical officers together. It was to be hoped the Volunteers might never be called upon to go into action, but, if there was any just reason for organising the force, there must be equal reason for organising its medical staff. He would not suggest any scheme to the right hon. gentleman, but would ask him to allow the appointment of a committee, with some Volunteer medical officers, who should formulate a system of organisation.

Dr. W. R. SMITH, 3rd Volunteer Battalion West Kent Regiment, pointed out many defects in the present arrangements.

Mr. STANHOPE, in reply, said he recognised the extreme importance of the matter which had been brought before him. The deputation had pointed out various anomalies and deficiencies which existed, and he would say at once that he had been discussing the matter with his adviser, Sir Thomas Crawford, and thought it would be best to appoint a committee to consider all the points connected with the Volunteer medical organisation.

Mr. Norton and his colleagues will, no doubt, take care that their good-will is not used to force the hands of their colleagues in the Regular Army Medical Department—a rather serious consideration, seeing the way in which the War Office is now dealing with that Department.

DR. MEADOWS MEMORIAL FUND.

A MEETING of subscribers of this fund was held at 38, Portman Square on Saturday afternoon, May 26th, when the following were present:—Mr. Joseph Anderson, Mr. George Baird, Rev. F. Parry Burnett, Rev. R. C. F. Griffith, Rev. J. H. Hindson, Mrs. Leith, Mr. J. M. Macdonald, Miss Palmer, Sir Edward Sieveking, and Mr. W. J. Spratling; Mr. James Watson was in the chair. It was announced that the amount of subscriptions was £219 16s. 6d., which, after deducting £3 16s. 8d. for printing and incidental expenses, left £215 19s. 10d. at their disposal. Mr. WATSON referred to the objects which had been put forward in the circular as being suitable as a memorial, and for which subscriptions had been invited, namely, a carved wooden lectern, a carved wooden pulpit, or (if funds sufficed) a peal of bells. These, it was observed, were all objects which Dr. Meadows (who had done much for Colnbrook and the Parish Church during his residence at Poyle) had greatly at heart, and wished to see introduced had his life been spared, and therefore objects very agreeable to his family. A resolution, proposed by Sir EDWARD SIEVEKING to the effect that a carved

wooden pulpit be presented to the Parish Church at Colnbrook, was carried unanimously, and a committee was appointed to carry out the work at a cost not exceeding £120. It was proposed by Sir EDWARD SIEVEKING, and seconded by the Rev. F. PARRY, that the residue of the money subscribed for a memorial to Dr. Meadows be invested in the names of three trustees, namely, the Dean of St. Mary's Hospital School for the time being, Mr. J. Macdonald, and Mr. Spratling, with a view of founding biennial or triennial prizes in midwifery, bearing the name of the "Dr. Alfred Meadows Prize," to be awarded after competition to past or present students of St. Mary's Hospital under such conditions as the School Committee of that hospital may lay down with the sanction of the trustees. Sir E. Sieveking remarked that such a prize would promote the interests of the schools with which Dr. Meadows had been so intimately connected, and would serve to keep his name in remembrance through succeeding generations.—The proposal on being put to the vote was unanimously carried. The hope was expressed that whilst the pulpit was in course of erection other contributions would come in to augment the value of the "Dr. Alfred Meadows Prize" to students at St. Mary's Hospital, and subscriptions will continue to be received for this object by Mr. James Watson, 38, Portman Square.

THE UNIVERSITIES (SCOTLAND) BILL.

THE widespread interest taken in the most recent measure for the reform of the Scotch Universities was further evidenced last week by the appearance at the Lord Advocate's Chambers of a deputation, representative of students of the four Universities. In the memorial which the students submitted, the chief contention was that more direct representation in the University Court should be granted to the undergraduate element. The claim was based on the ground that only thus would it be possible for the students' wishes to obtain effective recognition. More especially, representation was asked on the Standing Committees on museums and libraries, because information on matters of detail connected with them could be furnished only by those who used them. Their claim was no innovation, as the students already had direct representation through their Lord Rector and his assessor. They merely asked for a proportional increase, in view of the increased number of the court. The Lord Advocate, after complimenting the members of the several representative councils on the very extraordinary strides which had been made by the students themselves within the last few years, assured them that the interests of the councils would be carefully guarded by the Commission, by whom, doubtless, a proper constitution would be given. But he reminded them that no sharp line could be drawn between the graduate student and the undergraduate student; and that through the assessors appointed by the University Council itself they would have a large and powerful representation. He further counselled them to select as Lord Rector a man who was conversant with the affairs of the University, and who would give them attention. If their Rector was to be a dummy, then he should not be in the Court at all.

The General Assemblies of the Presbyterian Churches in Scotland have had this Bill before them, and have most heartily and unambiguously accepted its main provisions as modified by the amendments of the Secretary for Scotland. Professor Miligan, of Aberdeen, introduced the subject at the Established Assembly, and in the course of his remarks said the teaching power of the universities at present was totally inadequate to the multitude of young men seeking instruction. Moreover, in this country, as compared with Germany, we went upon the altogether false impression that the only business of the professor was to teach, and forgot that even a greater part of his duty was the charge of a particular department of work, and that it was his business to the utmost of his power to advance that department. In these and other points the present system required complete revision; and it seemed to him that, taking the Bill as a whole, it would open up a new field and era of progress for our Scottish Universities. The Free Church Assembly held it to be unjust, as well as unfavourable to the best interests of the universities, that the occupancy of any chair should be limited to a particular religious denomination, and declared their opinion that provision should be made in the Bill for terminating the existing connection between the theological chairs and one of the Scottish Churches. Both Assemblies agreed to petition Parliament in favour of the Bill.

The Bill passed through the Committee stage *pro forma* on June 5th.

ASSOCIATION INTELLIGENCE.

NOTICE OF QUARTERLY MEETINGS FOR 1888.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The next meeting of this Branch will be held at the Braes of Gight on Wednesday, June 20th, at 1.45 P.M., the President, Dr. Smith, of Kinnairdy, in the chair. Business: 1. Minutes, nomination of new members. 2. Ballot for the admission of Dr. Jeekyns, Belize, British Honduras; Dr. W. L. Mackenzie, Royal Infirmary; Dr. W. R. C. Middleton, Royal Infirmary; Dr. Rannie, Peterculter; Dr. J. Scott Riddell, 7, Ferryhill Place; Dr. A. M. Will, Royal Infirmary. 3. Notes on Gight and its Castle, by Dr. Alexander Cruikshank, Aberdeen. An omnibus excursion to the Braes of Gight, through the grounds of Haddon House, has been arranged for those who can meet at Old Meldrum at 11.30 A.M. A train leaves Aberdeen at 10.20 A.M. and arrives at Old Meldrum at 11.30 A.M., where carriages will be in waiting. Dinner (inclusive of attendance but exclusive of wine) in a marquee at the Braes of Gight at 5s. per head. Arrangements have been made for members from Buchan to drive from Maud Junction (11.15 A.M.), and for those from Banff from Fyvie (1.15 P.M.) to the Braes of Gight, in time for the meeting and dinner, and returning to catch later down trains. Members from the north will meet the party at Inverurie at 10.50, those from the south and Deeside at Aberdeen at 10.20. A train leaves Old Meldrum at 5.25 P.M., arriving in Aberdeen at 6.40 P.M. Members are invited to bring medical friends.—ROBERT JOHN GARDEN and J. MACKENZIE BOOTH, *Honorary Secretaries.*

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.—The annual general meeting of the Branch will be held in the Birmingham Medical Institute, Edmund Street, on Thursday, June 14th. The chair will be taken by the ex-President, Mr. Lawson Tait, at 3 P.M., who will introduce his successor, Dr. T. W. Thurstfield. Business:—The following members of the Association will be proposed as members of the Branch: James A. B. Thompson, M.D. Glasg., Brawles, Warwickshire; Frank J. Allen, M.A., M.B. Cantab., Mason College; Joseph Henry Patrick, M.R.C.S., 212, Balsall Heath Road; John Angell James, M.R.C.S., L.R.C.P., Queen's Hospital. Alteration of Rules:—Mr. Lawson Tait will move that Rule 9 be amended so as to read as follows: "That in the case of a vacancy occurring in any office other than that of President or President-elect, such vacancy shall be filled up by the Council. In the case of a vacancy in the office of President or President-elect, the vacancy shall be filled up at a general meeting, due notice having been given by the Secretary in each case." Presentation of the reports of the Council, the Treasurer, Pathological and Clinical Section, and Local Collective Investigation Committee. Election of office-bearers, and other formal business. An address will be delivered by the President, Dr. T. W. Thurstfield. The annual dinner will take place at the Grand Hotel, Colmore Row, at 6 P.M. Tickets, 5s. each, exclusive of wine. Each member has the privilege of introducing a friend to the dinner on giving notice of his intention to do so.—ROBERT SAUNDY, M.D., 43A, Edmund Street, and JORDAN LLOYD, F.R.C.S., 22, Broad Street, *Honorary Secretaries.*

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.—The annual meeting of this Branch is appointed to be held at Ely on Friday, July 6th. Members wishing to make communications, to exhibit specimens, or to propose new

members are requested to signify their intention to Dr. Anningson, Cambridge, for insertion in the order of proceedings.—BUSHELL ANNINGSON, *Honorary Secretary.*

LANCASHIRE AND CHESHIRE BRANCH.—The fifty-second annual meeting of this Branch will be held at the Medical Institution, Hope Street, Liverpool, on Wednesday, June 13th, 1888, at 2.30 P.M. Order of Business:—Introduction of the new President. The new President's Address. The Report of Council. Election of Office-bearers: President-Elect, Vice-Presidents, Honorary Secretary. Election of Representative Members on the Council of the Association. Election of new Council. Choice of place for holding next annual meeting. Election of two members to serve on the Parliamentary Bills Committee. Grant to Epsom College: Notice of Motion: It will be proposed to make a donation of twenty-five guineas to the Epsom Medical Benevolent College out of the funds of the Branch. Miscellaneous Business. Medical and Surgical Communications.—Dr. Walter: Notes of a case of Total Extirpation of the Uterus per Vaginam. Dr. Glynn: A note on a New Method of Treating Chlorosis. Dr. Johnson Martin: How to prevent Small-pox, and how to spread it. Mr. R. Harrison will show the Electric Endoscope. Dr. Alexander: Hysterectomy for Uterine Cancer (patient). Mr. Shears: Xerosis of the Conjunctiva with Night Blindness. Dr. Imlach: The Use of Stimulants and Narcotics by Women. A small museum of drawings, photographs, and selected pathological specimens. Diner.—The members will dine together at the Adelphi Hotel, Liverpool, at 5.30 P.M. Tickets, 7s. each (exclusive of wine).—CHARLES E. GLASCOTT, M.D., *General Secretary*, 23, Saint John Street, Manchester.

METROPOLITAN COUNTIES BRANCH.—*Preliminary Notice.*—The annual meeting of this Branch will be held at the Holborn Restaurant on Wednesday, June 27th, at 5.30 P.M. President, Arthur E. Durham, Esq., F.R.C.S.; President-elect, C. Brodie Sewell, M.D. Dinner at 7 P.M.; tickets, 7s. 6d. each, exclusive of wine.—GEORGE EASTES, M.B., E. NOBLE SMITH, F.R.C.S., *Honorary Secretaries.*

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.—The annual meeting will be held at the Zoological Gardens, Regent's Park, on Thursday, June 14th, 1888. A. E. Durham, Esq., F.R.C.S., President of the Branch, will preside. Mr. Frank E. Beddard, Prosecutor to the Zoological Society and Davis Lecturer, will lecture at 5 P.M. on "Deinosauria," at which members are invited to attend. Election of Vice-President, Representative Member of Council, and Secretary for the ensuing year. All the present officers are eligible for re-election. Dinner at the Restaurant in the Gardens at 6.30; morning dress. Tickets, 6s. each, exclusive of wine. Members desirous of being present are asked to signify their intention before June 12th, to the Honorary Secretary, GEORGE HENTY, M.D., 302, Camden Road, N.

MIDLAND BRANCH.—The annual meeting will be held at the Masonic Hall Nottingham, on Thursday, June 14th, at 2 P.M. After the transaction of the usual business a proposition to amend Rule 6 will be laid before the meeting. Papers, etc.: Mr. Edgar M. Crookshank: On the Alleged Origin of Certain Diseases from the Lower Animals. Mr. Frank Pope: A Case of Diabetes, probably of Traumatic Origin. Mr. R. C. Chiokea: New Form of Bone Forceps for Sequestromy. Dr. George Elder: Remarks on Cases of Peritonitis treated by Abdominal Section. Dr. H. Handford: The Influence of Position on Cardiac Murmurs, and on the Treatment of Heart Disease. Mr. Frank Hodges will exhibit a patient on whom he has operated for Cataract of Each Eye by different Methods. Luncheon will be provided by the President-elect, at the place of meeting, at 1 o'clock. The dinner will also take place at the Masonic Hall, at 5 o'clock. Tickets, 7s., exclusive of wine.—W. A. CARLINE, M.D., *Honorary Secretary and Treasurer.*

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Wednesday, July 11th, at 4 P.M. Gentlemen who desire to read papers or to bring any other business before the meeting will kindly communicate as early as possible with the Secretary, JOHN W. BYERS, M.D., Lower Crescent, Belfast.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Library of the Royal Berkshire Hospital, Reading, on Wednesday, July 11th, at 4.15 P.M. The chair will be taken by the President (Dr. C. H. Tench), who will introduce the President for the coming year (W. B. Holderness, Esq., of Windsor), who will then take the chair. Members willing to read short papers or bring forward cases of clinical interest are requested to communicate with the Honorary Secretary without delay. The annual dinner will take place on the same evening at 8.15 P.M., at the Queen's Hotel, Reading. Dinner tickets (5s. without wine, or 10s. including wine) should be obtained from the Honorary Secretary on or before Saturday, July 7th.—H. HEYGATE PHILLIPS, 43A, London Road, Reading, *Honorary Secretary.*

SOUTH MIDLAND BRANCH.—The annual meeting of the above Branch will be held at the Blechley Park Hotel, Blechley, on Thursday, June 14th, at 2.45 P.M. The new President, H. Veasey, Esq., invites the members to luncheon at the same place previously to the meeting, from 1.30 to 2.30 P.M., at which meeting and luncheon every qualified medical man will be a welcome visitor. Gentlemen accepting the invitation are requested to intimate the same to the Honorary Secretary not later than June 11th. The arrangements for a combined meeting this year of the Cambs and Hunts and South Midland Branches having fallen through, the informal reciprocal visits of members, to whom it may be convenient, at the respective meetings, would be most agreeable, and are hereby invited. Agenda:—Usual business of annual meeting. Resolution on subject of "Fees to Medical Witnesses," etc. Communication from Chairmen of Parliamentary Bills Committee on Subject of "Lunacy Acts Amendment Bill" (see JOURNAL, May 12th, p. 1026). The following gentlemen will be proposed as new members of the Association and Branch: John Henry Lloyd, Esq., Bedford; J. Neil Whitfield, Esq., Northampton; A. B. Godfrey, Esq., and Weatherley, Esq., Northampton Library. Gentlemen wishing to read papers for discussion, cases, etc., are requested to send the titles of the same without delay to the undersigned. The following have been promised: Mr. Milligan: Case of Straugulated Umbilical Hernia: Operation for Radical Cure: Recovery. Dr. Jones: Physical Indications in Heart Affections. Dr. Geldsmith: A Question as to the Etiology of some Nervous Diseases of Child-

dren. Mr. Bull: Obscure Abdominal Tumour; Abdominal Section: Recovery. Mr. Evals: The Royal Colleges and the Society of Apothecaries.—C. J. EVANS, Honorary Secretary, Northampton.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at the Devon and Exeter Hospital, Exeter, on Tuesday, June 26th, under the presidency of Dr. John Woodman, F.R.C.S. Notices of motion or communications to be intimated to the Honorary Secretary without delay, and it will facilitate arrangements if members will inform the Honorary Secretary as soon as possible if they hope to be present at the meeting. The following motion was passed at the Council Meeting on May 2nd:—"That inasmuch as the annual meeting assumes more or less the character of a day of recreation, and with a view of encouraging the district meetings, the business of the annual meeting shall be confined to the President's address, the business of the Branch, the exhibition of cases or of specimens with notes, and the annual dinner."—P. MAURY DEAS, Winton House, Exeter, Honorary Secretary.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting will be held in the board-room of the hospital, at Hastings, on Tuesday, June 12th, at 3.30 P.M. Dr. Bagshawe will preside. The following papers are promised: The Chairman: A Case of Chyluria. Mr. Titchurst: A Case of Addison's Disease, with a Rare Form of Skin Eruption (Drawing to be shown). Dr. Penhall: A Case of Nephrotomy. Dr. Taloufer Jones: Mercury as a Diuretic. The dinner will take place at the Palace Hotel at 5.30 P.M.; charge, 6s., exclusive of wine.—T. JENNER VERRALL, Honorary Secretary, 97, Montpellier Road, Brighton.

SOUTH WALES AND MONMOUTH BRANCH.—The eighteenth annual meeting of this Branch will be held at the Infirmary, Cardiff, on Wednesday, June 27th. Further particulars in circulars. Members wishing to read papers, etc., are requested to send titles to Dr. Sheen before June 10th.—A. SHEEN, M.D., Cardiff, D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

SOUTHERN BRANCH.—The fifteenth annual meeting will take place at the Grosvenor Hotel, Queensgate, Southsea, on Thursday, June 14th. The general meeting will be held at 1 P.M. The President-Elect, H. B. Norman, Esq., has kindly undertaken to provide refreshments at the hotel. In accordance with the by-laws, two gentlemen will be elected at this meeting as Representatives of the Branch on the Council of the Association for the ensuing year. The address will be delivered by the President-elect at 2 P.M. During the afternoon the members are invited to visit the Dockyard, the old *Victory*, H.M.S. *Vernon*, and other places of interest. Dinner at 6 P.M.; charge, 5s., exclusive of wine, etc. The Committee request that those gentlemen who intend to be present at the dinner will send in their names on or before Wednesday, June 13th.—J. WARD COUSINS, Honorary Secretary and Treasurer.

YORKSHIRE BRANCH.—The annual meeting of the Yorkshire Branch will be held in the Museum of the Yorkshire Philosophical Society at York on Wednesday, June 27th, when the representatives of the Branch on the General Council and the officers for the ensuing year will be elected. Members intending to read papers and show specimens, are requested to communicate at once with ARTHUR JACKSON, Secretary, Sheffield.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

A MEETING of this Branch was held at 198, Union Street, Aberdeen, on Wednesday, May 16th, at 8 o'clock P.M. Dr. URQUHART in the chair.

Nominations and Ballot.—Six new members were nominated for election at next meeting, and Dr. Ligertwood Methlick was balloted for and admitted an ordinary member.

Summer Meeting.—After some discussion, it was decided that the summer meeting should be held at Gight, on Wednesday, June 20th, and it was remitted to Professor Ogston and Dr. Mackenzie Booth to make the necessary arrangements.

Representative to Council.—Dr. Wight was proposed as the representative of the Board on the Council of the Association for the ensuing year, and was elected unanimously.

CEYLON BRANCH.

An ordinary meeting of this Branch was held at the Colonial Medical Library, on March 3rd, Dr. VAN DORT, Vice-President, in the chair. The following gentlemen were present: Drs. Asserappa, Attygalle, Loos, Rockwood, Messrs. Van Geyzel, Eleyatambi, Nell, Brito, Schokman, Fernando, and Keegel (Honorary Secretary).

The minutes of the previous meeting were read and confirmed.

Proposed Amendment of By-law.—Dr. ROCKWOOD, on behalf of Mr. THORNHILL, moved in pursuance of notice that the following alteration or amendment of By-law 4 be made: After the words "Colombo" to insert "Kandy, Galle, Jaffna, and Badulla." To omit the words "and the following," and also the whole of the third, fourth, and fifth lines, and the word "Colombo" in the sixth line, and insert "these towns."—Mr. NELL seconded.

Dr. ATTYGALLE moved as an amendment: "That the consideration of Mr. Thornhill's resolution be postponed till the next annual meeting of the Branch in December next."—Mr. ELEYATAMBI seconded.

Dr. LOOS moved as another amendment: "That Messrs. Thornhill, Craib, and Griffin be still considered members of the Council,

although the three superintending medical officers cease to hold their office from the circumstances of those offices being abolished."—Dr. ASSERAPPA seconded.

Dr. ATTYGALLE's amendment being put to the vote, was negatived by 6 against 4.

Dr. LOOS having withdrawn his amendment, in view of the necessity of previous notice, as the amendment amounted to a substantive motion necessitating a material change in the constitution of the Council,

Mr. THORNHILL's motion was put to the vote and lost, the proposer and seconder alone voting for it.

Paper.—A paper on Anchylostomiasis was read by Mr. FERNANDO, on behalf of Mr. GRATIAEN.

DORSET AND WEST HANTS BRANCH: SPRING MEETING The spring meeting of this Branch was held at the Yeatman Hospital, Sherborne, on Wednesday, May 30th, JOHN COMYNS LEACH, M.D., President, in the chair. There were also present thirty members and visitors.

Branch Council.—Mr. G. W. Daniell, of Blandford; Dr. W. E. Humble, of Corfe Castle; Dr. J. C. Leach, of Sturminster Newton; Dr. P. W. Macdonald, of the Dorset County Asylum; Dr. R. P. Simpson, of Weymouth; Dr. W. V. Snow, of Bournemouth; and Dr. W. H. Williams, of Sherborne, were elected as members for the ensuing year.

Representative of the Branch on the Council of the Association.—Dr. W. G. Vawdrey Lush, of Weymouth, was re-elected as representative of this Branch on the Council of the Association for the ensuing year.

Representative on the Parliamentary Bills Committee.—Mr. C. H. Watts Parkinson, of Wimborne, was elected for the ensuing year.

New Members.—The following gentlemen were elected:—Mr. James Charles Clark, of Wimborne; and Dr. John Lyon, of the Royal Naval Sick Quarters, Portland.

Next Meeting.—It was resolved that the summer meeting be held at Swanage.

Vote of Sympathy.—It was resolved unanimously that the members of the Dorset and West Hants Branch of the British Medical Association express their hearty sympathy with Dr. Lush and Mr. Good in the anxiety caused them by the controversy with the majority of the committee of the Dorset County Hospital.

Communications.—Mr. MARSH: Short Notes of a Case of Lawson Tait's Operation for Extension of Perineum, with an Uncommon and Unfortunate Termination. Dr. GREVES: Case of Cerebral Tumours (specimen), with Remarks on the Diagnosis of Intracranial Tumours Implicating the Cortex of the Brain. Dr. DAVISON: A Case of Infantile Scurvy. Dr. MACDONALD: On Epilepsy, with notes of a case and pathological specimens.

Dinner.—The members and friends dined together at the Digby Hotel.

HALIFAX, NOVA SCOTIA BRANCH.

THE fourth ordinary meeting of this Branch was held at Halifax on March 20th. Deputy Surgeon-General McDOWELL in the chair. The following gentlemen were present:—Hon. Dr. Parker, Drs. Slayter, Morrow, Milsom, Goodwin, Black, De Witt, Cowie, Farrell, Trenaman, and Curry; Surgeons Weston and Fowler, A.M.S.

Amendment of the Health Act.—The PRESIDENT and Dr. PARKER explained the steps that had been taken by the Committee of the Branch and the Local Government to amend the present Health Act.

Cases, Etc.—The Hon. Dr. PARKER showed a new stomach pump for washing out the stomach, and explained its use and the cases for which he considered it appropriate. He also gave the history of a fatal case of leucocythemia with abnormally enlarged spleen.—Dr. SLAYTER brought forward an interesting case of excessive lactation, giving the treatment pursued and inviting suggestions.—Drs. COWIE and PARKER related similar cases.

THE fifth ordinary meeting was held at Halifax on March 8th, the Hon. Dr. PARKER in the chair. The following gentlemen were present:—Drs. Black, Chisholm, Milsom, Wickwire, Farrell, Morrow, Goodwin and Tobin; Surgeon-Major Bolster, A.M.S.; Surgeons Grier, Weston, Fowler, and Deebie, A.M.S.

Communications.—Surgeon FOWLER, A.M.S., described a case simulating locomotor ataxy now under his care in hospital.—Dr. BLACK exhibited a specimen showing a fistulous opening be-

tween the vermiform appendix, bladder, and rectum. The patient had suffered from perityphilitis, and had passed fecal matter and flatus by the urethra for some months before death.—Dr. CAMPBELL showed two specimens removed from the body of a man who had died of Bright's disease; one was a contraction, without thickening or signs of previous ulceration of the pylorus; the second consisted of the apex of the right lung which had undergone "grey induration."—Remarks were made by Drs. BLACK, FOWLER, CHISHOLM and others.

NEW SOUTH WALES BRANCH.

THE annual meeting of this Branch was held at Sydney on March 2nd, Dr. KNAGGS in the chair.

Report of Council.—Mr. G. T. HANKINS, the Honorary Treasurer, read the Council's report and balance-sheet, showing a balance to the credit of the Branch of £143 2s.

Officers of Council.—The following gentlemen were elected *Councillors* for the ensuing year: Drs. Creed, Knaggs, Hankins, Chambers, Fiaschi, O'Reilly, Quaife, McCormick, MacLaurin, and Scot Skirving. *President*: Dr. Chambers. *Vice-President*: Dr. Fiaschi. *Honorary Treasurer*: G. T. Hankins, M.R.C.S.; *Honorary Secretary*: Dr. Scot Skirving. *Auditors*: Drs. Crago and Ellis.

Medical Defence Association.—Dr. ELLIS's letter relating to the Medical Defence Association was read and received.

Vote of Thanks.—Dr. ELLIS proposed, and Dr. ROSS seconded, that a hearty vote of thanks be accorded to the retiring office-bearers.—Carried.

The adjourned annual meeting was held at the Royal Society's Room, Sydney, on Friday, April 6th, 1888. Present: the Hon. Dr. CREED, M.L.C., in the chair: Drs. Knaggs, O'Reilly, Chambers, Roth, Garrett, Twynam West, Kendall, Wm. Chisholm, Crago, Hankins, Worrall, Fiaschi, Faithful, Martin, Foreman, Clubbe, and Scot Skirving.

President's Address.—The Hon. Dr. J. MILDRED CREED, the retiring President, delivered an address. The very satisfactory monetary position of the Branch was, he said, the result in a great measure of the time and care devoted by the Honorary Treasurer, Mr. Hankins, to the duties of his office; and gratitude was also due to the Honorary Secretary, Dr. Scot Skirving, and to the Assistant Secretary, Mr. Green, for the devotion and exactitude which they had shown in the conduct of business. He mentioned the papers which had been read during the year, and said that the Branch had to deplore the deaths of five members—namely, Drs. Hoff, Halket, Lentaigne, Markey, and Leacock. The sympathy of the Association had been conveyed to their representatives. He then passed in review a variety of topics of special interest to the profession in New South Wales. An abstract of his remarks will be found at page 1213. He said they were entering upon a year of new work; and, besides, it was the centenary year of the colony, an occasion which the Branch should do something to mark.

Leacock Fund.—The Hon. Secretary (Dr. SKIRVING) stated that he had received £102 8s. towards the fund in aid of the family of the late Dr. Leacock, the Newcastle Committee wished to send in their contribution at the same time as this Branch.

An Amateur Surgical Instrument Maker.—Dr. SCOT SKIRVING exhibited a curious specimen of surgical instrument made and used by an amateur.

New Members.—The PRESIDENT announced the election of the following gentlemen:—Dr. Lloyd, Hunter's Hill; Dr. Robertson, Auckland. Dr. Creed then gave up the chair to the President-elect, Dr. Chambers.

Vote of Thanks to President.—Dr. KNAGGS said he had much pleasure in proposing a vote of thanks to Dr. Creed for his able address, and for the general interest displayed by him in the work of the Branch. He (Dr. Knaggs) felt sure that as mover for the committee which reported on the registration of births and deaths, Dr. Creed deserved the thanks of the whole community, for if the Bill was properly administered, many existing evils would be remedied. With regard to the report of the committee on the law and practice of medicine, Dr. Creed's action was to be commended by every right thinking person.—Dr. CLUBBE seconded the resolution.—The Hon. Dr. CREED returned thanks.

The New President.—Dr. CHAMBERS then thanked the members for the honour they had done him by electing him to the position of president, and would ask members to lend a helping hand.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

THE fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc.(Hon.), F.K.Q.C.P.I., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate. An Address in Medicine will be delivered by Thomas Clifford Allbutt, M.D., Consulting Physician, Leeds General Infirmary.

An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

An Address on his "Recent Investigations in Surgery" will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

All the rooms required for the purposes of the meeting will, by the kindness of the authorities, be provided in the University of Glasgow.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

9.30 A.M.—Meeting of 1887-1888 Council. Randolph Hall.

11.30 A.M.—First General Meeting. Report of Council. Reports of Committees. Bute Hall.

4 P.M.—Service in the Cathedral. Sermon by the Very Rev. John Caird, D.D., LL.D., Principal and Vice-Chancellor of the University of Glasgow.

8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address. Bute Hall.

WEDNESDAY, AUGUST 8TH, 1888.

9.30 A.M.—Meeting of 1888-89 Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Second General Meeting. Address in Medicine by Thomas Clifford Allbutt, M.D., F.R.S. Bute Hall.

9 P.M.—*Conversazione* given by the Professors of the University.

THURSDAY, AUGUST 9TH, 1888.

9.30 A.M.—Address on his Recent Surgical Investigations by William Macewen, M.D. Bute Hall.

11 A.M.—Meeting of Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Third General Meeting. Address in Surgery by Sir George H. B. Macleod, M.D. Bute Hall.

7 P.M.—Public Dinner. St. Andrew's Hall.

FRIDAY, AUGUST 10TH, 1888.

10.30 A.M. to 1.30 P.M.—Sectional Meetings.

3 P.M.—Concluding General Meeting. Address in Physiology by John G. McKendrick, M.D., F.R.S. Philosophy Class-room.

9 P.M.—*Conversazione* given by the Corporation of Glasgow at St. Andrew's Hall.

Garden Party given by the Faculty of Physicians and Surgeons at the Botanic Gardens.

SATURDAY, AUGUST 11TH, 1888.

Excursions.

The following discussions and papers are promised up to the present time.

SECTION A.—MEDICINE.

Humanity Class Room.

A. MEDICINE.—*President*, Professor T. McCall Anderson, M.D. *Vice-Presidents*, R. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries*, J. McGregor Robertson, M.A., M.B., 400, Great Western Road, Glasgow; Robert M. Simon, M.D., 27, Newhall Street, Birmingham.

The President will open the proceedings by introducing a discussion on the Diagnosis and Treatment of Syphilitic Disease of the Nervous System. Dr. Thomas Buzzard, Dr. T. S. Clouston, Dr. William Moore, Dr. Ross, Professor Grainger Stewart, and Dr. C. W. Suckling will take part in the discussion.

On the third day of the sectional proceedings, the Value of Inhalations in the Treatment of Lung Disease is set down for discussion, to be opened by Dr. C. Theodore Williams. The following gentlemen have already indicated their intention to engage in this discussion: Dr. Burney Yeo, Dr. W. W. Ireland, Dr. C. F. Knight, Dr. J. A. Lindsay, and Dr. E. Markham Skerritt.

Drs. Byrom Bramwell and Milne Murray will give a demonstration of their Method of Graphically Recording the Exact Time Relations of Cardiac Sounds and Murmurs.

The following papers have been promised.

FINLAY, David W., B.A., M.D. Bronchiectasis treated by Incision and Drainage.

FREW, W., M.D., Kilmarnock. Prevalence of Cerebro-spinal Fever in Scotland.

GREENE, G. E. F., L.K.Q.C.P. A Note on a Recent Epidemic of Erysipelas.

MYRTLE, A. S., M.D., Harrogate. Neurasthenia, True and False; Diagnosis and Management.

TONORY, J. K., M.B. East African Fever, with special reference to Climatic Conditions.

WARNER, Francis, M.D. Methods of Studying and Examining the Nerve System.

Sir W. Roberts, Dr. Lauder Brunton, Dr. Russell Reynolds, Dr. F. W. Pavy have also intimated their intention to take part in the proceedings of the Section.

SECTION B.—SURGERY.

Chemistry Class Room.

B. SURGERY.—*President*, George Buchanan, M.D. *Vice-Presidents*, James Dunlop, M.D.; Charles Robert Bell Keetley, F.R.C.S. *Honorary Secretaries*, David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pye, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

As already announced, in this Section discussions have been arranged for on the following subjects:

1. The Surgical Treatment of Abscess of the Lung and of Empyema. To be introduced and supported by Mr. T. Pridgin Teale (Leeds), Sir Spencer Wells (London), Mr. A. Pearce Gould (London), Mr. R. J. Godlee (London), and Mr. W. Thomas (Birmingham).

2. The Operative Treatment of Club-Foot. To be introduced and supported by Sir William Stokes (Dublin), Mr. E. Lund (Manchester), Dr. Alexander Ogston (Aberdeen), Mr. R. W. Parker (London), Mr. E. M. Little (London), Mr. John Chiene (Edinburgh), Mr. W. J. Walsham (London), and others.

The following papers have also been promised.

BESTON, Samuel, Esq., London. On the Treatment of Stricture of the Rectum by Electrolysis.

CLARK, Sir Andrew, London. The History of a Case of Catheter Fever.

CLARKE, W. Bruce, Esq., London. On the Vesical Endoscope.

FENWICK, E. Hurry, Esq., London. Notes from the Experience of 450 Cases of Organic Stricture of the Urethra.

FLEMING, W. J., M.D., Glasgow. 1. On Continuous Extension in Spinal Curvature. 2. On the Treatment of Perineal Fistula.

HARRISON, Reginald, Esq., Liverpool. On an Improvement in the Construction of Ships' Berths, relative to the Treatment of some Surgical Injuries and Diseases at Sea (with models).

KEETLEY, C. B., Esq., London. Plastic Amputations of the Foot.

MCINTYRE, John, Esq., Glasgow. The Electric Illumination of the Cavities of the Body.

OWEN, Edmund, Esq., London. A Case of Trephining for Intracranial Hæmorrhage (Subdural); Localisation; Recovery.

RAKE, Bevan, M.D., Trinidad. The Value of Nerve Stretching in Leprosy, based on One Hundred Cases.

ROTH, Bernard, Esq., London. On Scoliometry, or an Accurate Method of Recording Cases of Lateral Curvature of the Spine.

SILCOCK, A. Quarry, Esq., London. On Excision of Enlarged Bursæ in the Popliteal Space.

STOKES, Sir William, Dublin. Modification of Gritti's Amputation; and will show Casts of Stumps.

SECTION C.—OBSTETRIC MEDICINE.

Medical Jurisprudence Class Room.

C. OBSTETRIC MEDICINE.—*President*, Thomas More Madden, M.D. *Vice-Presidents*, William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries*, William Walter, M.D., 20, St. John Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

Professor Stephenson (Aberdeen) will take part in the discussion on Obstructive Dysmenorrhœa.

Dr. Samuel Sloan (Glasgow) will show his Antero-posterior Compression Forceps, and will explain their use in Flat Pelves.

The following papers are promised.

CAMERON, Murdoch, M.D., Glasgow. 1. On Cæsarean Section, with Notes of a Successful Case. 2. On the Thermostatic Nurse, with Cases.

HART, D. Berry, M.D., Edlburgh. Successful Case of Cæsarean Section (Porro's modification).

INLACH, Francis, M.D., Liverpool. The Function of Anæmia in Gynæcology.

STEPHENSON, William, M.D., Aberdeen. On the Influence of Permanganate of Potass on Menstruation.

SECTION D.—PUBLIC MEDICINE.

Greek Class Room.

D. PUBLIC MEDICINE.—*President*, Henry Duncan Littlejohn, M.D. *Vice-Presidents*, James Christie, M.D.; D. Page, M.D. *Honorary Secretaries*, Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

1. Sanitary Legislation. This discussion will be introduced by the Opening Address of the President of the Section.

2. The Communicable Diseases Common to Man and Animals, and their Relationships. Discussion to be opened on the second

day of the sectional meetings by George Fleming, LL.D., F.R.C.V.S., Chief of the Veterinary Department of the Army.

3. The Disposal of Sewage (a) in Large Towns; (b) in Small Towns and Country Districts. Discussion will be opened on the third day by Dr. James B. Russell, Medical Officer of Health, Glasgow.

The following papers are promised.

DRYSDALE, Charles R., M.D. 1. On Indigence as a Main Cause of High Death-rates. 2. The Berlin and Parisian Sewage Farms.

HIME, T. W., M.B. Milk Scarlet Fever.

KERR, Norman, M.D. Some Risks of Sanitation.

SIMPSON, —, M.D., Medical Officer of Health, Calcutta. On Cholera and its Fostering Conditions in the Endemic Area.

SUTHERLAND, J. Francis, M.D. National Sanatoria.

SECTION E.—PSYCHOLOGY.

Hebrew Class Room.

E. PSYCHOLOGY.—*President*, James C. Howden, M.D. *Vice-Presidents*, James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries*, A. R. Uqhart, M.D., Murray House, Perth; Alex. Newington, M.D., Ticehurst, Sussex.

Dr. J. C. Howden, the President of the Section, will deliver an Address.

Dr. C. M. Campbell will introduce a discussion on the Uniform Recording of *Post-Mortem* Examinations in Asylum Reports.

Drs. A. Yellowlees and A. Campbell Clark will introduce the following subject: The Sexual and Reproductive Functions—Normal and Perverted—in Relation to Insanity. 1. Menstruation: its Commencement, Irregularities, and Cessation; 2. The Sexual Instinct and its Abuse; 3. Pregnancy, Parturition, the Puerperal Period, and Lactation.

Dr. Clouston will initiate a discussion on the Principle of Construction and Arrangement of an Asylum for Private Patients of the Richer Classes.

The following have promised papers: Drs. Savage, Mack Tuke, Fletcher Beach, Charles Mercier, W. J. Mickle, and Turnbull.

SECTION F.—ANATOMY AND PHYSIOLOGY.

Anatomy Class Room.

F. ANATOMY AND PHYSIOLOGY.—*President*, John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents*, R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries*, John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

C. B. Lockwood, F.R.C.S., will introduce a discussion on the Teaching of Anatomy; and will show sections illustrating the Development of the Organs of Circulation and Respiration.

The following papers are promised.

BROOKS, Henry St. John, M.D. On the Morphology of the Epitrochleo-anconeus or Anconeus Sextus (Gruber).

BROWN, J. Macdonald, M.B., F.R.C.S. The Construction of the Cardiac Ventricles in the Mammalia.

CLELAND, Professor, M.D., F.R.S. On the Nature of Certain Forms of Double Monstrosity.

COLLIER, Mark P. Mayo, M.B., F.R.C.S. On the Mechanism of the Heart and Pulse.

LANE, W. Arbuthnot, M.B., F.R.C.S. The Influence Produced by Excessive Strain upon Muscles and Ligaments (to be illustrated by specimens).

PATERSON, A. M., M.D. On the Position of the Vertebrate Limb, considered in the Light of its Innervation and Development.

SECTION G.—PATHOLOGY.

Law Class Room.

G. PATHOLOGY.—*President*, Sir William Aitken, M.D., LL.D., F.R.S. *Vice-Presidents*, Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries*, G. Sims Woodhead, M.D., 6, Marehall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

Arrangements are being made to hold a discussion on Cancer originating apart from Epithelial Structures, in which Mr. Lawson Tait (Birmingham), Dr. Joseph Coats, Dr. John Carlyle (Greenock), and others are expected to take part.

The following papers have been promised.

BRUCE, Alex., M.B., F.R.C.P. Edin. On Disseminated Sclerosis.

COATS, Joseph, M.D. On a Case of Lipæmia in Diabetis, with Suggestions as to the Source of the Fat.

KENNEDY, —, On Case of Cystic Kidneys and Liver.

MAPOTHER, E. D., M.D., Dublin. An Anomalous Form of Eczema.

MAYLARD, A. E., M.B., B.S. Lond. The Results of some Bacteriological Cultivation Experiments with Iodoform.

RAKE, Bevan, M.D. Lond., Medical Superintendent of the Trinidad Leper Asylum. The Percentage of Fibrin in the Blood of Lepers.

RUSSELL, William, M.D. The Pathology of Pernicious Anæmia.

The following gentlemen have also intimated their intention of contributing to the business of the Section by reading papers or otherwise: Professor Greenfield, Professor Roy, Professor D. J.

Hamilton, Dr. William Hunter, Dr. Barrett (Edinburgh), Dr. McFadyean (Edinburgh), Alex. Edington, M.B. (Edinburgh), etc.

Demonstrations.—Dr. Alexander Bruce (Edinburgh) will give a Magic Lantern Demonstration on Diseases of the Spinal Cord; and Alexander Edington, M.B. (Edinburgh), a Bacteriological Demonstration. Arrangements are also being made for a series of Microscopical Demonstrations illustrative of Tumours, Tuberculosis, etc.

Pathological Section of the Annual Museum.—Intimation has been received of the following exhibits for this Section of the Annual Museum: 1. Calculi removed by Lithotomy, by Professor George Buchanan. 2. Calculi removed by Lithotripsy or by Scoop, by Professor George Buchanan. 3. Miscellaneous Objects removed from the Body, by Professor George Buchanan, namely: Bullets; Needles, Cases of Teeth, Impacted Pessaries, etc.; also Isolated Bones of the Tarsus Excised. 4. Rhinoplasty; Wax Cast, by Professor George Buchanan. 5. Bladder and Urethra showing False Passages. 6. Selected Specimens from the Private Collection of Professor W. T. Gairdner. 7. A Series of Specimens of Tumours of the Brain, by Dr. Joseph Coats. 8. A Series of Specimens illustrative of Diseases of the Kidneys, by Dr. David Newman. 9. A Series of Specimens illustrative of Leprosy, by Dr. Beaven Rake (Trinidad). 10. A Series of Large Sections illustrating Malignant Tumours of the Lung; and a Series of Specimens illustrating Deformities of the Liver, by Drs. Woodhead and Bruce. 11. Drawings and Sections to illustrate Diseases of Bone and Joints, by Mr. F. M. Caird (Edinburgh). 12. A Series of Specimens illustrative of Diseases of the Heart, by Dr. John Lindsay Steven.

As space for the Museum is somewhat limited, gentlemen intending to send specimens should intimate their intention without delay to John Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow, Honorary Secretary of the Section of Pathology of the Annual Museum.

SECTION H.—OPHTHALMOLOGY.

Midwifery Class Room.

H. OPHTHALMOLOGY.—*President*, Thomas Reid, M.D. *Vice-Presidents*, J. R. Wolfe, M.D.; C. E. Glascock, M.D. *Honorary Secretaries*, Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Freeland Fergus, M.B., 41, Elmbank Street, Glasgow.

Mr. Brudenell Carter will open a discussion on the Treatment of Senile Cataract. Drs. Prichard, Meighan, Mason, Teale, and others have promised to take part in the discussion.

The President of the Section intends to give a Demonstration of several Instruments of Use in Ophthalmic Diagnosis.

The following papers are promised.

BICKERTON, T. H., M.D., Liverpool. Sailors and their Eyesight.
 MACKAY, George, M.D., Edinburgh. A Contribution to the Study of Hemianopsia of Central Origin, with special reference to Acquired Colour Blindness.
 MEIGHAN, T. S., M.D., Glasgow. On the Treatment of Symbblepharon by Transplantation of Mucous Membrane from the Lip.
 RENTON, J. C., M.D., Glasgow. The Value of the Caustery in the Treatment of Ulceration of the Cornea.
 WOLFE, J. R., M.D., Glasgow. Detachment of the Retina.

SECTION I.—OTOLOGY.

Biblical Criticism Class Room.

I. OTOLOGY.—*President*, Thomas Barr, M.D. *Vice-Presidents*, John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries*, Johnstone Macfie, M.D., 23, Ashton Terrace, Glasgow; James Black, F.R.C.S., 16, Wimpole Street, London.

The following special subjects have been proposed for formal discussion:

1. The Conditions calling for Perforation of the Mastoid Portion of the Temporal Bone, and the Best Methods of Operating. Mr. Peter McBride has promised a paper on this subject.

2. The True Value of those Aids to Hearing usually termed "Artificial Tympanic Membranes." Dr. W. L. Purves has promised a paper on this subject.

3. Adenoid Growths in the Naso-Pharynx; their Influence on the Middle Ear, and their Treatment.

The following have promised papers.

BROWNE, Lennox, Esq. (Title not received.)
 TORRANCE, R., Esq. On Syphilitic Cochleitis.
 WARDEN, Charles, M.D. (Title not received.)

SECTION J.—DISEASES OF CHILDREN.

English Literature Class Room.

J. DISEASES OF CHILDREN.—*President*, Walter Butler Cheadle, M.D. *Vice-Presidents*, James Finlayson, M.D.; Henry Ashby, M.D. *Honorary Secretaries*, George S. Middleton, M.D., 23, Sandy-

ford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

The following two discussions will take place:

1. Diphtheria: (a) Etiology. (b) Relationship to other Infectious Diseases, and to other Forms of Sore Throat; Occurrence on Open Wounds and on Mucous Membranes other than those of the Throat. (c) Diagnosis. What are the Distinctive Features, especially those Distinguishing the Lesion in the Throat from other Forms of Sore Throat? Does Membranous Croup occur apart from Diphtheria? (d) Pathology and Sequelæ. (e) Medical Treatment. (f) Surgical Treatment; Tracheotomy; Tubage. This will be opened by Dr. A. Jacobi (New York). Drs. E. Owen, H. R. Hutton, W. T. Gairdner, James Finlayson, D. Newman, George Buchanan, H. C. Cameron, and John Macintyre will take part in the discussion.

2. Rickets: (a) Etiology and Prevention: (b) Its Connection with Syphilis and Scurvy. Is Enlargement of the Liver and the Spleen always present, more or less, in Rickets; or only in Cases of Syphilitic Origin? (c) Medical Treatment. (d) Surgical Treatment; at what Stage, and in what Way? Drs. Macewen, R. W. Parker, H. R. Hutton, R. Haggard, L. W. Marshall, E. L. Freer, and John Gordon will take part in the discussion.

Drs. Jacobi (New York), Keating (Philadelphia), Ranke (Munich), and Sanné (Paris), and other members of the profession on the Continent have been invited.

SECTION K.—PHARMACOLOGY AND THERAPEUTICS.

Conveyancing Class Room.

K. PHARMACOLOGY AND THERAPEUTICS.—*President*, James Morton, M.D. *Vice-Presidents*, John Dougall, M.D.; Theodore Cash, M.D., F.R.S. *Honorary Secretaries*, Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

A special discussion will be opened by Professor Theodore Cash, M.D., F.R.S., on Carbolic Acid, Antipyrin, Antifebrin, and their Allies; especially as regards their Antipyretic, Analgesic, and Antiseptic Actions. Dr. Walter G. Smith (Dublin) will take part in the discussion.

Dr. W. Allan Jamieson (Edinburgh) will show two cases of Xeroderma Pigmentosum.

The following have promised papers.

DOUGALL, J., M.D., Glasgow. (Title not received.)
 DRYSDALE, C. R., M.D. 1. On the Therapeutic Value of Alcohol. 2. The so-called Abortive Treatment of Syphilis.

SECTION L.—LARYNGOLOGY AND RHINOLOGY.

Divinity Class Room.

L. LARYNGOLOGY AND RHINOLOGY.—*President*, Felix Semon, M.D. *Vice-Presidents*, George Hunter Mackenzie, M.D.; Peter McBride, M.D. *Honorary Secretaries*, D. Newman, M.D., 18, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

The following subjects are proposed for special discussion:

1. The Use and Abuse of Local Treatment in Diseases of the Upper Air Passages. To be opened by Dr. de Havilland Hall (London) and Mr. Stoker (London).

2. The Causes, Effects, and Treatment of Nasal Stenosis. To be opened by Dr. Macintyre (Glasgow) and Mr. Creswell Baber (Brighton).

3. Hemorrhages from the Pharynx and Larynx, and other Hemorrhages which simulate these. To be opened by Dr. Percy Kidd (London) and Dr. Hodgkinson (Manchester) (probably).

The following gentlemen hope to take part in the discussions: Dr. Prosser James (London), Dr. McBride (Edinburgh), Dr. Charles Warden (Birmingham), Dr. Cartaz (Paris), and Mr. Richard Ellis (Newcastle-on-Tyne).

The following papers have been promised.

JOHNSTONE, R. Mackenzie, M.D. Account of a Case of Tumour of the Naso-Pharynx.
 MCBRIDE, P., M.D., Edinburgh. On Hay-Fever and Allied Conditions.
 MACINTYRE, J., M.D. Anatomical Demonstration of the Larynx.
 NEWMAN, D., M.D. Two Cases of Complete Laryngeal Stenosis produced by Wounds of the Larynx in Attempted Suicides.
 WARDEN, C., M.D. (Title of paper not yet received.)

Members desirous of reading papers, or joining in the discussions, are earnestly requested to communicate without delay with the Secretaries of the respective Sections.

ANNUAL MUSEUM.

THE Annual Museum will be held on August 7th, 8th, 9th, and 10th, in the Examination Hall of the University of Glasgow, and will be arranged in the following six Sections:

SECTION A.—Food and Drugs, including Antiseptic Dressings, and other Chemical and Pharmaceutical Preparations. (Honorary Secretary, R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Street.)

SECTION B.—Pathology, comprising Casts, Models, Diagrams, Microscopical Preparations, and Micro-organisms. (Honorary Secretary, J. Lindsay Steven, M.D., 34, Berkeley Terrace.)

SECTION C.—Anatomy, comprising Special Dissections, Methods of Mounting, Abnormalities, Drawings, Medals, etc. (Honorary Secretary, J. Yule Mackay, M.D., 34, Elmbank Crescent.)

SECTION D.—Physiology, consisting of Apparatus, Microscopes, Microtomes, and Microscopical Preparations of Normal Histology. (Honorary Secretary, J. McGregor Robertson, M.A., M.B., C.M., 400, Great Western Road.)

SECTION E.—Instruments and Books, including Appliances—Medical, Surgical, and Electrical. (Honorary Secretary, J. Macintyre, M.B., C.M., 173, Bath Street.)

SECTION F.—Sanitation (1) Domestic Sanitary Appliances, embracing all Improvements applicable to the Treatment of the Sick in Private Dwellings. (2) Personal Hygiene, including Dress and Gymnastic Appliances. (3) Ambulances, Carriages, and all other Appliances used for the Conveyance and Treatment of the Sick and Wounded, either in Civil, Naval, or Military Practice. (4) Drawings, Models, and Apparatus illustrative of the Ventilation, Lighting, and Draining of Hospitals. (5) Hospital Furniture. (6) Sanitary Appliances in connection with Educational Institutions and Public Buildings. (Honorary Secretary, 1, 2, 3, Robert Pollok, M.B., C.M., Pollokshields; Honorary Secretary, 4, 5, and 6, A. W. Russell, M.A., M.B., C.M., Western Infirmary.)

Intending exhibitors should communicate as early as possible with the Secretary of the Section in which they propose to exhibit, as the Museum Catalogue must be complete one month before the date of meeting. Inquiries as to advertisements in the Catalogue should be sent without delay to Dr. Thomson, 3, Melrose Street, Glasgow.

Honorary General Secretaries of Museum Committee, A. Ernest Maynard, B.S., M.B., 4, Berkeley Terrace; R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Terrace.

Honorary Local Treasurers, Joseph Coats, M.D.; Jas. B. Russell, M.D.

Honorary Local Secretaries, John G. McKendrick, M.D., F.R.S., 45, Westbourne Gardens, Glasgow; James Christie, M.D., Hillhead, Glasgow; John Glaister, M.D., 4, Grafton Place, Glasgow.

EXCURSIONS.

THE following eight excursions will take place on Saturday, August 11th.

1. *Lanark and Falls of Clyde.*—The party, limited to 100, will leave the Central Station by special train about 10 A.M., for Tillietudlem, where, by the kind permission of the Earl of Home, an opportunity will be given to visit the ruins of Craignethan Castle, the scene of Sir Walter Scott's *Old Mortality*; proceeding on foot to the picturesque ravine of the River Nethan for about a mile; the party will then be conveyed by coach through some of the most charming Clydesdale scenery to the Falls, visiting Stonebyres, and then, by the kindness of the proprietor, will enter the Corehouse estate, to see Cora and Bonnington Linn. Returning by coach to Lanark, dinner will be served about 2.30 P.M., in the Clydesdale Hotel. After dinner the party will be shown the library of Dr. William Smellie, the famous obstetrician, which was bequeathed by him to the Grammar School of that town. It is a very interesting collection of books, containing two or three black letter volumes. It is also expected that the Lee talisman, or "Lee Penny," will be shown to the visitors. This charm was taken from the Saracens by Sir Simon Lockhart, of Lee, after a battle, as part ransom of a captive. It was deemed a charm of great medicinal virtue in the end of the last century. It gives the title to *The Talisman*, another of the novels of Sir Walter Scott. Afterwards short excursions may be made on foot to Cartland Crags, Roman Bridge, Old Abbey, and Smellie's grave. The party will return from Lanark by special train to Glasgow, arriving not later than 8 P.M.

2. *Ayr and the Land of Burns.*—The party, fixed at 100, will leave Glasgow about 9.30 A.M., by special train to Ayr. Thence by conveyances it will proceed, *via* Maybole, to Crossraguet Abbey (one of the finest Gothic remains in Great Britain), thence to Cutzean Castle, where it is expected the party will be received by his Grace the Marquis of Ailsa, and returning to Ayr by the sea-shore to Burns's Monument, Alloway Kirk, Burns's

Cottage, and "Twa Brigs." Dinner will be served at the Station Hotel, after which, by special train, the party will return to town.

3. *The Perthshire Highlands, Lochearnhead and Crieff.*—The party, numbering 100, will leave Buchanan Street Station about 9.15 A.M., in special saloon carriages, for Lochearnhead, and during the journey will see some of the finest Highland scenery, thence by coaches *via* Loch Earn, to St. Tillans, where a halt will be made for refreshments, at the Drummond Arms Hotel: then to Cannie, where a second halt will take place to visit the Devil's Cauldron, and thence to Crieff, where the party will be entertained to dinner by Dr. Meikle, at his Hydropathic Establishment. After dinner, short walks to places of interest in the neighbourhood may be made, and the party will leave Crieff in the same saloon carriages for Glasgow, where it will arrive about 8 P.M.

4. *Callander and the Trossachs (Loch Katrine).*—The party, 100 in number, will leave the same station as last at the same hour, in special saloon carriages, for Callander, where coaches will be in readiness to convey them to Loch Katrine. Dinner will be served about 2 P.M., in the Trossachs Hotel, after which visitors may enjoy a sail on the loch to the Silver Strand, mentioned by Sir Walter Scott in the *Lady of the Lake*. The party will return by the same route to Glasgow, where it will arrive about the same time as the former excursion.

5. *Arran.*—The party, numbering 100, will leave Bridge Street Station in saloon carriages about 9 A.M., for Wemyss Bay, where, it will join the famous Clyde steamer *Ivanhoe*, which *en route* to Arran calls at Rothesay, and passes through the Kyles of Bute. Dinner will be served on board during the passage. On landing on the island the party will be enabled to visit Broderick Castle, by the kind permission of his Grace the Duke of Hamilton. The party will return to Glasgow by the same route, arriving there about 7.30 P.M.

6. *Stirling, Bridge of Allan, and Dunblane Cathedral.*—The party, limited to 100, will leave Buchanan Street Station about 9.15 A.M. by special train for Stirling. On arrival visits will be paid to the Castle of historic renown, the Royal Infirmary, High Church, etc., under the conduct of Provost Yellowlees of that town, and Dr. Haldane, of Bridge of Allan, returning to the Smith Institute, where cake and wine will be served. Thence the party will proceed by conveyances to the Wallace Monument, *via* the King's Park, where an unrivalled view is to be obtained, then through the demesne of Airthrey, the seat of the Right Honourable Lord Abercromby, to Bridge of Allan, where dinner will be served in the new Museum Halls. After dinner seats in the conveyances will again be taken, and the party will then drive through the grounds of Keir, the seat of the late Sir W. Stirling Maxwell of bibliophilic fame, and Kippenross, to Dunblane, where the Cathedral and Library of Archbishop Leighton will be visited. The party will then return by the famous Wharry Glen to the Spa at Bridge of Allan, where tea will be provided for the visitors at the Hydropathic Establishment. The party will leave Bridge of Allan for town, arriving there about 8 P.M.

7. *Rothesay and the Kyles of Bute.*—The party, fixed at 250, will leave Central Station about 9 A.M., by special train from Greenock, where it will join the new steamer *Victoria*, specially chartered for the trip. The steamer will then sail down the Firth of Clyde to Rothesay, and thence will proceed through the Kyles of Bute, *via* Loch Ridden, and then round the Island of Bute to Kilchattan Bay pier, where those of the party who choose may land to walk to Mount Stuart, the seat of his Grace the Marquis of Bute, visiting on the way the beaver colony, now an almost unique sight. The remainder of the party will return to Rothesay by the steamer, where conveyances will be in readiness to convey them to Mount Stuart; on returning, the party will alight at the Glenburn Hydropathic Establishment, where, by the kindness of Dr. Philp, the proprietor, tea will be served to the party at 5 P.M. Dinner will be served on board the *Victoria en route*. After tea a visit may be paid to Rothesay Castle. The return journey to Glasgow will be made by the same steamer, either to Greenock or Wemyss Bay (not yet decided), and thence by special train, arriving in town about 8 P.M.

8. *Loch Lomond.*—The party, numbering 150, will leave the North British Railway Station, Dundas Street, at 10 A.M., by special train for Balloch Pier, where it will be waited for by a special steamer; during its passage to the head of the loch all the places of historic interest will be pointed out. Facilities will be given, by arrangement made before or in the early part of the

meeting, for an ascent of Ben Lomond by a small party. On arriving at the head of the loch fifty of the party (to be fixed by ballot or choice) will land, the remainder returning by the same steamer to Tarbet, where dinner will be served about 2.30 P.M. in the hotel. From here parties may visit Loch Long by a very picturesque road. For the party of fifty left at the head of the loch a special dinner will be provided on board the steamer, arriving there about 2 P.M. The return journey will be made by steamer to Balloch, and by special train to town, arriving about 7 P.M. As this is the busiest time of the tourist season, intending visitors to this place should apply early, in order that completely comfortable arrangements may be made.

Short descriptive sketches of the different excursions will be given in the JOURNAL from week to week, in order to enable visitors to determine their choice, and also that early applications may be made during the meeting for tickets.

FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

The Question of Trephining in Cerebral Lesions.—Resection of Vermiform Appendix in Perityphlitis.

PROFESSOR NOTHNAGEL recently showed the following case to the Imperial Royal Society of Physicians of Vienna. The patient, a girl, aged 18, had been struck on the head with a sabre. She instantly fell down, lost consciousness, and came to herself after half an hour with paralysis of the right arm and the right leg. The paralysis disappeared after some days, but some impairment of sensibility remained behind. Since then she constantly suffered from headache. About fourteen days after the healing of the wound, convulsions, lasting from one to two minutes, supervened in the right leg. At present the patient did not suffer from convulsions, and both upper extremities showed a fairly equal degree of power. The right lower extremity was somewhat paretic, and was still subject to convulsive attacks, consisting in frequent and rapid contractions; consciousness and sensibility were unimpaired. The scar on the vertex of the skull exactly corresponded to the spot in the brain which must have been injured. The central convolutions, and especially the centre governing the lower extremity, had their seat there. The only doubt was as to whether the neighbouring convolutions were not equally affected. There must be a lesion in the brain causing two conditions, namely: (1) debility and inhibition of function; and (2) irritation, as spasms used to occur occasionally. Both these conditions could be explained by the supposition of a vegetation of bone, having the periosteum as its point of departure. The important question now arises as to what should be done in a case like this. There was scarcely any doubt that the treatment with bromide of potassium and galvanisation, etc., would be quite useless. We had to ask the surgeons whether trephining was indicated in such a case. If no changes were to be found in the bone, the dura mater would have to be opened. The lecturer had a patient of his trephined last year, but without success, probably because the dura mater had not been opened. It was, moreover, a question whether the inconveniences from which the patient now suffered would justify such an operation, or whether the complete development of Jacksonian epilepsy should be waited for before any surgical intervention. The lecturer holds that this will probably not be the case. Docens Dr. Maydl remarked that about ten cases of this kind had been reported in the JOURNAL of 1887; in two of these cases tuberculosis and sarcoma were present. In all these cases except that of sarcoma, the operation was attended with good results; in the case of sarcoma, recurrence took place, and the patient died. There was no doubt about the success of the operation, though there was an eleventh case on record (that of Bergmann) in which the operation ended fatally. As to the therapeutic effect, the results were not in all cases the same. In the majority of cases the attacks disappeared after operation, returned after a certain time, and completely disappeared after an interval of some weeks. Professor von Dittel also spoke in favour of the operation.

Dr. Brenner, Assistant to Professor von Dittel, showed a patient, aged 19, who had been admitted into Professor von Dittel's clinic in March last, with symptoms of severe intestinal obstruction. The history of the case and the intense pain in the cæcal region

led them to conclude, with a certain degree of probability, that they had to deal with perityphlitis and consecutive suppurating peritonitis. Laparotomy was performed on the day of admission. After opening the abdomen, a great quantity of pus escaped; the intestines were washed with a solution of salicylic acid; and on close examination it was found that there was an abscess in the region of the cæcum around the vermiform appendix, which was perforated. The vermiform appendix was ligatured and removed. The part of the cæcum which had become affected by the suppurating process was drawn forwards and fixed to the abdominal wound by means of sutures, as resection of the intestine could not be done, owing to the collapsed state of the patient during the operation. The abdominal wound was closed, and healing took place by first intention. Three other cases of suppurating peritonitis following perityphlitis were treated in the wards of Professor von Dittel by laparotomy, but all ended fatally. Dr. Brenner remarked that the recent advance in the surgical treatment of these cases consisted in the fact that operation was resorted to at an early date, and that the affected part of the intestine was removed from the abdominal cavity. This was the first case of healing after resection of the vermiform appendix when general peritonitis was already present.

BERLIN.

[FROM OUR OWN CORRESPONDENT.]

Health of the Emperor.

The improvement in the health of the Emperor, which I mentioned in my last letter, still continues. The journals every day report increase of strength and appetite on the part of the illustrious patient. This agrees with what I am now able to state on the best authority; namely, that the physicians in attendance on His Majesty are no longer certain about the diagnosis. The pathological character of the swelling and the clinical course of the affection are so entirely different from all that is known generally to occur in laryngeal cancer, that to state the fact bluntly, the physicians do not know the nature of the disease with which they have to deal. This uncertainty of course is in itself an immense improvement on the terrible diagnosis which was arrived at in November. This change of opinion has not yet been officially made known to the public, for fear of exciting hopes which might afterwards be disappointed.

It seems to me that a more hopeful opinion has prevailed since Professor Rudolf Virchow, who returned from Egypt not long ago, had the opportunity of examining the affected parts. You are acquainted with Virchow's opinion that alveolar structure is to be considered as cancer only if the nested cells are found in the mucous tissue itself, and that alveolar structure in the epithelium—that is, above the mucosa—has no malignant character. This, however, is not the opinion of our greatest anatomist, Professor Waldeyer, whose researches on carcinoma, as you know, are classical. Waldeyer believes that nests of epithelial cells arranged like an onion constitute cancer wherever they are found. Therefore where Virchow finds only "pachydermia laryngis," Waldeyer sees cancer. The future will show which of these eminent pathologists is right. The fact, however, remains that the Emperor himself must be more hopeful as to his prospects of life than he was some time ago. This is proved by certain acts of political importance. When His Majesty returned from San Remo after the death of his illustrious father, the continuity of the Government was not interrupted in any manner. The ministers remained in their places, and no liberal measures were brought forward, though it was well known to the whole German people that the new Emperor was far more liberally inclined than his predecessor. The conviction, therefore, was universal, that the sick monarch did not mean to begin what he was sure not to finish. Since about a fortnight a change is to be observed. Eminent deputies of the Liberal party, like Virchow and Forckenbeck, have been honoured with high decorations, and the position of the Minister of the Interior, Herr von Puttkamer, an extreme Conservative, seems to be considerably weakened.

All this proves that the Emperor has taken the reins of Government into his own hands, and that his physicians must have given him hopes of a longer life. Even Professor Senator, who was absolutely convinced of the malignant nature of the disease, is now, as I have just heard, not without hope that the Emperor's life may be prolonged for several years.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Sudden Deaths from Wound of Larynx.—Uterine Tetanus.

At a meeting of the Société de Chirurgie, April 4th, 1888, M. Chauvel read notes of a case which had come under the notice of M. du Cazal of sudden death from a wound in the larynx. A quartermaster swallowed a bit of glass, which wounded the larynx. After violent attacks of pain the patient suddenly died. The necropsy revealed ulceration of the lower part of the left vocal cord. The patient might have been saved by tracheotomy, but neither suffocation nor any other symptom indicated the operation. According to M. du Cazal's opinion, the patient died of reflex syncope. M. Chauvel was surprised that the subglottic surface of the vocal cord should be wounded without hæmorrhage ensuing. He believed that death was caused not by the wound, but by subglottic œdema. It is to be regretted that a laryngoscopic examination was not made. In such cases it is fatal to temporise. To support this assertion, M. Chauvel related the case of an Arab suffering from laryngeal syphilis, who obstinately refused to allow him to perform tracheotomy. The latter remained near the patient with the intention of operating on the first signs of urgency, but the Arab died suddenly in one of the attacks.

Dr. Duriez has lately published an interesting paper on a very rare accident of confinement—namely, uterine tetanus. The womb may be affected during labour in various pathological ways bearing some analogy to uterine tetanus. These are (1) uterine rheumatism, the symptoms of which are fever, with sudden pains, possibly extending beyond the womb, increased by pressure and movement; (2) puerperal tetanus, the result of infection; this resembles surgical tetanus, and is consequently accompanied by trismus, opisthotonos, etc. It is followed, after the delivery of the child, by spasms of the inner orifice of the womb, which closes, preventing the issue of the after-birth, or affecting the womb itself, produces complete or partial hardening of the placenta. Spasm of the womb may occur in connection with confinement, and is characterised by its sudden contraction, or of its neck, when the latter becomes rigid. If the spasm be continuous, then it is caused by uterine tetanus, which is simply a permanent contraction of the womb lasting from eighteen to thirty-six hours. It may be caused by the early rupture of the membranes, by any obstacle to delivery, and by a wrong presentation of the child, especially when the shoulders present. The prognosis is absolutely fatal to the child, and is doubtful for the mother, whose safety is endangered by the long labour, and the measures necessary to assist delivery. Preventive treatment consists chiefly in rectifying a faulty presentation. In a case of tetanus, the means of allaying the spasm being uncertain and at times dangerous, if, after several attempts at version, attempted under chloroform, the delivery is not effected, it is better to have recourse at once to embryotomy. The average of deaths from this operation is about 8 in 53.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Bacteriological Test for Surgical Tuberculosis.

At a recent meeting of the Medicinisch-Pharmaceutischer Bezirksverein von Bern, Dr. Tavel read an important paper on a novel method of differential diagnosis between tuberculosis and other affections, by inoculation experiments on guinea-pigs. The method is at present systematically practised by Dr. Tavel, in Professor Kocher's surgical clinic, in all cases where it is necessary to differentiate a tuberculous affection from syphilis, traumatic granuloma, non-tuberculous ulcers, polyarthritis deformans, lymphoma malignum, gonorrhœa, acute abscesses, malignant tumours, glanders, and actinomycosis. Guinea-pigs are selected for the purpose, because these animals are peculiarly susceptible both with regard to scrofula and true tuberculosis, which is not the case with rabbits. Moreover, the course of the disease in the former is by far more rapid than in the latter. In guinea-pigs, a positive diagnosis becomes possible from two to four weeks after inoculation. From the results obtained in 120 cases where this diagnostic inoculation was practised, from one to five animals being used in each case, Dr. Tavel lays down the following propositions: 1. If the case is of tuberculous nature, inoculation invariably gives rise to the development of tuberculosis in the animal experimented upon. 2. The method requires far less time and

trouble, and gives more trustworthy results, than microscopic examination. 3. The method is certain, even where anatomical examination is practically impossible. The single inconvenience attending it is that the diagnosis cannot be made till after the lapse of a couple of weeks. In the discussion which followed Dr. Tavel's communication, Professor Kocher said that the bacteriological differential diagnosis in cases of surgical tuberculosis was an important advance, because, to use his own words, "the clinician who seeks support from the anatomist is always forsaken by the latter just at the critical moment when he more than ever stands in need of learning something sure and certain. Now at last we have at our disposal a method which can be relied upon."

EGYPT.

[FROM OUR OWN CORRESPONDENT.]

Annual Exodus.—Recurrent Sarcoma of Neck.

EVERY year there is an exodus from Egypt of people who try to make out that they cannot support the terrible summer heats. The necessity for this is entirely fictitious, for, compared with India and other Oriental places, there is absolutely no reason why Europeans should not remain and thrive in this wonderful country for years together without a break. When I say no reason, I pass over the fact that they must, of course, take some slight trouble to sacrifice to sanitation; must bear some expense to have their homes put into a moderately hygienic condition. If they choose to live over a festering cesspool, they must, of course, expect to suffer; but, in common fairness, our admirable climate should not be blamed for the results of their own crass carelessness. I repeat, with every confidence, that there is nothing in the climate of Egypt to injure Europeans. If they take the trouble to make their houses wholesome, they should enjoy better health in this much maligned country than in their own foggy and damp native land.

Notwithstanding the exodus, the sick still keep coming in to Kas-el-Aini Hospital. The following notes of a recent case may prove interesting. Nebowna, aged 6, daughter of Egyptian parents, was first admitted in 1884 with a small tumour below the right ramus of the jaw. She was operated on by the native professor of surgery, but in 1886 had to be re-admitted. She had then an enormous tumour, extending from the left angle of the jaw to within half an inch of the symphysis menti. It was adherent to the skin and deep parts, and had a thickness of about three inches and a half. As the tumour involved the common carotid artery and the internal jugular vein, it was removed with great difficulty; about three-quarters of an inch of the artery being included with the ablated part, as well as a portion of the parotid gland, and about half a square inch of the periosteum of the lower jaw with the subjacent bone. The facial nerve was also at the same time divided. On the fourth day the dressing was renewed, but, during the process, a sudden burst of hæmorrhage took place from the common carotid artery, which was with difficulty controlled with the finger till the necessary instruments could be brought to ligature the vessel. The wound healed in thirty-five days by granulation, and the child was soon afterwards discharged. In April this year, however, she was readmitted with a tumour in the old position, extending from the parotid gland to the symphysis, and consisting of two distinct masses; the larger and superior being the size of a small cocoa-nut, and the smaller, lying below the inner third of the maxilla, being about as big as a chestnut, and separated from the larger mass by a deep groove. This smaller mass was diagnosed by Professor Virchow, who was passing through Cairo, as an enlarged gland. The tumour was removed on this occasion more easily than at first; the blood-supply being found to come from the facial and inferior thyroid arteries; there being no trace whatever of any carotid artery or internal jugular vein. In the groove between the two portions of the sarcoma there was found a small exostosis, about one inch long, half an inch broad, and one line in thickness, arising from the lower jaw at the place where it had been scraped during the previous operation. The tumour had evidently, in its growth from the deeper parts, come across this exostosis, and, being unable to displace it, a portion had passed behind, and, bulging out on the other side, had simulated the appearance of a swollen gland to such an extent, that the great professor—who is called by the Egyptians Abou Awram, the Father of Tumours—was deceived. The wound is now all but healed, and the little patient relieved temporarily of her disease.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

New Royal Infirmary.—The Teaching of Anatomy.—Hodgkin's Disease.—Low Death-rate.

THE new Royal Infirmary, the foundation stone of which was laid last October, is making rapid progress, and already a fair idea may be obtained of the appearance and arrangement which it will present when finished. It is being erected of local grey brick, with dressings of red terra-cotta, and glazed bricks will be largely used in the interior. The wards will be arranged in six blocks, and will contain altogether 280 beds. There is a special set of rooms for the out-patients, and a separate block is to be devoted to the administrative department. The contract price for the building is £105,000, but at the time of commencing the operations the amount subscribed fell short of that sum by £15,000, and accordingly the Committee decided to defer the erection of one of the wings until the necessary funds were provided. Since then, however, additional subscriptions have nearly made up the deficiency, and the entire building will be proceeded with according to the original designs. The architect is Mr. A. Waterhouse, R.A., of London. During the construction of the new building the work of the Infirmary is carried on in commodious temporary premises which have been erected at considerable outlay, supplemented by the building that was formerly the Lock Hospital, and has now been converted into two medical wards.

In the School of Medicine some improvements have recently been introduced in the arrangements of the anatomical department. The dissecting room has been surrounded by a dado of glazed tiles, and the so-called "boneroom" has been enriched by numerous preparations of great utility and beauty. No device has been spared to make the intricacies of anatomy plain to the student, and Mr. W. Mitchell Banks, the Professor of Anatomy, is to be congratulated on the completeness of his arrangements.

Two cases of Hodgkin's disease have lately been in the Royal Southern Hospital under the care of Dr. Carter. The first was a man, aged 50, in whom the disease had existed five years, and when treatment was commenced about five months ago there was extreme glandular enlargement all over the body, the inguinal glands on one side forming a lump as large as an infant's head. The blood corpuscles were in normal amount, and anæmia was not marked. The medicinal treatment adopted was arsenic, continued for three months, and supplemented during the greater part of the time by iron and quinine. At the present time the glands can scarcely be felt, and the patient is practically well. The second case is still under treatment. It is remarkable that in both patients effusion took place into the left pleura, apparently from the pressure of the enlarged glands. The first case was tapped three times.

The number of deaths registered in this city during the week ending May 26th was 191, being at the rate of 16.6 per 1,000 in the year. This is the lowest death-rate ever recorded in Liverpool. The temperature during the week was unusually high for the time of year, reaching a maximum of 71°.

SHEFFIELD.

[FROM OUR OWN CORRESPONDENT.]

Cessation of Small-pox Epidemic.—Cost of Vaccination.—Physiology and Education.—Heavy Damages against a Railway Company.

THE small-pox outbreak has now so much subsided that it can hardly be regarded as epidemic. Scattered cases still occur, but the last weekly return showed only three deaths attributable to that cause. The Manchester and Sheffield Railway Company commenced now their excursions for Whitsun week, and it is expected now the Midland will follow with their cheap seaside and other trips. The cloud which has so long hung over the town, and so seriously interfered with its trade, has now it is hoped disappeared. Every well-wisher to "Steelopolis" will fervently pray that it may be very long before the health of its inhabitants and its commerce are again affected by such a scourge.

At a meeting of the Ecclesall Board of Guardians recently, it was announced that the cost of public vaccination for the year ending Lady day last was £921 4s. 2d., as compared with £284 19s. 10d. for the previous year. No doubt the increased expenditure would be found to apply particularly to the months of December, January, and February, when revaccination was so much encouraged.

Dr. Dyson recently read before the Literary and Philosophical Society a valuable paper entitled "Some Physiological Aspects of a Modern Education." By request it was repeated before the Sheffield Teachers' Guild. From the standpoint of a physician and physiologist he pointed out the errors in the systems of the day and the dangers accruing therefrom. The audience consisted of teachers of all grades, and their willingness to learn and the spirit in which the lecturer's remarks were received were very gratifying.

Two claims for damages in consequence of injuries received at the Hexthorpe (Doncaster) railway disaster were decided before the Under-Sheriff on June 1st. In one case, that of a solicitor, aged 28, who had undergone amputation of one leg and sustained severe injuries to the other, £4,000 was awarded; whilst in the other, a clerk obtained £950, having had fracture of a leg.

Dr. W. R. Thomas has resigned his office as Physician to the Public Hospital and Dispensary, intending to practise in Bourne-mouth.

The following institutions have received legacies from the executors of the late Mr. Joseph Nicholson: General Infirmary, £525; Jessop Hospital for Women, £105.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Whitsun Week.—Conversazione in Owens College.—Chair of Surgery.—Proposed Gift by Whitworth Trustees.

IT is the custom in the Medical School of Owens College that no lectures are delivered during Whitsun Week, when all Manchester holds high holiday. The lectures were resumed on Monday, May 28th.

The Council of the Owens College has issued a large number—several thousands—of invitations for a grand *conversazione*, which is to be held on June 8th, on the occasion of the opening of the magnificent Biological and Geological Laboratories and Museum. These buildings were used by the members of the British Association at its Manchester meeting; but on the day mentioned they will be formally opened, though they have been in use for some time.

Very little has so far been heard as to the vacancy in the Chair of Surgery, but so much is certain that several local gentlemen are likely to be candidates, and it is said that perhaps others may apply; but as the time for receiving applications does not expire until June 9th, the names of the actual candidates are not likely to be known until that date. The Council, in its statement of the duties of the new professor, intimate that the duties of the chair may be rearranged.

Some time ago, the Whitworth Trustees intimated that they were willing to present a large piece of land for use as a public park and as a site for a museum and other buildings. The trustees now propose to increase their gifts; and it is probable that, within a short time, Manchester—through the generosity of the Whitworth Trustees, combined with the Exhibition surplus—will be possessed of technical schools and an enlarged art-school.

CORRESPONDENCE.

DR. NITZE AND ELECTRIC ILLUMINATION OF THE BLADDER.

SIR,—Dr. Nitze writes me, stating that the original idea of introducing a light into the cavity of the bladder belongs solely to him, and suggests that I have not made this appear distinctly in my late lectures on the subject.

When I showed the instrument in London, in the year 1880, soon after its invention, I said: "The idea of carrying an electric light into the bladder and other cavities appears to have originated with Dr. Nitze, now of Vienna; but its realisation is due to the patience and perseverance of Leiter, the surgical instrument maker, of that city." I quote from a lecture given at that date, and since widely circulated in my "Clinical Lectures." I had just come from Vienna; that was the impression I received there, and the statement has not been called in question hitherto. I am quite unable to enter into any discussion as to the relative shares of merit due respectively to the originator of the idea, which I fully believe Dr. Nitze to be, and the clever mechanic who rendered it practicable, and who has subsequently improved it, as, with technical knowledge, he might naturally be expected to do. In

general terms, the chief merit is unquestionably due to "the thinker," and I regret that I did not give more prominence to that fact in my recent lecture. Had I but repeated the words quoted above, I should only have done simple justice to Dr. Nitze, whose name the instrument ought certainly always to bear. But I regarded the matter as already known, and merely mentioned incidentally Dr. Nitze's association with Leiter, without, on that occasion insisting on the Doctor's claim as the original inventor. I trust this statement will be satisfactory to Dr. Nitze, as I unfeignedly desire it should be.—I am, etc.,

Wimpole Street.

H. THOMPSON.

THE TREATMENT OF AURAL EXOSTOSES.

SIR,—If Mr. Field had heard at the Royal Medical and Chirurgical Society the paper which he criticises in the *JOURNAL* of June 2nd, he would have observed that references were made to the account (published in 1876) of my operation in 1874; also to his first operation in 1877, and his further published cases.

I am sure that (had he heard or seen the paper) his comments would have been valued and received with attention. I am equally sure that the impressions he now has of the contents of the paper would have been in many respects quite different, in others the exact opposite of what he appears to have at present.

If Mr. Field will bring the cases he proposes to publish before one of the Societies in London, I shall be happy to discuss all the points to which he refers in his letter.—I am, etc.,

London, June 3rd.

W. B. DALBY.

URTICARIA DIFFUSA OCCURRING AFTER OVARIOTOMY.

SIR,—Mr. Butler-Smythe's communication is interesting, and confirms an experience which has been to me quite a common one. After almost all kinds of abdominal section, acute attacks of urticaria occur in at least six or seven per cent. of the cases. It seems sometimes to come in outbreaks, for I have quite lately had the appearance he describes come over eight or nine cases, one after the other, within two or three weeks; and this is by no means the only incident of the kind which I have witnessed. The symptoms are occasionally somewhat severe, but they never give any reason for anxiety, and the administration of a saline purgative generally causes them to disappear.—I am, etc.,

Birmingham, June 2nd.

LAWSON TAIT.

ETHERISATION: AN UNRECOGNISED DANGER.

SIR,—Having noticed more than once the collapse subsequent on prolonged ether-anæsthesia, I have often thought how simple it would be to have an operating table made of zinc or tin, hollow, which could be filled with hot water before operation, and which, when covered with blanket, would contribute immensely to the patient's comfort, as well as tend to prevent the chance of collapse.

A table like those seen in restaurants for keeping roast joints hot all day will explain what I suggest. The interesting paragraph in the *JOURNAL* of June 2nd on Etherisation, etc., has prompted me to publish this suggestion; and I fancy, if carried into effect, it would be useful at least in hospitals, where prolonged operations are the rule.—I am, etc.,

Dublin, June 3rd.

ALEXANDER DUKE, F.R.C.S.P.

MEDICAL OFFICERS OF HEALTH AND COUNTY BOARDS.

SIR,—I have received a copy of a circular signed by some medical officers of health chiefly in the south-west of England, in which they refer to the question of compensation which they propose to claim in case the Government decide to attach medical officers of health to County Councils, and to discontinue the services of some medical officers of health holding annual appointments of minor districts. The cry for compensation is a very natural cry, and one which will always find very numerous adherents among the persons interested. In the first place, however, I would remind those who may be addressed on this subject, or who may feel interested in it, that the proposal to create adequate districts for sanitary purposes, and to officer them by medical officers of health of full qualification with adequate salaries, and not in private practice, is one which has been uniformly aimed at by the best professional authorities and endorsed by the British Medical Association for a long series of years. It was the plan which the Association expressly adopted after the most elaborate consideration of the whole sub-

ject at the instance of Rumsey, Stokes, A. P. Stewart, W. H. Michael, Farr, Sibson, and of all the recognised leaders of the Association. This plan they, at the request and with the concurrence of the Association, urged upon the Government year by year, and their evidence before the Royal Sanitary Commission, earnestly pressed it upon that Commission. Further, in the very able and detailed report presented to the annual meeting of the British Medical Association at Plymouth in August, 1871, and unanimously adopted without one dissentient voice, the joint Committees of the British Medical and Social Science Associations severely criticised the report of the Royal Sanitary Commission on the ground that it did not adequately provide for the extension of administrative areas as health districts.

"It is well known," says this report, which was unanimously adopted by the Association, "that petty elective authorities in small separate districts are apt to obstruct rather than forward sanitary improvement, and that for the most part they render any uniform and efficient system of administration almost impossible."

Again they say, referring to the proposed creation of about a thousand limited and isolated areas for sanitary purposes, against such a project of Local Government, "we strongly and earnestly protest," and they especially complain that "while the Committee propose to facilitate the combination of districts for limited purposes, its adoption is to be merely permissive," and they protest against the distinction between urban and rural authorities.

Further on in the report they urge, as an important reason for wider administrative areas, that they would supply a superior machinery for the appointment of scientific medical officers of health.

And again they say that it is almost impossible to overrate the importance, or to question the practical wisdom, of the recommendations for, as far as possible, providing such areas and making such appointments as will ensure the employment of a medical officer of health who, not being in practice, will not be the rival of his brethren, so that he may secure their goodwill and co-operation, and that opportunities of admonitory intercourse with sick families should not even be liable to abuse for the purpose of professional competition.

This memorandum, which is the *locus classicus* of sanitary principles of administration, laid down after the most earnest and continuous study of the subject by the very ablest sanitary authorities in the profession, who were also the leaders of the medical profession, establishes indisputably the principles of sound administration in respect to medical officers of health, their areas and their qualifications, whether in the interest of the public or of the profession.

The main difficulty of the Government was then, and is up to this moment, that the boundaries had not yet been fixed, county boards had not yet been established, and the requisite authority for the larger area had not yet been brought into existence. It is, therefore, a matter of course that either now, or at a very early date after the creation of the county boards, the sanitary administration should be constituted under suitable medical officers of health over a suitable area thus arranged; and the Government have recognised the necessity for this by providing that the County Councils should have cognisance of public health questions.

The Bill as drafted falls short of providing suitable medical officers to advise the Councils, and to enable them to carry out the functions so imposed upon them. Without such officers it is obvious that the Act must in this respect be a dead letter, and the cause of public health retarded and obstructed. In calling the attention of the Government to this defect in providing adequate machinery, the Society of Medical Officers of Health is true to the best and noblest traditions of the profession; while the Parliamentary Bills Committee of the British Medical Association has only followed in the course absolutely laid down for it, and defined by the Association in past years when dealing with this subject.

I have read, therefore, with some surprise the very narrow-minded doctrine of the circular letter referred to, which appears to be based upon purely selfish and personal considerations. There is reason, however, to suppose that the probable fear which some of its signatories entertained, that their own individual functions in respect to public health may be determined, and that their own appointments may come to an end, is exaggerated and without foundation. It is obvious that a considerable proportion of the appointments, and all those which are most valuable, whether in respect to the services performed or the salaries earned, are far

more likely to be continued, strengthened, and extended, than to be in any way diminished. It is notorious that a considerable number of medical officers of health of small districts only hold those appointments reluctantly, and to keep out intruders in practice, and would very willingly resign them if a county officer not in practice were appointed over a large district, to which he should give his whole time and care. But, however this may be, it would be an evil day for the profession if it was supposed that at a given moment, and in order to obtain the continuance of annual salaries on a small scale for a given number of its members, it should sacrifice the principles for which it has contended, and turn its back upon its deliberate and declared conclusions of what is best for the profession and the public as a whole, in order to satisfy small and purely selfish objects. On the question of compensation which the circular raises, it is clear that these gentlemen are not willing to face the position. They refer to the compensation claimed by publicans as a precedent for compensation to be awarded to themselves in case their functions should cease.

Now there is a great division of public opinion on the question of compensation to publicans, but the two cases stand on a wholly different footing. The publican claims to be recouped for the large sums which he has expended on the purchasing of a goodwill of a business for which he has given many thousands of pounds, on the faith of public Acts of Parliament which have created a precedent for the carrying on of his business. What he bought he bought on the faith of Acts of Parliament; that, at least, is his contention, and on the justice or injustice of it will depend his claim. The medical officer of health stands, and always has stood, upon an absolutely different footing. He is a salaried annual officer, who receives an annual salary for work done, and is constantly subject either to the suppression of his office altogether, under the existing law, if at any time the local authorities choose to combine and form a larger district, or to dismissal at any time without compensation. Any medical officer belonging to a conjoint district, and who is paid by contributions from separate districts, is liable at any moment to the cessation of that portion of his salary paid by any authority within the combined district. Whenever any one of these authorities chooses to withdraw, his salary ceases, and no question of compensation ever has or can be raised. As well might the qualified assistant of the general practitioner claim compensation if his employer ceases to practise, or enters into a new partnership, or chooses to alter his arrangements for any other purpose. Thus to attempt to create a demand on the ground of vested interest, with a view to opposing a salutary reform which the whole profession long since endorsed, and which every sanitary authority without exception has approved for a long course of years, is, in the name of professional interest and duty, to prostitute every other consideration to that of imaginary personal profit. Such a course of action is more damaging than anything else could be to the reputation of the profession and to the advancement of the cause of public health.—I am, etc.,

M. O. H.

SIR,—Like many other medical officers of health, the other morning I received a circular from a committee of gentlemen who have issued it, presumably in the interests of those who hold public health appointments under "small" authorities, and who work their appointments in conjunction with their private practices. This circular I enclose you.

In this circular, if I may be allowed to criticise it, I think there is much that is unreasonable and much that is reasonable in the principles it circulates. In the first place, it is notorious how many appointments are made and held in which there is no pretence to sanitary work. These sinecure appointments may well be disestablished. Then there are a goodly number of able, active, and conscientious officers who are much hampered in the good they might do by local interests, which might reflect upon their practices. These officers have mostly and proportionately got good results to show for their work, and such a change in appointment, as by combination under the County Board, might bring with it some hardship such as the circular indicates. But in public health administration the welfare of the community is the first consideration; and, as it appears to me, there is no reason why these interests and those of the cited conscientious medical officers of health should be conflicting. The prospect is that, by the division of the country into "combined sanitary districts," there will be appointments in sufficient numbers, and open to these officers, or, at any rate, for such as are sufficiently enthu-

siastic, or who might find it worth their while to accept such appointments.

In the second place, the qualification test, if applied, as the circular says, "to the exclusion of the older medical officers at present in office, in favour of younger men fresh from school and armed with a brand new diploma in sanitary science," might, and probably would act—and very unnecessarily so—to the prejudice of the existing race of health officers, who have made sanitation what it is. Fully recognising the advantages and the desirability of some standard of qualification such as a diploma would testify to, I would suggest that the licensing bodies granting such diplomas might with very good reason so modify their public health examinations to practitioners of some years' standing (for, say a year or two) that the grounds of complaint above quoted, and the unequal facilities for preparation for examination enjoyed by men established in practice (without very considerable sacrifice), might be removed. The credit of the public health service would in no way suffer by such a proceeding.—I am, etc.,

A RURAL M. O. H.

NAVAL AND MILITARY MEDICAL SERVICES.

ARMY MEDICAL DEFENCE FUND.

MEDICAL STAFF writes: The Government and its medical advisers having clearly shown their intention to take no steps to redress the existing grievances of the medical staff, it only remains for action to be taken on the lines laid down by Surgeon-General Irving in the *JOURNAL* of May 6th.

Let a comprehensive scheme be proposed for the establishment of a Medical Staff Defence Fund, and the proposers will find that subscriptions will at once be forthcoming. An annual subscription of £1 per annum will probably produce £1,000 a year as a current income, and with such a sum much can be done. It is obviously impossible for officers on the active list to initiate the movement, but it is equally certain that they will warmly support it.

It only remains for Surgeon-General Irving to lay the details of his scheme before the medical officers of the army through the columns of the *JOURNAL*, calling for the names of those willing to subscribe, and the necessary financial support will be at once assured him.

THE NAVY.

The following appointments have been made at the Admiralty:—**THOMAS C. HICKEY**, Fleet Surgeon, to the *Benbow*; **CHRISTOPHER HARVEY**, Staff-Surgeon, to the *Neptune*; **THOMAS M. SIBBALD**, Staff-Surgeon, to the *President*, additional, temporarily; **GRAHAM E. KENNEDY**, Surgeon, to the *Benbow*; **GEORGE T. BROATCH**, Surgeon, to the *Orwell*; and **ROBERT F. BOWIE**, Surgeon, to the *Excellent*.

JOHN SOUTER to be Surgeon and Agent at Buryhead; **JAMES LITTLE** to be Surgeon and Agent at Maryport.

ARMY MEDICAL RESERVE.

SURGEON-COMMANDANT A. T. NORTON, London Division Medical Staff Corps, to be Surgeon-Major (ranking as Lieut.-Colonel).

Surgeon and Honorary Surgeon-Major THOMAS PARTRIDGE, 2nd Volunteer Battalion Gloucester Regiment (late the 2nd Gloucester), and **SURGEON R. P. FRAZER**, 1st Volunteer Battalion Royal Fusiliers (late the 10th Middlesex), to be Surgeon-Major (ranking as Majors).

SURGEON J. E. SQUIRE, M.D., London Division Medical Staff Corps; **Acting-Surgeon II. W. ROBERTS**, 2nd Volunteer Battalion Royal West Kent Regiment (late the 3rd Kent); **Acting-Surgeon D. V. REES**, 1st Volunteer Battalion South Wales Borderers (late the 1st Brecknock); and **SURGEON J. H. HAAS, M.D.**, 7th Volunteer Battalion Argyll and Sutherland Highlanders (late the 1st Clackmannan and Kinross), to be Surgeons (ranking as Captains).

THE INDIAN MEDICAL SERVICE.

DEPUTY SURGEON-GENERAL W. WALKER, M.D., Bengal Establishment, is appointed to officiate as Surgeon-General and Sanitary Commissioner with the Government of India during the absence on leave of Surgeon-General Sir B. Simpson, K.C.I.E.

Surgeon-Major C. H. JOUBERT, M.B., Bengal Establishment, Officiating Civil Surgeon of the 24th Pergunnahs, is appointed to officiate as Professor of Midwifery at the Medical College, and Obstetric Physician at the Eden Hospital, Calcutta, during the absence on furlough of Surgeon-Major R. Harvey, M.D.

SURGEON C. W. OWEN, C.M.G., C.I.E., Bengal Establishment, is appointed to officiate as Agency Surgeon in Beloochistan during the absence on furlough of Surgeon-Major J. C. Fullerton, M.B.

SURGEON-MAJOR G. GRIFFITH, Bengal Establishment, whose services have been temporarily placed at the disposal of the Government of the North-West Provinces and Oude, is appointed to the civil medical charge of the Etawah District.

Brigade-Surgeon D. J. MCCARTHY, M.D., Madras Establishment, Medical Officer to the Queen's Own Sappers and Miners, has leave of absence for one year on medical certificate.

DEPUTY SURGEON-GENERAL T. G. HEWLETT, C.I.E., Bombay Establishment, has retired on a pension of £950 per annum, payable in England. He entered the service as Assistant-Surgeon, January 20th, 1854, and attained the rank of Deputy Surgeon-General, November 1st, 1879. He was present at the attack on Arab tribes at Hodeida, in the Red Sea, in 1856, and during the Indian Mutiny in 1858-59. He was at the destruction of the fortified village of Rowa, siege and destruction of Awah, operations before Kofah and pursuit of Gwalior rebels (medal with clasp, C.I.E.).

The services of **SURGEON-MAJOR K. A. DALAL, M.B.**, and **SURGEON A. W. F. STREET, D.P.O.**, both of the Bombay Establishment, are placed at the disposal of Government for employment in the Civil Department.

SURGEON C. J. SARKIS, Bombay Establishment, is appointed to officiate in

medical charge of the 16th Native Infantry during the absence of Surgeon-Major W. C. Kiermunder.

Brigade-Surgeon W. H. ROBERTS, M.D., Madras Establishment, doing duty in the Eastern District, is directed to do duty with the Hyderabad Subsidiary Force.

The undermentioned Surgeons, appointed to the Bengal Establishment, reported their arrival at Bombay on the dates specified: A. COLEMAN, April 9th; A. E. ROBERTS, D. M. DAVIDSON, J. C. LAMONT, A. H. NOTT, W. W. WHITE, D. T. LANE, M.D., R. C. MACWATT, W. H. E. WOODWRIGHT, J. K. CLOSE, M.D., and J. M. MACNAMARA, M.D., April 22nd.

Brigade-Surgeon J. E. T. AITCHISON, M.D., C.I.E., Bengal Establishment, has retired from the service, which he entered as Assistant-Surgeon, January 27th, 1853. He was engaged in the war in Afghanistan in 1878, and was at the capture of the Pelwar Kotal, for which he received the medal with clasp.

In the JOURNAL of May 18th it is stated, in the paragraph announcing the retirement of Brigade-Surgeon A. GARDEN, that he has no war record. We are asked to say that this is not correct, as Brigade-Surgeon Garden was present during the Indian Mutiny campaign in 1857-59, including the siege of Lucknow, and received the medal with clasp granted for the campaign.

FOREIGN SERVICE.

REGULATIONS have been issued from the War Office notifying that in future the period of service abroad for medical and veterinary officers, chaplains, and officers of the Commissariat and Transport Corps, Ordnance Store Corps, and Army Pay Department, will be four years for station in the West Indies, Bermuda, China, Ceylon, and Mauritius, and six years for all others, except the West Coast of Africa, where each month's service will be reckoned as three months.

ARMY MEDICAL DEPARTMENT.—The annual dinner was held in the Holborn Restaurant, on Tuesday, June 5th; Sir Thomas Crawford, K.C.B., in the chair. There were also present: Sir William Aitken; Surgeons-General Balfour, C.B.; Ekin, C.B.; Fraser; C. A. Gordon, C.B.; Irvine; Massy, C.B.; Muschamp; O'Nial, C.B.; Reade, C.B.; Webb. Deputy Surgeons-General Den; Jeffcoat; Laing; McGrath; Marston, C.B.; Sly; Veale; Watts. Brigade-Surgeons Anderson, C.I.E.; Candy, Clarke, Corban, Gribbon, Hector, Jagoe, Jameson, Leask, Mackenzie, Mackinnon, Maunsell, Myers, Nash, O'Dwyer, Owen, Wilson, Wright. Surgeons-Major Allin, Beattie, Boileau, Faris, Harvey, Johnston, Le Motté, Ligertwood, McNamara, Maturin, O'Farrell, Pratt, Rae, Roe, Shaw, Slaughter. Surgeons Clark, Falvey, Harris, Harwood, Kirkpatrick, Morris, Treherne, Trewhman. The guests were Sir Andrew Clark, Bart.; Sir William MacCormac; Director-General Dick, C.B., R.N.; Mr. Ernest Hart, Mr. Wakley, Mr. Clarke, and Mr. Norton.

MEDICO-LEGAL AND MEDICO-ETHICAL.

CERTIFICATES OF SICKNESS IN SCHOOL ATTENDANCE CASES.

T. S. II. asks whether it is legal to receive the certificate of a chemist in a school attendance case?

"* By Section 74 of the Elementary Education Act 1870, the fact that a child has been prevented from attending school by sickness or any other unavoidable cause is defined to be a "reasonable excuse" for his failure to attend school. When a parent is summoned, this, like any other material fact, must, if disputed, be proved by proper evidence. The certificate of a chemist is just as good for this purpose as the certificate of a qualified medical practitioner or of any other else—that is, it is legally no good at all. The evidence on which the court acts is the statement of some person who knows the child to be ill; but the production of a certificate is often accepted as a corroboration of that evidence. If objected to, a certificate ought in strictness not to be received at all.

THE APOTHECARIES' HALL AND THE TITLE OF ITS NEW LICENCE.

LIC. MED. writes: In Mr. Carpenter's letter in the JOURNAL of May 26th is the following passage: "To the profession and to lawyers L.M. Lond. would imply 'Licentiate in Midwifery of the Royal College of Surgeons,' which would render any apothecary taking that title, unless he possessed it, liable to criminal proceedings." May I ask how it is that the majority of Scotch licentiates are allowed to call themselves L.M. Glasgow or Edinburgh, when there is no such registrable qualification given by any university or corporation in Scotland? Is it only an apothecary who is liable to prosecution?

"* It is precisely because the universities and colleges of Glasgow and Edinburgh do not confer a separate Licentiatehip in Midwifery, as does the College of Surgeons (Eng.), that persons calling themselves "L.M. Glasg." or "L.M. Edin." would not by so doing be liable to prosecution, as would a person representing he was a L.M. of the College of Surgeons, for falsely pretending they possessed a legally recognised diploma.

"A HYPOTHETICAL CASE."

A.—If our correspondent, instead of vague, general imputations, will submit a specific charge in reference to the alleged misdoings of B. and C. in the hypothetical case briefly alluded to in the JOURNAL of May 26th, we will carefully consider it, in connection with any statement from the other side, and, if expedient, comment thereon. As the case at present stands, A. cannot fail to recognise the fact that no overt acts have been adduced on which we can comment, or arraignment made on which to adjudicate.

ASSISTANTS AND LEGAL FEES.

JUSTITIA asks whether it is the custom for a qualified assistant to retain any part or the whole of fees received by him for giving evidence in a police court on a case which has been under his care; also the same concerning evidence given in a coroner's court.

"* A qualified assistant can legally claim the fee for giving evidence at a police court or inquest, unless debarred by terms of his agreement, but such claim is rarely made by any assistant who wishes to retain the confidence and friendship of the principal. In some cases the division of fees is made a matter of agreement."

UNIVERSITY INTELLIGENCE.

LONDON.

EXPENDITURE OF THE UNIVERSITY.—Now that a strong endeavour is being made to found a new university in London, considerable interest attaches to the following extract from the Educational Estimates, 1888-89. For the London University the sums set apart are as follows:—Salaries and wages, £3,503; examiners, £7,252; exhibitions, scholarships, etc., £1,997; incidental expenses, £900; total, £13,652. The exhibitions include two at matriculation of the value of £30 each, two of £20, and two of £15, with eleven others at different stages of graduation. The scholarships are fourteen in number, and vary in value from £50 to £150. The prizes are eight in number, and the medals twenty-one.

The sums set apart for other universities and colleges in England and Wales are as follows:—

A.—In aid of the expenses of the University College			
	for North Wales	...	£4,000
B.—	"	South Wales	4,000
C.—	"	Aberystwith	4,000
D.—	"	Victoria University	2,000
Total			£14,000

CAMBRIDGE.

At the Congregation held on Thursday, June 7th, the Rev. W. E. Smyth, M.A., of King's College, was admitted to the degree of M.B., and Reginald R. Whishaw, M.B., B.A., of Cavendish College, to the degree of B.C.

OBITUARY.

PROFESSOR L. M. POLITZER, M.D., Vienna.

DR. POLITZER, the eminent Professor of Pediatrics in the University of Vienna, and one of the most distinguished physicians in Austria, died at Vienna on May 23rd. He was the first to introduce the critical methods of modern medicine and natural science into the study of children's diseases, and to sweep away the dogmatic and arbitrary doctrines, especially with respect to their etiology and treatment, which had prevailed up to that time. He showed that the causes of disease were the same in the child as in the adult, and the differences in the symptoms were not solely due to the frequent occurrence of ascaris lumbricoides in the intestinal tract, or to the universal morbid influence ascribed to dentition, but they were due to the anatomical and physiological peculiarities of the newborn and rapidly developing organism. His influence on therapeutics was most important, and he energetically protested against the general use of certain medicaments in all possible cases of disease, in particular against the abuse of laxatives and emetics, and the too frequent prescription of ipecacuanha, antimony, and calomel.

Politzer was born at Arad, in Hungary, in 1814, and after completing his preparatory studies in his native town, he studied medicine at Buda-Pesth and Vienna where he obtained his M.D. degree in 1839. Later on, he became the assistant of Professor Mauthner in the "St. Anna Kinderspital," where he acquired a great reputation throughout Austria and abroad by his literary activity. In 1875 he received the title of Professor, and in 1880 he was intrusted with the management of the first public institution for the diseases of children in Vienna. In June, 1853, he started, together with Mayer and Schiller, the well-known *Jahrbuch für Kinderheilkunde*. Among his writings may be mentioned: "Prejudices and Errors in the Pathology and Therapeutics of Children's Diseases," 1874; "Principles of

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Scientific Dietetics and Physical Education of the Child," 1858; "Treatment of the most important Diseases of the Infantile Age," 1859; "Diagnosis and Treatment of Diseases of the Brain and the Meninges," 1861; "On the Special Nosology, Diagnosis, and Treatment of the Cerebral Diseases of the Child," 1863; "Therapeutic Experiments on the most important Drugs in the Practice of Children's Diseases," 1863 and 1864; "Several Cases of Noma," 1864; "Bronchial Asthma and Bronchial Spasm in the Infantile Age," 1870; "On the Diseases ascribed to Dentition and their Admission into Pathology," 1874; "Criticism and Reform of Therapeutics," 1875; "The Origin of Danger in the Course of Disease," 1881; "On the Value of Certain Single Symptoms for the Diagnosis of the Diseases of the Infantile Age," 1887, etc. Most of these papers appeared in the *Jahrbuch für Kinderheilkunde*.

Politzer was also the first to recognise the occurrence of bronchial asthma with the characteristic type of respiration in sucklings, and he was one of the first to point out that the disease which was called "pseudo-paralysis syphilitica" in newborn children was not to be looked upon as a cerebral paralysis, but only as an osteo-chondritic inflammatory process.

INDIA AND THE COLONIES.

INDIA.

THE new Walter Hospital at Oodeypore was opened by the Resident in state on the Queen's birthday.

BOMBAY GENERAL HOSPITAL.—The same apathy that the Bombay Government has shown in the matter of the provision of suitable quarters for the English nurses at the European General Hospital is said to prevail in regard to the residence of the house-surgeon, from the insanitary condition of which both he and his family have suffered in health. This state of things was reported to the authorities more than a year ago; and the Public Works Department, recognising the urgent need, undertook that a new building should be erected at the earliest possible date. This has not been done.

CONTAGIOUS DISEASES IN INDIA.—A Parliamentary paper, just published, contains a despatch dated May 17th, 1888, from the Secretary of State for India in Council to the Indian Government, with respect to the Contagious Diseases Act and the Cantonment Acts and Regulations of that country. The former Act, as far as it related to India, was only in operation in Madras, Bombay, and Bassein (Lower Burmah), and the Indian Government had determined to suspend it in these places. To this Viscount Cross gives his consent, but requests that the result of the suspension may be carefully watched. With regard to the Cantonment Acts, he says that the health and efficiency of the British garrison have been steadily kept in view since the measure was brought into operation. The maintenance of the cantonments in a proper sanitary condition and the prevention and cure of disease are equally matters of the highest importance, and all infectious disease ought to be dealt with as a question of police. No examination should be imposed upon women compulsorily, but no person likely to spread disease ought to be allowed within the cantonments except in hospital, and no one who objects to medical treatment ought to be in the cantonment at all. The result of the latest inquiries has shown the necessity for the regulation of prostitution in cantonments. Viscount Cross thinks that the rules framed under Clauses 7-31 of Section 27 of Act 111 (1850) require revision, and the principle to be borne in mind is, that the efforts to control prostitution and to mitigate its attendant evils should not be developed into anything that can assume the appearance of an encouragement of vice or a legalisation of prostitution by the Government and its officers.

SOUTH AFRICA.

IRREGULAR PRACTITIONERS.—The state of the law for the suppression of irregular practice in South Africa can hardly be considered satisfactory. In recently sentencing a Hindoo to a fine of £10 for practising as a physician in Capetown without a licence, Mr. Justice Buchanan said it was utterly useless instituting prosecutions of the kind unless the accused had property. He had had a similar case at Grahamstown, and reserved for the Court of Appeal the question whether the convicted person could not be imprisoned on failure to pay the fine. The Court of Appeal held that no alternative punishment could be imposed.

"PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DRAINAGE AND DIPHThERIA.

AN important case has just been decided in the Glasgow Sheriff Court. The pursuer was a tenant of a house in Glasgow, and on June 3rd, 1887, his only child died from diphtheria. It was proved at the trial that for several months previously the house had been in an insanitary condition, through faulty condition of drains, and that the defenders, though frequently applied to by the pursuer to have them put in order, and eventually directed by the sanitary authorities to do so, did not put them in order till after the death of the child. The sheriff therefore found that the death of the pursuer's child was due to the fault of the defenders, and awarded pursuer £100 as compensation. In a note the sheriff says: "An argument for the defenders was founded on the ground that the introduction of traps on drains outside of houses is comparatively modern, and that it was not recognised as necessary at the time when this house was erected, about 1864. It is now, however, recognised by sanitary authorities as a necessary condition for safety, that a drain should be provided with a trap to prevent the escape of sewer gas from the drain, and it would be impossible at the present day to relieve a landlord of liability for the consequence of a drain being left untrapped, on the ground that when he built his house a trap was not thought necessary, and that he declined to comply with the recognised requirements of modern science."

It is deeply to be regretted that all builders of houses and drains have not as clear an idea of the necessity of traps and ventilators as the learned sheriff.

THE ALLOTMENTS ACT.

THE Local Government Board have issued, under date May 30th, a series of model clauses for the assistance of local sanitary authorities in framing regulations under Section 6 of the Allotments Act, 1887, "for regulating the letting of allotments under the Act, for preventing any undue preference in the letting thereof, and generally for carrying the provisions of the Act into effect." This series is prepared on the lines adopted in the model by-laws issued by the Board under the Public Health Act, and should prove to be very useful to local authorities. The Board have taken the opportunity thus afforded of again urging sanitary authorities to endeavour to give full effect to the intentions of the Legislature in passing the Allotments Act. It is to be feared that, with a few exceptions, little has hitherto been done by local authorities in this direction.

HEALTH OF ENGLISH TOWNS.—In the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons, 5,794 births and 3,172 deaths were registered during the week ending Saturday, June 2nd. The annual rate of mortality, which had been 18.9 and 17.8 per 1,000 in the two preceding weeks, further declined during the week under notice to 17.6. The rates in the several towns ranged from 13.0 in Derby, 14.3 in Bradford and in Brighton, and 14.6 in Birkenhead to 22.4 in Blackburn, 23.7 in Preston, 24.9 in Wolverhampton, and 25.7 in Manchester. In the twenty-seven provincial towns the mean death-rate was 18.9 per 1,000, and exceeded by as much as 2.8 the rate recorded in London, which was only 16.1 per 1,000. The 3,172 deaths registered during the week under notice in the twenty-eight towns included 101 which were referred to whooping-cough, 46 to diarrhoea, 39 to diphtheria, 34 to measles, 31 to scarlet fever, 21 to "fever" (principally enteric), and 10 to small-pox; in all, 282 deaths resulted from these principal zymotic diseases, against 330 and 285 in the two preceding weeks. These 282 deaths were equal to an annual rate of 1.6 per 1,000; in London the zymotic death-rate was 1.6; while it averaged 1.5 per 1,000 in the twenty-seven provincial towns, and ranged from 0.0 in Birkenhead and in Huddersfield, and 0.4 in Sunderland to 2.8 in Norwich, 3.0 in Preston, and 3.3 in Manchester. Measles caused the highest proportional fatality in Wolverhampton and Bradford; scarlet fever in Blackburn; whooping-cough in Sheffield, Salford, Wolverhampton, and Manchester; and "fever" in Plymouth. Of the 39 deaths from diphtheria recorded during the week under notice in the twenty-eight towns, 26 occurred

in London, 3 in Hull, and 2 in Norwich. The 10 fatal cases of small-pox included 4 in Sheffield, 1 in Bristol, 1 in Nottingham, 1 in Derby, 1 in Preston, and 1 in Hull. The number of small-pox patients in the Metropolitan Asylums Hospitals on Saturday, June 2nd, was only 3, and no new cases were admitted during the week. These hospitals also contained 873 scarlet fever patients on the same date, showing a slight further decline from recent weekly numbers; 78 cases were admitted during the week, against 91, 82, and 66 in the three preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.9 per 1,000, and was slightly below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, June 2nd, 869 births and 489 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had been 19.3 and 20.9 per 1,000 in the two preceding weeks, declined again to 19.3 during the week under notice, but exceeded by 1.7 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Greenock and Leith, and the highest in Glasgow and Paisley. The 419 deaths in these towns during the week under notice included 52 which were referred to the principal zymotic diseases, equal to an annual rate of 2.1 per 1,000, which exceeded by 0.5 the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Paisley and Glasgow. Of the 225 deaths registered in Glasgow, 10 resulted from measles, 6 from scarlet fever, 14 from whooping-cough, and 4 from "fever;" 2 fatal cases of scarlet fever occurred in Dundee, and 2 of diphtheria in Edinburgh. The mortality from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 3.2 per 1,000, against 2.9 in London.

HEALTH OF IRISH TOWNS.—In the sixteen principal town-districts of Ireland the deaths registered during the week ending Saturday, June 2nd, were equal to an annual rate of 21.5 per 1,000. The lowest rates were recorded in Armagh and Galway, and the highest in Lurgan and Wexford. The 159 deaths registered in Dublin during the week under notice were equal to an annual rate of 23.5 per 1,000, against 23.6 and 24.4 in the two preceding weeks, the rate for the same period being only 16.1 in London, and 18.4 in Edinburgh. The 159 deaths included 20 which resulted from the principal zymotic diseases (equal to an annual rate of 3.0 per 1,000), of which 9 resulted from whooping-cough, 4 from scarlet fever, 4 from different forms of "fever," 2 from diarrhoea, and 1 from measles.

DISINFECTATION BY HEAT.

M. O. H. asks for experience in rural districts of disinfection by heat in cases of infectious disease—what contrivances can be used? and, if a disinfecting chamber, whose? what is the cost, and whose is the cheapest to employ?

"* We may mention in part reply to the above that Messrs. Frazer, of London, have a fixed disinfecting chamber, where, in a close chamber subjected to about 300° F., any materials can be properly treated. They have also a perambulating apparatus. Messrs. Nelson, of Leeds, have an apparatus in use in London and the provinces, which takes the form of a wrought iron chest. The heat is regulated to 200°, and this cannot be exceeded if wished. Dr. Rogers, of East Retford, has a portable apparatus, which consists of an iron outer case and a wooden box within. Messrs. Stobbs and Seagrave, of London, have also a perambulating disinfecting apparatus which applies superheated air or steam. Dr. Scott, of Dalkey, co. Dublin, has several systems of disinfecting by hot air. We believe they are engineered by Messrs. Maguire and Son, sanitary engineers, Dublin. Mr. Washington Lyon, of Cornhill, London, has a valuable but costly movable apparatus on wheels, which disinfects, dries, and heats as well by the action of steam. Mr. Arthur Jennings, of Cross Street, Lambeth, S.E., has lately brought out an excellent apparatus, which disinfects by the heat produced by gas, and which is highly spoken of.

We would recommend M. O. H. to write to the above firms for descriptions, prices, and testimonials, so as to judge for himself.

INSANITARY DWELLINGS.—The report of the Mansion House Council on the Dwellings of the People, presented at its last meeting, stated the action that had been taken in regard to numerous cases of insanitation in the districts of St. Olave's Southwark, Shoreditch, Westminster, Clapton, and the City. Instructions were given to bring to the notice of the Government particulars of prolonged neglect on the part of the authorities for Plumstead and Woolwich.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, June 1st.

Lunacy Acts Amendment Bill.—Mr. W. H. SMITH, in reply to Dr. FARQUHARSON, stated that it was the intention of the Government to pass the Bill in the course of the present session.

The Vaccination Laws.—Mr. PICTON submitted the following motion: "That a Select Committee be appointed to inquire into the circumstances of the epidemic of small-pox in Sheffield and the surrounding district, and especially to ascertain whether its origin can be traced to defective vaccination, or to insufficient sanitary precautions, or to any other causes; also to inquire how far the rapid spread of infection has been owing to the absence of any system of compulsory notification of contagious disease; likewise, whether the notorious diminution of vaccination in Leicester, Keighley, Dewsbury, and other towns, has been attended by any evil consequences, or whether preventive measures other than vaccination have been found effectual; and, if so, whether they are capable of wider application."—This was seconded by Mr. COLMAN.—Dr. FARQUHARSON said if the Government would agree to hold an inquiry into the two specific cases of Norwich and Leicester, it would, he thought, supply a great deal of scientific information, and would satisfy, to a great extent, the public mind.—Dr. CAMERON said there were three different systems which he thought might be inquired into with advantage: the system which prevailed in Leicester, where there was defective vaccination but strict attention to segregation; the system which prevailed in London, where vaccination was carefully carried out, but there was no attempt at segregation; the system prevailing in Glasgow where there was great attention to vaccination and revaccination, and the most strict attention to segregation.—Mr. RITCHIE said whatever inquiry might be made, a Select Committee of the House of Commons was not the proper body to make it. He said it was impossible to dissociate the inquiry which the hon. member for Leicester asked for from the cause which the hon. gentleman represented in the House in speaking for the large masses of people who were opposed to vaccination; and therefore, if an inquiry were granted, the hon. member would insist upon certain gentlemen with strongly adverse opinions to vaccination being placed on the Committee of Inquiry. No such tribunal could ever hope to come to a unanimous report, and matters would remain very much as they now were. With regard to the Sheffield outbreak, a house-to-house visitation had been made, and all the circumstances connected with every single case of attack would be specifically reported upon. There never was a more complete case in favour of vaccination than the Sheffield case. The number of vaccinated children under 10 years in Sheffield was given at 82,958. Out of that number 207, or 1 in 400, were attacked, and out of the 207 attacked only 2 died. The number of deaths of vaccinated children was, therefore, only 1 per cent. The number of unvaccinated children under 10 years of age was 4,366. Of these 146, or 1 in 30, were attacked, and 7 died. Some remarkable facts had been brought to light with regard to small-pox in Montreal. Prior to 1885, there had been for many years no case of small-pox in Montreal, a large proportion of people, like those at Leicester, being unvaccinated. In February, 1885, a man was admitted to the hospital with small-pox. He was cured and left the hospital. But the disease spread so rapidly, that in six months, among a population of under 200,000, as many as 3,164 deaths occurred from small-pox. Vaccination and revaccination were then rigorously enforced, the stations being literally besieged with persons clamouring for vaccination, and in three months 80,000 were vaccinated. He must decline to grant any further investigation whilst the present one at Sheffield was pending.—Dr. MACDONALD maintained that there was no foundation for the arguments and statistics of the anti-vaccinationists. The subject then dropped.

Tuesday, June 5th.

The Contagious Diseases Acts in India.—Sir J. GORST, in reply to Sir R. TEMPLE, said, of the thirteen members of the Council of India present on the occasion of the despatch of the Secretary of State to the Government of India on the subject of the Contagious Diseases Acts, nine voted against it.—Mr. McLAREN moved, and Sir R. N. FOWLER seconded, the following resolution: "That, in the opinion of this House, any mere suspension of measures for the compulsory examination of women, and for licensing and regulating prostitution in India, is insufficient, and the legislation

which enjoins, authorises, or permits such measures ought to be repealed."—Mr. G. C. BENTINCK had on the paper the following amendment: "That, considering the large and alarming increase of disease in the army and navy, and the sufferings of the unfortunate women on the home stations since the repeal of the Contagious Diseases Acts, this House is of opinion that it is inexpedient to repeal the Acts now in force in India;" but he did not intend to propose it, as he preferred the amendment which stood in the name of Sir R. Temple, for which he should vote.—Sir J. GORST said he was instructed to say that, if the Council of the Governor-General thought fit to repeal the Contagious Diseases Acts altogether, the Secretary of State would assent to that repeal. The Indian Government, recognising the general feeling in England, had on its own initiative suspended their operation, and, although the Secretary of State possessed the technical power to direct legislation, it would be most unconstitutional for him and inexpedient of Parliament to interfere with the independence of the Indian Legislature. The regulations under the Cantonment Acts were now under revision, and the Secretary of State had distinctly declared against rules being framed or continued which might appear to legalise vice.—Sir R. LETHBRIDGE, while strongly condemning the regimental system, thought that, as the Government of India had suspended the Acts, further action might be left to them.—Mr. J. E. ELLIS, Mr. H. WILSON, and Sir J. SIMON spoke in support of the resolution.—Sir R. TEMPLE disputed the assertion that the Acts had not been successful in maintaining the health of the troops.—Sir W. FOSTER argued that the administration of the Acts in India had failed; and Mr. STANSFELD thanked the Government or the spirit in which they had received the resolution.—The motion was carried.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following Vacancies are announced:

ANDERSON'S COLLEGE DISPENSARY, Glasgow.—Physician. Applications to David Wilson, Esq., Honorary Secretary, 42, Bath Street, Glasgow.

ANDERSON'S COLLEGE DISPENSARY, Glasgow.—Surgeon. Applications to David Wilson, Esq., Honorary Secretary, 42, Bath Street, Glasgow.

MALTINGLASS UNION.—Medical Officer, Dunlavin Dispensary. Salary, £135 per annum, and fees. Applications to Captain Heighton, J.P., Honorary Secretary, Donard House. Election on June 13th.

BOARD OF WORKS FOR THE WANDSWORTH DISTRICT.—Medical Officer for the Parish of Clapham. Salary, £75 per annum, with increase. Applications by June 12th to the Clerk to the Board, East Hill, Wandsworth.

LETHBRIDGE UNION.—Medical Officer for the Workhouse. Salary, £100 per annum; also £15 per annum as Medical Superintendent Officer of Health. Applications by June 15th to Mr. Samuel Manning, Clerk of the Union.

UFFUS PAROCHIAL BOARD.—Medical Officer. Salary, £35. Applications by June 23rd to John Nicoll, Esq., Inspector of Poor, Hopeman, N.B.

WEST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Board and lodging. Applications by June 25th to the Secretary.

WELMINGTON HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road.—Surgeon to Out-patients. Applications by June 25th to the Committee of Management.

WEST HOSPITAL, Dudley.—Resident Medical Officer. Salary, £110 per annum, with board and residence, etc. Applications by June 21st to the Secretary.

WINDSOR COLLEGE HOSPITAL.—Assistant-Surgeon. Applications to the Secretary.

WINDSOR TEMPERANCE HOSPITAL, Hampstead Road.—Surgeon. Applications by June 16th to the Secretary.

METROPOLITAN ASYLUMS BOARD: WESTERN FEVER HOSPITAL, Fulham, S.W.—Clinical Assistant. Board and lodging. Applications to the Medical Superintendent at the Hospital.

HILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich Road, S.E.—Junior Resident Medical Officer. Salary, £30 per annum, apartments, board, etc. Applications by June 9th to the Honorary Secretary.

NEWTON HEATH (MANCHESTER) DISTRICT.—Medical Officer of Health. Salary, £50 per annum. Applications by June 18th to the Chairman of the Local Board of Health, Town Hall, Newton Heath, Manchester.

OTTINGHAM GENERAL HOSPITAL.—Resident Medical Assistant. Board and lodging, etc. Applications by June 13th to the Secretary.

OTTINGHAM GENERAL HOSPITAL.—Resident Surgical Assistant. Board and lodging, etc. Applications by June 13th to the Secretary.

ORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Junior House-Surgeon. Salary, £30 for six months. Applications by June 19th to A. Nixon, Esq., Secretary, 27, Clement's Lane, E.C.

QUEEN'S COLLEGE, Manchester.—Professor of Surgery. Applications by June 9th to the Registrar.

PARISH OF LOCHS, Stornoway.—Medical Officer. Salary, £140, house and rates free. Applications by June 23rd to H. McL. Ross, Inspector of the Poor, Lochs, Stornoway.

PARISHES OF PENNYGOWN AND TOROSAY.—Medical Officer. Salary, £100 per annum. Applications by July 3rd to Mr. A. McDougall, Inspector of Poor, Auchnacraig, Oban, N.B.

QUEEN'S COLLEGE, Birmingham.—Assistant Medical Tutor. Applications by June 20th to the Secretary.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMEN'S INFIRMARY.—Resident Medical Officer. Salary, £120 per annum, with furnished apartments, etc. Applications by June 23rd to the Secretary.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House-Surgeon. Board and lodging. Applications by June 18th to the Chairman of the Managing Committee.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—House-Surgeon. Salary, £100, board, lodging, etc. Applications by June 20th to the Secretary.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon. Salary, £120, with board, lodging, etc. Applications by June 18th to the Secretary.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, etc. Applications by June 18th to the Secretary.

SURREY DISPENSARY, Great Dover Street, Southwark.—House-Surgeon. Salary, £120, and furnished apartments. Applications by June 19th to the Subcommittee.

WELLINGBOROUGH AND DISTRICT MEDICAL INSTITUTE.—Medical Officer. Salary, £250, and fees, with dwelling-house, etc. Applications to G. Bayes, Esq., Jackson's Lane, Wellingborough.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Physician. Applications by June 21st to the Secretary Superintendent.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant Physician. Applications by June 21st to the Secretary Superintendent.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician. Board and lodging. Applications by June 21st to the Secretary Superintendent.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Surgeon. Board and lodging. Applications by June 21st to the Secretary Superintendent.

WESTPORT UNION.—Medical Officer, Westport No. 2 and Louisburgh No. 2 Districts. Salary, £39 per annum, and fees. Election on June 24th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Assistant. Board and lodging, etc. Applications by June 25th to the Chairman of the Medical Committee.

MEDICAL APPOINTMENTS.

BANNISTER, Marmaduke, M.R.C.S., L.R.C.P., late House-Surgeon to the Manchester Royal Infirmary, appointed Resident Surgeon at the Hospital of No. 7 Section of the Manchester Ship Canal.

BATTLE, W. H., F.R.C.S., appointed Assistant Surgeon to the East London Hospital for Children, vice L. A. Dunn, M.B., F.R.C.S.

CAMPBELL, T. Kenneth, M.B., F.R.C.S., appointed Assistant Surgeon to the Gordon Hospital for Fistula, etc.

CHAMBERLAIN, W. W., M.B., C.M. Edin., appointed Senior House-Surgeon to the Halifax Infirmary and Dispensary, vice J. P. Gray, M.R.C.S., L.S.A., resigned.

CLARK, Francis William, L.R.C.P. Lond., M.R.C.S., appointed Assistant Medical Officer to the Metropolitan District Asylums Schools, Darent, vice W. T. Maddison, M.D. Lond., resigned.

COX, D. Charles, M.D., L.R.C.P. Edin., appointed Parochial Medical Officer and Public Vaccinator, Annav, vice D. Mackenzie, M.B. and C.M., resigned.

DUNN, L. A., M.B., F.R.C.S., appointed Surgeon to the East London Hospital for Children, vice A. Caesar, resigned.

FROST, W. Adams, F.R.C.S. Eng., appointed Surgeon to the Royal Westminster Ophthalmic Hospital.

HARRIDGE, G., F.R.C.S. Eng., appointed Surgeon to the Royal Westminster Ophthalmic Hospital.

LOVEGROVE, C., M.D., L.R.C.P., late Surgeon to the Liverpool Corporation Waterworks, Llanwddyn, appointed Surgeon to No. 7 Section of the Manchester Ship Canal; and Consulting Surgeon from Lymm to Salford.

LUCAS, Albert, M.R.C.S., L.R.C.P., appointed Assistant House-Surgeon to the Metropolitan Hospital, vice H. L. Harrison, M.B., resigned.

ORB, W. Theophilus, M.R.C.S. Eng., L.R.C.P. Lond., appointed Resident Surgeon to the Birmingham General Dispensary.

PAGET, S., F.R.C.S. Eng., appointed Assistant Surgeon to the West London Hospital, vice B. Wainwright, M.B. Edin., F.R.C.S. Eng., resigned.

PAUL, E. W., M.R.C.S., L.S.A., appointed House-Surgeon to St. Peter's Hospital for Stone, etc., vice F. H. Norvill, M.B., resigned.

POWELL, John Allan, M.D. Dub., appointed Locum Tenens Assistant Medical Officer to the Berks County Asylum, Moulsoford.

PRETSELL, W. G., M.B., C.M., appointed Assistant Medical Officer to Govan Poorhouse and Asylum, vice George Davidson, M.B., resigned.

SINCLAIR, F. Howard, M.D., M.Ch. (R.U.I.), L.K.Q.C.P.I., L.R.C.S.I., L.M., etc., appointed Visiting Physician to the Hospital for Consumption, Belfast, vice Samuel Dickey, M.D., M.Ch., L.M. (Q.U.I.), resigned.

VICKERY, W. H., M.R.C.S., L.R.C.P., appointed House-Surgeon to the Mid-diesex Hospital.

PROFESSOR VIRCHOW.—The German Emperor has conferred on Professor Rudolf Virchow the Order of the Red Eagle, Second Class. In the bestowal of this honour, medical men will probably

see nothing but a graceful recognition of the great pathologist's scientific eminence, and of services rendered by him to the person of the Emperor. Public opinion in Germany, however, appears to attach some political significance to it, as an additional proof of His Imperial Majesty's sympathy with Liberal ideas. Professor Virchow is one of the leaders of the Liberal party in Germany, and one of the most determined opponents of Prince Bismarck, with whom he fought a duel many years ago.

GLASGOW DEAF AND DUMB INSTITUTION.—The annual meeting of this institution was held on May 31st. The report stated that, at the beginning of the new session, 109 pupils returned, and, during this session, 24 new pupils joined, making a total of 133, 10 less than that of the preceding year. Employment of various kinds had been readily procured for those who left. The fire which occurred at the end of March had not stopped the work of the institution, and, while the repairs were being executed, the opportunity was being taken to make some structural improvements which experience had shown to be necessary.

PORTSMOUTH HOSPITAL.—The Bishop of Winchester on May 29th reopened the Portsmouth Hospital. It was decided last year to raise a fund to be spent on the building as a local celebration of the Jubilee, it being hoped that sufficient money would be collected to enable the committee to erect an entirely new structure. The fund, however, reached only a little over £3,000, and with this sum the interior of the hospital has been entirely reconstructed on modern principles, and the number of beds increased from 70 to 104.

BOURNEMOUTH AMBULANCE CORPS.—Mr. Embleton, M.R.C.S., of Bournemouth, who has been engaged in instructing members of the local fire brigade and others in the principles and practice of first aid, has been presented by his class with a silver pencil case as a token of their appreciation of his services. It has been decided to form an ambulance corps in Bournemouth consisting of certificated members.

ADULTERATED CHEESE.—At Glasgow Sheriff Court, recently, a case was brought up in which a provision merchant was charged with selling cheese consisting essentially of oleomargarine or foreign fat. The cheese was one of the kind known as "lard cheese," sold in America as "imitation cheese." A fine of £3 was imposed and paid.

PORT GLASGOW AMBULANCE CENTRE.—At a meeting of this centre very satisfactory reports were read, the treasurer's statement showing a balance of £6 10s. The executive for next year was appointed, of which Drs. Crawford, McBride, and Taylor are members. Dr. Crawford was afterwards presented by his class with a marble timepiece, in recognition of his services in their instruction.

EPIDEMIC OF MEASLES AT NEILSTON.—There is at present a serious outbreak of measles among the children attending the public schools at Neilston. In one school 105 children, belonging to 59 different families, have been attacked; and in another there are 61 cases out of 30 families. In consequence of the epidemic it has been deemed advisable to close the schools.

FAVERSHAM COTTAGE HOSPITAL.—A cottage hospital, the gift of Mrs. Rose to the town of Faversham in memory of her late husband, was formally opened on May 26th in the presence of the mayor, the vicar, Lady Harris, and a number of other influential residents of the vicinity. The site was presented by Mr. T. Townend Hall, J.P., and Mr. Rigden, and the furniture, costing £400, by Mr. Rose.

TREATMENT OF WARTS.—Dr. Roosen (*Monat. f. Prakt. Derm.*, 1888, p. 325) states that he has treated callosities and warts successfully by the application of pure crystallised salicylic acid. The acid is kept in position by moistened boracic lint, and over all there is fastened a piece of gutta-percha tissue. The application is removed after five days, when the hardened epidermis usually falls off.

A LAD has died in the Derby Infirmary under peculiar circumstances. He was running away from a cow, when the animal overtook him in a narrow passage and crushed him so severely against the wall that he succumbed to his injuries.

MEDICAL MAGISTRATES.—Dr. MacRae-Laggon has been appointed to the Commission of the Peace for the county of Inverness.—Mr. Charles Brook, M.R.C.S.Eng., has been placed on the commission of the peace for Lincolnshire.

MR. JAFFRAY, of Birmingham, whose name is well-known in connection with princely gifts to local hospitals, has generously offered to defray the whole expenses incurred by the Birmingham Hospital Saturday Committee during the current year.

DR. GEORGE FREDERICK PHILPOT, practising at Hemel Hempstead, has been found not guilty of the charge of conspiring with his brother to defraud the Mutual Accident Insurance Company.

The Hygiene and Life-saving Apparatus Exhibition at Ostend will be opened on June 30th. About 400 exhibitors have, it is stated, already sent in their names.

In consequence of the increase of hydrophobia in Paris, dogs are not allowed in the streets except in the leash.

THE Princess Christian paid a visit to Brompton Hospital on Monday last, and took part in a concert given to the inmates.

THE Duke of Devonshire has granted land between Eastbourne and Beachy Head for a new convalescent home for children.

DIARY FOR NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor T. Bryant: On the Causes, Effects, and Treatment of Tension as met with in Surgical Practice.

TUESDAY.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8.30 P.M.—Dr. A. Sangster and Dr. F. W. Mott: On Pemphigoid Eruption, with Changes in Peripheral Nerves. Dr. W. R. Gowers and Professor V. Horsley: Case of Tumour of the Spinal Cord: Removal: Recovery.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor T. Bryant: On the Causes, Effects, and Treatment of Tension, as met with in Surgical Practice.

COLLEGE OF STATE MEDICINE, Burlington House, 4 P.M.—Dr. G. Fleming: On Some of the More Important Diseases common to Man and Animals.

BRITISH GYNECOLOGICAL SOCIETY, 8.30 P.M.—Specimens will be exhibited by Dr. G. Granville Bantock, Dr. Richard Smith, Dr. Bedford Fenwick, and the President, Mr. Lawson Tait: The Influence of Removal of the Uterus and its Appendages on the Sexual Appetite. Dr. Henry T. Rutherford: Notes of a case of Uterine Fibroid successfully treated by Electricity.

ROYAL MICROSCOPICAL SOCIETY, 8 P.M.—Rev. W. Howchin: Additions to the Knowledge of the Carboniferous Foraminifera.

EPIDEMIOLOGICAL SOCIETY OF LONDON, 8 P.M.—Annual General Meeting. Arthur H. Downes, M.D.: Notes on Diphtheria. Robert Cory, M.D.: The Condition as to Vaccination of One Hundred and Fifty Persons Scarcely by Small-pox.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Donald MacAlister: The Croonian Lecture on Antipyretics.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Living and Card Specimens at 8 P.M. Mr. Silecock: (1) Sarcoma of Frontal Bone; (2) Sarcoma of both Orbits. Mr. Jessop: Case of Symmetrical Ring of Pigment on Anterior Capsule of Lens. Mr. J. Hutchinson, jun.: Two cases of Cicatrices in Vitreous and Retina. Papers:—Mr. Emrys-Jones: On a case of Large Orbital and Intracranial Ivory Exostosis, associated with Cerebral Tumour. Mr. Edgar Browne: Optic Atrophy in Three Brothers. Mr. Rockliffe: Notes on (1) Secondary Hemorrhage after Iridectomy for Glaucoma; (2) Ophthalmoplegia.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Professor T. Bryant: On Surgical Interference in Cranial Injuries.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d. which should be forwarded in stamps with the announcement.

BIRTHS.

GODFREY.—On May 30th, at Brookbank House, Malton, the wife of Frank W. A. Godfrey, M.B. Edin., of Scarborough, of a daughter.

SPENCE.—At St. Ninians, Burntisland, on June 4th, the wife of Robert Spence, M.B., C.M., of a daughter.

MARRIAGES.

ORD—HAWKINGS.—On June 5th, at All Saints, Clapham Park, by the Rev. F. S. Coleman, M.A., brother-in-law of the bride, assisted by the Rev. A. G. Girdleston, M.A., Vicar, and the Rev. Wadehouse Raven, M.A., Vicar of Christ Church, Streatham, George William Ord, M.R.C.S., of Mildenhall, Suffolk, eldest son of George Rice Ord, of Streatham Hill, Surrey, to Edith Emily Lucy, third daughter of Charles F. Hawkins, of Belmont, Clapham Park.

WILSON—WALTON.—On June 6th, at Edgbaston Parish Church, by the Rev. G. H. Cameron, B.A., William Wilson, M.B., C.M. Ed., of Forest Hill, to Jane Alice (Jennie) Walton, only daughter of Frederick Walton, Edgbaston.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department);

WEDNESDAY.....10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M. St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; St. Thomas's (Obstetric Department); Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th., Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical daily, 1.30; Obstetric, Tu. Th. S., 2; o.p. W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p., Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu., S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, Tu. F., 2; o.p. W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th., F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN THE FIRST POST ON WEDNESDAY.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

HIGH TEMPERATURE IN A CHILD AGED 16 MONTHS.

DR. JOSEPH SMITH (Streatham Hill, S.W.) writes: I was called to see a male child, aged 16 months, at 10 A.M., and found my little patient with swollen gums, which I lanced. I prescribed calomel gr. ij, as the Lowels were constipated, and a little salicæ mixture. The temperature was 101.6°. There was a little cough; but on carefully examining the lungs the physical signs were almost nil. At 6 P.M. I was informed that the calomel had acted twice; but as the child looked worse I again examined its lungs, and found the physical signs in the same condition as on my first visit.

Upon taking the temperature, my thermometer recorded 110°. Thinking the thermometer was at fault, I compared it with the others, and found the record correct. Upon visiting the child again at 10 P.M., the thermometer registered 102°. In two days the child was comparatively well and the temperature normal. What was the cause of such an abnormally high temperature in the absence of any signs to account for it?

ADMIRALTY EXAMINATION.

W. E. M. writes: Having been asked to examine the mouth of a youth who is preparing for the entrance examination as an engineer student in Her Majesty's dockyards, but naturally does not wish to present himself if liable to be rejected afterwards owing to the condition of his teeth, I shall be obliged for any information as to condition or number of teeth required which will aid me in giving an opinion.

ANSWERS.

THE DUTY OF THE MEDICAL ATTENDANT IN CASES OF DEATH FROM CHLOROFORM.

A MEMBER writes: I shall feel obliged by your kindly informing me if the medical attendant is obliged to report to the coroner the occurrence of death under chloroform administered during parturition?

** Yes; without doubt. The case should also be medically recorded as one of great interest to the profession.

MEDICAL BOOKKEEPING.

DR. H. F. LANCASTER (Lewisham High Road, S.E.) writes: In the JOURNAL of May 5th "M.B. and C.M." asks for an easy method of medical bookkeeping. Having well considered the several systems that are published, I have come to the conclusion that for a day-book that of the "Handy" system, published by Lewis of Cardiff, is the best, and I have used this for some time. One important point in its favour is the proximity of patient's name and monthly amount on the page, which avoids an error one might possibly fall into of attributing a sum to the wrong patient when these two items are a good way apart in the open pages, as is the case with the other day-books. Another advantage is the different-coloured ruling, which assists in the same way.

As to the ledger, I have for some years used the "Expedite," published by Sang and Barony; but, as this is arranged for yearly and not half-yearly accounts, and in two or three other matters I found I could improve on it, I have had one made for me to my liking, which I consider superior. It is alphabetical, very compact, and will last each patient three years with one entry. I think each of the ledgers—"A. B. C.," "Handy," "Expedite," "Carlyle's"—is faulty in some particulars, specially in the easy treatment and rendering of arrears, and I believe that in this I have combined their virtues. If "M.B. and C.M." will communicate with me I shall be most pleased to let him see a specimen sheet and to give further particulars.

DR. NEALE'S "MEDICAL DIGEST."

DR. RICHARD NEALE writes: In answer to "Disappointed," at page 1147 of the JOURNAL, who states that the *Digest*, without the journals referred to, is a delusion and snare, pure and simple, I must ask you to insert a few of the remarks made by different reviewers who are supposed to have studied the work before criticising it.

"It is at once an index and an abstract. Not infrequently the mere reference is in itself a suggestion, and further search is unnecessary. This is especially the case in the domain of practical therapeutics. The busy practitioner is anxious about a case which proves obstinate, and resists all ordinary modes of treatment; by turning to the *Digest* he finds hints and suggestions as to the methods to be pursued, and the necessity for a consultation may be avoided. It is often said that the *Digest* is difficult to understand; but we do not think that is the case. We have often referred to it, not infrequently when much pressed for time, and have rarely failed to find what was required."—BRITISH MEDICAL JOURNAL, August 7th, 1886.

"Not merely to practitioners who have access to great libraries, but to everyone, this book, in and for itself, has a value for what it suggests. Without looking up single reference, one may in perplexity obtain a suggestion when a suggestion is all that is needed."—PRACTITIONER, 1882.

"The range of inquiry suggested and of information conveyed is incalculable..... The mere reading of the *Digest* will thus impart an incredible amount of knowledge."—MIDLAND MISCELLANY, 1882.

"An erroneous impression exists that the *Digest* is a mere index, and that it is therefore of little or no value to medical men who have not a medical library at hand in which they can turn up the references given. It is surprising how much information may be obtained on any subject by merely a reference to the work."—ALABAMA REVIEW, September, 1882.

Is the book to be condemned by those who fail to grasp its merits? Is it not rather an illustration of the folly of offering gems to those who know not their value?

NOTES, LETTERS, ETC.

FUGITIVE OEDEMA OF THE EYELIDS.

MR. T. L. KENRICK DAVIES writes: I was interested in Dr. Illingworth's note of fugitive oedema of the lower lids, to which Dr. Tom Robinson has directed attention. From observation of a case lately in which the patient consulted me for "stiffness and aching of the lower eyelids," I concluded the oedema was due to the same cause as Dr. Illingworth attributed it to, namely, passive venous congestion in the infra-orbital region. The condition was most marked

REMARKS ON PAROXYSMAL SNEEZING.

By SYDNEY RINGER, M.D., F.R.S.,
Holme Professor of Clinical Medicine, University College, London.

AND

WILLIAM MURRELL, M.D., F.R.C.P.,
Lecturer on Materia Medica and Therapeutics, Westminster Hospital, London.

PART I.

THE frequency with which of late years cases have been recorded under the title of "Hay Fever," and similar terms, has attracted attention to a curious and interesting complaint, the very existence of which was not definitely recognised until the publication in 1819 of Dr. John Bostock's account of his own symptoms and sufferings. It is true that Heberden, in his *Commentarii de Morborum Historiâ et Curatione*, speaks of an annually recurring attack of catarrh in certain individuals, but he probably regarded it much in the same light as did Dr. Elliotson, who, in his *Præctice of Medicine*, speaking of this complaint says:—"I could not tell what to make of it, and I disregarded it entirely, supposing it to be a sort of aguish or hypochondriacal affection, of which those who had little or nothing to do became the subject." The disorder is of great interest, not only from the mystery which surrounds its earlier history, but from its prevalence in all countries, and the tenacity with which, once having attacked its victim, it clings to the unhappy sufferer during the best years of his life.

The names "hay fever" and "hay asthma," it must be admitted are unfortunately chosen, for the existence is now very generally recognised of a complaint presenting identically the same symptoms, but excited by causes other than the presence of pollen in the atmosphere. Bostock, in his second communication, published in 1828, called it the "catarrhus æstivus;" whilst Dr. Phebus, in 1862, in his well known monograph on the subject, speaks of it as the "Frühsummer Katarrh," or early summer catarrh. The names "summer asthma" and "summer bronchitis" are also used, but all these cases may be more appropriately classified under the general term, "paroxysmal sneezing," the unfortunate sufferers being appropriately called "sneezers." The attacks, whatever may be their exciting cause, may affect only the upper part of the respiratory tract, or they may involve the lungs, or both may suffer. The sneezing paroxysms usually alternate with or replace the asthmatic troubles, or one of them may preponderate. In both varieties we meet with cases in which there is itching or irritation of a part or even of the whole of the interior of the nares, or possibly the feeling of discomfort may involve the inner canthus of the eyes or the whole of the eyeball, being accompanied by repeated and violent attacks of sneezing and profuse watery discharge from the nose or from the nose and eyes. Again in both forms the irritation may attack the soft palate and pharynx, there being experienced in these parts a feeling of roughness, or as patients often call it, "scraping." The lungs too may be attacked, not only with asthmatic troubles, but by symptoms of bronchial catarrh more or less severe.

The subject of hay fever proper has been ably investigated by Dr. Blackley, whose experimental researches are generally recognised as being of the highest value, but it may be as well to point out that in those cases in which the paroxysms are indubitably excited by the emanations from plants all kinds of pollen are not equally virulent, their activity depending on the variety of grass from which they are derived. The grasses most productive of hay fever are the sweet-scented vernal grass (*Anthoxanthum odoratum*), the rye grass (*Lolium perenne*), and the sweet-scented soft grass (*Holcus odoratus*), and it is found that the fresh plant is less potent in its effect than the hay made from these grasses. Many years ago M. Vogel discovered that some grasses owe their odoriferous properties to the presence of benzoic acid, and it is a well-known fact that the vapour of this substance is capable of producing violent paroxysms of cough and sneezing, accompanied by irritation of the fauces. It is a curious circumstance, too,

that amongst the English branch of the Anglo-Saxon race grasses are the most frequent causes of attacks of paroxysmal sneezing, whilst with Americans the pollen of the rose and some other plants is regarded as being more potent. The frequency with which "rose fever," "rose cold," or "rose catarrh" prevails in the United States is well known, whilst in India the affection is often attributed to the blossom of the mango, which flowers in February or March, and exhales an odour not unlike that of pure terebene. In Great Britain, too, it is by no means rare to meet with people who are affected by other pollen than that of grasses. In a case which recently came under our notice the pollen of the common daisy (*Bellis perennis*) gave rise to more inconvenience than that of any other plant. We are told of a lady who could never remain in a room with even a single stalk of Indian corn without being seized with shortness of breath, and on one occasion when abroad she suffered from a severe attack of asthma from going accidentally into a room where a mattress stuffed with the leaves of Indian corn was being shaken. In another instance it is recorded of a man that he could never pass the shop of a certain rope-maker in his native town without suffering from dyspnoea, excited presumably by the dust from the flax. Cullen refers to the case of a man who was seized with fits of sneezing whenever rice was threshed in the neighbourhood of the house, whilst Trouseau tells us that he himself always had asthma if he remained for even a few minutes in a room with a bouquet of violets. The power of ipecacuanha dust to produce in certain susceptible persons attacks of shortness of breath has long been recognised. Cullen relates that the wife of an apothecary was seized with asthma whenever ipecacuanha root was powdered in her husband's surgery even if she happened at the time to be in another part of the house.

Sir Thomas Watson says: "I recollect a servant employed in the laboratory at St. Bartholomew's Hospital, when I was a pupil there, who had the peculiar ill-luck to be liable to this affection. Whenever that drug was under preparation he was obliged to fly the place. This idiosyncrasy is not very uncommon. A very small quantity of ipecacuanha dust is sufficient in such persons to bring on a paroxysm of extreme dyspnoea, wheezing, and cough, with singular anxiety and great weakness. The distress usually terminates by a copious expectoration of mucus."

Some people, although insusceptible to the action of ipecacuanha, suffer severely from exposure to linseed or scammony. Dr. William Smith, of Preston, records the case of a patient in whom a linseed-meal poultice provoked the symptoms, whilst in another instance the smell of mustard was the exciting cause. Powdered colocynth may have a similar effect, and an epidemic of sneezing which occurred in a house was traced by us to the use of bitter apple, which was powdered over the carpets and other articles as a preventive of moth. A medical student under our care assured us that the dust from a clean pocket-handkerchief always excited in him paroxysms of sneezing, to which he was subject, and he was so assured of this that he gave orders that his handkerchiefs should never be starched. The coryza induced by preparations of iodine made with methylated spirit is well known. Poyer mentions the case of a lady in whom asthmatic attacks were induced by scents of all kinds, and we are told of a sea captain engaged in the guano trade, who was so severely affected by the emanations from this substance that he had to relinquish his occupation.

Most writers include under the term "hay fever" similar attacks induced by the exhalations from cats, dogs, horses, and other animals. Hyde Salter, in his interesting work on Asthma, gives detailed notes of several cases in which the shortness of breath was induced by exposure to the effluvia of various animals, his list including not only cats, dogs, and horses, but wild beasts, cattle, guinea-pigs, rabbits, and hares. A patient, the proprietor of a well-known equestrian establishment always had his asthma brought on by the presence of horses, so that he was continually asthmatic. He had no suspicion of the real cause of his suffering till he made his fortune and retired from business, when his symptoms departed, only to return if by chance he visited his old haunts. Salter tells the story of a country clergyman who was always rendered asthmatic by the neighbourhood of a hare or a hareskin. If by chance he met a man who had been poaching, he at once detected him. When this gentleman was a boy studying with a private tutor, a fellow student, as a practical joke, put a dead hare under a sofa on which he was sitting, and he immediately had a severe attack of his complaint.

Bastian, in the *Philosophical Transactions* (vol. clvi. p. 583), relates some remarkable effects invariably produced on himself

whilst working at the anatomy of the *Ascaris megaloccephala* from the horse. These were a greatly increased secretion from the Schneiderian membrane, with irritation of it, causing continuous sneezing, also irritation of the conjunctiva, with such a sense of itching about the eyelids and caruncle lacrymales as to make it extremely difficult to abstain from rubbing them. When they were rubbed this immediately gave rise to a swollen and puffed condition of the eyelids, swelling of the caruncle, and extreme vascular injection of the conjunctiva, and if the rubbing were at all persisted in, actual effusion of fluid would take place under the conjunctiva, raising it from the subjacent sclerotic and cornea. At the same time that these effects were produced upon the mucous membranes, the skin of the face and neck was affected so as to cause a sensation of itching somewhat similar to that which exists in mild attacks of nettle-rash.

Several cases of paroxysmal sneezing produced by emanations from animals have been under our care, and many of them serve to illustrate points of interest. The first is a typical case of sneezing produced by emanations from horses.

A gentleman, aged 24, had two cousins who suffered from asthma, and a sister who was a cat-asthmatic. His father's cousin suffered from hay fever. He himself, when 23 years old, had bronchitis, and from that time until the age of 9 had attacks of sneezing and asthma. He then went to live at the seaside, and for four years was perfectly well. Little by little, however, after leaving the seaside both forms of attack recurred, sneezing first, then the asthma. For the last two years his sneezing has been growing better and his asthma worse, but he suffers more or less all the year round. He finds that either or both forms of attack may be brought on by coming near a horse, and this is the only exciting cause he can discover. One night at the theatre he felt oppressed and commenced sneezing, without being able to account for it. In a few minutes, in the course of the performance, a horse galloped on the stage, and his attack then became so bad that he had to get up and leave. He found that going into a stable would at any time immediately excite a paroxysm, and that the clothes of people who had been racing had a similar effect. One day at Malton some betting men got into the same railway carriage with him, and an attack was at once induced. The emanations from horses would sometimes bring on asthma and sometimes an attack of sneezing, and not infrequently both. The asthma was more likely to come on in a carriage or close space, the sneezing in the open air, the attacks always lasting as long as he was exposed to the exciting cause. Flowers and grasses did not affect him in the slightest degree, but he occasionally had peptic asthma as the result of an indigestible meal. During the sneezing attacks the conjunctivæ and the eyeballs itched, the conjunctivæ becoming red and congested. The itching was also felt over the whole of the inside of the nose, and was frequently accompanied by irritation of the throat. The nasal cavities were examined, but nothing abnormal could be detected. The sister's attacks, which sometimes assumed the form of sneezing and sometimes of asthma, were never excited by horses, but only by cats.

The following case of asthma and sneezing produced by contact with a caterpillar is, we believe, unique. Some years ago we had under our care a gentleman of neurotic temperament, who, about the age of 50, suffered severely from acute pleurisy the result of exposure to cold and wet whilst out shooting. He recovered, but from that time was subject to what he called "hairy caterpillars asthma." If by any chance he touched a caterpillar, especially a very hairy one, he was immediately seized with an attack of shortness of breath, often lasting an hour or more. Sometimes the paroxysms commenced with an attack of sneezing, accompanied by itching and irritation of the eyes and nose, with profuse watery discharge from both. He was not in the slightest degree affected by pollen, and he could pass hours in and about the stables without experiencing the slightest inconvenience. One of his daughters, who shared his temperament, was a cat-asthmatic, her attacks of sneezing and coryza being always induced by contact with cats, or even by the presence of one in the room. She was not subject to hay asthma, and ridiculed her father's objection to caterpillars.

The close connection existing between hay fever and intermittent sneezing is well shown in those cases where not only pollen but other excitants induce an attack.

The following is a case in point: The widow of a clergyman has suffered for many years from this complaint. She sneezes a good deal, but the running from the nose

and eyes is very profuse, and out of all proportion to the sneezing. During the attack she has itching of the whole of the nose and of the eyeballs and throat. The attacks occur all the year round, but are most severe in the summer. They often occur the first thing in the morning, as soon as she begins to move in bed. They are excited at any time by grasses, roses, privet, and, in a less degree, by other flowers. Driving in the face of a strong wind will always bring on an attack. Any dust, especially the dust of a bedroom, brings on a violent paroxysm, and sunlight is also a frequent exciting cause. Food at once affords relief, even when no stimulant is taken, the symptoms subsiding before the meal is finished. She never catches cold in the head, and the chest is not usually affected. The attacks last from one to two hours, and are followed by great exhaustion. She finds that she can at once obtain relief by going into a dark room. It is worth mentioning that her daughters suffer from the same complaint.

This case is of interest as showing the influence of light as an exciting cause. It is a good example, too, of what may be called a mixed case, the attacks being induced not only by pollen, but by other causes. It may, of course, be argued that all dust is liable to contain pollen, but in this particular instance bedroom dust was found to be more likely to provoke an attack than dust from other sources. The influence of sunlight in causing the attacks is one of the striking features of her complaint, and this is the case with many people who suffer from hay fever due to pollen. In some patients sunlight is insufficient to induce an attack unless the disease is aroused, so to speak, by the action of pollen, and then the rays of the sun will induce a paroxysm of sneezing, or increase its severity. In this particular hay fever is comparable with other neuroses, such as migraine and neuralgia. The complaint may be excited by a carious tooth, and as long as this irritation persists other minor causes, such as a puff of wind on the face, will bring on a paroxysm; but when the predisposing cause, the decayed tooth, or whatever it may be, is removed, the minor exciting causes fail to arouse the attack. In some instances, as we all know, strong sunlight alone is sufficient to excite a paroxysm of sneezing, and it is by no means uncommon to meet with people who cannot look at the sun without sneezing violently. We have a patient, for example who, whenever he leaves the house in the morning, if it be a fine bright day, sneezes for five or ten minutes, the attacks being so violent that they often cause him to lose his train. The frequency and violence of the sneezing vary greatly in different cases, but are not uncommonly sufficiently severe to justify the patient being classed with intermittent sneezers.

The following case illustrates the influence of strong sunlight in people not affected by pollen: A boy, aged 12, suffers from attacks of cough every morning between six and eight, accompanied by wheezing and tightness of the chest. He has suffered in this way for two years, and during that time has been liable to colds in the head and transitory attacks of bronchitis. Strong sunlight always makes him sneeze, and causes his eyes to be "full and red," so that the tears run down his cheeks. The sneezing is not excited by dust or pollen or by any other cause. His mother is a sneezer but not to any marked extent. Her mother suffered in the same way, and she had two sisters who were hay-asthmatics.

Dust, as we have seen, is a common exciting cause, its influence being attributed by Blackley to the very general distribution of pollen. We are not able experimentally to disprove this, but we have seen so many cases where this explanation seems to us highly improbable, that we have some hesitation in accepting it. Our difficulty is illustrated by the following case. A lady, aged 35, or thereabouts, suffers from severe attacks of sneezing, which will nigh shake her to pieces. During a paroxysm she is literally bent double, and suffers agonies of pain. They begin the first thing in the morning, but may attack her at other times during the day. The attacks may last only a few minutes or perhaps an hour or two; sometimes, however, they persist for twenty-four hours, or even three or four days. The sneezing is accompanied by profuse watery running from the eyes and nose, and the eyes become red and swollen. She soaks her pocket-handkerchiefs through and through, and her washing bill is a heavy one. The attack is always preceded by "pins and needles" over both nasal bones, the frontal sinus and the upper eyelid, with itching of the tip of the nose, but without any itching of the nostrils or irritation of the throat. The itching not uncommonly occurs without the sneezing, but the sneezing never

without the itching and the sensations of "pins and needles." House dust will bring on an attack, bedroom dust and the dust from shaking a bed being most potent. The dust of the street, curiously enough, does not affect her; indeed, she often experiences relief during a paroxysm from going out of doors. Flowers do not bring on the attacks, which cannot be due to hay, for she resides in a large city; they occur at all times of the year. Sunlight will not excite the attack, although she complains that it hurts her eyes. She obtains some relief from taking food, hot tea, or port wine. Her mother has been a sneezer all her life.

A middle-aged man, an ironmonger, has suffered from paroxysmal coryza and asthma for two years, the attacks being induced only by the dust of his shop. Other kinds of dust, for example that of a road, fail to affect him, and flowers, grasses, and bright sunlight are innocuous. The case is peculiar in this respect, that whilst coryza and asthma are excited only by the dust of his shop, he in certain localities suffers at night from simple asthma without coryza.

Sneezing may sometimes be induced by violent exercise. A patient, who has been a sneezer for twelve years, assures us that in his case this is the most powerful exciting cause, and he always suffers severely if he takes a long ride on his bicycle. The sneezing generally lasts half an hour or more, and is accompanied by profuse watery nasal discharge. When the exercise taken is unusually violent, the nose swells about the bridge, and the conjunctivæ become red and irritable. He does not suffer from itching of the nose or any part of the face. The attacks are never excited by dust, and he is not affected in any way by smoke, hay, or the smell of flowers. He has occasionally had an attack in the middle of the night, for which he can assign no cause. These night attacks, however, have ceased since he has worn a nightcap. Two years ago he became the subject of peptic asthma, and more recently caught cold, which brought on an attack of bronchitic asthma. The asthmatic attacks usually commence about two or three o'clock in the morning, and terminate with a sharp paroxysm of sneezing. His father was asthmatic, but has outgrown it.

Food is sometimes assigned as the exciting cause of attacks of sneezing. A nervous man subject to attacks of neuralgia stated that for nearly two years he had suffered from sneezing after meals, and especially after breakfast and dinner. The occurrence of these attacks was favoured by excitement, nervous fatigue, or brain work. He often wakes up with a migrainous headache over the left brow or at the back of the head, and then immediately after breakfast sneezes violently twenty or thirty times, the attack being accompanied by cough and expectoration, and running at the nose and eyes. He has never been able to discover any other cause for the attacks except food. It is probable that in this case the affection is central in origin. We assume that an impression conveyed from the stomach through the vagus and reaching its centre would, through diminished resistance in this part of the central nervous system, spread thence to that part of the fifth nucleus in connection with the nerves proceeding from the mucous membrane of the nose, inducing in this part of the nervous centre those molecular changes which impress on the sensorium the sensation of tingling or pricking, and this condition of the nervous centre of the fifth excites violent sneezing.

From these cases it will be seen that the exciting causes of attacks of sneezing are various, the chief being pollen, the emanations from various animals, and bright sunlight. In some instances it is difficult or impossible to discover any exciting cause, as is often the case in the allied affections—asthma, neuralgia, and migraine. In these cases the mucous membranes may be perfectly healthy, or there may be slight chronic catarrh of the nose.

The following case illustrates the power of this nasal irritation to intensify the attacks: The patient, a gentleman aged 45, has been subject to neuralgia for many years. He has had attacks of persistent sneezing for three months. They may occur at any time of the day, but are usually worse after dinner. He has constant tingling in the left nostril posteriorly, and in the region of the septum. At times this pain becomes much worse, and radiates over a large area, reaching the ala of the left nostril. This "sharp pang," as he terms it, excites the attacks of sneezing. There is a constant watery discharge, but this is intensified during the sneezing attacks. The discharge is worse from the nostril which itches. He is quite unable to discover any exciting cause, but is satisfied that it is not dust or pollen or bright light.

A lady, aged 70, has almost every night for years had attacks,

lasting from twenty minutes to an hour, beginning with itching behind the sternum, and leading to a severe paroxysmal cough, accompanied by profuse running from the eyes and nose without itching of the nostrils or eyes, and with only an occasional paroxysm of sneezing. This case is of interest from its affinity with asthma.

Asthma, as we know, often changes its character, and may be replaced by paroxysmal cough or dyspnoea. Many patients suffer from itching over the sternum, which precedes the attack. We know, too, that many diseases in their transmission from parent to child change their type; an epileptic parent, for example, begetting a neuralgic, migrainous, or rheumatic child, or several members of the family may have different neuroses. In other words, these same changes in the nervous system in transmission affect probably a different part of the central nervous system, and so induce a different set of symptoms. We know too that in the same individual one neurosis may replace another, and this interchange may occur not once but many times. In other cases two or more neuroses not only affect the same person, but the attacks may occur simultaneously, a fact well illustrated by the following case.

A little girl, aged 6, has had chronic Bright's disease for some years, but she is now nearly well, although a little cystitis remains. Every week, or sometimes oftener, she has attacks of running from the eyes, the lids becoming swollen, the upper especially, and the conjunctivæ suffused and bloodshot. The right eye is always more affected than the left, the difference being well marked. There is great intolerance of light, so that the room has to be darkened, and usually she keeps her eyes covered with a shade. The nose runs, but she seldom sneezes. The bowels invariably act at the onset of the attack, the motions being light in colour. She always vomits about half an hour after the commencement of the attack, and ejects a large quantity of bilious matter. The tongue is red and spotty, and frequently covered with circular patches like raw beef-steak. There is no shortness of breath, but the attack is followed by drowsiness. The only cause that can be discovered is excitement, but often enough the attacks come on when the patient has been kept quiet. It is thought that inattention to diet will intensify them and prolong their duration, but on this point the evidence is not clear.

THREE LECTURES

ON

TUBERCULAR JOINT-DISEASE AND ITS TREATMENT BY OPERATION.

Delivered at the Royal College of Surgeons of England, June, 1888

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LECTURE II.

In the light of the researches and deductions briefly alluded to in my last lecture, we have now to consider the behaviour of tubercular disease in the joints. That this is identically the same affection as that known under the same name in the lungs and other organs, there can, as I have shown, be no manner of doubt; and that the presence of the bacillus tuberculosis is associated with analogous tissue changes in the joints to those found in the internal organs, is also, I think, beyond dispute. But why the structures entering into the composition of the articulations are so liable to be infected, as appears to be the case, is one aspect of the question which claims a short notice.

In the first place, it is almost certain that here we are dealing with a secondary infection in the vast majority of cases; in other words, that the organism introduced into the system elsewhere and present in the blood has found, in its wanderings, a home peculiarly fitted for its growth in the tissues of the joint. That direct infection of the latter may take place through a wound has been shown more than once, notably by such cases as those recorded by Pfeiffer and Middeldorpf; but this must be such an exceptional occurrence as hardly to need consideration.

In speaking of infection of the joints it will, of course, be understood that only the synovial structures and the cancellous tissue of the bones are referred to. In these alone does the dis-

case take its origin, however deeply it may ultimately involve the other components of the articulation. Studied in its earliest stages, articular tuberculosis is seen to consist in the deposit of the characteristic granulations either in the synovial tissues, or the medulla of the ends of the bones, or in both together. In these tubercles, made up of the typical lymphoid, epithelioid, and giant-cell elements; the bacilli are often scantily represented, and require care and patience for their demonstration. That the avascular cartilage, the highly-differentiated, compact bone-tissue, and the fibrous material of the ligaments and capsule are primarily exempt, is clear even from the most casual examination.

The reasons for this must be sought for in several directions. In the first place, adopting the view alluded to above that the disease is only a local expression of a general infection, and that the specific is circulating in the blood, it is only to be expected that the characteristic foci of hyperplasia produced by the organism should be most frequently, if not exclusively, found wherever vascularity is greatest. Or, to put it conversely, as the blood is the distributor of the organism throughout the body, those tissues with a small vascular supply ought to have the greatest immunity from infection. And this is just what we find everywhere in studying tuberculosis. But looking further into the matter we can, I think, trace the operation of other factors, for it is certain that tubercular disease does not commonly develop in every part to which the organism is carried by the blood. We have seen elsewhere how predisposition of individuals plays an important part in the spread of this disease. Given, then, an individual predisposed by hereditary debility to tuberculosis, we might expect tubercle to manifest itself first at those spots in the system where the vital energy was at its lowest from one cause or another. Setting aside for the present the question of traumatic or other lesions, are there any special reasons why joints should be so frequently selected by the organism as a point of attack? Undoubtedly there are. It is well known that the disease generally finds its most fertile soil among the very young, probably because, among other reasons, the vitality of the young cells is unequal to cope with the invading organism. And, if this be true, we should expect to find that, with the bacillus once in the blood, those tissues which are youngest, or, in other words, approach most nearly to the embryonic type, should be most liable to suffer from its attacks. Now, such embryonic tissue is abundant in childhood, and most so at those spots where growth and physiological activity are greatest. In adults such tissue has become scanty, although we may find its analogue in the cellular products of plastic exudations. But the medulla of the ends of growing bones and the synovial structures both abound in embryonic tissue hardly yet differentiated, and are in active growth. And that this tissue all over the body is peculiarly liable to inflammatory disease of every kind, experience, whether of purely traumatic conditions or infective influences, abundantly proves. This fact may be noticed, for instance, in the so-called general septic affections.

But the matter may be put in another light. It may be suggested that young growing tissues being necessarily very vascular, the physiological hyperemia requires but a slight stimulus to convert it into a pathological congestion. Be this as it may, it is important to note that throughout the body highly differentiated tissues—such, for instance, as muscle or tendon—are not liable to inflammatory changes in anything like the same degree as the areolar tissues or the soft vascular material forming the basis of the synovial fringes of joints. And in the case of bones, we may observe that all inflammatory changes, whether purely traumatic or infective—as, for instance, after measles and scarlet fever—have their starting point, not in the cartilage or the compact tessel, but in the growing material underlying the periosteum and between the epiphyses and diaphyses, or in the medulla itself. That great physiological activity predisposes in some way to inflammatory disease could not be more simply or better illustrated than by reference to the frequency of suppuration in the breast during lactation and the rarity of this condition at other periods. Now, the physiological activity in the neighbourhood of joints in children is, of course, very great. We find here the most rapid bone growth, and a correspondingly active development of the synovial membrane. And it is in these structures that inflammatory troubles start so readily in children. Moreover, after the structures in question have attained maturity, inflammatory disease (apart from injury) becomes rarer and rarer in them. If one were asked, then, to suggest the most potent factors in the predisposition of joints to tubercular disease, one would be inclined

to say, in the first place, the inherent low vitality of the youngest tissues; and, in the second, high physiological activity—unless, indeed, we regard these two factors as one and the same thing. But this would, I think, be an improper view to take, for there does seem to be a difference between low vitality due to the age of a tissue and that susceptibility to give way before opposing forces found in the conditions produced by great physiological unrest. In this very case of the joints, we find that, after maturity has been reached, and the bones, having attained their full size, have lost their epiphyseal and periosteal embryonic tissue, they cease to be a prey to primary tubercle, while the synovial membrane is still liable to the disease, its functional activity being called into play as much or more than ever under the increased stimulus of the vigorous adult movements of the articulation. It is extremely difficult—nay, almost impossible—to accurately determine the relative frequency of tubercular disease starting in the synovial membrane and that starting in bone, and, after carefully examining numerous tables compiled with a view to elucidate this point, I cannot say that they come even near definitively settling the matter. But one point, I think, may be accepted as almost certain, namely, that tubercular disease starts more frequently in the bone alone in childhood, and in the synovial structures alone in adult life. If this preponderance of primary synovial disease in

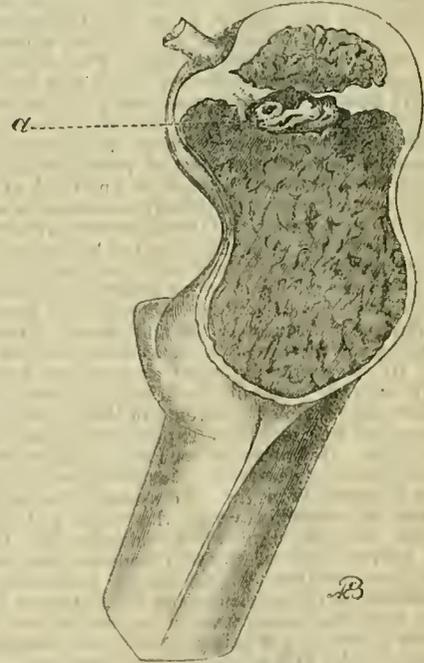


Fig. III.—Upper end of young femur, showing a focus of tubercular disease (a) at the usual starting point in the epiphyseal line of growth (from a specimen in University College Museum).

the adult be a fact, as I think it is, it would be best explained by the cessation of physiological activity in the bones while it continued in the synovial tissues, the other factors in the production of the disease remaining unaltered.

From the above considerations it would appear that there are several kinds of predisposition to tubercular disease of joints. In the first place, a peculiar debility may be inherited from phthisical or otherwise unhealthy parents, rendering the tissues of the child generally less capable of repelling the attacks of the parasites than had it come of a robust stock. Next there is the general predisposition of early age, the tissues of the young having less resisting force than those of the mature. Thirdly, certain localities in the body appear to be particularly open to the attacks of the organism, owing probably to the hurried physiological changes involved in rapid growth which are going on in them—changes which are associated with the presence of abundance of almost embryonic tissue and great vascularity.

In support of this view let me point to what is usually, if not invariably, found when the ends of the long bones, for instance,

are examined in the *earliest* stages of scrofulous disease. Take the upper end of the femur as represented in these drawings from specimens in our museum at University College (Figs. III and IV), or the lower end of the femur and upper end of the tibia, which I have copied from Koenig's plates (Figs. V, VI, VII). In every one of these specimens the initial lesion is found

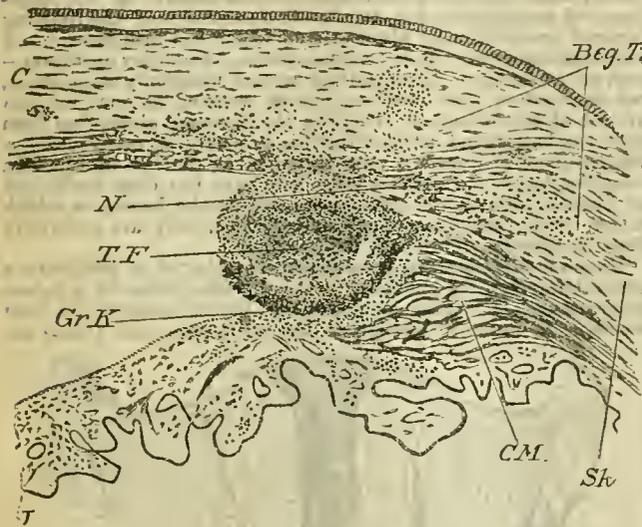


Fig. I.—Sk., sclerotic; C.M., ciliary muscle; I., iris; C., cornea; T.F., tubercular foreign body (the black dots represent bacilli); Gr.K., granulation capsule around latter packed with bacilli; N., new scar tissue in corneal wound with bacilli; Beg. T., beginning of tubercular hyperplasia around bacilli.

as a focus of hyperplasia, with caseation at the lines of most active growth between the epiphyses and diaphyses. And I could produce specimens showing that this is the rule for all the long bones and most of the short ones.

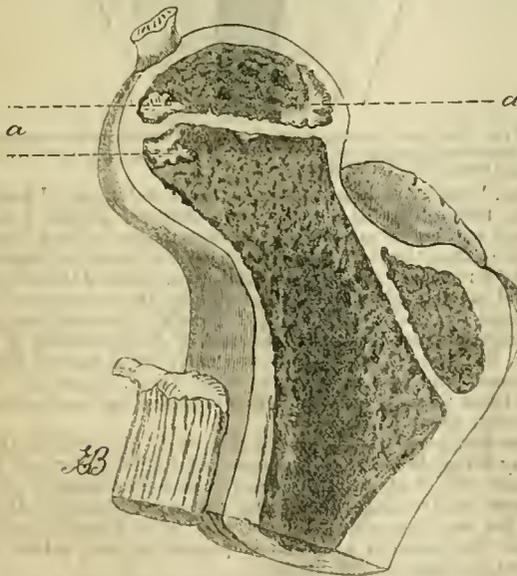


Fig. IV.—Section of the upper end of a young femur showing centres (a a) of tubercular disease at either side of the epiphysary fluid of cartilage. The surfaces of the bone have not yet been reached.

The bearing of this fact upon the question of early conservative operations on the ends of bones, *versus* later and more complete excisions of entire joints, is obvious, and needs no further emphasis here. Its practical importance I hope to refer to again later on.

Finally, there is the predisposition of external injury, using the term in its widest sense. In the case of the joints, injury may

render their tissues more open to the attacks of the bacillus tuberculosis circulating in the blood, in several ways acting singly or together. In the first place the violence may cause more or less active inflammation, with exudation of plastic material into the tissues around. Such exudation material resembles embryonic connective tissue, and seems to have very little power to resist the attacks of the organisms; in other words, it offers a favourable soil for its growth. This we have seen in the case of inoculation of the rabbit's eye with tubercle by Banmgarten (Fig. 1), where the bacilli spread most rapidly into the granulation capsule (Gr. K) and along the cicatricial tissue of the corneal wound (N) than in any other direction.

Further, the increased blood-flow to an inflamed part would also, *ceteris paribus*, involve a greater supply of bacilli to it than if the vascularity were normal. Again, without any active inflammation, or, following upon it, vascular atony may result from violence to a joint, and passive congestion of its tissues be the result, as is so often seen clinically. In this condition not only is the general nutrition of the part damaged, but the slowing of the blood-stream in the smaller vessels, amounting often almost to stasis, offers a better opportunity for the deposit of the bacillus in the parts around than is afforded with a normal circulation. And here, too, the greater amount of blood entering the congested area would bring a larger army of organisms to the attack. Finally, injury to a joint will often produce more or less extravasation of blood into its tissues, which remains for a time unabsorbed. With this blood the bacilli, too, escape from the vessels, and in

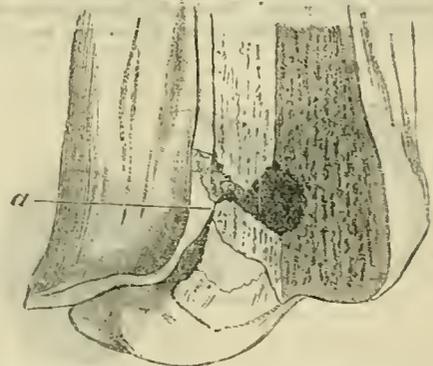


Fig. V.—Lower end of young femur, showing a focus of tubercular disease (a) close to the epiphysary line, and bursting on posterior aspect of bone outside the capsule (after Koenig).

their new position withdrawn from the current of the circulation, and in a state of rest they meet with the most favourable conditions for further growth, and soon form large colonies. This last-mentioned effect of injury is probably a most potent factor in the determination of the points at which tubercular disease shall start throughout the body, and will best explain its appearance in many unusual situations. Those who are not familiar with Schüller's experiments bearing upon this point will do well to give them their careful attention.

The parasitic nature of tubercular or scrofulous disease of joints has now, I hope, been sufficiently indicated, and its great power of extending locally and generally. In its modes of spreading by contiguous infection, through the lymphatics, and by entrance of its virus into veins, it offers, as we have seen, a close parallel to the modes of generalisation of the so-called malignant neoplasms. Indeed, there is much to justify our regarding tubercle itself in the light of a malignant growth, and our dealing with it accordingly. But that in spite of its capacity for wide dissemination it may remain for a long time localised in a joint, the rest of the system continuing unaffected, I need not undertake to prove; every clinical observer is thoroughly familiar with the fact. On the other hand, we must all have been impressed with the experience that in many cases after a long period of quiescence as a purely local affection, tuberculosis has rapidly become general. We must have noticed that this has usually followed upon some injury to a fully developed caseating focus, or the bursting of some caseous abscess, or, what is perhaps of greater importance for us as surgeons to remember, it has followed soon after a surgical operation upon a tuberculised part. From Wartmann's statistics, embracing the results of 837 resections, it would

appear that in at least 10 per cent. of the total number of deaths following operation, rapid, general, miliary tuberculosis supervened in such a way as to suggest strongly, if not to prove, that the surgical interference was the exciting cause of the generalisation of the disease. And I cannot help feeling, after a careful study of large masses of statistics, that if it were possible to analyse them more accurately, this percentage would be still higher.

This is a very grave consideration for the operating surgeon. But if, instead of closing our eyes to the fact, we set to work to determine the actual causal relation of operation to this general dissemination of tuberculosis, we shall in the future be able to eliminate one more risk in such cases, and shall escape the pain of seeing every now and then a patient relieved of his local disease only to succumb to rapid general tuberculosis set agoing by our operative interference. The explanation of this occasional generalisation of tuberculosis as the result of disturbance of a localised caseous form is to be found in what we have already considered. It will be remembered that the first effect of the introduction of a portion of tubercular tissue into the living rabbit's eye was the encapsulating of the same within a layer of granulation tissue. Now, beyond this latter (Fig. I, Gr. K.) the bacilli undoubtedly spread to some relatively small extent, as we have seen, but the fact remains that it is within this granulation capsule that they most rapidly multiply and accumulate, and that they appear to be imprisoned in a measure within it. In the same way, when inoculated in certain quantities in the human body, there is good reason to suppose that as a rule a similar capsule of granulation tissue is thrown out around the bacilli in sufficient quantity to limit their further extension, or at all events to prevent their

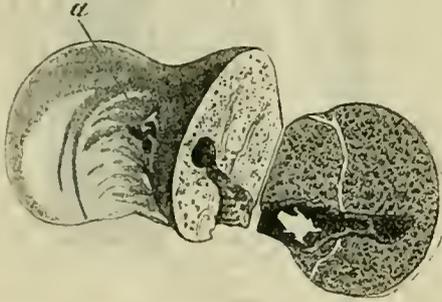


Fig. VI.—Section of young femur to show a focus of tubercular disease (a), starting at the line of epiphysary growth, and eating its way into the growth secondarily (after Koenig).

escape into the body generally in greater quantity than can be dealt with by the eliminatory powers of the various organs. That they can be got rid of from the system by excretion has been proved beyond doubt, for they have been found in several of the secretions; and it is also probable that to a certain extent, when the dosage is small and the individual vigorous, they can be totally destroyed within the body before they find a suitable soil for their growth.

Now, as long as this limiting layer of plastic exudation remains undisturbed and unbroken, whether it still preserve the form of granulation tissue or have undergone that organisation into fibrous tissue often found around caseous foci in various parts of the body, we are justified in believing that a very considerable obstacle is offered to the dissemination of the organisms within it, and that the disease remains in many cases almost or altogether localised. But if in any way this barrier is dissolved by suppuration or broken through by violence, a means of escape for the bacilli is provided, and more or less generalisation of the disease takes place. The organism may be distributed over a wider local area, may be carried along the lymphatics to be arrested partially or completely in the glands, or may gain access to an eroded or torn vein, and thus be carried in overwhelming numbers into the general circulation, as shown by Weigert. We are all familiar with the rapid swelling of the neighbouring glands which often takes place when a scrofulous joint has received a fresh injury or has been over-exerted; and here, too, it is probably a question of the disturbance of a latent tubercular focus.

Again when a caseating centre, say in the knee or hip, has burst through the skin, and the resulting sinus has become inflamed, how often do we see the inguinal or pelvic lymphatic

glands enlarge and in many cases soften, whereas they had been little or not at all affected during the months or years the tubercular forms may have remained in an unbroken and inflamed state. This can best be explained either by the increased stimulate given to absorption, by the access of pyogenic organisms previously excluded by the unbroken skin, and the taking up of the bacilli tuberculosis together with the newcomers; or the occurrence of suppuration has resulted in destruction of the limiting layer of granulation or fibrous tissue which had hitherto shut off the organisms from the rest of the system. And after operation—say, an excision—if the resulting wound unhappily suppurates, we have often both of these factors working at once for the spread of the infection. There is the increased absorption from the lymphatics, and besides there is probably in many cases a taking-up of the specific virus through the radicles of the vein wounded by the operation. These may have run close to the foci of disease, both in the soft tissues and in the bones, in which latter, from their anatomical arrangement, they are peculiarly fitted to take up all kinds of fluid matter.

From all this there ought to be considerable risk of producing a general infection by operating on local joint-disease of a tubercular nature. It would be possible to invoke further aid from statistics in order to strengthen the conclusion that this is so:

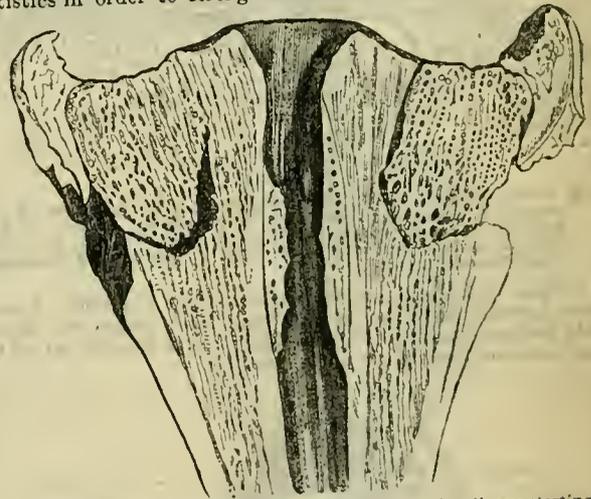


Fig. VII.—Section of young tibia, showing tubercular disease starting at line of epiphysary growth, and producing a sequestrum involving the joint secondarily (after Koenig).

but from lengthy and elaborate statistical statements I purposely abstain throughout these lectures, trusting rather that my audience will credit me with an earnest desire to give them fair deductions from the statistical evidence before me rather than weary them by a recital of the figures themselves. Some of these data may be found in such tables as those containing the experiences of Mr. Marsh and Mr. Croft in the *Clinical Society's Transactions*, and in the admirable monographs of Koenig, of Willemer and of Wartmann. But if such risks exist, we may, by a careful study of their causes and effects, learn to avoid them, or, at all events, reduce them to such an extent that they are far outweighed by the benefits of operation.

In the first place the improved powers of diagnosis at the present day bring the scrofulous diseases of joints under our notice at a much earlier stage than formerly, and consequently we have the option of treating them by operation or otherwise from the first. We are also able to determine with tolerable accuracy whether the articular affection is primary or only a local manifestation of a general condition.

How often joint tubercle is really a local affection it is difficult to prove by figures; but from Koenig's analysis of his own long series of cases, which is the most accurate guide that I know of, it would appear that in over 21 per cent. no evidence of any other tubercular affection could be found; and, as he remarks, this percentage will probably be found in the future to be much under the mark. We are speaking here of palpable evidence of infection elsewhere than in the joint only; for of course, in one sense, tubercular disease in the latter is always secondary—that is to say, the organisms have been imported into the tissues of

the articulation from some spot of primary inoculation. But there is ample evidence to show that, so introduced, it may localise itself in one part only of the body, such as a joint, and remain limited to that part for a long time.

Now by the mere fact of an early diagnosis one of the risks above alluded to may be reduced considerably, whether we operate or not. By attention to general hygiene in every way known to us the vitality of the tissues may be increased, and their power of resistance to the spread of the infection throughout the system be greatly enhanced. Again, by rest of the tubercular joint, and by protecting it from external influences, whether of varying temperature or of violence, the tendency of the local infection to spread may be restrained. The mere staying off of suppuration by these measures will also tend largely in the same direction, as may be seen from any of the carefully-recorded series of cases referred to, but in none better than in those of Marsh, Croft, Willemer, and Wartmann.

The general ill-effects of suppuration upon the *ultimate* results of tubercular joint-disease cannot be better illustrated than by an allusion to Willemer's tables, in which the knee is specially referred to. In these the results are recorded after the lapse of several years, the shortest time being two and a half, the longest nine years since the reception of the patients into hospital.

KNEE TUBERCLE (WILLEMER).

	Non-suppurating, 65.	Suppurating, 102.
Resected	51.0 per cent.,	against 60.0 per cent.
Amputated primarily	0.0 " "	16.0 "
Treated conservatively	49.0 " "	24.0 "
Of the last group treated conservatively there were, after a lapse of years:		
Complete cures	54.0 per cent.,	against 34.0 per cent.
Incomplete cures	18.0 " "	19.0 "
Ultimate cure by amputation	6.0 " "	13.0 "
Deaths	22.0 " "	34.0 "

In speaking of suppuration I do not mean that we should always aim at anticipating liquefaction of the tubercular material by operation. This softening is not of course suppuration, but is due to a fatty necrotic change in the infected tissues. When suppuration is referred to something quite different is meant, namely, that inflammatory exudation which sometimes is associated with caseation when a tubercular focus is subjected to injurious external influences.

It is most important to draw the clearest distinction between the liquefaction of caseation and true suppuration, not only as an abstract pathological axiom, but also for practical purposes. Of course the necrotic changes and fatty degeneration which take place in a caseating nodule are as different from the exudative and proliferative processes at an inflamed and excited spot as death is from life. But the matter has its practical bearing on treatment. If a surgeon adopts the view that no operation is proper until suppuration has taken place in the tissues of a joint, he will always operate in very advanced disease. Tubercular affections are not associated with true suppuration, except at what may be called an advanced stage; so that, if the surgeon waits until it is present, much valuable time will have been irrevocably lost. But if the rule is made to operate as soon as there is evidence of the commencement of caseation, the conditions of operation are totally different. We shall be interfering in such a case relatively early, and with all the consequent advantages. We must, therefore, in the future watch for and endeavour to recognise early the doughiness of commencing caseation rather than wait for the distinct fluctuation of suppuration.

Again, if the increased risk of generalisation of the tubercular infection associated with the access of pyogenic organisms through the formation of sinuses be recognised, we shall be more careful to step in early, and, before the latter have formed, will remove the whole of the locally infected tissues as thoroughly as possible, and secure union of the resulting wound by first intention.

Moreover, in undertaking any operation, we shall be careful not only to go wide of the disease, whether osseous or synovial, but also to do so with as little violence to the surrounding healthy tissues as may be possible. This last point is of the utmost importance; for, if we believe in the infective nature of the disease at all, we must believe in the possibility of re-infecting our own wound from the tubercular material we are engaged in extirpating; and this danger will be greatly enhanced if by vio-

lence in handling the tissues around we open up the small veins, or tear pockets from which the dangerous *débris* cannot be washed away so easily as from a clean-cut wound. Moreover, by rough handling during operation the likelihood of subsequent reaction and suppuration in the track of the wound is much increased, and the dangers of this in adding to the probability of general infection we have already seen. Finally, when we operate early before suppuration has taken place, we can ensure the rapid healing of the wound we have made. All subsequent disturbance of the freshly-injured joint can, in the case of such a clean, non-suppurating wound, be avoided by the use of permanent dressings and immovable apparatus. Vascular and lymphatic excitement will thus be speedily allayed, and with this the probability of the spread of the disease locally or generally from small quantities of the tubercular virus, perhaps left accidentally behind in the operation wound, be diminished. The sooner a wound is healed and the quieter it is kept for a long time after, the less likelihood will there be of a rekindling of the original process or the general dissemination of the virus from it. And not only this, but if suppuration is anticipated and prevented, we need have no fear as regards amyloid disease or exhaustion carrying off the patient. One has only to glance at any of the older lists of excisions to be impressed with the perils which lie in this direction, and to be convinced of how much might have been done to ward them off by forestalling suppuration by excision or getting rid of it by amputation.

I purposely abstain here from going into the question of the better prospect of a useful limb after an early excision than after extensive disease has necessitated free removal of bone. This may require consideration later on, but I am anxious now, in the first place, to emphasise the need there is of attending to the reduction of the mortality from tubercular disease of joints before we have anything to say as to the preservation of their functions. There is but little use of course in preserving to a patient the functions of his joint if the prospect of his being delivered from what may be called almost a malignant disease is not improved by our operation, still less if his chance of this is diminished. I need only remind you here that more than half of the total mortality after resections for tubercular disease is due to extension of the tubercular process, either locally or generally. Glance for a moment at Sack's analysis of 144 excisions of the knee with 25 deaths. In 13 of these the cause was tuberculosis. Or Mr. Croft's list of 45 excisions of the hip with 18 deaths, at least 6 of which were due to tuberculosis. Grosch's table of 120 cases of antiseptic excisions of the hip show the same thing. Here, with a mortality of 36.7 per cent., more than half the deaths were due to tubercular affections. These results have certainly not been due in every case to the steady advance of general tubercular disease which existed before the operation. And anyone who will carefully weigh the evidence which is now accumulating from all sides, and especially Weigert's researches on extension of the process through the veins, and Arnold's observations in the same field, can come to but one conclusion, namely, that the general affection has been set up in very many cases by extension from the local joint-disease, just as sarcoma and carcinoma become generalised from a primary source.

I have now briefly alluded to the chief risks which surround patients afflicted with tubercular joint-disease, and have hinted that one of them may be enhanced to a certain extent by operative interference, if undertaken without due caution. And we have seen in a measure the direction this caution against local re-inoculation of the disease should take. But there are other risks more especially connected with operation (though they may appear in the course of cases never submitted to the knife) to which attention must be directed for a moment; I allude of course to the septic infections of various kinds which may follow operation. In former years these risks were so imminent as to produce considerable hesitation about operating at all on a large scale in this class of cases. But, nowadays, with all the improvements of aseptic treatment, surgical infective diseases have become so rare that we are relieved of our chief anxiety in considering the propriety of interference by operation.

A comparison of any of the older statistics of the pre-antiseptic period with any of those of recent years will convince us of the stride that has been made in this direction. No better illustration could be given than Willemer's analysis of 195 cases of tubercular disease of the knee operated on in Koenig's clinic. Out of these only thirteen died as the direct effect of the operation, that is, of erysipelas, pneumonia, sepsis, tetanus, carbolic in-

toxication, and hæmorrhage—a mortality of only 13.6 per cent.

Now the vast improvement which has already taken place is but the first step in what is to come, and I venture to think that the time is not far distant when operations on tubercular joints will be performed with as little fear of accidental septic wound diseases as are our osteotomies and tenotomies, in which we do not expect even 1 per cent. of mortality from these causes. The only remaining risks then in connection with tubercular joint-disease will be on the one hand the acute infective tuberculosis connected with operation alluded to already, and the mortality from which at the present time may probably be estimated at about 10 per cent. of the deaths from all causes (Wartmann), and on the other, the chronic tubercular affections which arise in those cases independently of operation, and within the first few years after the latter, the death-rate from which is still higher. Recent statistics, however, especially those of Willemer, give us good ground for hope that here too a great improvement in the mortality may be effected by early operation and an intelligent recognition of the way to avoid reinoculation during the latter, so that on the whole the prospect for the operator is daily growing brighter in this region of surgery. At all events we now know two at least of our great enemies in this field, and we have also learned the tactics necessary to defeat them. And suppose for a moment we are able to wipe out completely the mortality from pyæmia, erysipelas, etc., due to operation, and also that from acute tubercular meningitis, etc., set up in all probability by the latter, we should see such a table, for instance, as that of Mr. Croft's hip incisions, altered marvellously for the better. We should see 39 per cent. of the total number of deaths due to the first set of causes, and 11 per cent. due to the second swept away with one stroke; in short, 50 per cent. of the total mortality would be done away with for this terrible class of affections. Moreover, this probably does not represent anything like the gain which would indirectly follow, and which will follow I believe firmly in the near future now that we are recognising the true nature of the risks to be combated.

Leaving this brief, and I am conscious necessarily imperfect, sketch of the nature of tubercular joint-disease to serve as an indication of the line of action we should pursue in dealing with it by operation, I pass on now to consider the methods which I venture to consider can most be relied on in effecting our object. And here let me say at once that I think in the case of most of the joints of the extremities the choice, when we can make a choice, should only lie, as far as operation is concerned, between early excision, partial or complete, and amputation. The practice of excising in advanced disease cannot be too strongly deprecated. After what has been said above regarding the dangers of producing a wider local infection and a general tubercular disease by imperfect interference with a local focus in a debilitated patient, and about the other risks bound up with late operation, this need not be further insisted on here. When tubercular disease is far advanced we shall find better ultimate results from the simple cleansing of sinuses and opening of abscesses than from excision, and better still from amputation. If we examine any long list of accurately recorded excisions we must be struck with the fact that it is the operations on late cases that have so fearfully swelled the mortality hitherto, and made them compare so much less favourably than we would wish with series of cases treated entirely without any severe operation. I do not think that the service which Mr. Marsh has done in emphasising this point by his tables recording the result of hip-joint disease treated without excision has been sufficiently appreciated.

But we cannot conceal from ourselves that operative interference with tubercular joint-disease without actual excision, that is, by the opening up of abscesses and the scraping out of sinuses, has also many dangers connected with it, and should be resorted to with the utmost caution for the reasons given above. Every surgeon of any experience must have regretted often having persisted in opening abscesses and scraping out sinuses in the hope of saving an extremity, only to see his patient succumb to general tuberculosis or septic infection where an amputation would have saved life. I cannot help feeling that conservative surgery has gone too far in this direction at the present day, and that with our newer views as to the true nature and tendencies of tubercular joint-disease we must aim at bringing about a reaction in favour of amputation well above the diseased area in many advanced cases. The direction which the conservative surgery of the future should take is to try to recognise the disease as early as possible, and, if it is distinctly on the increase in spite of the

best hygienic measures, to attack it by early and free operation, so that, on the one hand, only sound tissues are left behind, and, on the other, the resulting wound shall not be so severe as it would have to be later on, and may heal by first intention.

What, then, are we to consider as proper cases for early interference? It is quite plain that a considerable number of tubercular joint-diseases may run their course without any appurpuration either to arrest of the local condition or to death from general tuberculosis. If we turn to Mr. Marsh's invaluable tables of 401 cases of hip-disease, for instance, treated *without* operation, we find that 124, or 31 per cent., did not suppurate; by which I suppose is meant that no caseous abscesses in and about the joint could be detected. Now, of these 69.3 per cent. were cured or convalesced, 20.2 were incompleated cases, and 10.5 died. This is striking contrast to the results in suppurating cases not operated on given in the parallel column of the accompanying table.

HIP-DISEASE. (MARSH).

	Non-suppurating.	Suppurating.
Cures or Convalescents ...	69.3 per cent.	against 42.5 per cent.
Incomplete cures ...	20.2 "	" 24.3 "
Deaths ...	10.5 "	" 33.2 "

Taking the most hopeful view of the middle group, we may perhaps assume that about 89 per cent. of these non-suppurating cases recovered with more or less useful limbs, and between 10 and 11 per cent. died. And although at least 9 per cent. of the deaths were due to tuberculosis of internal organs, which might have been prevented by early operation, I think we must admit that the results in these cases were very good, and such as might justify our abstaining from all operation in non-caseating cases. And if this is true of the hip, it is more so of other less important joints.

I think, then, that for the present at all events, we might make it a rule that, as long as there is no distinct evidence of the presence of caseation in tubercular joints, so long may we be content to wait while treating them by other means. But does the converse of this hold good? Ought we to operate early so soon as we are satisfied that caseation is commencing and advancing? This question, I think, it is quite safe to answer in the affirmative, except in very exceptional cases, as, for instance, where internal organs are also affected with tuberculosis. And I venture to think it is much to be regretted that this is not accepted yet as an established rule.

Taking Mr. Marsh's table of hip cases again for illustration, we find that suppuration was observed in 69.3 per cent. of the group not treated by operation of any kind. Here the mortality was high, namely, 33.2 per cent., as against 10.5 of the non-suppurating cases. Of the total of deaths, 25 per cent. at least died of general tuberculosis, probably many more; for, in another 25 per cent., the cause of death was unknown. Again, 31 per cent. at least succumbed to albuminuria and exhaustion. Now, it is fair, I think, to assume that an early excision in these cases before caseation had commenced would have almost or entirely wiped out the latter group; and, if so, it would have reduced the total mortality. And although there would be the set-off of the risks of operation had excision been practised, these would not at the present day go near to raise the mortality again to its original figure. But besides preventing albuminuria and dropsy, early excision would probably greatly reduce the mortality from general tubercular disease, although late interference might run some risk of increasing it.

In view of these and other considerations, I venture to think that it would be a wholesome rule that in cases where general tubercular disease does not contraindicate it, the infected tissue of a joint should be thoroughly removed so soon as it is suspected that caseation is advancing in it. Further, I believe that until some such rule is adopted as a general guide, improvement in the results of operations on tubercular disease of the joints will be very slow. Too often we see cases allowed to run on to the formation of large abscesses, with sinuses burrowing in all directions, which are only treated by excision when the patient is brought very low indeed, and where the prospect of thoroughly eradicating all the tissues infected with tubercle is very slender, while the risk of producing further infection is great. Moreover, the severity of such an extensive operation as is necessary in such a case often most seriously influences the general nutrition of the patient, and, if it does not actually destroy life at once, it goes far to render the system less able to fight against the inroads of pyogenic organisms, and against the development and spread of the tubercular bacilli already present in its tissues. In such cases of advanced

suppuration the proper treatment will either be to let them run their course without operation, but with every care as to general hygiene, or, in the case of the extremities (excluding the hip), to subject them to amputation, which, though it maim them, nevertheless preserves them in many cases from the risks of septic or tubercular infection, local or general, and from amyloid disease and exhaustion. They certainly are unfitted, in the vast majority of cases, for conservative operations of the nature of excisions.

Having now considered some of the main questions which, I venture to think, ought to influence us in treating this disease by operation, we turn to the consideration of the operative measures themselves by which we may hope to attain our object. In doing so I will for the present exclude the non-caseating group of tubercular joint-disease from consideration, and propose that we should limit ourselves to the operative treatment of those cases only in which definite caseation can be diagnosed in one or more tubercular foci about a joint. It is assumed, of course, that everything possible is done by rest and other appropriate general treatment to limit this degenerative change as much as may be; nevertheless, it is advancing. Can anything be done by operation short of actual extirpation of the diseased tissue to hinder the local disease? I fear not much. A great deal has been tried in the way of injection of various germicides into the diseased area with the object of killing the organisms which are producing the complaint, but so far the results have been very unsatisfactory. Injections of carbolic acid and bichloride of mercury have been employed in this way but without avail, and are now with one consent abandoned. In iodoform, however, there seems to be a growing belief that we possess a powerful agent for the destruction of the bacillus tuberculosis, and this may be brought to bear upon the latter in various ways. In the first place it ought to be noted that those who have employed iodoform largely in the dressing of wounds made in and about tubercular joints are almost all agreed that their results have been immensely improved, and, from what they have observed, are inclined to attribute this to the use of the drug. My own experience entirely confirms this view, and I am inclined to regard the free use of iodoform as one of the most important advances which have been made of late in the dressing of excision wounds for tubercular disease; but whether we can effectually employ it before the latter has reached the point requiring excision or not is another and an important question. I think, however, that we have now enough evidence of its usefulness in dealing with caseous tubercular foci elsewhere to encourage us to try its influence on the joints. Strumous abscesses have been shown over and over again to dry up and heal after repeated aspiration and injection with iodoform and glycerine emulsion, and I have myself had several cases of the kind. I think, then, that when there is evidence that a tuberculous deposit in or around a joint is softening into a cold abscess, we will do well first to aspirate all the contents of the latter through a large needle if we can, and replace the removed liquid by the now well-known glycerine emulsion, just as we do with a cervical or lumbar abscess. Besides its germicidal properties, which have been proved by experiment in such cases to be very great, this emulsion has, by virtue of its high specific gravity, the property of gravitating into the deepest parts of tubercular cavities, and even through thick deposits of caseous debris, which rise gradually through it until they float upon its surface. This can easily be demonstrated by half filling a test-tube with the contents of a strumous abscess, and then gently pouring in some of the emulsion on to the top. In a few minutes the position of the two fluids is reversed; the emulsion fills the lower half of the tube, the caseous debris has floated to the top. Now if this takes place in the body, and if the iodoform be a germicide, we have it brought into the most intimate contact with all the deeper parts of a tubercular cavity, and not only this, but as fast as liquefaction or suppuration takes place, the products of the process float up through the emulsion, and the iodoform remains below undisturbed. But while suggesting a trial of this method of treatment for early caseous abscesses, I should be very sorry to persist in it if there were evidence that the disease was steadily advancing in spite of it. I should in every case endeavour to forestall the bursting of an abscess and would operate.

This brings me to the consideration of the methods of actually extirpating tubercular tissues. A joint has, we will suppose, been infected. There has been relatively slight injury; the first decided reaction has passed off, leaving the part swollen more or less, but with comparatively little pain. At this time there is probably no rise of body-temperature. The joint cannot be made

to execute all its movements to their full extent, except under an anæsthetic, but it is still used by the patient in a guarded way. Presently pain increases, and swelling becomes very evident. There is more decided fixation of the joint, and even under chloroform its movements are not free. A little later there is a slight rise of temperature in the evening, which recurs with regularity. A careful examination of the swollen part may now detect a certain amount of doughiness or deep fluctuation, or, at all events, a softness suggesting liquefaction of tissue at one spot or another. There seems to be good reason to believe that in a large proportion of cases uncomplicated by other disease elsewhere these two last symptoms commonly go together; that is to say, that there is usually no regular rise of temperature due to strumous disease of a joint, unless the process of caseation has begun and is progressing. Again, there is nearly always a regular evening rise when liquefaction is well advanced, and almost certainly when actual suppuration has been grafted on to the process of caseation.

Now in a case with the general outlines just given, in which we suspect that liquefaction has taken place, and where the ordinary treatment, including, perhaps, the injection of iodoform, has been tried, there may still be considerable room for doubt as to how far the disease has affected the ends of the bones or the synovial membranes—whether, therefore, an excision or a more limited arthrectomy may be required. Are we then still to wait and watch such cases until unmistakable evidence is at hand of extensive destruction of the tissues of the joint? Most decidedly not. Surely we are fully justified in making an exploratory incision into the articulation, in order to investigate the actual condition of things. Guarded by antiseptics we now make exploratory incisions in doubtful cases into the peritoneal cavity, the pleura, the bladder, and even into the brain, and we are certainly justified in extending this invaluable aid to diagnosis to the joints also. The risks are infinitesimal, with rigid asepsis and the use of Esmarch's tourniquet; the gain is immense, whether we suspect bone or synovial disease. Moreover, such incisions should be free, seeing that with the elastic bandage we need not fear bleeding. We know now from experience accumulated in the treatment of fractured patella and of loose bodies, that joints may be freely opened without the slightest damage to their functions, and where far graver issues are involved than in these last-named conditions, we should not hesitate to incise them widely for the sake of accurate diagnosis. We have furthermore the encouraging prospect, in a considerable proportion of cases, of being able to reach and eradicate a more or less local form of extra-articular tubercular disease, either in the synovial membrane or bone, without materially impairing the functions of the joint. Everyone who has read the record of them must have been greatly impressed by those cases occurring, for instance, in Koenig's clinic, and I believe paralleled elsewhere, in which joints have been opened for examination, and large wedges of redundant tubercularised synovial tissue been removed and the wound stitched up again, with the result that not only have the functions of the part been restored completely, but also that the disease has been arrested permanently, although probably all the tubercular tissue had not been eradicated. This experience is most remarkable, and would be almost incredible did we not know that a parallel is found in the case of general tubercular peritonitis. Many cases, you will remember, of the latter disease have been treated by abdominal section and cleansing of those parts of the cavity accessible to the operator, with the result of complete arrest of the disease, although there was no pretence that all the tubercular material had been removed.

We may therefore, I think, encourage one another to much freer exploration of joints by incision than we have hitherto practised, assured that, with care, there is little or no risk, and that much of the difficulty of diagnosis of tubercular conditions in an early stage will thus be overcome. This difficulty in determining the exact stage of the disease and its primary seat in a joint is, of course, one of the chief obstacles to our successful treatment of it by operation. If we could in all cases localise the primary focus early, we should be able in a very large proportion of them to extirpate it before it had infected the surrounding tissues, or had poured its virus into the circulation either through the lymphatic system or through eroded veins. Not only should this be possible, but it has been shown to be feasible without seriously impairing the functions of the articulation by many cases recently placed upon record by several surgeons, and notably by Koenig and Sandler, in the case of the knee. But unless formal exploratory operations are frequently resorted to at an early stage of the disease, such results will be few and far between.

A LECTURE ON CHRONIC RHINITIS AND ITS SEQUELÆ.

Delivered at the Eye, Ear, and Throat Hospital, Edinburgh.

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SINCE Vololini first demonstrated the causal relationship between nasal polypi and asthma, the study of nasal diseases has become of increased importance, not only from their direct effects, but also from their secondary or reflex results upon the organs of respiration.

In discussing the symptoms and results of nasal disease, not only have we to bear in mind the various functions and sensitiveness of the general nasal mucous membrane, but also its intimate relationship to certain passages, cavities, and spaces, such as the nasal duct, the antrum, the frontal sinuses, and the Eustachian tubes, as also the peculiarity in structure of that portion of the membrane covering the inferior turbinated bone in its whole extent. This possesses the character of "erectile tissue," is consequently liable to sudden congestion and swelling, and appears frequently to be the source of reflex phenomena. The connection between the nose and the passages and spaces now referred to may, in nasal disease, lead to their being similarly affected, with characteristic symptoms in each instance.

The more common affections of the nose and its mucous membrane are of the simple inflammatory type, acute or chronic. As a result of chronic inflammation there occur, in the first place, a swelling and thickening of the nasal mucous membrane, more particularly of that covering the inferior turbinated bone, which itself also may be thickened from participation in the inflammatory process. This thickening may extend over the whole of the erectile area, or may be more or less localised, in the latter instance forming tumours of a soft or firm consistence. After this chronic inflammation has lasted for some years, it is said occasionally to undergo atrophy and thinning, and now the atrophic form of rhinitis supervenes. This atrophy may even affect the bones. There are thus two forms of chronic inflammation of the nasal mucous membrane, the hypertrophic and the atrophic, the latter of which is supposed to be consecutive to the former, though some authorities, with whom I agree, believe that the atrophic may exist from the first. It is frequently associated with *ozæna*, and may extend to the pharyngeal mucous membrane (pharyngitis sicca), or along the Eustachian tube to the tympanic cavity and drum (sclerosis). Acute rhinitis is usually bilateral; the chronic form may be mainly confined to one nostril, or, at any rate, may effect more marked changes in the nasal mucous membrane of one side than the other.

Chronic rhinitis has such an important influence, not only upon the nasal mucous membrane and its functions, but also upon the sense of hearing and upon the integrity of the whole respiratory system, that it is necessary to dilate upon it to some extent. I am the more anxious to do this as this causal relationship is frequently overlooked by the practitioner, with therapeutic failures as the result. I propose, therefore, to consider in some detail certain of the results which are liable to be induced by its occurrence.

1. *The Effect of Chronic Inflammation upon the Nasal Mucous Membrane and its Functions.*—The effects of this structural change of the nasal mucous membrane are seen in the blunting or abrogation of the senses of smell and taste, the partial or complete cessation of its respiratory functions, and, from augmented irritability, a decided tendency to evoke reflex phenomena.

The loss of the sense of smell (*anosmia*) may be owing to either central or peripheral causes. The former may be disease of or injury to the olfactory nerves or bulbs or the olfactory centre, the latter, certain conditions existent inside the nasal cavities. The degree of *anosmia* depends upon the amount of blocking of the nasal fossæ, as also upon the condition of the mucous membrane in regard to nutrition, secretion, moisture, and dryness. Thus, according to Morell Mackenzie, long-continued paralysis of the

fifth nerve destroys smell by interfering with the proper nutrition of the mucous membrane. It may also happen that, as a result of chronic rhinitis, the internal structure of the nose is such as to unfit it to direct the air over the olfactory area. In atrophic rhinitis, with wasting of the inferior turbinated bone and its mucous membrane, the air on deep inspiration has not the advantage of impinging upon and being deflected into the olfactory area by the anterior end of the inferior turbinate bone. A similar state of affairs arises when, owing to destruction of the nasal cartilages, the openings of the nose become vertical instead of horizontal. In both these instances the air, despite the act of deep inspiration or sniffing, cannot be drawn over the olfactory area, but invariably passes along the inferior meatus towards the lungs. In degree corresponding to the amount of *anosmia* present is the loss of the power of appreciating flavours, which also depends upon the olfactory nerve. The sense of taste is consequently correspondingly blunted.

The respiratory functions of the nose are necessarily impaired in chronic inflammation and thickening of its membrane, especially when, as frequently happens, the inferior turbinated bone is the area most affected. The open mouth and vacant look which characterise these cases of nasal obstruction and oral breathing must be well known to you all. Sleep is also restless and noisy; the mouth and throat are dry and uncomfortable; and the general nutrition, especially in children, is impaired.

Any description of chronic rhinitis and its effects upon the nasal mucous membrane would be incomplete without reference to the subjects of *ozæna* and of neoplasm. *Ozæna*, as already stated, is usually associated with chronic atrophic rhinitis with a purulent secretion, which dries and forms a crusty coating with an offensive odour. Woakes proposes to restrict the term to cases of disease of the ethmoidal frontal, or sphenoidal cells. It appears to be doubtful whether the odour encountered in this complaint is not met with in cases of ordinary chronic catarrh of the nose. This much can be said about *ozæna*—that it is always associated with more or less chronic atrophic rhinitis, and that, whilst its radical cure is hopeless, it can be greatly benefited by the treatment appropriate to this complaint. *Ozæna* is usually bilateral; when unilateral, it is supposed to be characteristic of abscess of the antrum.

The thickening resulting from chronic rhinitis, instead of extending uniformly over the nasal mucous membrane, may become localised, and so form mucous, bony, or cartilaginous tumours. It is important in this connection to distinguish those tumours, when situated over the region of the inferior turbinated bone, from the vascular swellings which occasionally arise in connection with the erectile tissue of this region. This can be done by the local application of cocaine, which causes the latter to disappear by contraction of the vessels, but has no effect upon the former. As results of long continued chronic inflammation in the superior nasal region, we occasionally find mucous growths or polypi, whose favourite seat is the middle turbinated bone, whence they protrude into the general cavity of the nose. They are always associated with a condition of chronic inflammation of the nasal mucous membrane, and sometimes with necrosis of the nasal bones.

2. *The Direct and Reflex Effects of Chronic Rhinitis upon Contiguous Structures.*—From direct extension of the inflammation of the nasal mucous membrane, adjoining cavities and their communicating canals may participate in the inflammatory process. Thus the ethmoidal and sphenoidal cells and sinuses may become affected, and become filled with purulent secretion. When the frontal sinuses are implicated, frontal pain and headache become troublesome symptoms of the complaint. In addition to direct extension by continuity of tissue, it is possible that, as suggested by Woakes, catarrhal symptoms develop in contiguous structures from the identity of the vasomotor nervous supply, an example of which is seen in the occurrence of herpes labialis in nasal catarrh. From the irritation of the filaments of the second division of the fifth nerve supplying ordinary sensation to the nasal mucous membrane, and the free distribution of this nerve to the face, it is not unusual to have facial neuralgia associated with, and probably dependent upon, chronic rhinitis. Headache (different from that due to direct extension of the inflammation to the frontal sinuses) vertigo, and even epileptic attacks have been clearly traced as owing their origin to intra-nasal inflammation. It is interesting to note that, as recently pointed out by Lauder Brunton, similar symptoms may spring from carious teeth with complete absence of toothache.

3. The Effects of Chronic Rhinitis upon the Ear and the Sense of Hearing.—In chronic rhinitis the sense of hearing may be affected in three ways: (a) By direct extension of the inflammation backwards through the posterior nares to the naso-pharyngeal space. According to Woakes, affections of hearing are a most important and frequent complication of post-nasal catarrh, occurring in 95 per cent. of the cases. Blocking of the Eustachian orifices may be aided by the participation of the pharyngeal tonsil in the chronic catarrh, which may enlarge to such an amount as to press directly upon the openings of the tube. (b) Defects of hearing may also be produced by the nasal stenosis in this way. Nasal breathing having been partially or completely arrested, the current of air in mouth-breathing no longer bathes the Eustachian orifices, and a condition analogous to that occurring in direct obstruction of the Eustachian tubes is brought about. In both instances the amount of air necessary to equalise the external pressure upon the drum is insufficient, and this is also liable to be withdrawn during the acts of swallowing. (c) Another factor in producing deafness is seen in the condition of the palato-tubal muscles which, from the long continued irritation of the catarrh, are liable to become more or less paralytic, and so incapable of discharging their function in connection with the opening of the tubal orifice to the admission of air.

4. The Direct and Reflex Effects of Chronic Rhinitis upon the Vocal and Respiratory Organs.—These are amongst the most important results of chronic inflammation of the nasal mucous membrane. Everyone is aware of the important modifications of the voice which ensue from partial or complete blocking of the nose—modifications varying from loss of timbre and harshness to complete inability to utter the nasal vowels and consonants. The voice may further become husky or hoarse on account of the supervention of chronic laryngitis from the action of the cold and impure air during oral respiration. Nasal obstruction, in short, seems to me to be one of the most important and generally overlooked causes of chronic laryngitis. I am desirous to direct your attention to the close and intimate relationship which frequently subsists between chronic nasal inflammation and certain respiratory disorders, such as simple cough and asthma. It seems that, owing to reflex dilatation of the vessels of the bronchial mucous membrane, simple bronchitis may also thus be produced.

Voltoolini's discovery—that in certain instances nasal polypi had a clear causal relationship to asthma—has received such ample confirmation from the observations of other practitioners that its truth may now be considered as indubitably established. More prolific even than polypi as sources of local and reflex disturbances are the erectile-tissue tumours, to whose occasional presence I have already referred. The area over the inferior turbinated bone is said to be particularly irritable, probably owing to its containing so much erectile tissue. Some observers (John Mackenzie), however, say that the posterior part of this area and the corresponding part of the septum are the most liable to induce reflex phenomena. My experience has been that irritation of any part of the mucous membrane may, under certain circumstances, induce reflex phenomena.

Nasal asthma and cough, then, are induced by mechanical irritation of a hyperæsthetic mucous membrane. This may be induced by the action of polypi, particularly when the position of the head is such as to fill the cavernous sinuses and cause turgescence of the mucous membrane. This is most apt to occur in the lateral recumbent posture, and explains why these attacks, as well as stuffiness of the undermost nostril, occur so frequently during sleep. Preceding or accompanying these attacks of asthma and coughing are usually sneezing and a copious flow of mucus from the nose. Sneezing is a reflex act, due to irritation of the fifth nerve, and, whilst it may be induced by irritation of nerves in other parts, is usually of value as indicating the presence of irritation of the nasal mucous membrane.

The fact of the simultaneous occurrence of nasal polypi or hyperæsthesia of the nasal mucous membrane, such as frequently results from chronic rhinitis, with cough, asthma, or bronchitis, points to the necessity of making a careful examination of the nasal cavities in all cases of respiratory disorders. It is not always possible to say whether this causal relationship obtains in a given case characterised by the presence of both pulmonary and nasal disorders. It is in favour of its existence, however, if the nasal symptoms now alluded to precede the respiratory attacks, or if mechanical irritation of the nasal mucous membrane by means of a probe indicates hyperæsthesia, and more so if it is the means of evoking a reflex act, such as cough. A neurotic basis is probably an important element in most of these cases.

Chronic rhinitis appears under other forms than those we have just been considering. It is a prominent condition in the malady known as hay fever, a latent or recurrent complaint in which there exists a hyperæsthesia of the nasal mucous membrane to the influence of the pollen of certain grasses. In newly-born children a condition of rhinitis analogous to the ophthalmia neonatorum is sometimes present, and is apparently due to a specific inflammation of the nasal mucous membrane by the vaginal secretion during parturition. It may become chronic. This rhinitis neonatorum is productive of serious inconvenience and trouble to the child, not only by preventing sleep, but by obstructing nasal respiration, and so rendering impossible the act of sucking.

Rhinitis, in a more or less chronic form, may complicate other diseases. Attention has, for example, been recently directed to the co-existence of whooping-cough and nasal catarrh, and it is stated that this disease has been cut short by treatment directed to the nose—insufflations of dried coffee and boric acid in equal parts, or of pulverised benzoïn.

Amongst the results or sequelæ of chronic rhinitis may be mentioned certain connected with glands. The lymphatics of the nose open, some into a gland in front of the vertebral column, others into a gland situated in the parotid region, whilst a third set discharge into certain of the deep cervical glands lying in front of and beneath the sterno-mastoid muscle. Chronic inflammation of the nasal mucous membrane may consequently cause enlargement and even suppuration of these glands, and thus we may come to have a retro-pharyngeal abscess dependent upon intra-nasal inflammation.

I ought not to finish my remarks on chronic rhinitis without directing your attention to the subject of post-nasal or naso-pharyngeal catarrh. Accompanying this condition may be enlargement of the pharyngeal tonsil and naso-pharyngeal vegetations. This variety of catarrh is characterised by a troublesome morning cough and sanguineous expectoration, frequently accompanied by vomiting. As already remarked, it is a frequent cause of deafness, and by direct extension to the larynx and pharynx, undoubtedly induces secondary inflammation of these regions and of the tonsils, and so aggravates the symptoms of nasal obstruction. Stoerk has, under the title of "Blenorrhœa of the Respiratory Mucous Membrane," described a form of inflammation which, commencing in the nasal mucous membrane, spreads slowly to the pharynx, larynx, and sometimes as far as the bronchi, causing in its course serious stenosis of these passages. These post-nasal and naso-pharyngeal inflammations and growths are extremely liable to evoke reflex phenomena after the manner of chronic rhinitis, a fact which points to the necessity of posterior as well as of anterior nasal examination and exploration in all cases of spasmodic respiratory disorders.

Chronic rhinitis may extend anteriorly to the face, as well as posteriorly towards the pharynx. I have witnessed the production of facial erysipelas in this way, an occurrence which has also been noted by other observers. It is also important to bear in mind that the outside of the nose may become red and swollen from reflex dilatation of the blood-vessels by long-continued irritation of its mucous membrane, and may be cured by treatment of the rhinitis.

In considering the treatment appropriate to this complaint, regard must be had to whether the rhinitis exists in a simple form, or whether it is complicated by one or other of the sequelæ already mentioned. In all cases, however, it is necessary in the first instance to adopt measures to ensure cleanliness of the nasal mucous membrane, and the removal of all muco-purulent or purulent secretion. Solutions of the alkaline carbonates or bicarbonates are the best for this purpose, applied by sniffing up from the palm of the hand, by spraying, douching, or syringing. These ought always to be used tepid, so as not to excite the flow of mucus. The spray is probably the best means, as the mild method in which it impinges against the pharynx is less liable to cause inflammation of the Eustachian orifices than either the douche or the syringe.

After the nares have been thoroughly cleaned and freed from secretion, measures ought to be adopted with the view of restoring the mucous membrane to its normal condition. The nature of these measures depends to a large extent upon the degree of affection of the mucous membrane, and the presence or absence of sequelæ and complications. Powders, sprays, pigments, gossypia, and instrumentation may be so employed, singly or in combination.

Hypertrophies, growths, and polypi are as a rule quite uninflu-

enced by medical remedies. They are best treated by means of the galvano-cautery snare, puncture, or simple furrowing, the mucous membrane having previously been rendered insensitive by the application of a 5 to 10 per cent. solution of cocaine hydrochlorate. The sensitive areas within the nose, upon whose irritation cough or asthma seems to depend, are also best treated by the application of the galvano-cautery. With regard to polypi, the great advantage of the galvano-cautery is, that not only can we remove the larger polypi, but by passing the cautery freely over and through the rootlets of those which cannot be removed, we have a greater chance of preventing their growth and assumption of the place of the larger polypi. In the cases of necrosis with polypi, the diseased bone ought also to be removed. It ought to be remembered that the inferior turbinate, being a separate bone, is much more tolerant of interference than the superior or middle turbinates, which are parts of the ethmoid.

I have not attempted to enumerate to you the various therapeutical agencies which may be adopted for the treatment of chronic rhinitis, as these will subsequently, in my lecture on "Respiratory Therapeutics," be considered in greater detail. I am more anxious that you should grasp the principles upon which this treatment should be founded, and recognise the necessity of examining not only the chest and throat, but also the nose, in all cases of recurrent or spasmodic laryngeal or pulmonary affections.

THERAPEUTICS OF HAY FEVER.

By CARL GENTH, M.D.,
Langen Schwabach.

THE approach of the time at which hay fever usually appears induces me to offer you the following notes and observations.

For the past ten years, a young medical man of my acquaintance has suffered, from the beginning of May to the end of June, so severely from hay fever that his practice has been seriously interfered with. It will be understood, as a matter of course, that he had in succession tried all the many and much-lauded remedies without any good result. Quinine, in large quantities, alone produced favourable results, and not before symptoms of poisoning presented themselves. It may not be without interest to mention that urticaria broke out, beginning on each side of the spine, following the course of the chief nerve-branches down the arms and legs, and finally covering the whole body. This painful state lasted for three days, at the end of which the hay fever disappeared—leaving, however, in the patient no desire to repeat the experiment with quinine.

In a comparatively large number of cases of hay fever, I found that the primary indication of the disease was a slight twitching sensation at the inner corner of the eye. This sensation becomes more intense day by day; next follows a swelling of the conjunctiva, with all the accompanying symptoms of acute conjunctivitis, and the symptoms referable to the mucous membrane of the nose, asthma, etc., set in later. These slight premonitory symptoms, which sometimes precede the final outbreak by a fortnight, and perhaps disappear with a change of weather, may easily be forgotten. But even assuming that, now and again, the disease does not begin in the eyes, but in the nose or the bronchial tubes—a possibility which in principle cannot be rejected—the exception would not by any means invalidate the assertion that hay fever usually begins with the symptoms of conjunctivitis.

Upon these facts I build my therapeutic plan. Since the first symptoms of hay fever manifest themselves in the eye, it is probable that the agent which is to be regarded as the cause of the hay fever (I do not here refer to the pollen grains which are everywhere present during the season in which the fever prevails, and are consequently to be found in the secretion of the conjunctiva and in the mucus of the respiratory tracts) first attacks the conjunctiva; under favourable circumstances (heat) it multiplies there, and then diffuses itself over the mucous membrane of the respiratory organs, perhaps through the medium of the laryngeal canal. To be effective the condition must be attacked by local treatment, directed to the eyes at the earliest possible date.

I will pass over the details of the experiments that were ineffectual. On the advice of my learned friend Dr. Pagenstecher, of Wiesbaden, I chose instillation and bathing of the conjunctiva with sublimate solution, of the strength of 1 in 3,000. The bathing began perhaps fourteen days before the appearance of the hay fever, whenever the patient returned home after open-air exercise. The patient was besides required to keep as cool as possible, and

to wear pale blue spectacles. The result of the treatment was that he remained free from his trouble for a length of time. Not before the end of June did slight irritation of the conjunctiva reappear, which, however, could not be compared in intensity to former attacks, and involved no complication. Relying probably upon his generally healthy condition, the bathing had not been performed with sufficient energy. Although the sublimate solution came in contact with the mucous membranes of the nose or throat only slightly, or perhaps not at all, neither of these organs was affected, which must have happened if the virus of the hay fever passed into the body through the nose and mouth. In such an exceptional case, it would be simple enough to apply the solution by a nose douche, by garglings, or perhaps even by cautious inhalation.

THE VALUE OF INSPECTING THE ORIFICES OF THE URETERS BY ELECTRIC LIGHT IN THE DIAGNOSIS OF "SYMPTOMLESS" HÆMATURIA AND PYURIA.¹

By E. HURRY FENWICK, F.R.C.S.,

Surgeon (Out-patients) to St. Peter's Hospital for Urinary Diseases; Assistant-Surgeon to the London Hospital.

IN the endoscopic examination of the eye, the ear, or larynx, the operator first directs the light upon the most important structure—the optic disc, the drum, or vocal cords, and having satisfied himself as to their condition, he turns his scrutiny to their surroundings. The need for it in exploration becomes more pressing as the field we have to search enlarges, and in the wider areas the rule of starting from some fixed important point is often no mean factor of success. Thus, in abdominal section for obstruction the hand first feels the cæcum to ascertain if it be full or empty, and from thence the fingers trace the coils of large or small intestine according to the clue which cæcal distension or contraction may afford.

In the exploration of the bladder with the electric light it is necessary to have some such starting point in order that the examination may be systematic, rapid and effective. The most important section of the bladder, speaking cystoscopically, is the inferior zone, and the cardinal points in this area are the orifices of the ureters. Upon them the operator should first direct the light,² and from them the search should radiate. There are several reasons for this choice. From the orifices of the ureters may be seen to issue fine jets of renal blood in kidney bleeding, the semi-vididness of which may prove fallacious (without the cystoscope) in the diagnosis of the source of symptomless hæmaturia. Upon their lips or in their immediate neighbourhood are most often to be found those tumours which can baffle diagnosis.³ Moreover, their appearance, their clean-cut, slit-like openings, or their tumid, gaping mouths—that is, their healthy or unhealthy aspect—is an index to the soundness or unsoundness of the remainder of the mucous membrane, which cannot be neglected in the treatment or prognosis of disease.

In hæmaturia I generally first satisfy myself that the ureters are free from tumours, and then make a rapid survey of the rest of the bladder, proceeding from below upwards (that is, inversely to the tendency the zones evince to growth).⁴ If I can find no cause for hæmorrhage I return to the orifice of each ureter, and watch the colour and amount of its efflux. In three cases lately I have thus been able to detect the renal source of symptomless hæmaturia, which otherwise I might have overlooked.

CASE I.—Mr. B. consulted me in January, 1888, in reference to a hæmaturia. He brought with him a specimen of bloody urine

¹ Excerpt from a demonstration of the value of the electric light in the diagnosis and treatment of obscure vesico-urothelial diseases given before the Staffordshire Branch of the British Medical Association, May 31st, 1888. This subject is an appropriate addition to an editorial on "The Surgery of the Ureter," in the JOURNAL, June 2nd, 1888.

² Vide author: A Description of the Electric Cystoscope, JOURNAL, February 4th, 1888.

³ Single villous papillomata are found at the right ureteral orifice in 43 per cent., and at the left in 26 per cent. of the cases. Fibromata and small single myxomatous in 90 per cent. of the cases are situated at the ureteral orifices. Author, *Lancet*, March 10th, 1885.

⁴ The liability of the three zones to become affected by single cancerous growths may be expressed thus:—The upper: middle: lower zone: : 1: 2: 6. Author, *Pathological Transactions*, Carcinoma of the Bladder, 1885.

containing much clot. His history was as follows: In January, 1886, he had been out riding for two hours, and came home completely chilled. He passed blood the same evening. He suffered no pain or inconvenience, except a slight urethral tingling when the clots were passing. The hæmorrhage stopped in the summer, but recurred in the winter of 1887, to cease once more upon the advent of the warmer weather.

Present Condition.—“A well-built, anæmic man, aged 30. The urine is voided thrice a day. No pain attends the act. He suffers ‘agony’ after coition, in the neck of the bladder. In micturating he has noticed that the urine often becomes more bloody towards the finish.”

I expected to find a vesical growth with the electric light, but nothing abnormal could be discovered. The entire bladder was healthy. I was just giving up the examination in despair, when I saw a stream of brightish blood shoot right across the prism. Keeping the instrument fixed, I waited until the medium became clear again, and then I found that I was watching the orifice of the right ureter (Fig. 1). In another second a jet of bloody urine

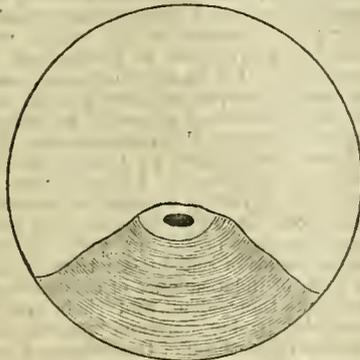


Fig. 1.—Ureteral projection, much magnified by proximity of the prism.

burst from the tiny opening, and, after forming many rings, paled by diffusion and disappeared, but only to be replaced by a successor (Fig. 2). The phenomenon of efflux suggested to my mind

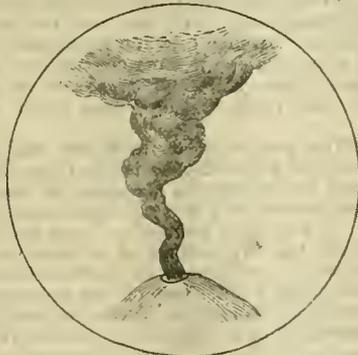


Fig. 2.

a miniature cuttle-fish, squirting out its coloured fluid into the water around. The right renal source of the hæmorrhage was at once indicated.

CASE II.—Mr. C. (under the care of Drs. Underwood and Harvey), a well-built man, aged 52. Since May, 1887, he had suffered from hæmaturia, which was painless and intermittent in its character, and seemed more dependent upon exercise than anything else. The urine was passed thrice a day. He was disturbed only once at night. Some specimens of hæmaturia contained cylindrical clots. I passed the electric cystoscope under cocaine, and found a low collarette of prostatic growth, but it was obviously not the cause of the hæmorrhage. The bladder was healthy. I could see jets of blood issuing from the right ureter, and the diagnosis of the site of the trouble was at once established.

CASE III.—A lady, under the care of Dr. Hepworth, of Manchester, and Dr. Battersby, of Cannes. For eighteen months the patient had suffered from hæmaturia. The urine varied much in colour, but there were no symptoms whatever to afford a clue as

to the exact source of the bleeding. The electric cystoscope (No. 30 French gauge) showed the bladder to be perfectly healthy, but, on turning the instrument towards the left ureteral orifice, a spurt of bloody urine flowed over the prism. I allowed the ureter to play upon the prism, in order to judge of the rhythm of the flow, but it never varied, although Drs. Hewitt, Lys, and I watched it for some little time. It was rather like an artery severed under water. I could detect no renal tumour in any of these cases.

These three cases are sufficient to illustrate the value of inspecting the orifices of the ureters by means of electric light, and of excluding the kidneys as a source of the hæmaturia; moreover, the same advantage can be gained in pyuria, and the many methods and instruments advised and devised for obtaining urine direct from either kidney must now be partially superseded by the electric light. The ureteral orifices are not difficult to find. They are very rarely displaced, and still more rarely are they absent. A little tact in manipulation and knowledge of the cystoscope will bring them into view, and amply repay the operator for examining them.

ABSTRACT OF PRESIDENTIAL ADDRESS ON THE SOCIAL POSITION OF THE MEDICAL PROFESSION.

Read before the Birmingham and Midland Counties Branch of the British Medical Association,

By THOMAS WILLIAM THURSFIELD, M.D., M.R.C.P. LOND.,
Physician to the Warneford Hospital, Leamington.

I HAVE taken for the subject of my address one which has interested me for a considerable time. It is “The Social Position of the Medical Profession in this Country at the Present Time.” In contrasting the position which is held by the medical profession, in social estimation, with that of the other learned professions, I think it will be admitted that we do not stand so high as either the Bar or the Church; and yet the attainments of the members of our profession, their character, their self-denial, and their public services, are acknowledged on all hands, and should command for them a respect as high as that in which any other profession is held.

Dr. Thursfield indicated that this low estimate was in part due to the ignorance or jealousy of the public, but in part to certain faults in the profession which he classified as follows:

Imperfect Preliminary Education.—The fact that anybody can become a registered medical student merely on having passed a second grade examination of the College of Preceptors, and that anyone between the ages of 16 and 17 years can if he chooses drop for ever all learning except that which is specially set apart for the acquisition of professional knowledge, leads to the introduction into this profession of a very large number of men who, I do not hesitate to say, are more imperfectly educated in a general sense than the aspirants to any one of the other learned professions. And here I may say that I think the entire abolition of the apprenticeship or pupilage system has been a mistake; for I cannot think it wise that a boy should go straight from school into a life so full of manifold temptations as is that of a medical student. A year passed in the family of a medical man in large practice would greatly widen the student's ideas, and add largely to his obtaining a truer conception of the duties he is about to undertake. Narrow though his education may be as compared to that of a medical man, it cannot be denied that the young curate has a much better social position at the outset of his career than the young physician or surgeon, while it is quite certain that the position of the young physician or surgeon is not comparable with that of the most junior member of the Bar. This I believe to be largely due to the more prolonged and complete preliminary education necessary for the Church and the Bar.

Imperfect Professional Education.—The second reason of the low estimation of our profession is, I think, the imperfect professional education which so large a proportion of our number receive, though I must admit that this is improving day by day. And yet, when one looks at the vast domain of medicine, one is lost in wonder as to how it is possible, in the short space of four

⁵ JOURNAL, The Surgery of the Ureter, June 2nd, 1888.

⁶ Author, Case of Tubercular Exfoliating Cystitis, *Pathological Trans.*, vol. xxxvii, p. 310.

⁷ Author, Atresia (Congenital?) of the Vesical Orifice of the Left Ureter, *Ibid.*, p. 200.

years or less, to get anything like a concise knowledge of the subject into a young fellow's head.

Professional Quackery and Dishonesty.—Those of us who have been any time in practice must be well aware that quackery is not to be found wholly outside the profession. If the art of the quack is to pretend to a knowledge which he does not possess, to be constantly disparaging the art of others, and to be using remedies whose utility is not proven or is at least mysterious, then we must admit that there is plenty of quackery within our ranks. And do you think for one moment that an intelligent public does not see through this dishonesty?

Professional Jealousy.—This is one of the most potent causes for the low estimation in which our profession is held. I need go no further than the daily papers for the last six months "to point the moral and adorn the tale." Does a man acquire an illustrious patient, his neglected rivals make little hesitation about disparaging him in public. Does a man make a great success in professional life, it is seldom but that whispers are heard among his own compeers that it is to luck and chance, and not to merit, that he owes his advancement. Our quarrels in law courts are such that any leading counsel will tell you that medical testimony is of little or no avail when anything like disputed points arise. Is it possible that we can blind ourselves so far as to believe that these things are not supremely damaging to our social estimation?

Professional Etiquette.—If we could once realise that the only basis of true professional etiquette is always, and on all occasions, to do towards our professional brother what we should like him to do towards us were he in our place, we should then, I think, escape from this reproach of having amongst ourselves a code of laws which is "not understood of the people," and which is believed by them to be made entirely for the benefit of the members of the medical profession at the expense of the public. It is short-sighted policy on our part, I am sure, to surround with difficulties the natural wishes of our patients to resort to consultations and further advice; and the difficulties which we so often place in their way are a constant source of distrust and dislike by them of us.

Deficient Public Spirit.—Another cause is one which five years ago was so well, so eloquently, and so wisely pointed out by Sir Walter Foster in the chair from which I now speak. In that splendid address he gave on the "Political Powerlessness of the Medical Profession" he pointed out, better than I can ever do, how the want of public spirit outside of our own immediate professional avocations has largely influenced the public estimation of us, and he counselled in more eloquent words than I possess, and he has, in his own person, more illustriously set the better example, and has shown how devotion to public duty does secure public esteem.

"Provident" Dispensaries and Out-patients.—The multiplication in our midst of certain provident dispensaries and amalgamated clubs, and of private penny dispensaries of all kinds, together with the abuse of the out-patient departments of hospitals which is permitted wherever a hospital is found, have tended, and are tending, largely to reduce the legitimate rewards of our labours. It cannot be right that such vast masses of the population, who, many of them, are raised by their wages, or salaries, or earnings greatly above the level of necessity, or even of penury, should by combination be enabled to obtain skilled medical attendance and medicine at an average rate per person of 3s. or 4s. per annum. The principle of co-operation and association, whether applied to medicine or to any other profession which secures to the public the supply of a daily need, is obviously a good one, and is one which the medical profession at large should countenance and further, but certainly under conditions. The application of the principle of unlimited competition in such matters as these cannot but lead to the degradation of the profession and to disaster to the public.

Suggestions.—First, is it not possible to largely improve the preliminary education of the young members of our profession? Are we not making them to some extent one-sided by the almost exclusive devotion which is given to the scientific side of their education, to the exclusion of the more general and literary? I am one of those who still believe that a good classical education is a priceless possession, and that it in no way interferes with the subsequent development of the power of scientific observation, which necessarily lies at the root of all success in the difficult art of medicine. With

regard to professional education, so far as it goes it is a vast improvement on anything which has ever yet been done, but I hope that it may be still further improved, and this can only be done by materially lengthening the ordinary curriculum. Several of the countries of Europe, inhabited by people who are supposed to be not so progressive or intelligent as those who inhabit this island, have determined by law that five years is the shortest possible time in which to manufacture an intelligent and safe medical practitioner. If the standard of professional education is to be maintained at its present level, or is to be by imperceptible degrees raised still higher than it is at the present time, it is quite certain that the ordinary human being who has the misfortune to become a medical student will in most cases be made by repeated rejections to increase his term of preparation to five years; and should this be the case, as it seems likely to be, I hope that before long that five years will be the rule and not the exception. I think too, that there is opportunity for improving the clinical education of medical students, for when one sees the vast mass of clinical material which is running to waste in our county hospitals, and in our union workhouses, one is tempted to exclaim against the criminal extravagance which permits it. If we are to recover public esteem to the extent we undoubtedly deserve, we must cast away from us professional quackery, and professional dishonesty. Let us also cultivate more friendly intercourse, more *esprit de corps*, and more general cohesion among ourselves. Let our professional etiquette be simplified, and let its main principles be always the consideration of our duty towards our neighbour, and, above all things, let us avoid public quarrelling and public differences. I do hold most strongly with Sir Walter Foster, who says that though the excuse given to explain our absence from the duties of public life is our absorbing interest in a most laborious profession, yet it is, though a good one, more or less a species of selfishness; that in many instances it arises from a want of independence of character; and that until medical men will take their share, and their fair share, in that which is becoming day by day more and more the duty of all good citizens, they must expect those of the citizens who do submit to the heat and burden of the work, to estimate lowly, and even to despise those who shirk it. Our colleges may largely help to enhance the public estimation of the profession at large, and they will do so when they admit the principle that they owe a duty to every member of their body which they can never fulfil so long as they remain the close conservative bodies they now are. A large infusion of the democratic spirit into our medical corporations, and free admission of all members and licentiates to the governing body, will alone enable these corporations to take up and to use those duties of *discipline* and *censorship* in the exercise of which, up to the present, they have been so lamentably deficient.

Conclusion.—The profession of medicine may not be appreciated as it should be politically, socially, or commercially; it may not be recognised by the State in the shape of State rewards, and this may be some reason why it is not appreciated as it should be by the public. It has been pointed out over and over again that there is no item in the expenditure of a household more grudgingly bestowed, and more liable to be questioned and more tardily settled, than the doctor's bill. One of our greatest statesmen has said: "Your profession has a great future before it, and I believe that in one generation, or at most two, it will be far in advance of the other learned professions." Lord Bacon said of the pursuit of knowledge that "it is not a couch whereon to rest a searching and a restless spirit," or "a terrace for a wandering and a fiery mind to walk up and down with a fair prospect," or "a tower of State for a proud mind to raise itself up," or "a fort and commanding ground for strife and contention," or "a shop for profit or sale," but it is a rich storehouse for the glory of the Creator and for the relief of man's estate. Thomas Carlyle has said: "I have often said, what profession is there equal in true nobleness to medicine? He that can abolish pain and relieve his fellow mortal from sickness, he is indisputably the usefulest of men. Him savage and civilised will honour; he is in the right, be in the wrong who may. As a Lord Chancellor, under one's horsehair wig there must be misgivings; atill more, as a Lord Primate, under one's cauliflower; but, if I could heal disease, I would say to all men and to angels 'en, ecce.'" Another living celebrity has said: "When we regard the rapid and marked progress which our art and science has made during little more than half a century, I feel that we are fully justified in believing that progress in the future will be even more remarkable, and that, with materials for inves-

tigation in abundance, with willing and able workers, there can be neither fear nor doubt for the continued advance of the healing art."

CLINICAL MEMORANDA.

THE TREATMENT OF CHRONIC DYSENTERY AND ITS ALLIES.

It has appeared to me, from observation of a good many cases of the above diseases, that a considerable number of patients, presenting a close uniformity of symptoms, gain marked benefit from a treatment differing in some respects from that usually adopted. The class of cases I refer to generally admit long-standing constipation, followed, on arrival, or after living some years in India, by what they call "diarrhoea and dysentery." They complain of frequent passage of small bloody stools, inability to hold their motions, with more or less abdominal discomfort and dyspeptic symptoms. On careful examination it is found that there is no proper diarrhoea; the motions are lumpy, often consisting of half-digested materials, with a large quantity of blood-stained mucus, and though frequent, but little true fecal matter passes. In these cases a prolonged course of saline aperients has a remarkable effect, the disease being to a large extent mechanical, the result of hardened feces passing over an irritable mucous membrane. As a rule these patients have never had an acute attack of dysentery, and the above simple treatment, combined with an easily-digested, nutritious diet, often suffices to cure them. In cases where the chronic is a sequel to a more or less recent acute attack, the disease is more obstinate and the treatment requires to be persevered in long after apparent recovery. I make no claim to originality either for the observation or treatment of this condition; I merely wish to record that as regards treatment I have found great advantage in drawing a sharp line between "constipatory" and "diarrhoeic" dysentery.

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Hounslow.

MIMETIC PARALYSIS: SPEEDY RECOVERY.

C.C., aged 19, was brought in from the country to my out-patient room by her mother, on April 11th. To the casual observer she was indeed a pitiable object, as she hobbled across the room with a right crutch. I noticed the following appearances: Young, fresh-coloured, and good-looking; ptosis (?) of the left eyelid; left forearm swathed and bandaged; left hand with claw-like contraction; the long overgrown nails embedded in the fleshy palm; contracture of the left leg upon the thigh. The mother informed me that the girl had been sent to service in Leicester eight months ago; that after being in her place a fortnight she had had a "fit," for which she was treated by a local doctor, and sent home invalided; that she became a hopeless paralytic, and had ever since been in receipt of charitable and medical aid.

The diagnosis was easy; the ptosis was spurious, there being marked effort to keep the eyelids closed. She was told to put out her tongue, and protruded that organ, clear and healthy-looking, in the middle line, there being no alteration in the facial muscles of expression. All this did not correspond with the late paralysis (contractures) of the left extremities.

The treatment was summary. Telling the patient to listen attentively to what I was going to say, I told the mother that her daughter was a "fraud," and in the past eight months had been practising an accomplished deception on all about her, and that I would soon effect a speedy cure.

I noticed the girl's face flush deeply and then pale as I said this, proving that her mental faculties were by no means in abeyance, and placing my left hand on her left thigh, and seizing the foot with my right, I soon extended the limb, the patient squealing a good deal, and at once returning it to its former position.

I sent her up to the operating theatre, and, seeing her there later on, I appealed to her good sense. I opened her left eyelids, and they remained opened. My assistant extended the fingers, and they so remained, the stench from the decomposing sweat being intolerable; but she would not resign her leg, so I had one pole of a strong faradic current placed on the triceps extensor, and the other on the front aspect of the tibia. She again screamed lustily, and I told her the entertainment would last until her foot (also swathed in bandages) was placed on the ground. It soon

reached the required position with a thump, and I left her. I was told that her mother appropriated the crutch, and that, with the loan of a shoe, she walked out of the infirmary. On April 18th she walked into my room the picture of health, and I have not seen her since. I learned afterwards that she had twice been an inmate of one County Lunatic Asylum, each time being discharged at the month's end. Lunacy failing, she tried paralysis. It will be interesting to note what her next "move" will be.

The rector of the parish wrote to me on the 18th: "She walked down here (a mile) to-day, apparently quite well; what is to be done with such a case? Is the shamming really a disease?" I replied "that it is hard to say where badness ends and madness begins; and he had propounded a social problem very difficult of solution; but that in my opinion, in the present case, the malady should be spelt with a "b," and not with an "m," and that laziness was at the bottom of it."

J. HEADLEY NEALE, M.B., M.R.C.P. Lond.,
Honorary Assistant-Physician to the Leicester Infirmary.

OPHTHALMOLOGICAL MEMORANDA.

FRACTURE OF THE CORNEA FROM THE KICK-BACK OF A FRAGMENT OF A WHIP-TAIL.

IN the summer of 1882, the first whip (J. Press) of the North Warwickshire hounds, while walking the pack on the public road, struck at one of the hounds with his whip, and almost immediately felt his right eye to be injured, as he conjectured from a piece of glass being flicked up by the whip. When he presented himself to me there was a linear longitudinal fracture of the nasal side of the cornea, through which the aqueous had escaped. No foreign body presented. He made a good recovery, and regained his sight. That the injury was produced by the kick-back of a detached fragment of whipcord, Mr. Dunn's case conclusively proves (JOURNAL, April 14th). In both cases the patient imagined his eye had been cut by a bit of glass or stone.

In commenting on Mr. Percy Dunn's case, Dr. Sanctuary (JOURNAL, May 5th, p. 994) says: "The knot flew off on account of the lash being sharply curved, in order to produce the 'crack' of the whip," and adduces in illustration certain accidents which sometimes occur in fly-fishing, also giving a very interesting example.

J. VOSE SOLOMON, F.R.C.S.
Birmingham.

FORENSIC MEMORANDA.

SUICIDAL WOUND OF THE HEART.

H. C., aged 33, was found lying dead in the corner of a small room. The right hand was tightly clenched, and a small knife was on the floor just in front of him. His wife was found also in the room with a large wound on her head. The greater part of the frontal bone had been completely taken off with a bill-hook, and also a great part of the front of the brain. Two of her fingers had been cut off with the knife, and there was also a small stab in the left breast. Portions of brain substance were scattered on the floor and walls. The crime was committed, according to the woman's statement, at 6 o'clock on May 24th. The room was broken into, and the woman brought alive to the General Hospital, Bristol, at 7.30 on May 27th.

On making the *post-mortem* examination of the man, I found a large quantity of dried blood on his feet (on the soles), as though he had been walking about in blood. On the front of the chest, about one inch to the inner side, and three-quarters of an inch above the left nipple, were five small wounds, transverse in direction, and each about three-quarters of an inch long by a quarter of an inch wide. Just to the inner side of the nipple was another wound, about half-an-inch in length. About one inch below the nipple was a small wound, also about half-an-inch in length. On passing a probe into these, the first six mentioned wounds were found to pass deeply, the probe taking a direction downwards and slightly inwards. The last wound was little more than skin-deep. Apparently there had been very little hæmorrhage from these wounds.

On dissecting back the skin and muscles from the front of the thorax an extravasation of blood was found around the course of the uppermost wounds, which all corresponded externally to the third intercostal space, and perforated the thorax through the

fourth interspace. The fifth wound corresponded externally to the fourth interspace, and entered the thorax through the lower part of the fifth.

On removing the sternum the left pleural cavity was filled with blood, and the pericardium contained about three ounces of clotted blood. On the left side of the pericardium was a transverse wound a little over an inch in length. On the wall of the heart, corresponding to the wound in the pericardium, were two transverse wounds about three-quarters of an inch long, and separated by a narrow bridge of muscle about one-eighth of an inch wide; both of these perforated the left ventricle. A little above these were two small irregular wounds, not more than one-third of an inch long, and near the apex was another about the same size. These only perforated the superficial layers of muscle. All the cavities of the heart were quite empty, also the large blood-vessels. The sixth wound had penetrated the thorax, but had failed to wound any of the viscera. There was no wound of the lungs to be found. All the organs were healthy. The stomach was quite empty.

REMARKS.—This case appears very interesting on account of the number of times that the knife had touched the heart. I presume the man must have stabbed himself in the six places very rapidly, giving one blow after the other, or possibly he may have only partly withdrawn the knife, and then plunged it in again, as there was only one wound of the pericardium.¹

W. H. C. NEWNHAM, M.B. Cantab.,
House-Surgeon to the Bristol General Hospital.

REPORTS

OR

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

GUY'S HOSPITAL.

EPITHELIOMA OF THE MOUTH: REMOVAL OF THE TONSIL, PARTS OF THE SOFT PALATE, PHARYNX, AND TONGUE: PRELIMINARY LARYNGOTOMY: SUBSEQUENT RECURRENCE, WITH RESECTION OF HALF THE LOWER JAW.

(Under the care of Mr. CHARTERS SYMONDS.)

J. P., aged 45, was sent in by Dr. Hooper on October 29th, 1886, with an epithelioma of the mucous membrane behind the last molar. There was extensive ichthyosis of the tongue and mucous membrane of the mouth of syphilitic origin.

When first seen, there was a hard, irregular surface behind the last molar, extending downwards in the groove between the tongue and the jaw, and backwards involving the anterior part of the tonsil; forwards the mucous membrane of the cheek was slightly involved. He could protrude the tongue half an inch beyond the teeth. Under remedies he improved a little; the mouth became a little wider open, there being three-quarters of an inch between the teeth. The man had much pain in swallowing, and suffered the most intense mental distress. There was one gland below the jaw.

Under chloroform an incision was made from the angle of the mouth through the cheek to the masseter, and the extent of the growth was defined. Ascertaining that it could be removed, laryngotomy was performed, and a sponge to which a stout piece of silk was attached pushed into the pharynx. The mucous membrane over the jaw was then detached, and by means of scissors the anterior faucial pillar, a portion of the soft palate and of the side of the tongue, and the tonsil with a piece of the pharynx and part of the mucous membrane of the cheek, were removed. The separation was effected largely by a raspatory. The bone was left exposed for a good inch in its alveolar margin; the teeth having been extracted some years before left the region in front of the last molar free. Then through a submaxillary incision the gland was removed and an opening made into the mouth. The bleeding was arrested by pressure, no vessel in the palate or pharynx requiring ligature. The wound in the cheek was brought together and a drainage-tube put in the mouth through the opening

below the jaw. The tube was retained in the trachea for two days.

The man soon recovered from the shock of the operation, which had lasted nearly two hours. He was fed by a nasal tube for four days. The tracheotomy tube was removed in forty-eight hours and the wound filled with iodoform. It healed in forty-eight hours. Steady recovery followed; he lost all his pain in swallowing, and was very much relieved.

The facility secured by the laryngotomy was most marked. The operation was never arrested for a moment; no blood passed into the air-passages, and the anæsthetic was easily administered. The man was placed in a tent with a steam-kettle for two days. Again, it was quite possible to remove the entire tonsil and part of the soft palate through the opening made without resorting to the incision behind the lower jaw. The bleeding was controlled in the same way and with as much ease as in the operation for removal of the tongue by scissors.

The man returned on February 12th, 1887, unable to open his mouth, and was readmitted on the 14th. A small nodule could be felt in the centre of the old cicatrix, and the little finger could just detect a hard edge inside the cheek; no glands in the neck. As it was impossible to ascertain the true state of affairs, he was, on February 16th, placed under chloroform, and the mouth opened by Gowan's gag. It was then found that the inability to open the mouth was due to the cicatrix stretching from the palate to the lower jaw and not to a growth. A nodule of growth, however, was found attached to the inner surface of the bone, and ran further along the floor of the mouth as far as the canine tooth. An elliptical incision was made downwards and backwards, so as to include the nodule and the cicatrix, and carried by careful dissection to the mucous membrane; the first molar and second bicuspid teeth were extracted, the second and third molars having been long absent. The mucous membrane was then divided and the nodule removed. A portion of the masseter was cut away; and then, finding that, in order to give a movable jaw, it would be well to resect a portion of the bone, this was done so as to include the nodule of growth. The piece was wedge-shaped, with its base downwards, as recommended by Esmairel.

This exposed the side of the tongue freely, and now the epithelial growth was found running along the inner surface of the bone and the side of the tongue. A further inch of bone was removed, and with it the mucous membrane over the floor of the mouth and the side of the tongue. By keeping the tongue forward the blood ran out of the wound, which now extended well into the submaxillary region. The lingual was tied, and all bleeding arrested. The edges were united with two button sutures, and a drainage-tube passed into the mouth. He was fed by enemata for two days, and then, as he was able to swallow, took milk by the mouth; on the third day the button sutures were removed, and the drainage-tube on the second day. The odour from the mouth was unpleasant for four days. Saliva and mucus escaped through the tube, and relieved the pain consequent on swallowing.

February 19th. By the 28th the wounds were all healed, and he was discharged on March 1st, able to open his mouth to a fair extent.

On May 14th the man returned, with recurrence in the floor of the mouth, but without any glandular enlargement. I was unwilling to operate further; but, in the absence of glandular implication, yielded to his earnest pleadings, and made a further attempt to extirpate the disease on May 15th. It was necessary to remove the half of the lower jaw.

An incision was made along the bone and up the median line through the lip. The submaxillary tissues were next separated to the median line. The tongue was next drawn forward by two silk ligatures and split after Baker's method. Next the symphysis was sawn through, and all the structures, from the median line of tongue down to the hyoid bone, together with that part of the body of the bone in front of the former site of resection, removed. This formed a large mass, and the line of separation was everywhere free from growth. The epiglottis was exposed, and the mucous membrane connecting it with the tongue, together with the pharyngeal mucous membrane, was held up by forceps, and prevented the blood entering the larynx.

On examining the hard palate behind the last molar, a patch of growth was discovered, and from this a sinus leading to the ramus, which was rough and bare. This was found just as the operation was thought to have been completed, and, had I noticed it earlier, I certainly would have decided against operation altogether. But his inability to open his mouth prevented its being

¹ An inquest was held by the city coroner for Bristol, and after hearing the evidence the jury returned a verdict of *felo-de-se*. The woman is still (June 14th) living, and doing well.

detected. I was obliged to extend the incision upwards and turn out the entire ramus. In doing this the internal maxillary artery was wounded and gave a great deal of trouble.

I felt that the removal had been complete so far as the floor of the mouth was concerned; it was not satisfactory by any means as regarded the growth extending along the coronoid process. The wound was closed, the mucous membrane of the glosso-epiglottic fold and the pharynx being stitched to the cheek. A large tube was passed into the mouth, and the suture left in the right side of the tongue. Iodoform was freely used.

The patient was fed by a tube passed through the mouth. He was able in a few days to swallow fluids freely. At the end of the week he was walking in the park, all the wounds being healed except where the drainage-tube was placed. On the fifteenth day, though looking feeble, he at his own desire, returned to Ports-mouth.

The rapid recovery after such a severe operation—which lasted two hours, and during which a good deal of blood was lost—was due to the indomitable spirit of the man and his anxiety to get home. Unfortunately the growth again returned, and writing on July 18th, he says that it has recurred in the floor of the mouth and neck, and that he suffers great pain, more especially in front of the ear. He died in October, 1887, one year from the first operation.

I hoped by this last operation to eradicate the disease from the floor of the mouth at least. The operation cut wide of the disease in this direction, and went down to the hyoid bone, but even here it recurred.

I was only induced to attempt removal on the first occasion at the earnest solicitation of the patient, who begged that something might be done to prolong his life even a little time, so as to continue his Government pay for the benefit of his family. When recurrence took place the first time, it was impossible, owing to the cicatricial closure of the mouth, to determine its extent; the absence of glandular implication, however, induced me to undertake a further operation; the same reason justified the third operation, though I never would have proposed this last undertaking. When begged to do it, I felt that in the absence of gland implication I ought to yield to the man's entreaties.

The case illustrates the possibility of removing the tonsil and adjacent parts by dividing the cheek only, and the value of preliminary laryngotomy. The difficulty of expressing an opinion as to the distribution of the disease when the mouth is closed is also noticeable. Extensive glandular enlargement only occurred during the last stage of the disease.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 12TH, 1888.

Sir E. H. STEVENING, M.D., President, in the Chair.

Pemphigoid Eruption with Changes in Peripheral Nerves.—Drs. A. SANGSTER and F. W. MOTT read this paper. E. M. R., aged 78, was admitted to Charing Cross Hospital November 5th, 1886, in a very prostrate condition, a large extent of the surface of the trunk and limbs being covered with a bullous pemphigoid eruption of fairly symmetrical distribution. She was evidently suffering from renal disease, as the urine was scanty, and contained one sixth of albumen. The temperature was 102°. She died after nineteen days in hospital, having been unconscious the last three days, with uræmic symptoms. Necropsy within twelve hours of death exhibited granular contracted kidneys, the organs weighing 2½ and 3 ounces. Portions of the external cutaneous nerve were examined, also spinal ganglia and posterior roots. Sections after hardening exhibited a parenchymatous degeneration of the nerve fibres. This case corresponded very closely, both in clinical symptoms and pathological conditions, with a case reported by Leloir.—Dr. W. B. CHEADLE begged to thank the authors for their paper, which he thought had helped to throw light on an obscure subject. Fatal cases of pemphigus were not common; he had himself seen but one, and he inquired if in the case which had been described that evening there was any lesion of the intestine found, for he had found uncontrollable diarrhoea to be associated with all the fatal cases he had heard of, and death had been occasioned immediately by lesions of the mucous membrane of the intestine, similar in character to those

of the skin. His own case was in a man aged 52, in whom the eruption, which had been growing steadily worse, was for a short time arrested by arsenic; extremely severe diarrhoea then set in, which could not be restrained by opium, and ended in death in a week. The kidneys were found to be in an early state of granular degeneration. There was very extensive ulceration of the large intestine from the cæcum to the sigmoid flexure, in some large and some small patches.—Dr. SANGSTER said he had hesitated to use so definite a term as pemphigus in a case in which they had an unusual bullous eruption, which the very distressing condition of the patient made it impossible to examine very minutely. It seemed to him to resemble the pemphigus diutinus malignus. The point to which they had wished to direct attention was the condition of the peripheral nerves. There was an association of nervous lesion with bullous eruptions in leprosy and paralysis. As to the condition of the intestines in the present case he had no further evidence than that no abnormality was noticed in the careful report of Mr. Boyd. In fatal cases of such generalised eruptions as urticaria hæmorrhagica, he had seen a good deal of ulceration of the bowel, and a group of such cases had been published by Dr. Goodhart.—Dr. MOTT said he had only been able to find four cases at all accurately corresponding to the present one, which he thought might be described as pemphigus neuriticus. Leloir's case was almost identical. The specimens on the table had been prepared by a microtome from tissues embedded in paraffin, and the results shown could not be attributed to *post-mortem* change.

A Case of Tumour of the Spinal Cord: Removal: Recovery.—(Medical history of the case by Dr. GOWERS.)—The patient was a man, aged 42, who had suffered for three years from localised pain beneath the lower part of the left scapula. The pain varied much; at times it was scarcely felt, at other times it was most intense, and then was increased by movement to such a degree as to render it impossible for the patient to walk. Many medical men were consulted, and the diagnosis varied between aneurysm and neuralgia. Hypochondriacal insanity was even suggested, on account of the irritability of the patient, whose mind almost gave way under the continued suffering. Four months before the operation, first the left and then the right leg became weak, and the loss of power gradually increased to complete paraplegia. The patient was first seen by Dr. Gowers (with Dr. Percy Kidd) on June 4th, 1887. There was then motor and sensory paralysis up to the level of the sixth or seventh dorsal nerves, with intense spasm in the legs, foot clonus, and rectus clonus. The urine was retained, and there was some cystitis. At the level of the sixth dorsal nerves there was severe pain around the trunk, greater on the left side, and increased to agony by any movement. The symptoms pointed clearly to compression of the cord by a morbid process outside it. Caries of the spine could be practically excluded; aneurysm was improbable, although not impossible. The diagnosis lay chiefly between a tumour of the spinal bones and a tumour of the membrane. The indications (described in the paper) made a meningeal tumour rather the more probable. Syphilitic disease could be excluded. An operation afforded the only chance of escape from certain death after intense suffering. Sir William Jenner saw the patient, and concurred in the diagnosis, and sanctioned an operation. The patient was aware of the uncertainty of the result, but was extremely anxious that something should be done.—(Surgical history of the case by Mr. HORSLEY.) The diagnosis of intradural tumour pressing on the cord appearing to be well founded, an operation was performed for its removal on June 9th. After some difficulty, the growth was discovered, and removed under strict antiseptic precautions. The wound healed by the first intention, and the patient gradually lost the agonising pain, and at the same time gradually recovered motor and sensory power, as well as the control over the bladder and rectum. He remains in perfect health. Appended to the surgical history of the case was a table and analysis, in which the chief clinical facts relating to fifty-seven other cases were recorded; and from which it appears that operation is the only treatment to be adopted in such cases, and that, if it had been resorted to, 80 per cent. should have recovered, whereas all died.—Mr. HAWARD observed that a case so unique had little in common with the experience of many of them, and it was specially difficult therefore to discuss. One point had struck him forcibly, and that was the great mental change, the change as some had thought to insanity, that had been produced by long and severe pain. From another point of view it taught them that their ideas of the possibilities of interference with spinal cases must be entirely remodelled.—Dr. A. T.

MYERS inquired the nature of the tumour, of which they had heard nothing.—The HONORARY SECRETARY stated that in the part of the paper which time had not allowed him to read it was fully described as a myxoma.—Dr. PERCY KIDD remarked that the mental affection had been a very serious feature of the case, for, though he agreed with the author of the paper that it had only been a disturbance arising from acute and prolonged pain, yet several advisers had at the time considered it as genuine madness. The patient, he was glad to say, was in perfect health now, able to enjoy a dance, to walk at least three miles with a natural gait, and he begged to be allowed to express through him publicly his most heartfelt gratitude to Dr. Gowers and Mr. Horsley.—Mr. GODLEE thought that a specially interesting point had been the very large amount of cerebro-spinal fluid which had been discharged. He was anxious to know if Mr. Horsley had considered it dangerous. In a case under his own care he had removed a large sacral tumour, and found in its centre a small spina bifida, which he had cut and ligatured. The discharge of cerebro-spinal fluid, though through a very fine hole, had been exhausting, and ultimately fatal to the child.—Mr. HERNERT PAGE asked to say a word as having been the author of the statement in a surgical dictionary that trephining of the spinal cord could be of no advantage. He had limited that statement to the cases of fractures and dislocations. He desired not to be the last to congratulate Mr. Horsley on his brilliant success, and agreed with Mr. Haward that they would now have to reconsider much of the surgical treatment of the spinal column.—Dr. GOWERS was called on to reply, but remarked that he had not noticed any questions or objections which it would fall to his lot to answer.—Mr. VICTOR HORSLEY at once admitted to Mr. Page that when he quoted his words he was only discussing questions of treatment of fractures of the spinal vertebrae, as would have been plain if he had succeeded in further compressing his paper so that it could all have been read to the Society that evening. In answer to Mr. Godlee he said that cases of escape of cerebro-spinal fluid generally did badly, because, he thought, of the septicity of the fluid. He had long been struck with the fact that the skin was not irritated when boracic acid an inch deep was heaped upon it, and it was by this means that he thought he had been able to keep the wound aseptic. The exact amount of the discharge of cerebro-spinal fluid he had not been able to determine, but he found it enough to completely soak a pad of wool two inches thick in twenty-four hours. He had noticed almost the same result with cerebro-spinal fluid in a head case. The large discharge in the present case he considered due to his having not been bold enough to take out the drainage-tubes after the first twenty-four hours, and so allowing a sinus to form.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 6TH, 1888.

JOHN WILLIAMS, M.D., President, in the Chair.

Specimens.—Dr. HERMAN: Uterus Inverted by a Gangrenous Fibroid.—Dr. W. DUNCAN: Male Infant Secreting Milk from Right Breast.—Dr. AUGUST LAWRENCE: Vesical Calculi Removed from a Woman who for eighteen years suffered from complete Prolapse of the Uterus.—Dr. BRAXTON HICKS: Form of Hodge's Pessary made on Watch-spring Pessary Principle.

Inverted Uterus Removed by Operation.—A report was read on Dr. HARRIS's specimen of inverted uterus, exhibited at the May meeting.

Note on the Use of Electrolysis in Gynecological Practice.—This memoir was read by Dr. W. E. STEAVENSON. The author in this paper drew attention to the numerous cauterising agents used in gynecological practice, with the object of raising a discussion on their relative merits and values. Reference was also made to the use of the actual cautery, Paquelin's cautery, and the galvanocautery; but the paper was chiefly devoted to advocating a more extensive use of electrolysis. It was pointed out that this property of electricity was especially useful in the treatment of affections in parts difficult of access, and perhaps found its widest field for usefulness in the treatment of those diseases of women in which local applications were necessary. It was a more efficient and elegant way of applying caustic than any other that we possessed; it could be most accurately localised at the part it was wished to affect; the amount used and the extent of tissue to be destroyed could be regulated to a nicety, and its action could be commenced and arrested at

any moment at the will of the operator. A brief account was given of the action and theory of electrolysis, and of the batteries and instruments to be employed. Its action and the method of employing it in the following affections were then given, namely, stricture of the female urethra; stenosis of the os uteri or cervical canal; dysmenorrhœa and sterility, in the place of the tents, dilators, or incisions that were often employed; abrasions of the cervix uteri; extra-uterine foetation; fibroid tumours of the uterus; and cancer. The author then again invited discussion on the relative merits of other caustics and modes of treatment employed in the affections mentioned, as compared with their treatment by electrolysis.

Cases of Chronic Cervical Catarrh Treated by Electrolysis.—These cases, read by Dr. LOVELL DRAGE, formed an addendum to Dr. Steavenson's paper. In all, the healing of the abraded area was promoted. In one instance, where the chronic condition of the cervix was complicated by a Hunterian chancre on that part of the uterus, the beneficial effect of the treatment was well-marked. No untoward effects were produced by the electrolysis; menstruation was not interfered with, nor was pain caused, either at the time when the current was passing or subsequently. All the cases were of long standing, and other treatment had failed to give relief. Dr. L. Drage, therefore, contended that a claim could fairly be made for the recognition of electrolysis as a useful treatment in such cases.

Electrolysis in some Chronic Uterine Affections, with Illustrative Cases. By Dr. R. A. GIBBONS.—The author related cases, which had been under his care as in-patients at the hospital, of chronic metritis, endocervicitis, lupus minimus, caruncle of the urethra, and cancer of the uterus. The latter were accompanied by profuse hæmorrhage, and were mentioned in order to call attention to the efficacy of the positive pole in arresting bleeding. After explaining the action of each pole on the tissues, the author dwelt upon the advantages derived from the use of the negative pole as a caustic in chronic inflammatory conditions of the body and neck of the uterus. The glairy discharge, so common in this class of affections, became electrolysed, and thus the lining membrane could be acted upon directly and thoroughly. The accuracy with which the application of electrolysis could be made was greater than that of any caustic. During manipulation the operator had no difficulty in keeping the electrolytic power under his perfect control. After giving technical details Dr. Gibbons dwelt on the necessity of a reliable galvanometer. This method of employing electrolysis had never been described in any English work.

The Constant Current in the Therapeutics of Gynecology.—This communication was read by Dr. J. SHAW, Obstetric Physician to the North-West London Hospital. The paper described the appearances presented by a myofibroma when subjected, about twelve hours after its removal, to the prolonged action of a constant current, and treated of the chemical and microscopical results observed in a subsequent experiment; also of certain attendant electrical phenomena. The different action on granulations of the positive and negative poles respectively was described, and the effects of the constant current in intra-uterine applications and punctures, on the circulation, temperature, sensibility to pain, and urinary excretion, were in turn detailed. The author, from these observations, concluded that the constant current acted on a fibroid in a threefold manner: (1) to but a small degree by electrolytic action, the positive pole most affecting the cellular, and the negative the formed, elements; (2) by the hæmostatic action of the positive pole and the derivative influence of the negative; (3) by increased arterial tension and so diminished nutrition accompanied by some alteration of the mutual relation of the fluid and solid elements.—In the discussion which followed the reading of the above papers, Dr. HARRIS noted the important admission of Dr. Steavenson that electricity possessed no specific virtues, but acted as a stimulant, caustic, or cautery. A powerful battery was expensive, ponderous, and hard to work and to keep in order, hence in general practice it would hardly be preferred to acids, alkalis, the knife, or the thermo-cautery. In hospital practice he had found the battery to be of certain value, but he agreed to Dr. Steavenson's admission. Even in the treatment of paralysis, careful friction of the affected muscles proved as beneficial as electricity. Statements about the number of cells which were used in a given case were unreliable, for newly charged cells were stronger than the same cells charged for some time or not in perfect working order. A means of measurement was absolutely necessary; for this purpose a galvanometer answered best, but that appliance introduced another complication and

expense.—Dr. AUST LAWRENCE said that allowance must be made for rest in bed, purgation, and the other altered conditions to which a patient under treatment by electrolysis was subjected. A highly-trained electrician was not indispensable, as, with a little help and study, anybody could master the details sufficiently to be able to employ electrolysis; but, on the other hand, a sound knowledge of gynaecology was necessary.—Dr. HERMAN insisted on clinical observation. The utility of electricity could not be ascertained by *a priori* argument. He therefore considered that the most instructive parts of the communications read that evening were the cases reported by Drs. Lovell Drage and Gibbons. Dr. Matthews Duncan taught that, if a cervical erosion could not be cured within two months, treatment had better be discontinued. Yet Dr. Drage's cases had been under treatment for three or four months. In the case of Dr. Gibbons's patients the improvement might have been simply due to the complete rest and appropriate diet which patients enjoyed in a hospital. Women subject to the minor diseases of their sex could not rest at home, if poor; in hospitals they could rest and be cared for. To this fact was largely due the great benefit which followed treatment in hospital. The course of Dr. Gibbons's cases after leaving hospital had not been stated; in some, at least, all the symptoms might have returned within a few weeks. In one case a urethral caruncle had been destroyed by two applications of electricity. By the older methods one was usually sufficient. Dr. Herman admired the candour with which the results of the cases had been reported, but he did not think that the prognosis of such cases would be much modified by the introduction of this method of treatment by electricity.—Dr. WILLIAM DUNCAN said that much more carefully recorded clinical evidence was needed. He had employed electrolysis in several cases of myoma, with marked benefit in those where the chief symptom was metrorrhagia; and in one instance, at least, the tumour was markedly diminished in size, which proved that the electricity was something more than a mere cauterising agent.—The discussion was adjourned till Thursday, June 21st, at 8 P.M.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

FRIDAY, MAY 4TH, 1888.

C. B. BALL, M.D., President, in the Chair.

Unreduced Dislocation Backwards of the Bones of the Forearm.

—Dr. E. H. BENNETT exhibited a specimen of unreduced dislocation backwards of the bones of the forearm, preserved in spirit, and with it six similar specimens, preserved after maceration. He said his object was to draw attention to the fact that, although the varieties and conditions of elbow-joint dislocation had been very fully described, yet still, as regarded the point with which he was about to deal, the descriptions of this commonest of dislocations were calculated to mislead. They tended to errors of diagnosis. Dr. Bennett then quoted the opinions on the subject expressed by Malgaigne, Erichsen, Hamilton, South, and Tredof. Incomplete dislocations had been allowed to go unreduced because they had not been recognised. Such error arose in great measure from reliance on the test given by the authorities quoted—the displacement of the olecranon above the line connecting the condyles of the humerus. This displacement was present in complete dislocations, but absent in the incomplete. To ignore the existence of the incomplete dislocations, or to teach that they were recognised by displacement of the olecranon "half an inch or more above the condyle," was to insure that they should remain unreduced. It was admitted that backward dislocations of the elbow were the most common variety of displacement of the joint, and of these the incomplete were the more common. In museums, at all events, the latter were the more common, perhaps because they were those most frequently left unreduced. Dr. Bennett's attention having been directed to the subject by obtaining this recent specimen, he thought it well to reiterate the statement of Malgaigne that the incomplete form of dislocation, backwards at the elbow did occur; that it was the more common form of dislocation of both bones; and that it probably remained unrecognised because the test of the elevation of the olecranon, relied on in the descriptions of complete dislocation was applied to it. It was very easy for an incomplete dislocation to be overlooked when a certain amount of swelling concealed the various features, including the existence of the tumour formed by the displaced humerus in front, and the abnormal projection of the head of the radius backwards. The specimen before them

exhibited these peculiar characteristics of partial dislocation; in fact, looking at the back of the elbow, one would say that there was no dislocation at all of the ulna. But the radial dislocation caught the eye, and in front the humerus projected as an unmistakable tumour.—The PRESIDENT said there had been no more important communication recently in the Section than that with which they had been just favoured. He would ask whether Dr. Bennett had satisfied himself of its existence in the case of any living subject.—Sir WILLIAM STOKES asked what were the signs that would enable them to diagnose this injury during life.—Dr. BENNETT, in reply, said he desired first to refer to one point in which the complete dislocation, when unreduced, differed very markedly from the incomplete. In the latter form, when it was unreduced, the displaced bones assumed at their ends a quadrilateral shape, whereas in the complete dislocation there was nothing of the kind; the bones lay all free of each other, and there was no unusual modification of shape. The appearance of the olecranon beneath the level of the two condyles marked the incomplete dislocation. Again, the incomplete dislocation was a very fixed lesion; hardly any movement of the dislocated bones was possible. In complete dislocation, on the other hand, the bones could be moved laterally with great freedom; particularly as the coronoid process was broken away. The ligaments were untorn to a great extent in the incomplete dislocation, and the bones were retained in a state of unstable equilibrium. There was a great difference in practice only as regarded the two lesions. As Malgaigne had pointed out, the incomplete dislocation was reduced with great ease—although it was so fixed, and could be reduced long after the occurrence of the injury, even so long as two years. On the other hand, the lapse of even a month after a complete dislocation was sufficient to render it absolutely irreducible. This was a fact of immense importance in estimating the force to be applied to an unreduced dislocation. The experience of all surgeons was that irreducibility occurred very early in the complete lesion, although it was very movable, while the incomplete dislocation could be reduced many months after the injury, although with difficulty. He could add nothing to the facts which were published concerning the injury in question by Malgaigne and De Musset so long ago as 1854 and 1855.

Acute Lobar Pneumonia and Chronic Bright's Disease.—Dr. JAMES LITTLE communicated a case of acute lobar pneumonia and chronic Bright's disease in a boy, aged 4 years, seen first on March 31st. According to his mother's account, he was in perfectly good health until two days previously, and on the day before his admission was playing about the house. The only thing she noticed—and it was what led her to bring him to the hospital, was that he had become swollen all over the body; the swelling first appeared in his face. When admitted he presented the typical appearances of a case of acute Bright's disease. His temperature was rather high, exceeding 104°. He had a little cough, not much, and no special hurry of breathing, save that on one occasion, when put into a warm bath, his breathing rose to 76. He was recognised as a child that had been in the hospital ten months before under the care of Dr. Beatty for acute Bright's disease, and the record showed that before he left the hospital at that time his urine was entirely free from albumen. He only lived three days after his admission. On the thorax being opened it was found that he had suffered from acute croupous pneumonia, which was not discovered during life. When the specimen was recent it was an exceedingly beautiful specimen of what Dr. Wilkes had described as a curious inflammation which was capable in a few days of converting the spongy texture of the lungs into a structure like cheese. Even now the upper lobe of the right lung presented the typical appearances of true croupous pneumonia; but they found what did not so frequently exist in such cases, namely, three islets of pneumonic process, one in the middle lobe and two in the lower lobe of the same lung. The kidneys were microscopically examined by Dr. Bewley, who found the convoluted tubules almost completely choked by swollen epithelium and albuminous material. It was difficult even in the light of the *post-mortem* examination to read the case. The impression on his mind was that it was acute pneumonia occurring in a patient who had previously been the subject of chronic Bright's disease, because it had been his experience that when pneumonia attacked a person who had previously been the subject of chronic Bright's disease, it was rapidly fatal. The microscopic appearances found by Dr. Bewley hardly accorded with the existence of chronic Bright's disease. On the other hand, it was very difficult to understand why a child could become so extremely

anasarcous as this child was from acute Bright's disease, and have kidneys which, instead of being bloody and dripping, were much paler than kidneys usually were after death in cases of acute Bright's disease. While the boy was alive he examined his chest on two or three occasions in search of pleural effusion; but, finding no sign of it in the lower part of the lung, he did not examine the upper portion. The boy's decubitus was invariably on the back, with a slight turn towards the right side.

Unreduced Dislocation of the Elbow.—Mr. J. LENTAIGNE submitted a case of unreduced dislocation of the elbow, with fracture of the lower end of the humerus. The two casts before them were taken from a patient who came under his care in the Mater Misericordiam Hospital some time ago. The case was one of those dislocations which were so commonly seen, but in which they could rarely prove whether the diagnosis was correct or not. The two casts represented the extremes of extension and flexion of which the limb was capable. The powers of pronation and supination were completely lost; the patient could not bend his forearm to within half-a-foot of his mouth, and the functions of the limb were in every way exceedingly impaired. The patient was a boy, aged 15. About a year ago he was violently pushed against by a horse, and the palm of his hand, held out in a semi-extended position, was struck by the horse's flank. He went to a bone-setter, who twisted his arm backwards and forwards, causing him frightful pain, and his arm then became utterly helpless. When the joint was excised last November, Mr. Lentaigne found a dislocation of the forearm backwards, with a fracture of the lower end of the humerus through the epiphysis. The lower epiphysis was broken into three portions. The line of the fracture could be seen clearly through the lower end of the bone. The olecranon fossa was reduced to a groove so narrow that his finger barely went into it.—Dr. BENNETT said he did not quite admit the diagnosis of an unreduced dislocation, and he saw no necessity for assuming the existence of a fracture as the explanation of such a condition. The idea of an epiphysary lesion should be put aside. In the casts the tumours formed respectively by the olecranon and the head of the radius were normally distant.—Mr. LENTAIGNE, in reply, said that though he had the greatest respect for Dr. Bennett's opinion, he could not help holding to his own in this instance. The patient had now got a joint perfect in all respects.

Intestinal Obstruction.—The PRESIDENT gave an account of three cases of intestinal obstruction, the viscera of which were on the table. The first case was that of a man, aged 27, who stated that he was quite well until February 12th in the present year. On March 7th he came under his (Dr. Ball's) care in the hospital, and stated that since February 17th he had had no fecal motions, save a little mucus, and that only after great straining. An examination of the rectum discovered a tumour pressing back the sacrum, which was as large as a foetal head. There was no fluctuation in any part of the swelling. All attempts to procure evacuation having failed, an exploration was made, and the interior of the peritoneum was found to be studded with small tumours, while in the iliac fossa was a large soft tumour, to which the small intestines were adherent. Colotomy gave temporary relief, but the man died with symptoms of obstruction higher up. On *post-mortem* examination an enormous mass of brawn-like tumour was found filling up the greater part of the abdomen. When freed from the intestines and surrounding parts it weighed ten pounds, and yet it had grown in less than six weeks. A portion of it surrounded the rectum and pressed it so completely that nothing could pass through. The portion of the sigmoid flexure, which was drawn out to make the artificial anus, could be seen in the specimen. The immediate cause of death was not obstruction of the large intestine, but a secondary obstruction of the small intestine, caused by the pressure of the tumour against the parietes of the abdomen. That this pressure produced complete obstruction was evident from the appearance of the intestine both above and below the seat of pressure. Dr. Purser had examined the tumour and pronounced it to be a sarcoma.—The second case was that of a woman, aged 36, who was admitted into the hospital on March 29th. For a week previously she had been constipated, and vomited every day. A marked feature of the case was that there was no evidence of distension of the intestines by gas. That led to the diagnosis of an obstruction high up, and on the same day laparotomy was performed. After searching for obstruction at the usual hernial point, they were guided by a portion of inflamed intestine to the left hypochondrium, and there found a large mass of intestine, several feet in length, much congested, roughened on

the surface, and tightly constricted by a ring formed in this way. The operation relieved the symptoms; but the wound opened six days afterwards; a portion of the omentum prolapsed; the case became septic, and she died. On *post-mortem* examination they were just able to find out where the obstruction existed. There was no general peritonitis about the seat of the obstruction. There was some inflammation of the omentum, and also in the pelvic cavity. Although the case was septic it was also afebrile, the woman's temperature never having risen above 99° during the ten days that she lived.—The third case was that of a man, aged 69, who was quite well until about three weeks before his admission to the hospital, when he began to suffer from loss of appetite, constipation, and distension of the abdomen. When he came in the distension was so excessive that no examination could be made. An examination by the rectum revealed nothing. A localised tympanitic distension of the abdomen was at first thought to be due to a dilated stomach, but that was negated by the passing of a tube. On *post-mortem* examination the surface of the intestine was covered with little masses of secondary cancer, like boiled sage. In the liver were found several little depressed umbilicated patches, such as they were familiar with in cases of secondary cancer. On searching for the focus of obstruction it was found to be in the tissues surrounding the caecum, where there was a large hard mass, the gut itself being considerably constricted. A section of the growth made by Dr. Weir showed it to be an ordinary cylinder-celled carcinoma, such as was commonly met with in the intestinal tract. A point which he was at a loss to understand was, that they were unable to find any portion of the intestine in which the mucous membrane was implicated.—A discussion followed, in which Dr. BENNETT, Mr. LENTAIGNE, Dr. T. E. LITTLE, and Dr. FINNEY took part.—The PRESIDENT replied.

Secondary Cancer of the Lung.—Dr. G. P. L'E. NUGENT communicated a case of secondary cancer of the lung in a metropolitan policeman, aged 26. On *post-mortem* examination both lungs were covered with innumerable nodular masses, varying in size from that of a walnut to that of a pin's head, more or less round in shape, projecting externally and into the lung, covered over with a perfectly smooth layer of pleura. The nodules were yellowish-white on section, and of rather soft consistence. The lungs internally were congested and oedematous. The mediastinal glands were much enlarged, and the weight of the lungs, heart, and glands collectively was 177 ounces. The glands on the left side of the neck were enlarged and softened in the centre. The liver was enlarged, 84 ounces, and pale in colour. The right kidney was 6 ounces in weight and pale; the left was normal. The abdominal glands were greatly enlarged, particularly along the course of the aorta. The right testicle was hard and heavy, slightly nodular, but little increased in size.

Pulmonary Artery with Two Valves.—Dr. A. W. FOOT exhibited a specimen of a pulmonary artery with two valves of equal size, and presenting no abnormal appearance other than unusual size. The heart exhibited was taken from a man, aged 69, who had long been subject to aortic regurgitation. Alluding to the rarity of this defect in the pulmonary valves, Dr. Foot observed that the only other example he knew of in Dublin had been found by Dr. Graves in a man, aged 66, who died of pneumonia and pericarditis. In five museums in London Dr. Peacock had been able to obtain only nine specimens of two-valved pulmonary artery. Numerical irregularities in the semilunar valves were much more often observed in the aorta than in the pulmonary artery.—Dr. BEWLEY said he once saw a similar form of aortic valve. It was taken from a man who had suffered from a nervous affection of the heart. There were two large flaps, each a good deal larger than the aortic flap, and between these a very small third flap, measuring between a third and a fifth of an inch across. They were all perfectly healthy. During life the aortic sounds of the heart had been perfectly healthy.—Dr. FOOT, in reply, said the formation of two ordinary-sized flaps, with a small one between them, was a well-known one. In the museum there was a pulmonary artery with four valves.

SECTION OF SURGERY.

FRIDAY, MAY 11TH, 1888.

A. H. CORLEY, M.D., President, in the Chair.

Punctured Wound of the Peritoneum, with Protrusion of the Intestine: Recovery after Operation.—Mr. F. DONNELLY related this case (which was published in the JOURNAL of June 9th, page 1219).—Dr. FRASER mentioned the case of a

boy, aged 7, who, while jumping over pointed sticks, was spiked behind the upper part of the testicle, sustaining a severe wound. An abscess formed, and in a few days out came a piece of the boy's breeches. He thoroughly believed in the benefit of opium in abdominal attacks, but small doses were of little use.—Dr. A. W. Foor also expressed himself in favour of the opium treatment, and related a case in which a wild cow gored a man, ripping open his abdomen. The intestines protruded, and without help the man struggled home, treading on his own intestines. The intestines were sponged to remove chopped straw, bits of hay, leaves, and dirt, and then put back, and the wound was stitched up. The patient was kept under the influence of opium as much as possible, and made a good recovery.—Dr. MOLONEY referred to a case in his own practice in which a man sustained eighteen or nineteen wounds of the body, abdomen, penis, legs, and arms in a fight with another man, who slashed him with a butcher's knife. Although the man did not tread on his intestines, they protruded, and were covered with dirt. He washed the intestines carefully and put them back, the wounds requiring forty-six or fifty-six stitches. Having treated him freely with opium, the patient recovered in four weeks without inflammatory symptoms beyond slight tympanites.—The PRESIDENT considered that large doses of opium were best.—Mr. NINIAN FALKNER also spoke.—Mr. DONNELLY, in reply, said the small doses of opium were given, having regard to the age of the child, while he was ready to increase the dose if required.

Enterectomy and Enteropathy.—Mr. M'ARDLE read a paper on enterectomy and enteropathy.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

PATHOLOGICAL AND CLINICAL SECTION.

FRIDAY, APRIL 27TH, 1888.

A. S. UNDERHILL, M.D., in the Chair.

Syphilis modifying Phthisis.—Dr. FOXWELL showed a case of phthisis in a man aged 21. It was interesting for these reasons: 1. When 17 years old the patient suffered from an attack of inflammation of the lungs, which confined him to bed for nine weeks, but from which he completely recovered. The physical signs now were almost confined to the base of the right lung. 2. Though he had had expectoration with his cough for 2½ years, and had been exposed to great hardship, yet the physical signs were decidedly those of early phthisis, and his general bodily condition was good. This Dr. Foxwell considered to be due in great measure to his being the subject of congenital syphilis, as he believed syphilis strongly militated against rapid destruction of lung tissue. Bacilli were present in moderate numbers.

Secondary Syphilis in an Old Woman.—Mr. MORRISON showed a case of secondary syphilis in an aged woman. The patient was a woman aged 68, who first presented herself on March 2nd, with a shallow suppurating sore, without induration, on the right labium majus. It was at first thought to be an ulcer caused by chafing. It quickly healed under the local application of iodoform powder. On March 29th a copious general papulo-squamous eruption was noticed, unmistakably syphilitic in character. At the present time there were characteristic spots on the nape of the neck and also enlarged cervical glands and sore throat. During the child-bearing period, she had borne eleven healthy children and had never had a miscarriage.

Subungual Exostosis.—Mr. MORRISON also showed the last phalanx of a thumb he had removed on account of a sub-ungual exostosis in a man aged 39. It was exhibited as an illustration of the homology between the hallux and the pollex: such growths being common on the great toe, but rare on the thumb.

Obstetrical Paralysis.—Dr. SUCKLING showed a case of obstetrical paralysis in an infant. The child's birth had been difficult, and turning had been performed. The left arm was noticed to be useless soon after birth. There was paralysis of the deltoid, supra- and infra-spinatus, biceps, brachialis anticus, and supinator muscles; the limb being extended and forcibly pronated. The paralysed muscles were wasted and flaccid, and presented the reaction of degeneration. The infant could move the fingers and hand. Dr. Suckling frequently met with the affection at the Children's Hospital, and he found that the paralysis was usually severe and more or less permanent.

Dilated Stomach.—Dr. SUCKLING also showed a man, aged 40, a puddler, who had complained for twelve months of pain and

heaviness after food, with excessive flatulence and vomiting. From the nature of his work he had been obliged to drink large quantities of liquid, and he had consumed enormous quantities of ginger beer, barley and oatmeal water. Dr. Suckling found that on palpation of the abdomen a well-marked succussion splash could be easily obtained; fluctuation could be elicited through the abdomen, and the stomach percussion-note extended almost to the pubes. The vomit contained sarcine. No peristalsis was observed at any time. The man was admitted into the Queen's Hospital on April 16th, and was treated as follows: Every morning the stomach was washed out with a solution of hyposulphite of soda. Only one pint of milk was given daily by the stomach, and this was peptonised; the patient was otherwise fed by enemata. A mixture containing strychnine and sulphocarbolate of soda was also given. The patient had not vomited since the commencement of treatment; he now felt quite well; the stomach area, though still large, had receded to the umbilicus, and the succussion splash was not so readily elicited. The patient had not lost much flesh.

Cirrhosis of the Liver in a Child.—Dr. HOBGEN exhibited the liver of a child aged 6 years, who died at the Children's Hospital. The liver was not much diminished in bulk as compared with the weight of the child's body, and the surface did not exhibit the "hobnailed" appearance to a very marked degree. The organ was extremely tough, the spleen much enlarged, and ascites with jaundice present before death. Microscopic examination revealed a very extensive new growth of fibrous connective tissue, taking the form of ordinary atrophic cirrhosis. The parents of the child had been in the habit of giving it beer and rum.

Spina Bifida Occulta.—Mr. BARLING showed, for Mr. MCCARTHY, a specimen of spina bifida occulta in the upper lumbar region. Associated with the condition were the following: a fusion of the laminae of the eleventh and twelfth dorsal vertebrae on the left side, and partial fusion of the bodies of the same vertebrae, dilatation of the central canal of the spinal cord, and inclusion of a process of dura mater in the anterior fissure of the cord. The skin over the bifid spine was covered with a patch of dark hair of considerable length, whilst deeper there was a sebaceous cyst an inch in its largest diameter. The specimen was taken from the body of a child aged 2 years, who died of broncho-pneumonia, and who had no idea of walking, although there was no condition of talipes present.

Alveolar Sarcoma of Breast.—Mr. HASLAM showed a breast he had recently removed from a woman aged 45. Six months before admission she noticed a small lump in the left breast; this gradually increased to the size of a large orange. There was no pain. The skin for an inch round the nipple was reddened, slightly swollen, and could not be freely moved over the growth; the nipple was not markedly retracted. The axillary glands were enlarged; the supra-clavicular glands could also be felt. On February 7th the breast, with the unhealthy skin and axillary glands, were removed. On making a section of the breast the growth was seen to have a distinct limit, being surrounded by apparently healthy breast-tissue; the cut surface was slightly convex, did not yield any juice, and felt and looked like fibrous tissue. On microscopic examination it was found to be an alveolar sarcoma. The patient recovered from the operation, but by the beginning of April there were obvious signs of recurrence in the tissue round the cicatrix and in the supra-clavicular glands. At the end of the month several fresh nodules had arisen in the skin at a distance of an inch and a half from the cicatrix. Attention was drawn to the rarity and extreme malignity of this form of sarcoma of the breast.

Air in Abdominal Abscesses.—Dr. MALINS read a paper on the presence of air in suppurative swellings of the abdomen, and related four instances in which it had come under his notice. He attributed it to decomposition of the contents of such collections—first, from the contiguity to the intestinal canal; and, secondly, from the presence of bacilli, which probably acted as carriers of the necessary elements. He thought it interesting, and exceptional from a clinical view, since in each instance the air occupied the uppermost surface of the interior swelling, and gave a resonant note on percussion, though fluid was present in quantity. The cases referred to were a suppurating hæmatocele, a remote parametric abscess, and two peritoneal cases. They were washed out and drained, all recovering.

Cases.—Dr. SIMON showed a patient with pseudo-muscular hypertrophy.—Mr. HAWKINS showed, for Mr. LENNETT MAY, a boy on whom he had performed amputation of the upper ex-

tremity in the contiguity of the trunk, by Berger's method, for sarcoma of the head of the humerus.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, APRIL 6TH, 1888.

H. STEAR, M.R.C.S., President, in the Chair.

Urethral Calculus.—Mr. BALDING exhibited a calculus which he had removed by perineal section from the urethra of a man, aged 24, who came under the notice of Mr. F. Davey in consequence of a fistulous opening in the scrotum, about one inch from its perineal margin, discharging pus and urine. This had existed for about ten days, and the patient then attributed all his symptoms to bruising his perineum when getting over a stile about three weeks previously. The calculus, which caused induration and swelling of the whole perineal region, was easily reached through the sinus, and removed by enlarging it sufficiently backwards. The wound healed favourably. The calculus when dry weighed 624 grains, was 2½ inches in length, and 1½ in breadth. No satisfactory history could be obtained from the patient himself, but that procured from others established the fact that from about two to four years of age he had constant urinary troubles, and was considered to suffer from "gravel." Neither the man himself, nor any of his friends, knew of any subsequent symptoms till quite recently. It would, therefore, appear that a calculus existed in the bladder during childhood, and that it then passed into the urethra, where it remained for twenty years without producing any serious trouble till the perineum was injured, and suppuration followed. Mr. Balding referred to the other recorded cases, a somewhat similar one of which was by Mr. Christopher Heath, the calculus described by him bearing a curious resemblance to the one now shown.

Foreign Body in Rectum.—The PRESIDENT related a case in which he had removed a rib bone of a rabbit from the rectum of a man who had eaten some rabbit the day before.

Hydatid Cyst of the Liver.—Mr. C. LUCAS related a case of this affection.

Cerebellar Hemorrhage—Mr. A. INGLE (Shelford) read the notes of a case which occurred in a widow, aged 63. Ten years before she had an attack of paralysis on the left side, from which she recovered, the only remaining defect being a slight lisp. She had been subject to bilious attacks, and had often complained of giddiness in the head. On February 12th, 1888, she walked a mile to chapel, sat the service out, and afterwards it was noticed she was looking unwell. She walked into the vestry, thinking one of her bilious attacks was coming on, but feeling much worse in the course of an hour, she was helped to a neighbour's house, and soon afterwards vomited. She was put to bed, and became very drowsy. Several attacks of vomiting occurred during the day. She would mutter replies to questions, but one could get but very little information from her. She complained of no pain but headache. There was some retraction of the head; pulse 88, regular, fair volume and strength; arteries somewhat atheromatous; the first sound of the heart was not quite clear, but there was no definite murmur; the pupils were equal and active to light; no arcus senilis, no loss of power or sensation. Next day her condition was unchanged, but there was no further vomiting. On the 17th there was some loss of power in the left arm, and the urine occasionally dribbled away; the patient lay in a drowsy condition, but seemed to hear whatever was said in the room, and would occasionally interpose a remark. By the 20th the left arm was entirely paralysed, also some muscles on the left side of the face. Two or three days later the tongue was protruded to the right. She lingered till the 27th—fifteen days from the commencement—occasionally passing for several hours into a comatose state (once for forty hours), when she would be perfectly still, taking nothing, and not being able to be roused. For the last forty-eight hours she was in this condition. There was no evidence of loss of co-ordination. The following were the notes of the *post-mortem* examination: Very thin and soft skull. Much senile atrophy of convolutions and accumulation of subarachnoid fluid. No softening or lesion on exterior. Occupying position of right claustrum was a small cyst three-quarters of an inch deep by one-sixth inch broad, containing clear, serous-looking fluid. In left cerebellar hemisphere was large hæmorrhage, chiefly in region of convolutions, involving only posterior part of whole cortex. This extended a little to the right of the middle line. There was, besides, a small hæmorrhagic softening in posterior wall of posterior cornu of right lateral ventricle, but no blood in ventricles. Much atheroma of cerebral arteries.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, JUNE 6TH, 1888.

J. DRESCHFELD, M.D., F.R.C.P., President, in the Chair

CLINICAL MEETING.

Cases.—Dr. DRESCHFELD showed a case of fibroid phthisis of the left lung, in which a pulmonary murmur was heard and the left vocal cord was paralysed.—Dr. LEECH showed a woman suffering from diabetes, who presented paralysis of the third, fifth, and sixth nerves.—Mr. WRIGHT exhibited a case of lupus erythematosus, and also one of rupture of the larynx.—Mr. JONES showed a case of ruptured urethra.—Mr. RICHMOND showed a case of congenital angioma.—Mr. MUSSON showed a case of multiple fibromata.—Mr. MORGAN showed a man presenting a peculiar rigidity of muscles throughout the body.—Dr. EMRYS-JONES showed a girl suffering from right hysterical hemianesthesia, with achromatopsia, and contraction of the field of vision on the same side.—Dr. WILSON exhibited different forms of apparatus for the administration of anaesthetics.

REVIEWS AND NOTICES.

SCIENTIFIC MEMOIRS BY MEDICAL OFFICERS OF THE ARMY OF INDIA. 1. Note on some Aspects and Relations of the Blood-Organisms in Ague. 2. Note on the Occurrence of a Minute Blood-Spirillum in an Indian Rat. 3. On the lately-demonstrated Blood-Contamination and Infective Disease of the Rat and of Equines in India. By Brigade-Surgeon VANDYKE CARTER, M.D.Lond., Bombay Army, Principal and Professor of Medicine, Grant College, Bombay.

In the first of Dr. VANDYKE CARTER'S papers the headings of which we have given, the author refers to Professor Maclean's observations on the researches of Tommasi Crudeli, Klebs, and Marchiafava, in which that author dwells on the significant fact that the bacillus malarie had eluded the search of competent observers in all parts of India where malarial fevers prevail. Among the unsuccessful searchers for the bacillus malarie was Dr. Vandyke Carter himself. Stimulated by the account given in this JOURNAL of March 12th, 1887, of Dr. Laveran's researches by Professor Osler, Dr. Carter renewed his examination of the blood of men affected with ague, and quickly detected at fever-periods many pigmented spherules, and subsequently the equally characteristic "crescentic bodies." The cases were taken as admitted, and before the administration of quinine. In the first case, one of quartan ague, the blood was examined on twenty-six days, about dates of every relapse, also during the intervals, and often subsequent to the latest paroxysm seen. With the onset of the fever, "pigmented spheroids, both sessile and free," were observed, and at apyretic periods only some pigmented leucocytes were seen in the blood. At no time in this case were crescentic bodies found, but on the third day after the last paroxysm of fever (quinine previously given) active flagellated spherules in the blood were detected with a temperature of 98° at 9 A.M.; at 1.45 P.M., only a few bare spheroids; and again at 2.15 A.M. and 1 P.M., after which date the blood remained free from visible contamination. We have not space for the details of the blood examination of the six other cases studied, restricting ourselves to the author's summary of the whole data.

"I consider there is proof enough that the genuine 'ague state'—the 'malaria process' in older term, and in the new the 'malaria infection'—is pathologically distinguished by a visible living blood-contamination (a) having hæmatozoic rather than hæmatophytal affinities, (b), and displaying a relationship to clinical symptoms which, if often less precise than obtains with pathogenic bacterial infections, may none the less be real. (c) Further, it has been shown that, in arresting malarial pyrexia, the drug quinine does not with equal promptitude annihilate the blood parasite; (d) this datum also indicating a probable different relationship of phenomena in the nomadic as compared with bacteric infection. That the hæmatozoa undoubtedly present in ague hold a close, if not causal, relation to the disease, may be inferred from, first, their constituting an adequate pathogenic influence, and, next, their exclusive limitation to this one morbid affection; nor need such influence be annulled by seemingly conflicting evidence regarding the details of

association. According to my observations, the visible blood-contamination may be more constant and uniform than concurrent pyrexial phenomena; and hence the inference that it is fundamental, whilst 'fever' is rather a contingent event. Certainly not all fever in malarious subjects is necessarily monad-pyrexia; and by experience I have been led to recognise at least three forms of such 'fever,' namely, first, the genuine specific form, with its positive blood-aspects; next, and oftener in old cases, the consecutive residual or quasi-reaction form, with its negative blood-state, which may have simulated the genuine type in a clinical sense; and, lastly, the pyrexia pertaining to a superadded infection, which for a time supersedes the monadic—as, for example, was demonstrated for enteric fever by Dr. Laveran. As to nature and causation, I would add that present results serve to explain the paroxysmal and periodic character of paludal fever, through the corresponding definite duration and reproduction of a living contagium. That such pathogenic agent should be zoöic rather than phytal, is a dictum of physiological import; because infusorial life is known to prevail under different and more restricted conditions than the bacterial, and hereby a clue may be gained as to the sources of ague-infection. The foreign and nondescript term of 'malaria' adopted in Britain since 1827 may soon have to be abandoned, if not in favour of the prior indigenous name of 'marsh' poison, at least of a designation referring to definite conditions of soil, moisture, and water-supply." Dr. Vandyke Carter concludes by a reference to Professor Maclean's concluding remark on the essential nature of malaria in Quain's *Dictionary of Medicine*, p. 914, with reference to Laveran's and Richard's researches on the spherical organisms developed in connection with the red corpuscles, to the effect that "should future investigations by independent observers in other malarious regions confirm these conclusions, it would be difficult to overrate their importance." On this remark Dr. Vandyke Carter adds, "and now it may be seen how far, as regards India, such confirmation has been realised." It should be added that the author quoted by Dr. Vandyke Carter in discussing the question of the bacillus malarie in his published lectures, does not dispute the existence of such a fungus, or that its discoverers found it in the organs of men who have died of malarial fevers, but he points out "that these fevers prevail in regions widely different from that of the Agro Romano, in arid sandy districts where it is difficult to believe that such a bacillus could find the conditions needful for its existence." Whether this observation will apply with equal force to the blood-organisms described by Laveran, Richard, and Carter, experience must decide. Meanwhile this gentleman's researches are as welcome as they are interesting.

We must postpone notice of the author's other papers to a future opportunity.

A COURSE OF QUANTITATIVE ANALYSIS FOR STUDENTS. By W. N. HARTLEY, F.R.S. 8vo. London: Macmillan and Co.

THIS is a carefully-executed little book, which will form in many respects a valuable laboratory outline to students engaged in quantitative chemical analysis. It is not, nor does it profess to be, a complete work on the subject, and requires abundant amplification on the part of the student, by reference to larger and more exhaustive treatises. The examples are well selected, but the scope of the work might with advantage have been considerably widened. Thus, we cannot consider that a student has passed through a satisfactory course of even elementary quantitative analysis without having made himself acquainted with the methods of determining the ultimate constituents of organic compounds, yet of this important branch of analytical chemistry there is no mention.

For the same reason we are somewhat surprised to see a method of coal analysis described without any reference to the mode of determining the elementary ingredients—carbon, hydrogen, nitrogen, and oxygen. Again, the analysis of urine given is so incomplete as to be practically valueless. We cannot help thinking, therefore, that it would be desirable to indicate in the title that the "course of quantitative analysis" described is of a purely mineral character.

We are perfectly aware that a student has rarely sufficient time to pass through a longer course of quantitative analysis than that given in this volume; but it is extremely important that his work should be of as varied a character as possible. Indeed, we should like to see the tasks allotted to the several students working side by side in a laboratory more differentiated than is

usually the case at present, so that each student might be profiting from his neighbour's operations as well as from his own personal experiences. We take it that Professor HARTLEY'S work is hardly calculated to encourage this mode of laboratory teaching, but rather to foster excessive uniformity.

A TEXTBOOK OF BIOLOGY: comprising Vegetable and Animal Morphology and Physiology. Designed more especially to meet the Requirements of the Intermediate Science and Preliminary Scientific Examinations of the London University. By J. R. AINSWORTH DAVIS, B.A., etc., Lecturer on Biology in the University College of Wales, Aberystwith. With numerous Illustrations, Glossary, and Examination Questions. London: Charles Griffin and Company.

THE useful fashion of preparing a monograph on the anatomy and physiology of some animal or plant easily procurable in this country is still in vogue amongst the best scientific writers. Perhaps a strictly practical and analytical work of that kind is particularly suited for the student, as it represents the most thoroughly scientific manner of studying Nature. It teaches the student to begin with observation, and to dissect, rather than to learn a number of hard words in a particular order, for that is what is meant by getting up classification before opening the book of Nature. Nevertheless, systematic and synthetical biology must be learnt, and that work on the subject is the best which is the most comprehensive. The student who has studied a few good monographs on typical plants and animals will be well prepared for Mr. DAVIS'S work, which maintains, as far as can possibly be managed, the analytical description of each type.

No doubt, to include the whole range of the vegetable and animal kingdom in a textbook of no very rudimentary character was a bold deed. Mr. Davis has not failed in his attempt, though perhaps his manual is rather too deep to be read through for examination purposes. The study of certain departments marked off by examining boards for some particular examination will prove profitable to the candidate; for, as we have already noted, each organic form is treated in an analytical fashion. At the same time, the candidate will be able to trace the relations of the form allotted to him for study, by perusal of neighbouring departments of the *Textbook*. As a general work of reference, Mr. Davis's manual will be highly serviceable both to medical men and to amateur or professional scientists.

Mr. Davis has not been sparing in his selection of types from the lower forms of vegetable and animal life. Thus from "fungi" he selects saccharomyces, bacteria, mucor, and penicillium. From the vertebrata he has chosen the frog, alone, as representing the ichthyopsida, the pigeon to exemplify the sauropsida, and the rabbit to demonstrate the anatomy and physiology of the mammalia. This arrangement was partly rendered necessary on account of the greater variation in essential organs amongst the lower types.

THE PRINCIPLES OF CANCER AND TUMOUR FORMATION. By W. ROGER WILLIAMS, F.R.C.S., Surgical Registrar to the Middlesex Hospital, Surgeon to the Western General Dispensary. London: John Bale and Sons.

MR. ROGER WILLIAMS, undoubtedly a good philosophical pathologist, has conceived the bold scheme of writing a treatise on the pathology and treatment of cancer and tumour formation in six parts. This work forms the first part of the contemplated treatise. His ideas recall the principles of Darwin's great theory, and much stress is laid on elementary pathology, on which Sir James Paget has often dwelt. The author reviews cell-multiplication and the phenomena of more complicated types of reproduction, and then turns to the evolution of vegetable neoplasms, to which subject he devotes a highly instructive chapter. Animal neoplasms are next described and discussed. The author lays stress on the great influence of evolution, the ancestry of a cell determining its growth often uncontrolled by different surrounding circumstances. Thus the normal ovum of any species of plant develops that species alone; and changes in surrounding conditions may check the growth of the ovum, or kill it, but cannot make it develop another species of plant. In a similar manner, a cell when morbidly grafted on a structure more or less distant from the tissue whence it originated can only develop similar tissue. Cells engaged in the evolution of highly organised structures suffer im-

pairment of their reproductive power, owing to their protoplasm being chiefly converted into special tissue. They are little, if at all "emancipated," as Mr. Roger Williams loves to express the fact, from their parental structure; hence when they form a tumour it is a comparatively inert mass, living, it is true, and histologically identical with the parental structure, but devoid of infective or malignant qualities. But lowly organised cells are more thoroughly "emancipated" from their source in lowly organised tissues; they exert a powerful autonomy seen in malignant tumours and in the metastatic deposits to which those growths give rise.

No doubt the author works on sound principles; his method is scientific and, if his inferences be not infallible, he has arranged his facts well, so as to be of service to others. Medical teachers are more enlightened than they were twenty or thirty years ago. In those days students were sometimes, though not always, taught microscopic pathology, and though an old-fashioned hospital surgeon is said to have discouraged an enthusiast by saying "Bother your sarcomas, stick to something practical," most students were shown sections of carcinoma, enchondroma, and other tumours. Yet normal human histology was much neglected. The faithful study of that subject in British medical schools during the past ten years has done much to promote good pathological work in this country. Mr. Roger Williams represents a yet newer type of pathologist, who studies cells in the lower animals and in plants, in order to compare them with the cells which form tumours in man, an improvement on the unscientific system of teaching the histology of the human viscera from sections of guinea-pigs' and cats' livers, kidneys, etc. The disadvantage of that practice is obvious when it is borne in mind that the student may thereby be led into error when examining sections of human kidneys supposed to be diseased. Being ignorant of the histology of the human kidney in health, he cannot judge soundly of its morbid appearances. Mr. Roger Williams's plan may profitably be extended from the study of cells to the study of tissues. A thorough investigation of the histology of the succulent, lowly-organised tissues abundant in some of the lower animals might throw yet more light on neoplasms; but the work must be done by pathologists and biologists simultaneously.

ORTHOPÄDISCHE CHIRURGIE. DR. AUGUST SCHREIBER. Leipzig and Wien: Franz Deuticke. 1888.

THIS is the most recent German publication upon this important branch of surgery, and contains a large amount of useful information clearly put. The work is one of 340 pages, but contains no fewer than 388 figures, and though these are not all of the usual excellence of German illustrations, they add very materially to the usefulness of the book. Both the deformities to be treated and the means of treating them are thus readily grasped, and many of the figures will be found of service by English readers. Moreover, there is a very full list of the literature—English, German, French, and Italian—given at the head of each subject treated, and this is not only full, but remarkably well posted up to very recent date. We notice, for instance, that references are given to papers in the *JOURNAL* of 1887, and previous years upon that curious congenital affection of dislocation at the hip-joint, and its treatment by Barwell, Black, and W. Adams. Other subjects are equally well given.

A short notice of hammer-toe is not so satisfactory, and does not throw much light on its cause or best treatment as we are now inclined to regard them. There are special chapters on rickets, torticollis, deformities of spine and thorax, contractions, ankyloses, knocked knees, deformity of the foot, paralytic deformities, and congenital dislocation. Delore's method of forcible straightening of bent bones, lately advocated by Mr. Edmund Owen, is mentioned here, but these and many similar violent proceedings seem to us to require special skill and experience, and are likely to do more harm than good in inexperienced hands.

The work has much to recommend it to German readers, and will prove of great use, especially for the illustrations and references. It is unfortunate that the binding of so many of these foreign books is so unsatisfactory that they fall to pieces before they have been looked through, but they contain an amount of material in them that puts our English works very often to shame.

DR. MAXWELL T. MASTERS, F.R.S., Vice-President of the Linnæan Society, has been elected a *Correspondent Étranger* of the Académie des Sciences of Paris.

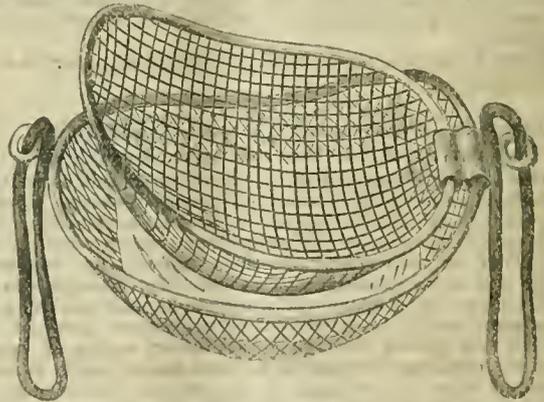
NOTES ON BOOKS.

Nature's Hygiene. By C. T. KINGZETT, F.I.C., F.C.S. Third Edition. (Baillièrè, Tindall, and Cox).—The increased knowledge of sanitary matters and the ever-deepening consciousness of the importance of everything which bears upon the maintenance of health, which has characterised English literature during the last few years, may account sufficiently to some minds for the appearance of a third edition of this work. May it not be also conversely true that the publication of such works as this does very much to increase that widespread sanitary knowledge which is a "consummation most devoutly to be wished" amongst our community? The author offers his information to all, for whilst scientific experts find a record of the most recent researches, the uninitiated are provided in the first two or three chapters with an introduction to such elementary chemical facts as are indispensable to a proper understanding of what is to follow. The chapters on the origin and prevention of infectious and contagious diseases, on antiseptics, on the treatment of the sick and on the relations of micro-organisms to disease, are of special interest to medical men. In Part II will be found a most interesting account of the eucalyptus and of pine and camphor forests, together with the details of the author's researches on the action of essential oils and terpenes as antiseptics and disinfectants. The type of this book is remarkably clear and pleasant to the eye, and there is a good table of contents and an efficient index.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN INHALATION RESPIRATOR.

A SIMPLE and effective inhalation respirator, very similar to Mr. James's "pneumatikon," described in the *JOURNAL* of May 26th, has been made for me for some months past. It consists of two layers of light wire-meshed gauze hinged together, between which the layer of lint is placed (see block). There are several inhalation



respirators in use on the same principle, but they are cumbersome and unsightly for indoor and outdoor use. The good effects of inhalation of various drugs, particularly pure terebene, in chronic coughs, loss of voice, and catarrhal affections of the respiratory passages is undoubted, while the simplicity and trifling cost of the respirator made for me places these advantages within the reach of the poorest patient. JOHN A. SHAW-MACKENZIE.

14, Old Burlington Street, W.

COMBINED NASAL AND ORAL RESPIRATOR.

THE fact that we do not breathe through the mouth but through the nostrils should be sufficient indication that the respirator now generally used by those suffering from pulmonary affections is conceived upon entirely erroneous views. I have, therefore, been induced to bring before the profession a combined nasal and oral

respirator, which has been carefully and efficiently made by Messrs. Arnold and Sons, of West Smithfield.

There may be at first a natural aversion to wearing a nasal respirator, but, as the feeling of novelty wears off, this will probably disappear, and the comfort experienced by the wearer will more than compensate for the appearance. The nasal respirator should be alone sufficient, and will probably prevent many a coryza to which persons are so liable in this changeable climate; but for those who still adhere to the old-fashioned respirator, there is an oral part attached which can be worn separately or with the nasal part, to which it is secured by a movable silver pin.

Briefly the respirator may be thus described. The nasal portion consists of celluloid fitting close to the nose, and having at the bottom an air chamber, with silver wire at the top and bottom of the chamber. The bottom part of silver wire is movable, so that it may be taken out and a piece of gauze fixed in, so as to regulate the amount and degree of air to be inhaled. The oral portion, also of celluloid, is devoid of metal, and consists of two parts, which can be taken apart at will. When in contact, they form a chamber in which gauze once, twice, three times or

more in thickness can be placed according to the exigencies of the case. It can be taken to pieces, cleaned, and fresh gauze put in as required. It presents in celluloid a much better appearance than the black respirator now worn.

E. WATSON PAUL, M.K.Q.C.P.Irel. and L.M.Dub., M.R.C.S.Eng. Bristol.

BISHOP'S GRANULAR EFFERVESCENT ANTIPYRIN.

Messrs. Alfred Bishop and Sons, of Speck's Fields, E., have added another to their already numerous effervescent preparations of important drugs. The "granular effervescent antipyrin" manufactured by them contains 5 grains of antipyrin in each drachm. The preparation is well granulated, it effervesces freely when added to water, the solution has a pleasant taste, and physiological effects are produced by it as well as by the simple chemical.

A NEW SYRINGE FOR RECTAL INJECTION OF GLYCERINE.
 FINDING great difficulty in obtaining a syringe suitable for injecting glycerine into the rectum as a useful adjunct in the treatment of chronic constipation, Dr. W. Barrett Roué, Physician to the Bristol Hospital for Children and Women, has suggested an invention for meeting the difficulty, of which we append an illustration. It consists of a simple glass graduated cylinder capable



of holding three drachms: the piston and mounts are of vulcanite, and the nozzle (a very important part of the instrument) is two inches long, of sufficiently large bore to provide for the entrance and exit of the glycerine, and which, being first oiled and then warmed, may be bent to almost any curve. The instrument has, under Dr. Roué's direction, been made by Messrs. Ferriss and Co., surgical instrument makers, Bristol, of whom it may be obtained.

SELF-DIGESTING WHOLE MEAL FOOD.

CORRECTION.—The title which was affixed to the note on Messrs. Savory and Moore's whole meal food in the JOURNAL of June 2nd, p. 1171, was incorrect, the word "bread" having been accidentally substituted for "food."

The Committee of the Birmingham Hospital Saturday Fund are enabled to divide a sum of £7,600 among the medical charities of the town this year.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 16TH, 1888.

SELF-HELP FOR HOSPITALS.

THE great political problem, how to deal with the poor, which we are perpetually trying to solve, but which appears as far off as ever from practical adjustment, has received a fresh impulse from the important testimony of some of the professional witnesses examined by the House of Lords Committee, now considering the question of poor-law relief. Much of the evidence will be found to have a remarkable and direct bearing on medical relief, whether of an eleemosynary or of a strictly poor-law character, nor are there wanting healthy indications that the entire subject is becoming better understood. It is impossible for those who have daily dealings with the poor not to be strongly impressed with the fact that, while distress abounds in our midst, the agencies at work to mitigate it have no greater obstacles to contend with than the utter absence of self-help on the part of a large proportion of the population most clamorous for charity. The justly repressive character of our poor-law system of relief may possibly deter thousands from seeking State aid, who, on the other hand, have no hesitation in availing themselves of privileges they can grasp from purely charitable and voluntary sources, nor is it at all surprising that the desire should keep pace with the indulgence, or be aggravated thereby.

Indiscriminate medical charity may possibly occupy higher ground in public estimation than indiscriminate almsgiving, but there can be no doubt of its influence being equally pernicious, and there is a growing desire on the part of a large body of the medical profession, as well as of the discriminating supporters of hospitals and curative institutions generally, that the demoralising tendency should be restrained by the adoption of repressive expedients to check its growth. It is of primary importance, also, that while such measures may be made profitably helpful to the hospital or dispensary and morally beneficial to the patients, they must not be permitted to slacken the interest in public charity but rather tend to encourage its increase where it is known to be judiciously administered. Our main difficulty lies in the enforcement of schemes likely to meet with general acceptance. We are naturally opposed to reversing the charitable instincts of our predecessors in matters of medical relief. The principles on which our hospitals and free dispensaries were first founded have been mellowed by time. We have become the inheritors of their free traditions, and, notwithstanding the changes which under the name of reform have taken place in most of our public institutions,

we are unwilling to interfere with the economic arrangements of establishments which have served us so well in the past.

It is true, nevertheless, that at the time when the great bulk of our voluntary hospitals were established, the poor-law medical service was in a miserable condition; it could scarcely be said to have had any existence at all, and the indigent sick were not long in discovering the advantages of the new asylums over the infirm wards of the workhouses. The latter have survived till our own day, but it is to the credit of the present generation that they have been for the most part supplanted in London and all large towns by a series of imposing edifices which, as regards sanitary construction and details bearing on internal economy, leave little to be desired. Erected entirely by State agency these hospitals, except in the matter of surgical casualties, appear to meet all the wants of the destitute sick, and it is not surprising, having regard to freedom of access, especially to such as have been instituted for the treatment of infectious disease, that the deterrent effect of our poor-law medical service is losing ground, while the constitutional abhorrence of the workhouse test retains its full force. Whether this disarming of prejudice will in the end extend to a higher grade of people in the social scale than it does at present must, in great measure, depend on the facilities for treatment afforded by the voluntary hospitals and the accommodation at their disposal, for it is hard to believe that the inherent and healthy dislike of pauper relief will be overcome so long as opportunities are offered for avoiding it.

It is significant, however, of the progress of events that while the sick asylums, backed by the public purse, show a disposition to increase out of all proportion to the normal condition of pauperism in the country, the hospitals and other medical charities are barely kept alive by bequests and constant appeals to the benevolent, their subscription lists, which formerly were their mainstay, yielding, according to Lord Randolph Churchill, only 16 per cent. of their expenditure. From their exclusive constitution and the indisposition of the local authorities the hope that the rate-supported hospitals will ever become schools of medical instruction, as in other countries, is far from realisation, and there is all the more need of extending the work of those voluntary institutions which contribute so much to the public advantage.

Prior to, and afterwards in a measure parallel with, the improvements which have taken place in poor-law medical relief, the voluntary hospitals have also undergone a process of evolution of a not less satisfactory character, which has made their value doubly appreciated, less, perhaps, by the sick poor than by the classes above them. It is a matter of common observation that few persons belonging to the middle class enjoy in their private homes the same medical skill and careful nursing when overtaken by disease or accident as patients possess in well regulated hospitals. The admission of such is governed less by their poverty than by urgency of symptoms and clinical importance, and it naturally follows that a fair proportion are able of themselves, or through their friends or employers, to make some restitution for benefits received.

The pay system, as it is sometimes called, although recognised as an important factor in the receipts of foreign hos-

pitals, has been slow of introduction into those at home, but it has had a beginning, and for the past twenty years has formed the main support of the cottage hospitals and convalescent homes which have sprung up in such numbers in so many parts of the country. The experiment has also been attempted, and with satisfactory results, in at least two of the old hospitals, and in a large number of special hospitals; and there is every reason to hope that it will be looked upon as a necessary part of the constitution of every hospital of the future. It is clear, however, that unless the scheme provides for a scale of charges, ranging in proportion with the means of patients, and precautions are taken to prevent its abuse, the pecuniary results will be disappointing.

In the out-patient departments of hospitals the primary difficulties are more capable of solution. Here, it has been the cry for years that consultative advice and physic have been unsparingly and indiscriminately administered to all comers, provided they are content to sit placidly for hours in a crowded room among a motley group of people bent on the same errand. Many remedies have been suggested, and some attempted, to check the generally acknowledged abuses of the department, but none have been found so effective as the imposition of a small money payment, not sufficient to enable the system to cope with that of the outside practitioner or even to cover the cost of the drugs supplied, but enough to make the recipient feel that he is receiving something which possesses a money value. It must be admitted, nevertheless, that the axiom of there being no rule without exceptions applies with special force in dealing with medical charity, and it will always be found imperatively necessary to guard against the possibility of the deserving sick suffering and being sent empty away on account of their poverty. However stringent our rules, regard must be had to the necessities of individual cases by supplying them in the first instance with the gratuitous assistance required, which should be given with the proviso that on the occasion of their next visit they should come furnished with a voucher from a minister of religion, respectable householder, or contributor to the hospital or dispensary, confirming their inability to pay.

Nothing in the past has tended more to lower the value of the practitioner's art in the great centres of population than the freedom with which medical relief has been administered, nor is it at all difficult to see how this tendency could be restrained and an inestimable boon conferred on the charities, provided the principle of self-help was judiciously introduced. It is the business of the managers of these establishments, who as a rule are keenly alive to their financial difficulties, to promote measures helping to increase their resources, and which, after all that may be said to the contrary, must confer moral advantages on the population.

Much has been done in various parts of the country, and especially in the manufacturing towns, to infuse a helpful spirit into the workpeople in aid of their local charities, but in London, on account probably of the shifting and miscellaneous character of the operatives, comparatively little has been effected, and that little in a vicarious way by street-collections instead of by a systematic organisation to bring the appeal home to every warehouse and workshop. It can hardly be disputed that there is here a vast field waiting for the husband-

man, which hospital managers seem loth to cultivate, but which ere long, when wiser counsels have prevailed over their timidity, will afford them an abundant harvest.

We are proud of our hospitals and medical charities on account of their national characteristic in being entirely free from State control; but if their prestige is to be maintained and their utility still further developed, substantial assistance must be accorded them by those who participate most in their privileges, and who are, or ought to be, most concerned in their maintenance. Experience has shown that such aid may be forthcoming without pressing too harshly on the resources of the industrious, and while cordially sympathising with the objects of the charitably disposed, it is a duty we owe alike to them and to their suppliants to inculcate in health those moral lessons of self-help and independence which may be relied on as best fitted to grapple with disease.

SUMMER IN THE MOUNTAINS.

WE had last week the satisfaction of announcing that the suicidal policy of seeking to exclude English medical practitioners from Swiss health resorts except under conditions too onerous to be generally fulfilled had been abandoned in the canton of the Grisons, where the agitation was first commenced. Attention was first called to the ill-considered action of the Swiss Government in these columns, and our Swiss correspondent has kept the English public informed of the progress of events. The arguments advanced in editorial articles in this JOURNAL have, as was stated in the letter from a London physician who has had special opportunities for knowing all the circumstances, had due effect with the interests most immediately concerned, and it is much to be hoped in the interests of all parties that the last may now be heard of this proposal, and that nothing of the same nature may occur to disturb the pleasant relations which have so long existed between the two nations. The summer season is just about to begin, and though in this respect less important than the winter season, it is satisfactory that the difficulty is in a fair way to adjustment before its commencement.

It is indeed rather remarkable that while so much has been said in recent years on the beneficial effects in certain classes of cases of prolonged residence at high altitudes during winter, but little has been written on the therapeutic qualities of mountain air in summer. Perhaps the reason is that the public has found out for itself without medical guidance that there is no tonic for the tired brain and relaxed body which can surpass, if indeed even the sea can equal, the pure bracing atmosphere of the "playground of Europe." Oertel and his followers have indeed written a good deal about mountain resorts in summer, but it has been chiefly if not entirely in connection with the so-called "gymnastic" treatment of cardiac disease, and has had special reference rather to the facilities afforded at the various resorts for this mode of treatment than to their altitude.

The health resorts of Switzerland may be roughly divided into three classes: the mountain stations, with an elevation at or above 4,000 feet; the hill stations, with an elevation ranging from 2,000 to 3,000 feet; and the lacustrine and valley resorts. The latter belong to an altogether different

category, and it is with the first-named—the mountain resorts proper—that we need alone concern ourselves here.

The climate of these elevated valleys varies considerably in certain respects, especially with regard to the period of greatest rainfall and the degree of moisture, but they all have certain qualities in common. In all the diminished barometric pressure causes the atmosphere to be more rarified, and this has at first the effect of causing the respirations to be more numerous and the pulse faster; but after a short period of acclimatisation both return to the normal—if, indeed, they do not in time sink below it; the inspirations, however, become deeper, and the aëration of the blood in the pulmonary vesicles is effected with greater ease and rapidity. The air at these altitudes, even in summer, is drier than at lower levels, consequently evaporation is more rapid, and the combined effect of these two peculiarities of mountain air is to produce a decided diminution in the weight of the body owing to increased loss of water and of carbonic acid.

There are only two other qualities which need now detain us; these are the increased diathermancy of the air and its purity. As to the latter, it would be rash to say more than that the beautiful observations of Mentschnikoff have suggested that the possession of this negative virtue may very materially diminish the calls made upon the cellular activity of the tissues, and especially of the blood. As to the former, its effect upon the human organism is clearly seen in the rapid tanning of the exposed skin, and there are good grounds for believing that direct sunlight has an important and beneficial chemical action on the metabolic processes.

It is especially in certain of the diseased conditions—or perhaps, it should be said, tendencies towards disease—promoted by modern urban civilisation, that a summer holiday in a mountain resort is so beneficial; but the cases are not to be entirely confined to these. Dr. Veraguth,¹ of St. Moritz, has recently published some interesting observations on the influence of high altitudes, made in the Upper Engadine. He states that in a healthy person the pulse and respirations are at first quickened, but that after a short time both return to the normal; the amount of carbonic acid and water in the expired air is increased, but the quantities of urea and uric acid are unaltered; he has also noticed a general entaneous hyperæmia, and a slight diminution in the body-weight. His observations thus confirm and slightly extend those previously reported by others.

It is known that high altitudes have a beneficial effect in chronic malaria, but it is doubtful whether it is correct to speak of a specific action. Dr. Veraguth, however, makes use of this much abused term with reference to cases in which there is enlarged spleen, anæmia, occasional pyrexia, and intermittent neuralgias. In anæmia from other causes high altitudes in summer are also, as a rule, beneficial, but Bright's disease, old age, and leucocythæmia afford exceptions; atonic dyspepsia and neurasthenia are also benefited, but in grave structural disease of the nervous centres, in ataxy, and paralysis due to apoplexy or softening, a residence at high altitudes is not to be recommended, neither does Dr. Veraguth approve of the advice often given to phthisical patients to spend the summer at high altitudes, considering that the

¹ *Thèse de Paris*, 1887, and *Lyon Medical*, lviii, 20.

sudden changes of temperature, the frequent winds, and, it may be added, the hay harvest and the not infrequent rains, are likely to have a prejudicial effect unless the pulmonary lesions are absolutely quiescent.

As to heart disease, apart from the question whether regulated exercise is or is not of advantage in certain cases, it would seem that when compensation has been long established, a tendency to failure may be checked by the special conditions of the atmosphere at high altitudes; the greater ease with which respiration is performed, and the somewhat larger call upon the left ventricle, while the vigour of metabolism is at the same time increased, favour the healthy nutrition of the heart muscle.

THE PRIVY COUNCIL AND THE ROYAL COLLEGE OF SURGEONS.

THE further instalment of official correspondence which we publish at page 1290, will not tend to diminish the astonishment of the Members of the College and the profession generally at the singular proceedings of the Privy Council on this very grave and far-reaching question. It is now clear that there has been a settled intention to drop the petition of the Members into the waste-paper basket, and say as little as possible about it. But a plea for constitutional rights within their own College, put forward by an enormous proportion of the Members, at a time when the authorities themselves had challenged an expression of opinion on the subject, is not a thing which the advisers of Her Majesty are entitled to pass by in silence. The Clerk of the Council informs us that the petition of the 4,665 members of the College "was referred, with all other petitions on the subject, to the Committee of the Lords of the Council." Until now the Members and signatories have had no notice of these proceedings. What they desired, and still desire, is to be heard before such a Committee in some such way as may satisfy the profession and the public that their claims have received a fair hearing. It appears to be the present theory of the Privy Council that the claims of the Members to some share in the management of their own business and in the control of their own property may be shunted by modifying in one or two unimportant details the draft of the Charter submitted by the present executive of the College.

The Members will have to take vigorous measures to bring home to the Lords of the Council the fact that this is equivalent to a refusal without a hearing, and that, even at the eleventh hour, the Members expect to be heard. The occasion of an application for a new charter—rendered necessary as it was by the growth of the College property—is evidently the proper and legal occasion for the reconsideration of the present executive arrangements, which were introduced by gradual innovations in times very different from our own, and which are eminently unsuited to the present conditions of medical life in this country, and eminently unsatisfactory to the great bulk of those who compose the College itself. The contention of the Members in their petitions, and on the one occasion when a deputation from them was admitted, was that the College, by its nature and history, and by every consideration of public policy, is and ought to be a "fraternity;" that, as to the property and buildings and policy of the College, the Mem-

bers have a right to be heard; and that the arrangements by which a small executive can claim to override the general sense of the College is an anomaly, an anachronism, and an abuse.

If the Privy Council consider that "no legal question is involved," they strangely misconceive the Members' position. It is perfectly true that the broadest and clearest basis for the prayer of the petition is that of public policy; but the statements submitted to the Privy Council embodied also a legal and historical claim of great strength. If these contentions, either in law or policy, or both, can be answered, the profession is entitled to know what the answer is. If they cannot be answered, Her Majesty's advisers are surely bound by every principle of the constitution to refrain from using one of the few remaining forms of the absolute prerogative of the Crown so as to stifle the present demand for the redress of a great grievance, and remit the Members to an indefinite prospect either of litigation or of parliamentary agitation.

LEGALISED ADULTERATION OF WINE.

WE do not pretend to an acquaintance with the procedure of Her Majesty's Customs, but would like to have an official and explicit assurance that certain practices alleged to be, or to have been, carried on in the docks under the eyes, and, so long as the legal duty was paid, with the approval or connivance, of the excise officers, have been since discontinued, or, rather, prohibited. Reading over the evidence of various experts on the adulteration of wines prior to and after importation into this country, as given before Royal Commissions, in reports on Exhibitions, and in other publications, we came across some astounding revelations. Mr. Walter Burton, an ex-Customs House officer, stated, not many years ago, that "a wine jobber having 1,000 gallons of wine (already adulterated and fortified) can add thereto 100 gallons of spirit, thereby converting so much crude potato spirit, diluted with London water, and costing about a shilling a gallon, into, it may be, a 'special sherry' or 'vintage port.'" There is, he believed, no record kept of the quantity of spirit so turned into wine, "but seeing that a large staff of officers are continuously employed in superintending such operations, the increase to our stock of wines from this source must be considerable." Well may he add that "it is most objectionable to pay public officers to legalise the manufacture of such compounds in our docks and warehouses."

Whether it be possible to devise means whereby some limitation could be put to the adulteration and manufacture of "wines" so-called in Spain, Portugal, and elsewhere, and the passing at the Customs House, on the sole condition of paying duty, of liquids whose composition alone proves them to be frauds, we will not pretend to say. We do, however, think that on hygienic, moral, and commercial grounds, it is not justifiable to pass into the market mixtures which it is self-evident cannot be drunk until they have undergone further dilution, doctoring, and other adulteration, such, for example, as "sherries" in which the bitartrate of potash—the "wine stone," as the Germans call it—has been replaced by the sulphate, and to which a further dose of raw sulphuric acid, a pound to each butt, has been added, while the percentage of alcohol, which in a natural

wine cannot exceed 14, has been raised by the addition of potato spirit to 35, or even 59, per cent. of proof spirit—in fact, to the strength of ordinary brandy, and others in which the colour is given by fuchsine with its attendant arsenic; and, so far as we are aware, the clearing of cloudy wines by sugar of lead has not been the subject of proceedings under the Sale of Foods and Drugs Act.

But we would ask whether it is consistent with the Act that Government officials should superintend the process of “mixing, colouring, etc.,” wines with substances injurious or otherwise, so as “to fraudulently increase the bulk, weight, or measure” of the same, “or to conceal the inferior quality thereof;” that a publican should be fined for adding pure water to his spirits, while the excise officers connive with impunity at the addition of water, raw spirits, etc., to wines in the docks.

If the ultimato decision must rest on the question of £ s. d. rather than on the public health, the pure wine-growers of Australia and other countries might well remonstrate against the legalising of “operations” by which the production of Spanish and Portuguese wines is fraudulently doubled or trebled to their manifest injury, as those of France have against “salicylage” as a means of preserving fictitious clarets from changes tending to render them undrinkable.

WE regret to announce the death of Dr. T. Harrington Tuke, which occurred on June 9th, after a long illness.

MR. T. PRIDGIN TEALE, M.B., F.R.C.S., of Leeds, and Dr. Henry Trimen, Director of the Royal Botanic Gardens, Ceylon, are the only members of the medical profession who have been elected Fellows of the Royal Society this year.

THE second congress of the German Gynæcological Society, which has been held in Halle, has resolved, in consideration of the International Medical Congress to be held in Berlin in 1890, to hold its next congress next year. Freiburg is chosen as the place of meeting.

THE preparations for the medical and scientific exhibition, which is to take place in Cologne, next September, in connection with the sixty-first meeting of the German Medical and Scientific Association, are making rapid progress. Already 100 firms, including several important Austrian and English houses, have announced their intention to exhibit.

THE annual meeting and dinner of the Cambridge Medical Graduates Club will be held at the Hotel Victoria, Northumberland Avenue, on Wednesday, June 20th. The guests will be Sir Andrew Clark, Bart., and Sir James Paget, Bart. Members of the club who intend to be present are requested to communicate with either of the Honorary Secretaries on or before June 18th.

PARTHENICIN.

AN alkaloid, to which the name “parthenicin” has been given, has been isolated by Dr. Ulrici, of Cuba, from the leaves and flowers of *Parthenium hysterophorus*, commonly called *Artemisilla* or *Escoba amarga*. It is a crystalline substance, with an intensely bitter taste. It poisons animals, the temperature being previously greatly reduced, and it appears to have antipyretic, anti-intermittent, and analgesic effects on the human subject. It has been given in doses of fifteen grains once a day.

CORROSIVE SUBLIMATE INJECTIONS IN LUPUS.

THE *Gazzetta degli Ospitali* describes a case of lupus hypertrophicus of the nose where Dr. Tassinari, after finding that many other local and constitutional remedies were useless, injected solutions of corrosive sublimate, in strength from $\frac{1}{2}$ to 1 per cent. There appears to have been no local or constitutional irritation, and the disease disappeared after twelve injections.

OCTO-CENTENARY OF THE UNIVERSITY OF BOLOGNA.

THE celebration of the eighth centenary of the University of Bologna commenced on June 12th; it was attended by the King and Queen of Italy, and by representatives of nearly every existing university of the world; the students of many universities also sent delegates, who met with a warm welcome from the Bolognese students. The universities of the United Kingdom which were represented were Oxford, Cambridge, London, Victoria, Durham, Edinburgh, Glasgow, Aberdeen, St. Andrews, and Dublin. Among the recipients of honorary degrees were Sir Spencer Wells and Dr. Weir Mitchell in medicine, and Professors Huxley, Cayley, Adams, Sir William Thomson, and Agassiz in science.

THE CONTROL OF LOCAL AUTHORITIES.

AT the last meeting of the Committee of the Hull Sanitary Association a report of a sub-committee on the effect of the Local Government Bill in existing sanitary legislation was considered, and a resolution was passed expressing the opinion that the effect of the Bill would be to leave the powers of control over negligent local authorities in a very unsatisfactory state, and to perpetuate the present unsatisfactory condition of the sanitary oversight of rural districts. The Committee consider that the Bill ought to be so amended that the control of the Local Government Board over defaulting local authorities may be preserved. The view generally held by those acquainted with the working of sanitary law that the medical officers ought to be appointed by and responsible to the County Councils and not to the District Councils, was also endorsed by the Hull Committee.

YOUNG MOTHERS.

A CASE of very early child-bearing has occurred at Ilkeston, the mother being only 12 years old; and a paragraph is going the rounds of the press stating that this is an unprecedented fact. Though very remarkable, especially in a temperate climate, the case is not unprecedented. Reference was made in this JOURNAL eighteen months ago to a case in which the mother was only 11½ years old; and in Barnes's *Obstetric Medicine and Surgery* several authentic cases of precocious maternity are cited, notably one by Mr. Dodd, of Billington, who himself attended the labour of a woman on August 8th, 1871, when a girl was born. This girl Mr. Dodd delivered of a healthy child, weighing seven pounds, on March 17th, 1881, just 147 days before she had reached the age of 10 years. Mr. Dodd supplied Dr. Barnes with authentic proofs of the facts of this case.

CHRONIC GLANDERS IN MAN.

A RUSSIAN medical paper, the *Medizinskoye Obosrenie*, states that a young soldier, who had been a waggoner before his admission into the army, was received into the military hospital suffering from two foul ulcers on the hard palate, which had perforated the nasal fossæ and destroyed the inferior turbinated bones. Three weeks later a swelling appeared over the left eyebrow, a fortnight afterwards he complained of pain on the inner side of the left knee around the internal tuberosity of the tibia. Then purulent discharge occurred in the left ear, and an abscess on the back of the right hand, which appeared as a deep purple tubercle, with a hard circumference and sunken towards the centre; purulent discharge oozed from its surface. At first, for a short time after

admission, the temperature varied, rising of an evening to 103° or 104°; later on it fell to normal. The disease was mistaken for syphilis, and iodide of potassium was given without the least benefit. About ten weeks after admission he was in better health and left hospital, receiving his discharge from the army. Within a few weeks he returned with extension of the ulceration of the hard palate; the uvula was destroyed. The characteristic tubercles, the "farcy buds," appeared in the face, the metastatic abscess on the back of the hand remained. The patient ultimately died of exhaustion. Before death some of the tubercles were extirpated; they were found to contain micro-organisms resembling the glanders bacillus of Löffler and Schütz.

INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA.

THE second session of the International Medical Congress of Australasia will assemble at Melbourne, Victoria, on January 7th, 1889, and the sittings will continue on the five following days. The official memorandum, dated April 5th, states that next year has been chosen in order that the session of the Congress may coincide with the Centennial Exhibition in Melbourne. The Secretaries have addressed to us a letter, in which they state that the Congress will be thoroughly representative of the profession in Australasia, and add the expression of a hope that visitors from Europe and America may be able to attend. The means of communication, they say, between Europe and the Colonies are now so rapid and easy that, with an absence of four months from Europe, a visitor would be able to spend six weeks in the Australian colonies. The Centennial Exhibition will be a remarkable display, and during the time it is opened other technical congresses will be held, and social entertainments, in which the Government of Victoria has promised to lend material assistance, will be provided on a generous scale. Members of the Congress will be able to travel at greatly reduced rates, and any member of the profession intending to be present is promised a most cordial and hospitable reception. The President is Mr. T. N. Fitzgerald, F.R.C.S.I.; the Treasurer, Dr. George Graham; the Honorary Secretary, Professor H. B. Allen; and the Associate Secretaries, Drs. J. W. Barrett and G. A. Syme. A strong and representative provisional committee has already been formed. All communications should be addressed to Professor Allen, M.D., at the University, Melbourne, Victoria.

THE PHYSIQUE AND DIET OF THE SOLDIER.

In a lecture at the Royal United Service Institution, Colonel G. M. Onslow expressed his views on "The Physique of the Soldier and his Physical Training," and gave his experience as Inspector of Gymnasia. A man must eat to live, and a young man needs both plenty of food and exercise to aid his growth and development. The average age of a soldier is now 25 years, the minimum standard in height is 5 feet 4 inches, with a chest limit of 33 inches, while 769 men per 1,000 are 35 inches in chest measurement. Our age limit is lower than that of foreign armies, but our minimum standard is higher. Colonel Onslow says the British soldier has not enough to eat, and that if we cannot give him more food, we should give him his last meal later than his tea at 4.30, as at present. Military drill is not physical training, and it is said that, *per se*, the drill does little to render the men stronger and more supple; it is of no use to drill a man until he is made strong, active, and self-reliant by gymnastic training. Lord Wolseley agreed with the remarks of the lecturer, and referring to the prospects of army recruiting, expressed his fears that difficulties might occur in the future, from the decline of the physical condition of our young men in towns, and the decrease of the agricultural population. He then proceeded to advocate the provision of gymnasia in all Board schools, under the supervision of

good drill instructors. In considering the physique of the young men of London, we are glad to see that a new gymnasium has been opened in the old Queen's Theatre, Long Acre; the hall is spacious, lofty, well lighted and ventilated, and provided with every appliance and means of physical exercise, so that we may hope that something is being done to keep up the physique of our young men in London.

SUTURE OF WOUNDED LIVER.

THE *Riforma Medica* of June 9th contains a full account of Professor Postempski's operation for wounded liver, of which mention was made in the *JOURNAL* of May 5th (p. 992). Antonio A., aged 28, was stabbed under the arch of the ribs, on the right side, on April 18th. The cutaneous wound, which was parallel to the costal margins, was five centimètres in length, whilst that of the liver (left lobe) was seven centimètres long, and three in depth at the deepest part. The patient, when seen, was in a state of profound collapse from loss of blood. There was no difficulty about the diagnosis, as exploration with the finger served to disclose the nature of the case. Professor Postempski, who had satisfied himself so far back as 1885, by experiments on dogs, that the liver-substance could be stitched without giving way, determined to try that mode of treatment. He accordingly enlarged the wound in the skin by five centimètres, and made a second vertical incision in the middle line across the first. The wounded lobe was pushed forward as far as possible, and, while the pieces of sublimated gauze, with which the wound had in the first instance been plugged, were being withdrawn, six points of chromicised catgut suture were passed through the whole depth of the wound with extremely fine curved needles. The sutures were very carefully tightened as they were introduced, the edges of the wound being at the same time gently pressed together, so that the loop of catgut did not draw them into contact, but merely kept them in apposition. The sutures were tied in a simple knot, and there was not the slightest laceration of the liver-substance through which they were passed. Hæmorrhage ceased at once, but the critical condition of the patient made it impossible to wash out the peritoneal cavity at all thoroughly, and Dr. Postempski believes that the greater part of the extravasated blood remained in the abdomen. There was no rise of temperature, however; but, on the second day after the operation, there was very abundant albuminuria, which lasted for twenty-four hours, when it completely ceased. The patient got up on the eighteenth day, and he is now perfectly well, without any local pain, or any appreciable enlargement of the liver.

CANCER OF THE LARYNX: THE RESULTS OF TREATMENT.

ALL the published reports of cases of laryngeal cancer which have been observed in various countries since 1880 have been carefully examined and tabulated by Dr. Max Scheier, of Berlin. His analysis is to be found in the current number of the *Deutsche Med. Wochenschr.* (June 7th), and elaborate tables of the cases, 125 in number, are supplied in an appendix to that issue. In these tables the source of information about each case is stated, together with the age and sex of the patient, the actual condition before treatment—the laryngoscopic appearance being detailed in most cases—and the treatment, with its results. Moreover, the tables state whether a microscopic examination was made or not in each case, so far as known. The author of this paper acknowledges his indebtedness chiefly to the *Internat. Centralb. für Laryngologie und Rhinologie*, edited by Dr. Felix Semon; the *Centralblatt für Chirurgie*; and the *Jahresbericht* of Virchow and Hirsch. The cases are arranged in six tables. The first table comprises cases in which no operation was done—four cases, all fatal; the second, cases in which tracheotomy alone was done—seventeen, all fatal

but three; the third table gives the cases in which laryngotomy with extirpation of the tumour was performed, nine in number—in three death ensued within fourteen days, in three there was relapse, two had shown no relapse within the first few weeks, and one remained well nearly three years afterwards; the fourth table gives the partial extirpations of the larynx, twenty-three in number—two died soon after operation, three about a month afterwards, five survived operation but relapsed later on, eight are reported as cured but not observed long enough as to relapse, and five remained well sixteen months and more after operation. One of the latter cases showed no relapse two years after operation, another three years, and another seven years. This last, one of E. Hahn's cases, mentioned in all statistics of the subject, is a case of only partial resection of the larynx. The patient has been recently examined, and the right vocal cord with the right arytenoid can be seen to move during respiration. The other cases were treated by Semon, Schede, Störk, and Fränkel respectively. The fifth table gives the cases of total extirpation of the larynx, sixty-eight in number. Of these, eighteen died within a fortnight, and five more soon afterwards; seventeen survived the operation, but relapsed within a year (one excepted, but fatal in the second year); six died of intercurrent diseases; thirteen are reported cured, but not observed a sufficiently long time to determine as to relapse, and nine remained free from relapse sixteen months and longer. Lastly, the sixth table gives the cases in which an endo-laryngeal operation was performed, four in number. In one swallowing was painless eight days afterwards, the second died in an epileptic fit five months afterwards, the third case affords no data as to the operation, the fourth (B. Fränkel's case) underwent several operations, and remained quite well four years after the last, with a good voice. Dr. Scheier requests the various operators to favour him with the further results in the several cases mentioned in the tables so far as known up to the present.

LIABILITY FOR DEFECTIVE DRAINS.

THE verdict in the case of Butler v. Goundry, which was tried last week before Mr. Justice Mathew and a common jury, seems to have been misunderstood. The action was to recover damages, which the plaintiff alleged he had suffered owing to the reckless misrepresentation (in other words fraud) of the defendant, in stating that the drains of a house, No. 148, Brompton Road, were in perfect order. The plaintiff had taken the house in question on lease from the defendant, and his case was that during the negotiations he inquired particularly about the drains, and was assured that they were all right, and had only recently been put in perfect repair. Soon after he took the house he and his family became ill. The drains were then examined, and found to be most defective. They had never been connected with the sewer, and the soil under the house was saturated with sewage. The defendant did not dispute that the drains were in fact defective, but denied that he knew them to be so, or that he had made the representations on which the plaintiff relied. He swore that all that he had stated was that "for old-fashioned brick drains they were as good as could be expected." He had had them examined by a builder, who told him he had done what was necessary, and believed them to be in fair and good order. The builder who had examined the drains had to admit himself to be without any proper knowledge of his business, and his examination of the drains must have been conducted most perfunctorily; but there was nothing to show that the defendant knew him to be incompetent, or had any reason to distrust his assurance that the drains were all right. The jury found their verdict—and they certainly had evidence to justify the finding—that the defendant had no knowledge of the defective state of the drains, and himself believed them to be in a fair condition, and that his statements to the

plaintiff amounted to no more than this. On that state of facts he was entitled to a verdict in his favour. In an action of deceit or fraud judgment must go to the defendant, unless it is shown that, with the intention of their being acted on, he made statements which he knew to be untrue, or which, at any rate, he did not believe to be true. Mr. Goundry was found to have seriously believed that the drains were in fair order, and consequently not to have made a wilful or reckless misrepresentation to his incoming tenant. All the evidence given to prove the defective condition of the drains was therefore immaterial, because the plaintiff failed to prove the fact on which his whole action depended. If it could have been alleged that the defendant had warranted the drains to be in proper order, or that their being in such order was one of the conditions of the tenancy, proof of their being defective would have been most important, and the evidence given on this head would probably have been conclusive in the plaintiff's favour. The action was not brought on the contract at all, no doubt because the plaintiff's legal advisers knew that it would be impossible to prove any contract as to the condition of the drains. The plaintiff's case as to fraud was answered, and he is left without remedy for having suffered in health and been put to considerable expense in rectifying the pestilential condition of his house. The moral of the case is, that intending purchasers or tenants of houses should not rest satisfied with any verbal assurances as to the sanitary condition of the premises they propose to take. They should either themselves have the place examined by some person in whom they have confidence, or, better still, have a clear undertaking in writing, as part of their contract, that the drains are not defective. If the vendor or lessor, being a respectable man, will give such an undertaking, he is pretty sure to have satisfied himself that he may safely do so.

VENTILATION OF BOARD SCHOOLS.

LIGHT and air are essential conditions to growth and good brain-work, especially for school-children. If we wish to make children like and respect our schools, we must make them more attractive than the dull and too often squalid homes from which they come to their daily lessons. Good ventilation is always possible; for besides the ordinary means of natural ventilation, there is always the possibility of mechanical ventilation. The baneful effects of foul air are very obvious in some schools, where we have seen groups of children presenting the signs of exhaustion from this cause—the pale faces, dull eyes, and restless movements indicating only too plainly the distress caused by want of free supply of oxygen, and accounting for the inattention complained of by the teachers. This cause of exhaustion is easily removable by proper ventilation, and by preventing overcrowding; this is a state of things that must not be confounded with over-pressure from lessons; no child can work well unless there be elbow-room, and plenty of light and air around. It is very desirable to train children in our primary schools to value cleanliness, but this valuable lesson will not be efficiently instilled into the young mind without the supplies of fresh air and light which are needful to invigorate their nerve-system. The mental and bodily exhaustion which arises in a school from want of sufficient ventilation is too often visible, not only in the children, but also in the teachers; those of us who have worked many hours in ill-ventilated outpatient rooms know how hard it is to maintain complete intellectual activity and amiability to all around in crowded rooms that are wanting in fresh air. Cases of anæmia among female teachers and in the pupils may often be attributed to want of sufficient light and air in school-rooms, rather than to too many hours of work. Education ought to teach practically the laws of health, and should be undertaken under healthful conditions, for the final educational aim should be *mens sana in corpore sano*.

THE COUNCIL OF THE COLLEGE OF SURGEONS.

WE announced, last week, that Sir Joseph Lister had decided not to offer himself again for re-election. There is a widespread feeling of regret amongst the Fellows that he has come to this decision, for a surgeon of such world-wide reputation would have proved an ornament to the chair, and Sir Joseph Lister, honoured alike by his followers, and by those who, on scientific grounds, oppose his well-known system, is known to be far more in sympathy with reform than are many others who, like himself, stand very high in the ranks of the profession. On the other hand, the Fellows and Members appear, as far as we can glean, to admire him as setting a good example in making way for others, and so doing his best to counteract any impression that there are some who seek the questionable privilege of what is practically permanent membership of Council. The necessity of a reform in the manner of electing the President is becoming more and more evident. There are five candidates for the three vacancies to be contested on July 5th, including Mr. Bryant and Mr. Cadge, who seek re-election. The five, arranged in order of seniority of Fellowship are: Mr. W. Cadge, of Norwich (F. 1848, M. 1845); Mr. T. Bryant, Gny's Hospital (F. 1853, M. 1849); Mr. J. Couper, London (F. 1861, M. 1859); Mr. T. Pickering Pick, St. George's (F. 1866, M. 1862); and Mr. A. Trehern Norton, St. Mary's (F. 1867, M. 1862). The merits of the candidates must be generally known, and the representation of different medical schools in London may safely be left to those most nearly concerned in the matter, by sentiment or by interest, two inevitable factors in any election. Of the new candidates, Mr. Couper and Mr. Pick are teachers of recognised ability, and the same may be said of Mr. Norton, an earnest advocate of reform.

TUMOUR OF THE SPINAL CORD; REMOVAL; RECOVERY.

IF it be the pleasure and privilege of knowledge and skill to put health in the place of disease, and comfort in the place of agony, it will be plain to anyone who cares to read that Dr. Gowers and Mr. Victor Horsley have enjoyed high privilege and reaped full pleasure. If it be a peculiar enjoyment to open a new way for others to like pleasures and privileges, they will have that special character to their enjoyment. It has been very generally known for some time that by an accuracy of knowledge that is only possible to a few, and a surgical talent that can embody prudence without losing inventiveness, a perfectly new surgical success has been won in England, of which we are a little timid as yet in measuring the effects. We are slow in getting used to the idea that under proper conditions of precaution many tumours of the brain may be removed *en masse* with the gain of life, and not the losing of it; and now, further, we must grant that the spinal cord, that most inaccessible and inviolable of organs, may be laid bare of part of its bony covering—man may become for the time and in part an invertebrate—in order that it may be set right, not by the gentlest of manipulations, but by the surgeon's knife. At the concluding meeting of the Royal Medical and Chirurgical Society, which was held on Tuesday, June 12th, the most important paper of this session, from Dr. Gowers and Mr. Victor Horsley, was presented, relating in such detail as the novelty and complexity of the facts demanded a unique case of the successful removal of a tumour of the spinal dura mater from within the bony canal, and the complete recovery of the patient. At a previous meeting of the Society the patient, a private gentleman, an officer in the Merchant Service, had most willingly attended to show to all who cared to see them the proofs of what had been done to him, and to express his deep gratitude for the change it had made in his life. Since 1884 he had had a nearly constant pain under his shoulder-blade, with long fits of agony that maddened him, as

some of his friends said in all seriousness, and with no hyperbole or metaphor. He might well have been glad of some last straw to break his back, and bring him to an end; but science could break his back to more profit. After due consideration and explanation, Mr. Victor Horsley laid bare the spinal column from the third to the seventh dorsal vertebra, and cut off the fourth, fifth, and sixth spinal processes with strong bone-forceps. He made his way through the laminae on both sides, and the still more obstinate ligamenta subflava, slit the dura mater up the middle line, and laid bare the spinal cord. When the opening was first made the injury had been suspected, but the tissues were healthy. That the attempt should be abandoned was counselled from some quarters, but Mr. Horsley preferred to complete his task, removed the posterior part of another superior vertebra, and there found this tumour of the dura mater compressing the cord. It could easily be shelled out of its deep bed, the wound was carefully closed and drained, and healed by first intention. Slowly the great power of nervous recovery showed itself, and the pain and paralysis disappeared. This is not easy surgery; and the many details, hints, and conclusions that find a place in Mr. Horsley's paper will need careful consideration when we receive it at length in print. It was more than a summer gathering of the Royal Medical and Chirurgical Society could do to discuss it; it must be left to take its permanent place among the forward steps of the progress of the healing art.

THE HIGH DEATH-RATE OF MANCHESTER.

IT is to be hoped that the conference which was held in Manchester on June 6th, under the auspices of the Manchester and Salford Sanitary Association, will stimulate the local public health authorities to increased efforts to reduce the high death-rate of the city. At present, as the returns of the Registrar-General show, Manchester stands in this matter at the bottom of the list of the twenty-eight large towns of England, and has a rate of mortality more than 50 per cent. in excess of that of the whole country. If the whole of England be represented by 1,000, Manchester has to be represented by 1,578. The local authorities during the last twenty years have done much to reduce the death-rate, but more has been effected in other towns. In fact, as one speaker at the conference remarked, Manchester has been left behind in the race for health. Not so very long ago the death-rate of Liverpool was 39, while that of Manchester was 26 per 1,000. Now the Liverpool death-rate is 26, and that of Manchester is 31.6 per 1,000. There are undoubtedly many circumstances existing in Manchester, many evils incidental to life in a large manufacturing town, which it is difficult to deal with, except by education and improvements in the modes of living; but there are at the same time many directions in which the sanitary authorities can work with immense advantage. The rivers in the district—the Irwell, the Irle, and the Medlock—are little better than open sewers. There is much overcrowding, not only of persons in dwellings, but of dwellings on area. The existing fever dens should be abolished, and more breathing spaces should be provided. More inspectors are wanted to detect unwholesome conditions and secure their abatement, the present number of fourteen being quite inadequate for a town of 385,000 inhabitants. And last but not least, the terrible smoke nuisance in Manchester should be earnestly attacked. The Manchester and Salford Sanitary Association have done much to secure reforms in these and other directions in the past, and have earned more than local respect. We hope that their renewed efforts will result in further benefit to the public health of the locality.

DR. METHNER, of Breslau, who held the rank of Privy Councillor, has just died at the age of 72, leaving directions in his will that his remains should be conveyed to Gotha, and there disposed of by cremation.

SCOTLAND.

THE list of names of the newly-elected Fellows of the Royal Society includes that of Mr. J. T. Bottomley, M.A., Lecturer on Natural Philosophy in the University of Glasgow. Mr. Bottomley is the author of many investigations in physical science, of which the best known are his research on the conductivity of heat by liquids, and an elaborate research on thermal radiation, published last year in the Royal Society's *Transactions*.

GLASGOW SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN.

THIS society is carrying on its operations with marked energy. During May 96 cases, involving the welfare of 127 children, were dealt with. Thirty children had been sent to industrial schools, training ships, and training homes, 28 had been placed in day schools, and 29 under the supervision of the School Board. During the month 92 children had received temporary shelter, 698 meals were given, and 31 children had been clothed.

FINAL M.B. EXAMINATIONS, GLASGOW.

THE final examinations for degrees in Medicine and Surgery at the University of Glasgow began on June 11th with the Clinical examinations at the Western Infirmary. The examinations in Operative Surgery begins on July 6th; the written examination on July 9th, and the oral on July 12th. There are in all 134 candidates.

GLASGOW HOSPITAL FOR SICK CHILDREN.

THE following appointments have been made to the new dispensary department of this institution:—*Extra Honorary Surgeons*: A. Ernest Maylard, M.B.; T. Kennedy Dalziel, M.B.; Quentin McLennan, M.B. *Extra Honorary Physicians*: Robert S. Thomson, M.B., B.Sc.; J. Lindsay Steven, M.D.; Charles Workman, M.D.

EDINBURGH UNIVERSITY: NEW ACADEMIC HALL.

THE final step towards the completion of Edinburgh University is about to be taken in the building of the new Academic Hall. As will be remembered, the hall is the gift of Mr. Wm. McEwan M.P. Dr. Rowand Anderson, architect, has now so far elaborated the plans that the building operations will shortly commence. The hall will occupy a site in close contiguity to the new medical buildings of the University, and, when completed, will probably stand unequalled among similar halls throughout the kingdom. It is to be named the McEwan Hall, after the generous donor.

THE UNIVERSITIES (SCOTLAND) BILL.—THE COMMISSION.

THE constitution of the proposed Scottish University Commission has produced much adverse criticism in Edinburgh. More especially it is felt that the Commission will be weak in representation of the medical faculty. Considering the important part which the medical faculty plays in the University policy, in three at least of the four universities, it has appeared surprising that the number of proposed experts for this department should have at first been limited to one, Sir J. Crichton Browne. The announcement of Mr. Erichsen's inclusion in the amended list has, therefore, been hailed with much satisfaction. Still it is felt that, in order to ensure justice in the consideration of the weighty issues which the rapid advance and development of medical teaching necessarily raise, the list of medical authorities ought to be extended. The nomination of the Government has been further assailed by the camp of advanced University reformers. It is fully hinted that an excellent Bill has been spoiled through the weakness of the proposed executive.

ENDOWMENT OF RESEARCH AT EDINBURGH UNIVERSITY.

A STRENUOUS effort is being made by the Committee of the Association for the Better Endowment of Edinburgh University in the direction of obtaining more funds for the encouragement of original research in the various scientific laboratories. This year the Senatus has been able to make special grants to students who have graduated with distinction, with a view to their prosecuting special studies in foreign universities. The terms of the particular endowments necessitated their allocation for travelling purposes; but it is to be hoped that money will be forthcoming which may have the effect of keeping graduates round their *alma mater*, where tradition and opportunity ought both to combine in affording stimulus towards the higher work.

IRELAND.

It is announced that Dr. Thompson, of Omagh, who was recently appointed an inspector under the Local Government Board, has resigned.

PETITION OF RIGHT.

A CURIOUS case came before Chief Baron Palles on Friday, June 8th, when Professor Pye, of Queen's College, Galway, personally appeared to claim compensation from the Crown for loss of fees consequent on the abolition of the Queen's University and the foundation of the Royal University in its place. The petitioner is Professor of Anatomy in the Queen's College, and in the course of his argument he said that by Clause 14 of the Royal University Act provision was made for compensation for the loss of any "office of profit," any "salary," etc. It seemed to him that it would be a cramped construction to say that the word "salary" did not include fees. The Lord Chief Baron reserved judgment, which he said he would give only on the facts, leaving the questions of law to be decided when the case came before the full Court.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

DR. ROBERT McDONNELL's term of office as President of this body will expire in October next, and Dr. G. H. Kidd and Dr. S. Gordon are candidates for the position. Some hot feeling has already been produced. The physicians claim that it was originally understood that the President should be alternately selected from their ranks and the ranks of the surgeons, and that Dr. Kidd, being an obstetric surgeon, seeks to succeed a surgeon. It is a pity that any misunderstanding should occur, and we hope a satisfactory arrangement will be arrived at. The Academy is considered to have been such a brilliant success that all would regret to see it in any way marred.

THE CASE OF DR. MAGNER.

THE following communication has been forwarded to the Clonakilty Guardians by the Local Government Board:—"Adverting to the resolution contained in the minutes of proceedings of the Board of Guardians of the Clonakilty Union at their meeting on the 25th ult., respecting the appointment of Dr. Magner as medical officer of the Timoleague Dispensary district, the Local Government Board desire to acquaint the Guardians that they have received the minutes of proceedings of the Timoleague Dispensary at their meeting on May 21st, and also Dr. Magner's letter on the subject, and the Board have informed the committee that as Dr. Magner declines to give an undertaking not to join in any illegal combination or conspiracy such as that for which he was convicted they therefore refuse to sanction his appointment."

SCOTCH UNIVERSITY AND COLLEGIATE BILLS.

Universities (Scotland) Bill.—The House of Lords went into Committee on this Bill on June 7th. Lord Rosebery proposed a definition of affiliation, as "such a connection between an existing University and College as shall be entered into by their mutual consent, under conditions approved by the Commissioners, or after the determination of their powers by the Scottish Universities Committee of the Privy Council." This proposal met with general approval, and was inserted. Lord Watson then inserted a definition of "College" as "an institution established on a permanent footing, for the purpose of teaching the higher branches of education, and which shall be sufficiently endowed, in the opinion of the Commissioners, and after the expiry of their powers, of the University Committee." Considerable objection was taken by Lords Camperdown, Watson, and Rosebery, to the number of the representatives of affiliated colleges on the University Court. It was thought that the representatives of the University might be swamped, and Lord Rosebery moved an amendment to leave the representation of the Colleges to the Commissioners. This, however, was lost on a division. Various other amendments were moved to increase the powers of the Court over property; to enable the Court to appoint certain committees, and to appoint certain representatives to the governing bodies of affiliated colleges, and on other small matters of detail, but most of them were postponed to the report stage. The Government amendments on the original Bill seem to have so cleared up doubtful points that but little of importance was left for discussion, and no attack was made on the general principles of the measure. After the Commissioners' names were inserted, the Bill passed through Committee, and was ordered to be reported. The Commission is to consist of Lord Kinneir (Chairman); the Dean of Faculty; the Earl of Crawford; Lord Watson; the Marquis of Bute; Dr. A. B. McGrigor; Sir Charles Dalrymple, M.P.; Mr. Craig-Sellar, M.P.; Mr. Donald Crawford, M.P.; Mr. J. A. Campbell, M.P.; Mr. Vary Campbell; and Sir James Crichton Browne.

St. Mungo's College Bill.—The Glasgow magistrates submitted to the Town Council at its last meeting a minute of date May 28th, stating that, having carefully considered this Bill and the representations made thereon by the directors of the Royal Infirmary and the Senate of the University, and having also had before them the fact that the Government have introduced a Universities Bill, applicable to all the universities of Scotland, under which provision is to be made for affiliating, incorporating with, or uniting colleges to, any of the universities, and for admitting the teaching of such colleges as qualifying for graduation in such universities, they resolved to recommend the Town Council not to take any action with reference to the St. Mungo's College Bill. The Lord Provost said this recommendation was made because it was thought the object sought might be better secured under the Universities (Scotland) Bill. It was pointed out that the St. Mungo's College was not "incorporated," and could not take advantage of the affiliating clauses of the Universities Bill, and after some discussion the council adopted the following general deliverance: "That this council is of opinion that in any measure for the better administration of the universities of Scotland provision should be made for the incorporation of institutions as colleges, with a view to being affiliated to one of the universities." The Town Clerk was instructed to forward a copy of this deliverance to the Secretary for Scotland.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

The following letter has been addressed to the Honorary Secretaries of the Association of Members of the Royal College of Surgeons by the Clerk to the Privy Council.

"Privy Council Office, Whitehall, June 7th, 1888.

"SIR,—I am instructed by the Lord President of the Council to acknowledge the receipt of your letter of May 31st, transmitting a petition addressed to Her Majesty in Council, praying that the petition of 4,665 Members of the Royal College of Surgeons, in relation to a proposed supplemental charter to that College and other papers in connection therewith, may be referred for the consideration of the Privy Council, or some members thereof, sitting in judicial capacity.

"In reply, I am instructed to inform you that the petition in

question, together with all other petitions on the subject, was referred by Her Majesty to a Committee of the Lords of the Council, and that, as no legal question was involved, their lordships did not think it necessary to hear counsel on the subject.—I am, Sir, your obedient servant,
C. L. PERL.

"W. Ashton Ellis, Esq."

The Council have transmitted the following reply:—

"To the Right Honourable the Lord President of the Privy Council.

"14, Grosvenor Road, Westminster, S.W., June 12th.

"SIR,—I am instructed by the Committee of the Association of Members of the Royal College of Surgeons of England to acknowledge the receipt of your communication of June 7th.

"I am also instructed by the said Committee to state that they desire respectfully to point out that no reply has as yet been vouchsafed to the prayer of the petition, signed by 4,665 Members of the College, and lodged at the Privy Council Office on May 3rd, 1887, praying for participation by the Members of the Royal College of Surgeons of England in the management of their College and other matters, on all of which the said Committee and the general body of Members of the said College most anxiously await your lordship's answer.—I am, Sir, your lordship's most obedient servant,
WM. ASHTON ELLIS,

"Honorary Secretary to the Association of Members of the Royal College of Surgeons of England."

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June 14th, 1888.

NOTICE OF QUARTERLY MEETINGS FOR 1888.

ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, will shortly be published in the JOURNAL.

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The next meeting of this Branch will be held at the Braes of Gight on Wednesday, June 20th, at 1.45 P.M., the President, Dr. Smith, of Kinnairdy, in the chair. Business: 1. Minutes, nomination of new members. 2. Ballot for the admission of Dr. Jenkyns, Belize, British Honduras; Dr. W. L. Mackenzie, Royal Infirmary; Dr. W. R. C. Midleton, Royal Infirmary; Dr. Rannie, Peterculter; Dr. J. Scott Riddell, 7, Ferryhill Place; Dr. A. M. Will, Royal Infirmary. 3. Notes on Gight and its Castle, by Dr. Alexander Cruikshank, Aberdeen. An omnibus excursion to the Braes of Gight, through the grounds of Haddon House, has been arranged for those who can meet at Old Meldrum at 11.30 A.M. A train leaves Aberdeen at 10.20 A.M. and arrives at Old Meldrum at 11.30 A.M., where carriages will be in waiting. Dinner (inclusive of attendance but exclusive of wine) in a marquee at the Braes of Gight at 5s. per head. Arrangements have been made for members from Buchan to drive from Mand Junction (11.15 A.M.), and for those from Banff from Fyvie (1.15 P.M.) to the Braes of Gight, in time for the meeting and dinner, and returning to catch later down trains. Members from the north will meet the party at Inverurie at 10.50, those from the south and Deeside at Aberdeen at 10.20. A train leaves Old Meldrum at 5.25 P.M., arriving in Aberdeen at 6.40 P.M. Members are invited to bring medical friends.—**ROBERT JOHN GARDEN** and **J. MACKENZIE BOOTH**, Honorary Secretaries.

BORDER COUNTIES BRANCH.—The twenty-first annual meeting of this Branch will be held at Penrith on Friday, July 13th. The chair will be taken by Dr. MacLeod at 1.30 P.M. The usual election of office bearers for the year will be held. Dr. Robertson, Penrith, will deliver his presidential address. Intimations of papers for reading or communications of any kind should be sent to the Secretary as soon as possible.—**H. A. LEDIARD**, 41, Lowther Street, Carlisle, Honorary Secretary.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.—The annual meeting of this Branch is appointed to be held at Ely on Friday, July 6th. Members wishing to make communications, to exhibit specimens, or to propose new members are requested to signify their intention to Dr. Anningson, Cambridge, for insertion in the order of proceedings.—**BUSHELL ANNINGSON**, Honorary Secretary.

GLOUCESTERSHIRE, WORCESTERSHIRE, AND HEREFORDSHIRE BRANCHES.—The conjoint meeting of these Branches will be held, under the presidency of Dr. Currie, at the Bell Hotel, Gloucester, on Tuesday, June 13th, when Dr. J. Hughlings Jackson will deliver an address on "The Diagnosis of Brain Disease." The meetings will be at 4, and dinner at 6 P.M.—**G. ARTHUR CARDEW**, G. W. CROWE, Honorary Secretaries, Cheltenham.

METROPOLITAN COUNTIES BRANCH.—The thirty-sixth annual meeting of this Branch will be held at the Holborn Restaurant on Wednesday, June 27th, 1888, at 5.30 P.M. President, Arthur E. Durham, Esq., F.R.C.S.; President-elect, C. Brodie Sewell, M.D. An address will be given by the new President. At 7 P.M. precisely the members will dine together; C. Brodie Sewell, Esq., M.D., President, in the chair; tickets, 7s. 6d. each, exclusive of wine.—**GEORGE EASTES**, M.B., 69, Connaught Street, W.; **E. NOBLE SMITH**, F.R.C.S., 24, Queen Anne Street, W., Honorary Secretaries.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Wednesday, July 11th, at 4 P.M. Gentlemen who desire to read papers or to bring any other business before the meeting will kindly communicate as early as possible with the Secretary, **JOHN W. BYERS**, M.D., Lower Crescent, Belfast.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Library of the Royal Berkshire Hospital, Reading, on Wednesday, July 11th, at 4.15 P.M. The chair will be taken by the President (Dr. C. H. Tench), who will introduce the President for the coming year (W. B. Holderness, Esq., of Windsor), who will then take the chair. Members willing to read short papers or bring forward cases of clinical interest are requested to communicate with the Honorary Secretary without delay. The annual dinner will take place on the same evening at 6.15 P.M., at the Queen's Hotel, Reading. Dinner tickets (5s. without wine, or 10s. including wine) should be obtained from the Honorary Secretary on or before Saturday, July 7th.—**H. HEXGATE PHILLIPS**, 43A, London Road, Reading, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at the Devon and Exeter Hospital, Exeter, on Tuesday, June 26th, under the presidency of Dr. John Woodman, F.R.C.S. Notices of motion or communications to be intimated to the Honorary Secretary without delay, and it will facilitate arrangements if members will inform the Honorary Secretary as soon as possible if they hope to be present at the meeting. The following motion was passed at the Council Meeting on May 2nd:—"That inasmuch as the annual meeting assumes more or less the character of a day of recreation, and with a view of encouraging the district meetings, the business of

the annual meeting shall be confined to the President's address, the business of the Branch, the exhibition of cases or of specimens with notes, and the annual dinner."—**P. MAURY DEAR**, Wouford House, Exeter, Honorary Secretary.

SOUTH WALES AND MONMOUTH BRANCH.—The eighteenth annual meeting of this Branch will be held at the Infirmary, Cardiff, on Wednesday, June 27th. Further particulars in circulars. Members wishing to read papers, etc., are requested to send titles to Dr. Sheen.—**A. SHEEN**, M.D., Cardiff, **D. ARTHUR DAVIES**, M.B., Swansea, Honorary Secretaries.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Squirrel Hotel, Wellington, on Thursday, June 28th, at 4 o'clock. **Abraham Colles**, Esq., M.D., President-elect, will take the chair on ita being vacated by **Edward Stephens**, Esq. The dinner will be at 6 o'clock. Members desirous of reading a paper or making a communication to the meeting are requested to give early notice to the Honorary Secretary; they are also requested to give early notice of their intention of attending the annual dinner.—**W. M. KELLY**, M.D., Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of the Yorkshire Branch will be held in the Museum of the Yorkshire Philosophical Society at York on Wednesday, June 27th, when the representatives of the Branch on the General Council and the officers for the ensuing year will be elected. Members intending to read papers and show specimens, are requested to communicate at once with **ARTHUR JACKSON**, Secretary, Sheffield.

EAST YORK AND NORTH LINCOLN BRANCH.

The thirty-second annual meeting was held on May 30th. There were thirty-eight gentlemen present.

Report of Council.—The retiring President, **Mr. THOMPSON**, having resigned the chair to his successor, **Dr. FRANK NICHOLSON**, and the minutes having been read, the SECRETARY read a brief report of the Council, and **Mr. DIX**, the representative of the Branch, made a statement.

Election of Council, 1888-89.—President: **J. N. Nicholson**, M.D. President-Elect: **J. Merson**, M.D. Ex-President: **H. Thompson**. Vice-Presidents: **E. O. Daly**, M.D.; **E. H. Howlett**. Secretary and Treasurer: **E. P. Hardey**. Representative of the Branch: **J. DIX**. Representative on the Parliamentary Bills Committee: **R. H. B. Nicholson**. Council: **W. C. Appleton**; **T. M. Evans**; **G. F. Elliott**, M.D.; **M. D. Macleod**, M.B.; **D. Lawson**, M.D.; **H. W. Pigeon**, M.B.; **J. A. Locking**; **C. H. Milburn**, M.D.

Appointment of Medical Officers of Health.—**Mr. ROBERT H. BOURCHIER NICHOLSON** proposed the following resolution: "That the interests of the public would be best served by the appointment of medical officers being entirely vested in the County Councils, instead of the District Councils, as arranged in the Local Government Bill." This was supported by **Dr. MACLEOD**, and opposed by **Mr. APPLETON**, **Mr. KEETLEY**, and **Mr. DIX**. On a vote being taken, **Mr. Nicholson's** resolution was carried.

New Members.—**Dr. Morley**, of Barton, and **Mr. Williams**, of Hull, were elected.

Grants of Money.—Grants of £2 2s. were voted to the Medical Benevolent Fund and to the Royal Medical Benevolent College.

Papers and Cases.—A child with a large mixed nœvus on the shoulder was exhibited by **Mr. EVANS**.—**Dr. PIGEON** gave a demonstration of the method of applying flannel and plaster-of-Paris splints, and spoke of their advantages.—**Mr. EVANS** read the notes of two cases of tumour of the bladder. In the first, a papillomatous growth was removed by suprapubic operation; the patient was shown. In the second, external urethrotomy was performed to explore the bladder, when a broad-based malignant growth was discovered; rigors and high temperature followed, and the patient died on the fourteenth day. One kidney was disorganised and the bladder ulcerated.—**Mr. R. H. BOURCHIER NICHOLSON** read the notes of a case of removal of the whole of the interior of the os calcis. **Mr. Nicholson** also read notes of two cases of removal of calculi from the kidney, and showed the calculi removed. He also exhibited calculi removed *post mortem* from two other cases.—**Dr. EDWARD DALY** read a paper on the hypodermic injection of morphine.

Head Injury.—**Mr. TOMALIN** exhibited a patient who had been run over by a furniture van. His frontal bone was dislocated at the suture, and was lying on the right cheek, the orbital plate being jammed into the brain. The orbital plate was removed, and a free drain was established from the frontal sinus down the nose, and the parts replaced. He had opium every four hours, and recovered without a bad symptom.

Surgical Instruments.—Surgical instruments were exhibited by **Messrs. Wood**, of York, and **Messrs. Lynch**, of London.

Dinner.—In the evening the members dined at the Victoria Hotel. The President was cordially congratulated on his recovery from his recent severe illness.

SCOTCH UNIVERSITY AND COLLEGIATE BILLS.

Universities (Scotland) Bill.—The House of Lords went into Committee on this Bill on June 7th. Lord Rosebery proposed a definition of affiliation, as "such a connection between an existing University and College as shall be entered into by their mutual consent, under conditions approved by the Commissioners, or after the determination of their powers by the Scottish Universities Committee of the Privy Council." This proposal met with general approval, and was inserted. Lord Watson then inserted a definition of "College" as "an institution established on a permanent footing, for the purpose of teaching the higher branches of education, and which shall be sufficiently endowed, in the opinion of the Commissioners, and after the expiry of their powers, of the University Committee." Considerable objection was taken by Lords Camperdown, Watson, and Rosebery, to the number of the representatives of affiliated colleges on the University Court. It was thought that the representatives of the University might be swamped, and Lord Rosebery moved an amendment to leave the representation of the Colleges to the Commissioners. This, however, was lost on a division. Various other amendments were moved to increase the powers of the Court over property; to enable the Court to appoint certain committees, and to appoint certain representatives to the governing bodies of affiliated colleges, and on other small matters of detail, but most of them were postponed to the report stage. The Government amendments on the original Bill seem to have so cleared up doubtful points that but little of importance was left for discussion, and no attack was made on the general principles of the measure. After the Commissioners' names were inserted, the Bill passed through Committee, and was ordered to be reported. The Commission is to consist of Lord Kinnear (Chairman); the Dean of Faculty; the Earl of Crawford; Lord Watson; the Marquis of Bute; Dr. A. B. McGrigor; Sir Charles Dalrymple, M.P.; Mr. Craig-Sellar, M.P.; Mr. Donald Crawford, M.P.; Mr. J. A. Campbell, M.P.; Mr. Vary Campbell; and Sir James Crichton Browne.

St. Mungo's College Bill.—The Glasgow magistrates submitted to the Town Council at its last meeting a minute of date May 28th, stating that, having carefully considered this Bill and the representations made thereon by the directors of the Royal Infirmary and the Senate of the University, and having also had before them the fact that the Government have introduced a Universities Bill, applicable to all the universities of Scotland, under which provision is to be made for affiliating, incorporating with, or uniting colleges to, any of the universities, and for admitting the teaching of such colleges as qualifying for graduation in such universities, they resolved to recommend the Town Council not to take any action with reference to the St. Mungo's College Bill. The Lord Provost said this recommendation was made because it was thought the object sought might be better secured under the Universities (Scotland) Bill. It was pointed out that the St. Mungo's College was not "incorporated," and could not take advantage of the affiliating clauses of the Universities Bill, and after some discussion the council adopted the following general deliverance: "That this council is of opinion that in any measure for the better administration of the universities of Scotland provision should be made for the incorporation of institutions as colleges, with a view to being affiliated to one of the universities." The Town Clerk was instructed to forward a copy of this deliverance to the Secretary for Scotland.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

The following letter has been addressed to the Honorary Secretaries of the Association of Members of the Royal College of Surgeons by the Clerk to the Privy Council.

"Privy Council Office, Whitehall, June 7th, 1888.

"SIR,—I am instructed by the Lord President of the Council to acknowledge the receipt of your letter of May 31st, transmitting a petition addressed to Her Majesty in Council, praying that the petition of 4,665 Members of the Royal College of Surgeons, in relation to a proposed supplemental charter to that College and other papers in connection therewith, may be referred for the consideration of the Privy Council, or some members thereof, sitting in judicial capacity.

"In reply, I am instructed to inform you that the petition in

question, together with all other petitions on the subject, was referred by Her Majesty to a Committee of the Lords of the Council, and that, as no legal question was involved, their lordships did not think it necessary to hear counsel on the subject.—
I am, Sir, your obedient servant,
C. L. PERL.

"W. Ashton Ellis, Esq."

The Council have transmitted the following reply:—

"To the Right Honourable the Lord President of the Privy Council.

"14, Grosvenor Road, Westminster, S.W., June 12th.

"SIR,—I am instructed by the Committee of the Association of Members of the Royal College of Surgeons of England to acknowledge the receipt of your communication of June 7th.

"I am also instructed by the said Committee to state that they desire respectfully to point out that no reply has as yet been vouchsafed to the prayer of the petition, signed by 4,665 Members of the College, and lodged at the Privy Council Office on May 3rd, 1887, praying for participation by the Members of the Royal College of Surgeons of England in the management of their College and other matters, on all of which the said Committee and the general body of Members of the said College most anxiously await your lordship's answer.—I am, Sir, your lordship's most obedient servant,
WM. ASHTON ELLIS,

"Honorary Secretary to the Association of Members of the Royal College of Surgeons of England."

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June 14th, 1888.

NOTICE OF QUARTERLY MEETINGS FOR 1888. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

THE Report upon the CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE, which was presented to the Section of Medicine in the Annual Meeting of 1887, will shortly be published in the JOURNAL.

June 16, 1888.]

Reports upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The next meeting of this Branch will be held at the Braes of Gight on Wednesday, June 20th, at 1.45 P.M. The President, Dr. Smith, of Kinnairdy, in the chair. Business: 1. Minutes, nomination of new members. 2. Ballot for the admission of Dr. Jenkyns, Belize, British Honduras; Dr. W. L. Mackenzie, Royal Infirmary; Dr. W. R. C. Middleton, Royal Infirmary; Dr. Hannie, Peterculter; Dr. J. Scott Riddell, 7, Ferryhill Place; Dr. A. M. Will, Royal Infirmary. 3. Notes on Gight and its Castle, by Dr. Alexander Cruikshank, Aberdeen. An omnibus excursion to the Braes of Gight, through the grounds of Haddon House, has been arranged for those who can meet at Old Meldrum at 11.30 A.M., where carriages will be in 10.20 A.M. and arrives at Old Meldrum at 11.30 A.M., where carriages will be waiting. Dinner (inclusive of attendance but exclusive of wine) in a marquee at the Braes of Gight at 5s. per head. Arrangements have been made for members from Buehan to drive from Maud Junction (11.15 A.M.), and for those from Banff from Fyvie (1.15 P.M.) to the Braes of Gight, in time for the meeting and dinner, and returning to catch later down trains. Members from the north will meet the party at Inverurie at 10.50, those from the south and Deeside at Aberdeen at 10.20. A train leaves Old Meldrum at 5.25 P.M., arriving in Aberdeen at 6.40 P.M. Members are invited to bring medical friends.—ROBERT JOHN GARDEN and J. MACKENZIE BOOTH, Honorary Secretaries.

BORDER COUNTIES BRANCH.—The twenty-first annual meeting of this Branch will be held at Penrith on Friday, July 13th. The chair will be taken by Dr. McLeod at 1.30 P.M. The usual election of office bearers for the year will be held. Dr. Robertson, Penrith, will deliver his presidential address. Intimations of papers for reading or communications of any kind should be sent to the Secretary as soon as possible.—H. A. LEDIARD, 41, Lowther Street, Carlisle, Honorary Secretary.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.—The annual meeting of this Branch is appointed to be held at Ely on Friday, July 6th. Members wishing to make communications, to exhibit specimens, or to propose new members are requested to signify their intention to Dr. Annington, Cambridge, for insertion in the order of proceedings.—BUSHELL ANNINGSOX, Honorary Secretary.

GLOUCESTERSHIRE, WORCESTERSHIRE, AND HEREFORDSHIRE BRANCHES.—The conjoint meeting of these Branches will be held, under the presidency of Dr. Currie, at the Bell Hotel, Gloucester, on Tuesday, June 19th, when Dr. J. Hinglins Jackson will deliver an address on "The Diagnosis of Brain Disease." The meeting will be at 4, and dinner at 6 P.M.—G. ARTHUR CARDEW, G. W. CROWE, Honorary Secretaries, Cheltenham.

METROPOLITAN COUNTIES BRANCH.—The thirty-sixth annual meeting of this Branch will be held at the Holborn Restaurant on Wednesday, June 27th, 1888, at 5.30 P.M. President, Arthur E. Durham, Esq., F.R.C.S.; President-elect, C. Brodie Sewell, M.D. An address will be given by the new President. At 7 P.M. precisely the members will dine together; C. Brodie Sewell, Esq., M.D., President, in the chair; tickets, 7s. 6d. each, exclusive of wine.—GEORGE EASTES, M.B., 68, Connaught Street, W.; E. NOBLE SMITH, F.R.C.S., 24, Queen Anne Street, W., Honorary Secretaries.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Wednesday, July 11th, at 4 P.M. Gentlemen who desire to read papers or to bring any other business before the meeting will kindly communicate as early as possible with the Secretary, JOHN W. BYERS, M.D., Lower Crescent, Belfast.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Library of the Royal Berkshire Hospital, Reading, on Wednesday, July 11th, at 4.15 P.M. The chair will be taken by the President (Dr. C. H. Tench), who will introduce the President for the coming year (W. B. Holderness, Esq., of Windsor), who will then take the chair. Members willing to read short papers or bring forward cases of clinical interest are requested to communicate with the Honorary Secretary without delay. The annual dinner will take place on the same evening at 6.15 P.M., at the Queen's Hotel, Reading. Dinner tickets (5s. without wine, or 10s. including wine) should be obtained from the Honorary Secretary on or before Saturday, July 7th.—H. HEXGATE PHILLIPS, 43A, London Road, Reading, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at the Devon and Exeter Hospital, Exeter, on Tuesday, June 26th, under the presidency of Dr. John Woodman, F.R.C.S. Notices of motion or communications to be intimated to the Honorary Secretary without delay, and it will facilitate arrangements if members will inform the Honorary Secretary as soon as possible if they hope to be present at the meeting. The following motion was passed at the Council Meeting on May 2nd:—"That inasmuch as the annual meeting assumes more or less the character of a day of recreation, and with a view of encouraging the district meetings, the business of

the annual meeting shall be confined to the President's address, the business of the Branch, the exhibition of cases or of specimens with notes, and the annual dinner."—P. MAUBY DEAS, Wouford House, Exeter, Honorary Secretary.

SOUTH WALES AND MONMOUTH BRANCH.—The eighteenth annual meeting of this Branch will be held at the Infirmary, Cardiff, on Wednesday, June 27th. Further particulars in circulars. Members wishing to read papers, etc., are requested to send titles to Dr. Sheen.—A. SHEEN, M.D., Cardiff, D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Squirrel Hotel, Wellington, on Thursday, June 28th, at 4 o'clock. Abraham Colles, Esq., M.D., President-elect, will take the chair on its being vacated by Edward Stephens, Esq. The dinner will be at 6 o'clock. Members desirous of reading a paper or making a communication to the meeting are requested to give early notice to the Honorary Secretary; they are also requested to give early notice of their intention of attending the annual dinner.—W. M. KELLY, M.D., Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of the Yorkshire Branch will be held in the Museum of the Yorkshire Philosophical Society at York on Wednesday, June 27th, when the representatives of the Branch on the General Council and the officers for the ensuing year will be elected. Members intending to read papers and show specimens, are requested to communicate at once with ARTHUR JACKSON, Secretary, Sheffield.

EAST YORK AND NORTH LINCOLN BRANCH.

The thirty-second annual meeting was held on May 30th. There were thirty-eight gentlemen present.

Report of Council.—The retiring President, Mr. THOMPSON, having resigned the chair to his successor, Dr. FRANK NICHOLSON, and the minutes having been read, the SECRETARY read a brief report of the Council, and Mr. DIX, the representative of the Branch, made a statement.

Election of Council, 1888-89.—President: J. N. Nicholson, M.D. President-Elect: J. Merson, M.D. Ex-President: H. Thompson. Vice-Presidents: E. O. Daly, M.D.; E. H. Howlett. Secretary and Treasurer: E. P. Hardey. Representative of the Branch: J. H. B. Representative on the Parliamentary Bills Committee: R. H. B. Nicholson. Council: W. C. Appleton; T. M. Evans; G. F. Elliott, M.D.; M. D. Macleod, M.B.; D. Lawson, M.D.; H. W. Pigeon, M.B.; J. A. Locking; C. H. Milburn, M.D.

Appointment of Medical Officers of Health.—Mr. ROBERT H. BOURCHIER NICHOLSON proposed the following resolution: "That the interests of the public would be best served by the appointment of medical officers being entirely vested in the County Councils, instead of the District Councils, as arranged in the Local Government Bill." This was supported by Dr. MACLEOD, and opposed by Mr. APPLETON, Mr. KEETLEY, and Mr. DIX. On a vote being taken, Mr. Nicholson's resolution was carried.

New Members.—Dr. Morley, of Barton, and Mr. Williams, of Hull, were elected.

Grants of Money.—Grants of £2 2s. were voted to the Medical Benevolent Fund and to the Royal Medical Benevolent College.

Papers and Cases.—A child with a large mixed nevus on the shoulder was exhibited by Mr. EVANS.—Dr. PIGEON gave a demonstration of the method of applying flannel and plaster-of-Paris splints, and spoke of their advantages.—Mr. EVANS read the notes of two cases of tumour of the bladder. In the first, a papillomatous growth was removed by suprapubic operation; the patient to explore the bladder, when a broad-based malignant growth was discovered; rigors and high temperature followed, and the patient died on the fourteenth day. One kidney was disorganised and the bladder ulcerated.—Mr. R. H. BOURCHIER NICHOLSON read the notes of a case of removal of the whole of the interior of the os calcis. Mr. Nicholson also read notes of two cases of removal of calculi from the kidney, and showed the calculi removed. He also exhibited calculi removed *post mortem* from two other cases.—Dr. EDWARD DALY read a paper on the hypodermic injection of morphine.

Head Injury.—Mr. TOMALIN exhibited a patient who had been run over by a furniture van. His frontal bone was dislocated at the suture, and was lying on the right cheek, the orbital plate being jammed into the brain. The orbital plate was removed, and a free drain was established from the frontal sinus down the nose, and the parts replaced. He had opium every four hours, and recovered without a bad symptom.

Surgical Instruments.—Surgical instruments were exhibited by Messrs. Wood, of York, and Messrs. Lynch, of London.

Dinner.—In the evening the members dined at the Victoria Hotel. The President was cordially congratulated on his recovery from his recent severe illness.

METROPOLITAN COUNTIES BRANCH; WESTERN DISTRICT.

THE last meeting of the District for the present season was held at the St. Marylebone Infirmary, Notting Hill, on Tuesday, June 5th. In the absence of the Vice-President, Dr. SINCLAIR THOMSON was voted to the chair. Nineteen members and visitors were present.

The minutes of the preceding meeting were read and confirmed.

Treatment of Eye Affections.—Mr. HENRY POWER read a paper on some points in the treatment of injuries and diseases of the eye, in the course of which he drew attention to the value of eserine and atropine respectively in cases of cuts of the cornea near the centre and near the periphery, prior to any attempt being made to reduce prolapsed iris. He also dwelt upon the great importance, in many cases of wounds of the eye, of applying a pad and bandage to both eyes instead of to one. Various cases were adduced in which, by the adoption of the principle of complete rest to both eyes, dangerous wounds of the ciliary region had completely recovered. Some remarks were also made on the treatment of cuts of the lids and of burns with lime.—A discussion took place, in which Dr. SINCLAIR THOMSON, Mr. LAMB, and Mr. LUNN took part, and Mr. POWER replied.

Cases.—Mr. LUNN then exhibited an interesting group of male and female patients, to the number of twenty-three, including five cases of locomotor ataxy, two cases of glaucoma, as well as various examples of iritis and cataract. Three most interesting cases of myxœdema, a case of osteitis deformans, a case of ichthyosis of the tongue, one of popliteal aneurysm (cured), as well as examples of lateral and disseminated sclerosis, were among the diseases brought before the meeting.

Re-election of Officers.—The present officers of the District were then unanimously re-elected, and the proceedings closed by a hearty vote of thanks to Mr. Power, Mr. Lunn, and the Chairman.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at the Museum and Library, Bristol, on Wednesday, May 30th, G. F. BURDER, M.D., President, in the chair. There were also present forty-six members and two visitors.

New Members.—The following gentlemen were elected: J. L. Livingston, M.A., M.D., M.Ch. R.U.I., Bristol; W. N. Nevill, M.B., B.Ch.T.C.D., Bristol; F. Woods, M.R.C.S., L.R.C.P., Bath; C. E. F. M. Biggs, M.R.C.S., Malmesbury; F. E. Pearce, M.D., Frome.

Joint Meeting.—An invitation from the Gloucestershire Branch to a joint meeting at Gloucester with the Worcestershire and Herefordshire Branches was cordially accepted.

Lunacy Acts Amendment Bill.—After a prolonged discussion this subject was referred to a subcommittee consisting of Drs. Harrison, Bonville Fox, Marshall, Shaw, and Mr. Scott, with power to take such steps as they might think fit.

Cases.—Dr. F. ST. JOHN KEMM exhibited a case of Graves's Disease successfully treated with strophanthus.—Dr. J. MICHELL CLARKE exhibited two cases of Pseudo-hypertrophic Paralysis, upon which Drs. WIGAN and MARKHAM SKERRITT made some observations.—Mr. W. J. PENNY exhibited four cases of "Bone-setting," which Mr. Cross commented upon.

Papers.—Mr. C. F. PICKERING read a paper on the Treatment of Discharge from the Ear, which was discussed by Mr. HARSANT, Dr. SWAYNE, and Mr. EWENS.—Dr. J. G. SWAYNE read a paper on The Hour of Delivery. Drs. BEDDOE, AUST LAWRENCE, WAUGH, HINTON, DUNCAN, and the PRESIDENT joined in the discussion which followed.—Dr. H. WALDO read a paper on Embolic Hemiplegia.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

THE fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc.(Hon.), F.K.Q.C.P.I., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate.

An Address in Medicine will be delivered by Thomas Clifford

Allbutt, M.D., F.R.S., Consulting Physician, Leeds General Infirmary. An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

An Address on his "Recent Investigations in Surgery" will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

All the rooms required for the purposes of the meeting will, by the kindness of the authorities, be provided in the University of Glasgow.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

9.30 A.M.—Meeting of 1887-1888 Council. Randolph Hall.

11.30 A.M.—First General Meeting, Report of Council. Reports of Committees. Bute Hall.

4 P.M.—Service in the Cathedral. Sermon by the Very Rev. John Caird, D.D., LL.D., Principal and Vice-Chancellor of the University of Glasgow.

8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address. Bute Hall.

WEDNESDAY, AUGUST 8TH, 1888.

9.30 A.M.—Meeting of 1888-89 Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Second General Meeting. Address in Medicine by Thomas Chifford Allbutt, M.D., F.R.S. Bute Hall.

9 P.M.—*Conversazione* given by the Professors of the University.

THURSDAY, AUGUST 9TH, 1888.

9.30 A.M.—Address on his Recent Surgical Investigations by William Macewen, M.D. Bute Hall.

11 A.M.—Meeting of Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Third General Meeting. Address in Surgery by Sir George H. B. Macleod, M.D. Bute Hall.

7 P.M.—Public Dinner. St. Andrew's Hall.

FRIDAY, AUGUST 10TH, 1888.

10.30 A.M. to 1.30 P.M.—Sectional Meetings.

3 P.M.—Concluding General Meeting. Address in Physiology by John G. McKendrick, M.D., F.R.S. Philosophy Class-room.

9 P.M.—*Conversazione* given by the Corporation of Glasgow at St. Andrew's Hall.

Garden Party given by the Faculty of Physicians and Surgeons at the Botanic Gardens.

SATURDAY, AUGUST 11TH, 1888.

Excursions.

The following discussions and papers are promised up to the present time.

SECTION A.—MEDICINE.

Humanity Class Room.

A. MEDICINE.—*President,* Professor T. McCall Anderson, M.D. *Vice-Presidents,* R. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries,* J. McGregor Robertson, M.A., M.B., 400, Great Western Road, Glasgow; Robert M. Simon, M.D., 27, Newhall Street, Birmingham.

The President will open the proceedings by introducing a discussion on the Diagnosis and Treatment of Syphilitic Disease of the Nervous System. Dr. Thomas Buzzard, Dr. T. S. Clouston, Dr. William Moore, Dr. Ross, Professor Grainger Stewart, Professor Julius Dreschfeld, Dr. J. G. Sinclair Coghill, Dr. Francis Warner, Dr. Frederick Bateman, and Dr. C. W. Suckling will take part in the discussion.

On the third day of the sectional proceedings, the Value of Inhalations in the Treatment of Lung Disease is set down for discussion, to be opened by Dr. C. Theodore Williams. The following gentlemen have already indicated their intention to engage in this discussion: Dr. Burney Yeo, Dr. W. W. Ireland, Dr. C. F. Knight, Dr. J. A. Lindsay, Dr. J. G. Sinclair Coghill, and Dr. E. Markham Skerritt.

Drs. Byrom Bramwell and Milne Murray will give a demonstration of their Method of Graphically Recording the Exact Time Relations of Cardiac Sounds and Murmurs.

The following papers have been promised.

COGHILL, J. G. S., M.D., Ventnor. The Treatment of Phtisical Pyrexia.

FINLAY, David W., B.A., M.D. Bronchiectasis treated by Incision and Drainage.

FREW, W., M.D., Kilmarnock. Prevalence of Cerebro-spinal Fever in Scotland.

GREENE, G. E. F., L.K.Q.C.P. A Note on a Recent Epidemic of Erysipelas.

MYRTLE, A. S., M.D., Harrogate. Nourasthenia, True and False: Diagnosis and Management.

STRAHAN, John, M.D. (*Title not received.*)

SUCKLING, C. W., M.D. (*Title not received.*)

TOMORY, J. K., M.B. East African Fever, with special reference to Climatic Conditions.

WARNER, Francis, M.D. 1. Methods of Studying and Examining the Nerve System. 2. Imbecility in Children from Chronic Meningitis.

Sir W. Roberts, Dr. Lauder Brunton, Dr. Russell Reynolds, Dr.

F. W. Pavy have also intimated their intention to take part in the proceedings of the Section.

SECTION B.—SURGERY.
Chemistry Class Room.

B. SURGERY.—*President*, George Buchanan, M.D. *Vice-Presidents*, James Dunlop, M.D.; Charles Robert Bell Kettle, F.R.C.S. *Honorary Secretaries*, David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pyc, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

As already announced, in this Section discussions have been arranged for on the following subjects:

1. The Surgical Treatment of Abscess of the Lung and of Empyema. To be introduced and supported by Mr. T. Pridgin Teale (Leeds), Sir Spencer Wells (London), Mr. A. Pearce Gould (London), Mr. R. J. Godlee (London), and Mr. W. Thomas (Birmingham).

2. The Operative Treatment of Club-Foot. To be introduced and supported by Sir William Stokes (Dublin), Mr. E. Lund (Manchester), Dr. Alexander Ogston (Aberdeen), Mr. R. W. Parker (London), Mr. E. M. Little (London), Mr. John Chiene (Edinburgh), Mr. W. J. Walsham (London), and others.

Noble Smith, Esq., will give a demonstration of the Reduction of Fractured Vertebrae.

The following papers have also been promised.

BENTON, Samuel, Esq., London. On the Treatment of Stricture of the Rectum by Electrolysis.

CLARK, Sir Andrew, London. The History of a Case of Catheter Fever.

CLARKE, W. Bruce, Esq., London. (*Title not received.*)

FRYCK, E. Hurry, Esq., London. Notes from the Experience of 450 Cases of Organic Stricture of the Urethra.

FLEMING, W. J., M.D., Glasgow. 1. On Continuous Extension in Spinal Curvature. 2. On the Treatment of Perineal Fistula.

HARRISON, Reginald, Esq., Liverpool. On an Improvement in the Construction of Ships' Berths, relative to the Treatment of some Surgical Injuries and Diseases at Sea (with models).

KETLEY, C. B., Esq., London. Plastic Amputations of the Foot.

MCINTYRE, John, Esq., Glasgow. The Electric Illumination of the Cavities of the Body.

OWEN, Edmund, Esq., London. A Case of Intra-cranial (Subdural) Hemorrhage; Localisation; Trephining; Recovery.

RAKE, Beaven, M.D., Trinidad. The Value of Nerve Stretching in Leprosy, based on One Hundred Cases.

ROTH, Bernard, Esq., London. On Scoliosis, or an Accurate Method of Recording Cases of Lateral Curvature of the Spine.

SILCOCK, A. Quarry, Esq., London. On Excision of Enlarged Bursa in the Popliteal Space.

STOKES, Sir William, Dublin. Modification of Grigg's Amputation; and will show Casts of Stumps.

SECTION C.—OBSTETRIC MEDICINE.
Medical Jurisprudence Class Room.

C. OBSTETRIC MEDICINE.—*President*, Thomas More Madden, M.D. *Vice-Presidents*, William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries*, William Walter, M.D., 20, St. John Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

The following two special discussions will take place:—

1. On Intra-uterine Death; its Pathology and Preventive Treatment. To be opened by Professor Simpson. The following gentlemen will take part in the discussion:—Drs. R. Barnes, Graily Hewitt, More Madden, W. D. Priestley.

2. On Obstructive Dysmenorrhoea and Sterility. To be opened by Dr. Halliday Croom. The following gentlemen will take part in the discussion:—Drs. Aveling, Bantock, F. Barnes, R. Barnes, Cranny, Duke, Edis, Graily Hewitt, Macan, More Madden, Professor Stephenson, J. W. Taylor, W. Walter.

Dr. Samuel Sloan (Glasgow) will show his Antero-posterior Compression Forceps, and will explain their use in Flat Pelvis.

Wm. Walter, M.D., Manchester, will exhibit his instruments for Securing the Broad Ligaments during Extirpation of the Uterus per Vaginam.

The following papers are promised.

CAMERON, Murdoch, M.D., Glasgow. 1. On Caesarean Section, with Notes of a Successful Case. 2. On the Thermostatic Nurse, with Cases.

DUKE, A., M.D., Dublin. On the Rapid Expansion of the Cervical Canal by a New Method.

HART, D. Berry, M.D., Edinburgh. Successful Case [of Caesarean Section (Porro's modification)].

IMLACH, Francis, M.D., Liverpool. The Function of Anemia in Gynaecology.

MADDEN, More, M.D., Dublin. On the Causes and Treatment of Dyspareunia.

STEPHENSON, William, M.D., Aberdeen. On the Influence of Permanganate of Potass on Menstruation.

TAIT, Lawson, Esq., Birmingham. The Treatment of Uterine Myoma.

SECTION D.—PUBLIC MEDICINE.
Greek Class Room.

D. PUBLIC MEDICINE.—*President*, Henry Duncan Littlejohn,

M.D. *Vice-Presidents*, James Christie, M.D.; D. Page, M.D. *Honorary Secretaries*, Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

1. Sanitary Legislation. This discussion will be introduced by the Opening Address of the President of the Section.

2. The Communicable Diseases Common to Man and Animals, and their Relationships. Discussion to be opened on the second day of the sectional meetings by George Fleming, LL.D., F.R.C.V.S., Chief of the Veterinary Department of the Army.

3. The Disposal of Sewage (a) in Large Towns; (b) in Small Towns and Country Districts. Discussion will be opened on the third day by Dr. James B. Russell, Medical Officer of Health, Glasgow.

The following papers are promised.

DRYSDALE, Charles R., M.D. 1. On Indigence as a Main Cause of High Death-rates. 2. The Berlin and Parisian Sewage Farms.

HIME, T. W., M.B. Milk Scarlet Fever.

KERR, Norman, M.D. Some Risks of Sanitation.

NASMYTH, T. G., F.R.S. A Report on the Chemical and Biological Conditions of the Air of Coal Mines, together with Mortality Statistics of a Mining District, being a report to the Scientific Grants Committee of the British Medical Association.

SIMPSON, —, M.D., Medical Officer of Health, Calcutta. On Cholera and its Fostering Conditions in the Endemic Area.

SUTHERLAND, J. Francis, M.D. National Sanatoria.

SECTION E.—PSYCHOLOGY.
Hebrew Class Room.

E. PSYCHOLOGY.—*President*, James C. Howden, M.D. *Vice-Presidents*, James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries*, A. R. Urquhart, M.D., Murray House, Perth; Alex. Newington, M.D., Ticehurst, Sussex.

Dr. J. C. Howden, the President of the Section, will deliver an Address.

Dr. C. M. Campbell will introduce a discussion on the Uniform Recording of *Post-Mortem* Examinations in Asylum Reports.

Drs. A. Yellowlees and A. Campbell Clark will introduce the following subject: The Sexual and Reproductive Functions—Normal and Perverted—in Relation to Insanity. 1. Menstruation: its Commencement, Irregularities, and Cessation; 2. The Sexual Instinct and its Abuse; 3. Pregnancy, Parturition, the Puerperal Period, and Lactation.

Dr. Clouston will initiate a discussion on the Principle of Construction and Arrangement of an Asylum for Private Patients of the Richer Classes.

The following have promised papers: Drs. Savage, Hack Tuke, Fletcher Beach, Charles Mercier, W. J. Mickle, and Turnbull.

SECTION F.—ANATOMY AND PHYSIOLOGY.
Anatomy Class Room.

F. ANATOMY AND PHYSIOLOGY.—*President*, John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents*, R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries*, John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

C. B. Lockwood, F.R.C.S., will introduce a discussion on the Teaching of Anatomy; and will show sections illustrating the Development of the Organs of Circulation and Respiration.

The following papers are promised.

BROOKS, Henry St. John, M.D. On the Morphology of the Epitrochleo-anconus or Anconus Sextus (Gruber).

BROWN, J. Macdonald, M.B., F.R.C.S. The Construction of the Cardiac Ventricles in the Mammalia.

CLELAND, Professor, M.D., F.R.S. On the Nature of Certain Forms of Double Monstrosity.

COLLIER, Mark P. Mayo, M.B., F.R.C.S. On the Mechanism of the Heart and Pulse.

LANE, W. Arthurot, M.B., F.R.O.S. The Influence Produced by Excessive Strain upon Muscles and Ligaments (to be illustrated by specimens).

PATERSON, A. M., M.D. On the Position of the Vertebrate Limb, considered in the Light of its Innervation and Development.

SECTION G.—PATHOLOGY.
Law Class Room.

G. PATHOLOGY.—*President*, Sir William Aitken, M.D., LL.D., F.R.S. *Vice-Presidents*, Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries*, G. Sims Woodhead, M.D., 6, Marehall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

Arrangements are being made to hold a discussion on Cancer originating apart from Epithelial Structures, in which Mr. Lawson Tait (Birmingham), Dr. Joseph Coats, Dr. John Carlyle (Greenock), and others are expected to take part.

The following papers have been promised.

BRUCE, Alex., M.B., F.R.C.P. Edin. On Disseminated Sclerosis.

COATS, Joseph, M.D. On a Case of Lipæmia in Diabetes, with Suggestions as to the Source of the Fat.

KENNEDY, —. On Case of Cystic Kidneys and Liver.

MAPOTHER, E. D., M.D., Dublin. An Anomalous Form of Eczema.

MAYLARD, A. E., M.B., B.S. Lond. The Results of some Bacteriological Cultivation Experiments with Iodoform.

RAKE, Bevan, M.D. Lond. Medical Superintendent of the Trinidad Leper Asylum. The Percentage of Fibrin in the Blood of Lepers.

RUSSELL, William, M.D. The Pathology of Pernicious Anæmia.

The following gentlemen have also intimated their intention of contributing to the business of the Section by reading papers or otherwise: Professor Greenfield, Professor Roy, Professor D. J. Hamilton, Dr. William Hunter, Dr. Barrett (Edinburgh), Dr. McFadyean (Edinburgh), Alex. Edington, M.B. (Edinburgh), etc.

Demonstrations.—Dr. Alexander Bruce (Edinburgh) will give a Magic Lantern Demonstration on Diseases of the Spinal Cord; and Alexander Edington, M.B. (Edinburgh), a Bacteriological Demonstration. Arrangements are also being made for a series of Microscopical Demonstrations illustrative of Tumours, Tuberculosis, etc.

Pathological Section of the Annual Museum.—Intimation has been received of the following exhibits for this Section of the Annual Museum: 1. Calculi removed by Lithotomy, by Professor George Buchanan. 2. Calculi removed by Lithotripsy or by Scoop, by Professor George Buchanan. 3. Miscellaneous Objects removed from the Body, by Professor George Buchanan, namely: Bullets, Needles, Cases of Teeth, Impacted Pessaries, etc., also Isolated Bones of the Tarsus Excised. 4. Rhinoplasty; Wax Cast, by Professor George Buchanan. 5. Bladder and Urethra showing False Passages. 6. Selected Specimens from the Private Collection of Professor W. T. Gairdner. 7. A Series of Specimens of Tumours of the Brain, by Dr. Joseph Coats. 8. A Series of Specimens illustrative of Diseases of the Kidneys, by Dr. David Newman. 9. A Series of Specimens illustrative of Leprosy, by Dr. Beaven Rake (Trinidad). 10. A Series of Large Sections illustrating Malignant Tumours of the Lung; and a Series of Specimens illustrating Deformities of the Liver, by Drs. Woodhead and Bruce. 11. Drawings and Sections to illustrate Diseases of Bone and Joints, by Mr. F. M. Caird (Edinburgh). 12. A Series of Specimens illustrative of Diseases of the Heart, by Dr. John Lindsay Steven.

As space for the Museum is somewhat limited, gentlemen intending to send specimens should intimate their intention without delay to John Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow, Honorary Secretary of the Section of Pathology of the Annual Museum.

SECTION II.—OPHTHALMOLOGY.

Midwifery Class Room.

H. OPTHALMOLOGY.—*President*, Thomas Reid, M.D. *Vice-Presidents*, J. R. Wolfe, M.D.; C. E. Glascott, M.D. *Honorary Secretaries*, Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Freeland Fergus, M.B., 41, Elmbank Street, Glasgow.

Mr. Brudenell Carter will open a discussion on the Treatment of Senile Cataract. Drs. Prichard, Meighan, Mason, Teale, and others have promised to take part in the discussion.

The President of the Section intends to give a Demonstration of several Instruments of Use in Ophthalmic Diagnosis.

The following papers are promised.

BICKERTON, T. H., M.D., Liverpool. Sailors and their Eyesight.
MACKAY, George, M.D., Edinburgh. A Contribution to the Study of Hemianopsia of Central Origin, with special reference to Acquired Colour Blindness.
MURPHY, T. S., M.D., Glasgow. On the Treatment of Symbblepharon by Transplantation of Mucous Membrane from the Lip.
REXTON, J. C., M.D., Glasgow. The Value of the Caustery in the Treatment of Ulceration of the Cornea

SECTION I.—OTOLOGY.

Biblical Criticism Class Room.

I. OTOLOGY.—*President*, Thomas Barr, M.D. *Vice-Presidents*, John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries*, Johnstone Macfie, M.D., 23, Ashton Terrace, Glasgow; James Black, F.R.C.S., 16, Wimpole Street, London.

The following special subjects have been proposed for formal discussion:

1. The Conditions calling for Perforation of the Mastoid Portion of the Temporal Bone, and the Best Methods of Operating. Mr. Peter McBride has promised a paper on this subject.

2. The True Value of those Aids to Hearing usually termed "Artificial Tympanic Membranes." Dr. W. L. Purves has promised a paper on this subject.

3. Adenoid Growths in the Naso-Pharynx; their Influence on the Middle Ear, and their Treatment.

The following have promised papers.

BROWNE, Lennox, Esq. (*Title not received.*)
TORRANCE, R., Esq. On Syphilitic Cochlelitis.
WARDEN, Charles, M.D. (*Title not received.*)

SECTION J.—DISEASES OF CHILDREN.

English Literature Class Room.

J. DISEASES OF CHILDREN.—*President*, Walter Butler Cheadle, M.D. *Vice-Presidents*, James Finlayson, M.D.; Henry Ashby, M.D. *Honorary Secretaries*, George S. Middleton, M.D., 23, Sandyford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

The following two discussions will take place:

1. Diphtheria: (a) Etiology. (b) Relationship to other Infectious Diseases, and to other Forms of Sore Throat; Occurrence on Open Wounds and on Mucous Membranes other than those of the Throat. (c) Diagnosis. What are the Distinctive Features, especially those Distinguishing the Lesion in the Throat from other Forms of Sore Throat? Does Membranous Croup occur apart from Diphtheria? (d) Pathology and Sequelæ. (e) Medical Treatment. (f) Surgical Treatment; Tracheotomy; Tubage. This will be opened by Dr. A. Jacobi (New York). Messrs. R. W. Parker, E. Owen, H. R. Hutton, and Drs. W. T. Gairdner, James Finlayson, D. Newman, John Macintyre and J. S. Cameron will take part in the discussion.

2. Rickets: (a) Etiology and Prevention. (b) Its Connection with Syphilis and Scurvy. Is Enlargement of the Liver and the Spleen always present, more or less, in Rickets; or only in Cases of Syphilitic Origin? (c) Medical Treatment. (d) Surgical Treatment; at what Stage, and in what Way? Drs. Macewen, Ogston, and Marshall, and Messrs. R. W. Parker, H. R. Hutton, R. Hagyard, L. W. Marshall, E. L. Freer, John Gordon, and W. A. Lane will take part in the discussion.

Drs. Jacobi (New York), Keating (Philadelphia), Ranke (Munich), and Sanné (Paris), and other members of the profession on the Continent have been invited.

SECTION K.—PHARMACOLOGY AND THERAPEUTICS.

Conveyancing Class Room.

K. PHARMACOLOGY AND THERAPEUTICS.—*President*, James Morton, M.D. *Vice-Presidents*, John Dougall, M.D.; Theodore Cash, M.D., F.R.S. *Honorary Secretaries*, Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

A special discussion will be opened by Professor Theodore Cash, M.D., F.R.S., on Carbolic Acid, Antipyrin, Antifebrin, and their Allies, especially as regards their Antipyretic, Analgesic, and Antiseptic Actions. Drs. Walter G. Smith (Dublin), A. D. Macdonald, and Prosser James will take part in the discussion.

Dr. W. Allan Jamieson (Edinburgh) will show two cases of Xeroderma Pigmentosum.

The following have promised papers.

DAVISON, James, M.D. The Pine Treatment.
DOUGALL, J., M.D., Glasgow. (*Title not received.*)
DRYSDALE, C. R., M.D. 1. On the Therapeutic Value of Alcohol. 2. The so-called Abortive Treatment of Syphilis.
PEARSE, T. F., M.D. The Treatment of Eczema.

SECTION L.—LARYNGOLOGY AND RHINOLOGY.

Divinity Class Room.

L. LARYNGOLOGY AND RHINOLOGY.—*President*, Felix Semon, M.D. *Vice-Presidents*, George Hunter Mackenzie, M.D.; Peter McBride, M.D. *Honorary Secretaries*, D. Newman, M.D., 18, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

The following subjects are proposed for special discussion:

1. The Use and Abuse of Local Treatment in Diseases of the Upper Air Passages. To be opened by Dr. de Havilland Hall (London) and Mr. Stoker (London).

2. The Causes, Effects, and Treatment of Nasal Stenosis. To be opened by Dr. Macintyre (Glasgow) and Mr. Creswell Baber (Brighton).

3. Hæmorrhages from the Pharynx and Larynx, and other Hæmorrhages which simulate these. To be opened by Dr. Percy Kidd (London) and Dr. Hodgkinson (Manchester) (probably).

The following gentlemen hope to take part in the discussions: Dr. Prosser James (London), Dr. McBride (Edinburgh), Dr. Charles Warden (Birmingham), Dr. Cartaz (Paris), and Mr. Richard Ellis (Newcastle-on-Tyne).

The following papers have been promised.

JOHNSTONE, R. Mackenzie, M.D. Account of a Case of Tumour of the Naso-Pharynx.
MCBRIDE, P., M.D., Edinburgh. On Hay-Fever and Allied Conditions.
MACINTYRE, J., M.D. Anatomical Demonstration of the Larynx.

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NEWMAN, D., M.D. Two Cases of Complete Laryngeal Stenosis produced by Wounds of the Larynx in Attempted Suicides.
 WARREN, C., M.D. (Title of paper not yet received.)

ANNUAL MUSEUM.

THE Annual Museum will be held on August 7th, 8th, 9th, and 10th, in the Examination Hall of the University of Glasgow, and will be arranged in the following six Sections:

SECTION A.—Food and Drugs, including Antiseptic Dressings, and other Chemical and Pharmaceutical Preparations. (Honorary Secretary, R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Street.)

SECTION B.—Pathology, comprising Casts, Models, Diagrams, Microscopical Preparations, and Micro-organisms. (Honorary Secretary, J. Lindsay Steven, M.D., 34, Berkeley Terrace.)

SECTION C.—Anatomy, comprising Special Dissections, Methods of Mounting, Abnormalities, Drawings, Medals, etc. (Honorary Secretary, J. Yule Mackay, M.D., 34, Elmbank Crescent.)

SECTION D.—Physiology, consisting of Apparatus, Microscopes, Microtomes, and Microscopical Preparations of Normal Histology. (Honorary Secretary, J. McGregor Robertson, M.A., M.B., C.M., 400, Great Western Road.)

SECTION E.—Instruments and Books, including Appliances—Medical, Surgical, and Electrical. (Honorary Secretary, J. Macintyre, M.B., C.M., 173, Bath Street.)

SECTION F.—Sanitation (1) Domestic Sanitary Appliances, embracing all Improvements applicable to the Treatment of the Sick in Private Dwellings. (2) Personal Hygiene, including Dress and Gymnastic Appliances. (3) Ambulances, Carriages, and all other Appliances used for the Conveyance and Treatment of the Sick and Wounded, either in Civil, Naval, or Military Practice. (4) Drawings, Models, and Apparatus illustrative of the Ventilation, Lighting, and Draining of Hospitals. (5) Hospital Furniture. (6) Sanitary Appliances in connection with Educational Institutions and Public Buildings. (Honorary Secretary, 1, 2, 3, Robert Pollok, M.B., C.M., Pollokahelds; Honorary Secretary, 4, 5, and 6, A. W. Russell, M.A., M.B., C.M., Western Infirmary.)

Intending exhibitors should communicate as early as possible with the Secretary of the Section in which they propose to exhibit, as the Museum Catalogue must be complete one month before the date of meeting. Inquiries as to advertisements in the Catalogue should be sent without delay to Dr. Thomson, 3, Melrose Street, Glasgow.

Honorary General Secretaries of Museum Committee, A. Ernest Maynard, B.S., M.B., 4, Berkeley Terrace; R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Terrace.

Honorary Local Treasurers, Joseph Coats, M.D.; Jas. B. Russell, M.D.

Honorary Local Secretaries, John G. McKendrick, M.D., F.R.S., 45, Westbourne Gardens, Glasgow; James Christie, M.D., Hillhead, Glasgow; John Glaister, M.D., 4, Grafton Place, Glasgow.

EXCURSIONS.

THE following eight excursions will take place on Saturday, August 11th.

1. *Lanark and Falls of Clyde.*—The party, limited to 100, will leave the Central Station by special train about 10 A.M., for Tullieculdlem, where, by the kind permission of the Earl of Home, an opportunity will be given to visit the ruins of Craignethan Castle, the scene of Sir Walter Scott's *Old Mortality*; proceeding on foot through the picturesque ravine of the River Nethan for about a mile; the party will then be conveyed by coach through some of the most charming Clydesdale scenery to the Falls, visiting Stonebyres, and then, by the kindness of the proprietor, will enter the Corehouse estate, to see Cora and Bonnington Linns. Returning by coach to Lanark, dinner will be served about 2.30 P.M., in the Clydesdale Hotel. After dinner the party will be shown the library of Dr. William Smellie, the famous obstetrician, which was bequeathed by him to the Grammar School of that town. It is a very interesting collection of books, containing two or three black letter volumes. It is also expected that the Lee talisman, or "Lee Penny," will be shown to the visitors. This charm was taken from the Saracens by Sir Simon Lockhart, of Lee, after a battle, as part ransom of a captive. It was deemed a charm of great medicinal virtue in the end of the last century. It gives the title to *The Talisman*, another of the novels of Sir Walter Scott. Afterwards short excursions may be made on foot to Cartland Craggs, Roman Bridge, Old Abbey, and Smellie's grave. The party will return from Lanark by special train to Glasgow, arriving not later than 8 P.M.

2. *Ayr and the Land of Burns.*—The party, fixed at 100, will leave Glasgow about 9.30 A.M., by special train to Ayr. Thence by conveyance it will proceed, *via* Maybole, to Crossraguel Abbey (one of the finest Gothic remains in Great Britain), thence to Culzean Castle, where it is expected the party will be received by the most Honourable the Marquis of Ailsa, and returning to Ayr by the sea-shore to Burns's Monument, Alloway Kirk, Burns's Cottage, and "Twa Brigs." Dinner will be served at the Station Hotel, after which, by special train, the party will return to town.

3. *The Perthshire Highlands, Lochearnhead and Crieff.*—The party, numbering 100, will leave Buchanan Street Station about 9.15 A.M., in special saloon carriages, for Lochearnhead, and during the journey will see some of the finest Highland scenery; thence by coaches *via* Loch Earn, to St Fillans, where a halt will be made for refreshments, at the Drummend Arms Hotel; then to the Devil's Comrie, where a second halt will take place to visit the Devil's Cauldron, and thence to Crieff, where the party will be entertained to dinner by Dr. Meikle, at his Hydropathic Establishment. After dinner, short walks to places of interest in the neighbourhood may be made, and the party will leave Crieff in the same saloon carriages for Glasgow, where it will arrive about 8 P.M.

4. *Callander and the Trossachs (Loch Katrine).*—The party, 100 in number, will leave the same station as last at the same hour, in special saloon carriages, for Callander, where coaches will be in readiness to convey them to Loch Katrine. Dinner will be served about 2 P.M., in the Trossachs Hotel, after which visitors may enjoy a sail on the loch to the Silver Strand, mentioned by Sir Walter Scott in the *Lady of the Lake*. The party will return by the same route to Glasgow, where it will arrive about the same time as the former excursion.

5. *Arran.*—The party, numbering 100, will leave Bridge Street Station in saloon carriages about 9 A.M., for Wemyss Bay, where, it will join the famous Clyde steamer *Ivanhoe*, which *en route* to Arran calls at Rothesay, and passes through the Kyles of Bute. Dinner will be served on board during the passage. On landing on the island the party will be enabled to visit Brodick Castle, by the kind permission of his Grace the Duke of Hamilton. The party will return to Glasgow by the same route, arriving there about 7.30 P.M.

6. *Stirling, Bridge of Allan, and Dunblane Cathedral.*—The party, limited to 100, will leave Buchanan Street Station about 9.15 A.M. by special train for Stirling. On arrival, visits will be paid to the Castle of historic renown, the Royal Infirmary, High Church, etc., under the conduct of Provost Yellowlees of that town, and Dr. Haldane, of Bridge of Allan, returning to the Smith Institute, where cake and wine will be served. Thence the party will proceed by conveyances to the Wallace Monument, *via* the King's Park, where an unrivalled view is to be obtained, then through the demesne of Airthrey, the seat of the Right Honourable Lord Abercromby, to Bridge of Allan, where dinner will be served in the new Museum Halls. After dinner seats in the conveyances will again be taken, and the party will then drive through the grounds of Keir, the seat of the late Sir W. Stirling-Maxwell of bibliophilic fame, and Kippencross, to Dunblane, where the Cathedral and Library of Archbishop Leighton will be visited. The party will then return by the famous Wharry Glen to the Spa at Bridge of Allan, where tea will be provided for the visitors at the Hydropathic Establishment. The party will leave Bridge of Allan for town, arriving there about 8 P.M.

7. *Rothesay and the Kyles of Bute.*—The party, fixed at 250, will leave Central Station about 9 A.M., by special train for Greenock, where it will join the new steamer *Victoria*, specially chartered for the trip. The steamer will then sail down the Firth of Clyde to Rothesay, and thence will proceed through the Kyles of Bute, up Loch Ridden, and then round the Island of Bute to Kilchattan Bay pier, where those of the party who choose may land to walk to Mount Stuart, the seat of his Grace the Marquis of Bute, visiting on the way the beaver colony, now an almost unique sight. The remainder of the party will return to Rothesay by the steamer, where conveyances will be in readiness to convey them to Mount Stuart; on returning, the party will alight at the Glenburn Hydropathic Establishment, where, by the kindness of Dr. Philp, the proprietor, tea will be served to the party at 5 P.M. Dinner will be served on board the *Victoria en route*. After tea a visit may be paid to Rothesay Castle. The return journey to Glasgow will be made by the same steamer, either to Greenock or

Wemyss Bay (not yet decided), and thence by special train, arriving in town about 8 P.M.

S. Loch Lomond.—The party, numbering 150, will leave the North British Railway Station, Dundas Street, at 10 A.M., by special train for Balloch Pier, where it will be waited for by a special steamer; during its passage to the head of the loch all the places of historic interest will be pointed out. Facilities will be given, by arrangement made before or in the early part of the meeting, for an ascent of Ben Lomond by a small party. On arriving at the head of the loch fifty of the party (to be fixed by ballot or choice) will land, the remainder returning by the same steamer to Tarbet, where dinner will be served about 2.30 P.M. in the hotel. From here parties may visit Loch Long by a very picturesque road. For the party of fifty left at the head of the loch a special dinner will be provided on board the steamer, arriving there about 2 P.M. The return journey will be made by steamer to Balloch, and by special train to town, arriving about 8 P.M. As this is the busiest time of the tourist season, intending visitors to this place should apply early, in order that completely comfortable arrangements may be made.

Short descriptive sketches of the different excursions will be given in the JOURNAL from week to week, in order to enable visitors to determine their choice, and also that early applications may be made during the meeting for tickets.

FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Respiratory Hysteria.—Disadvantages of Saccharin.—Dynamic Arseniate of Gold.—Papain in Dyspepsia.—Chemical Vaccine.

THE *Journal de Médecine* of May 6th publishes a paper by M. Henri Huchard on hysteria of the respiratory organs. The author has already remarked how frequently simple laryngitis, angina pectoris, or bronchitis are transformed into aphonia, spasmodic contraction of the cesophagus, or hoarse, sonorous cough; symptoms which antiplogistic treatment entirely fails to combat, but which disappear spontaneously. M. Léon Petit describes a case of pulmonary hysteria which M. Huchard regards as one of hæmoptysis of hysterical origin. The spasms may be localised in the nose, the larynx, the diaphragm, bronchial tubes, etc. M. Huchard quoted cases of spasms of hysterical origin in the respiratory organs, when tracheotomy was resorted to, but without modifying the symptoms. He points out the difficulty and, at the same time, the importance of determining the exact relations between hysteria and the affections of the respiratory organs, without confusion. In the second stage of consumption a sonorous incessant cough will appear quite suddenly, followed by aphonia, hæmoptysis, which usually recurs at the menstrual period, complete and persistent anorexia, and in some cases irrepressible vomiting, which may last for months or even years; the pulmonary lesions, however, are not aggravated; all the pathological activity is monopolised by the hysteria. In other cases tuberculosis predominates, and hysteria plays merely a subordinate part. Brachat affirmed that hysteria favoured the evolution of tuberculosis; other authors have stated that tuberculosis determines the appearance of hysteria. Both these conclusions are erroneous. Without entirely admitting the truth of Leudet's theory that phthisis and hysteria are mutually antagonistic, M. Huchard affirms that in many cases he has observed that the combination of the two affections in the same patient changes the habitual aspect of each of the affections. In tuberculous hysterical patients there is a complete disparity between the relatively mild local condition and the serious character of the functional disturbance. The consequence is that errors in diagnosis may often arise. It is most important to distinguish the effects of hysteria and tuberculosis respectively in the same patient, and to determine exactly which symptoms are due to each affection.

M. Worms read a paper at the Académie de Médecine, in which he stated that he administered saccharin, in varied forms, to four persons suffering from diabetes. One, after a course of two months, still suffered no inconvenience therefrom; but the other three, at the end of a fortnight, complained of loss of appetite, indigestion, and weight in the stomach, which symptoms continued for eight

days after leaving off the saccharin. The doses were resumed in the case of one of the patients, and a return of the symptoms complained of took place at the end of ten days. This proved that it was dangerous to put saccharin into the food of anyone suffering from diabetes; and, moreover, that as it was an indigestible substance, the general employment of it might result in serious consequences to the public health. This fact is at present worth knowing, as it is proposed to substitute saccharin for cane sugar in many ways, such as in sweetening acid wines, and in the manufacture of syrups; its price being half, and its power of sweetening so much greater than, that of sugar.

Dr. Addison has successfully combined gold and arsenic under the name of dynamic arseniate of gold. This preparation possesses the valuable therapeutical properties of both substances. Gold, it is well known, is used in different preparations (gold iodide, auric acid, etc.), with excellent results, in the treatment of diseases of the skin, syphilis, amenorrhœa, etc. Arsenic is successfully employed in hysteria, scrofula, rheumatism, irritable forms of tuberculosis, and in other affections. Its action is strengthening and antiplogistic. It moderates fever, and acts as a sedative. Dr. Addison's dynamic arseniate of gold, which is destined to render great services in the treatment of cutaneous affections, secondary and tertiary syphilis, different forms of cachexia, nervous diseases, etc., is employed in progressive doses, from one to thirty milligrammes. It is highly digestible.

Dr. Pol Vernon highly recommends the use of papain in the treatment of dyspepsia. Papain is nothing but a vegetable pepsine, and, as the late M. Wurtz said, "acts with extraordinary energy and promptitude, and, as a vegetable ferment, dissolves at least one thousand times its weight of humid fibrin, which is at once disintegrated into a semi-liquid pulp, chemically similar to peptone." The action of papain extends, of course, to egg albumen, to gluten, and to all proteid substances, both animal and vegetable. By its influence the food is immediately transformed into a completely elaborated nutritious fluid. It is, therefore, indispensable in cases where over-nutrition is required—diabetes, tuberculosis, consumption, etc. It can be used in very small doses, whereas pepsine must be administered in large quantities. The action of papain extends to all forms of gastro-enteric dyspepsia, which are, according to G. Séé, only defective chemical operations. The illustrious Vauquelin compared it to "blood deprived of its coloured pigment," and called it "vegetable lymph." This substance can be administered as syrup, as an elixir, in wine, and in the form of bonbons.

The *Gazette des Hôpitaux* of May 12th publishes a communication made by M. Peyraud (of Libourne) to the Académie de Médecine, on May 8th, on chemical vaccine or "hydrophobie." M. Peyraud referred to his former researches on tannic acid, its relation to genuine rabies, the preventive measures for both these affections by means of chloral, and inoculation with tannic acid, preceded and followed by antirabic vaccination. The discovery of chemical vaccine has been attested by MM. Charrin, Roux and Chamberland, Widal and Chantemesse, and the chemical vaccine of several virulent affections has been discovered, independently of microbial inoculation, in the isolated poison of those nerve-centres presenting morbid fermentation. M. Peyraud made the following experiment in order to obtain the isomeric of tannic acid, the rabid virus of rabies. The brains of twenty-two mad rabbits were reduced to a pulp, and macerated in alcohol at 90°. After the substance was filtered and exposed to the atmosphere at a temperature not exceeding 50°, M. Peyraud obtained a fluid which had the taste and odour of tannic acid, and which, injected subcutaneously into four small rabbits, immediately determined the biological phenomena characteristic of paralytic rabies. M. Peyraud also made control experiments with the same number of brains of healthy rabbits. None of the above results were obtained.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Subcutaneous Injection of "Grey Oil" in Syphilis.—Hemianopsia Superior.

At a recent meeting of the Imperial Royal Society of Physicians of Vienna, Professor Edward Lang read a paper on the subcutaneous injection of mercury in syphilis. He had long endeavoured to discover some form of preparation in which mercury could be used for subcutaneous injections, and had arrived at the following formula: hydrargyri, lanolini, aa three parts; olive oil, four parts.

Such a preparation contained 30 per cent. of mercury. As to the quantity of the oil to be injected, he tried to determine this point by experiments, the result of which showed that even small quantities of mercury had a powerful influence on the disease. In ordinary cases of syphilis the injection of three decigrammes of the oil for one week was sufficient to cause most of the symptoms to disappear, or at least to diminish their severity for a period of from two to three weeks. Professor Lang therefore injected a quantity of from 1 decigramme to 15 centigrammes of the "grey oil" in two places on the back or the buttocks during from five to eight days. These injections were continued from two to three weeks, when a pause of from seventeen to twenty days was made; the injections of similar or smaller quantities of the "grey oil" were then resumed, and so on, until a quantity amounting altogether to from $1\frac{1}{2}$ to 2 grammes was injected. This was the general plan of the treatment in such a case, which had, of course, to be modified according to the particular features of each case. The effect of these injections was easily understood when we estimated the quantity of the mercury injected by comparing it with sublimate. According to the calculations of Professor Ludwig, 39 per cent. of metallic mercury was contained in 1 cubic centimetre of the "grey oil," this being a quantity of mercury which corresponded to 0.52 cubic centimetre of sublimate. As usually one Pravaz-syringeful (equal to 1 cubic centimetre) of the 1 per cent. solution of sublimate was injected, it was evident that 52 syringefuls would have to be injected in order to introduce into the organism as much mercury as was contained in 1 syringeful of the "grey oil." When "grey oil" was properly prepared, and the injection was properly performed with antiseptic precautions, good results would invariably be obtained. Professor Lang prefers frequent injection of small quantities of mercury to large doses at long intervals, as absorption is better insured by such a procedure. When due attention was paid to the treatment, stomatitis and other symptoms of mercurialism were but very seldom observed after injections of the "grey oil." Moreover, the preparation was very well borne by patients. He had in only five cases been obliged to discontinue the treatment with the "grey oil," on account of a special idiosyncrasy with regard to mercury. The advantages of this plan may be summed up as follows: 1. The "grey oil" is a very efficient mercurial preparation, the effect of which is gradual; moreover, it permits of exact dosage, which is not the case with inunction. 2. The method is convenient for the physician and the patient. 3. The injections, when carried out with due care, cause but slight reaction. Neither Professor Lang nor his assistants have noticed any suppuration at the site of injection, though several thousands of injections have been made. 4. The "grey oil" is a mercurial preparation analogous to the mercurial ointment in which metallic mercury is contained in the most efficient form. The "grey oil" should be used in all those cases of syphilis in which general mercurial treatment is required. The best opportunity of testing the effect of an anti-syphilitic remedy is offered by syphilitic affections of the nerve-centres; and in cases of syphilis of the brain and spinal cord, subcutaneous injections of "grey oil" were attended with very satisfactory results. The "grey oil," moreover, had an advantage from another point of view, namely, that, locally applied, it facilitated the absorption of syphilitic products situated near the point of injection, in a similar way to the "grey plaster." Gummatous infiltrations on the forehead, the nose, etc., rapidly disappeared when from 0.01 to 0.05 cubic centimetre of the "grey oil" was injected. The "grey oil" can also be used in cases in which the "grey plaster" and the "grey ointment" cannot be applied. Professor Lang had, on one occasion, to deal with a gummatous cavity of the tibia which was accessible only through a very small orifice. He injected "grey oil" into it by means of a specially constructed instrument, and healing speedily took place. The mercurial oil can also be used for injections into the external auditory meatus, the membrana tympani, and the tympanic cavity through the Eustachian tube. Syphilitic affections of the larynx and the nasal cavities are better treated by a simultaneous intralaryngeal and intra-nasal application of the "grey oil." The same also applies to affections of the eyes.

Professor Nothnagel brought before the same Society a case of hemianopsia superior, which was of great physiological interest—owing to the localisation of the cause of the disease. The patient, a tailor, aged 46, became suddenly blind. His intellectual faculties were impaired. Except a fracture of the left leg, he said he had always been in good health. His sudden blindness had super-

vened two months before he came under notice, and when seen he complained of transient headache on the left side. The eyeballs were normal in appearance, and ophthalmoscopic examination of the fundus oculi revealed no abnormality. The pupils varied in size and reacted, but not energetically. The mobility of the eye was unimpaired. At first sight the patient gave one the impression of a perfectly blind man. He had no perception of light in the upper part of the field of vision, but this was present in the lower one. As the patient was not wholly blind, Professor Nothnagel called the affection superior hemianopsia. The patient could not distinguish colours, nor had he an exact idea of the size of objects shown to him. Professor Nothnagel had found only three cases of superior hemianopsia in literature, one having been reported by Mauthner, and two by Schweigger. No necropsy was performed in any of these cases. As to Mauthner's case, he had admitted the presence of a tumour which compressed the chiasma nerve. Professor Nothnagel, however, believed that in his case there was an affection of the centre of vision in the cerebral cortex—hence in the occipital lobe. He could not imagine that the disease should be localised at the base of the brain, and that the compression of the chiasma should not be attended with any other cerebral symptoms besides those present in the case under consideration. Haemorrhage at the base of the brain had also to be excluded, owing to the absence of coma. The cause of the disease must be localised in the cerebrum itself—a conclusion which was supported by the sudden occurrence of the blindness and the fact that the patient was not in the possession of his normal intellectual faculties. The fact that the disease had come on simultaneously in both hemispheres of the cerebrum could not be looked upon as disproving this hypothesis. Professor Nothnagel remembered a case under his care in which the patient, who was suffering from pulmonary disease, suddenly became blind during the night. The *post-mortem* examination revealed the presence of bilateral softening of the occipital cerebral cortex. Only the superficial parts of the cortex were affected, and the patient had nevertheless suddenly become blind. The simultaneous bilateral softening was due to bilateral thrombosis of the cerebral blood-vessels. There was no sure evidence of the presence of a thrombosis in the case under consideration; but, as the patient was forty-six years of age, it was possible that his arteries had already become atheromatous. The fact that the pupillary reflex was intact could be looked upon as a proof that the lesion was situated in the cortex of the occipital lobe; the thalamus opticus and the corpus quadrigeminum must be considered free from disease. Should the *post-mortem* examination verify the diagnosis, this case might be regarded as an illustration of the experiments of Munk, according to which the retina was quasi-projected on the surface of the occipital lobe.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Professor Kocher's Case of Pancreatic Cyst cured by Abdominal Section.

DR. LARDY describes (*Correspondenzblatt für Schweizer Aerzte*, May 1st, 1888, p. 279) a rare case of pancreatic cyst, in which the disease was correctly diagnosed and afterwards treated surgically with the best results by Professor Kocher. A well-built and previously healthy man, aged 37, was suddenly seized with violent abdominal pain (on December 20th, 1886): this ceased spontaneously the next morning, but only to recur on January 17th, 1887. For three hours the pain was as severe as on the first occasion, and then somewhat decreased. About eight or ten days later the man noticed that the upper part of his abdomen was growing larger from day to day, and in a fortnight it had attained the size which it presented before the operation. The abdominal pain increased on walking, and then was accompanied by a sensation of great tension. The stools became somewhat discoloured and flattened, but were otherwise normal. In June a severe attack of vomiting came on; this afterwards recurred with gradually increasing frequency, until latterly it happened almost daily. In October agonising pain in the left hypogastric region supervened, while the patient steadily lost flesh and strength, and he was at last compelled to seek admission to Professor Lichtheim's clinic. An exploratory puncture into the epigastric tumour gave issue to a dark-red, blood-like fluid, which under the microscope proved to contain numerous intact red-blood corpuscles, fairly

numerous large spheres with fatty granules and occasional hæmoglobin scales and cholesterol crystals. The puncture was followed by marked peritonitic symptoms, which lasted eight days. The patient was transferred to Professor Kocher's wards (on December 6th), when an enormous and fairly uniform distension of the abdomen was found; this was due to the presence of a very large, smooth, non-adherent, fluctuating, globular tumour occupying the epigastrium and reaching downwards as far as midway between the umbilicus and the pubes. In front of the mass a curved transverse band was felt, which, on inflating the intestine with air through the rectum, proved to be the transverse colon. Inflation of the stomach (through a stomach tube) showed that that organ was also situated in front of the tumour in the left hypochondrium. Taking all these facts into consideration, Professor Kocher diagnosed a cyst of the pancreas; and on December 30th, 1887, proceeded to make a median incision, 12 centimetres long, midway between the xyphoid cartilage and the umbilicus. The gastro-colic omentum, which was very thick and vascular, having been incised, a smooth, whitish-blue cyst presented itself; it was fixed with sutures to the upper and lower angles of the abdominal wound and emptied with a large Spencer Wells's trocar. The opening was subsequently enlarged and its edges stitched to those of the abdominal wound. About ten litres of dark-red viscid fluid were removed. The inner surface of the sac was fairly smooth, of a whitish-yellowish colour. There was no tendency to bleeding, and the cyst immediately contracted pretty firmly. Its cavity was plugged with iodoform gauze, and a sublimate corrosive dressing was applied. A rapid, uninterrupted recovery took place, the wound healing by second intention without any fever. On examining the patient about two months later, he was found to be stouter; a fairly thick cord could still be felt at the site of the shrunken cyst. According to Dr. Lardy's statement, based on the work of Dr. C. Hagensbach, of Basle, this is the seventeenth case in which a pancreatic cyst has been operated upon. It is, however, only the third in which the disease was correctly diagnosed before operation.

EGYPT.

[FROM OUR OWN CORRESPONDENT.]

Three Cases of Local Massage.—Surgery at Kafr Zayat Dispensary.—Theatricals at Tantah Hospital.—Annual Report by Sanitary Administration.

CASE I.—Female child, aged 7. Admitted six months ago with a burn of third degree, extending round left lower extremity from ankle to knee, with the exception of a strip of skin, one inch broad by four inches long, on the calf. After three months' treatment, the greater part had skinned over, leaving a patch, three inches by two, over fibula and extensor muscles. Transplantation of skin; pressure by strapping; stimulants, irritants, and vesicants, incision of edges, and galvanisation were all used patiently during two months without effect. Daily massage of the whole limb, and especially of the cicatrix and deep tissues, produced complete healing within three weeks. **CASE II.**—Boy, aged 11. Fibrous ankylosis of knee, after six months' treatment by splint for abscess of thigh. The adhesions were broken down under chloroform, and complete mobility restored; but imperfect power of movement remained, owing to atrophy of extensor muscles, and gradual contraction of the flexors from want of opposition. Galvanisation of the extensors for one month was followed by very slight improvement; massage of the whole limb was then added, and at the end of another month the patient had almost entirely regained power over the limb. The treatment is still being continued. **CASE III.**—Girl, aged 5. Turkish origin. Extensive scrofulous ulceration of arms and legs. During two months she was treated by anti-scrofulous drugs and applications with very little benefit; massage was then added, and within three weeks nearly the whole of the lesions had healed up.

The newly instituted dispensaries are beginning to bear fruit. At Kafr Zayat—an important town in Lower Egypt—the medical officer, who is an excellent surgeon, reports a rather remarkable case. It seems that a Greek, while using a sharp knife, completely detached a joint and a half of the index finger of his left hand. The severed portion fell to the ground, but he immediately picked it up and applied it as well as he could to the stump, and, holding it in this position, proceeded to the dispensary, which was distant a two hours' journey. As soon as he arrived, the medical man at once washed the parts with carbolic acid lotion and liquor

Van Swieten; sewed the several portions on accurately; and applied an iodoform dressing. In ten days the wound was healed, but the joint has so far remained ankylosed. The patient was 25 years old, and in perfect health at the time.

At Tantah, which is the third town in Egypt and has a Government hospital of 70 beds, there has lately been quite a new departure. In order to acquire funds for the benefit of the sick, the medical staff organised a theatrical representation, which resulted in a clear benefit of no less than £80. The greatest credit is due to Dr. Selim Fahung, who managed the whole affair; and it would be well if his example were followed by other hospitals in Egypt, for there are many little luxuries, inestimable to the sick, which cannot well be provided by the administration.

The Sanitary Department is about to produce an annual report—the first of its kind on record. This report will necessarily be crude and imperfect; but it is, nevertheless, a beginning, and therefore worthy of commendation. It is to be hoped that the defects therein portrayed may not react injuriously on the compiler.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Conference on Mortality in Manchester.—Small-pox in Preston.—Conversation in Owens College.—Candidates for Vacant Chair of Surgery.

A CONFERENCE, called together by the Manchester and Salford Sanitary Association, was held on June 8th to consider the excessive mortality in Manchester. The Chairman, Dr. Ransome, stated that the death-rate was 50 per cent. greater than that of the kingdom at large. In the last two years it had reached 60 and 70 per cent. respectively. A series of resolutions were passed, including recommendations to avoid the pollution of the air and water-courses, avoidance of intra-mural interments, that the number of nuisance inspectors be increased, there being at present only fourteen for a population of 385,000. Much has been done by the corporation within the last few years to improve the material surroundings of the poor in this city, but it is obvious that much remains to be done, and we trust that the efforts of the Sanitary Association will suffice to press home the unpleasant facts to the corporation and ratepayers, and that preventive measures to reduce the mortality will soon be vigorously carried out.

Within the last few days there has been an extraordinary outbreak of small-pox in Preston. The number of patients up to June 4th was about 200, and new cases are reported every morning. On June 8th, a young man, suffering from the disease, was found in a delirious state in the streets. The epidemic has spread to an out-district, and a case is reported from Warrington. Several deaths are reported.

On June 8th a *conversazione* was given in Owens College, on the occasion of the opening of the new Museum buildings. There were present between three and four thousand persons; in spite of the number, the rooms were so spacious and the arrangements so complete, that there was no crowding. There were numerous exhibits of scientific and popular interest in the various laboratories.

Saturday, June 9th, was the last day for receiving the applications for the vacant Professorship of Surgery. The local candidates are Mr. Southam, Assistant Lecturer on Surgery in Owens College; Mr. Thomas Jones, Lecturer on Practical Surgery in Owens College; Mr. Wright and Mr. Hardie. All four surgeons are on the staff of the Royal Infirmary. The only other candidate is Mr. Arthur W. Hare, who is Assistant to the Professor of Surgery (Mr. Chiene) and Senior Demonstrator of Surgery in Edinburgh University. It is too soon to forecast the probable chances of the several candidates.

INCREASE OF LUNACY.—At a recent meeting of the Committee of the Woodilee Asylum some startling statements were made as to the rapid increase in the number of lunatics in the asylum. The asylum was opened in 1875, with a licence to accommodate 400 patients, and there were at that time only 248 patients chargeable to the parish. There were at the present moment 551 patients in the asylum, and 92 boarded out, or a total of 643. It was remitted to the acting inspector and medical superintendent to inquire into the apparent cause of the increase, and to report to the Committee, together with any recommendation for their guidance.

CORRESPONDENCE.

THE TREATMENT OF AURAL EXOSTOSES.

SIR,—Sir William Dalby misses my point—when and where did he first operate with the drill? He observes, in the JOURNAL for June 9th, that in his paper at the Royal Medical and Chirurgical Society “references were made to the account published in 1876 of my operation in 1874, also to his (Mr. Field’s) first operation in 1877.” But Sir W. Dalby’s operation mentioned in 1876 as performed in 1874 was by means of the continuous current of electricity passed for two minutes by two needles inserted at the base of the exostosis.¹ It is quite true that in 1876 Sir William Dalby suggested in a vague manner² (but with what success we are not informed) that since 1874 he had employed the dental engine for aural exostosis; but, as I have before now pointed out, he had not then favoured the medical world with details of a single instance of the operation as performed by him. As in our correspondence in June, 1885, he failed to prove a similar assertion, it is somewhat surprising to find that he now reiterates it.

I am willing to furnish my authorities for the following facts to your columns if Sir William Dalby so desires:

1. In April, 1881, Sir William Dalby came, at his own request, to one of my operations for exostosis, and, being asked by a colleague of mine whether he had performed an operation in the same way, replied “Never.”

2. A gentleman, upon whom I operated this year, told me recently in the presence of his medical attendant, that Sir W. Dalby, when consulted by him about six years ago, observed, as regards the drilling of aural exostoses, “I have only done one of these operations.”

I might say more under this head, but will merely add that Sir William Dalby would do well, if unable to call to mind precise particulars of such cases as he claims to have treated since 1874, to refresh his memory by reference to any gentlemen who were present at his operations. Some account of the first of these would not be devoid of historic interest; but until he gives some data in support of his asserted priority in the use of drilling for aural exostoses, he can scarcely blame me or others for deeming that he has made “a sinner of his memory.”

Doubtless, the idea of drilling for exostoses occurred previous to 1874 to many; I have always myself given the credit of its initiation to Dr. Mathewson, of Boston, who, unlike Sir William Dalby, has given us the benefit of his experience in an actual case of operation. It was not until I had detailed my third series of cases, so late as 1885, that Sir William Dalby assumed the rôle of a pioneer.—I am, etc.,

GEORGE P. FIELD.

P.S.—I forward a letter from Dr. Mackesy:—

“June 2nd, 47, Lady Lane, Waterford.

“Dear Field,—In the BRITISH MEDICAL JOURNAL of May 26th, I see that Sir W. Dalby claims to have introduced the American dental drill for removal of aural exostosis so far back as 1874. Now, in justice to yourself, I think it right to say that I have always been, and still am of opinion, that I was myself the first case in which the American dental drill was used in Great Britain for removal of double aural exostosis. You may remember you operated upon me in the autumn of 1877, and I am thankful to

¹ “The removal of exostoses in the external auditory canal is beset with difficulties. The very position of the growth makes it necessary that all work must be done under light reflected from a mirror worn on the forehead of the operator. Again, the size of the canal not only limits the movements of instruments, but also their use to but few, and any bleeding checks all proceedings until such bleeding can be stopped. Moreover, the intense hardness of the exostosis does not facilitate matters. There are two modes of operating which are deserving of especial mention. The first was originally suggested and successfully practised by Dr. Thos. E. Clarke, of Bristol, in 1873, in a case of a large exostosis which almost filled the meatus. Three needles were introduced into the growth, two at the base, and one at the anterior edge. Through these needles a continuous current of electricity from six pairs of plates of a Stöhrer’s battery was passed for three minutes. Fourteen days afterwards this was repeated, and three weeks later the growth was so loose as to be easily extracted, and the patient made a very good recovery. Since Dr. Clarke’s case was published, in adopting similar measures owing to the extreme hardness of the bone, I have found it convenient to drill holes into the base of the tumour to permit of the introduction of the needles; and I can testify to the success which attends this plan of removing bony growths.”—*Lancet*, January 22nd, 1876.

² “The removal of exostoses in the external auditory canal is not sufficiently common to supply a very large experience, but I must confess to have kept on the safe side since this case” (the case in November, 1874, just alluded to in the earlier part of the article from which this is taken), “and to have employed another method, which is entirely free from the slightest risk of any like catastrophe. It consists in grinding the bone away, and the most satisfactory appliance for this purpose I find to be the drill which is in common use among dentists.”—*Lancet*, January 22nd, 1876.

say with most satisfactory result, as I was very deaf, but my hearing is now excellent. Except Sir W. Dalby can show some very conclusive proof to the contrary, I refuse to be convinced, and shall continue to claim for myself the notoriety of being the first case so operated upon in Great Britain by dental drill. I have no recollection of having seen any case published prior to that date. You may publish this if you think well of doing so. I am glad to be able to add that Mr. Goff, and also my brother, upon whom you also operated for double exostosis, continue quite well.

“GEO. I. MACKESY.

—Faithfully yours,
“P.S.—You may recollect that Sir W. B. Dalby kindly saw me in consultation with yourself, and, to the best of my belief, he did not at that time make any mention of having treated any case of aural exostosis by the drill.”

ECTOPIC GESTATION.

SIR,—To substantiate the remark that Dr. Aveling proposed electricity “for the arrest of hæmorrhage in cases of ruptured tubal pregnancy” would require me to reproduce a long discussion which took place recently at the Gynecological Society, and a still longer paper of Dr. Aveling’s interpolated in that discussion. The debate took place on a paper of my own on a series of cases of “Ruptured Tubal Pregnancy,” in which the whole and sole issue was the necessity of acting on the surgical rule of “tying the bleeding point.” Dr. Aveling interposed with a long argument that electricity should be used, and he again brought back his solitary chicken from the Brighton meeting. But that reiterated case has nothing to do with the issue, for it was clearly a broad ligament pregnancy, and ought to have been allowed to go to term and been delivered alive, as these broad ligament cases easily can be.

That only accomplished electricians should meddle with this most dangerous business was well illustrated in my presence not long ago, when two practitioners warmly disputed whether a galvanometric reading was genuine or approximate, but the difference was nearly 300 milliampères. So much for accuracy of dosages. Finally, we want no more whimsical theories; we want the authentic facts.

I have just read the interesting account of Dr. Herman’s case, and have to say that it possesses in my mind a much larger interest concerning a point where it is only the second case of the kind I have known, than in all the points which seem to have attracted Dr. Herman’s attention.

I have published in your columns, and in the *Transactions of the Gynecological Society*, thirty-five cases of the kind, but I could not occupy space in giving all the details of every one of those cases, and I contented myself with recording such matters only as seemed to me of the most pressing interest. I did not think it in the least degree necessary to say how many days or hours elapsed between the period of first rupture and the operation, but in very many of them only a short time elapsed. I think it very likely that some of them had a period as short as in Dr. Herman’s case.

The great interest of Dr. Herman’s case seems to me that the operation was performed for the secondary, and not for the primary, rupture—that is to say, that the real rupture of the tube took place about December 20th, and that that rupture was into the cavity of the broad ligament, and that it was a secondary rupture of the broad ligament cyst into the peritoneal cavity for which Dr. Herman performed his operation on February 10th. The history of the case makes this sufficiently clear, and the fact that the pregnancy seems to have gone on to the fourth month makes it almost certain, for in all the cases which I have examined in the shape of museum specimens and *post-mortem* examinations where death took place from the rupture, and where, therefore, it was made perfectly certain that the rupture was a primary one and not secondary, the rupture had taken place not later than thirteen weeks. To this there is no exception whatever. If Dr. Herman will turn to Nonat’s case in Bernutz and Goupil’s book (p. 239, vol. i), to which full reference is given in my Ingleby lecture of 1886 on this subject, he will see clearly enough what I mean. The point is one of intense interest, for the full account of which I could not ask space in your columns; but it will be, I think, made abundantly clear in a work on the subject which is now going through the press.

I agree also with Dr. Herman that it is almost certain that his patient in 1885 was the subject of a tubal rupture; and it is quite clear from the story he gives that the rupture also took place into the cavity of the broad ligament, making an extra-peritoneal

hamatocele, that in the act of rupture the ovum was destroyed, this being a not uncommon termination of such cases. When the ovum is not destroyed the pregnancy may go on to full time, and may be (as I think, most improperly) killed by an electric shock, as in the case cited by Dr. Aveing; but such cases belong to an altogether different category from those in which intra-peritoneal hamatoceles are formed either by primary or secondary rupture.—I am, etc.,

LAWSON TAIT.

Birmingham, June 2nd.

THE ELECTRICAL TREATMENT OF FIBROIDS.

SIR.—Much has been written and said about the electrical treatment of fibroids. Surely this new treatment should be given a fair chance, and those who do not believe in it might wait a little while before condemning it in its infancy. Would it not be better for those unbelievers to follow exactly the rules laid down by Dr. Apostoli, instead of fighting over theories and new methods? Everyone seems to be trying to improve on Apostoli's treatment, instead of following his directions. To my mind, this is the chief cause of failure. I would even go further, and divide those who condemn this treatment into three classes—namely: 1, those who have had no experience whatever; 2, those who have failed from want of patience; 3, those who have neglected Apostoli's rules.

When I hear of failure of Apostoli's treatment, I am inclined to think that it has been imperfectly carried out; certainly this was the fact in some of my own early cases, and, after months of disappointment in my results, I found out that if I wished to succeed, something more than a knowledge of gynaecology was necessary. I mention this to show that I for one do not consider this electrical treatment so simple as some of your correspondents would have us believe.

Before this treatment can be given the position claimed for it by Dr. Apostoli and others, corroborative clinical experience, extending over several years, is absolutely necessary; and until we have this clinical experience, the profession ought, at least, to suspend judgment.—I am, etc.,

35, Brook Street, W.

A. C. BUTLER-SMYTHE.

ON HYDROPHOBIA AND ITS TREATMENT.

SIR.—In an article under the above heading in the last issue of the JOURNAL (June 9th), Mr. Victor Horsley says: "For there is no single case of reputed cure of developed hydrophobia by drugs or other means that will bear close investigation." Is this correct?

If this statement is meant to apply only to cases treated by narcotic or supposed specific drugs or by the hot-air bath, I dare say it is perfectly true; but if it is meant to include those which have been treated by a different method (though there is no reference to it in the article above referred to), far more potent as a sedative, and far more likely to avail, I doubt whether it is so.

I refer to the employment of copious blood-letting, relying chiefly on the authority of Benjamin Rush and Clutterbuck: the former especially being an opinion of great weight, as a bold and judicious physician of wide experience, probably second only to Sydenham among modern physicians. Each of these, in writing upon the subject, mentions several cases (about a dozen altogether) successfully treated after this fashion, not however within their own observation, but quoted from reports published in well-known medical or scientific periodicals in the latter part of the last or beginning of the present centuries. If these reported cases were genuine instances of hydrophobia—and it seems scarcely possible that the diagnosis should have been erroneous in every one—then it has been proved incontestably that bleeding to a large amount has actually saved some patients suffering from the disease. I have not been able as yet to get access to the original reports of these cases to verify the quotations and read the histories in full, except an abstract of one (that of Hartley in the *Philosophical Transactions*, which seems to have been genuine, though the symptoms were comparatively mild, perhaps cut short), and I should be glad to know whether or not there is any fallacy in the accounts; for if, as it appears, even these few cases have been saved in this way, it will be only right and proper to resort to it again whenever the occasion presents, until a surer and milder remedy is devised.

The procedure seems severe—it is necessary generally to withdraw about 120 ounces of blood before the disease is overcome, and of course in a short period of time—but desperate diseases

justify heroic remedies, and this loss is not very serious when inevitable death is the alternative.

Rush also states that two rabid dogs have been cured by free bleeding, by cutting off parts of the tail or ears. In the *Philosophical Transactions* also there is an account of an outbreak of rabies in a pack of hounds, where several dogs that were attacked were cured by mercurial salivation.

In the human subject, certain auxiliary measures were usually employed in addition to the repeated bleedings, principally cold bathing and mercury. Opium was sometimes found to do harm. Hydrophobia presents some resemblance to puerperal convulsions, and who that has tried venesection will dispute the sure and immediate efficacy of the remedy in this complaint, far better than any mortal drug? I believe that most cases of puerperal convulsions yield to comparatively moderate bleedings, say 20 to 30 ounces at the outside; but if not, it is perfectly legitimate to follow the excellent guidance of Gooch, who urges the repetition of bleeding up to a total of 70 or 80 ounces if necessary; and it is not such a very long step up to the 100, 120 ounces or more that will probably be needed in hydrophobia.

At any rate, if this method offers a fair chance of success, I think it preferable to depend on it rather than undergo M. Pasteur's system and run the risk of being inoculated fatally with the disease by the antidote.

Before putting the method of copious venesection into practice, it would be as well (as it is almost a lost art now) to read Rush's arguments on the subject (*Inquiries*, vol. ii) and to bear in mind his recommendations and cautions, for unless the plan be thoroughly and efficiently carried out, it may fail—really from misapplication. Unfortunately Rush's works are scarce, and not in easy reach of everyone. It is a pity that the New Sydenham Society does not republish an edition of a classic of such value.—I am, etc.,

F. LUCAS BENHAM, M.D.

Elizabeth Street, S.W.

ALBUMINOUS FOOD IN OBESITY.

SIR.—A high authority in the medical profession has recently raised an objection against the use of Professor Oertel's method of treating obesity, on the ground that an excessive consumption of albuminous food is apt to give rise to a uræmic condition. This implies that an excessive use of albumen is recommended by Oertel, which is not the case. It is not easy to see how this error can have arisen, for Oertel's quantities are repeatedly set forth with elaborate distinctness in his work (*Therapeutics of Circulatory Derangements*). We there find, in the "Special Diet in Obesity and Circulatory Derangements," that 156.7 and 170 grammes are allowed as the minimum and maximum quantities respectively of albumen from all sources. These amounts are 5.5 and 6 ounces av. respectively. According to Moleschott, the average amount of dry nitrogenous food per diem, suitable for a male European doing moderate work, is 4.5 ounces; and Letheby's estimate is the same. Oertel expressly states that the larger amount (6 ounces) "can only be given when, owing to strenuous muscular activity, as in mountaining-climbing, there is increased destruction of non-nitrogenous material within the body, and increased need for food." In the above calculations, the total amount of albumen is considered. If we regard the flesh meat alone, we find that Oertel recommends only 350 grammes (12.3 ounces) daily. Three-quarters of a pound of lean flesh meat can scarcely be called an excessive amount likely to set up a uræmic condition in a man who is made to work. In a few of Oertel's cases rather more than the above-stated amount was prescribed, but this never exceeded 450 grammes (nearly 1 lb.). It is a pity that a system of treating obesity which has received such recognition of various authorities on the Continent should in this country be dismissed to oblivion by a few vague words about the dangers of an excessive supply of albuminous food, when Oertel himself has indicated the suitable quantities in the most precise manner; and these quantities, as we have seen, are by no means excessive.—I am, etc.,

Acacia Road, N.W.

EDWARD J. EDWARDES, M.D.

THE CONTAGIOUS DISEASES ACTS IN INDIA.

SIR.—All honour to Sir W. Foster for his clear definition of the true position which these Contagious Diseases Acts now hold in the opinion of the medical profession, and it is well for the British Medical Association that one holding with such merit such a high and important position in what is probably the largest Medical Association in the world speaks with no uncertain sound on one of the burning questions of the day.

Military officers holding the highest positions in the army in India have had their fair fame temporarily stained and their high character for morality spoken lightly of by their being, unknown to themselves, the official channels for the immoral sewage of the Sanitary Department in India. I have known that Department for twenty years, and withdrew from it and resigned the service as I felt I could not serve in it as an honest man; and if the language of some medical officers is to be taken as a sample of its requirements under the Contagious Diseases Acts, and the duties of medical officers, as lately hinted at if not laid down by the Sanitary Commissioner of the North West Provinces and Oudh, as what may be expected of the medical officers under its orders, it seems now to be one unfit for a modest, as it was for an honest, man.

The whole case of these Contagious Diseases Acts it is clear rests now with the medical profession; and if Reuter's telegram from Simla of June 7th, published in the papers of June 8th, is to be accepted, then "the members of the Indian medical profession" (which I presume means Service) "have resolved to memorialise Parliament against the repeal of the Acts." Judged by the verdict given by Parliament on June 5th, I think they will find, if possible, a stronger opposition when the true source of that circular is known, and a sturdy opponent in Sir W. Foster. For myself, as one who in 1864 was in the Sanitary Department before the passing of these Acts, I will undertake on any professional platform to support the entire repeal of the Acts on purely medical grounds, as I utterly fail to see how an instance of such transparent Jesuitism can be supported on moral grounds, when good, either physical or moral, is expected to result, not only from doing, but actually encouraging, what, under the circumstances, is physically injurious and under every condition morally wrong.

The British Medical Association is peculiarly fitted to take the matter up, and I am ready to prepare, read, and defend a paper at the meeting in Glasgow in August on the subject of the total repeal of the Contagious Diseases Acts in India on physical grounds and for medical reasons.—I am, etc.,

ROBERT PRINGLE, M.D., Surgeon-Major,
late Sanitary Department, Her Majesty's Bengal Army.
Blackheath, S.E., June 8th.

METHYLENE AS AN ANÆSTHETIC.

SIR.—Believing as I do that methylene is the nicest anæsthetic we possess, I am very glad to see the remarks of Sir Spencer Wells in the JOURNAL of June 9th. Whatever chemists may tell us of the results of their analysis of its composition, I am perfectly sure that, in giving it, we are not giving chloroform. Its effect upon the patient is quite different. The rapidity with which consciousness returns contrasts strongly with the prolonged stupor produced by chloroform, and is a great element of safety.

My experience of Junker's apparatus is limited. Having to give methylene here for Sir Spencer Wells, some years ago, to a lady on whom he performed ovariectomy, I used the Junker apparatus, which he brought down with him, and found it answer admirably. On trying the same form of apparatus shortly after, however, on a strong man, I found it so difficult to get him under the influence of the anæsthetic that I had to resort to the common perforated ether inhaler, which I usually use, and which, if properly managed, is, I think, all that can be desired. The great thing is, after inducing thorough anæsthesia for the first and most painful part of the operation, to give repeated doses of quite a small quantity, say ten or fifteen drops, and thus to just keep the patient insensible to pain and nothing more. In this way, anæsthesia may be kept up during the longest operation by an agent which is safer than chloroform and pleasanter than ether.—I am, etc.,
E. FIELD, M.D.
Bath, June 9th.

INCAUTIOUS PUBLICATION OF A CASE.—The proprietor of a private asylum for lunatics at Besançon was recently condemned on appeal to 500 francs fine and 2,000 francs damages for having published the clinical history of a patient who had been placed in his charge, he having described the patient under the initial letters of her name and in such a way that the identity of the subject of the report was easy to ascertain. The judges ruled that a medical man has no right to divulge matter confided to him in the exercise of his professional duties in such a manner as to permit the public to ascertain the identity of the individual whose case is described.

NAVAL AND MILITARY MEDICAL SERVICES.

CHANGES OF STATION.

The following changes of station among the officers of the Medical Staff of the Army have been officially notified as having taken place during the past month:—

	From	To
Surgeon-General W. S. Murray, M.B. ...	Egypt ...	Portsmouth.
Dep.-Surg.-Gen. J. A. Marston, C.B., M.D. ...	Headquarters ...	Woolwich.
Brigade-Surgeon H. F. Paterson, M.D. ...	Dublin ...	Colchester.
" A. B. R. Myers ...	Scots Guards ...	Brig. Foot Gds.
Surgeon-Major C. F. Churchill, M.B. ...	Colchester ...	Bengal.
" M. D. O'Connell, M.D. ...	Bengal ...	Dublin.
" J. Latham, M.B. ...	Aldershot ...	Nova Scotia.
" C. B. Dwyer ...	Athlone ...	Hong Kong.
" J. C. Dorman, M.B. ...	Bengal ...	Dublin.
" A. H. Stokes, M.B. ...	Ceylon ...	Devonport.
" E. H. Fenn ...	Grenadier Guards... ..	Coldstream Gds.
Surgeon M. R. Ryan, M.D. ...	York ...	Home District.
" A. A. Lyle ...	Hong Kong ...	York.
" J. Stevenson, M.B. ...	Devonport ...	Bengal.
" K. S. Wallis ...	Ceylon ...	York.
" T. Archer, M.D. ...	Portsmouth ...	Netley.
" E. Butt ...	Netley ...	Dublin.
" J. W. Beatty, M.D. ...	Newcastle... ..	Redcar.
" F. P. Nichols, M.B. ...	York ...	Hounslow.
" J. McLaughlin, M.D. ...	Belfast ...	Doulanaghy.
" G. W. Brazier Creagh ...	Bombay ...	Dublin.
" J. C. Haslett, M.D. ...	Singapore... ..	Devonport.
" J. R. Barefoot ...	Hulme ...	Altcar Camp.
" J. I. P. Doyle ...	Jamaica ...	Dublin.
" C. Birt ...	York ...	Beaumaris.
" H. Mitchell ...	Marchwood ...	Grenadier Gds.
" W. Turner ...	York ...	Stratford-o.-Avon
" B. O. W. Norfor, M.B. ...	Canterbury ...	Lydd.
" C. J. W. Tatham ...	Dover ...	Jamaica.
" C. Garner, M.B. ...	Shorncliffe ...	Bermuda.
" W. F. Bailey, M.D. ...	Belturbet ...	C. of Good Hope.
" E. Eckersley, M.B. ...	Sheffield ...	Beverley.
" D. M. Saunders, M.D. ...	Salford ...	Hulme.
" J. S. Edge ...	Home District ...	Bengal.
" R. N. Buist, M.B. ...	Cyprus ...	Egypt.
" C. H. Hale ...	Aldershot ...	N. British Dist.
" J. Minniece, M.D. ...	" ...	Dumfries.
" J. C. Weir, M.B. ...	" ...	Cupar.
" B. J. Inniss ...	York ...	Altcar Camp.
" J. Girvin ...	Colchester ...	Home District.

ARMY MEDICAL DEFENCE FUND.

SIR.—In the JOURNAL of June 9th "Medical Staff" has written to you regarding the grievances of the Army Medical Department, and thus concludes his letter: "It only remains for Surgeon-General Irving to lay the details of his scheme before the medical officers of the army through the columns of the JOURNAL, calling for the names of those willing to subscribe, and the necessary financial support will be at once secured him." To this I reply that in my letter to you published in the JOURNAL of May 5th, all that I intended was to make a suggestion as to the means of redressing grievances in the Army Medical Department which had had a good effect when carried out in reference to the Indian Service. From the letter of "Medical Staff," and from others which I have received, however, it seems to be taken for granted that I am anxious to enter into the controversy. But this is not the case, as I should be quite out of place if I did. The cause of the officers of the Army Medical Department must be taken up by retired officers of their own service, of whom no doubt there are many in London able and willing to fight for their brethren whose mouths are closed. If anything is to come of it, men in the service must at once get retired officers to form a Committee, and this Committee should engage a paid secretary and hire a room for an office in town. An appeal should then be made to members on the active list for a small subscription towards the carrying out the objects of the Committee. All this was done in the case of the Indian Medical Department, and should be as easy of accomplishment in the case of the Army Medical Department if the members of the latter service really wish it. But writing is of little use until some action is taken so as to secure the names of men to serve on the Committee. The secretary need not necessarily be a medical man. What is wanted is a good man of business who will receive his instructions from the Committee, and carry them out.

No doubt it is true, as "Medical Staff" says, that officers on the active list cannot appear as initiators of the movement, but they can induce those on the retired list to take up the matter, and through the latter bring forward all that it is desired to have redressed. Except this be done it is hardly likely that retired officers will take the initiative or act unless they perceive that those

defect was one of the objects of the Bill. Complaints had been made of the lax enforcement of the law by the Pharmaceutical Society, which had not money to carry on prosecutions. It had been suggested that some of those who had taken advantage of the lax state of things should be allowed to continue their trade if they passed a modified examination, and should have their names inscribed on the register. A similar provision was made for the protection of assistants. There were also provisions for removing uncertainty as to the proprietorship of establishments where the sale of poisons was carried on, and requiring that they should in all cases be under the personal management of qualified persons.—Earl CADOGAN said that the subject of the Bill was not only one of great importance, but also one of great complexity. It was extremely difficult to unravel the various differences which had arisen between the several bodies who produced poisons in Ireland. The Government of Ireland were anxious that the Bill should not pass without further examination, but they had no prejudice against it. They were determined to ask the House to read the Bill a second time on the understanding that it should be referred to a Select Committee. To that course his noble friend had assented, and he now begged to recommend their lordships to adopt it. The Bill was read a second time, and was then referred to a Select Committee.

HOUSE OF COMMONS.—Tuesday, June 5th.

English Doctors in Switzerland.—Dr. FARQUHARSON asked the Under Secretary of State for Foreign Affairs whether he was aware that certain legally qualified English medical practitioners had lately been fined and threatened with imprisonment by some of the authorities for practising among invalids visiting Swiss health resorts; and whether, in the interests of such invalids and of members of the English medical profession, he would make representations to the Swiss Government on the subject.—Sir J. FRIGGUSON replied that the statement in the first paragraph was true. The laws of Switzerland did not permit foreign doctors to practise there without the Federal authorisation. Her Majesty's Government had for some time been endeavouring to arrange with the Swiss Government reciprocal privileges for the medical profession in either country, but as yet without success.

Monday, June 11th.

The Royal College of Surgeons.—Sir G. HUNTER asked the Vice-President of the Committee of Council on Education when a reply to the deputation of the Association of Members of the Royal College of Surgeons, received by the Lord President of the Council on November 11th, 1887, might be looked for.—Sir W. HART DYKE said, since the Lord President received the deputation of November 11th, he had fully considered the statement submitted by them. All petitions and statements on the subject were referred to a Committee of the Privy Council; and, as no legal questions were involved, it did not appear necessary to hear counsel. In consequence of the circumstances brought forward, the supplemental charter, as submitted by the College, had been considerably modified.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

DISEASES OF THE RESPIRATORY ORGANS AT MIDDLESBROUGH.

THE number of deaths from pneumonia in Middlesbrough continues to be very large. In the first eleven days of this month thirty-two deaths are stated to have been registered as due to pneumonia; of these twenty occurred in the week ending June 9th. The Local Government Board has directed an inquiry to be made which will be conducted by Dr. Ballard, one of the Medical Inspectors of the Board, who has already caused inquiry forms to be issued by the Local Sanitary Authority to medical practitioners in the town asking for information with regard to all cases of pneumonia which have occurred since November.

DIPHThERIA ON SHOOTER'S HILL.

FROM some correspondence which is taking place in the *Kentish Independent* we regret to learn that there is at present, and by no means for the first time, an epidemic of diphtheria on Shooter's

Hill. Indeed, Captain Vivian, the author of a sensible letter on the subject, speaks of an "annual epidemic," and states that he has refused to pay any local rates "until an efficient inquiry is instituted into the general question of the drainage of this district."

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, June 9th, 5,506 births and 2,915 deaths were registered in the twenty-eight large English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had declined from 18.9 to 17.6 in the three preceding weeks, further fell to 16.2 during the week under notice, a lower rate than in any week since September last. The rates in the several towns ranged from 12.5 in Birkenhead, 12.8 in Newcastle-upon-Tyne, 12.9 in Nottingham, and 13.6 in Derby to 22.3 in Huddersfield and in Norwich, 22.4 in Blackburn and 25.0 in Manchester. The mean death-rate in the twenty-seven provincial towns was 17.3 per 1,000, and exceeded by 2.4 the rate recorded in London, which was only 14.9 per 1,000. The 2,915 deaths registered during the week under notice in the twenty-eight towns included 265 which were referred to the principal zymotic diseases, against 330, 285, and 282 in the three preceding weeks; of these, 81 resulted from whooping-cough, 42 from diarrhoea, 40 from measles, 36 from scarlet fever, 31 from diphtheria, 24 from "fever" (principally enteric), and 11 from small-pox. These 265 deaths were equal to an annual rate of 1.5 per 1,000; in London the zymotic death-rate was 1.6, while it averaged 1.4 per 1,000 in the twenty-seven provincial towns, and ranged from 0.0 in Portsmouth, Norwich, Birkenhead, Halifax, and Sunderland to 2.9 in Huddersfield and in Cardiff, and 3.0 in Preston. Whooping-cough caused the highest proportional fatality in Wolverhampton, Bolton, Manchester, and Huddersfield; and scarlet fever in Cardiff. The 31 deaths from diphtheria in the twenty-eight towns included 22 in London, 2 in Liverpool, and 2 in Birmingham. Of the 11 fatal cases of small-pox recorded during the week under notice, 6 occurred in Sheffield, 4 in Preston, and 1 in Bristol. No small-pox patients were under treatment in the Metropolitan Asylums Hospitals on Saturday, June 9th. These hospitals contained 853 scarlet fever patients on the same date, showing a slight further decline from recent weekly numbers; there were, however, 89 admissions during the week, against 66 and 78 in the two preceding weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.3 per 1,000, and was considerably below the average.

HEALTH OF SCOTCH TOWNS.—In the eight principal Scotch towns 849 births and 468 deaths were registered during the week ending Saturday, June 9th. The annual rate of mortality, which had been 20.9 and 19.3 per 1,000 in the two preceding weeks, further declined to 18.5 during the week under notice, but exceeded by 2.3 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Leith and Dundee, and the highest in Aberdeen and Perth. The 468 deaths in these towns during the week under notice included 44 which were referred to the principal zymotic diseases, equal to an annual rate of 1.7 per 1,000, which exceeded by 0.2 the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen and Glasgow. The 211 deaths registered in Glasgow included 14 from whooping-cough, 5 from measles, 3 from scarlet fever, and 2 from diphtheria. The death-rate from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 4.1 per 1,000, against 2.3 in London.

HEALTH OF IRISH TOWNS.—During the week ending Saturday, June 9th, the deaths registered in the sixteen principal town-districts of Ireland were equal to an annual rate of 24.3 per 1,000. The lowest rates were recorded in Kilkenny and Wexford, and the highest in Galway and Lisburn. The death-rate from the principal zymotic diseases in these towns averaged 2.8 per 1,000, against 1.5 in the twenty-eight large English towns. The 147 deaths registered in Dublin during the week under notice were equal to an annual rate of 21.7 per 1,000, which showed a further decline from the rates recorded in the two preceding weeks. The 147 deaths included 19 which resulted from the principal zymotic diseases (equal to an annual rate of 2.8 per 1,000), of which 11 were referred to whooping-cough, 3 to scarlet

fever, 3 to "fever," 1 to measles, 1 to diarrhoea, but not one either to small-pox or diphtheria.

QUALIFICATION AND DIPLOMAS IN STATE MEDICINE.

C. F. REDD.—We would refer our correspondent, who asks for information respecting the qualification, etc. given by Cambridge University for medical officers of health, to the Students' Number of the JOURNAL for September 10th, 1887, where he will find full details given (page 593).

UNIVERSITY INTELLIGENCE.

CAMBRIDGE.

LECTURESHIP IN GEOGRAPHY.—The Committee of Election (representing the council of the Senate and the Royal Geographical Society) have selected, as the first holder of the new Lectureship in Geography, Francis, Henry Hill Guillemard, M.A., M.D., of Gonville and Caius College, and formerly of St. Bartholomew's. Dr. Guillemard is a Fellow of the Geographical, Linnean, and Zoological Societies, and is well known as the author of the *Voyage of the "Marchesa" to Kamschatka and New Guinea*. He is at present in Cyprus, aiding in the archaeological explorations undertaken there by the universities, but is expected to return and enter on his duties in the Michaelmas term. Dr. Guillemard has published a pamphlet *On the Endemic Hamaturia of Hot Climates*, and is credited with other professional papers in the medical and scientific journals.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following Vacancies are announced:

- ANDERSON'S COLLEGE DISPENSARY, Glasgow.**—Physician. Applications to David Wilson, Esq., Honorary Secretary, 42, Bath Street, Glasgow.
- ANDERSON'S COLLEGE DISPENSARY, Glasgow.**—Surgeon. Applications to David Wilson, Esq., Honorary Secretary, 42, Bath Street, Glasgow.
- DUFFUS PAROCHIAL BOARD.**—Medical Officer. Salary, £35. Applications by June 23rd to John Nicoll, Esq., Inspector of Poor, Hopeman, N.B.
- EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.**—Resident Clinical Assistant. Board and lodging. Applications by June 25th to the Secretary.
- EDINBURGH CITY POOR HOUSE, Craiglockhart.**—Resident Medical Officer. Salary, £75 per annum, with board. Applications by June 25th to Mr. G. Greig, Inspector, City Parish Chambers, 2, Forrest Road, Edinburgh.
- EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road.**—Surgeon to Out-patients. Applications by June 25th to the Committee of Management.
- GLASGOW HOSPITAL FOR SICK CHILDREN.**—Assistant House-Surgeon. Applications to M. P. Fraser, Esq., 91, West Regent Street, Glasgow.
- GUEST HOSPITAL, Dudley.**—Resident Medical Officer. Salary, £110 per annum, with board and residence, etc. Applications by June 21st to the Secretary.
- LONDON TEMPERANCE HOSPITAL, Hampstead Road.**—Surgeon. Applications by June 16th to the Secretary.
- LONDON THROAT HOSPITAL, 204, Great Portland Street, W.**—House-Surgeon. Applications by June 27th to the Secretary of the Medical Committee.
- METROPOLITAN ASYLUMS BOARD: WESTERN FEVER HOSPITAL, Fulham, S.W.**—Clinical Assistant. Board and lodging. Applications to the Medical Superintendent at the Hospital.
- NEWTON HEATH (MANCHESTER) DISTRICT.**—Medical Officer of Health. Salary, £50 per annum. Applications by June 18th to the Chairman of the Local Board of Health, Town Hall, Newton Heath, Manchester.
- NORFOLK AND NORWICH HOSPITAL.**—Honorary Physician. Applications by June 16th to the Secretary.
- NORFOLK AND NORWICH HOSPITAL.**—Honorary Surgeon. Applications by June 16th to the Secretary.
- NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.**—Junior House-Surgeon. Salary, £30 for six months. Applications by June 19th to A. Nixon, Esq., Secretary, 27, Clement's Lane, E.C.
- OXFORD EYE HOSPITAL.**—House-Surgeon. Board and lodging. Applications by June 20th to the Secretary, 22 Wellington Square, Oxford.
- PARISH OF EIDRACHILLIS, Sutherland.**—Salary, £150 per annum, with free house. Applications by July 15th to Mr. A. E. Cowie, Inspector, Scourie by Larg, N.B.
- PARISH OF KIRKABRECK, Kirkcudbrightshire.**—Medical Officer for the Poor. Salary, £35 per annum. Applications by July 14th to Mr. J. Carson, Inspector of Poor, Creetown, N.B.
- PARISH OF LOCHS, Stornoway.**—Medical Officer. Salary, £140, house and rents free. Applications by June 23rd to H. McL. Ross, Inspector of the Poor, Lochs, Stornoway.
- PARISHES OF PENNYGOWN AND TOROSAY.**—Medical Officer. Salary, £100 per annum. Applications by July 3rd to Mr. A. McDougall, Inspector of Poor, Auchnacraig, Oban, N.B.

- PRISON COMMISSIONERS, SCOTLAND.**—Resident Surgeon for one of Her Majesty's prisons in Scotland. Salary, £200 per annum, with residence or allowance. Applications by June 25th to the Secretary, Prison Commission for Scotland, 130, George Street, Edinburgh.
- QUEEN'S COLLEGE, Birmingham.**—Assistant Medical Tutor. Applications by June 20th to the Secretary.
- RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMEN'S INFIRMARY.**—Resident Medical Officer. Salary, £120 per annum, with furnished apartments, etc. Applications by June 23rd to the Secretary.
- ROYAL ALBERT HOSPITAL, Devonport.**—Assistant House-Surgeon. Board and lodging. Applications by June 18th to the Chairman of the Managing Committee.
- ROYAL SOUTH HANTS INFIRMARY, Southampton.**—House-Surgeon. Salary, £100, board, lodging, etc. Applications by June 20th to the Secretary.
- SHEFFIELD GENERAL INFIRMARY.**—House-Surgeon. Salary, £120, with board, lodging, etc. Applications by June 16th to the Secretary.
- SHEFFIELD GENERAL INFIRMARY.**—Assistant House-Surgeon. Salary, £80 per annum, with board, lodging, etc. Applications by June 15th to the Secretary.
- SURREY DISPENSARY, Great Dover Street, Southwark.**—House-Surgeon. Salary, £120, and furnished apartments. Applications by June 15th to the Subcommittee.
- WEST LONDON HOSPITAL, Hammersmith Road, W.**—Physician. Applications by June 21st to the Secretary Superintendent.
- WEST LONDON HOSPITAL, Hammersmith Road, W.**—Assistant Physician. Applications by June 21st to the Secretary Superintendent.
- WEST LONDON HOSPITAL, Hammersmith Road, W.**—House-Physician. Board and lodging. Applications by June 21st to the Secretary Superintendent.
- WEST LONDON HOSPITAL, Hammersmith Road, W.**—House-Surgeon. Board and lodging. Applications by June 21st to the Secretary Superintendent.
- WESTPORT UNION.**—Medical Officer, Westport No. 2 and Louisburgh No. 2 Districts. Salary, £39 per annum, and fees. Election on June 24th.
- WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY.**—House-Surgeon. Salary, £100, with board and lodging. Applications by June 30th to the Honorary Secretary, E. Arnold, Esq., White Hall, Chichester.
- WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.**—Resident Assistant. Board and lodging, etc. Applications by June 25th to the Chairman of the Medical Committee.

MEDICAL APPOINTMENTS.

- ADAMS, F. E., M.D., M.Ch.**, appointed Medical Officer to the Wellingborough Medical Institute.
- ALTHORP, C. F. M., M.B., Lond.**, appointed Resident Medical Officer to the Ida Convalescent Home, Colkridge.
- BERRY, James, M.B., B.S., Lond., F.R.C.S.**, appointed Assistant-Surgeon to the Royal Free Hospital, Gray's Inn Road.
- CAGNEY, James, M.D.**, appointed Assistant Physician and Registrar to the Hospital for Epilepsy and Paralysis, *vice* H. W. Syers, M.D., resigned.
- CARR, J. W., M.D., B.S., F.R.C.S.**, appointed House-Physician to the Victoria Hospital for Children, S.W., *vice* H. Cholmeley, M.B., resigned.
- CHAMBERS, James, M.D.**, appointed Assistant Medical Superintendent to the Counties Asylum, Carlisle, *vice* S. R. Macphail, M.D., resigned.
- CLARK, F. W., L.R.C.P., M.R.C.S.**, appointed Assistant Medical Officer to the Darent School for Imbecile Children, *vice* W. T. Maddison, M.B., resigned.
- CUMMING, Robert, M.B., C.M., Aberd.**, appointed Assistant Medical Officer to the Perth District Asylum, Murthly.
- HACON, Walter E., L.R.C.P., Lond., M.R.C.S. Eng., L.S.A., Lond.**, appointed Honorary Physician to the Christchurch Hospital, New Zealand.
- HALL, A. R., M.D., Brux., L.R.C.P., M.R.C.S.**, appointed Surgeon to the Hampstead Provident Dispensary.
- HARVEY, F. G., M.R.C.S., L.R.C.P.**, appointed Resident Medical Officer to the Hospital for Diseases of the Throat, Golden Square, *vice* P. S. Hutchinson, M.R.C.S., L.S.A., resigned.
- HERNIMAN, T. M.B., C.M.**, appointed Assistant Resident Medical Officer to the Children's Hospital, Birmingham, *vice* E. T. Roberts, M.B., resigned.
- HOLT, A. K., M.R.C.S. Eng., L.R.C.P., Lond.**, appointed House-Physician to the North Staffordshire Infirmary, *vice* S. K. Alcock, M.R.C.S., resigned.
- INGLE, A. C., M.B., M.R.C.S.**, appointed Surgeon to the Lowestoft Friendly Societies Medical Institution, *vice* D. C. Smith, M.D., resigned.
- MACKENZIE, W. J., M.B., C.M., Glas.**, appointed Medical Officer to the Parish of St. Mary, Islington, *vice* J. R. Donald, F.R.C.S., resigned.
- MACPHAIL, S. R., M.D., Edin.**, appointed Medical Officer to the Derby Borough Asylum.
- MORISON, F. W., M.R.C.S., L.R.C.P., Lond.**, appointed Surgeon to the Chelsea, Brompton, and Belgrave Dispensary, *vice* Leonard Mark, M.R.C.S., L.R.C.P., resigned.
- PROWSE, J. S., M.B., B.S., Camb.**, appointed Junior House-Surgeon to the Western General Dispensary.
- ROBERTS, E. T., M.B., C.M.**, appointed Resident Medical Officer to the Children's Hospital, Birmingham, *vice* G. W. Powell, M.B., resigned.
- ROBSON, E. S., M.R.C.S.**, appointed Honorary Surgeon to the Durham County Hospital, *vice* F. W. Barron, M.B., M.R.C.S., resigned.
- STALNTHORPE, T. M.D., F.R.C.S.**, late President of the North of England Branch of the British Medical Association, appointed Consulting Physician to the Tynedale Hydropathic Mansion, Hexham.
- STAVELY, W. H. C., L.R.C.P., M.R.C.S.**, appointed House-Surgeon to the Victoria Hospital for Children, S.W., *vice* H. C. Kidd, F.R.C.S., resigned.

THOMPSON, A., L.D.S.R.C.S., appointed Honorary Surgeon-Dentist to the Durham County Hospital.
 THOMPSON, E. E., L.R.C.P., L.S.A., appointed Medical Officer to the Munslow District of the Ludlow Union, *vice* A. C. Malley, M.B., B.S.Dub., resigned.
 WHITTAKER, George O., L.D.S.Eng., appointed Honorary Dental Surgeon to the Manchester Hospital for Consumption and Diseases of the Throat.
 VINRACE, F., M.D.Lond., F.R.C.S., appointed Acting Surgeon to the Birmingham and Midland Skin and Lock Hospital, *vice* H. T. Bassett, M.B., resigned.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having passed the necessary examinations on May 23rd, 24th, 25th, 26th, 28th, and 29th, 1888, for the diploma of Fellow, were, at a meeting of the Council on June 14th, admitted Fellows of the College.

J. Adams, M.D.Aberd., Ashburton, Devon; A. S. Morton, M.B., C.M.Edin., 26, Weymouth Street, W.; J. A. Kempe, L.R.C.P.Lond., Royal Alexandra Hospital, Brighton; J. Mackern, M.D.Cantab., 30, Cambridge Street, Hyde Park, W.; T. F. Pearce, L.R.C.P.Lond., 10, Montague Street, Russell Square, W.C.; H. W. Dodd, L.R.C.P.Lond., 47, Kensington Park Gardens, W.; C. A. Morris, M.B.Cantab., 33, Myddelton Square, E.C.; W. Hind, M.D.Lond., 8, Woodhouse Terrace, Stoke-on-Trent; E. W. Willett, M.B.Oxon., 60, Welbeck Street, Cavendish Square, W.; E. C. Arnold, L.R.C.P.Lond., Hurst, Fairfield Road, Croydon; G. L. Wells, M.B. and B.S.Lond., 16, Heathcote Street, W.C.; J. H. E. Brock, M.B.Lond., 115, Adelaide Road, South Hampstead; A. J. Drew, L.R.C.P.Lond., 62, St. John Street, Oxford; T. P. Beddoes, L.S.A., 89, Lambeth Palace Road; F. C. Hart-Smith, M.B.Lond., St. Peter's Rectory, Bedford; H. Armstrong, L.R.C.P.Lond., Aylestone Hill, Hereford; R. R. Whishaw, L.R.C.P.Lond., 17, Mount Road, New Brighton, Cheshire; H. S. Walker, L.R.C.P.Lond., The Blms, Wakefield; R. F. Jowers, L.R.C.P.Lond., 27, Old Steyne, Brighton; H. Tonks, L.R.C.P.Lond., Parkwood Grange, Knowle, Warwickshire; K. Totsuka, L.R.C.P.Lond., 65, Lambeth Palace Road; E. Solly, M.B.Lond., Congleton, Cheshire; C. J. Shields, M.B.Melb., 389, City Road, E.C.; A. S. Taylor, M.B.Cantab., Richmond House, Blot Park, Blackheath, S.E.; F. H. Taylor, M.B.Lond., 8, Pyrland Road, N.; A. A. Kanthack, L.R.C.P.Lond., 1, Betley Villa, Church Grove, Hampton Wick, Middlesex; P. W. Rattray, M.B., C.M.Aberd., 7, Approach Road, E.; D. R. McKinnon, M.B., C.M.Aberd., Bethnal House, Cambridge Road, E.

Fifty-six candidates presented themselves for examination, 31 of whom passed (including 3 candidates who have not yet attained the legal age) and 25 failed.

The following gentlemen having passed the necessary examination at previous meetings of the court, and having since attained the legal age (25 years), were also admitted Fellows.

W. Fox, L.R.C.P.Lond., 3, Brambletyre Park Hill, Croydon; J. W. Washbourn, The Friars, Gloucester; P. A. Lloyd, L.R.C.P.Lond., 101, St. Mark's Road, North Kensington.

The following gentlemen having passed the necessary examinations, and having obtained medical qualifications, were admitted Members of the College.

V. Allen, L.R.C.P.Lond., 99, Belgrave Road, S.W.; U. Banerji, L.R.C.P.Lond., Rairfur, Bombay; G. A. H. Barton, L.S.A., St. Mary's Hospital; R. J. Braye, L.R.C.P.Lond., 13, Lincoln Street, Leicester; M. P. Cooke, L.S.A., Fern House, Landkey, Barnstaple; W. L. Mathias, L.R.C.P.Lond., 49, Montpelier Road, Brighton; A. A. Parry, M.B.Melb., 9, Euston Square, N.W.; E. V. Phillips, L.R.C.P.Lond., Kibworth, Beauchamp, Leicester; E. T. M. Tunncliffe, L.S.A., Whetstone, N.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a special examination for the Licence to practise Midwifery of the College, held on Friday, May 18th, 1888, the following candidate was successful.

H. A. Logan, M.D., R.U.I., Belfast.

At the ordinary monthly examinations for the Licences to practise Medicine and Midwifery of the College, held on Monday, June 4th, 1888, and three following days, the undermentioned candidates were successful.

For the Licences to Practise Medicine and Midwifery.—W. A. Murray, L.R.C.S.I., Dublin; T. H. Straugman, L.R.C.S.I., Waterford.

For the Licence to Practise Medicine only.—J. A. O'Finigan, L.R.C.S.I., Dublin.

For the Licence to Practise Midwifery only.—W. D. Moore, M.D., Q.U.I., Belfast.

ROYAL COLLEGE OF SURGEONS, IRELAND.—Mr. J. Bellew Kelly was erroneously stated in our last number to have been returned as a member of Council. Dr. H. G. Croly has declared himself a candidate for vice-presidency in 1889. It is stated that another candidate will also be in the field.

At a meeting of the Council of the Pharmaceutical Society of Great Britain on June 6th, Mr. Michael Carteighe, F.I.C., F.C.S., was elected President of the Society for the seventh year in succession.

PRESENTATION.—Upon June 12th Dr. W. E. Dawson, medical officer, was presented by the members of Court Wenlock, A.O.F., with a silver casket, richly gilt and engraved.

DR. MAZZARINI, late Assistant Surgeon in Professor Loreta's wards, in Bologna, has succumbed to splenic fever.

A COURSE of clinical lectures and demonstrations is to be given during June at the Hospital for Sick Children, Great Ormond Street. The medical course will be delivered by Dr. Sturges on Fridays, at 3.30; the surgical course by Mr. Edmund Owen, on Saturdays, at 9.30 A.M. During the remainder of the summer season, Dr. Barlow will give weekly demonstrations of cases in the wards at 10.15 A.M. on Tuesdays, commencing June 26th. Mr. John Morgan will lecture on Saturdays at 10.30, on congenital deformities, commencing June 30th.

GEH. RATH. PROFESSOR DR. V. BERGMANN has been elected an honorary member of the St. Petersburg Surgical Society.

DIARY FOR NEXT WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Mr. R. Marcus Gunn (Arris and Gale Lecturer): On Light-percipient Organs.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Donald MacAlister The Croonian Lectures on Antipyretics.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Mr. R. Marcus Gunn (Arris and Gale Lecturer): On Light-percipient Organs.

HOSPITALS ASSOCIATION, 8 P.M.—Governors' Hall of St. Thomas's Hospital. Adjourned discussion of a paper by W. Burdett-Coutts, Esq., M.P., on Contributions by Patients in Relation to the Financial Condition of London Hospitals.

ROYAL METEOROLOGICAL SOCIETY, 7 P.M.—The Hon. Ralph Abercromby: First Report of the Thunderstorm Committee. On the Photographs of Lightning Flashes. Mr. Charles Harding: The Cold Period from September 1887 to May 1888. The Hon. Ralph Abercromby: Observations on Cloud Movements near the Equator, and on the general Character of the Weather in the Doldrums.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Donald MacAlister: The Croonian Lectures on Antipyretics.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Adjourned debate on papers by Dr. Steavenson, Dr. Lovell Drage, Dr. Gibbons, and Dr. Shaw on Electrolysis in the Treatment of Diseases of Women.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 5 P.M.—Mr. R. Marcus Gunn (Arris and Gale Lecturer): On Light-percipient Organs.

SATURDAY.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND, Anatomical Museum of the University of Cambridge, 4.30 P.M.—Alex. Macalister, F.R.S.: Dissecting-room Notes and Specimens. John Curnow: Specimen of Abnormal Development of the Skull. Johnson Symington: (1) Two Adult Temporal Bones, with non-union of the Periosteal and Squamous Portions. (2) A Section of the Head to show the Air-passages connected with the Ear. (3) Sections of a Female Pelvis. W. H. Gaskell, F.R.S.: Preparations illustrating the Structure of the Cranial Nerves. A. M. Paterson: Microscopic Specimens illustrating the Development of the Spinal Nervous System. W. H. Caldwell: A new Microtome. Frederick Treves: Hernia into the Foramen of Winslow. Johnson Symington: On the Rectum and Anus. Alexander Hill: (1) Subcallosal Convolution. (2) A new Staining Method for Nerve-cells.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

HERBERT.—On June 7th, at 7, Abbey Terrace, West Cliff, Whitby, the wife of Johnson Herbert, L.R.C.P., etc., medical officer of health, of a daughter.

HOLTS.—On May 3rd, at Yass, New South Wales, the wife of Alton Kingsley Holts, M.R.C.S.Eng., of a daughter.

NELIGAN.—On May 8th, at Penmorfa, Friends' Road, Croydon, the wife of J. W. Neligan, M.D., of a son.

MARRIAGES.

BRETT—TELFORD.—On June 5th, at Brighton, near Melbourne, Victoria, John Talbot Brett, M.R.C.S.Eng., L.R.C.P.Lond., eldest son of the late Deputy Surgeon-General Her Majesty's Indian Army, to Margaret Stirling, third daughter of the late James Campbell Telford, M.D., of Cobran, New South Wales. (Per Renter's cable.)

STAINTHORPE—PEAT.—On June 5th, at the West Free Church, Broughty Ferry, by the Rev. G. E. Troup, M.A., William Waters Stainthorpe, M.D., of Kirkleatham, Redcar, to Clementina Janet Peat.

DEATHS.

EWAN.—At Parkeston, Harwich, on Saturday, June 9th, John Frazer Ewan, M.D., B.Sc., Edinburgh, of Sydney, New South Wales, aged 33 years.

TIJKE.—On June 9th, at Chiswick, Thomas Harrington Tjke, M.D., F.R.C.P., etc., of the Manor House, Chiswick, and 37, Albemarle Street, aged 62.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.; West London; Cancer Hospital, Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department);

WEDNESDAY.....10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great Northern Central; Central London Ophthalmic. 2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; St. Thomas's (Obstetric Department); Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th., 1.30; Dental, M. W. F., 9.

GUY'S.—Medical and Surgical, daily, 1.50; Obstetric, M. Tu. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.50 and 2; Obstetric, M. Th., 1.30; o.p. W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu. F., 1.30; o.p. W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, Tu., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. Th. S., 2.30; Ear, Tu. F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. T. F. S., 1; Obstetric, Tu. S., 1; o.p., Tu., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu. S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 1.45; o.p., M. Th., 1.30; Eye, Tu. F. S., 9; Ear, M. Th., 3; Throat, Tu. F., 1.30; Skin, M. Th., 9.30; Electrician, Tu. F., 2; Dental, W. S., 9.30; Consultations, M., 2.30; Operations, Tu., 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, Tu. F., 2; o.p., W., 1.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu. F., 1.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45, S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN THE FIRST POST ON WEDNESDAY.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

AN OLD SUBSCRIBER asks where wicker coffins can be obtained.

TREATMENT OF DIABETES BY OXYGENATED WATER.
DR. C. GUNN (125, Stephens Green West, Dublin) asks whether a patient who has suffered from glycosuria for many years, but by taking care gets fair health, would be likely to be benefited by using oxygenated water.

TREATMENT OF WEBBED FINGERS.
A MEMBER asks which of the many methods employed in the treatment of webbed fingers is to be recommended.

TREATMENT OF WOUND OF LEG.
S. H. J. asks: What is the best dressing for a clean wound over the shin bone caused by the blow of a cricket ball?
My patient is a healthy, muscular man, with perhaps a little gouty tendency, but although I have tried all the usual remedies the wound (a fortnight old) shows little tendency either to heal or granulate. The limb is having perfect rest.

TREATMENT OF DYSIDROSIS.
T. E. L. L. would be very much obliged for any information any reader of the JOURNAL can give him on the treatment of dysidrosis attacking the outer and inner sides of the hands at the junction of the dorsal and palmar surfaces. It appears every year about April and lasts during the hot weather; there is little or no itching, but the scales drying at one place, while fresh "sago grains" are appearing in another, are very unsightly. He has tried internally arsenic and general tonics, and locally, glycerine, boro-glyceride, carbolic soap, ung. zinci, etc. His general health is and always has been perfect.

ANSWERS.

ADMIRALTY EXAMINATION.
SURGEON R. N. writes: In reply to the request of "W. E. M." in the JOURNAL of June 9th, I would quote for his information and guidance, in giving an opinion in the case he refers to, the following from the Queen's Regulations and Admiralty Instructions, paragraph 1,075, clause No. 1, which applies to all persons, of whatever class or age, entering Her Majesty's navy: "Seven teeth deficient or defective (unless special authority is obtained from the Admiralty), or if the biting or grinding capacity be seriously impaired owing to a smaller number of absent or unsound teeth, for example, three or four incisors or four molars in the same jaw. Beyond the above no exact rule with respect to defective teeth can be laid down, but the examining medical officer should take into account the condition of the teeth generally, and the probability of their lasting."

METHYLENE.

IGNORANTIA sends the following string of questions with regard to methylene: 1. How is it used? 2. What is the usual quantity required to produce anaesthesia? 3. How much is required to keep the anaesthesia profound? 4. What are the indications of danger? 5. How are they best combated? 6. What firm is the best for a supply of pure methylene?
. We have referred the questions to Sir Spencer Wells, who has been good enough to send the following replies: 1. By Junker's inhaler. 2. Two or three drachms. 3. About one drachm for each ten minutes. 4 and 5. Same as chloroform. 6. Krolne and Sesemann, Duke Street, Manchester Square.

NOTES, LETTERS, ETC.

GIBSON AND WIFE V. JEFFRIES AND HILLS.

Further Subscriptions.

(To defray the expenses of the defendants: see JOURNAL, May 26th, p. 1132).

	£	s.	d.
B. Faraday Giles...	0 5 0
Fred. F. Andrews	1 1 0
H. W. Webster	0 10 6
"M.B."	2 2 0

Leaving 278s. 0d. still to be subscribed.
C. B. KRETLEY, Honorary Secretary.
10, George Street, Hanover Square, W.

A SOURCE OF INFECTION.

DR. ARCHIBALD D. MACDONALD, (Liverpool) writes: Assuming that the case of "so-called puerperal fever" were really a case of puerperal septicemia, let me tell your correspondent, and during labour the washing of his hands in iodised water (about one drachm of liquor iodi to a pint and a half) he did not use "the strictest antiseptic treatment that here iodine is the question. There is substantial reason for believing that here iodine is the antiseptic. Had your correspondent employed it, he might not have had occasion to refer to the so-called puerperal fever at all; the borrowed Higginson would not have become the unconscious instrument of conveyance of possible septicæmia in spite of the antiseptic employed for the irrigations; thirty-two lines of the JOURNAL would in all probability not have been occupied in reiterating the warning, "Beware of the germs which lurk in the nooks of used instruments," and this letter would not have been written. The syringe, I hold, should have been purified by iodine and not recommended to be corrosive sublimate before return to the chemist, and not recommended to be destroyed. A working man cannot afford to throw away or burn a ninth or tenth part of a week's income, and antiseptics are either effective or they are shams. Most of us believe them to be effective; let us then practically show our faith in them.

PRACTICE IN AUSTRALIA.

SEVERAL correspondents have recently made inquiries with regard to the prospects before a medical practitioner emigrating to Australia as compared with those which he has in the United Kingdom. No general answer to such a question can be given, as much depends upon personal and physical qualifications and upon the colony chosen; but it must be remembered that there is as yet no legal restriction upon the practice of unqualified persons, and

that consequently quackery is rampant. Further, the number of qualified practitioners in proportion to the population is already large. In his annual address to the Sydney and New South Wales Branch of the British Medical Association, the Hon. Dr. J. M. Creed, the retiring President, referred to this subject; the number of medical practitioners who were arriving in Australia from all parts of the world for the purpose of settling in practice was, he said, disproportionate; "the hopes of many of these gentlemen," he said, "are fated to disappointment, for the number of medical men in proportion to the population is rapidly becoming so large that remunerative practice can be but the reward of very few of them." He added that whereas there was one medical practitioner to every 1,562 inhabitants in England, in New South Wales there was more than one to every 1,250, if the men practising without qualifications were included in the calculation.

THUNDERSTORMS AND LIGHTNING ACCIDENTS.

MR. H. NEWMAN LAWRENCE, Electrician to the Institute of Medical Electricity (24, Regent Street), writes that the Institute is very desirous to obtain authentic information concerning lightning accidents, whether fatal or otherwise. Electrical and physiological details are most required, but reliable general information is stated to be often very valuable, and will be gratefully received.

THE TREATMENT OF ECZEMA.

DR. C. R. ILLINGWORTH (Accrington) writes: The prescription given by Dr. Hawkins is lacking in one essential; it contains no antiseptic. For several years I had very good results with a mixture of equal parts of zinc ointment and glycerine, but since I made the preparation antiseptic with glycerine of borax I have effected much more rapid cures. The same ointment also gives great relief in pruritus ani, itself an eczematous or quasi-eczematous affection; whilst for acne rosacea and other allied affections of the skin it is (if there be any justification in the use of the term) an absolute "specific."

ON THE USE OF CODEINE TO RELIEVE PAIN IN ABDOMINAL DISEASE.

MR. J. MATTHEWS (Liverpool) writes: I read with much pleasure the paper on Codeine by Dr. Lauder Brunton in the JOURNAL of June 9th. I have now under treatment a lady who has recently ceased menstruating and who has suffered for nearly a year from vomiting attended occasionally by hæmorrhage—hysterical vomiting and vicarious hæmorrhage. She complained much of pain in various parts, specially under the lower edge of the ribs and over the ovaries. I had tried everything I thought likely to relieve her with little or no effect, when Dr. William Carter suggested codeine. We gave it in half-grain doses three times a day with very decided benefit. Contrary to the opinion expressed in the paper referred to, my impression is that it tends to constipate, and I add one grain of compound rhubarb pill to each dose.

A PIN PASSED PER ANUM IN FORTY HOURS.

DR. J. McANDREW, M.B. Ed. (Huddersfield) writes: A child aged 2 years was brought to me on June 4th by its father, who averred that it had swallowed a small pin about an hour previously. I carefully examined the mouth and fauces, but could discover no pin there. As the child seemed to be suffering no discomfort, I concluded that perhaps, unknown to the mother, it had dropped the pin from its mouth—in fact, that it had not swallowed the pin after all. However, I told the father to give the child plenty of solid food, very little liquid, and on no account to give a purgative. I also told him to have every stool examined carefully; this was done, and the result was that they found the pin embedded in a mass of fæces passed on Wednesday morning, June 6th.

I merely note this case because, in the first place, it is not very common to find a sharp and somewhat lengthy body like a pin pass through the intestinal tract without producing any untoward symptoms; and in the second place because of the short time—about forty hours—that elapsed between its entrance and exit from the alimentary canal.

EUGENIA JAMBOLANA.

DR. GEO. SUTTIE (Detroit, Michigan, U.S.A.) writes: There appeared in the JOURNAL of May 5th a small paragraph headed "Jambul from the Dutch Indies," in which the botanical name was given as *syzygium jambolana*. Beneficial results were also recorded from the use of this drug in a case of diabetes mellitus, and the paragraph concluded by saying that "it is not clear whether this is the same plant as *eugenia jambolana*."

Since the members of the profession on both sides of the Atlantic are somewhat interested in this drug as a promising remedy in diabetes, it would be conducive to their intelligent understanding of the therapeutics of jambul to know that reports of its effects as given under the name of *syzygium jambolana* and that of *eugenia jambolana* relate to the same remedy, and can be incorporated in collective investigation.

The urgent necessity which exists for more stringent rules of botanical classification in order to get the infinity of names within bounds called for the fusion of the genus *syzygium* into *eugenia* by Bentham and Hooker when writing their *Genera Plantarum* (vol. i, part ii, page 119), and as this work is recognised as authoritative on taxonomy, jambul should now be known as *E. jambolana*, Lam.

Your readers may have access to either or all of the works mentioned below, and which can be consulted for a record of synonymy: De Candolle's *Prodrromus*, vol. iii, p. 259; Drury's *Useful Plants of India*, p. 421; Rosenthal's *Heil-Nutz- und Giftpflanzen aller Länder*, p. 930; Baker's *Flora of Mauritius and the Seychelles*, p. 116; Hooker's *Flora of British India*, vol. ii, p. 499, etc.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. Atkinson, Leeds; Dr. Eustace Smith, London; Our Swiss Correspondent; Dr. Robert Pringle, Blackheath; Dr. C. Bell Taylor, Nottingham; The Secretary of the Hospitals Association, London; Dr. Norman Kerr, London; Mr. W. Martindale, London; Dr. A. M. Edge, Manchester; Observer; Dr. L. Steven, Glasgow; Mr. P. H. Farnsworth, Nottingham; Dr. D. Goyder, Bradford; Dr. A. Bronner, Bradford; Dr. Wolfe, Glasgow; Dr. W. D. Spanton, Hanley; Mr. G. A. D. Mahon, London; Messrs. Ellis and Cuthbert, Gloucester; Dr. A. R. Hall, London; Dr. Oldtmann, Maastricht, Holland; Dr. Handfield Jones, London; Surgeon W. G. Axford, H.M.S. *Lion*, Devonport; Dr. J. W. Moore, Dublin; Dr. Thin, London; Mr. C. Aitken,

Penarth; Mr. W. A. Thomson, Amptill; Mr. J. W. Fry, Watlington; A Student of Disease; Messrs. Burnett and Co., London; Mr. E. P. Hardy, Hull; Dr. Maxwell, Woolwich; Mr. W. T. Grant, London; J. McAndrew, M.B., Huddersfield; Mr. T. Holland, London; The President of the Royal College of Physicians, London; Dr. J. H. Scott, Camberley; Dr. Walter Pearce, London; Mr. Adams Frost, London; G. B. White, M.B., Dublin; J. Berry, M.B., London; Mr. C. B. Lockwood, London; Dr. T. W. Thursfield, Leamington; Mr. A. H. Hawkins, Birmingham; Dr. J. W. Byers, Belfast; Mr. G. Q. Roberts, London; Mr. M. G. Clark, Walham Green; Dr. Kelly, Taunton; Dr. B. Field, Bath; Dr. G. Suttie, Detroit, U.S.A.; Dr. F. Rennie, Newcastle-on-Tyne; Dr. W. E. Steavenson, London; Dr. Partridge, Stroud; Dr. Macpherson, London; Dr. W. E. Dawson, London; Mr. G. Dalzel, London; Mr. Shirley Murphy, London; Dr. A. D. Macdonald, Liverpool; Dr. W. E. Hacon, Christchurch, N.Z.; Mr. J. P. Jamieson, London; Dr. J. H. Champ, Maidenhead; Our Manchester Correspondent; R. M. D.; A. Member; Mr. W. Marriott, London; Mr. W. W. Pike, Curragh; Dr. C. Gunn, Dublin; Mr. F. Wilson, Keighley; Dr. T. Stainthorpe, Hexham; Mr. F. Passmore, London; Mr. J. Dewar, Buxton; Dr. W. Alexander, Streatham; Sir James Paget, Bart., London; Dr. J. G. Clendinning, Coseley; Mr. S. Benton, London; The Secretary of University College Hospital, London; Mr. C. R. Owen, Rushden; Messrs. E. Street and Co., London; Dr. Sykes, Mexborough; Deputy Surgeon-General Franklyn, London; Dr. R. R. Rentoul, Liverpool; Mr. F. Newland Pedley, London; Mr. C. Macnamara, London; Dr. F. L. Benham, London; Mr. H. T. Barton, Burnley; Dr. J. Glaister, Glasgow; Dr. Ward Cousins, Southsea; Dr. R. M. Simon, Birmingham; R. Cumming, M.B., Murthly; The Secretary of the Sanitary Institute of Great Britain, London; Mr. J. W. Mason, Hull; Dr. Edwardes, London; Dr. R. Wade Savage, London; Mr. W. H. Brown, London; Dr. Pearce, Botesdale; Dr. H. B. Densham, Aylesbury; Mr. T. Wilkinson, Lincoln; Dr. J. M. Robertson, Glasgow; Mr. Patten, Ealing; Mr. F. Edges, Manchester; Mr. J. Matthews, Liverpool; Dr. C. R. Illingworth, Accrington; Dr. Markham Skerrett, Bristol; Dr. G. S. Middleton, Glasgow; Mr. W. Ashton Ellis, London; Dr. R. Barnes, London; Dr. H. T. Rutherford, London; Our Liverpool Correspondent; Dr. J. D. McHeely, Killybegs; Dr. Farquharson, M.P., London; Dr. M. G. Evans, Cardiff; Dr. D. Thomas, London; Mr. C. J. Mounsey, Earlestown; Dr. G. B. White, Dublin; The Editor of the *Journal of Commerce*, Liverpool; Messrs. Huggett and Co., London; Mr. A. E. Rook, Eastbourne; Mr. A. C. Butler-Smythe, London; Dr. W. R. Woodman, London; Dr. Scott, Ilkley; Mr. C. Fox, Carthays, Cardiff; Deputy Surgeon-General S. S. Skipton, M.D., Leeds; Mr. Liedke, London; Mr. A. de St. Dalmass, Leicester; Mrs. Ashton Warner, London; Mr. Keetley, London; Mr. H. N. Lawrence, London; Dr. G. R. Leeper, Kesh; Mr. W. H. Kerbey, Charmouth; Mr. J. L. Goodwin, London; Messrs. W. J. Bush and Co., London; etc.

BOOKS, ETC. RECEIVED.

- The Standard of Value. By William Leighton Jordan. Fifth edition. London: Longmans, Green and Co. 1888.
- The Science and Art of Surgery. By John Eric Erichsen, F.R.S., LL.D. Ninth edition, revised and edited by Marcus Beck, M.S., M.B., F.R.C.S. Vols. I and II. London: Longmans, Green and Co.
- The Sectional Anatomy of the Congenital Cæcal Hernia. By E. H. Bennett, M.D., and D. J. Cunningham, M.D. London: H. K. Lewis.
- An Introduction to the Study of the British Pharmacopœia. By Rawdon Macnamara. London: H. K. Lewis.

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REPORTS OF THE COLLECTIVE INVESTIGATION COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

REPORT ON THE INQUIRY INTO THE CONNECTION OF DISEASE WITH HABITS OF INTEMPERANCE.¹

PREPARED BY ISAMBARD OWEN, M.D., M.A., F.R.C.P.,
Secretary to the Committee.

The inquiry of the Collective Investigation Committee into the above subject was carried on from May 9th, 1885, to December 11th, 1886.

The form of inquiry-paper used was suggested by Dr. Edward Casey, of Windsor, who has taken a part in preparing the Report. It consisted essentially of a table containing seven columns. The table was divided horizontally into twenty-five spaces, and each space was distinguished by a numeral placed in the first column. The second, third, and fourth columns were headed, "Occupation or Social Position," "Age at Death," and "Cause of Death."

The contributor to the inquiry was requested to take his death certificate book for the past three years, and to fill in columns 2, 3, and 4 from the counterfoils of his certificates of males over 25 years of age, in order as they came.

In column 5 he was requested to append a mark signifying whether the deceased had ever suffered from gout or not, wherever such information was available.

In the 6th column he was requested to indicate the alcoholic habit of the deceased by an index-letter, A, B, C, D, or E, corresponding with the following scale of alcoholic classes:—

"Class A.—Total Abstainers.

"Class B.—The Habitually Temperate.—That is, men who drink small amounts, and only with meals, and rarely take spirits, except for medicinal purposes (the latter part of the definition not to apply to whisky drinking countries.)

"Class C.—The Careless Drinkers.—Men who, without being 'intemperate' or 'free drinkers,' yet do not confine themselves within a rigid rule; who do not demur to drinking spirits occasionally as a beverage; who may at times drink between meals, or even to the extent of intoxication occasionally, but who do not make these practices a habit; and, on the average, do not materially exceed what has been termed the 'physiological amount' of 1½ ounce of pure alcohol daily.

"Class D.—The Free Drinkers.—Men who 'drink a fair amount,' or 'take their wine freely,' habitually exceeding the physiological amount to a material extent; but yet who cannot be called 'drunkards,' or considered to have forfeited a character for sobriety.

"Class E.—The Decidedly Intemperate.—'Drinking men,' 'hard drinkers,' and 'drunkards.'

"If a doubt exist to which of two classes a patient should be considered as belonging, he may be placed between the two by joining the letters, as AB or CD.

"If required, the duration of the patient's latest habits may be indicated; for example, as follows.

"A 3 yrs. } meaning a total abstainer the last three years of life;
"E prev. } decidedly intemperate previously."

The 7th column was devoted to further remarks on the cases. In such an inquiry there are certain obvious possibilities of error.

1. There is the possibility of the cause of death being incorrectly stated, owing to difficulty of diagnosis; but the statement of the cause of death in this inquiry is drawn from the selfsame source which is relied on in the Registrar-General's returns, and the suspicion of error which attaches to this inquiry is no greater than that which may be held to vitiate the Registrar-General's statistics.

2. The individual's alcoholic habits may be incorrectly stated, either from want of accurate knowledge on the part of the con-

¹ Read in the Section of Medicine of the Annual Meeting of the British Medical Association held at Dublin in August, 1887.

tributor, or from his statement being biased by his views upon temperance questions. By this is meant that one man may entertain a more rigid standard of temperance than another, and place an individual in Class C, whom his fellow would include in Class B.

These errors were, however, foreseen, and provided against as far as was possible.

1. Each contributor was requested to leave a blank in the column if he were unable to index the individual with confidence; and, as a matter of fact, a large number of such blanks were left.

2. The meaning of the different classes was defined with as much accuracy as such a definition admitted of.

3. The contributors were allowed, when in doubt about the alcoholic class, to place the patient in an intermediate position between two classes. Thus, in addition to the five classes, four sub-classes were introduced, making altogether nine degrees upon the alcoholic scale. It might, the Committee thought, be fairly assumed that with so many divisions on the scale the place accorded to any individual would seldom be far removed from the right one, and that on the whole slight errors in one direction might be taken to counterbalance similar errors in another direction.

The inquiry was placed in the hands of all members of the Association, and 178, whose names are printed in an appendix (A), responded to it, forwarding 250 schedules of returns, including altogether 4,234 cases in which the alcoholic class was named, without counting those in which a blank was left.

The returns as received were copied out on fresh sheets, each case being placed under the heading of its respective alcoholic class. In making this classification, regard had to be paid to those cases in which the individual was stated to have altered his habits in the course of his life (see the form of inquiry paper above). Of such there were 118. Twelve of them are placed in a separate category as unclassified cases.

The claim of the remaining 106 to belong to particular classes was held on careful consideration not to be modified by the alteration in habits stated to have occurred. For instance, a man dying of chronic renal disease at the age of 75 is included in Class E, although stated to have drunk hard for eleven months before his death; and, on the other hand, a man who died of phthisis at the age of 27 is retained in Class E, though stated to have been a total abstainer for the last twelve months of life.

Of these 106 cases 3 are included in Class A, 5 in B, 1 in BC, 23 in C, 2 in CD, 25 in D, 4 in DE, and 43 in E. Details of them are given in an appendix (B).

THE ALCOHOLIC HABITS OF THE GENERAL AGGREGATE.

The aggregate of cases, being distributed into the respective classes, gives the following figures:—Class A, 122; AB, 54; B, 1,529; BC, 178; C, 977; CD, 112; D, 547; DE, 100; E, 603; unclassified, 12.

Translating these figures into percentage² parts of the aggregate, we get in Class A, 2.8; in AB, 1.2; in B, 36.1; in BC, 4.2; in C, 23.0; in CD, 2.6; in D, 12.9; in DE, 2.3; in E, 14.2; and in the unclassified, 0.2 per cent.

TABLE I.—Table showing the Number of Cases falling in each Class, and the Percentage* of each Class on the Aggregate of Cases.

Class.	No. of Cases.	Percentage.
A	122	2.8 p.c.
AB	54	1.2 p.c.
B	1,529	36.1 p.c.
BC	178	4.2 p.c.
C	977	23.0 p.c.
CD	112	2.6 p.c.
D	547	12.9 p.c.
DE	100	2.3 p.c.
E	603	14.2 p.c.
Unclassified	12	0.2 p.c.
Total	4,234	

* Carried to one place only of decimals.

These figures may be somewhat differently arranged, as in Tables II, III, IV.

In Table II each sub-class is added into the class immediately succeeding; in Table III it is added into the class immediately preceding; and in Table IV it is divided between the preceding and the succeeding class.

TABLE II.—(Table I otherwise stated).

Class.	No. of Cases.	Percentage.
A ...	122	or 2.8 p.c. of 4,234
B and AB ...	1,583	or 37.3 p.c. "
C and BC ...	1,155	or 27.2 p.c. "
D and CD ...	659	or 15.5 p.c. "
E and DE ...	703	or 16.6 p.c. "
Unclassified ...	12	or 0.2 p.c. "
Total ...	4,234	

TABLE III.—(Table I otherwise stated.)

Class.	No. of Cases.	Percentage.
A and AD ...	176	or 4.1 p.c. of 4,234
B and BC ...	1,707	or 40.3 p.c. "
C and CD ...	1,089	or 25.7 p.c. "
D and DE ...	647	or 15.2 p.c. "
E ...	603	or 14.2 p.c. "
Unclassified ...	12	or 0.2 p.c. "
Total ...	4,234	

TABLE IV.—(Table I otherwise stated.)

Class.	No. of Cases.	Percentage.
A and half AB ...	149	or 3.4 p.c. of 4,234
B and half AB, BC ...	1,645	or 38.8 p.c. "
C and half BC, CD ...	1,122	or 26.4 p.c. "
D and half CD, DE ...	653	or 15.4 p.c. "
E and half DE ...	653	or 15.4 p.c. "
Unclassified ...	12	or 0.2 p.c. "

Roughly stated, it may be said that of the four thousand two hundred and odd individuals reported on—all, be it remembered, males over the age of 25—about 45 per cent. were habitually moderate in their alcoholic habits, 25 per cent. were careless, and 30 per cent. more or less distinctly intemperate (15 per cent. decidedly so).

OCCUPATIONS.

We have further classified the individuals in each class according to their respective occupations. As the numbers in most of the individual occupations are small, we have grouped them under the fourteen following heads: "Independent Property," "Professional Occupations," "Clerical Occupations" (the clerks, not the clergy, are here meant), "Mercantile Occupations," "Tradesmen," "Licensed Victuallers," "Artisans," "Labourers," "Driving Occupations," "Farming Occupations," "Soldiers," "Sailors," "Domestic Servants," "Miscellaneous Occupations," and "Blanks."

Table V shows the aggregate number of cases in each of these fourteen groups, and the percentage incidence of each group in the different alcoholic classes. At the head of the Table is placed the percentage incidence of the whole 4,222 classified cases, the twelve unclassified being neglected throughout.

TABLE V.—Table showing the Aggregate Number of Cases in each of the Fourteen Occupation-groups, and the Percentage of each such Group in the several Alcoholic Classes A to E; with the Normal (or Total) Percentage Incidence prefixed for purposes of comparison.*

	Aggregate Number.	Percentage Falling in Class—									
		A.	AB.	B.	BC.	C.	CD.	D.	DE.	E.	
Total ...	4,222*	2.8	1.2	36.2	4.2	33.1	2.6	12.9	2.3	14.2	
Independent ...	176	1.7	0.5	39.2	5.1	16.4	2.8	11.3	2.2	20.4	
Professional occupations ...	242	5.3	0.8	47.9	4.1	16.1	4.1	9.5	2.4	9.5	
Clerical occupations ...	176	2.8	2.8	45.4	2.3	21.02	1.7	14.2	2.2	7.3	
Mercantile occupations ...	195	3.07	1.02	42.05	2.5	11.7	2.05	18.4	5.1	13.8	
Tradesmen ...	378	3.7	1.3	37.8	3.9	13.2	4.4	14.5	3.9	16.9	
Licensed Victuallers ...	159	—	—	11.3	2.5	13.8	1.2	25.7	5.03	40.2	
Artisans ...	807	4.5	2.2	36.9	5.2	22.5	3.5	9.5	2.2	13.1	
Labourers ...	1,185	2.1	0.9	36.7	2.9	31.05	2.1	11.8	1.1	10.9	
Driving occupations ...	70	1.4	—	22.8	1.4	21.4	7.1	18.5	4.2	22.8	
Farming occupations ...	333	1.5	0.6	39.9	5.4	26.1	0.3	12.9	3.0	10.2	
Soldiers ...	47	4.2	—	14.8	2.1	36.1	6.3	8.5	2.1	25.5	
Sailors ...	71	4.05	—	28.3	10.8	27.02	1.3	18.9	1.3	8.1	
Domestic servants ...	115	0.8	0.8	20.0	6.08	33.9	0.8	15.6	0.3	20.8	
Miscellaneous and blank ...	265	2.6	1.9	32.1	6.1	18.7	1.9	14.5	1.9	19.9	

* The unclassified are here neglected.

† There were sixteen blanks.

Table VI bears the same relation to Table V that Table IV does to Table I, that is to say, the sub-classes have been divided equally between the adjacent classes.

TABLE VI.—The same as Table V, with the Sub-classes merged in the adjacent Classes.

	A.	B.	C.	D.	E.
Total ...	3.4	38.9	26.5	15.3	15.3
Independent ...	1.76	41.9	20.3	13.8	21.5
Professional occupations ...	242	50.3	20.1	12.7	10.7
Clerical occupations ...	176	47.9	22.9	16.1	8.4
Mercantile occupations ...	195	43.8	13.9	21.9	16.3
Tradesmen ...	378	40.3	17.3	18.6	18.8
Licensed victuallers ...	159	12.5	15.6	28.8	42.7
Artisans ...	807	40.6	26.8	12.3	14.2
Labourers ...	1,185	38.5	33.4	13.3	11.4
Driving occupations ...	70	23.5	25.6	24.1	24.9
Farming occupations ...	333	42.9	28.9	14.5	11.7
Soldiers ...	47	15.8	40.2	12.6	26.5
Sailors ...	74	33.7	33.02	20.1	8.7
Domestic Servants ...	115	23.4	37.3	16.4	21.2
Miscellaneous and blank ...	265	36.0	22.6	16.3	20.8

* The unclassified are here neglected.

We have further constructed a table—Table VII—showing the relative alcoholic habits of the fourteen occupation-groups in a simpler but rougher manner. In this table the number of cases falling in the lower half of the alcoholic scale for each group is compared with that falling in the upper half of the scale. By the lower half of the scale is meant A+AB+B+BC+ $\frac{1}{2}$ C; by the higher half E+DE+D+CD+ $\frac{1}{2}$ C. The comparison is expressed in the form of a ratio, the lower half of the scale being taken as unity.

For the sake of convenience this ratio will be termed "the Ratio of Minor Drinking Habits," and the reverse ratio will be called "the Ratio of Major Drinking Habits," or more briefly, "the Ratio of Minor Habits" and "the Ratio of Major Habits."

In Table VII the occupation-groups are placed in the descending series of their ratios of minor habits; and the ratio for the whole 4,222 cases is placed at the head for comparison.

The table is divided by two gaps. First we have six groups in which the ratio of minor habits is higher than the normal; next, four in which it is lower than the normal, but still not less than unity; and finally, four groups in which the less temperate end of the scale exceeds the more temperate.

TABLE VII.—Table showing the Ratio between the Cases falling in the Lower and those in the Higher Half of the Alcoholic Scale ("Ratio of Minor Habits") for each of the Fourteen Occupation-groups.

(The lower half includes A, AB, B, BC, and half of C. The higher half includes E, DE, D, CD, and half of C.)
Ratio for all occupations ... as 1 to 0.73

1. Professional occupations ... " 1 " 0.51
2. Clerical occupations ... " 1 " 0.57
3. Farming occupations ... " 1 " 0.65
4. Artisans ... " 1 " 0.66
5. Labourers ... " 1 " 0.71
6. Sailors ... " 1 " 0.76

7. Independent ... " 1 " 0.83
8. Mercantile occupations ... " 1 " 0.84
9. Tradesmen ... " 1 " 0.87
10. Miscellaneous occupations ... " 1 " 0.91

11. Domestic servants ... " 1 " 1.25
12. Soldiers ... " 1 " 1.60
13. Driving occupations ... " 1 " 1.80
14. Licensed victuallers ... " 1 " 3.81

Let us now inspect Tables VI and VII. It will be seen that the ratio of minor habits is highest in the "professional" group, being, in fact, nearly 2 to 1. On turning to Table VI we observe that this group scores highest of all in classes A and B, and lowest of all in classes D and E taken together.

Clerks, farmers, artisans, labourers, and sailors follow in order. It will be noted in Table VII that the clerks show the lowest

percentage of drunkards, but that the percentage of "free" and "careless" drinkers is higher than in the case of the professional men, this being at the expense of A and B.

The farmers show a low percentage of total abstainers, few drunkards, the average number of free drinkers, a larger than average percentage of temperate, but at the same time a larger than average percentage of "careless" drinkers.

Among the artisans a large proportion of teetotallers appears, but the ratio is made somewhat lower by the increasing percentage of drunkards.

Among labourers the tendency is to accumulation in the "careless" class, the proportion of free drinkers and drunkards being below the average.

Among sailors there is a fairly high percentage of teetotallers, but the "moderate" class is less well represented. This, however, appears to be in some measure due to the large proportion of dubious cases entered in BC (Table V). The drunkards are comparatively few (sailors get few opportunities of continued intemperance), but the "free" drinkers are in excess, and there is a considerable accumulation in the "careless" class.

Proceeding in the order of Table VII, men of independent property show a tendency to extremes, the drunkards and the moderate drinkers being the only classes which rise above the average.

The tendency among mercantile men is also rather to extremes, but less to drunkenness than to "free" drinking. The "careless" class is here the lowest of all.

Among tradesmen, also, the extreme classes are raised at the expense of the "careless," but the rise is rather more in the higher half of the scale than in the lower.

Among domestic servants the tendency is strongly upwards; the percentage of total abstainers is smallest of all, and that of moderate drinkers nearly the smallest, while C, D, and E are considerably swollen. Careless drinking is here most in vogue.

Among soldiers it is the "decidedly intemperate" who raise the ratio of major habits. Among the simply "free" drinkers they show the smallest percentage of all the groups; but the intermediate group of the "careless" amounts to 36 per cent., the highest of all; while the temperate have sunk to not quite 16 per cent., nearly the lowest of all. It is noticeable, however, that the percentage of abstainers is comparatively high. The group, it must be noticed, is a very small one, and is largely made up of pensioners and "retired" men.

Men engaged in driving occupations show a distinct tendency to the higher half of the scale, the decidedly intemperate being numerous, and the free drinkers much above the average.

Finally, the licensed victuallers and their assistants exhibit the most marked tendency towards the top of the scale, teetotallers being entirely absent, the percentage of moderate drinkers the lowest of all, those of free drinkers and drunkards a long way the highest of all, and the ratio of major habits nearly 4 to 1.

We have, further, taken all the individual occupations of which not less than twenty examples are reported, and have drawn out a table for them (Table VIII) on a similar plan to that of Table VII. As the aggregates were so low, we have not thought it worth while to construct a percentage table after the plan of Table V.

TABLE VIII.—Table showing similar Ratios for certain special Occupations.

PROFESSIONAL—			
Ministers of religion (47)	...	...	as 1 to 0.09
Scholastic occupations (29)	...	...	" 1 ,, 0.38
Officers in the army and navy (28)	...	...	" 1 ,, 0.47
Medical men (41)	...	...	" 1 ,, 0.57
Lawyers (31)	...	...	" 1 ,, 0.93
ARTISANS—			
Weavers (58)	...	...	" 1 ,, 0.43
Boot and shoe makers (61)	...	...	" 1 ,, 0.45
Tailors (69)	...	...	" 1 ,, 0.50
Carpenters and joiners (76)	...	...	" 1 ,, 0.76
Blacksmiths (39)	...	...	" 1 ,, 0.85
Painters (38)	...	...	" 1 ,, 0.90
Masons (58)	...	...	" 1 ,, 1.07
LABOURERS—			
Agricultural and farm labourers (155)	...	...	" 1 ,, 0.45
Gardeners (67)	...	...	" 1 ,, 0.45
Miners (141)	...	...	" 1 ,, 1.23
TRADESMEN—			
Butchers (59)	...	...	" 1 ,, 2.60

MISCELLANEOUS—

Railway men (30)	...	...	as 1 to 0.42
Paupers (25)	...	...	" 1 ,, 1.76
Travellers (20)	...	...	" 1 ,, 1.85

We notice in this table that the ministers of religion honourably head the whole list, not only of professional men, but of all occupations, showing a ratio of minor habits higher than 10 to 1.

Among professional men, schoolmasters follow; then officers in the army and navy; next medical men, whose ratio of minor habits is slightly below that of professional men generally, but considerably above that of the whole series; and, finally, lawyers, whose ratio of minor drinkers is very near unity, not much more than half of the general ratio of professional men, and considerably below that of the whole series.

Among artisans, we find weavers, boot and shoe makers, and tailors to be the most temperate. Carpenters and joiners almost touch the general ratio of the whole series. The blacksmiths and painters give a somewhat low ratio of minor habits, and in masons the higher half of the scale exceeds the lower.

Agricultural and farm labourers and gardeners appear as very temperate bodies of men, but miners show a ratio of major habits greater than unity.

Among tradesmen the occupation that stands out most prominently is that of the butcher, with a ratio of major habits as high as 2.6 to 1.

Railway men appear as a tolerably temperate body. The few paupers on the list have a high ratio of major habits, and one still higher is shown by commercial travellers.

It must be noted that in some cases the classification of special occupations was a little dubious. For instance, in the case of a "tailor," a "baker," or a "saddler" it was not clear whether the tradesman or the journeyman of that name was intended. In such cases the classification was decided by the probabilities of the case. The following is the list of the dubious cases, and the mode in which they have been settled: "No occupation" (27 cases) was entered under "independent property," "engineer" (11) as "professional" (16), "business man" (1), "maltster" (3), "manager" (9), "organ builder" (1), "saltmaker" (1) as "mercantile"; "baker" (23), "coach" and "carriage builder" and "maker" (8), "decorator" (3), "gunmaker" (1), "harnessmaker" (4), "saddler" (7) as tradesmen; "basketmaker" (1), "bellhanger" (1), "boilermaker" (1), "blindmaker" (1), "blockmaker" (1), "boatbuilder" (1), "book-binder" (1), "boot" and "shoemaker" and "cordwainer" (61), "brickmaker" (6), "capmaker" (2), "cabinetmaker" (13), "calico printer" (2), "chairmaker" (2), "clogger" (1), "cloth dresser and worker" (11), "cooper" (7), "currier" and "leather dresser" (3), "cutler" (3), "dyer" (5), "gasfitter" (1), "hatter" (2), "hurdlemaker" (1), "inkmaker" (1), "iron founder" (2), "locksmith" (12), "paperhanger" (4), pipemaker (2), "printer" (13), "tailor" (69), "tinman" (3), "watchmaker" (8) as artisans; "warehousemen" (16) as labourers; "pensioners," without further qualification (20), as soldiers.

AGES AT DEATH.

We now proceed to ascertain the average age at death for the individuals in each class. This is given in the following table. The table has been constructed simply by adding up in each class the ages given in the returns, which, it will be remembered, are the ages at death, and striking an average. The average age at death of the whole number is given at the foot of the table for purpose of comparison.

TABLE IX.—Average Age at Death for each Class.²

Class	Years.		or	Years. Days.	
	Years.	Days.		Years.	Days.
Class A	51.22			51	80
" AB	56.72			56	215
" B	62.13			62	50
" BC	62.42			62	155
" C	59.67			59	246
" CD	60.35			60	130
" D	57.59			57	216
" DE	53.64			53	233
" E	52.03			52	14
Unclassified	60.91			60	334
Total	58.92 ³			58	336

² It must be remembered that in the returns the years of life only are given, and not the odd days. To interpret Table IX correctly, therefore, we must say, not that the average age in Class A, for instance, is 51 years 80 days, but that it is somewhere between 51 years 80 days and 52 years 80 days.

³ Farr's English Life Table, No. 3, deduced from the population as shown by the censuses of 1841 and 1851, and the deaths registered during the years

It will be seen in this table that of the main classes the average age in B is the highest of all, and that a gradual diminution, amounting in all to rather more than ten years, takes place as we pass from B to E.

The smaller sub-classes, CD and DE, follow pretty fairly the descending series, the average of BC alone being a trifle above that of the class preceding it. Thus we may see as far as these cases go, that as the alcoholic habit increases the average duration of life diminishes. The difference in duration between the habitually temperate and the decidedly intemperate (both classes, be it remembered, having already passed the age of 25 years, and all who died below that age being excluded) amounts to a period of some ten years.

But the average age furnished by the total abstainers is somewhat startling, for we find that it is not only far below the average age attained by the moderate drinkers, but it is even a year below that reached by the decidedly intemperate. It must, however, be remembered in interpreting this figure correctly that the class of total abstainers is somewhat differently constituted from any of the other classes.

It will not, I think, be disputed that the total abstinence movements which have played so prominent a part in this country of late years have made many more converts among the young than among the middle-aged or elderly. If this is admitted, it will necessarily follow that the average age of total abstainers—I mean of living total abstainers—at any time during the three years covered by this inquiry, was considerably less than the average age of the rest of the community; so that the class of abstainers has contained a proportion much greater than the average of individuals susceptible to early death, or, to put it in another way, has had a greater average liability to early death, apart from any question of alcohol, than any of the other classes.⁴

These considerations are borne out to some extent by the tables immediately following. Table XII, for example, the construction of which will be presently described, shows that the stress of mortality among abstainers comes quite in the early years, especially before the age of 30 is reached. We have, therefore, constructed two fresh tables (Tables X and XI) on the model of Table IX. These two tables, to put it briefly, are repetitions of Table IX, but in the one all cases of death under 30 are omitted, and in the other all cases of death under 40.

TABLE X.—Average Age at Death for each Class, Omitting all Cases of Death under 30.

Class	Cases.	Years.	Years.	Days.
Class A	98, average	57.31	or 57	115
" AB	47, "	61.19	" 61	69
" B	1,433, "	64.48	" 64	177
" BC	173, "	63.43	" 63	156
" C	925, "	61.52	" 61	189
" CD	110, "	61.009	" 61	3
" D	525, "	58.87	" 58	317
" DE	96, "	54.73	" 54	266
" E	571, "	53.42	" 53	155
Total	3,978, "	60.87 ⁵	" 60	319

TABLE XI.—Average Age at Death for each Class, Omitting all Cases of Death under 40.

Class	Cases.	Years.	Years.	Days.
Class A	79, average	62.74	or 62	270
" AB	39, "	66.84	" 66	306
" B	1,294, "	67.71	" 67	270
" BC	154, "	67.006	" 67	2
" C	829, "	64.65	" 64	237
" CD	99, "	64.12	" 64	43
" D	464, "	61.98	" 61	357
" DE	78, "	59.42	" 59	153
" E	468, "	57.47	" 57	259
Total	3,504, "	64.41 ⁶	" 64	152

1835-54, gives the average age at death for males who have attained the age of 25 (England and Wales) as 61.12. The Supplement to the Forty-fifth Annual Report of the Registrar-General, 1885, calculating from the population as shown by the census of 1871 and the deaths registered in the years 1871-80, gives it (p. vii) as 60.65. The cases on which our report is based are chiefly furnished by England and Wales.

⁴ It is probable that the average age at death shown by the other classes is affected to some degree by similar circumstances. If the alcoholic habit tends to increase, as generally supposed, from youth up to about 45 or 50 years of age (cf. Neison, *Journ. Statist. Soc.*, xiv, p. 216), the average age of the class of the population corresponding to our class B will be somewhat lower than that of the classes corresponding to C, D, and E. Our inquiry has taken no account of the age at which intemperate habits began in each case. This information we feared we should fail to obtain.

⁵ Farr (*loc. cit.*): 62.76. Registrar-General (*loc. cit.*): 62.10.

⁶ Farr (*loc. cit.*): 66.06. Registrar-General (*loc. cit.*): 65.30.

It will be seen that in Table X, though there is as much as 11 years difference between the average age of Class B and that of Class E, the difference between the average age of B and that of A is reduced to 7 years. In Table XI, while the averages for B and for E are 10 years apart, those of B and A are separated by little more than 5 years.

Decades.—We have further distributed the cases occurring in each class into their respective decades, that is to say, we have classified them according as the deaths occurred in the twenties, the thirties, the forties, and so on. Tables XII and XIII show this classification; but instead of giving the aggregate numbers we have reduced them, for convenience of comparison, to percentages. In Table XII is shown the percentage of each class falling in the several decades. In Table XIII, on the other hand, is shown the percentage of each decade falling in the several classes. One centenarian occurs in Class B. This case has been included in the nineties, so as not to complicate the table.

TABLE XII.—Table of Decades, showing the Percentage of each Class falling in the several Decades.

	Twenties	Thirties	Forties	Fifties	Sixties	Seventies	Eighties	Nineties
A	19.6	15.5	15.5	17.1	9.0	13.9	7.3	1.6
AB	12.9	14.8	5.5	18.5	22.2	16.6	5.5	3.7
B	6.2	9.0	10.0	12.4	20.2	24.2	15.9	1.6
BC	2.8	10.6	9.5	13.4	20.7	29.7	11.2	1.6
C	5.3	9.8	12.2	16.6	22.5	23.8	8.7	0.3
CD	1.7	9.8	12.5	15.1	29.4	23.2	7.2	0.3
D	4.0	11.1	14.8	21.5	23.5	17.7	6.5	0.5
DE	4.0	13.0	18.0	21.0	23.0	13.0	3.0	0.0
E	5.3	17.0	22.7	22.0	20.2	10.2	1.9	0.3
Total, including unclassified...	5.7	11.2	13.2	16.5	21.2	20.8	9.9	1.1

TABLE XIII.—Table of Decades, showing the Percentage of each Decade falling in the several Classes.

	A.	AB.	B.	BC.	C.	CD.	D.	DE.	E.	Unclassified.
Twenties	9.5	2.8	39.3	2.0	21.2	0.8	9.0	1.6	13.1	
Thirties	3.9	1.6	29.2	3.9	20.1	2.3	12.8	3.7	21.6	0.4
Forties	3.3	0.5	27.1	3.0	21.3	2.4	14.3	3.1	24.3	0.1
Fifties	3.0	1.4	27.2	3.4	23.2	2.4	16.8	3.0	19.0	0.2
Sixties	1.2	1.3	34.3	4.1	24.4	3.6	14.3	2.5	13.5	0.4
Seventies	1.9	1.0	42.2	6.0	26.3	2.9	10.9	1.4	7.0	
Eighties	2.1	0.7	57.7	4.7	20.1	1.9	8.5	0.7	2.8	0.7
Nineties	4.2	4.2	55.3	6.3	17.0	2.1	6.3	0.0	4.2	
Total	2.8	1.2	36.1	4.2	23.0	2.6	12.9	2.3	14.2	0.2

Table XIV is a modification of Table XIII, with the subclasses divided and added into the adjacent classes, in the same manner as has been done in Tables IV and VI.

TABLE XIV.—The same as Table XIII, with the Subclasses Merged in their adjacent Classes.

	A.	B.	C.	D.	E.	Unclassified.
Twenties
Thirties
Forties
Fifties
Sixties
Seventies
Eighties
Nineties
Total

On inspecting Table XII we observe that in Class B the stress of deaths falls in the sixties and seventies, especially in the latter, while nearly 16 per cent. are found in the eighties.

In Class C the stress is still in the sixties and seventies; but the preponderance of the seventies is less, and the eighties are reduced to about half the percentage seen in B. The forties and fifties here begin to mount.

In Class D the stress is in the fifties and sixties, especially

the sixties; the seventies and the decades above them have been markedly reduced, and the thirties as well as the forties begin to mount.

In Class E the eighties and nineties are in very slender proportion, the seventies have again fallen considerably, and the stress now lies in the forties, fifties, and sixties, but with a strong tendency towards the forties. The thirties have again mounted.

Taking the main classes alone, we see that in the thirties, forties, and fifties, the percentage of deaths steadily mounts from B to E; in the seventies, eighties, and nineties it as steadily falls, while in the sixties it remains nearly at a level, mounting slowly from B to D, and then falling to its original amount.

In the twenties the percentages are very small in all these four classes; in C and E the percentage is equal, in D it is slightly lower, and in B a little higher.

But when we look at Class A we see (as was stated above) that the stress of deaths lies between the twenties and the fifties, and that the percentage is highest of all—in fact, all but 20 per cent.—in the twenties. The sixties and seventies together show a lower percentage here than in any other class. The eighties, however, are above those of D and E, and nearly equal to those of C, and the nineties are equal to any but those in AB.

THE INCIDENCE OF PARTICULAR FORMS OF DISEASE IN THE SEVERAL CLASSES.

We next proceed to investigate the connection of particular forms of disease with the different varieties of the alcoholic habit. This investigation must necessarily be divided into at least three parts; the deaths in youth must be considered separately from the deaths in middle life, and those again from the deaths in advanced age.

Two reasons require this division. In the first place, the same form of disease may differ altogether in its etiology according to the time of life at which it appears. A granular kidney, for example, occurring in a man of 30 will, in the majority of cases, possess an entirely different etiology to a similar lesion occurring at the age of 50.

In the second place, there are diseases which are especially prevalent in youth, diseases especially prevalent in middle life, and diseases especially prevalent in old age; but the average alcoholic habits of youth, of mid life, and of old age are very different, as will be seen at a glance by examining the headings of Tables XV, XVI, and XVII. It would, therefore, convey a totally wrong impression if the alcoholic habits of persons dying, for instance, from a disease of old age were to be compared with the average alcoholic habits of all ages together, and not with the alcoholic habits of elderly people alone.

And even further subdivision of this investigation than into three might have been advisable had the number of cases been sufficient. With those at our disposal the triple division was all that could be carried out.

We have, therefore, divided the 4,234 cases into the three following groups, each distinguished by a Greek letter: α , deaths in the young, or those aged from 25 to 40; β , deaths in the middle-aged, or those from 40 to 65; γ , deaths in the elderly, or those from 65 upwards. Group α contains 719 cases; Group β , 1,705 cases; Group γ , 1,810.

We next proceeded to construct a table for each group, classifying the cases of death from each form of disease under their respective alcoholic classes, just as has been done in Tables V and XIII.

Two difficulties had to be dealt with in this classification. The first was due to the different nomenclature employed by different contributors, on which point we shall speak further when we come to Table XV.

The second difficulty was owing to the entry, in many instances, of two or more pathological conditions against a single case. This second difficulty was treated by the observance of the following rules:—

1. If the several pathological conditions entered represented distinct and independent diseases, the case was entered under both heads. This, however, occurred in but very few instances.
2. If the second pathological condition mentioned was merely a symptom, result, or customary complication of the main one, as frequently occurred—such, for instance, as “hemiplegia” added to “apoplexy,” “dropsy” given with “heart disease,” or “gangrene” with “diabetes”—it was omitted altogether.
3. If pathological conditions were given, which, though inde-

pendent, could presumably have had no material influence in producing death—such, for instance, as “rheumatism” with “cancer”—they were omitted altogether.

In a large number of cases the diagnosis given was of a vague character, such as “abdominal tumour,” “paralysis.” These cases were classified as cases of insufficient diagnosis.

Neglecting in each group those diseases of which less than twenty instances occurred, we proceeded to construct Table XV. This table shows for each disease quoted the total number of cases in the group, and the incidence of the disease in the different alcoholic classes. The incidence is given, to facilitate comparison, in percentages instead of in the actual numbers. At the head of each group is given the percentage incidence of the whole group in the different alcoholic classes.

TABLE XV.—Table showing the Percentage Incidence of Deaths from Particular Forms of Disease in the different Alcoholic Classes for each Group— α , β , and γ .

<i>a. Deaths between 25 and 40 years of age.</i>											
Disease.*	A	AB	B	BC	C	CD	D	DE	E	Un-class.	
Total.....	719	5.8	2.08	32.6	3.3	20.5	1.8	11.5	3.05	18.7	0.2
Bronchitis	20	5.0	—	20.0	—	25.0	—	15.0	5.0	30.0	—
Heart disease (valve)	39	2.5	2.5	38.4	2.5	12.8	—	15.3	2.5	20.5	2.5
Pneumonia	59	3.3	1.7	32.2	6.7	18.6	5.08	13.5	3.3	15.2	—
Tubercle...	334	6.5	2.3	36.2	2.09	23.3	1.7	10.1	2.9	14.3	—
Typhoid fever ...	33	9.09	—	33.3	3.03	24.2	—	15.1	3.03	12.1	—
<i>b. Deaths between 40 and 65 years of age.</i>											
Total.....	1705	2.6	0.8	28.7	3.6	23.04	2.9	15.4	2.9	19.2	0.3
Apoplexy...	111	2.7	0.9	26.1	4.5	20.7	2.7	19.8	2.7	19.8	—
Bronchitis	144	2.7	—	25.0	4.1	27.7	4.1	15.9	2.08	18.05	—
Cirrhosis...	67	—	—	—	2.9	5.9	1.4	23.8	11.9	53.7	—
Diabetes ...	28	3.5	3.5	25.0	3.5	17.8	—	25.0	—	21.4	—
Heart dis. (wall) ...	35	—	—	31.4	—	31.4	—	20.0	2.8	14.2	—
Heart dis. (valve)...	182	4.9	1.6	26.3	3.8	24.1	3.3	18.1	3.3	13.7	0.5
Malignant disease...	116	4.3	17.2	37.06	7.7	23.2	2.5	8.6	0.8	12.9	0.3
Nerve decay	40	—	—	30.0	5.0	25.0	5.0	7.5	7.5	20.0	—
Pleurisy ...	23	4.3	—	30.4	—	26.08	8.7	13.04	—	17.04	—
Pneumonia	159	1.8	1.8	26.4	2.5	23.9	1.2	13.8	1.2	23.01	—
Renal dis. (chronic)	89	—	—	20.2	3.3	23.5	4.4	21.3	6.7	20.2	—
Tubercle...	275	2.5	0.3	34.9	1.8	21.09	4.0	14.5	2.1	18.3	0.3
Typhoid fever.....	21	—	—	28.5	4.7	33.3	—	23.8	—	9.5	—
<i>γ. Deaths from 65 years upwards.</i>											
Total	1810	1.5	1.3	44.4	5.02	24.08	2.7	11.1	1.5	7.6	0.3
Apoplexy...	198	2.02	1.5	46.0	5.5	18.5	4.04	14.1	1.01	7.07	—
Arterial degeneration	24	—	—	29.1	4.1	29.1	4.1	20.8	4.1	8.3	—
Bronchitis	321	0.9	1.2	45.4	7.1	26.7	2.4	9.3	1.5	4.9	—
Cystitis	32	—	3.1	50.0	9.3	18.7	—	9.3	3.1	6.2	—
Diarrhoea...	32	3.1	3.1	43.7	6.2	25.0	—	6.2	—	12.5	—
Heart dis. (valve)...	160	0.6	1.2	39.3	4.3	25.0	1.8	15.6	1.8	10.0	—
Heart dis. (wall) ...	61	—	—	45.9	3.2	24.5	—	14.7	—	11.4	—
Intestinal obstructn.	21	4.7	—	42.8	4.7	33.3	—	9.5	—	4.7	—
Malignant disease ...	100	1.0	2.0	42.0	6.0	27.0	1.0	13.0	1.0	7.0	—
Nerve decay	67	7.4	—	34.3	4.4	25.3	2.9	10.4	1.4	13.4	—
Old age ...	287	3.3	0.3	52.2	3.3	25.7	2.7	5.2	1.03	4.1	0.6
Pneumonia	82	1.2	6.09	40.2	7.3	20.7	3.6	4.8	1.2	14.6	—
Prostatic disease ...	34	—	2.9	55.8	2.9	20.5	11.7	2.9	2.9	—	—
Renal dis. (chronic)	48	2.1	—	33.3	12.5	16.6	—	22.9	4.1	8.3	—
Tubercle...	35	—	—	37.1	—	34.2	—	11.4	—	17.1	—

* Those only are given of which at least 20 examples are found in one group, α , β , or γ .

† It will, of course, be understood that “young,” “middle-aged,” and “elderly” are here used in an arbitrary sense for the purpose of convenience.

Before proceeding further we must state the meaning conveyed by the nomenclature in the first column. We take the names in alphabetical order.

Apoplexy includes all cases entered as "apoplexy," "hemiplegia," "cerebral hæmorrhage," "sanguineous apoplexy;" also, in β , 2 "paralysis and coma;" and in γ , 2 "paralytic seizure," 1 "aphasic paralysis;" 2 "congestive apoplexy;" 1 "cerebral effusion."

Arterial degeneration (in γ only) includes "calcareous degeneration of arteries," "senile gangrene," "gangrene of foot," "gangrene of leg," and 1 case termed "gangrene" only. In these cases of "gangrene" there is no wound or injury assigned as the cause. They have therefore been taken to be also senile gangrene.

Bronchitis includes "bronchitis," "acute bronchitis;" "chronic bronchitis," "capillary bronchitis," and "broncho-pneumonia;" also, in α , 1 case of "plastic bronchitis;" in β , 1 case of "catarrhal pneumonia."

Cirrhosis (in β only) includes "cirrhosis," "hypertrophic cirrhosis," "fibroid liver," "fibroid degeneration of liver;" also 2 "hepatic dropsy;" 1 "liver disease and ascites;" 1 "liver disease and dropsy;" 1 "disease of stomach and liver; anasarca."

Cystitis (in γ only) includes "cystitis," "acute" and "chronic" ditto, and "catarrh of the bladder;" also 2 cases of "bladder disease," and 1 of "paralysis of the bladder."

Diabetes (in β only) includes "diabetes" and "diabetic coma."

Diarrhœa (in γ only) includes "diarrhœa," "intestinal catarrh," "enteritis," "gastro-enteritis," and 1 case of "British cholera."

Heart disease (valve).—This is a somewhat uncertain heading. In it have been included all the cases recorded as dying of "morbus cordis," or of "heart disease," or "cardiac disease," without further qualification, as well as disease "of the valves" and its different varieties when definitely stated. In α and β "cardiac dropsy" has also been entered under this heading, though in γ we have placed it under the next; it also includes, in α , 1 "cerebral embolism;" 1 "hemiplegia from valve disease;" in β , 1 "atheroma and thickened valves;" 1 "pulmonary embolism;" in γ , 1 "cardiac apoplexy;" 2 "cerebral embolism;" 1 "cardiac embolism;" 1 "paralysis from embolism."

Heart disease (wall) includes "fatty heart," "heart degeneration," "cardiac degeneration," "cardiac failure," "heart failure," "weak heart," "senile heart and dropsy," "hypertrophy of heart," "dilated heart," "hypertrophy and dilatation," "aneurysm of heart," "rupture from dilatation;" also, in α , "cardiac bronchitis," "cardiac asthma," and "cardiac dropsy;" in β , 8 "angina pectoris;" in γ , 2 "syncope."

Intestinal obstruction (in γ only) includes "intestinal obstruction," "obstruction of bowel," "ileus," "intussusception," "stricture of ileum."

Malignant disease includes "cancer," "carcinoma," "scirrhus," "encephaloid," "epithelioma," "melanosis," "sarcoma," "malignant disease," "malignant tumour;" also, in β , 1 "lymphoma," 1 "lymphadenoma," 1 "general glandular enlargement;" in γ , 1 "lymphadenoma," 2 "rodent ulcer," 1 "stricture of œsophagus," 1 "stricture of pylorus," 1 "stricture of rectum."

Nerve decay (in β) includes "brain softening," "white brain softening," "atrophy of brain," "spinal atrophy," "nerve decay," "debility," "atrophy," "atheroma and paralysis," "brain disease and degeneration of arteries;" (in γ) includes "cerebral atrophy," "cerebral degeneration," "cerebral softening," "white" ditto, "chronic" ditto, "cerebro-spinal degeneration," "spinal atrophy," "cirrhosis of spinal cord," "atheroma of cerebral arteries," "degeneration of cerebral vessels," "general paralysis;" also 2 "old age and paralysis;" 1 "senile dementia," 1 "chronic cerebral disease."

Old age (in γ only) includes "old age," "senility," "senile debility," "senile degeneration," "senile atrophy," "senile decay," "general decay," "gradual decay," "natural decay," "decay of nature," "general decline," "general decline of bodily powers," "general debility," "debility," "exhaustion," "asthenia," "atrophy."

Pleurisy (in β only) includes "pleurisy," "pleuritis," "empyema," "pyo-pneumo-thorax" (1 case).

Pneumonia includes "pneumonia," "acute pneumonia," "pleuro-pneumonia."

Renal disease (chronic) includes "chronic renal disease," "Bright's disease," "chronic nephritis," "granular kidney," "chronic granular kidney," "gouty kidney," "renal degeneration," "cirrhosis of kidney," "fibroid degeneration of kidney," "degene-

ration of kidney;" "interstitial nephritis," "chronic desquamative nephritis," "chronic albuminuria;" also, in β , 1 "albuminuria and gout;" in γ , 1 "gout and dropsy;" 2 "albuminuria and uræmia."

Prostatic disease (in γ only) includes "prostatic disease," "prostatic troubles," "enlarged prostate," "disease of prostate," "prostatitis."

Tubercle includes "phthisis," "acute phthisis," "chronic phthisis," "laryngeal phthisis," "tracheal phthisis," "abdominal phthisis," "tuberculosis," "tubercle" of lungs, peritoneum, intestines, mesentery, and brain; also, in β , 1 "stonemasons' phthisis;" in γ , 1 "miners' phthisis."

Typhoid fever includes "typhoid fever," "enteric fever."

We have also constructed Table XVI, a modification of Table XV, made in the same manner as Table VI from Table V and Table XIV from Table XIII, by halving the subclasses between the adjacent classes.

We have also constructed Table XVII, showing the ratio of minor to major habits for each of the diseases quoted.

TABLE XVI.—The same as Table XV, with the Subclasses merged in the Adjacent Classes.

a. Deaths between 25 and 40.

Disease.	A.	B.	C.	D.	E.	Un-classed.	
Total	719	6.8	35.2	23	13.9	20.2	0.2
Bronchitis	20	5.0	20.0	25.0	17.5	32.5	—
Heart disease (valve)... ..	39	3.7	40.8	14.0	16.5	21.7	2.5
Pneumonia	59	4.1	36.3	24.4	17.6	16.8	—
Tubercle	334	7.6	38.3	24.3	12.3	15.7	—
Typhoid fever	33	9.09	34.8	25.7	16.6	13.6	—

b. Deaths between 40 and 65.

Disease.	A.	B.	C.	D.	E.	Un-classed.	
Total	1,705	3.0	30.9	26.24	18.2	20.6	0.3
Apoplexy	111	3.1	28.7	24.2	22.4	21.1	—
Bronchitis	144	2.7	27.0	31.7	18.9	19.0	—
Cirrhosis... ..	67	—	1.4	8.0	30.4	59.6	—
Diabetes	23	5.2	28.4	19.5	25.0	21.4	—
Heart disease (wall)	35	—	31.4	31.4	21.4	15.6	—
Heart disease (valve)... ..	182	5.7	39.0	27.6	21.3	15.3	0.5
Malignant disease	116	12.9	49.4	28.2	10.2	13.3	0.8
Nerve decay	40	—	32.5	30.0	13.7	23.7	—
Pleurisy	23	4.3	30.4	30.3	17.3	17.04	—
Pneumonia	159	2.7	28.5	30.7	15.0	23.01	—
Renal disease (chronic)	89	—	21.8	27.3	27.8	23.5	—
Tubercle	275	2.6	35.9	23.9	17.5	19.0	0.3
Typhoid fever	21	—	30.8	35.6	23.8	9.5	—

c. Deaths from 65 upwards.

Disease.	A.	B.	C.	D.	E.	Un-classed.	
Total	1,810	2.4	47.5	27.8	13.1	8.3	0.2
Apoplexy	188	2.7	49.4	23.2	16.6	7.5	—
Arterial degeneration... ..	24	—	31.1	33.1	24.8	10.3	—
Bronchitis	321	1.5	49.5	31.4	11.2	5.6	—
Cystitis	32	1.5	55.8	23.3	10.8	7.7	—
Diarrhœa	32	4.6	48.3	28.1	6.2	12.5	—
Heart disease (valve)	160	1.2	42.0	28.0	17.4	10.9	—
Heart disease (wall)	61	—	47.5	26.1	14.7	11.4	—
Intestinal obstruction... ..	21	4.7	45.1	35.6	9.5	4.7	—
Malignant disease	100	2.0	46.0	30.5	14.0	7.5	—
Nerve decay	67	7.4	36.5	28.9	12.5	14.1	—
Old age	287	3.9	54.2	28.9	7.0	4.6	0.6
Pneumonia	82	4.2	46.8	26.1	7.2	15.2	—
Prostatic disease	34	1.4	58.6	27.7	10.1	1.4	—
Renal disease (chronic)	48	2.1	39.5	22.8	24.9	10.3	—
Tubercle	35	—	37.1	34.2	11.4	17.1	—

TABLE XVII.—Table showing the Ratio between the Cases falling in the Lower and those in the Higher Half of the Alcoholic Scale, for the same Forms of Disease.

a. In the Young, Aged from 25 to 40.

RATIO FOR THE WHOLE GROUP α , (390 to 327,* OR) 1 TO 0.8.
 For tubercle (334 cases) 1 to 0.7
 „ typhoid fever (33 cases) 1 „ 0.7

* Where such alternative terms as "cerebral softening," "brain softening," and "softening of the brain" occur together, they are considered as identical, and one only is quoted here.

For heart-valve disease (39 cases) ...	1 to 0.8
" pneumonia (59 cases) ...	1 " 0.9
" bronchitis (20 cases) ...	1 " 1.8

β. In the Middle-aged, from 40 to 65.

RATIO FOR THE WHOLE GROUP β, (811 to 888,* or) 1 TO 1.09.

For malignant disease (116 cases) ...	1 to 0.6
" tubercle (275 cases) ...	1 " 1.0
" heart-valve disease (182 cases) ...	1 " 1.04
" pleurisy (23 cases) ...	1 " 1.09
" pneumonia (159 cases) ...	1 " 1.1
" bronchitis (144 cases) ...	1 " 1.1
" typhoid fever (21 cases) ...	1 " 1.1
" disease of heart-wall (35 cases) ...	1 " 1.1
" nerve decay (40 cases) ...	1 " 1.1
" apoplexy (111 cases) ...	1 " 1.2
" diabetes (28 cases) ...	1 " 1.3
" chronic renal disease (89 cases) ...	1 " 1.8
" cirrhosis (67 cases) ...	1 " 15.7

γ. In the Elderly, from 65 upwards.

RATIO FOR THE WHOLE GROUP γ, (1,171 to 635*, or) 1 TO 0.54

For old age and natural decay (287 cases) ...	1 to 0.36
" cystitis (32 cases) ...	1 " 0.39
" diarrhoea (32 cases) ...	1 " 0.4
" prostatic disease (34 cases) ...	1 " 0.4
" bronchitis (321 cases) ...	1 " 0.4
" apoplexy (198 cases) ...	1 " 0.5
" malignant disease (100 cases) ...	1 " 0.5
" pneumonia (82 cases) ...	1 " 0.5
" intestinal obstruction (21 cases) ...	1 " 0.5
" diseases of the heart-wall (61 cases) ...	1 " 0.6
" diseases of the heart-valves (160 cases) ...	1 " 0.7
" chronic renal disease (48 cases) ...	1 " 0.7
" nerve decay (67 cases) ...	1 " 0.7
" tubercle (35 cases) ...	1 " 0.8
" arterial degeneration (24 cases) ...	1 " 1.1

* The twelve unclassified cases are omitted from these totals.

On looking through these tables we notice the following:

Cirrhosis, in group β, shows an overwhelming preponderance of major habits, their ratio to minor habits being nearly 16 to 1. In Table XV it will be seen that no case of cirrhosis occurs lower in the scale than BC, and very few below D, and more than 65 per cent. in E and D.

The few cases that occur in α and γ tell the same tale.

There is no other disease which shows anything like such a marked preponderance of intemperate habits as cirrhosis.

Next in order, but at a long distance behind, comes chronic renal disease, which in β gives a ratio of major habits of 1.8 to 1, nearly 2 to 1, or not far from double the normal ratio of the group. In γ the ratio of major habits is also large, though less strikingly so than in β.

In Table XV it will be seen that no case in β, and few in γ, occurs below B. Even the B's are few in both β and γ.

Cases of arterial degeneration, in which term senile gangrene is included, give in γ a major habit ratio of 1.1 to 1, as against about half that ratio for the whole group. The cases however are very few.

Apoplexy, on the other hand, gives a nearly normal ratio, both in β and γ. The percentages in Table XV will be seen also to correspond pretty closely with the normals. The numbers here are large.

Tubercle gives a ratio of major habits higher than the normal in γ, but not so high in α and β. This accords with the opinion generally held that senile phthisis is induced by alcoholic excess, but that at other times of life it has a retarding influence, if any, upon the production of tubercle. We must add, however, that the aggregate of phthisis in γ is not more than 35.

Disease of the heart valves, which in advanced life is to a large extent atheromatous, shows in γ a slight preponderance of major habits as compared with the normal ratio. In α and β the ratio is practically normal.

The same applies to diseases of the heart-wall.

Mr. Butlin's conclusions as to the absence of connection between alcoholic habits and the production of malignant disease are fully borne out here, and some countenance given to the belief that the use of alcohol hinders its formation for a time. In one hundred cases of malignant disease, in Group γ, the ratio is normal, though Table XV shows that there is a slight tendency

towards careless drinking, C and BC being filled at the expense of A and B. In 116 cases in β the minor habits markedly preponderate, the ratio being nearly double the normal, and A and B in Table XV being filled at the expense of D and E.

The mortality from pneumonia is not shown by these Tables to be markedly influenced by alcohol. In α (59 cases) the ratio of minor habits is barely below the normal. In β and γ (159 and 82 cases) it is about equivalent to the normal, though in Table XV a certain tendency towards the upper columns of the scale may be detected, E being in excess in both cases, and B in β. In γ, indeed, the percentage of the decidedly intemperate is almost double that of the normal.

In typhoid fever the proportion of minor habits is above the normal in α, and equal to the normal in β. The numbers however are few.

The elderly bronchitic patients show a slightly lower ratio of major habits than the normal. The middle-aged, in Table XV, exhibit a tendency towards careless drinking. In the young the minor habits are to the major as 1 to 1.8, and the proportion of drunkards is very high. There are, however, but a bare score of cases to draw from.

Prostatic disease and cystitis, of which, however, the cases are few, show a higher ratio of minor habits than the normal in group γ, the only one in which they appear.

In the few cases of diabetes that appear, the proportion of major habits is rather higher than the normal:

As one would have surmised, the highest ratio of minor to major habits in Group γ occurs in those said to have died simply of old age or natural decay.

GOUT.

The incidence of gout in the different classes is not shown in the above tables, which include only mortal diseases. A special column, it will be remembered, was devoted to gout in the inquiry paper, the question being put in reference to each case whether the person had ever suffered from gout or not.

In 1,268 of the 4,234 cases a blank was left, the reporter not possessing the desired information.

In the remaining 2,966 the fact was stated, as requested in the inquiry paper, by an affirmative or a negative mark. These 2,966 cases, being distributed into their respective classes and sub-classes, give us the following results. The triple division into young, middle-aged, and elderly is again made in this table, the three groups being distinguished as before by the letters α, β, γ.

TABLE XVIII.—Showing the Incidence of Gout in the Different Alcoholic Classes.

Class.	α			β			γ		
	Total Cases.	Gout.	No Gout.	Total Cases.	Gout.	No Gout.	Total Cases.	Gout.	No Gout.
A ...	37	—	37	30	1	29	23	1	22
AB ...	7	—	7	9	1	8	12	1	11
B ...	180	2	178	308	21	287	603	75	528
BC ...	17	1	16	49	8	41	75	18	57
C ...	100	1	99	273	41	232	341	87	254
CD ...	8	—	8	37	7	30	33	13	20
D ...	46	4	42	181	83	118	154	75	79
DE ...	16	—	16	29	13	16	17	11	6
E ...	85	11	74	213	71	142	83	41	42

For the purpose of showing the incidence of gout in a more convenient form we have constructed Table XIX, showing in each group, α, β, and γ, the percentage of gouty cases upon the whole number reported upon in each class.

TABLE XIX.—Showing in each Group, α, β, and γ, the Percentage of Gouty Cases upon the whole number reported upon in each Alcoholic Class.

Class.	α	β	γ
A	0.0	3.3	4.3
AB	0.0	11.1	8.3
B	1.1	6.8	12.4
BC	5.8	16.3	24.0
C	1.0	15.0	25.5
CD	0.0	18.8	39.3
D	8.6	34.8	48.7
DE	0.0	44.8	64.7
E	12.9	33.3	49.3

The significance of these figures is such as hardly to require comment. We see, speaking generally, in each group the percentage steadily rising from A to E, the percentages being, as might be expected, higher in β than in α , and in γ than in β . It will be noted, however, that there is only a very slight rise from D to E, there being, indeed, a slight fall in the case of β , so that it would appear that prolonged "free" indulgence in alcoholic liquors carries the gouty tendency nearly to its height, there being no additional rise when the stage of habitual drunkenness is reached.

It must be remembered that the effects of indulgence in alcoholic liquors is here shown, not the effects of indulgence in pure alcohol. We have no information in most cases as to the kind of liquor consumed; but if the reader refers to Appendix A, he will see that the majority of the cases are reported from England and Wales, so that on the whole it is the effect of the kind of liquor consumed in England and Wales that is here shown. The same, of course, applies to Tables XV—XVII.

TUBERCLE.

A special interest attaches to the subject of tubercle, on account of the widely conflicting views held as to the action of alcohol upon the production and the progress of the disease. While some believe that alcohol takes a large share in the production of the disease, it has been taught by other authorities that exactly the reverse obtains: that drunkards and free drinkers are less liable to tubercular disease than the temperate, and that the administration of material amounts of alcohol is necessary, or at least desirable, in the treatment of the affection.

We have already seen from Table XVII that among those dying under 40 from tubercular disease the ratio of major habits is rather less than the normal of the group, that the same obtains in the middle-aged, but that among the elderly the ratio of major habits is considerably more than the normal of the group; and in Table XV we have seen that in Group α there is a slight excess of tubercle over the normal in Classes A and B, Classes D and E being deficient; while in Group β , though Class A is not in excess, Class B is markedly so, and both D and E slightly deficient.

Again, in the same Table, under the heading γ , we have seen that Class E is greatly in excess, and Classes A and B very deficient; so that it would seem, as we have above stated, that alcoholic habits were not inducive of tubercle in the young, but rather the reverse, while in the old they predisposed to the disease.

To place this most important subject in a clearer light we have taken both the total number of cases and the total number of cases of phthisis in each class for each group, and have constructed Table XXI, which shows for each group, and for each class, the percentage of individuals who have died from or with phthisis.

TABLE XX.—Showing the Distribution of the Cases of Phthisis in the Different Classes for each Group, α , β , and γ , with the Aggregate Numbers of each such Class.

Clas.	α		β		γ	
	Phthisical Cases.	All Cases.	Phthisical Cases.	All Cases.	Phthisical Cases.	All Cases.
A	22	42	7	46	0	34
AB	8	15	1	15	0	24
B	121	235	96	490	13	804
BC	7	24	5	63	0	91
C	78	148	58	393	12	436
CD	6	13	11	50	0	49
D	34	83	40	263	4	201
DE	10	22	6	50	0	28
E	48	135	50	329	6	139
Unclassified	0	2	1	6	0	4

TABLE XXI.—Showing for α , β , and γ respectively the Percentage of Individuals in each Class who Died of, or with, Tubercular Disease.

In Class	In α	In β	In γ
A	52.3 per cent.	15.2 per cent.	—
AB	53.3	6.6	—
B	51.4	19.5	1.6 per cent.
BC	29.1	7.9	—
C	52.7	14.7	2.7
CD	46.1	22.0	—
D	40.9	15.2	1.9
DE	45.4	12.0	—
E	35.5	15.1	4.3
Total	46.5	16.1	1.9

Here we see that among the young the percentage remains practically the same until Class C is reached, that it then falls somewhat rapidly, the percentage in E being but two-thirds of that in A.

In β the percentages are irregular, but on the whole they are nearly the same for the five main classes, B being somewhat in excess.

In γ we have no cases in A or AB, and the percentage is three times as great in E as it is in B. The numbers here, however, are very small.

On the whole, the results we have obtained certainly give some countenance to the belief that as regards the young alcoholic drinks act as a preventive of tubercle; but as regards the old they appear to favour the contrary opinion. In the middle-aged the two principles of action appear to neutralise each other.

CHRONIC RENAL DISEASE.

It has been suggested that the influence of alcoholic beverages in the production of renal disease, which we believe ourselves to have ascertained, is of a secondary character, the kidney lesion being due to gout, which, as we have seen, is strongly induced by alcoholic liquors. In order to bring this as far as possible to the test, we have taken from the list of cases of chronic renal disease those in which the existence or non-existence of gout is stated. We have distributed these into a table (Table XXII) constructed on the exact plan of Table XVIII. This table shows the incidence of gout for the different alcoholic classes in cases dying of or with chronic renal disease alone. The numbers are very few, but, nevertheless, we have translated them into percentages (Table XXIII) for the sake of comparison with Table XIX.

TABLE XXII.—Showing the Incidence of Gout for the different Alcoholic Classes in cases of Chronic Renal Disease.

	α			β			γ		
	Total.	Gout.	No Gout.	Total.	Gout.	No Gout.	Total.	Gout.	No Gout.
A	...	...	...	...	...	...	...	...	...
AB	...	...	...	...	...	...	...	...	...
B	2	...	2	11	3	8	11	4	7
BC	...	...	...	3	...	3	3	1	2
C	2	...	2	9	3	6	6	5	1
CD	...	...	...	1	...	1	...	...	...
D	...	...	...	11	7	4	4	3	1
DE	...	...	...	3	1	2	...	...	...
E	1	...	1	10	3	7	2	2	...

TABLE XXIII.—Showing in each Group α , β , and γ , the percentage of Gout Cases upon the whole number reported on in each Alcoholic Class of cases of Chronic Renal Disease.

	α	β	γ
A	...	...	...
AB	...	...	...
B	0.0	27.2	36.3
BC	...	0.0	33.3
C	0.0	33.3	83.3
CD	...	0.0	...
D	...	63.6	75.0
DE	...	33.3	...
E	0.0	30.0	100.0

Allowing for the very possible fallacy involved in the smallness of the numbers treated, Table XXIII certainly seems to bear out the supposition above alluded to, for the percentages of the main groups almost throughout are very considerably higher than those in Table XIX.

SUMMARY.

On the whole, then, in addition to the information that we obtain from these returns as to the alcoholic habits of the inhabitants of this country, and as to the relative alcoholic habits of different occupations and classes, we may not unfairly claim to have placed upon a basis of fact the following conclusions:

1. That habitual indulgence in alcoholic liquors beyond the most moderate amounts has a distinct tendency to shorten life, the average shortening being roughly proportional to the degree of indulgence.
2. That of men who have passed the age of 25, the strictly temperate, on the average, live at least ten years longer than those who become decidedly intemperate. (We have not in these returns the means of coming to any conclusion as to the relative duration of life of total abstainers and habitually temperate drinkers of alcoholic liquors.)
3. That in the production of cirrhosis and gout alcoholic excess plays the very marked part which it has long been recognised as

doing; and that there is no other disease anything like so distinctly traceable to the effects of alcoholic liquors.

4. That, cirrhosis and gout apart, the effect of alcoholic liquors is rather to predispose the body towards the attacks of disease generally than to induce any special pathological lesion.

5. That in the etiology of chronic renal disease, alcoholic excess, or the gout which it induces, probably plays a special part.

6. That there is no ground for the belief that alcoholic excess leads in any special manner to the development of malignant disease, and some reason to think that it may delay its production.

7. That in the young alcoholic liquors seem rather to check than to induce the formation of tubercle; while in the old there is some reason to believe that the effects are reversed.

8. That the tendency to apoplexy is not in any special manner induced by alcohol.

9. That the tendency to bronchitis, unless, perhaps, in the young, is not affected in any special manner by alcoholic excess.

10. That the mortality from pneumonia, and probably that from typhoid fever also, is not especially affected by alcoholic habits.

11. That prostatic enlargement and the tendency to cystitis are not especially induced by alcoholic excess.

12. That total abstinence and habitual temperance augment considerably the chance of a death from old age or natural decay, without special pathological lesion.

It is very greatly to be regretted that the returns to this inquiry were not very numerous than they actually were. The conclusions drawn from the inquiry would have had much more weight had we been able to base them upon an aggregate of ten or twenty thousand cases, instead of four thousand and odd only.

Should the publication of this report arouse sufficient fresh interest in the subject it would be possible to reissue the inquiry; but the Collective Investigation Committee would not feel justified in doing so without some decided expression of opinion by the members of the Association that the reissue should be made.

I have much pleasure in thanking Mr. Frederick Hendriks, F.S.S., Actuary of the Universal Life Assurance Society, and Mr. Frank B. Wyatt, Actuary of the Clergy Mutual Society, for information and references which they have afforded me, and in acknowledging the valuable aid rendered me throughout by my assistant, Mr. Joseph Perrott.

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 Hinton, J. L., Warmminster
 Holmes, J., M.D., Ousehurs, R.A.-cliffe
 Hopkins, H. C., Bath
 Horder, T. G., Cardiff
- I.**
 Jackson, A., Sheffield
 Jardine, J. L., Capel
 Johnson, S., M.D., Stoke-upon-Trent
 Jones, T., Mansfield
 Jorlan, F. W., Heaton Chapel
 Joynes, F. J., Dursley
- K.**
 Kebbell, A., Flaxton
 Keen, W., M.D., Chelsea
 Kingsbury, G. C., M.D., Blackpool
- L.**
 Lloyd, R. H., M.D., Lambeth Infirmary
 Lloyd, T. L., Cheswardine
 Lloyd, William H., Dolgelly
 Lockie, S., M.D., Carlisle
 Lovegrove, C., Llanwyddy
 Lush, W. V., M.D., Weymouth
 Lyceet, J., M.D., Wolverhampton
 Lyddon, R., Ramsgate
 Lynch, J. R., Boyue Terrace
- M.**
 Macdonald, C. R., Beith
 Macdonald, P. W., M.D., Dorchester
 McGregor, J., Portsmouth
 Mackenzie, D. J., M.D., Glossop
 Mackenzie, J. A., M.B., Farnworth, Bolton
 McLeod, D., M.D., Kilmarnock
 Measingham, F. P., Wolstanton, Stoke-on-Trent
 Mathews, J., Liverpool
 Meeres, C., Sandown, Isle of Wight
 Morton, T., M.D., Greville Road
 Mossman, R. A., Elloughton, Brough
- N.**
 Nash, F., Todmorden
 Newman, D., M.D., Stamford
- O.**
 Odell, W., F.R.C.S., Hertford
 O'Grady, W. P., Swinton
- P.**
 Pagot, W. S., M.D., Liverpool
 Palmer, J. F., Chelsea
- Q.**
 Parry, H. H., Kidlington
 Peart, R. S., M.D., North Shields
 Pickles, T. J., Leeds
 Pinck, C. H., M.B., Nelson
 Playne, A., M.B., Maldenhead
 Plimmer, H. G., Anerley Road, S.E.
 Plowright, C. B., King's Lynn
 Poole, G. K., M.D., Upper Norwood
 Porritt, N., Huddersfield
 Power, R. E., Portsea
 Pullen-Burry, H. B., Liphook
 Pye-Smith, R. J., F.R.C.S., Sheffield
- R.**
 Ransome, A., M.D., F.R.S., Bowdon
 Raven, T. F., Broadstairs
 Redwood, T. Hall, M.D., Rhymney
 Rice, R., Harwell
 Richardson, S. S., Scott's Dale, Tasmania
 Ritchie, J. J., Leek
 Ronaldson, J. B., F.R.C.S., Haddington, N.B.
 Ragg, B. A., Wool Green
- S.**
 Sadler, M. T., M.D., Barnsley
 Seeger, H. W., M.B., Hampton Court
 Sheehy, P., Pentonville
 Skrimshire, J. T., M.D., Holt
 Sloman, S. G., jun., Farnham
 Smailes, T., Honley
 Smith, R. S., M.D., Clifton
 Snell, E. A., M.B., City Road Square, W. J., F.R.C.S., Plymouth
 Stear, H., Saffron Walden
 Stocks, A. W., Salford
 Stockwell, F., M.D., Bruton
 Swale, H., M.B., Tavistock
- T.**
 Tayler, G. C., M.D., Trowbridge
 Taylor, J., Tandragee, co. Armagh
 Taylor, J., Bristol
 Taylor, J., Chester
 Terry, H. G., Bath
 Thomas, A. G., M.D., Newport, Mon.
 Thomas, W., Rhyl
 Thorp, B., Hohnirth
 Trend, T. W., M.D., Southampton
 Tribe, H. T. B., Chatham
 Turner, J. S., Anerley Road, S.E.
 Tylecote, E. T., M.D., Great Haywood
- U.**
 Unwin, J. B., Dunchurch
- V.**
 Vickerstaff, W. H., Rollington, Macclesfield
 Vincent, G., M.B., Notts
 Vincent, H. B., East Dereham
- W.**
 Walker, R., Wooler
 Ward, A. O., M.B., Tottenham
 Watters, G. T. B., Stonehouse
 Watts-Parkinson, C. H., Wimbörne
 Wertland, A., M.D., Belsize Park
 Wilks, G. M.B., Ashford
 Wills, J. P., Boxhill
 Wilson, E. T., M.B., Cheltenham
 Wortley, A. W., Great Suffolk Street, S.E.
 Wrench, E. M., F.R.C.S., Baslow

APPENDIX B.—DISTRIBUTION OF THE 118 CASES IN WHICH THE ALCOHOLIC HABITS WERE STATED TO HAVE BEEN CHANGED DURING LIFE.

The *Italic Titles* indicate the healings under which the cases come in Tables XI, XVI, and XVII. Cases not included in these Tables have no italic title given. A capital G. signifies that the Patient was reported to have suffered from Gout, the figure 0 that he was stated not to have so suffered.

GROUP A.	
In Class B (235 cases) are included two:—	
Age 31, Pneumonia (<i>Pneumonia</i>), 0	C the last 6 months
36, Phthisis (<i>Tubercle</i>), 0	A the last 3 years
In Class C (148 cases) are included three:—	
Age 29, Phthisis (<i>Tubercle</i>), 0	F previously
39, Urinary Fistula and Phthisis (<i>Tubercle</i>), 0	B the last 6 years
38, Cardiac Asthma and Bronchitis (<i>Disease of Heart</i> Wall), 0	D previously
In Class D (83 cases) are included five:	
Age 32, Enteric Fever (<i>Typhoid Fever</i>), 0	F lately
35, Locomotor Ataxy, 0	E at times
28, Phthisis (<i>Tubercle</i>), 0	B lately
29, Emphysema (<i>Pleurisy</i>), 0	B the last 4 years

Age 34, Phthisis (<i>Tubercle</i>), 0	...	...	...	B the last 3 years
In Sub-class DE (22 cases) one is included:				
Age 35, Meningitis from Injury, 0	...	...	...	E previously
In Class B (135 cases) are included three:—				
Age 27, Pneumonia and Delirium Tremens (<i>Pneumonia</i>), 0	...	...	...	D till last 3 years
.. 27, Phthisis (<i>Tubercle</i>), 0	...	...	...	A the last year
.. 35, Hepatic Disease, 0...	...	...	...	A the last year
GROUP B.				
In Class A (46 cases) one is included:—				
Age 44, Phthisis (<i>Tubercle</i>), 0	...	...	...	B till last 7 years
In Class C (393 cases) are included twelve:				
Age 61, Cardiac Degeneration (<i>Disease of the Heart Wall</i>), 0	...	...	...	B the last 5 years
.. 60, Albuminuria, 0	...	...	...	B lately
.. 59, Hematemesis, Liver Disease, G.	...	...	...	D previously
.. 49, Bronchitis, Renal Dropsy, G.	...	...	...	D at times
.. 57, Bronchitis, Asthma, Pleuro-pneumonia (<i>Bronchitis</i>), G.	...	...	...	D previously
.. 49, Phthisis, Pleuro-pneumonia (<i>Tubercle</i>), G.	...	...	...	D previously
.. 62, Diabetes, Bright's Disease, Carbuncle (<i>Diabetes</i>), 0	...	...	...	B the last 6 years
.. 49, Epilepsy, Apoplexy (<i>Apoplexy</i>)	...	...	...	B lately
.. 49, Chronic Desquamative Nephritis, Uremia (<i>Chronic Renal Disease</i>)	...	...	...	B lately
.. 58, Renal Cancer (<i>Malignant Disease</i>), 0	...	...	...	A the last 2 years
.. 50, Chronic Bright's Disease and Dilatation of Heart (<i>Chronic Renal Disease</i>), G.	...	...	...	A the last 4 years
.. 59, Heart Disease (<i>Disease of Heart Valves</i>), G.	...	...	...	B the last 3 years
In Class D (263 cases) are included twelve:—				
Age 45, Epilepsy, G.	...	...	...	E at times
.. 54, Cancer of Stomach, Extreme Atrophy (<i>Malignant Disease</i>), G.	...	...	...	E at times
.. 61, Bright's Disease (<i>Chronic Renal Disease</i>), G.	...	...	...	E the last 4 years
.. 59, Fatty Heart, Congestion of Lungs, Dropsy (<i>Disease of Heart Wall</i>), 0	...	...	...	B the last 9 years
.. 55, Pyæmia, 0	...	...	...	A the last 2 years
.. 63, Mitral Disease, Anasarca (<i>Disease of Heart Valves</i>), 0	...	...	...	B lately
.. 81, 0	...	...	...	E till last 20 years
.. 58, Chronic Granular Kidney, Uremia (<i>Chronic Renal Disease</i>), G.	...	...	...	bc lately
.. 47, Paralysis from Injury, Cystitis, 0	...	...	...	B the last 3 years
.. 94, Miners' Lung and Dropsy, 0	...	...	...	B the last 4 years
.. 51, Phthisis (<i>Tubercle</i>), 0	...	...	...	A lately
.. 45, Erysipelas, Pyæmia, 0	...	...	...	B the last 3 years
In Sub-class DE (50 cases) are included two:—				
Age 63, Chronic Bronchitis (<i>Bronchitis</i>)	...	...	...	bc lately
.. 63, Chronic Liver Disease, Strangulated Hernia (operation), Diarrhoea, Exhaustion	...	...	...	B lately
In Class E (329 cases) are included fourteen:—				
Age 56, Cancer of Liver (<i>Malignant Disease</i>), 0	...	...	...	D till last 2 years
.. 62, Heart Disease (<i>Disease of Heart Valves</i>), G.	...	...	...	D till last 10 years
.. 51, Bronchitis (<i>Disease of Heart Valves</i>), G.	...	...	...	A the last 6 months
.. 52, Pyæmia, G.	...	...	...	B the last 2½ years
.. 41, Pneumonia (<i>Pneumonia</i>)	...	...	...	A lately
.. 53, Chronic Disease of Stomach and Liver (?) Cirrhosis, G.	...	...	...	B the last 6 years
.. 62, Sanguineous Apoplexy, Syphilis (<i>Apoplexy</i>)	...	...	...	A the last 12 years
.. 58, Bronchitis (<i>Bronchitis</i>), 0	...	...	...	B the last 2 years
.. 43, Epilepsy	...	...	...	D previously
.. 57, Cancer of Stomach, Perforation (<i>Malignant Disease</i>), 0	...	...	...	A the last 5 years
.. 41, Chronic Phthisis (<i>Tubercle</i>), 0	...	...	...	B the last 2 years
.. 62, Phthisis (<i>Tubercle</i>), 0	...	...	...	B the last 4 years
.. 54, Pneumonia (<i>Pneumonia</i>), 0	...	...	...	D lately
.. 60, Congestion of Liver, Asthma, Bronchitis, 0	...	...	...	A the last 10 years
GROUP Y.				
In Class A (34 cases) are included two:—				
Age 80, Old Age, Paralysis, 0	...	...	...	E lately.
.. 71, Bright's Disease (<i>Chronic Renal Disease</i>)	...	...	...	B lately
In Class B (804 cases) are included three:—				
Age 75, Chronic Bright's Disease (<i>Chronic Renal Disease</i>)	...	...	...	E the last 11 months
.. 73, Enlarged Prostate, Acute Cystitis (<i>Prostatic Disease</i>), 0	...	...	...	A till last 10 years
.. 86, Old Age (<i>Old Age</i>), 0	...	...	...	C previously.
In Sub-class bc (91 cases) one is included:—				
Age 78, Apoplexy (<i>Apoplexy</i>), 0	...	...	...	B the last 3 years.
In Class C (436 cases) are included eight:—				
Age 79, Senile Decay, Partial Hemiplegia (<i>Apoplexy</i>)	...	...	...	E lately
.. 73, Heart Disease, Bronchitis (<i>Disease of Heart Valves</i>)	...	...	...	B the last 4 years
.. 78, Gradual Decay, Bronchitis (<i>Bronchitis</i>), G.	...	...	...	B lately
.. 77, Dyspepsia, General Decline (<i>Old Age</i>)	...	...	...	D lately
.. 80, Deranged Liver, Weak Heart, G.	...	...	...	B lately
.. 65, Bronchitis (<i>Bronchitis</i>), 0	...	...	...	B lately
.. 74, Brain Softening (<i>Nerve Decay</i>), G.	...	...	...	B the last 10 years
.. 77, Senectus (<i>Old Age</i>), 0	...	...	...	A lately.
In Sub-class cd (49 cases) are included two:—				
Age 69, Mania (Inherited), 0	...	...	...	bc previously
.. 67, Fatty Heart, Hemiplegia, 0	...	...	...	B the last 10 years.
In Class D (201 cases) are included eight:—				
Age 69, Paralysis, G.	...	...	...	A the last 3 years
.. 70, Anthrax, Diarrhoea	...	...	...	E lately
.. 60, Cirrhosis of Liver, G.	...	...	...	R previously
.. 71, Cardiac Disease (<i>Disease of Heart Valves</i>), G	...	...	...	B lately
.. 63, Fatty Degeneration, Mitral Disease of Heart (<i>Disease of Heart Valves</i>), 0	...	...	...	C the last 3 years
.. 66, Phthisis (<i>Tubercle</i>)	...	...	...	B lately
.. 74, Chronic Bronchitis, Heart Disease, Kidney Disease (Bright's), Dropsy (<i>Chronic Renal Disease</i>), G.	...	...	...	B lately
.. 75, Bronchitis (<i>Bronchitis</i>), G.	...	...	...	B the last 5 years.

In Sub-class DE (28 cases) one is included:—				
Age, 71, Chronic Bright's Disease, Heart Disease (<i>Chronic Renal Disease</i>)	...	...	...	B lately
In Class E (139 cases) are included twenty-six:—				
Age, 68, Pneumonia (<i>Pneumonia</i>), 0	...	...	...	D previously
.. 77, Cystitis (<i>Cystitis</i>), G.	...	...	...	D previously
.. 67, Leucocythæmia, Dyspnoea, 0	...	...	...	B the last 4 years
.. 70, Bronchitis (<i>Bronchitis</i>), 0	...	...	...	B the last 3 years
.. 70, Heart Disease, Hypertrophy of Left Ventricle (<i>Disease of Heart Valves</i>), 0	...	...	...	B the last 3 years
.. 65, General Paralysis (<i>Nerve Decay</i>), 0	...	...	...	B the last 5 years
.. 79, Rheumatic Arthritis	...	...	...	B lately
.. 70, Chronic Disease of Stomach and Bowel, G.	...	...	...	D lately
.. 91, Senile Decay (<i>Old Age</i>)	...	...	...	C lately
.. 73,	...	...	...	B lately
.. 76, Congestion of Lungs, Heart Disease (<i>Disease of Heart Valves</i>)	...	...	...	B lately
.. 71, Hepatitis, Pneumonia, G.	...	...	...	D lately
.. 72, Albuminuria, 0	...	...	...	B lately
.. 67, Apoplexy (<i>Apoplexy</i>), 0	...	...	...	D the last 5 years
.. 72, Bronchitis (<i>Bronchitis</i>)	...	...	...	B the last 10 years
.. 80, Chronic Bronchitis (<i>Bronchitis</i>), 0	...	...	...	A the last 3 years
.. 68, Mitral Deficiency, Bronchitis, Syncope (<i>Disease of Heart Valves</i>), G.	...	...	...	C the last 5 years
.. 79, Hepatic Dropsy	...	...	...	A the last 11 years
.. 74, Cerebral Softening (<i>Nerve Decay</i>), 0	...	...	...	A the last 10-15 years
.. 84, Diabetes, G.	...	...	...	B the last 5 years
.. 75, Fatty Degeneration of Heart, Bronchitis (<i>Disease of Heart Wall</i>), G.	...	...	...	B the last 5 years
.. 65, Morbus Cordis, Dropsy (<i>Disease of Heart Valves</i>), 0	...	...	...	B the last 16 years
.. 85, Cerebral Apoplexy (<i>Apoplexy</i>), 0	...	...	...	B the last 4 years
.. 68, Miners' Phthisis (<i>Tubercle</i>), 0	...	...	...	B the last 3 months
.. 74, Bronchitis, Cardiac Disease (<i>Disease of Heart Valves</i>), 0	...	...	...	B the last 3 years
.. 70, Stricture of Pylorus (<i>Malignant Disease</i>), 0	...	...	...	B the last 4 years.
UNCLASSIFIED.				
Age, 80, Old Age, 0	...	...	...	B; D till the last 30 years
.. 41, Phthisis, 0	...	...	...	B; D till the last 10 years
.. 64, Tabes Dorsalis, 0	...	...	...	B; D till the last 20 years
.. 62, Erysipelas, Heart Disease, 0	...	...	...	B; D previously
.. 83, Congestion of Lungs, 0	...	...	...	B; cd in prime of life
.. 89, Old Age, 0	...	...	...	B; D in working days
.. 38, Aortic Stenosis, Enlarged Liver G.	...	...	...	B; E the last 3 years
.. 64, Stricture of Pylorus, 0	...	...	...	B; D previously
.. 66, Spastic Paralysis	...	...	...	B; E previously
.. 55, Cancer	...	...	...	E; A the last 10 years
.. 52, Brain Disease	...	...	...	E; A the last 10 years
.. 37, Erysipelas	...	...	...	E; A the last 7 years.

APPENDIX C.—PREVIOUS WORK IN THE SAME DIRECTION.

Two inquiries had previously been conducted upon somewhat similar lines; one by Mr. Neison, about forty years ago, and one by the Harveian Society of London in 1879 and 1880.

Mr. Neison's paper On the Rate of Mortality among Persons of Intemperate Habits was read before the Statistical Society on June 16th, 1851, and published in Volume xiv of its journal, pages 200 et seq.

Mr. Neison's inquiry concerned only persons of decidedly intemperate habits, corresponding as far as possible to our Class E., the rate of mortality of whom he compared with the general rate for England and Wales. He did not take account, as our inquiry has done, of the minor degrees of the alcoholic habit. He included women as well as men. His inquiry paper particularly asked for a statement as to the duration of intemperance in each individual, an essential point for the purpose he had in view. He also inquired, and apparently obtained information, as to the kind of liquor taken.

Mr. Neison obtained and classified 357 complete cases, comprising 6,111.5 years of life during which intemperance was practised. In the result he showed that the rate of mortality among the intemperate was more than five times that of the general community between the ages of 21 and 30; more than four times as great from 31 to 50; nearly three times as great from 51 to 60; about twice as great from 61 to 80; and equivalent to it from 81 to 90.

Proceeding further, he showed that the equal chances of life of temperate and intemperate persons might be compared at different ages as in the following table.

At Age	An Intemperate Person has an equal chance of living to	A Temperate Person has an equal chance of living to
20	35.6 years	64.2 years
30	43.8 "	66.5 "
40	51.6 "	71.3 "
50	60.8 "	74.3 "
60	68.9 "	

We have no direct means of comparing these results with our own, as the exact duration of the intemperate habit in each case was not asked for in our inquiry, which was not primarily designed with a view to vital statistics. We have been able only to reckon the average age at death of all individuals entered in

each alcoholic class. We have, however, extracted from Mr. Neison's Table I the aggregate age of the 347 individuals in his schedule who died over the age of 25, and have struck an average, which comes to 47.54 years, that is to say five years less than the average furnished by our Class E. The comparison, however, is not even yet a fair one, as Mr. Neison's schedule contains an unnamed proportion of women, who, on his showing, suffer more severely under the abuse of alcohol than men. It is doubtful, however, if the elimination of the female element would add more than two years at the outside to the average age at death of Mr. Neison's cases, and this would leave it still three years less than the average of our Class E. It is more than possible that in the earlier half of this century intemperance implied a much greater consumption of alcoholic liquor than it does in its ninth decade.⁹

Mr. Neison also found that the intemperate use of spirits was more hurtful than the like use of beer, but that immoderate indulgence in both was more injurious than the exclusive use of either. "Mechanics, working and labouring men," according to his figures, withstood the effects of intemperance better than "traders, dealers, and merchants," the latter better than "professional men and gentlemen," and all better than women.

As regards diseases, he found that "head diseases" (diseases of the nervous system) among the intemperate were greatly in excess of the general average. It must be noted, however, that more than half of this category is made up by delirium tremens. In our returns delirium tremens played a very much smaller part, so small, indeed, that it did not obtain admission as a distinct category into Table XV. This perhaps may be also a result of the diminished use of alcohol even among the intemperate since the year 1851. "Diseases of the Digestive Organs," a category which is somewhat largely made up of "liver disease and dropsy," "ascites," and "atrophy" of the liver, also showed a great excess. "Diseases of the respiratory organs" were relatively deficient; "phthisis" and "decline" do not appear to be in excess.

The Harveian Society appointed a committee in the early part of 1879 to investigate the extent of the mortality referable to alcohol, and its proportion to the mortality from all causes; the proportion in which it is distributed between the two sexes; the ages at which, and the occupations in which, it chiefly occurs; and the modes of death (*Report*, par. 2).

The plan of the inquiry paper, which the Committee sent to all general practitioners in London, was closely similar to that which our Committee adopted, but women were included as well as men.

The reporters were, as in our inquiry, requested to fill up the preliminary columns from the counterfoils of their death-certificate books. They were then requested to refer each case, if possible, to one of three categories: (A) Deaths in no wise due to alcohol, (B) deaths accelerated or partly caused by its abuse, and (C) deaths wholly due to it (*JOURNAL*, 1880, i, p. 177. *Report*, par. 12).

There is a somewhat odd confusion between facts and theories in the definition of these categories, but there is no doubt that a great deal of valuable information was obtained by means of the inquiry. Reports of 7,505 cases were obtained from private practice, which, with the addition of 1,172 infirmary and asylum cases, 646 hospital, and 677 inquest cases (about the normal proportion for London) brought the total of deaths up to 10,000 (*Report*, par. 10).

The Report of the Committee was published in the *JOURNAL* of January 20th, 1883, pp. 97 *et seq.* According to this report alcohol was stated to play some part in the causation of about 13 per cent. of all adult deaths, from 1½ to 4 per cent. appearing to be directly due to its action (pars. 15, 20). Females and males were nearly in normal proportion in the whole number of cases; but in Class B the males were nearly twice as numerous as the females; in Class C only about as 5 to 3. The Committee concluded that severer forms of intemperance were relatively more prevalent among women than the minor forms (par. 21).

The deaths in B were found to have taken place at an earlier

age, and those in C at a much earlier age than in A. Three-fourths of Class C and two-thirds of Class B had died between the ages of 50 and 60, the normal proportion for the adult population being somewhat about one-half (par. 22).

The information obtained as to occupations only sufficed to show the preponderance of publicans in B and C (par. 24).

As regards the modes of death, the Committee reported: "We find, therefore, upon the whole, reason to think that, in the metropolis, the mortality among any considerable group of intemperate persons will differ from that generally prevailing among adults in the following important particulars—namely, a fourfold increase in the deaths from disease of the liver and chylipoietic viscera; a twofold increase in the deaths from disease of the kidney, a decrease of half as much again in those from heart disease, a marked increase in those from pneumonia and pleurisy, a considerable increase and an earlier occurrence of those from disease of the central nervous system; a marked decrease in those from bronchitis, asthma, emphysema, and congestion of lungs; a decrease nearly as great in those from phthisis, and a later occurrence, or at least termination, of the disease; a very large decrease in those from old age, with an increase in those referred to atrophy, debility, etc.; and the addition of a considerable group referred in general terms to alcoholism or chronic alcoholism, or resulting from accidents" (par. 45).

The Committee's conclusions under this head roughly correspond with our results as regards diseases of the liver, kidney, and nervous system, and also as regards old age and phthisis, but not as regards diseases of the heart, pneumonia, bronchitis, etc., "atrophy" and debility.

I have found no statistics supplying the deficiency of our results as regards a comparison between the longevity of total abstainers and moderate drinkers respectively. I am informed that the experience of the United Kingdom Temperance and General Provident Institution is undoubtedly favourable to the abstainers as compared with the rest of the community, but no detailed report has, I believe, been published.

I extract the following from *The Insurance and Finance Leader* of May, 1888.

"In his speech at the recent annual meeting of the Whittington. Mr. Bowser made some interesting remarks regarding the question of Temperance sections in Insurance Companies that are worth quoting. The experience of the Company since the last valuation and bonus in 1884 was that the rate of mortality in the ordinary section was 16.35 per 1,000 per year, while the rate in the Temperance section was 8.74 per 1,000 per year.

"But," he said, "as the lives assured in the Temperance section are somewhat younger than in the other, because they commence the provident habit of paying for life assurance at an earlier age than others, I have separated those above thirty years and under fifty, and I find the difference not so much in favour of the Temperance section, but still considerable. I find the rate in the ordinary section is 10.05 per 1,000; in the Temperance section, 6.72 per 1,000."

"Then, going deeper into the subject as to the causes of death, Mr. Bowser found that:

"More than one-fourth of the whole number of deaths amongst the assured arises from various affections of the lungs and respiratory organs. The proportion in the Temperance section is slightly in excess of the ordinary section. About one-eighth of the deaths arise from various affections of the brain. Here, again, the mortality in the Temperance section is slightly in excess of the other. These two causes of death seem to show that the practice of teetotalers has but little influence on the rate of mortality from these causes. But when we come to the affection of the heart, of the stomach, of the liver, and of the kidneys, then the difference is most serious indeed. In the ordinary section the number who die of heart affections is nearly three times as many as those in the Temperance section, but of those who die of diseases of the stomach, of the kidneys, and kindred diseases, etc., the proportion is four times as many as those who die from the same causes in the Temperance section; still more, against the proportion of 32 per 1,000 persons in the ordinary section who have died directly of liver diseases, not one has died of such affections in the Temperance section. Again, the deaths by accidents of various kinds (including suicide) are in the proportion of one in the Temperance section, against thirteen in the ordinary section. These statistics are gathered from a number of assured lives; persons known to be intemperate are absolutely excluded when proposed for life assurance."

⁹ "During the last quarter of a century, the drinking practices of society have much altered, and what is now commonly regarded as free living, would have some years since been looked upon as only moderation; so, in like manner may it be hoped that the usages of society will continue to improve, and, at no distant date, the habits now considered not to exceed the bounds of moderation be altogether unknown in polite and refined society. It is, therefore, possible that what has hitherto been regarded as intemperate habits, may differ very widely from that which may be looked upon as intemperate some years hence." Neison. *Loc. supra cit.*, page 201.

Dr. Casey has sent me the following table, exhibiting in parallel columns the comparative drinking habits of certain occupations as shown by our Report and the comparative mortality of males in the same occupations at the ages 25 to 65, as given by Dr. William Ogle in the *Supplement to the Forty-Fifth Report of the Registrar-General*, p. xxv. The figures in the first column are the percentages of the less temperate in each occupation, drawn from our Tables VI and VII and compared with the general percentage taken as 100. Those in the second column are from Dr. Ogle's table, the general mortality being reckoned as 100 instead of 1,000.

The figures in the second column for weavers, miners, and "driving occupations" are rough estimates only, as these categories are divided by Dr. Ogle into groups, of which the relative proportions are not ascertainable.

Dr. Ogle's figures are drawn from the returns for 1880-2.

	Ratio of the less Temperate. 100 = average.	Comptve. Mortality at ages 25-65 (Ogle). 100 = General Mort. of Males at same ages.
Clergymen, etc. ...	19	55.6
Schoolmasters ...	63	71.9
Weavers ...	69	94.2 (?)
Gardeners ...	71	59.9
Agricultural labourers ...	71	70.1
Shoemakers ...	71	92.1
Tailors ...	76	105.1
Medical men ...	82	112.2
Carpenters ...	88	82.0
Blacksmiths ...	104	97.3
Lawyers ...	110	84.2
Painters ¹ ...	111	120.2
Masons and Bricklayers ² ...	118	96.9
Miners ...	126	110.0 (?)
Commercial travellers ³ ...	148	94.8
Driving trades ⁴ ...	146	118.4 (?)
Butchers ...	165	117.0
Publicans ⁵ ...	181	152.1

¹ Plumbers and glaziers are included by Dr. Ogle, not by the Collective Investigation Committee.

² Builders are included by Dr. Ogle, not by the Collective Investigation Committee.

³ Probably many travellers retire before advanced age.

⁴ Grooms are included by Dr. Ogle, not by the Collective Investigation Committee.

⁵ Potmen, barmen, etc., are included by the Collective Investigation Committee in its "Licensed Victualling" group. Dr. Ogle makes a separate category of "Inn and Hotel Servants," with a comparative mortality of 220.5.

THE RELATION OF ALCOHOLISM TO INEBRIETY.

BY NORMAN KERR, M.D., F.L.S.

ALCOHOLISM is a term which has been somewhat loosely employed. It has been applied by some almost at random to designate all drinking (moderate or immoderate), or any kind of intoxication. By others its scope has been restricted to the mental and moral perversion (apart from the physical degradation) consequent on excessive drinking. Confusion has arisen probably from ignorance. Only within recent years has there been clearly revealed the existence of the disease of inebriety, a disease often associated, but sometimes altogether unconnected, with alcohol. It may, therefore, be useful to direct attention to the distinction between alcoholism and inebriety.

Alcohol is an irritant narcotic poison, and the term alcoholism should be applied only to the toxic phenomena directly or indirectly arising from the action of that poison on body and brain. This would include acute alcohol poisoning (fatal or non-fatal) and chronic alcohol poisoning. Under this designation would be comprised all the functional disturbances and tissue degenerations produced by alcoholic inebriating drinks in various doses, the vitiation of the blood, the circulatory tumult, the nervous perturbation, the vasomotor paralysis, the cerebral automatism, with the incomplete paralysis (with or without unconsciousness) of transient alcoholic excitement; as well as the tremors of delirium tremens, the madness of *mania a potu*, the depraved digestion, the cerebro-spinal paralysis, the delusions, and the insanity of more permanent and graver alcoholic lesions. Under the term alcoholism would also be ranged the mental and moral depravities induced by the toxicating agency of alcoholic inebriants, the selfishness, untruthfulness, cunning, and deceit of the alcohol inebriate, as well as the transmitted proclivities to excess, instability of brain, and feeble will-power begotten of the alco-

holic inheritance. In most cases of alcoholism of long standing there are fatty or other degenerations of the liver, kidneys, heart, brain, and other organs.

Inebriety, on the other hand, is a disease of the higher nerve centres, allied to insanity, which may or may not be of alcoholic origin. It consists of an intense morbid impulse to, or crave for, not intoxicants, but intoxication. The intoxicant consumed may be any narcotic which has an anæsthetic effect. It is this benumbing, this prompt, even if evanescent, satisfaction of an abnormal or unhealthful impulse or crave for relief which is sought after. The intoxicant is the agent by which this fleeting relief is obtained, the particular drug resorted to being determined by the idiosyncrasy of the patient, the narcotic to which he has had access, or which is in common use where he lives, or other conditions. Inebriety is, therefore, a true intoxication mania, or, as I propose to call it, narcomania, that is, a mania for narcotism.

Inebriety or narcomania assumes varied forms. As regards the inebriant, it may be alcohol, opium, morphine, chloral, chloroform, ether, chlorodyne, or cocaine inebriety, the second, third, fourth, and fifth forms being considerably on the increase amongst us. Cocaine inebriety I have seen only a few cases of. Inebriety the disease may be constant or periodic, social or solitary. There are periodicities of function, of nerve energy, of time, of occupation, of climate, of season, and of occasion. Under a third classification of complicatory disorders we have the inebrieties of insanity, of syphilis and other diseases, of convalescence from fevers, of heat apoplexy, of operations, of head or other injuries (traumatic inebriety), and of nerve shock generally. The most striking differences are between alcoholomania and opiomania or morphinomania. Alcoholic inebriety is both organic and functional. The opiate form is a disease of function, no such unmistakable organic lesions having been observed as with alcohol. Again, alcohol maddens, while opium as a rule soothes. The lower animals are easily affected by alcohol, while many of them can live and thrive on opium. Alcoholists, too, are more untruthful. There is a wide difference also in the therapeutic treatment of these two forms of the disease. With alcohol, the sudden withdrawal of the toxic agent is safe, with opium usually unsafe.

The etiology and pathology of inebriety of all types is a profound and intricate study. Some progress has been made, but much is yet unknown. The state of alcoholic trance, for example, is one of grave import, and has as yet met with scanty recognition. This obscure and extraordinary phenomenon of inebriety has been known to include voyages and travels of weeks' duration, the subject of this diseased condition sometimes fully awaking to consciousness only to find himself in a foreign country, though he had been able to speak and act automatically to all appearance like other people around him. A knowledge of the various causes exciting and predisposing to inebriety is essential to enable a successful method of cure to be devised, this disease being as curable as most other diseases. The alcoholic is, therefore, but one of many forms of inebriety, which latter is a constitutional disease of the nerve centres which may be altogether non-alcoholic in its inception.

The disease of inebriety may be either inherited or acquired. In the former case, the transmitted disease may be latent, not a single inebriate outbreak occurring in a lifetime.

All drunkards are not subjects of the inebriate diathesis. There are those who drink from sheer "cussedness." They drink, as they bet, simply in pursuit of pleasure, their pleasure consisting in aiming at every questionable indulgence. Such cannot be deemed diseased persons, at least at the outset of their alcoholic career, but even in their case a chain of abnormal symptoms of pathological degradations may ultimately establish a state of true disease.

There may be alcoholic inebriety without what may be called the coarser manifestations of alcoholism. In some cases of intractable alcoholic inebriety, no organic lesions of any consequence have been visible after death, and no symptoms of disordered digestion, visceral derangement, or other organic function have been observed during life. The nervous affection has apparently been the only departure from health. There may thus be alcoholic drunkenness with no true inebriety, and inebriety or narcomania with no actual intoxication by alcohol.

DR. CUMMING said it was impossible to enter into the consideration of the enormous amount of facts just laid before them by Dr. Owen. He was, however, not quite sure that Dr. Owen was justi-

fied in dealing as he had done with the comparative tables of longevity in the total abstinence class. It did not convey to his mind anything that really threw doubt on the fact as stated. He was not in favour of alcohol, and, even if he were, he would hesitate to express such an opinion in the presence of Dr. Norman Kerr. He suggested that children who took alcohol were probably not the stronger and more robust, as surmised by Dr. Owen, but rather the weaker among them. The second point was in reference to the etiology of gout as a consequence of intemperance. He was inclined to think that Dr. Owen's statistics must have been drawn largely from England. Irish experience was that gout was not frequently the result of alcoholic indulgence. It was probably rather a consequence of drinking certain beverages of alcohol, and not of alcohol itself.—Dr. MARTIN (of Portlaw) said, as regards the etiology of gout, he could name family after family in which the members were perfectly temperate, but whose ancestors were notorious for their drinking habits, yet their descendants were gouty. In those days the principal drink was French wine. In the lower classes gout was a disease rarely met with.—Dr. NORMAN KERR expressed his regret that Mr. Owen's paper had been read immediately after his—their aim being essentially different. He pointed out that the whole number of cases observed did not exceed 4,234, a much smaller number than many on which others had declined to draw dogmatic conclusions in times gone past. The total death-rate for this country was upwards of 7,000, and to come to any conclusion whatever with regard to the mortality of alcoholism in so small a number would be contrary to scientific accuracy. They could only be tentative, and some of them would have to be revised. He had carried out several inquiries on this subject, and he had never come to any other conclusion than that there were at least 40,000 deaths due directly to alcoholic intemperance, and at least double that number due to it indirectly. This had been borne out by the researches of the Harveian Society, which dealt with 10,000 observations, more than double the number of to-day. Whatever the value of these conjectures might be, there were those independent series of investigation by the Harveian Society, by Dr. Owen and by himself, which all seemed to point to about the same number of deaths due to alcohol. With regard to the statistics now before them, he would make one or two observations. With respect to soldiers, he was happy to say that a large proportion of them were abstainers; some 12,000 in the Indian army, and probably not less than one in seven at home. The probable mortality was shown by the life-tables of the insurance companies. These companies had to do with hard facts, and they showed a difference in favour of abstainers to the extent of 25 per cent. He took exception to the assertion that alcoholic excess did not produce pathological conditions. [Dr. Owen explained that his conclusion was that alcohol did not kill so much by producing one or two pathological conditions, but by rendering the body liable to pathological conditions all round.] He (Dr. Kerr) still objected even to that assertion, because a great many of these cases of death were produced by alcoholic excess, although not so stated in the certificate—bronchitis, pneumonia, apoplexy, etc., for instance. With a large experience of work in London, he was certain that alcoholic excess did produce death directly. There were a certain few—phthisis, for example—which were caused by alcohol. At the same time, alcoholic indulgence undoubtedly predisposed to disease. With regard to gout, he would say that he had only been able to find one case of gout in a life teetotaler.—Dr. DRUMMOND asked what form of phthisis Dr. Kerr considered was due to the use of alcohol.—Dr. KERR, in reply, referred Dr. Drummond to a monograph on the subject by Dr. Richardson.—Dr. DRUMMOND said he thought some answer to this question should be given, for he did not think it ought to go forth that they admitted that there was a special form of phthisis due to alcoholic indulgence.—Professor GAIRDNER said that Dr. Owen's manipulation of his facts was beyond all praise. He would, however, like to allude to a fact that had not been mentioned by Dr. Owen, and he hoped it might be introduced in the form of a footnote or otherwise. Dr. Norman Kerr had said that there was a form of alcoholic phthisis, but that he was disposed to deny. He did not deny that alcohol might have a good deal to do with phthisis, but he was not prepared, from anything he had seen himself, to say that there was any particular form of tubercular disease attributable to alcohol. He did not think one could, by examining a man, either alive or dead, find anything in his lungs to denote that he had been a drunkard. On the other hand, quite an opposite opinion prevailed, and, having to teach this subject to

students, he was obliged to be very careful to allude to only what he knew himself on the subject, and that was remarkably little. He had, however, put before them statements which had been confidently put forward that phthisis was positively restrained by the use of alcohol, not only in moderation but in excess. He had avoided touching on this, in the absence of absolute proof, and he should be glad of some information bearing on this subject. It professed to be based on a large number of observations. At all events, it was connected with the examination of a large number of persons who had died of drink diseases, and in whom they very rarely found tuberculous disease. He said that was a very curious fact if it were true, and he had little doubt that it was so. Persons who died of "gin-drinker's liver," or other well-defined disease of alcoholic origin, were very rarely tubercular. From this it had been inferred that alcohol was a preventive of tuberculosis; but he thought this subject ought to be studied with this opinion full in view. He thought it, however, quite possible that tuberculous persons were less disposed to alcoholic indulgence than others. He alluded to the story told of an old relation of Lord Eldon, who was a gentleman of the olden times, and a firm believer in the virtues of toddy, alluding to a rising young man, he was wont to observe: "He's a guid young fellow; but he's nae right. He canna tackle his drink." That led him to suppose that youths who could not "tackle their drink" were probably wanting in physique.—Surgeon-Major GUNN had no hesitation in saying that many soldiers fell victims to a form of phthisis directly due to the use of alcohol.—Dr. GILBERT SMITH said he had been working for fifteen years in the out-patient department of the Hospital for Consumption, and nearly as long in the out-patient room of the London Hospital. As a teetotaler of ten years' standing, he had taken very great interest in looking out for cases of phthisis in connection with alcoholic tendencies, and he had been greatly astonished with the very few cases of phthisis which came before him in men who were habitual drunkards, and he was also astonished to see how long these cases dragged on. He began the inquiry in the belief that alcohol would hasten their doom, but his experience pointed the other way. Working among the non-alcoholic, he found that phthisis could not be treated except with proper doses of alcohol. In private practice he never thought of treating a case of phthisis without alcohol. In every case where he had tried to do without it he had failed. Now they had to take facts as they found them, and not try to make them fit with preconceived ideas. With regard to gout, he might say that before he was a teetotaler he never had either rheumatism or gout, but he had had both ever since.—A MEMBER said he thought a great deal of weight was due to the observation of Dr. Owen on the longevity of total abstainers. They must remember that the total abstinence movement was only fifty years old, and that only during the last fifteen or twenty years had it really commenced to make great progress. Consequently the members of the Band of Hope of that time could not yet have attained the age to influence statistics. By-and-bye they would become old people, and so increase the average age. As regarded the treatment of phthisis, he had personally treated many cases at the Temperance Hospital, many of whom had gone out greatly benefited without any alcohol at all; therefore it could not be said that it was impossible to treat phthisis without it.—Surgeon-Major GUNN asked whether Professor GAIRDNER meant that people who suffered from phthisis ought to take alcohol in excess.—Professor GAIRDNER said he merely wished to ask the opinion of the Section on the subject, but Dr. Gilbert Smith's remarks certainly seemed to point in that direction.—Dr. GILBERT SMITH said that, whatever he thought, he should not be prepared to advise evil that good might come.—Dr. ISAMBARD OWEN said that his remarks as to the longevity of abstainers were put forward as a suggestion, but not as an explanation. He thought it was extremely doubtful whether the stronger or weaker members of the community took more kindly to total abstinence. With regard to gout, his observations had been drawn from England, and must be taken to affect only the particular kind of beverage indulged in. He hoped to preface his report with a geographical tabulation of the drink distribution. Dr. Norman Kerr spoke of the number of his observations being so small; of course he would like to have dealt with a larger number, but as a matter of fact they had been disappointed; they had hoped to get at least 40,000, and he hoped that the interest which the publication of this report would excite might lead to further additions to this number. As to the inquiry instituted by the Harveian Society, it had been conducted on somewhat dif-

ferent lines. Their cases were required to be divided into certain classes; those due directly to alcohol, and those supposed to have been hastened by alcohol, etc. In fact, it was rather an opinion upon the results of alcohol that was settled rather than a statement of facts. It was a much simpler inquiry than theirs, and had been very successful. Their own inquiry had been for facts respecting certain definite diseases, which had for an object rather to make out the connection of the alcoholic habit with certain definite lesions than to ascertain the relative mortality. Statistics of insurance societies only concerned insurable lives, whereas their inquiry took in any kind of life, good or bad. He should be glad to get any further information out of these returns with regard to the very important point raised by Professor Gairdner as touching alcohol in checking phthisis. Something of the kind could already be got out of Table VII.

THREE LECTURES ON TUBERCULAR JOINT-DISEASE AND ITS TREATMENT BY OPERATION.

Delivered at the Royal College of Surgeons of England, June, 1888,

BY ARTHUR E. J. BARKER, F.R.C.S.

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LECTURE III.

I SHALL to-day ask your attention to the application of those principles of treatment which I have endeavoured to sketch in our first two lectures to the actual removal of tubercular disease as found in some of the principal joints of the extremities.

Taking the knee first as a simple articulation, and one which claims attention more frequently, perhaps, than any other, I would venture to insist that hitherto we have been too much in the habit of regarding the prospect of a movable joint after operations for the removal of tubercular disease as altogether remote. In considering conservative interference with this disease here, it has until recently nearly always been a question either of complete excision of the whole joint or of trusting to simple drainage without removal of tissue; and yet, if the matter is carefully examined, there are many cases in which such disease has existed for a long time—now in the synovial membrane, now in the bones—and yet, *without operation*, repair has taken place with little or no impairment of the movements of the part, and surely we may imitate such results by early operation.

It will be said that in such cases the primary focus had not extended actually to the surfaces of the articulation, and had been arrested early. But in the majority of cases—at all events in children—tubercular disease probably starts as a focus not actually in contact with the surfaces of the joint, and remains for a time quite outside the latter. For instance, it often begins at the growing epiphysary lines of the bones, as in the specimens from which I have drawn Figs. III and IV (hip), and V, VI, and VII (knee), and only gradually works its way either through the cartilaginous covering or out to the lateral aspect of the femur or tibia. Again, it may commence in the subendothelial tissue of the synovial membrane, and develop into a considerable caseating focus before it makes a breach of surface and attacks the parts which actually move one upon the other. We know, of course, that if such cases are left alone, this is not the rule, unfortunately; and that a large number of them will run on to destruction of the proper surfaces of the joint, and then all hopes of preserving its movements become very remote indeed.

Ought we not, then, to look out for cases in which we may by limited operation anticipate this extension of the process to the surfaces, or, at all events, arrest its destructive action on the latter? Undoubtedly; and, if we work more in this direction, the reward will be not only the frequent arrest of *general tubercular* disease, but also the preservation of the movements of many a knee in which otherwise a more complete excision of one kind or another would have to be performed later on.

A good method of exploring the knee-joint in which such disease is suspected to be on the increase, but where there is a hope

of preserving the movements of the part, becomes, then, an important desideratum. Out of the large number of operations proposed and practised since the days of Filkin and Park, the most experienced surgeons to-day appear almost universally to adopt the well-known "horse-shoe" or "U-shaped" incision of Moreau, modified more or less. When exploration alone is the first object, half this incision may be made on one side, reaching from above the joint to the border of the patellar ligament, as in Fig. VIII. Or, again, the two halves of the curves may be made down to each side of the latter, but without dividing it. Adopting one or other of these methods of exposing the surfaces of the articulation, its general condition may be fairly estimated in most cases, and indications for further action be discovered. In the first place, while making such an incision, especially in a case of early disease, it may be found that the knife passes through the tubercularised area before it actually opens the joint. A large quantity of granulation tissue, with or without caseous foci, may be met with, and quite possibly in such a position that it can be freely removed without interfering with the essential structures of the joint. Or, again, the appearance of the lateral aspect of the femur or tibia may indicate the presence of centres of tubercular osteomyelitis about their growing epiphysary lines, as in Figs. V, VI, and VII. In such a case it may be quite feasible to remove all the infected medulla either by gouge or sharp spoon without the least damage to the gliding surfaces of the bones; and, even if the cartilaginous covering be encroached upon to some small extent either from within the bone or from without, it is quite possible to sacrifice a certain amount of it without injury to the prospect of a movable joint. Some cases in which this has been done have been put on record lately by Sendler, with the result of almost perfect preservation of the functions of the part. And, after all, this result will depend almost entirely on the stage at which operation is performed, now that antiseptics has eliminated the risks of setting up true suppuration in the joint by our operation. For of course the mere rupture of a caseous focus into a joint does not mean the general suppuration of the latter, unless the focus itself also communicate by a sinus with the external one.

Now the moment such tubercular tissue is found the risks of re-inoculation from it during its extirpation must be kept in view, especially if it have reached the stage of caseation. If it be possible, by turning back the skin and muscles on either side, to expose the whole diseased focus from our limited incision, it should be isolated by as careful a dissection as if it were a malignant growth, and the knife should at every stroke be carried through sound tissue around. At the same time the escape of caseous matter into the fresh wound, or into the cavity of the articulation, should be prevented by every means in our power. If, unfortunately, it should be impossible to prevent such contamination of the cut surfaces altogether, they should be as rapidly and as thoroughly cleansed as possible by irrigation with one or other of the powerful germicides at our command. The choice here appears to lie either between carbolic solution or bichloride of mercury.

Large areas of diseased synovial tissue may in this way be extirpated from the knee, as low as the ligamentum patellæ and as high as top of the subcrural bursa, without any interference with the continuity of the lateral, crucial, or patellar ligaments. Cases are now accumulating in which this has been done, and all the movements of the joint have remained perfect. Koenig's and, more recently, Sendler's cases are perhaps the most encouraging, especially as in some of the latter portions of bone had been also removed.

The actual opening up of the joint in such a case should be postponed until the diseased area in the synovial tissues has been isolated as far as possible. Finally, after flushing the parts divided with our germicide solution, the separation of the infected tissue is completed, and it is lifted out *en masse*. The condition of the ends of the bones can now be examined, and, if the patient is an adult, it is quite possible that the cartilaginous surfaces may be almost or quite intact, unless the disease has been allowed to run on too long. In such a case, after careful irrigation of all the pockets of the articulation, and subsequent drying out with sponges, all the exposed surfaces should be dusted with finely crystalline iodoform.

Deep stitches, including the muscular expansion and skin, should then be inserted, about half an inch apart, throughout the whole length of the wound. These silk threads are not tied until all are in place, and until the final toilet of the wound has been completed. A drain-tube is not always indispensable, but may

with advantage be left in one of the angles of the wound, for the first twelve hours or so, in most cases.

But, supposing that the free single or double lateral incision reveal the fact that the cartilage-covered ends of the bones are seriously affected, either primarily or secondarily, the joint must be more freely exposed. This is best done by completing the formation of the U-shaped flap (Fig. VIII), in order to turn it up from the lower and anterior surface of the femur. In doing this, of course the simplest plan is to sever the ligamentum patellæ, trusting afterwards to careful suturing to restore its continuity. But, if there is any prospect of preserving the movements of the articulation, this structure should be kept intact, if possible, for obvious reasons. This can only be done by removing the tuberosity of the tibia, and leaving it attached to the ligament of the patella. There is no difficulty in this, if a good chisel is used, and is driven obliquely upwards and backwards, under the tuberosity, into the joint. The scale of bone thus removed can subsequently be wired down in its old bed, and one of the chief supports of the joint will be thus preserved intact. When the long U-shaped flap has been formed, as just described, and has been turned well up, there is no part of the joint which cannot be thoroughly examined during complete flexion.

Another method of exposing the interior of the knee-joint, while preserving the extensor mechanism intact, has been often practised within the last few years, and deserves some notice. This is the transverse incision across the middle of the patella, the latter being sawn completely through. Now there is no doubt that, with the safeguards of asepsis, this method is as justifiable as any other for opening the knee-joint, and that, when subsequently wired, the patella becomes as sound as ever, and the action of the extensors is preserved. But it is agreed by those who have had most experience of it that the transverse incision alone does not give as free access to the various parts of the joint as is required; and even Volekmann, with whom the plan I believe originated, was obliged to supplement it by vertical lateral incisions, which enabled him to turn the soft parts upwards and downwards with more freedom. Neither this method, nor that of Verneuil (lately revived), in which an H-shaped cut is made with the transverse stroke *above* the patella, appear likely to hold their own against the old U-shaped incision, which possesses many of the advantages of the other methods without their drawbacks.

If, in performing the operation by this U-shaped flap, the tuberosity of the tibia be lifted up with the latter, and then subsequently wired down *in situ*, all the advantages of the method of dividing the patella are secured, and there can be no question of the freer access to the joint. But, whatever else is done, it should never for a moment be forgotten that our first object is to rid the patient of a distinctly dangerous new growth, and that all questions as to the functions of the joint must take a second place.

The points to be specially examined in these cases will be, first, the several synovial pockets, and then the epiphysary lines of the femur and tibia, especially at their lateral aspects. Here it will be frequently found in early cases that a focus of tubercular osteomyelitis extends more or less deeply into or across the bone, sometimes without transgressing the cartilage (Figs. V and VI). In such a case, let me repeat, it may be quite feasible to remove all the diseased tissue by careful gouging from the side without damaging the joint-surfaces at all. But, be this as it may, it must be remembered that, if be possible to cut around the focus in healthy tissue, and to lift the diseased mass bodily out without crushing it, and with a layer of sound material around it, the chance of re-inoculation of the medulla remaining is much diminished. Even from the joint-surface it is quite possible to do this without serious interference with the shape of the articular facets in many cases. A few months ago I was able thus to remove one of those conical foci of carious bone the shape of which, as Koenig points out, suggests their formation by the blocking of a nutrient artery by tubercular disease. It lay in the external condyle of the femur, with its base at the articular surface; and, though the gouge was carried well outside of it in healthy tissue, and a portion of the inner aspect of the external condyle as large as half a walnut was removed, the shape of the joint has not been damaged; and I have lately seen the patient walking about comfortably, although in this case with a stiff joint, but not in the least a shortened limb.

In passing I may remark that such cases as the one just referred to offer an excellent illustration of the advantages of the

most recent methods of dealing with tubercular joint-disease. Here was a girl of eighteen who had been under my care for the same affection for eight years, during the last three of which she walked about on a Thomas's splint and never put the foot to the ground. All this time she was carefully treated both at home and in hospital, but the knee remained swollen, tender, and was now quite stiff, and walking was impossible. Last Christmas she and her mother begged that she should be operated on. I therefore laid open the joint by the U-shaped incision, removed all the infected synovial tissue, and a large focus of tubercular osteomyelitis from the femur as described. The wound healed by first intention under the second dressing, which was replaced by dry wool and a plaster-of-Paris case on the tenth day. A day or two later the patient was out of bed; within a month from operation she was at the seaside, and within six weeks was able to walk about on the limb, which had not been used for years. She wore the same plaster case for about another month, and on her return to London I removed it, and found the state of the joint all that could be desired. She could walk well without the splint, but was given a lighter support instead. I believe that for the last couple of months she has been *at work* again; and I saw her yesterday, perfectly well.

In this case, an operation, which did not interfere with the length of the limb or its growth, which did not confine the patient to her bed for a fortnight, or to the house for a month, gave her back the use of her leg within eight weeks—a result which eight years of careful treatment by other means had failed to produce. From what was found at the operation on this joint, it is probable that further delay would have resulted in extension of the disease, which would then have required for its removal the sacrifice of some of the length of the bones, to say nothing of the other risks to which the patient would have been subjected.

It is perhaps a little too soon in this case to pronounce that re-inoculation of the system from the wounded surfaces cannot have taken place during the operation. But we know enough to say that this is unlikely. From all the cases where such an occurrence has taken place that I have been able to study, it seems probable that, unless there is evidence that the disease has taken a fresh start locally or in internal organs within a couple of months or so, it is not likely to reappear at all from this cause, provided the patient's surroundings are healthy.

There can be no question, as already stated, that such reinoculation of the soft parts and of the fresh cut bone does often take place in excisions of tubercular joints. Cases have been recorded specially to elucidate this point, and leave no doubt, to my mind, upon it. It is probably a frequent cause of that secondary development of foci of disease, long after operation, which is well known to us all. Hitherto it has been the custom to attribute this reappearance of the disease to its spread from portions of the original foci not thoroughly removed by the operation. But although this explanation will meet some cases, it will not account for all. The evidence is strong that a healthy cut surface of bone may be inoculated from the caseous *débris* in process of removal from another part of the joint, and may develop fresh foci of tubercular osteomyelitis as a consequence in due course. Much may be done, of course, in the way of washing away tubercular *débris*, accidentally distributed over the fresh cut surfaces in the course of an operation, and germicides may be brought to bear upon them before the wound is closed. But as the latter must be used sparingly in view of their toxic effects on the system, it should be our aim to prevent, by every means in our power, the scattering broadcast over the wounded surfaces of the part those seeds of further disease which we know from experiment are so ready to strike root even in uninjured tissues, and the evil effect of which we have heretofore been only too familiar with when, after an excision has been soundly healed for some time, caseous abscesses have formed, and have slowly worked their way to the surface.

Not infrequently, in examining a tubercular focus in the cancellous tissue of the end of a bone, we will observe that its spread has been prevented, as it were, by a process of sclerosis in the tissue around—a process quite analogous to the formation of the limiting area of exudation tissue, demonstrated by experiment, around points inoculated with tubercle in the eye and elsewhere. (Fig. 1.) If such a sclerosis exist in any given case, we should be careful, in gouging out the diseased matter, not to go beyond this barrier, erected by the natural processes against the spread of the disease.

I shall now ask to be allowed to describe in detail the method I

should employ to get rid of the infected tissues from a knee which has been discovered by exploration to possess a *widely* diseased synovial membrane, the bones being little or not at all affected. If I venture to describe this as the plan I have adopted myself, it is with no wish to dogmatise. No one is entitled to do this in the case of a subject so comparatively new to us all, and where all our individual experiences must still be relatively scanty. My wish is simply to express, in a definite form, the conclusions which have gradually worked themselves out during many years in which I have been a close observer of the methods of others in this field of surgery, as well as an anxious student of my own clinical and pathological material. We have all, Sir, no doubt been obliged to revise our procedures over and over again, in view of the advances in the theories of wound-treatment, and of the pathology of tuberculosis; and all of us must be conscious that we are still but feeling our way. Those who have given the most attention to the subject will be the readiest to admit that it is still fraught with difficulty. Of my own experience of the methods about to be described, I will only say that, as far as it goes, it is most encouraging, contrasted with older procedures; and that the results have been far beyond what I should have believed within the range of possibility a few years ago. And I know, further, that this has been the experience of many others whose line of action has been practically the same.

The limb having been kept in the vertical position for five minutes, so as to reduce the blood-stream to the utmost, a broad band of india-rubber is placed tightly around it, as near to the groin as possible. It is well not to use the Esmarch's bandage in the ordinary way for several reasons. In the first place, its pressure may break up some of the caseating foci, and disperse their contents either into the tissues around, producing local infection, or into the lymphatics or veins, and so lead to general infection of the system. In the second place, it is an advantage to leave a small amount of blood in the vessels of the part, so that these may be recognised when cut, and tied before the elastic tourniquet is removed. Finally, the loss of tone in the walls of the vessels, produced by the prolonged pressure of the elastic band, is usually followed by such copious oozing as to necessitate an early change of the first dressings. Such a disturbance of the wounded surfaces is most undesirable, if it can be avoided. Quite apart from the increased risks of septic inoculation from every exposure of the wound, disturbance of the part is likely to produce increased vascular excitement, and this again favours the development of tubercular infection, both local and general, as we have seen. Again, if extravasated blood find its way into the tissues around the field of operation, such blood offers one of the best cultivating media for the bacillus tuberculosis that could be provided, and is very likely to be inoculated during operation. The compression of the joint, then, by means of the elastic band is better dispensed with.

After every precaution as to asepsis, the knee is now laid open by the U-shaped incision, and the resulting flap, including all the structures down to the bone, is turned up. Then, commencing at the tip of the flap, the thickened synovial tissues are dissected cleanly off from the under surface of the quadriceps in one continuous strip, until the upper reflection of the subcutaneous pocket is reached. The dissection is then carried down over the front of the femur, leaving the latter quite clean. The joint is next well bent, and all diseased tissue is carefully cleared away from the inter-condyloid notch and ligamentum posticum, and, finally, from the lateral aspects of the joint, and from the upper surface of the tibia. In short, the whole synovial membrane is peeled systematically from the surfaces of the cavity, as nearly as may be, in one continuous tract. If the crucial and lateral ligaments are sound, they should be spared, and the same may be said of the semi-lunar cartilages. The surfaces of the bones and their epiphysary lines of growth must now be very carefully examined, and all tubercular foci be removed with a sharp spoon or gouge. Gentle pressure on the soft parts will now make evident any small vessels by forcing out their contents. These can be treated either by twisting or ligature, but, as a rule, there are very few bleeding points to be seen, and these can be quite adequately dealt with by a few minutes' forcipressure while the other steps of the operation are being completed.

The whole area of operation is next flushed with our germicide solution in such a way as to remove all traces of *débris* and blood clot, and carefully dried with perfectly clean sponges. It is then lightly dusted with finely crystalline iodoform, in such a way that every portion of the cut surfaces is reached by it, *but in small*

quantity. After this, the flap is laid down, and the sutures of carbolised silk are placed *in situ*, but not yet tied, the whole cavity under the flap being in the meanwhile filled with sponges, with which pressure is kept up upon every part of the wound. When all the sutures are in position, the sponges are removed, together with the last traces of moisture, and the bones are finally adjusted in a straight line with one another. Then the stitches are tied evenly, closing the wound everywhere except at either angle, where a small drain-tube is placed.

The dressing which I have myself used in cases of this kind is ordinary salicylic wool, but I have no doubt that there are other aseptic materials equally good. But much depends upon the way in which the first dressing is adjusted—more, I believe, than upon the aseptic material employed. Our aim is to apply even pressure in such a way as to check, as far as possible, all oozing into the extensive wound underneath, and at the same time to allow of the escape of any blood or serum which may be exuded in spite of the pressure within the first forty-eight hours. Perhaps the best way of attaining these objects is to cut a flat pad of salicylic wool, one inch thick, exactly the size and shape of the flap, and lay it upon the latter; then to carry a strip of the same wool, about three inches broad in the line of the wound, but about half an inch from it. The incisions and drain openings are now seen between the edges of the two pieces of wool, which do not touch or press exactly upon them. Then long strips of wool are carried round the joint, including the two pieces first applied, until it is covered deeply from well above to well below the knee. This thick layer of dressing, if evenly adjusted, may be firmly bandaged, and thus all the deeper parts of the wound are brought into contact, except at the drain openings.

Nothing now remains but to remove the elastic tourniquet, and secure the limb in an apparatus. In these cases, probably, no appliance is superior to a piece of Gooche's scored splint, carried from the fold of the nates to the tendo Achillis, and well and evenly lined with wool. When firmly bandaged over the latter, it gives all the support that is required to the joint.

As soon as the patient is in bed, the limb should be placed in the *vertical* position, and be secured thus; this is a most important part of the after-treatment, lessening as it does the tendency to oozing of blood into the wound, with all its attendant inconveniences and risks.

After this, the less we interfere with the wound the better. If the pressure on the wool have been properly graduated, the whole wound will in most cases heal by first intention under the dressing which was applied on the operating table. Those who proceed as above have many such cases to point to. But, if there be any soaking of serum through the dressing, and it appear under the gluteal fold, the limb, at the end of twenty-four or forty-eight hours, should be placed in the horizontal position, the Gooche's splint be unfolded, and the moistened dressings be replaced by dry antiseptic wool, applied as before, the incision and its neighbourhood being dusted with iodoform. At the same time, the drains may be removed. Personally, I prefer at this dressing to put the limb up once for all in plaster-of-Paris from foot to groin, and leave it untouched for two or three weeks. The plaster case can then be slit up, and the stitches be removed, without any lifting of the limb out of its bed; and, when a little fresh wool has been laid over the incision, a few turns of a bandage will make all as secure as before, and such a splint will last until the patient is able to walk about.

But perhaps it might be better to advocate, as a routine treatment, the use of the Gooche's splint for the first ten days, then the removal of drains and sutures at the same time, and the application of the plaster splint once for all.

It will be observed that no mention is made of provision for purulent discharge. The reason is that pus is not seen in cases thus operated on except as a very rare exception. We expect these cases to heal by first intention, and they do so. I am speaking now of cases in which no sinuses existed at the time of operation. And, even in a case with a few sinuses, union without suppuration may sometimes be achieved if the dissection of the diseased tissues has been very complete, and if the borders of the openings have been thoroughly cut away at the operation. But it is to be devoutly hoped that in the future all cases of this disease will be treated by operation before sinuses have formed. Scraping out of the latter, it should be noted, is not sufficient as a rule; they must be cleanly dissected out, so that union by first intention may take place along their track.

Treatment such as the above combines nearly all the require-

ments which, as I have already shown, are demanded in an operation for tubercular disease of the joint, whether we aim at the preservation of movement or at ankylosis. If the first, the absolute rest will favour repair without exudation, and if the latter, consolidation will be promoted in the best way. I cannot think that any pegging or wiring of the bones is necessary except in rare cases. If the patient is young the ends of the bones are mostly cartilaginous, and no amount of wiring will cause them to unite by osseous tissue; and if they are adults, and the encrusting cartilage has been damaged, firm union is to be expected if the parts be simply kept in close apposition and immovable. In any case, no displacement can or will take place if the joint is firmly splinted from the first in the fully extended position, and as long as it is thus supported, especially with plaster-of-Paris, there need be no fear on this score. Young patients will always require such a support for months after operations in which the ligaments of the joint have been destroyed, for there is a great tendency to flexion and displacement if the limb be left to itself; but this tendency can be counteracted by splints until it ceases.

Now as to the question of formal classic excisions, with sawing off of the entire ends of bones. I venture to foretell that after the next few years when the principles underlying the treatment of tubercular disease are better understood and the necessity of early operation is recognised, such operations will be some of the rarest in surgery. They will be replaced entirely, I believe, by the extirpation of localised foci in the bones without any sacrifice of their length and growing power. What a gain this alone is likely to be, need not be further dwelt upon. And that it will affect the subsequent course of the whole tubercular process in the system I firmly believe time will show, when we have accumulated enough cases operated on by the newer methods for reliable statistics.

OPERATIONS ON THE HIP-JOINT.

In operations for the removal of tubercular disease of the hip-joint, bone will almost always have to be sacrificed for several reasons. In the first place the disease starts more frequently in the head of the femur than elsewhere as far as can be ascertained at present, and I have sketched in Figs. III. and IV. the usual position of its initial lesion. Secondly, the anatomical arrangement of the synovial membrane is such that it can hardly be infected to any marked degree without participation of either the head of the thigh-bone, the acetabulum, or both together. And although attempts have been made to extirpate the diseased synovial membrane without excision of the bones, I believe such attempts have so far proved abortive. But although all this may be admitted, it is equally clear from our present knowledge of the pathology of the affection and our experience in its treatment that we ought nowadays to be able to effect the objects we have in view by a far more limited removal of bone than was formerly considered necessary in most cases. Remembering that primary osseous disease of this joint is always limited at first to the head or its epiphysary growing line (Figs III. and IV.), or to the epiphysary lines of the acetabulum, and, that having once started in either of these situations it cannot spread far without involving the whole joint in a very serious way, it ought to be our object to interfere at a very early stage. If this is done, it will never be necessary to undertake those ghastly operations in which in former days the whole acetabulum, with large portions of the ilium, ischium, and pubes, together with the whole head, neck, and trochanteric portions of the femur were removed at one or more sittings. In the future if we watch the early development of hip-disease closely, we ought never to find it necessary to remove more than the head and part of the neck of the femur, and in some cases, the central portion of the acetabulum. Hence the wide-reaching incisions of former days are no longer necessary as regards the soft parts, and the forcible dislocation of large portions of the femur out of the wound are quite unneeded for. In every case now considered suitable for excision, the head of the bone can be sawn off *in situ*, and the acetabulum be dealt with through very limited incisions in the soft parts. Allow me to remind you again that I am referring now to cases in which no sinuses are present or have only very recently formed. Where many sinuses exist and true suppuration has been present for some time I believe that a case has been made out fully against any formal excision and that such cases as a general rule stand a far better chance when treated simply by rest and the laying open and washing out of abscesses with free drainage.

For excision of the hip then as we hope to see it practised from

henceforth, very limited incisions are demanded, and there are now two such which appear to compete closely for the general favor, namely, that on the outside of the joint (Fig. IX.) and that on its anterior aspect (Fig. VIII.). The first of these, known throughout Germany as Langenbeck's operation, is notwithstanding acknowledged there to be merely a revival of the original procedure proposed by C. White, of Manchester, for the removal of the hip-joint, in the year 1769. The second, or anterior incision, was first adopted in Germany by C. Hueter in 1878, but independently, I believe, a little later by Mr. R. W. Parker in this country, by whose name it is perhaps best known here.



Fig. VIII.—Excision of the Hip-Joint by External Incision. The incision runs in a line from the posterior superior iliac spine over the middle of the trochanter, the limb being semiflexed and adducted.

In White's operation, the limb being semiflexed and adducted, a straight incision is made over the head and neck of the bone in the direction of a line running from the posterior superior iliac spine to the middle of the trochanter (Fig. IX.). This incision should commence fully two inches above the tip of the trochanter and be continued down on the outer aspect of the latter for an inch and a half. It should lay open the capsule of the joint with one stroke, after which there is but little difficulty in dividing the neck of the femur with a narrow saw outside the focus of disease and removing the proximal portion of the head and acetabulum while the edges of the wound are held aside. Occasionally, however, there may be some difficulty in reaching all parts of the affected cavity through this single incision, in which case those operators who employ this method habitually are accustomed to split the trochanter vertically for about an inch with a chisel, and then separate the two halves without disturbing the tendons inserted into them. This method undoubtedly gives much freer access to the neck of the bone, and indeed to all parts of the joint, and adds but little to the severity of the operation. Subsequently the two halves of the trochanter fall together and adjust themselves in their old position until they are united.

But though this operation has found favour with many experienced surgeons, and has largely supplanted that by posterior curved incision, it in its turn is likely to be abandoned in favour of the method by anterior incision. Having myself employed the latter almost exclusively for the last five or six years I am more and more inclined to prefer it to all other modes of excision, and shall now describe it in detail in the hope of inducing others to test its advantages.

The patient lies on his back with the limb as much extended as possible. A single straight incision is made from a point imme-

diately below the anterior superior spinous process of the ilium, downwards and slightly inwards for three or four inches. (Fig. VIII.) As the knife sinks into the limb it passes between the tensor vaginae femoris and glutei muscles on the outside and the sartorius and rectus on the inside.

The lower inch or so of this cut should only divide the skin; the upper two-thirds should reach the neck of the femur at once. In this way the capsule is laid open vertically, and this opening can be enlarged by a little further dissection with the knife, care being taken, however, that the Y ligament is left as far as possible intact. The state of the joint having been now ascertained with the point of the index-finger a narrow-bladed saw is introduced along the latter and the neck of the femur is divided from above downwards. Then the head is extracted with a sequestrum forceps, and the acetabulum, if diseased, is carefully gouged out clean or scraped thoroughly with sharp spoons. Every trace of diseased synovial tissue discoverable is now removed with scissors,

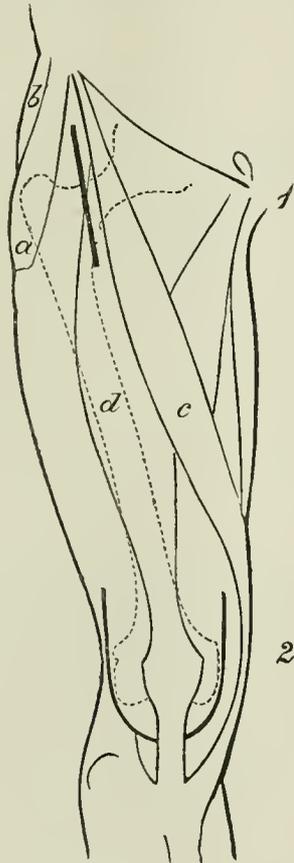


Fig. IX.—Excision of Hip and Knee. 1. Anterior incision for removing the hip-joint (Hueter's and Parker's method). The incision runs downwards and a little inwards between the tensor vag. fem. (a) and glutei (b) externally and the sartorius (c), and rectus (d) internally. 2. Moreau's U-shaped incision for removing disease of the knee.

knife, and sharp spoon, special care being also taken to clear out any caseating abscesses communicating with the joint. All this should be done with as little violence to the tissues around as possible, so that none of the tubercular debris shall be forced into the fresh cut surfaces. When every portion of diseased tissue has been thoroughly removed, the cavity is freely flushed with our germicide solution until all loose particles have been washed away. It is then sponged dry from the bottom and is immediately dusted with iodoform, which may be carried further into the ramifications of the cavity on the end of the finger. It is well, I think, after this again to introduce a small sponge for the purpose not only of finally drying the part but also of wiping away any excess of iodoform which may be about. This sponge should be left in until the sutures which close the wound are in position and are ready to be tied. It is then removed and the

threads are knotted, a medium-sized drain-tube being carried down as far as the acetabulum. A thick dressing of salicylic wool, arranged in strips, so that interstices are left into which serum can escape, completes the operation.

At first, I think the patient is much better without a splint of any kind. He simply lies on his back in bed with the limb fully extended by pulley and weight; indeed, the latter may often be dispensed with altogether. The first dressing may usually remain undisturbed for some days, after which it is well to replace the serum-soaked wool by a fresh dressing of the same kind.

Except for the drain opening such wounds heal, in my experience, as a rule by first intention. The fluid, moreover, after the first day or so, which comes from the drain-tube, is little more than thick odourless serum. It exudes in very small quantity and ought never to become truly purulent. This is the reason why the opening, although anterior, is perfectly adequate for the drainage of the cavity left by the operation. I have often been asked, "Do you find this anterior incision gives sufficient drainage for the discharges?" My answer always is, "Certainly, for there are no discharges worth mentioning after the first oozing of blood and serum immediately following operation." Those who ask this question have doubtless in their eye the older experiences of excision of the hip, when the operation was usually undertaken in an advanced stage of the disease, when suppuration had already set in freely with ramifying sinuses. I am not alluding to such cases, believing as I do that experience shows, and especially Mr. Marsh's figures alluded to already, that, beyond aseptic drainage, they are best left to Nature and are unsuitable for excision. But in relatively early cases treated carefully as just described we have usually, and ought always to have healing without suppuration at all properly so called. I could produce a series of cases illustrating this fact from my own practice and from that of my colleague Mr. Bilton Pollard, who operates on exactly the same lines at the Children's Hospital, and I believe other surgeons have found the same thing. It must not be forgotten that when an excision is performed early and all tuberculised tissue is removed, a clean-walled cavity is left, most of which is quite capable of healing by first intention, when its different surfaces are brought into contact by firm pressure. And in these cases, the head of the bone being removed and the acetabulum quite clean, the cut surface of the neck of the femur can be brought close up to the latter, so that although there is potentially a large space in the field of operation, there ought to be actually little or no cavity left if pressure have been properly applied from the first. There is no need then in such cases after the first day or so for extensive drainage, if the wound be kept aseptic. If it is not so, of course the case is totally different, and drainage is absolutely necessary. For my own part I intend to try whether some of these early excisions cannot be left to heal absolutely by first intention without any drainage at all, just as in many cases tubes can be dispensed with altogether in analogous cases of operation on the knee.

All that has just been said about the details of operation applies with equal force to that by external incision. But the anterior method has several advantages that cannot be claimed for the latter. In the first place not a single muscle fibre need be divided in the anterior operation and consequently none of the support of the muscles is lost to the joint. Nor are any vessels of importance divided if the deeper part of the incision be not carried too low in the thigh, and the same may be said of the nerves. Finally, the very fact of the wound into the joint being an anterior one enables us to place the patient on a double Thomas's splint a week or so after operation, and to keep him on this without any need to move the limb for as long a time as is desired. He can also now be placed for part of the day either on his face or his side for change, and this is usually very much appreciated. When supported with such a splint a patient can also be taken out of bed within ten days of the operation and can have all the benefits of the open air and change almost from the first. We are thus enabled to send our hospital patients home or to the country long before the wound is healed, and without risk, if ordinary care as to antiseptic dressing be observed. In this part of the treatment the iodoform emulsion will be found very valuable. A little of this fluid injected daily into the drain-tube will sink into all the deeper parts of the wound, whether it is filled with blood or serum, or even pus, by virtue of its high specific gravity, and will not only prevent or check the growth of pyogenic micrococci, but also arrest the development of any bacilli tuberculosis accidentally scattered through the wound by the

operation. If in the intervals between these injections the hip be kept well enveloped in salicylic wool there will be but little risk of septic infection. When a Thomas's splint is employed after excision of the hip it is well to have its rods made to diverge widely so that the affected limb shall be strongly abducted during convalescence. When the joint becomes firm in this position the effect is of course to cause tilting downwards of the pelvis on the affected side when the patient begins to walk. The result is that the limb is restored almost or completely to the same level as its fellow, and the actual shortening is compensated for.

The absolute rest secured to the hip-joint from the first by the treatment just described does for it what the plaster-of-Paris does for the knee. Not only does it save the patient from suffering, but it diminishes the hyperæmia about the joint, and thus in all probability reduces the risk of a local or general spread of the disease after operation. At the same time the patient can cease to be confined to bed the moment it is applied.

I had hoped, Sir, to be able to consider the application of the principles of treatment we have been discussing to the removal of tubercular disease from the elbow and shoulder joints; time fails me, however. But I trust that in what I have said, however imperfectly, I have justified the remark made in the first of these lectures—namely, that the excision of scrofulous or tubercular disease from a joint is no longer a mere mechanical problem; that it is no longer a mere question of removing a certain amount of dead or inflamed bone in the readiest manner, and drainage of the resulting wound until it heals. I hope that I have made good the claim of the operator in this field of surgery to be considered, not a mere skilful artificer, but a scientific worker, who brings a knowledge of anatomy, physiology, biology, and chemistry to a glorious task.

I trust, also, that what I have said may appear to others to justify that *hopefulness* as regards our future success in the struggle against tubercular disease which I feel myself. If the affection is parasitic, as no doubt it is, we may expect to check its spread in the future in ways never yet attempted, or, indeed, thought of. If the belief is warranted that tuberculosis is not inherited in the vast majority of cases, but acquired, how much more promising the outlook! If the disease be inoculable on any surface of the body, and if it is capable of being reinoculated from one part of an operation wound to another, we may hope to prevent its inroads by very simple precautions never taken before; and, when it has gained access to the body, and is making local ravages, our hopes of arresting them by operation are far greater now than heretofore. For now, relieved of the nightmare of the septic wound diseases, we can undertake operations at an early stage of the affection without fear, and remove all the local mischief without those wide-reaching resections of bone which brought shock and other attendant risks in their train; and we can do so with better prospects as regards the functions of the joint than formerly. The pain of the after-treatment has also been immensely reduced by the possibility with aseptic wounds of permanent dressings, and the patient may consequently be invited to face such an operation with far less fear than of old.

In conclusion, I should like to say that I have purposely abstained from troubling my audience by quoting either my own experiences or observations or the authorities in detail for all the observations alluded to in the course of these lectures. The subject is so large, and its literature so very extensive, that this would have been intolerably wearisome to you. I shall, however, append a list containing some of those sources of information which have appeared to me most reliable, on careful study, and to which reference can be made by those who desire to pursue the subject further.

I hope also before long to be able to collect a sufficiency of reliable statistics of recent experiences in this field of surgery to emphasise more fully those conclusions I have ventured to put forward, to which you have listened with so much forbearance.

SOME OF THE WORKS CONSULTED ON QUESTIONS RELATING TO THE SUBJECT OF THE ABOVE LECTURES.

Schüller, *Untersuchungen über die Entstehungen und Ursache der scrophulösen und tuberculösen Gelenkleiden*, Stuttgart, 1880; W. Cheyne, *Practitioner*, 1883; Baumgarten, *Centralblatt für die Med. Wissenschaften*, 1883; Baumgarten, *Zeitschrift. f. Klin. Med.*, Bd. 9 and 10; E. Klebs, *Allgem. Pathologie*, Theil. 1., 1887; Treves, *Holmes's System of Surgery*; Tscherning, *Fortsch. d. Med.*, Bd. 3, p. 65, 1885; Lehmann, *Deutsch. Med. Wochens.*, 1886, No. 9-13; Middeldorp, *Fortsch. d. Med.*, 1886, Bd. 4, p. 249; Elsenberg, *Centrabl. f. Chir.*, 1887, pp. 52 and 651; Müller, *Fortsch. d.*

Med., 1886, p. 548; Jani, *Centrabl. f. Chir.*, 1886, p. 729; Kraske, *ibid.*, 1885, p. 809; Baug, *Fortsch. d. Med.*, 1885, p. 129; Johne, *ibid.*, p. 198; Wesener, *Fortsch. d. Med.*, 1886, p. 333; Wahl, *Deutsch. Med. Wochens.*, 1885; Klebs, *Virchow's Archiv.*, Bd. 49, p. 291; Weigert, *ibid.*, Bd. 88, p. 307; Stilling, *ibid.*, p. 111; Arnold, *ibid.*, p. 397; Leser, *Centrabl. f. Chir.*, 1888, No. 16; Koch, *Centrabl. f. Chir.*, 1884, p. 341; Pfeiffer, *Fortsch. d. Med.*, 1888, No. 1, p. 33; Langerhans, *Virchow's Archiv.*, Bd. 112, p. 16; Croft, *Clin. Soc. Transact.*, vol. xiv, p. 224; Marsh, *ibid.*; Korff, *Deutsch. Zeitsch. für Chir.*, 1885, p. 149; Willemer, *ibid.*, p. 268; Wartmann, *ibid.*, 1881, Heft 1 and 2; Caumont, and 4; Walzberg & Riedel, *ibid.*, 1881, Heft 3 and 4; Gerster, *Annals of Surg.*, Ap., 1888; *ibid.*, 1884, Heft 3 and 4; Gerster, *Annals of Surg.*, Ap., 1888; *Hand. der allgem. und speciel. Pathologie und Chir.*, Pitha-Billroth, 1882, Bd. 2, Abtheil 2, Lief 4; Koenig, *Die Tuberculose der Knochen und Gelenke*, 1884; Leser, *Centrabl. f. Chir.*, 1888, and *Fortsch. der Med.*, Bd. V., p. 501; Grünefeld, *Zeitsch. für Heilkunde*, Bd. VIII., p. 191; *Centrabl. f. Chir.*, 1888.

Note.—A typographical error was overlooked in Lecture II, page 1263, by which 195 stands for 95 in Willemer's statistics (three lines from bottom of second column). These figures thus corrected show Willemer's statistics in the least favourable light. But if all cases treated by incision and drainage be included the total number rises to 123, making the mortality only 10 per cent., and if the cases treated by primary amputation be excluded the percentage of deaths further falls to 9.0.

REMARKS ON PAROXYSMAL SNEEZING.

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PART II.

THE intimate relation existing between intermittent sneezing and asthma has already been referred to, and we might narrate many cases in which the symptoms of both have been observed in the same person; but the following brief outline will serve equally well to illustrate the point. A patient for some years suffered from severe intermittent sneezing, which then became complicated with asthma, the asthma steadily increasing in severity, whilst the sneezing grew less and less, till at last it almost ceased. The asthma was of the peptic variety, and unassociated with bronchitis. Bed-dust always induced severe attacks, first of sneezing then of asthma. As bed-dust is insoluble, the part affected must have been either the mucous membrane or the terminations of the nerves, first of the mucous membrane of the nose, next of the lungs, whilst the change in the type of the disease from intermittent sneezing to well-marked peptic asthma favours the theory that the seat of the affection was in the nervous centres.

Our cases show that paroxysmal sneezing is related on one hand to bronchitic and peptic asthma, and on the other to hay fever. They are allied to the bronchitic form of asthma in being excited by dust, cold, and direct irritants, and to bronchitic asthma through those cases which commence with paroxysmal sneezing, and are subsequently complicated with bronchial asthma. To the peptic forms of asthma this paroxysmal sneezing is related through those cases in which the attack is excited by food.

In nearly all these cases, judging from the extent of the itching, a part or even the whole of the nasal passages is affected, and often the eyes, soft palate, and throat are also involved. In some instances, however, we have found that the nervous structures implicated are much more limited; indeed, the nose may altogether escape. In one very curious case the itching was entirely confined to the inner canthus of the eye, whilst in another it involved the whole of an eyeball.

The following series of cases occurring in the course of three generations of the same family serves to demonstrate the hereditary connection existing between intermittent sneezing and asthma.

The first member of the family, whom we will call the grandfather, was troubled with asthma for years, in fact, up to the time

of his death, which occurred at the age of 80. His son, whom we will call the father, and who was under our care, suffered from hay-asthma from childhood, his attacks lasting for only about six weeks in the hay season. On going into a hayfield, or, indeed, near one, he is seized immediately with intense itching of the whole of the inside of the nose, and of the entire conjunctiva of both eyes and of the throat, accompanied by violent sneezing and profuse discharge from the eyes and nose. His eyes become blood-shot and the lids swell, often to such an extent that he can scarcely see. His breathing is very difficult, but there is no expectoration. So intensely susceptible is he that a field a mile off will affect him, and if his children play in the field and then come indoors, he has an attack. All flowers will at this particular time bring on an attack, but they do not do so at any other season. Strong sunlight will excite an attack, and he usually takes the precaution of wearing big blue spectacles when outdoors. His sister, who is now 24 years of age, has had hay-asthma for about four years. His son, who represents the third generation, is aged 10, and has suffered severely from asthma since a sharp attack of bronchitis which he had when 3 years old. He suffers all the year round almost continuously from severe itching inside the nose, in the eyes, throat, and under the chin. When these symptoms are aggravated he has severe sneezing, with free discharge of a clear fluid from the nose. Any kind of dust aggravates the symptoms, pollen especially. He suffers also from wheezing, and, when the itching and sneezing are aggravated, from violent cough and difficulty of breathing. All these symptoms are influenced by food; thus, the itching and the dyspnoea are always made worse by pastry, sweets, and especially by a heavy meal taken in the evening or late at night. He has been much worse since an attack of measles three months ago, and now almost any food, even bread and butter, increases both the itching and difficulty of breathing.

In another case, a lady who suffered from bronchial asthma subsequently replaced by hay-fever, had two children, one of whom, the elder, has been subject to asthma and bronchitis since the age of 5, whilst the younger is a paroxysmal sneezer. We have other cases which illustrate the intimate relation which exists between bronchitic asthma, peptic asthma, paroxysmal sneezing, and hay-fever, these varieties of the same complaint occurring in different members of the same family, either concurrently or in successive generations. In one case a lady who was an asthmatic for many years, had twelve children, all of whom, without exception, suffered from one or other form of this complaint.

The change in the type of a disease in its transmission from parent to child is frequently met with in asthmatics. For example, an asthmatic parent who suffers from peptic or bronchitic asthma may have children, one of whom has hay-fever, another intermittent sneezing, apparently independent of pollen, and a third who is the subject of simple peptic asthma. The influence of hereditary transmission is well illustrated by the following case.

A lady, aged about 60, suffers from sneezing, but only in the morning before breakfast. She is unable to assign any exciting cause for the attacks. Food, stimulants, dust, flowers, hay and smoke do not affect her. Damp places and damp weather favour the occurrence of the attacks, but will not excite them. Change of air gives relief for about a fortnight, but then loses its effect. Any change is temporarily beneficial, and it makes no difference where she goes. In former years she was always worse just before and during a period. She has intense itching in the right nostril under the bridge of the nose, and where the nasal bones join the cartilages. The itching extends to the right eye and the lower lid. During the attack the sneezing is very violent, so that it exhausts her and strains her muscles. There is a profuse watery discharge from both eyes and from the nose during the attacks. When she catches a real cold, it runs its usual course, and the other symptoms cease. She has one son, who is a violent paroxysmal sneezer, another who is a hay-asthmatic, and a third who is a morning sneezer. This case also illustrates the influence of unilateral stimulation in inducing bilateral secretion.

A certain vague hereditary relationship can sometimes be traced between paroxysmal sneezing, asthma, migraine, and some forms of hysteria. For example, we had under treatment a young lady, aged 20, who for many months persistently refused food, taking nourishment in the smallest possible quantity compatible with the maintenance of life. She lived in the country, and until she was nearly 19, was a hearty, well nourished woman, re-

nowned over the whole country side for her beauty and buoyancy of spirits. She was fond of riding, walking, tennis, and all outdoor sports, and was always the life of the party. Suddenly and without any assignable reason, and without the existence of organic disease as far as could be ascertained, she changed her habits, and spent the whole day moping about the house, taking no interest in anything. Her tastes were peculiar. She disliked peas and strawberries, ices, and many other articles of diet usually affected by ladies, and preferred castor oil to champagne. Her favourite dishes were slate-pencil, cinders, and sealing-wax. She rapidly lost weight, and when she came under our care turned the scale at very little over six stone. She speedily improved under massage, but it was no easy matter to get her to take a good meal. Her family history was peculiar. Her father suffered severely from neuralgia, and his mother was for years afflicted with migraine. The father's brother was a paroxysmal sneezer, whilst one of his daughters, until she married, had a great dislike for food of all kinds, and lived chiefly on sweets. Her brother, a young fellow of 30, rarely or never eats meat. The patient's only sister is fastidious in her dietary, and suffers severely from asthma, but whether peptic or bronchitic we were unable to learn.

Sometimes both in asthma and bronchitis we meet with cases where irritation of some distant spot far removed from the chest or seat of pain will induce an attack. In a case recorded by Anstie it is stated that irritation of a small spot at the back of the head, over the occipital nerve, would immediately induce an attack of supraorbital neuralgia, whilst in another instance the application of cold to one instep invariably induced a paroxysm of dyspnoea. A clergyman assured us that he could at any time induce an attack of paroxysmal sneezing, lasting ten minutes, and accompanied by profuse running from the nose, by rubbing his tongue against the roof of the mouth, close to the teeth. He cannot discover that anything else brings on an attack, and he is quite unaffected by pollen or dust of any kind.

It is generally recognised that when attacks of sneezing and asthma both affect a patient, they do not, as a rule, occur at the same time; one form replacing the other; in fact, local applications which arrest the sneezing sometimes induce an attack of dyspnoea. It often happens that as the asthmatic paroxysms become more frequent and more prolonged, the attacks of sneezing temporarily cease.

In children sneezing is easily provoked, and their occurring frequently without assignable cause is not infrequently the first indication of an asthmatic tendency—a fact not generally recognised. Sometimes, however, both in children and adults asthma precedes the attacks of paroxysmal sneezing. The influence of locality in exciting or warding off attacks of asthma is well known, and this applies equally to cases of sneezing. A patient who was under our care for hay-asthma was severely affected in his native county Sussex, but was quite free from his complaint, even when the grass was in full bloom, in Devonshire, at Windermere, and in Scotland. Another patient, a lady who, when at Hampstead, suffers from fits of sneezing alternating with attacks of asthma, is perfectly free from both at Brighton, Eastbourne, Hastings, Bournemouth, and other seaside resorts. This immunity is not due to the direction of the wind, for she is quite unaffected whether there be a sea-breeze or a land-breeze. To use her own expression, the place which suits one of her complaints suits both.

Not uncommonly as the patient grows older, or as the bronchial attacks decrease in frequency and severity, they are replaced by sneezing or peptic asthma. Sometimes, too, as the attack of bronchitis or bronchial asthma subsides, it is followed by an attack of paroxysmal sneezing lasting for some days, with but slight intermission. This was observed in the case of a lady who uniformly had three or four bad attacks of bronchitis every year, each being followed by a week's sneezing.

We know that asthma, like many other neuroses, is greatly influenced through the emotional centres, that a sudden fright will sometimes at once cut short an attack of asthma, or may, on the other hand, induce a paroxysm. Salter relates the case of an asthmatic who was at once relieved of a severe attack by the occurrence of a fire in the opposite house. At the time the alarm was given he was in bed, breathing with the greatest difficulty, and unable to move. When the excitement was at its height he was seen, to the astonishment of his friends, standing at the open window in his night-shirt, cheering the efforts of the firemen. This is equally true of paroxysmal sneezing, and it is a common

practice in some parts of the country to arrest an attack by suddenly slapping the patient on the back, or startling him in some similar manner. Sometimes an attack of paroxysmal sneezing is uniformly excited, not so much by emotional causes as by ideation, or the association of ideas. A young lady, a native of Queensland, who for many years suffered from hay-asthma and paroxysmal sneezing, was convinced that the seat of her malady was in the left arm, and she assured us that any movement of that member, however slight, would invariably induce an attack. So convinced was she of this that she used only the right arm and hand, keeping the left supported by her dress or in a sling. If inadvertently she used the left hand, even for the simplest purpose, a paroxysm was excited. She was most explicit on this point, and, as far as we were enabled to test the matter for ourselves, her statement appeared to be correct. Carrying a fan or her umbrella in the left hand would act as the exciting cause, but, curiously enough, not until her attention was called to the fact. Here the impression must have been purely emotional or ideal, for it is inconceivable that the movement of any particular joint or the contraction of any special group of muscles could act in any other way in inducing a paroxysmal condition, which often failed to expend its force for many hours. In the same category of ideal, or perhaps we should say nondescript, cases, may be included the well known instance of the lady who had an attack of rose-fever from smelling an artificial rose. She was probably of the same temperament as the patient who was attacked with coryza from standing for a few minutes in front of a picture of a hay-field at the Academy.

The remedies employed in the treatment of paroxysmal sneezing may be divided into two categories: first, those which break up the paroxysm; and, secondly, those which by a gradual action so modify the pathological condition of the mucous membrane that the predisposition to their return is removed. In the former class first and foremost comes cocaine. Some three or four years ago we had under our care a student of the Westminster Hospital, Mr. John Watson, who gave a most interesting account of his observations on the topical application of cocaine tablets. The attacks in his case usually commenced about the last week in May, and continued without intermission until the end of July, the discomfort and inconvenience experienced being so great that during the summer months he was practically incapacitated for work. Over and over again has he left our lecture on *materia medica*, his handkerchief to his nose and his eyes suffused with tears. His most prominent symptom was sneezing, which came on in paroxysms often in the most interesting part of an exposition of the physiological action of some new and valuable drug. The attacks, he assured us, were quite uncontrollable, and he often had to resort to violent muscular exercise, such as a game of billiards, to subdue them. He was fond of theatrical entertainments, and found peculiar relief in the atmosphere of the playhouse. Other symptoms were itching and irritation of the nose, with smarting and tickling of the mucous membrane of the nares and septum. There was an irresistible desire to violently rub the offending member with a coarse pocket handkerchief, although painful experience had taught him that it ultimately intensified the trouble and irritation, which returned with redoubled vigour immediately after the application. At the same time there was a copious secretion of acrid mucus, which seemed to act as an irritant and inflame the surface with which it came in contact. There was tickling and itching of the margin of the lids, which were pressed together in the vain hope of obtaining relief. The hard palate burnt and itched so intensely that the tongue had to be forced backwards against it in order to relieve it. The pollen of hay, either growing or stacked, was found to be the most potent cause, but minute particles of any kind floating in the air would act in a like manner. The susceptibility was so great that no remedy which had been tried, and they were many, had afforded the slightest relief. At last, at our suggestion, he obtained some tablets of cocaine, which he introduced into each nostril, pushing them well up with the tip of the little finger. It was found that they would adhere to the mucous membrane without difficulty, and that they caused no pain or irritation, but afforded prompt and instant relief, not only to the coryza, but to the accompanying symptoms. The tablets first employed contained a sixth of a grain, but subsequently the half-grain tablets were substituted with advantage. As a rule, a single application checks the paroxysm, but some patients find it necessary to repeat the application several times a day. We learn from a communication recently received from Mr. Watson that he has adopted this

mode of treatment in a large number of cases, and with uniform success.

As an example of the rapidity with which cocaine acts in cutting short hay-fever and paroxysmal sneezing, we may mention that at a public dinner last summer we sat next to an American gentleman, well known on both sides of the Atlantic, whose misfortune it was to have to deliver the speech of the evening. The table was covered with flowers, and our friend, who was a hay-asthmatic, soon commenced sneezing, and rapidly exhausted the resources not only of his pocket-handkerchief, but of the spare table napkins. He could hardly breathe, and certainly for the moment he was no orator. It suddenly dawned on us that we had a tube of cocaine tablets in our waistcoat pocket. We offered them to him, and, instantly recognising their use, he plunged them up his nostrils. Almost immediately relief was obtained, and a few minutes later he was on his legs, speaking with that fluent ease and distinctness for which he is justly renowned.

We have prescribed these cocaine tablets for many actors and reciters who have been subject to sneezing, and they have rarely failed to effect the desired object. We prefer them to bougies and other gelatine preparations of cocaine. In one case the cocaine, topically applied, arrested the sneezing and irritability of the nose, but induced an attack of asthma.

Pungent inhalations of all kinds are useful in cutting short the attacks of sneezing, and apparently they act by substituting for the pathological irritation another and an artificial form which is powerless to excite the paroxysm. Strong ammonia, carbolic acid, camphor, and iodine may all be employed for the purpose. The pungent smelling salts sold in the shops often answer admirably, but the palm, we think, must be given to iodine. We usually order it in the form of the liniment, instructing the patient to carry a small bottle in his pocket, taking care, of course, that it does not escape, and to take a sniff or two on the onset of the symptoms. We have notes of many cases in which this simple method of treatment has proved wonderfully efficacious. Pure terebene, pinol, and eucalyptine are useful to inhale, and are preferred by some patients. A few drops of chloroform placed in the palm of the hand and inhaled during the attack will sometimes cut it short. In some cases of hay-fever we have found inhalations of creosote useful. The best strength is ten drops in a pint of hot water, the steam being inhaled for a few minutes. A popular remedy is essence of camphor, a saturated solution in alcohol, two or three drops being taken on sugar every ten minutes. Inhalations of camphor are also useful.

Tobacco smoking will often answer admirably, though in some cases we have known it fail. During the hay-asthma season, from about the middle of May to the end of July, the sufferer should regularly smoke a good cigar as a preventive the last thing on going to bed, or, better still, when he is in bed. The sedative influence of the cigar will often ensure a good night's rest, but the powerful depressing action of strong tobacco may be necessary to cut short the paroxysm when once established. Some patients prefer the Indian tobacco, *lobelia inflata*, to the ordinary cigar or pipe. Nitre papers burnt in the bedroom may prove useful, but those commonly prepared are too weak to do much good. We employ a nitre paper consisting of six thicknesses of blotting paper steeped in a saturated solution of nitrate of potassium and chlorate of potassium. When dry it should be sprinkled with essence of camphor, compound tincture of benzoin, tincture of essence of camphor, compound tincture of benzoin, and burnt on a tin sumpul, or some preparation of stramonium, and burnt on a tin plate at the bedside. The efficacy of Himrod's powder is so generally recognised as to call for no comment. It, like its congeners, the Green mountain cure, Bliss's cure, and their numerous imitations, probably contains nitre, lobelia, and stramonium. Coffee is not uncommonly employed to cut short attacks of hay-fever, but to be of use it must be black and strong, and should be taken quite at the onset of the paroxysm. It is so valuable a remedy that the hay-asthmatic should never drink it as a beverage, but should reserve it strictly as a medicine. We often prescribe the effervescent citrate of caffeine with advantage.

A nasal douche or spray of sulphate of quinine is said to be useful in hay-fever, but in our hands it has not yielded good results in the treatment of paroxysmal sneezing. Hazeline, an aqueous distillate prepared from the fresh bark of *hamamelis virginica* is a capital remedy both for hay-fever due to pollen and simple sneezing. When snuffed up the nostrils it aborts the attacks, and when taken internally in twenty-minim doses three times a day, it lessens the hyperexcitability of the mucous membranes of the nose and respiratory tracts.

Foremost in our second category of remedies, that is to say, those which modify the condition of the mucous membranes, and prevent the occurrence of the attacks, we place the iodides. It matters little, we think, whether the potassium, sodium, or ammonium salt be given. We prescribe it either alone in water or in a mixture flavoured with syrup of Virginian prune. The inhalation of iodine is indicated when there is itching of the nose or of the inner canthus of one or both eyes, sneezing, running at the nose of a clear watery fluid, weeping of the eyes, and severe frontal headache. Our plan is to warm a jug holding about a quart by rinsing it out with boiling water, then partly to fill with hot water, and add from twenty to thirty drops of tincture of iodine. The patient is directed to put his mouth over the jug and inhale the iodised steam, his head and the jug being covered with a large towel. This method will be found in many cases to be very successful.

One of our patients, in whom iodide of potassium and the other iodides produced a very disagreeable prickly sensation in the throat, experienced the same phenomenon after a trial of a preparation called "spirone," and he was convinced that it contained iodine in some form. Mr. Martindale was good enough to analyse it for us in his laboratory, and found that it consisted essentially of a mixture of iodide of potassium and acetone. It was then submitted to Dr. Paul of the Pharmaceutical Society, who reports as follows:

"It has a specific gravity of 1.029. Nearly half its volume consists of acetone with a little water. It yields, on evaporation, about 24 per cent. of glycerine, and about 2 per cent. of saline residue, which, when incinerated, is found to consist of 1.7 per cent. of iodide of potassium."

It is a somewhat curious coincidence that for some years we have employed with advantage a 2 per cent. aqueous solution of iodide of potassium in the treatment not only of sneezing but of chronic bronchitis and asthma. Our attention was directed to this remedy when making a series of experiments on the value of the ipecacuanha-wine spray in winter cough. We know that iodide of ethyl is useful in asthma, and it is probable that its beneficial effects are due to the iodine which it contains.

Arsenic is useful in many forms of paroxysmal sneezing, but we have found it of little or no value in true hay-fever, where the attacks are excited by pollen. It is indicated when the patient is seized several times a day, usually in the morning soon after rising, with profuse running from the eyes and nose, accompanied by frontal headache. The attacks are excited by exposure to cold, by dust, and other causes, and are usually accompanied, or perhaps preceded, by itching at a small spot situated inside one or both nostrils, not far from the orifice. This complaint, unless actively treated, often persists for years. Arsenic is also useful when the attack is excited by food, and lasts for half an hour or so after the chief meal of the day. In children who after a severe attack of bronchitis catch cold on the slightest provocation, the same method of treatment may be employed, especially when there is much wheezing and embarrassment of breathing. Coryza sometimes precedes the dyspnoea for three or four days, the whole attack lasting a week or more. Sometimes we meet with cases where the patient suffers from asthma for several years, and is then seized with severe attacks of sneezing.

In many cases of sneezing the excitable or susceptible condition of the mucous membrane of the nose is due to the presence of a polypus, or some other similar morbid condition, and then operative procedures afford the best chance of relief. When there is much hypertrophied tissue the electrical cautery, after the application of a strong solution of cocaine or antipyrin as a local anæsthetic, is recommended.

When the attacks are attended with itching or irritation of some particular spot or region, the local application of aconite liniment or aconitia ointment may at once give relief. A lady, aged 22, who was under our care, suffered persistently for some years from sneezing. The fits occurred in the morning, lasted several hours, and were accompanied by considerable pain over the forehead. The sneezing was often so violent as to exhaust her for the greater part of the day. She complained of intense itching, both of the inside and outside of the nose, and also of part of the face, the itching lasting during the whole of the paroxysm of sneezing. Her health had given way, and she was pale and thin. The free application of aconite liniment to the outside of the nose and part of the face, which was the seat of the itching, immediately gave relief, curing both the itching and the sneezing. The attacks of sneezing returned once or twice in a mitigated form,

but a fortnight's persistence in the treatment effected a complete cure.

ABSTRACT OF THE CROONIAN LECTURES ON ANTIPIRETICS.

Delivered before the Royal College of Physicians, June, 1888.

By DONALD MAC ALISTER, M.A., M.D., F.R.C.P.,
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LECTURE I.

THE lecturer began by explaining that the lectures he proposed to deliver were complementary to the Goulstonian Lectures of last year. In these the treatment of fever had been intentionally passed over. But treatment could not long be absent from the thoughts of a physician, however theoretical the bent of his mind; and when very unexpectedly he was offered another opportunity of addressing the College as Croonian Lecturer, he had proposed, and the President and Censors had approved the choice, to deal with the practical bearing of the theory of fever. The regulations under the new scheme prescribed "lectures on one or more subjects in anatomy, physiology, and pathology, with a view to the prevention, control, and cure of diseases." Though the subject of the lectures was for brevity given as "Antipyretics," he did not propose to limit himself to the drugs so called or their pharmacology. He would discuss rather (1) the light thrown on the nature of fever by the means employed successfully for its treatment, and (2) the lessons in the treatment of fever which flow from a right understanding of its nature.

The outlines of the theory presented last year were recalled. The nervous mechanisms of heat-loss or thermolysis, of heat-production or thermogenesis, of heat-balance or thermotaxis, constituted the thermal nervous system, and these mechanisms were in ascending order of complexity and of evolution. Fever was a dissolution beginning with thermotaxis and extending to the inhibitory mechanism of thermogenesis. Hyperpyrexia was a still deeper dissolution, and extended to thermolysis. Much still remained to render complete our knowledge of the anatomy and physiology of these several mechanisms, but contributions were constantly being made and obscurities cleared away. As he was anxious to strengthen in their minds the conviction of the objective reality of the thermal system, he would first call attention to certain recently-acquired anatomical and physiological facts which had not yet received sufficient notice.

First, as to the physiology of thermolysis.

The Harveian Orator, Dr. Stone, had pressed on the College the importance of physical investigations in medicine, and regretted that they were at present less regarded than researches in histology or bacteriology. A series of valuable experiments, involving high skill in physics and in mathematics, and therefore perhaps overlooked, had been made on the radiating power of the skin, by Dr. Masje, under Professor Eichhorst, of Zürich. Probably, sixty per cent. of the heat leaving the body did so by radiation. But the laws of this loss had not been inquired into, or had been assumed to be governed by physical analogies. At the Zürich Hospital, by the aid of an instrument of great delicacy and precision, on the principle of Langley's holometer, the true laws of skin-radiation had been worked out, and had proved to be strikingly suggestive.

A hot body radiates less as its temperature falls. This was the physical law, but not the physiological. A part of the skin suddenly uncovered naturally became cooler, but its radiation increased steadily as the temperature fell, until a certain limit was reached. Radiation was more intense in men than in women, in boys than in girls, in young persons than in old, in the vigorously healthy than in the feeble or convalescent. In other words, radiation was more active as the processes of nutrition and metabolism were more active.

Reasons were given for believing that the radiating power of the skin, which would be shown to depend on its physical and chemical constitution, was subject to nervous control; and thus, what was apparently the most purely physical of all the thermolytic processes was not outside the domain of the thermal nervous system. In discussing the value of an antipyretic method, in ex-

plaining its mode of action, we could not in future ignore the questions: What changes does it call forth in the texture of the skin? How does it modify the great thermolytic function of radiation?

Another subject connected with thermolysis deserved some mention, namely the connection of peripheral temperatures with central. The lecturer, in common with many others, had been perplexed and baffled by the apparent lawlessness of surface temperatures as taken by any of the ordinary methods. So doubtful were any results based on them that experts regarded with suspicion all observations but their own. Recent inquiries, also carried out at Zürich under Professor Eichherst, showed that the difficulty lay chiefly in an erroneous method of procedure. When peripheral temperatures are taken continuously for some hours (eight or ten) instead of some minutes, it appears that in health as well as in disease the curves obtained consist of two distinct portions. The first corresponds to a stage of an hour or so, in which the temperature is highly irregular and different from the central temperature. This is the *ambiguous* stage. The second is marked by much greater uniformity and by nearness to the central temperature. Like the latter it tends to be constant and stable. This is the *continuous* stage, and it is so regular, so normal, that we are safe in drawing conclusions from its changes. Observers hitherto had seldom got beyond the ambiguous stage, and hence the irregularity and confusion already alluded to. The effects of antipyretic methods on the continuous stage of the peripheral temperature would form an interesting and trustworthy study later on.

Next, the anatomy and physiology of the thermogenic system had received valuable contributions. New points in the thermogenic tract had been made out (he would not call them *centres*) by Ott and others in America, using the methods and working under the inspiration of Professor Wood. In the rabbit four points in the cerebral axis were known, the stimulation of which gave rise to increased heat-production, not simply rise of temperature. Two were at the anterior and median borders of the corpus striatum, one between that body and the thalamus, and a fourth at the anterior end of the thalamus. Dr. Hale White had in part verified the localisation as regards the anterior striate centre and had made out that unilateral irritation gave rise to bilateral pyrexia. It thus appeared that in the rabbit the lateral differentiation of the thermal tracts, like that of the motor, was still incomplete.

The question of whether these points were on excitator or inhibitory tracts was next discussed, and the experiments of Girard in Geneva, and Baginsky and Lehmann in Berlin, were adduced as apparently bearing on the question in opposite senses. It was shown how they might be reconciled. Reasons were given for thinking that the so-called "striate heat-centre" might be a passing-place if not a meeting-place for both anabolic and catabolic fibres. Ott, the other day, had announced certain new discoveries which pointed to cortical areas being concerned in heat regulation. An area at the upper end of the Sylvian fissure appeared to control the striate region. Thus, when thermogenesis was induced by puncture of the striate "centre," and an abiding pyrexia resulted, stimulation of the cortical area lowered the temperature and diminished the thermogenesis. The bearing of such observations on the localisations and nature of the thermotaxic mechanism was alluded to, and the probability of further advance estimated. In Dr. Gaskell's pregnant hint, namely, that his explanation of inhibition as anabolism is applicable to nerve-centres as well as to peripheral organs, the lecturer saw the promise of much new light on the mechanism of thermotaxis.

ON THE MANAGEMENT OF FIBROMYOMATA COMPLICATING PREGNANCY AND LABOUR.

By JOHN PHILLIPS, B.A., M.B.Cantab., M.R.C.P.,
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THE subject under consideration is of such vital importance to the obstetrician that there is ample reason for an inquiry into the present means at our disposal to cope with what is too often a formidable complication of childbirth. I have as far as possible examined all pamphlets and papers written on it during the past ten years, and have endeavoured to compare the treatment suggested or adopted, and the results obtained, with those of past years.

Now, in what ways may a fibroid or fibroids modify the course of pregnancy, labour, and the puerperium?

1. During pregnancy their presence may induce a premature termination, for a tumour in the uterine wall materially interferes with the regular development of that organ.

2. They may set up localised peritonitis, which will produce adhesions with various organs—that is, intestines, liver, and rectum. In addition, they are the cause of such intense pain and distension as to necessitate operative interference during an early period of the pregnancy.

3. A tumour may mechanically obstruct the passage of the fœtus through the pelvic canal, and may thus even occasion resort to Cesarean section or the Porro-Cesarean operation.

4. Frequency of fœtal malposition is very common, and is a noteworthy fact as leading to increased infant mortality.

5. After birth of the child the placenta may be found adherent to the tumour, rendering manual delivery necessary, and consequent bruising of its substance. Placenta prævia is certainly more frequently found as a concomitant of fibroids.

6. Uterine contraction after expulsion of the placenta may be more or less inefficient, owing to the presence of the tumour, and hæmorrhage may result. Involution is also much delayed.

7. Morbid softening and disintegration may take place either before or after labour, leading to peritonitis and its concomitant evils. Torsion of the pedicle and subsequent gangrene of the tumour have been noted.

It will be found convenient, for the purposes of description, to divide the uterus into three divisions:

1. The superior or upper segment.
2. The inferior segment.
3. The cervix.

As a rule, fibroids of large size, or multiple in character, arising in the superior segment give trouble during pregnancy, while their presence in the two latter situations usually only becomes noticed from the pressure symptoms they may produce, or at labour, when they form a more or less serious obstacle to delivery. Although we can with some propriety call these latter "dangerous zones," the upper is very little less so during pregnancy, both to maternal and fœtal life.

The line of demarcation between the upper and lower segments is impossible to define clearly, for it must be remembered that a fibroid, which during the earlier months is high up, may descend as pregnancy advances, and not seldom it is found that true interstitial fibroids split the uterine tissue in their descent, and penetrate into the thickness of the anterior or posterior lip of the cervix. Moreover, pedunculated subserous fibroids, by lengthening or stretching of their pedicles, may descend into the true pelvis, form adhesions with adjacent organs, and practically act as if arising from the inferior segment or the cervix.

On the other hand, there is undoubted evidence to show that a fibroid in the inferior segment (provided it has not any cervical connections) may gradually ascend during pregnancy, probably from the contraction of the longitudinal uterine muscular fibres, while the phenomenon becomes most marked (in some fortunate cases) during labour, where, as the os uteri dilates, so the apparently irresistible obstacle gradually ascends, and the fœtal presentation takes its place. Fibromyomata arising in the anterior or posterior cervical lip are, if they attain any size, most serious impediments to delivery. The difficulty is, however, to make an absolutely certain diagnosis that they are not pedunculated subserous fibroids which have descended. The surrounding parts are much distended and displaced, thus rendering a most important and vital point in the question of treatment in the highest degree uncertain. Unlike pelvic bony narrowing, it is difficult to fix with any precision the size of a fibrous body which can be called an obstruction to labour; in fact, it is entirely arbitrary. Fibroids in the posterior wall are much more likely to lead to obstruction than those in the anterior, owing to the powerful retraction which takes place in this latter situation.

Although fibroids undergo a peculiar softening, so that during labour they can be flattened out somewhat, still it is far from a condition that can be depended upon as likely to occur, and should it do so, the effects of the bruising may be disastrous in the extreme. As a consequence, no definite rules can be laid down, and each case must be, to a great extent, treated on its own merits.

The thesis by Lefour¹ supplies 307 cases as occurring up to 1879-80, but 7 of these I found had to be put aside from insufficient details, thus leaving 300. These include those mentioned

¹ *Des Fibromes Uterins*. Paris 1880. With Bibliography.

TABLE I.—*Porro-Cesarean Operations.*

No.	Author and Reference.	Age.	Parity.	Tumour.	Period of Pregnancy.	Previous Obstetrical Interference, Treatment of Stump, etc.	Result.		Condition of Patient at Time of Operation.	Remarks.
							M.	Ch.		
1	Storer; Journal of Gynecological Society Boston, 1869, i, p. 223	37	I-p.	Fibrocystic of anterior wall with intimate adhesions to pelvis	T	Cesarean section intended only at first; after cut into tumour, hæmorrhage so great that Porro-Cesarean necessary. Double metallic ligature with clamp shield. Stump canterised and fixed in lower angle of wound	D 68 hrs.	D*	Very unfavourable	Pelvic portion of tumour was left below the ligature; death from septicæmia. Available pelvic space $1\frac{1}{2}$ inch.
2	Tarnier; Annales de Gynecolog., 1879, xii, p. 81	33	"	Tumour posteriorly at cervico-corporal junction and adherent in pelvis; softened centres full of putrid material <i>post mortem</i>	T	Müller-Rein modification; extra-peritoneal treatment of stump; Cintrat's serre-neud and long pin	D 3rd day	D*	"	In labour 7 days; death from septicæmia.
3	Zweifel; Archiv. f. Gynäk., 1881, Bd. xvii, p. 371	37	"	Size of a cocoa-nut in cervix filling whole pelvis. Uterus consisting of tuberculous tumours as hard as cartilage.	T	Müller-Rein modification and elastic ligature; after removal of Koberle's serre-neud, found impossible to treat extra-peritoneally; pedicle broad 15×11 cm.; a cone-shaped piece excised; pedicle ligatured with silk and catgut, and dropped into cavity	D 6th day	A	"	Several hours in labour; death from septicæmia; available pelvic space $1\frac{1}{2}$ inch.
4	Cataliotti; Annali di Ostet. Ginecol. e Ped., 1882, p. 455	41	"	Interstitial in posterior uterine wall extending into vagina; upper portion strongly adherent to liver	7 mths.	Uterus opened <i>in situ</i> ; serre-neud and catgut ligature in lower angle of wound. Transfixion by pin	R	A	Unfavourable	In labour a few hours; abundant ascitic fluid escaped during operation. Induction of labour impossible from blocking up of vagina. Tumour weighed 5 kilogrammes (about $11\frac{1}{2}$ lbs.)
5	Prochownik; Deutsche Med. Wochen., 1882, No. 40	40	"	Uterine myoma impacted in pelvis	"	Müller-Rein modification; Pean's constrictor with 2 long pins in stump; stitched into lower angle of wound	D 60 hrs.	A	"	Discharge of liquor amnii 24 hours; death from septicæmia; child lived a few minutes.
6	Denaré; Lyon Médicale, 1883, vol. xliii-xliv, No. 20, p. 69	42	XIV-p.	Tumour in left iliac region filling up almost entire pelvis and dipping into posterior cervical lip; interstitial	T	Twins diagnosed. Reposition failed. Six hours' railway journey. Cintrat's serre-neud and metallic thread; 2 needles through stump and pedicle in lower angle of wound; tumour below ligature	R	D*	"	Placenta on posterior wall; bronchial catarrh and prolonged suppuration followed. Tympanitic distention of transverse colon necessitated puncture. 3 days in labour. Available pelvic space four-fifths of an inch.
7	Simpson; Edin. Med. Journ., 1884, xxx, p. 9	27	II-p.	Tumour extending from lower uterine segment and between layers of broad ligament to the left of pelvis	T	Müller-Rein modification; ligature above tumour; serre-neud; stump in lower angle of wound	D 7th day	D*	Very unfavourable	Was 15 hours in labour. Discharge fetid. First child stillborn after 3 days' labour. Urine highly albuminous.
8	Handfield-Jones; Obstetrical Trans., 1885, xxvii, p. 4 (Assisted at operation)	38	I-p.	Tumour size of fetal head with broad pedicle from lower segment of posterior wall; peritonitic adhesions	T	Reposition attempted under ether, forceps and craniotomy. Uterine flaps clamped by hammer-head forceps to arrest hæmorrhage. Stump in lower angle of wound	D 3rd day	D*	Most unfavourable	First seen at fifth month of pregnancy. Tumour then impacted. Attack of peritonitis.
9	Filipi; Annali di Ostet. Gyn. e Ped. 1885, p. 450	32	"	Subserous multiple fibromata, one large one projecting into pelvis, left side and behind	T	Elastic ligature. One silk thread ligatured right broad ligament and 2 through left. Stump extra-peritoneally treated in lower angle of wound	D 24 hrs.	D*	Unfavourable	In labour 4 days; death from collapse. Blood found in peritoneal cavity; a ligature on left side had given way in consequence of movements of patient. Tumour weighed $3\frac{1}{2}$ lbs.
10	Sänger; Centralblatt für Gynäk., 1885, Bd. ix, p. 348	41	"	5 myomata, 2 very large, and in a state of degeneration	T	Müller-Rein modification; serre-neud and stump in lower angle of wound	D 2½ days	D*	"	Sterile many years; death from septicæmia. One fibroid cleft by uterine incision.
11	Klotz; Centralblatt f. Gynäk., 1887, Bd. xi, p. 345	31	"	Pelvis filled by tumour, apparently in right broad ligament, impacted	T	Elastic ligature; stump with peritoneal flaps sewn over it, dropped into abdominal cavity; placenta at uterine incision	D	A	Favourable	Liquor amnii not escaped; sterile 15 years. Faecal vomiting after operation, secondary abdominal section, duodenum and intestine adherent to stump. Immediate relief to vomiting. Suicide. Available pelvic space $\frac{3}{4}$ inch.
12	Sir Spencer Wells; BRIT. MED. JOURNAL, 1887, vol. i, p. 1267	37	"	Tumour filling up entire pelvis, with several sub-peritoneal growths	T (-)	Uterus punctured and then torn. Steel wire constrictor, no elastic ligature, stump in lower angle of wound, and saturated with perchloride of iron. No drain-tube	R	A	"	A tumour found free in abdominal cavity, closely adherent to cocum and omentum. Head appeared at incision; fibroids known to exist before pregnancy. Weight of uterus and tumour 9 lbs.
13	Schröder, in Hofmeier; Zeitschrift für Geburt. u. Gynäk., 1887, Bd. xiv, p. 99	45	II-p. 1 abort.	Uterus permeated by several tumours, one size of fist in right cervical wall	T	Elastic ligature, incision into uterus and cord tightened; appendages ligatured. Amputation at level of internal os uteri. Funnel-shaped excision cervical canal, peritoneum sutured over it; deep silk ligatures; intra-peritoneal	R	A	"	Artificial abortion attempted third month. Liquor amnii escaped 2 hours before operation. Fibroids known to exist before pregnancy. Child asphyxiated, but recovered with Schultz's treatment.

* Fœtus dead, or dead and putrid before operation.

by Puchelt, Süsserott, Nauss, Dubar, and Chahbazian, and may be considered as a fairly comprehensive review of the subject up to the time stated. Since then I have collected 59 cases where some difficulty occurred during various periods of pregnancy and labour, but where the treatment by abdominal section was not required, and 47 cases in which one or other of the varieties of abdominal section was performed. These I have tabulated under separate heads.

(a) *Treatment During the Early Months of Pregnancy, that is, before the Fœtus is Viable.*—Under this heading are included assumption of genu-pectoral position, enucleation *per vaginam*, induction of artificial abortion, and reposition of the tumour under an anæsthetic. These methods are well known, but I cannot pass them by without giving a word of warning before they are resorted to.

Artificial abortion was produced purposely 3 times, and once

TABLE II.—Cases of Müller's Ablation,
(i.e., Abdominal Section with removal of Tumour and Uterus containing Non-viable Fetus.)

No.	Author and Reference.	Age.	Parity.	Tumour.	Period of Pregnancy.	Operation and Treatment of Pedicle.	Result.	Reason for Interference.	Remarks, Condition at Time of Operation, &c.
1	Robert Barnes; St. George's Hospital Reports, 1874-6, vol. viii, p. 90, case xxii		I-p.	Uterine strangulation by 2 fibrous tumours; the anterior and smaller reaching 2 in. above umbilicus. The pelvic cavity almost obliterated by posterior and larger one	2 mths.	Attempts at reposition under ether failed; aspiration of pelvic tumour <i>per vaginam</i> . During operation great difficulty in dislodging pelvic tumour. Broad ligaments tied, severed by the cautery, whipcord ligature to stump and dropped into cavity	D 30 hrs.	Rapid increase during gravidity, enormous distension of abdomen, with vesical and rectal troubles	Peritonitis before operation, vomiting excessive. Condition most unfavourable.
2	Wasseige; Bulletin de l'Acad. Roy. de Méd. de Belgique, xiv, ser. 3, No. 4	35	1 abort.	Left antero-lateral cysto-fibroma of uterus filling pelvis, tumour reaching 3 inches above umbilicus	18 wks.	Ecraseur provisionally; stump ligatured, peritoneum sutured over it and dropped into cavity. No drain-tube	D 5th day	Violent abdominal pain. None but dorsal decubitus possible; dysuria, dyschezia. Excessive distension	Cause of death indefinite. no peritonitis, suppuration or hemorrhage. stump quite healthy. Condition unfavourable.
3	Kaltenbach; Centralbl. für Gynäk., 1880, Bd. iv, p. 345	32	I-p.	Multiple subserous fibroids. Large interstitial reaching to fundus uteri, with many softening centres	22 wks.	Mass everted; temporary elastic ligature. Stump ligatured and kept in abdominal wound by 2 long pins	R	Considerable antepartum hemorrhage, with dyspnoea, vomiting, oedema of legs and vulva	Placenta over site of tumour which weighed 6½ lbs. Condition most unfavourable from hemorrhage.
4	Knowsley Thornton (private communication)	38	1 abort.	Aggregation of fibroids at fundus filling false pelvis, weighing after excision 16 lbs.	4½ mths.	Koerberle's serre-neud and stump kept out of cavity by 2 long pins	"	Rapid growth of tumour, emaciation and anaemia	Some of tumours very soft and fluctuant. Condition unfavourable.
5	T. Savage; BRITISH MEDICAL JOURNAL, 1882, vol. ii, p. 423	25	I-p.	Tumour occupying right side of uterus, and reaching up to umbilicus	16 wks.	Pedicle ligatured, clamped and stitched to lower angle of wound. Glass drain-tube above stump	"	Excessive pain and emaciation with very rapid increase in size	Tumour, uterus, and contents weighed 9 lbs. Right Fallopian tube and ovary in front of tumour and almost black from compression. Condition fairly good.
6	Walter; BRITISH MEDICAL JOURNAL, 1883, vol. ii, p. 718	29	"	Right side of inferior uterine segment; another on posterior aspect low down, the two weighing 10 lbs. and 1½ lbs. respectively	4 mths.	Ablation after attempted enucleation and opening of uterine cavity. Pedicle clamped and 2 needles passed, then ligatured to lower angle of wound	D 9th day	Bedridden 12 weeks, suffering intensely from constant pain and pressure symptoms; repeated attacks of peritonitis	Peritonitis cause of death. The funis escaped through uterine aperture; several ounces of fetid fluid in pelvis, <i>post mortem</i> . Condition fairly favourable.
7	Hayes Agnew; BRITISH MEDICAL JOURNAL, 1884, vol. i, p. 158 (Godson's list)	44	"	Tumour filling entire pelvis	6 mths.	Stump ligatured and secured with large clamp	D 64 hrs.	In labour five days—fœtus putrid	Death from vomiting and exhaustion. Condition very unfavourable.
8	Hofmeier; "Die Myomotomie," 1884, Stuttgart, p. 77, and Fig. 27	41	"	Multiple sub-peritoneal with fundal tumour, size of adult head	3 mths.	Amputation at level of internal os uteri. Stump sutured and dropped into cavity	R	Very rapid growth of tumour after gravidity	Sterile three years, tumour slowly growing. Condition good.
9	Hofmeier; "Die Myomotomie," 1884, Stuttgart, p. 78 and Fig. 28	40	"	Sub-peritoneal and interstitial chiefly at fundus of enormous size	2½ mths.	Amputation at level of internal os uteri. Stump sewn with catgut and silk. Intra-peritoneal	"	Rapid growth of tumour after gravidity	Bronchitis retarded convalescence. Copious hemorrhage during operation. Condition good.
10	Etheridge; Jnl. Amer. Med. Assoc., 1886, vol. ii, p. 466	34	"	Multilocular fibroma, occupying whole anterior wall. Cervical canal 5½ inches long	3 mths.	Capsule of tumour buttoned and tumour partially enucleated to allow formation of pedicle. Serre-neud at first and vessel tied. Cone-shaped piece excised, stitches inserted, peritoneum drawn over it. Stump dropped into cavity	D 11 days.	Great pain and emaciation	Abortion had been attempted before operation, tumour had caused retroflexion before gravidity. <i>Post mortem</i> examination showed pelvis filled with pus and blood. Condition unfavourable.
11	Kaltenbach; Vogel's Diss. Giessen, 1886, and Centralbl. f. Gynäk., 1887, Bd. xi, p. 435	23	II-p.	Interstitial myoma in anterior wall, size of fetal head; softening centre	3 mths.	Amputation at level of internal os uteri. Stump in lower angle of wound	R	Enormous increase in size	At operation uterus of size of eight months gravidity. Condition favourable.
12	Granville Bantock; British Gyn. Trans., 1886-7, vol. ii, p. 65, (and private communication)	34	I-p.	Two pedunculated tumours, one 11 lbs., the other 1½ lb. The former with firm and extensive omental adhesions	3½ mths.	Pedicle fixed in angle of wound. Serre-neud and 2 pins	"	Enormous distension and rapid increase in size	Pregnancy unsuspected; she could not have gone to term owing to distension; tumours would not have interfered with labour. Condition good.
13	Granville Bantock; Amer. Gyn. Trans., 1887, vol. xii, p. 211, (and private communication)	40	VI-p.	General fibroid enlargement with hydraemias. Twins	4 mths.	Serre-neud with one pin. Pedicle in lower angle of wound	"	Dyspnoea from rapid increase in bulk, oedema of vulva and extremities	Between 12 and 13 pints of fluid in amniotic sacs. Ovarian tumour with thin walls diagnosed with pregnancy. Condition unfavourable.
14	Granville Bantock; (private communication)	31	II-p.	Multiple fibroids with dead retained fetus	—	Serre-neud with two pins. Extra-peritoneal treatment of stump	"	Operation deemed safer than attempt to remove dead fetus, and to render repetition impossible	—
15	Dirner; Centralbl. für Gynäk., 1887, Bd. xi, p. 119	40	I-p.	Interstitial and subserous tumours generally distributed. Pelvis blocked; tumour reaching above umbilicus	2 mths.	Ablation. Enucleation of cervical tumour. Intra-peritoneal treatment of stump	"	Enormous increase in size during gravidity; incarceration symptoms well marked	Convalescence delayed by cystitis from catheterism and stitch abscess. Condition favourable.

TABLE 11.—(Continued.)

No.	Author and Reference.	Age.	Parity.	Tumour.	Period of Pregnancy.	Operation and Treatment of Pedicle.	Result.	Reason for Interference.	Remarks, Condition at Time of Operation, &c.
16	Karström; Hygiea, 1887. Bd. xlix, pp. 215-34	36	II-p.	Sessile tumour, intra-ligamentous on left side. Weight 40 lbs	4½ mths.	Abdominal section. Attempted enucleation, severe hæmorrhage. Iliac ligature, Müller's ablation; peritoneum sewn over stump and dropped into cavity. Two drain tubes	R	Pressure symptoms. Ascites, which was tapped; wound continued discharging	At first pregnancy tumour necessitated podalic version. Phlegmasia dolens in left leg slightly 30th day. Condition favourable.
17	Meridith; (private communication)	38	I-p.	Tumour size of adult head, with thin pedicle attached to right uterine cornu	2 mths.	Tumour ligatured and removed. Then Müller's ablation. Stump in lower angle of wound with serre-nœud. Iodine to surface	D 6th day	Increasing pain and rapid emaciation cause of abdominal section	Ablation for fear ligature should give way, if miscarriage occurred. Pregnancy not diagnosed before operation. Stump of uterus healthy. Post mortem. Death from double pulmonary congestion.
18	" "	47	II-p.	Interstitial fibromyoma size of adult head, right side of uterus and lower segment. Twin pregnancy, and hydramnios	4½ mths.	Whole mass constricted before uterus was opened. Serre-nœud extra-peritoneal treatment of stump	D 3rd day	Severe abdominal pain with rapid increase in size	Uterine cavity contained six pints of hydamniotic fluid. Death from septicaemia. Delivery would have been impossible at term. Condition favourable.
19	Wehmer; Zeitschrift für Geburt. u. Gynäk., 1887. Bd. xiv, p. 116	32	I-p.	Sessile and interstitial at cervico-corporal junction	5 mths.	Serre-nœud, stump in lower angle of wound. Surface treated with Zn Cl ₂	R	Pressure symptoms urgent	Placenta inserted upon site of tumour. Abscess in abdominal wall delayed recovery. Condition favourable.

only by mistake in the 59 cases I have detailed, and all 4 recovered; but on referring to Table 11, Case 10 (Etheridge), it will be seen that an unusual complication occurred which is worthy of note, namely, elongation of the cervical canal to five inches and a half; this was produced by the fibroid in the anterior wall. Abortion was attempted and was thought to have succeeded, but the subsequent operation showed that the three months' ovum was quite intact. The dangers of the other operations I shall allude to later.

Two other methods I must enter into in detail, as they are comparatively recent improvements in these cases; I allude to "myotomy" and "Müller's ablation" (Table 11).

By "myotomy," is meant abdominal section and removal of one or more fibroids by ligature and closure of the incision, in the hope that pregnancy may go on to term. It is manifestly only permissible:—1. When the fibroid is attached in an accessible situation. 2. When its presence is causing either intolerable pain or discomfort from distension.

Mr. Knowsley Thornton first performed it in 1879³, but labour supervened, constant sickness and death followed, from intestinal obstruction; this also occurred in a case of Porro-Cæsarean operation by Klotz (Table 1, No. 11), which he removed by secondary abdominal section. Landau⁴ and Schröder⁵ have published details of successful cases, labour occurring at term, while Martin's⁶ and Krukenberg's⁷ both terminated fatally, in consequence of the occurrence of abortion. So that we have as a result five cases with a favourable result in two, and a mortality of 60 per cent., almost 10 per cent. less than the statistics of Cæsarean and Porro-Cæsarean operations show.

I must now call your attention to Table 11. Müller's ablation must not be confused with the Porro-Cæsarean operation, as is almost always the case. The latter is utero-ovarian amputation, as complete of the Cæsarean section, while the former may be defined as "abdominal section with removal of the tumour and the uterus containing the non-viable fœtus." There is no question here of the life of the child, the maternal conditions being so grave as to preclude the pregnancy going to term.

The total number of cases on record is 19, with 7 deaths, or a mortality of 36.8 per cent. The reasons for the performance of such an operation are naturally of the greatest importance; fortunately I have been enabled to obtain them in every instance, and they are given in the last column but one in Table 11. It

will be seen that the operation was performed for removal of a dead fœtus twice, in one after a labour of five days (vii, xiv). Violent pain is mentioned as occurring in 6 cases, rapid increase in the size of the tumour in 10 was noticed, emaciation in 4, while pressure symptoms demanded interference in 5 cases. In Case iii severe *ante partum* hæmorrhage was the preponderating cause. Besides the above, in 4 cases other conditions were found during the operation, which not only showed its justifiability, but its absolute necessity for the saving of the mother's life. There was uterine strangulation with recent peritonitis in Case i; softening centres were found in the fibroids in Cases iii and xi, while in Case v, the right Fallopian tube and ovary were almost black from compression.

Of the 19 cases, 13 were treated by the extraperitoneal method, with 9 recoveries, and 6 by the intraperitoneal method with 3 recoveries. Into the relative value of the two proceedings I do not here desire to enter.

It will be seen that in all the cases given, the likelihood of the patient going to term was untenable, and the question arose, what was the best mode of treatment to be adopted. All those already given would have been useless or indeed impossible, excepting provocation of abortion, and the course to be adopted would therefore have been this with its accompanying dangers and chance of repetition, or the unsexing of the patient, removal of a useless and dangerous complication and leaving no chance (in the event of recovery taking place) of further impregnation. No one who looks at the two figures in Hofmeier's work (*Myomotomie*) will doubt for an instant the wisdom of the step he took, and he is to be congratulated on the brilliant results he obtained. The mortality is nearly half that obtained in the Porro-Cæsarean and improved Cæsarean operations during the past nine years; but, on the other hand, there is the counter-balance of saving of foetal life which must not be neglected. With the scanty records we have, I think it would be most unwise to lay down any rules concerning this operation; every case must be judged by itself, and it seems to be one which should not be undertaken without consultation.

(8) *Treatment of Fibromyomata during Fœtal Viability, including Labour.*—The question of the saving of the child's life will naturally somewhat modify the line of treatment. Labour was induced 6 times in Lefour's 300 cases, with the result of 1 maternal death and in the birth of 1 living child. Among the 59 collected cases this operation has been performed 3 times, with the discouraging result of 2 maternal deaths, and the survival of 1 child only. Two of them occurred in my own practice, both, unfortunately, ending fatally. The first is already described and figured in the *Obstetrical Transactions* for 1886, vol. xxviii, p. 138

³ *Obstetrical Trans.*, 1879, xxi, p. 163.

⁴ *Berlin, Med. Wochen.*, 1885, No. 13, p. 195.

⁵ *Zeitschrift f. Geburt. u. Gyn.*, Bd. v, p. 397. Figs. 11 and 12.

⁶ *Berlin, Med. Wochen.*, 1885, No. 3, pp. 17, 39.

⁷ *Archiv für Gynäk.*, 1883, Bd. xxi, p. 166.

I saw her in consultation with her medical attendant in consequence of acute pain, rapid pulse, with a temperature of 101.4 F., with a dry brown tongue, and a purplish discoloration of the abdomen. The multiple fibroids were complicated by twins. This condition appears to add additional gravity to the case, for out of 7 cases I have met with no less than 5 were fatal. The second was unfortunately also fatal. I was asked to see her with regard to the question of interference at the seventh month, or the possibility of abdominal section at term. The obstacle to delivery was a kidney-shaped tumour at the junction of the cervix and lower uterine segment, and occupying nearly two-thirds of the pelvic inlet. There were, in addition, two large fundal abdominal tumours, which would have been serious complications in the Cæsarean section. Knowing the importance of handling tumours of this kind as little as possible, I attempted induction by the subcutaneous injection of pilocarpine four times, which, although productive of full constitutional effect, nevertheless failed to produce any labour pains. A bougie was passed, labour followed, and was very lingering in character. Death occurred on the eighth day from peritonitis, commencing over the larger abdominal tumour. My own experience, then, decidedly opposes this method, even when the alternative be the dreaded Cæsarean or Porro-Cæsarean section. By forcible reposition is meant the pushing up of the tumour during labour, and thus permitting the presenting part to occupy the inlet of the pelvis and delivery effected.

Dr. Playfair has strongly advocated this plan of treatment in two papers read before the Obstetrical Society.⁵ In three cases related by him the fibroid tumours occupied such a position in the pelvis, that had it not been possible to get them out of the way, the Cæsarean section would have been inevitable. In all three upward pressure succeeded in dislodging them, so that delivery was effected *per vias naturales*, twice by turning and once by the forceps. He concludes with these words: "These cases teach us the hopefulness of such a procedure, and the advisability of making a strong and persistent effort at reposition, in which an amount of force may be necessary which would be quite unjustifiable were there any less terrible alternative to be selected than the Cæsarean section." In opposition to these conclusions I have but few remarks to make.

Take for instance the case related by Knowsley Thornton already alluded to. After abdominal incision the tumour was forced up from the pelvis, and such furious bleeding occurred that for a moment the safety of the iliac vessels was feared. What a calamity would have been produced if this line of treatment had been adopted; uncontrollable hæmorrhage would have taken place within the abdomen, and the patient have died probably in a few minutes.

Again, take the case which I had the opportunity of seeing with Dr. M. Handfield-Jones (Table I, No. 8); there it was attempted with the greatest persistence but without success, and the *post-mortem* examination showed the tumour to be much bruised, and perhaps partly the cause of death. I think that with two cases like the above, forcible reposition should not be undertaken without considerable forethought, and should certainly not be too long continued.

In the *Transactions of the American Gynecological Society* for 1884, Dr. Mundé relates a very brilliant result from removal of an enormous cervical fibroid *per vaginam* during labour. Braxton Hicks⁸ and Lomer¹⁰ also have performed this operation successfully. It is, however, only possible when the tumour is connected with some portion of the cervix, and there is considerable difficulty in being absolutely certain that this is the case, as the parts are always distorted and much swollen. Doubtless in suitable cases it is infinitely safer and preferable to the dreaded alternative Cæsarean section; while, on the other hand, the great liability to septic infection and the likelihood of the attempt failing must be borne in mind.

A case requiring the Cæsarean section recently came under my notice, and details are fully given elsewhere (*Lancet*, 1888, vol. i, p. 919). The fibroid was firmly impacted in the pelvis, and the uterine body infiltrated with several smaller ones. Interference was necessary from serious pressure symptoms. The Porro-Cæsarean operation was impossible, and it appears to have been a case with which the resources we have at our disposal at present are unable to cope.

I have been able to collect twelve other cases as having occurred during the past eight years, and I have tabulated the results below. They have been selected from the papers by Baker,¹¹ Slavianski,¹² Sanger,¹³ and Parish.¹⁴

Up to the end of June, 1876, when Späth operated, every Cæsarean case for a hundred years had proved fatal in the Viennese Lying-in Hospital, and from 1787 to 1879 a similar result occurred in the Paris Maternité; nor were the results in England much better, as shown in Radford's¹⁵ laborious and accurate tables on the subject.

In Table I are collected all the cases of Porro-Cæsarean operation for this complication which have occurred since the introduction of the operation. They are, curiously enough, identical in number with those of Cæsarean section for the past eight years, and, what is more remarkable still, the maternal mortality is the same.

If we compare the dangers of the Porro-Cæsarean operation and Cæsarean section, we find six chief ones noticeable as the cause of death in the latter: (1) peritonitis, (2) metritis, (3) hæmorrhage, (4) septicæmia, (5) shock, and (6) intestinal obstruction occasionally; while in the former we have only peritonitis, septicæmia, shock, and intestinal obstruction. In addition to the elimination of metritis and hæmorrhage as dangers in the Porro-Cæsarean operation, the risk of septicæmia is much less. Moreover, the danger of peritonitis is much reduced also; for, depending as it does in a great measure on the presence of irritating fluid in the peritoneal cavity, it is less likely to result where the uterus is removed than where, with often a gaping wound, it is left behind. These facts point to the necessity where possible of performing the Porro-Cæsarean section for preference; but sometimes, as in the case already alluded to, the formation of a pedicle may be a matter of impossibility.

Statistics of Cæsarean Section.		Porro-Cæsarean.	Müller's Ablation.
Up to 1880.	From 1880-1888.	Total Number on Record.	Total Number on Record.
Total number = 33	13	13	19
Maternal deaths = 28 or 84.8 per cent.	9 or 69.22 per cent.	9 or 69.22 per cent.	7 or 36.8 per cent.
Children alive ... 13	8	6	—
Dead before operation ... 11	4	7	—
Doubtful ... 9	1	0	—

On referring to Table I it will be seen that in 10 cases the extraperitoneal method of treatment of the stump was adopted, with 3 recoveries; while in 3 the intraperitoneal was used, once from necessity (Case iii), and twice from choice, with one recovery only (xiii). In all the cases I have as far as possible taken note of the condition of the patient at the time of operation, and more especially as to whether there had been previous obstetrical interference or not; in other words, whether the operation was selective or complete. In only 3 cases (Spencer Wells, Klotz, and Schröder) was the condition of the woman favourable; 2 of these recovered, and the third committed suicide while doing well after secondary laparotomy for intestinal obstruction. By Müller-Rein modification is meant the evisceration of the whole mass before incision into the uterus. As far as my tables show, no increase of fetal mortality was the result of the procedure. In the remaining 10 cases the woman's condition was more or less unfavourable, the patient being much exhausted by prolonged labour or repeated but futile attempts at delivery by vagina. I think nothing shows more decidedly the value of this operation being performed as a selective one. From the tables given it will be seen how extremely high the mortality is in these cases, but it is characteristic of fibromyomata to resent any interference.

¹¹ *Amer. Journ. Obstet.*, 1881, vol. xiv, p. 596.

¹² *Annales de Gynecologie*, 1884.

¹³ *Der Kaiserschnitt bei Uterus-Fibromen*. Leipzig, 1882.

¹⁴ *Amer. Gynecological Trans.*, 1886, vol. xi, p. 436.

¹⁵ *Observations on the Cæsarean Section, Craniotomy, etc.* 1880.

⁸ *Obstetrical Transactions*, vol. xix, 1877, p. 111; and vol. xxiii, 1881, p. 27.

⁹ *Obstet. Trans.*, 1871, vol. xii, p. 273.

¹⁰ *Zeitschrift für Geburt. und Gynäk.*, 1883, Bd. ix, p. 302.

On reviewing Lefour's cases we find that, of 66 which terminated unassisted, 32 ended fatally, or a mortality of 48.4 per cent. Of 35 cases of version, 21 died, or 60 per cent.; while the percentage mortality attached to forceps and embryotomy is 25.9 and 55.5 respectively. Fœtal mortality is also particularly high, being 77.7 per cent. in version. These figures amply prove the fact that fibromyomata are a most dangerous complication of pregnancy and labour, whether operative treatment be adopted or not.

I have dwelt somewhat at length upon myotomy, Cæsarean section, the Porro-Cæsarean operation, and Müller's ablation, because they are, comparatively speaking, modera improvements, and it is in the perfection of them, I think, that our great prospect lies of reducing the hideous mortality which I have shown exists in cases where they are rendered necessary.

ERRATUM.—In Mr. Hurry Fenwick's paper on "The Value of Inspecting the Orifices of the Ureters by Electric Light, etc.," in the second sentence of the first paragraph (line 5), for "it" read "method."

TOXICOLOGICAL MEMORANDA.

ATTEMPTED SUICIDE BY SWALLOWING CARBOLIC ACID: RECOVERY.

E. W., female, aged 20, on the morning of May 12th, 1888, purchased a ten-ounce bottle of carbolic acid from a neighbouring chemist, and drank three ounces of it. Three-quarters of an hour after she had taken it I found her lying on the floor in great agony. Not having my stomach-pump with me, I gave her a hypodermic injection of one-tenth of a grain of apomorphine, and administered olive oil and lime water freely. This was followed almost immediately by copious vomiting. At the expiration of half an hour I gave another injection of one-twentieth of a grain of apomorphine, and continued to give small quantities of lime water. Shortly after she became insensible, and remained in a comatose state for eight hours. When consciousness returned I had her removed to hospital, from which she was discharged on May 19th.

R. H. A. HUNTER, M.R.C.S., etc.

Clifton House, Battersea Park, S.W.

CLINICAL MEMORANDA.

A CASE OF PERNICIOUS ANEMIA TREATED BY REPEATED TRANSFUSION.

G. P., aged 58, came under care on July 23rd, suffering from intense anæmia; he was very thin, with an anxious careworn expression. The skin was uniformly of a tawny colour, without any intensification in any locality, the mucous membranes were free from pigmentation, the sclera was pearly white, the ears thin, pointed, white, almost transparent. There was no splenic, hepatic, or glandular enlargement; no pulmonary disease. A hæmic murmur was marked over the aortic and pulmonary orifices; the cardiac impulse was very feeble; there was no anasarca or chubbing of fingers or toes. Urine, specific gravity, 1010; no albumen. Microscopical examination of blood showed twenty or thirty white corpuscles in one-fifth field; one or two nucleated red ones. Retina almost white; here and there some yellowish spots; on right one or two linear extravasations of a recent date in the vicinity of the macula (the sight of this eye had been impaired for some time); over both retinae there were some small extravasations in various stages of absorption. History: A butcher—an enormous worker—reducing sleep to meet his business requirements, eating largely, and abusing the use of stimulants; had never lived in a malarious district, and had not suffered from syphilis.

REMARKS.—This was considered to be a case of pernicious anæmia or Addison's disease. He was treated by a continual recumbent position because of his dyspnoea. Iron and arsenic in effervescent form were given for some months. Peptonised fluid aliment and brandy were given with strict regularity. At one time more than four quarts of peptonised milk were consumed in twenty-four hours. After a few months it was apparent that the treatment was of no avail, so I resolved to transfuse as often as it might be necessary. Mr. G. S. Watson kindly gave me his assistance, and on December 12th I injected about ten ounces of blood into his left median basilic by Aveling's apparatus, from a healthy strapping lad—his nephew. The immediate effect was brilliant; a slight colour came into his cheeks and ears, and he expressed

himself as "expanded" by the dose. For a few hours he breathed 30 per minute. Temperature rose to 103 about six hours afterwards, but no pulmonary trouble appeared, and the next day he was quite brisk. The improvement gradually waned, and by the 16th the operation was again necessary. The left arm could not again be utilized, because the use he had made of the veins had completely obliterated all the large ones on the surface, so the right median basilic was chosen, and ten ounces injected with the same train of symptoms as before. On the 22nd, the right median cephalic was used, and ten ounces injected. This last injection completely occluded the surface veins of the right arm, so that when on the 30th the transfusion was again necessary, the left external saphena was chosen, and ten ounces used. This was the last that was done, for, on January 11th, the attempt to open the lumen of veins in either leg was impossible from their extreme tenuity.

He lingered a few days and then sank, without any evidence of organic disease save pulmonary hypostasis. His existence simply abandoned him. No *post-mortem* was permitted.

Tunbridge Wells.

CLELAND LAMMIMAN, F.R.C.S.

SURGICAL MEMORANDA.

GUNSHOT WOUND OF THE FACE.

W. L., when leading a horse and cart along the road, heard two shots in quick succession; the second struck him in the face. When he applied, his right cheek and lower lip were swollen. There was a roundish wound, with scooped-out and rather lacerated edges, large enough to admit a finger, to the right of the middle line and just below the lower half of the orbicularis; also a small wound on the cheek, which might have been made by a single pellet of shot. The right canine and central incisor, with their sockets, were gone; the intervening tooth, with its socket, was still held by the periosteum and gums of the inner aspect of the maxilla. The gums on the outer surface were lacerated and separated from the bone, which was roughened and scored, down to its lower border. No shot could be felt—only some bone-grit. The jaw was broken, but the structures on its inner aspect were uninjured. Some days afterwards there was a sinus from the wound on the cheek to that over the chin, and a cavity formed below the chin on the right side. Here the probe detected some hard substance, which, after the sinus had been slit for some part of its length, was grasped by forceps, but crumbled under its grip. Withdrawal of the forceps was accompanied by a shower of shot falling to the floor. The blades held a lump of four pellets firmly stuck together, and much of what was then and subsequently removed consisted of pellets in twos and threes. The amount of shot recovered was one-third of an ounce. Recovery was rapid. The shot was fired from the raised bank of the Trent across a field, the distance to the road being 133 yards. It was fired at and killed a pheasant. The shooter saw the cart, but said it was out of the line of fire. He was not seen by the wounded man till after the accident, but a lad leading another cart behind saw the shot fired.

The points worthy of notice are: 1, the distance—133 yards; 2, the amount of shot recovered—one-third of an ounce; 3, the statement that the man was out of the line of fire. In regard to point 3, I have been told of two other cases of *stray* pellets hitting persons quite out of the line of fire. As to 2, the shot was carried in a lump, and this perhaps explains 1.

M. R. J. BEHRENDT, L.R.C.S. and P.E.D.

Burringham, Doncaster.

CASE OF FRACTURE OF THE BASE OF THE SKULL: PROLONGED INSENSIBILITY.

On December 30th, 1887, I was sent for early in the morning to see a gentleman who was thrown from his horse on the common. On reaching the spot I found Mr. F., aged 48, standing up talking incoherently, and not knowing of his accident; blood was flowing freely from his left ear, but there was no external wound. I got him home, and telegraphed for Mr. Edmund Owen. In the course of half an hour he vomited at least half a pint of blood; he was very excited, and at times violent. Mr. Owen confirmed my opinion that he had fracture of the base of the skull, applied blisters behind the ear, and gave calomel and bromide of potassium. At 8 p.m. he had an epileptic convulsion; evening temperature 101.2°. I passed the catheter, and emptied his bladder. The

left eye was insensible to light, and pupil contracted to pin's point; the left side of face was paralysed.

On January 1st he fell into a quiet, semi-comatose state, taking liquid nourishment freely. Urine and faeces passed in the bed. Temperature 97.6°, pulse 76. He remained in this state till the 12th, when he became violently excited, talking, singing, and whistling; sensation returned to left eye and side of face; pupil of normal size, but not sensible to light. Temperature 97.6°; pulse 84, feeble. I gave beef-tea, and administered brandy and eggs freely. On the 13th Dr. Buzzard saw him with me, and located the fracture as through the petrous portion of the temporal bone, with injury to the portio dura and auditory nerves; and that there had been effusion of blood round the fifth nerve, which was partially absorbed. He gave on the whole a favourable prognosis, and advised a continuance of the same treatment. On the 24th the patient became more restless and troublesome. Temperature varied in three hours from 100° to 101°, and to 99.6°. He was freely purged with calomel. From the 25th to February 3rd he lay in a quiet, unconscious state, occasionally talking nonsense, but he took his nourishment—beef-tea, eggs, and brandy—well. On the 8th I gave him potass. iodi. gr. ij, twice a day. About February 20th he began to be much troubled with sleeplessness. I tried paraldehyde, urethran, and bromide of hyoscyne, instead of the bromide, without much effect. On the 23th he had a free discharge of purulent matter from his left ear. Temperature 101.8°; returned to bromide and opium. On March 10th he was very stupid and heavy, but could not get any real sleep. I tried paraldehyde again, and gave port-wine and syrup of iodide of iron. On the 18th there was decided improvement; he knew me, but was not conscious of where he was. On the 25th he knew his wife and all around him, but was very queer in his ideas. On the 30th he was quite unconscious again. I gave chloral and croton chloral freely till the evening of April 2nd, when he slept soundly, and on the 8th became quite conscious. He got up on the 10th, came downstairs on the 11th, on the 14th went for a drive, and on the 19th went to the sea-side, and, with the exception of a slight epileptiform seizure on the 29th, after a very indigestible meal, has gradually improved ever since. He returned to his business on the 14th, doing a little each day; he has still some paralysis of the left side of the face, especially his eyelids.

Wimbledon. THOMAS EDWARD PARSONS, M.R.C.S. Eng.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

LIVERPOOL ROYAL INFIRMARY.

A CASE WHERE A DAMSON-STONE WAS LODGED IN THE RIGHT BRONCHUS: TRACHEOTOMY: RECOVERY.

(Under the care of Mr. REGINALD HARRISON.)

JANE S., aged 8, was admitted on April 4th, 1888. Ten days previously, while laughing when eating some damson jam, she thought she had swallowed a stone. This was immediately followed by a violent fit of coughing, for which medical aid was summoned. These paroxysms of coughing were repeated at intervals. On admission there was slight flattening of the right side of the chest posteriorly, with diminished expansion; and a rhonchus was distinctly audible. Breath-sounds feeble towards base, the rhonchus increasing in loudness as the bronchus was approached opposite the fourth dorsal vertebra, where the sound was best heard. The rhonchus was twofold, inspiratory and expiratory; and there was sometimes a sound as if something fell between expiration and inspiration. Breath-sounds on left side normal, but with transmitted rhonchus; respirations 22; pulse 80. Whilst she was under observation in the infirmary she had several attacks of violent paroxysmal cough, when various expedients, including inversion and slapping on the back, were tried, with the view of favouring the expulsion of the damson-stone, which evidently had found a resting-place in the right bronchus. On one occasion she expectorated a little blood, but as a rule she was going about the ward apparently well.

On April 21st she was placed under chloroform, and Mr. Harrison performed tracheotomy. An incision having been made as

low down as possible through the skin, the trachea was quickly bared with a blunt director. A free incision into the trachea was then made, three or four rings being divided. Just as the child was being inverted the stone was shot out into the wound, where it was easily seized with the fingers. A tracheotomy tube was introduced and retained for a few hours, but proved useless. The patient breathed freely through the opening, and expectorated for the first four or five days a considerable amount of pneumonic-looking sputum. Then convalescence rapidly took place, and she left the infirmary fourteen days after the operation quite well, with the wound soundly healed.

Mr. Harrison observed that, from a perusal of Mr. Durham's valuable article (Holmes's *System of Surgery*) on this subject, it appeared that the mortality in cases of this kind where no operation was performed was very considerable. In this instance the patient had most alarming symptoms of suffocation the night before tracheotomy was resorted to, which might have been immediately fatal had not assistance been at hand. The very free incision into the trachea not only favoured the immediate expulsion of the damson-stone without the least trouble, but proved of service as a vent for the free expectoration that followed. The latter was probably due to the inflammatory action which the stone had excited in its neighbourhood.

We are indebted to Mr. J. Teare for the notes of this case.

CIVIL HOSPITAL, CALCUTTA, MADRAS PRESIDENCY.

WOUND OF LEFT WRIST AND RIGHT UPPER ARM: BRACHIAL ANEURYSM, LIGATURE: RECOVERY.

(Under the care of Surgeon-Major H. D. COOK, M.B., Civil Surgeon, Calcutta.)

I., aged 32, was admitted on June 8th, 1886, with a transverse wound over the anterior aspect of the left wrist, dividing the tendons of the flexor carpi radialis and palmaris longus, but without injuring the radial or ulnar arteries. The distal ends of the tendons could be easily seen; not so the proximal ends, which were drawn up by contraction of the muscles. He had also a punctured wound on the inner side of the right arm, middle third, from which venous blood was freely oozing. The bleeding from the wrist was arrested, the edges of the wound brought together by sutures, cold water dressing applied, and the wrist kept in a flexed position. A cold compress was applied to the wound in the arm.

On the third day after admission the wound over the wrist assumed a very unhealthy appearance, with offensive sanious discharge. Subsequently the distal end of the flexor carpi radialis sloughed off and the palm of the hand inflamed, becoming swollen, hot, and very painful, with fingers flexed. The inflammation was accompanied by traumatic fever. The extremity was supported on a splint, and charcoal poultices applied. The wound in the arm rapidly healed. On account of the destruction of tissue at the wrist, the formation (frequent) of palmar abscesses, matting of the tendons, etc., and foreseeing the complete uselessness of the hand, he was advised to submit to amputation of the forearm in its lower third, but this he positively refused to do. The wound of the wrist has since healed up, but the hand is quite useless, and is a burden to the man.

On June 20th the patient drew attention to a pulsating swelling in the right arm. Its position corresponded to the course of the brachial artery and punctured wound already described. The swelling was sacculated with a slight depression to one side, and had all the appearance of an aneurysmal varix. Palpation showed the tumour to be pulsatile with a distinct thrill, and auscultation revealed a loud rasping *bruit*. Pressure over the axillary artery caused the thrill and *bruit* to disappear and the sac to collapse.

On July 25th, with the assistance of Surgeon Routh, M.S., an incision three inches long was made over the axillary artery, as high up as possible in its third portion, and the artery ligatured. The pulsation in the tumour ceased at once. The extremity was wrapped in cotton-wool and flannel, and the patient put to bed.

On August 10th the ligature came away. He was discharged from hospital on the 20th, the tumour being hard and small, and pulsation absent.

¹ Communicated to the South Indian Branch of the British Medical Association.

THE GREAT NORTHERN CENTRAL HOSPITAL.—In consequence of the death of the German Emperor, the Prince and Princess of Wales have postponed the ceremony of opening the Great Northern Central Hospital until the latter part of July.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, JUNE 14TH, 1888.

J. W. HULKE, F.R.S., President, in the Chair.

Paralysis of the Fifth Nerve associated with Cataract.—Dr. W. J. COLLINS showed a case of paralysis of all parts supplied by the sensory branches of the right fifth nerve; muscles of mastication unaffected. No history of syphilis and no cerebral symptoms. The patient had suffered from severe pain in the anæsthetic parts for eight months and the sight of the right eye had failed. There had been no herpes and no conjunctival or corneal affection whatever. There was diffuse opacity of the right lens; the left eye and side of face were normal, and vision was good. He considered that the lesion was located somewhere between the root of the nerve in the pons and the subdivision of the Gasserian ganglion. This case conflicted with the views of Snellen and others respecting trophic nerves. Here the lens, non-innervated, and protected from foreign irritants, suffered, while the highly-innervated and anæsthetic cornea retained its pellucidity, notwithstanding eight months' habitual exposure.—Mr. T. BRIDGIN TRALE mentioned a case of cataract, in which puncture of one lens was followed by supuration of the globe. The patient died shortly afterwards with aphasia, due to cerebral hæmorrhage, which was not entirely recent but partly resulted from an accident many months previously. He suggested that the disastrous results to the eye might have been the result of the nervous lesion.—Dr. COLLINS briefly replied.

Exostosis of Frontal Bone and Orbit with an Intracranial Growth.—Dr. EMRYS-JONES mentioned a case, and showed specimens, of a large orbital exostosis associated with a myxomatous tumour in the anterior lobe of the brain. There had been some epileptiform attacks, the existence of which the patient denied on account of his anxiety to have the growth removed. The attempt at removal had to be abandoned and the patient died five days later from septic meningitis.—Mr. JONATHAN HUTCHINSON had seen several cases of exostosis of the frontal bone. In one case of a young man the exostosis grew into the frontal sinus on the left side and was removed by trephining; later on there grew another exostosis from the right side which was early removed, but septic inflammation and death followed. In another case of a young woman the exostosis was very large, and a long time was spent and many saws were used in attempting to remove the growth, but only with partial success, a raw surface with bony base being left; this suppurated and remained open for twelve months, when further surgical interference led to the shelling out of the remainder of the exostosis, a deep cavity was left, at the bottom of which some mucous material was seen, but the dura mater remained sound; the eye had been previously lost; ultimately the case did well and the wound healed.—The PRESIDENT said these cases pointed to the great risk of interfering when the cranial wall was perforated. He referred to two cases where the inner table only was involved, the roof of the orbit being free, in which removal of the exostosis was quite easy.

Optic Atrophy in Three Brothers (Smokers).—Mr. EDGAR BROWNE (Liverpool) read a paper on this subject. In the first patient, aged 40, vision had failed at the age of 27. A diagnosis of tobacco-amblyopia was made. The patient reduced smoking gradually, but continued to chew. Vision had steadily failed to shadows, but the pupils were three millimètres diameter, acted to light, and the patellar reflexes were good. Previously, vision was good; general health always good. Optic discs, typical skim-milk atrophy, with attenuated vessels. He could see a flame or bright reflection from white at periphery of fields. The second patient was aged 33; sight became very bad six months before; he also both smoked and chewed tobacco; he could see a little in twilight. The knee-jerks were good. Pupils, three millimètres diameter, acted to light. The optic discs showed a general appearance of atrophy; vessels pervious, but rather small. He could see white paper test in lower temporal (right) and lower nasal (left) fields, but not at all centrally. In the third patient vision had failed for two years, patient being aged 23; could read J. 16. This patient discontinued smoking when warned. Pupils sluggish, but acted to light. Peripheral fields for white, both eyes normal; central scotoma for white and red in left eye, for red only in right; colour vision with wools good. Optic discs very white and smooth; veins perhaps a

little large. The original assumption that tobacco could cause atrophy had been rather discredited since the significance of axial neuritis had been understood. These cases were closely related to the hereditary optic atrophy of Leber (though occurring rather late), but the term hereditary should not be adopted till our information was much more exact. In all three cases, tobacco was probably the determining cause of the atrophy. In all perception of light was better towards periphery than centre; none had visible neuritis; none had cerebral or spinal symptoms. The father, mother, and two sisters had good sight; a collateral relation had suffered. These cases might be taken as types of one group—namely, those in which an axial neuritis being once established tended to spread to the peripheral fibres, involving both sets in the subsequent atrophy. Exactly the opposite occurred in ordinary neuritis, in which the central fibres (and vision) might escape for a time. The following grouping of cases was suggested: 1. Ordinary tobacco-amblyopia, involving only central fibres; transient, and recovery on removal of the cause. 2. A class beginning with central negative scotomata, which progressed downwards till central defect became positive (or nearly so), and axial atrophy might be assumed, peripheral vision being unaffected. The part played by tobacco in these cases required investigation. 3. Cases like those under consideration, where retro-bulbar neuritis, beginning centrally, spread peripherally, giving rise to more or less pronounced atrophy. Here the personal proclivity was shown in young persons, members of the same family. If similar groups were found among non-smokers, search would not be required to discover the exciting agent. Beyond these were (4) consecutive atrophy, and (5) atrophy accompanying spinal degeneration. At present the two last groups were well understood, but cases illustrating the second and third groups should be collected.—Mr. HUTCHINSON mentioned a group of three, consisting of two young males who smoked and the mother of one of them (and aunt of the other) who did not smoke, all affected with optic nerve atrophy. In the case of the woman the inherited predisposition to nerve lesion must have been very strong. Eventually she became quite blind, but had very good health. Perhaps abuse of tea or coffee might have had a share in bringing about this effect; he was sure that they sometimes caused deafness. He thought the Society might investigate the very rare group of women affected with this form of atrophy who did not smoke at all. Mr. Browne had mentioned that his first patient was a total abstainer, this, in his experience, rather led to the production of the atrophy than the reverse; those who indulged in alcohol as well as tobacco were less liable to tobacco atrophy than were abstainers. These cases occurring in families were much more severe, more liable to end in blindness, and much less easily cured than the other forms.—Dr. EMRYS-JONES mentioned the case of a family of nine children, but only five living, in which two children had atrophy of the optic disc without definite cause, the girl at the age of seventeen and the boy aged nine; total blindness ensued.—Dr. HABERSON referred to his paper read at a former meeting of the Society, dealing with hereditary cases of optic atrophy; in some a sexual cause appeared to operate.—Mr. WALKER thought that great losses of blood and a numerous family in the mother and grandmother might be a cause of optic atrophy in children.—Mr. BROWNE hoped an investigation, as suggested by Mr. Hutchinson, would be undertaken by the Society. Subjects of tobacco amblyopia had often been drinking heavily; if they left off alcohol and tobacco they did well.

Card Specimens and Living Patients.—Mr. SILCOCK, 1, Sarcoma of Frontal Bone; 2, Sarcoma of both Orbits.—Mr. JESSOP, Case of Symmetrical Pigment Ring on Anterior Capsule of Lens.—Mr. J. HUTCHINSON, jun., Two Cases of Cicatrices on Vitreous and Retinas.—Mr. G. E. WALKER, Case of Recovery from Occlusion of Pupil without Iridectomy.—Prof. BERGER, 1, Sarcoma of Cornea; 2, Refraction Ophthalmoscope.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

FRIDAY, JUNE 1ST, 1888.

C. B. BALL, M.D., President, in the Chair.

Peritonitis from Perforation.—Mr. M'ARDLE communicated a case of peritonitis from perforation, and commented upon the cause of death in such cases.—Dr. JAMES LITTLE said that on more than one occasion in cases of the kind he had opened the abdomen during life; and when he afterwards opened the abdomen in the same cases after death, most important appearances,

June 23, 1888.]

which had indicated hyperæmia and inflammation, short of actual effusion of lymph, had disappeared. It was therefore rash to conclude as to what existed in the abdomen during life from what one found there after death.—The PRESIDENT said the paper raised the question as to how far in such cases death was attributable to shock to the nervous system. If that were so to any extent it might preclude surgical interference with so important a cavity as the abdomen, because the immediate effect of it might be to augment the efficacy of one of the causes of death. If, on the other hand, death exclusively resulted from absorption of materials effused from the peritoneal cavity, or from putrefactive gases, which would interfere with the heart's action, the objection to operative interference would not arise.—Mr. M'ARDLE, in reply, said he had not made sufficiently plain the point adverted to by Dr. Little. In the case of stomacic perforation he had to deal with symptoms which tallied exactly with the introduction of sepsin pure and simple into the peritoneal cavity, and also with the symptoms which resulted from septic absorption in any place. In his detail of the case he mentioned that immediately on the perforation of the stomach taking place collapse occurred; but that collapse was afterwards completely recovered from, and the patient became conscious and fairly vigorous. But there afterwards ensued the same symptoms that were obtained by the injection of sepsin. He agreed with Dr. Little that the peritoneum and the contents of the peritoneal cavity changed materially after death. He had opened the abdominal cavity a fair number of times for inflammatory conditions; he never saw anything capable of disappearing that could do any harm. Inflammation of the peritoneum might do very little harm, and, at all events, would not produce death. Hyperæmia alone would not account for death. There was another reason why he hesitated to regard any of those things that were capable of disappearing as likely to cause death. Within the last five or six years it had become the custom, in cases of peritonitis that seemed to be beyond recall, to open the abdominal cavity and wash it out; and if the contents that produced fatal results were got away, the patients recovered in a large majority of the cases. This had been done in a number of cases within the last three years; and in 70 per cent. of cases that if left alone would have ended fatally, there had been recovery after the washing out of the abdomen. In the case of perforation of the stomach which he had brought forward, no fecal gas from the lower bowel got into the peritoneal cavity. The patient no doubt got a shock, and if in such cases a large amount of material were extruded into the peritoneum, inflammation would be set up; but it was the ultimate development of the septic materials that produced the fatal result. But in the case of intestinal perforation—and he had lately had experience of six such cases—the collapse that occurred continued persistently from the beginning to the end of the case; and he attributed it to the effusion from the intestines of gaseous contents—chiefly sulphuretted hydrogen.—Dr. FINNY requested leave to make an observation, notwithstanding that the discussion had closed. He understood Mr. M'ARDLE to say that it had been found during the last five or six years that in 70 per cent. of the cases of acute penetrative peritonitis, in which operative interference had been resorted to, there had been recovery. According to his recollection the facts were quite of an opposite character. In cases of chronic peritonitis, where there was purulent discharge, good results from operative interference might be hoped for; but, according to his recollection, in acute cases attended with perforation of the stomach or intestines, any such proceeding had been followed by death.—Mr. M'ARDLE explained that his statement had reference only to cases of septic peritonitis, which were not perforative.

Pyæmia of Dental Origin.—Dr. A. W. BAKER communicated a case of pyæmia of dental origin.—Dr. LITTLE said he believed physicians and surgeons in ordinary practice were not sufficiently alive to the possibility of various troubles—neuralgic, cerebral, and gastric—resulting from infection coming from the teeth. He had seen three cases of the kind within the last three or four years. One was that of a young man whom he found suffering from acute phthisis, and he only lived a short time. At first his relations had not thought that there was anything seriously wrong with him, because he only had a bad tooth; but inflammation began at the root of the tooth, and as the young man became worse he (Dr. Little) was sent for. He found that he had a large cavity in one lung, and the case ended fatally.—Dr. BAKER, in reply, said he had never seen any case in which phthisis could be traced to alveolar inflammation.

Microscopical Appearances in Locomotor Ataxy.—Dr. FINNY communicated a case of locomotor ataxy. The patient had died in Sir Patrick Dun's Hospital, to which he was admitted as a patient at the age of 38, in December, 1885, of emphysema and cardiac dropsy, with a history of tabes of some ten years' standing. He had been under Dr. Finny's observation three years previously, and had exhibited at that time the following features of the disease, which were still better marked in 1885: Sensory disturbances; diminution of tactile sensibility in the legs and arms, but more particularly in the forearms. He was unable to state where his feet were, when in bed, until he struck the foot-board with them; and on one occasion, while pinning on his left cuff, he passed the pin through the flesh of his wrist and was not aware of it, until finding the cuff was fixed, he tore away the flesh by pulling it down. He had some paræsthesia of the fingers, and described a sensation of great heat in the tips of the right hand, and said that their moisture would at times rise as steam from them. Neuralgic pains were occasionally present in both legs and arms, but was not by any means a prominent symptom. Motional disturbances: Unsteadiness in walking and in turning round; difficulty in maintaining the equilibrium while standing with the eyes closed, or on looking up at a height. There was no ataxic gait, the gait being that more of uncertainty and debility. He had great difficulty in walking in the dusk. He experienced great difficulty in buttoning his clothes, more especially behind him. Reflexes: The patellar reflexes were absent, and the Argyll-Robertson phenomenon was sufficiently marked, though the pupils were not markedly contracted. The sexual reflex: At the time of his last illness the sexual appetite was not inordinate, though early emission followed upon excitement; but for many years preceding it, as early as twelve years of age, the sexual desire was greatly increased, and venery and masturbation were immoderately practised. There was no distinct syphilitic history, though he had venereal disease at the age of 18, and there were no appearances of scars, or of tertiaries. The patient's whole history pointed to a life of sensuality and alcoholism. The notable features in his case were: 1. Early and immoderate sexual appetite. 2. The slight amount of tabetic gait. 3. The greater implication of the cervical region of the cord.—Dr. BEWLEY exhibited microscopical specimens of the cord in the case brought forward by Dr. Finny, and mentioned that the disease affected the upper cervical portions of the cord more than the lumbar portions. There was another peculiarity which he had not seen in any drawings of cords affected by locomotor ataxy—namely, that in the cervical region the posterior third of the internal part of the postero-internal column was sclerosed, the middle portion was not sclerosed, and the anterior portion was again sclerosed. The posterior third derived its ascending fibres from the lumbar region, in which there was some disease, and those fibres were consequently degenerated. The dorsal region was not much diseased. The middle third, containing fibres from that portion of the cord, was fairly healthy. The anterior third, containing ascending fibres from the diseased cervical region, was much sclerosed.

Separation of the Coracoid Epiphysis of the Scapula.—The SECRETARY read a paper by Dr. E. H. BENNETT, who was absent, on a case of separation of the coracoid epiphysis of the scapula.

Cirrhosis of the Liver and Portal Thrombosis.—Dr. BEWLEY submitted a case of cirrhosis of the liver and thrombosis of the portal vein. The specimens were taken from a man, aged 60, who had enjoyed fairly good health, with the exception of occasional attacks of bronchitis, until the 18th or 20th of last March. First piles came on and gave him considerable trouble. Then his feet swelled, and his legs became œdematous. Afterwards his abdomen began to swell. He lost flesh, strength, and appetite, and his abdomen and legs rapidly increased in size. After about two and a half weeks jaundice came on, and on April 7th he was admitted into the Adelaide Hospital, under the care of Dr. Wallace Beatty. He was then extremely weak and emaciated. His abdomen measured forty-four and a half inches round the umbilicus, and contained a great deal of ascitic fluid. On account of the accumulation of fluid it was not possible to make a thorough examination of the viscera; but it was apparent that the upper and lower borders of the liver were normal—at least nothing abnormal could be discovered below the costal arches. The spleen did not appear to be very large. He had slight bronchitic rales and also a mitral systolic murmur, but there was not much engorgement of the veins of the neck. His urine had been very scanty for three weeks before his admission, and at the time he came into

the hospital presented a slight amount of bile pigment. On May 12th he was tapped. Up to that time it was uncertain whether it was cirrhosis or cancer of the liver that he had. When the tapping was performed the fluid that came away was ascitic and largely coloured with blood. A hard nodulated mass was then felt under the right costal arch, extending out to the epigastrium. The diagnosis then arrived at was, that it was malignant disease of the liver. At the tapping, 18½ pints of fluid were withdrawn. His abdomen refilled; he grew weaker and weaker, became unable to take food, and died on May 21st. On *post-mortem* examination, his abdomen was found to be again immensely distended with fluid, the quantity being between two and three gallons. This fluid also was extremely bloody, and from the deeper portions of the peritoneal cavity large soft blood-clots came. The liver, which weighed 4½ lbs., was found to be in a curious condition. The left lobe presented very typically the characters of extreme cirrhosis, being extremely hard, and converted, for the most part, into bands of greyish dense fibrous tissue. The right lobe was largely increased in size from above downwards, and was bright yellow-coloured, the yellow-coloured part being marked off by a distinct line from the grey cirrhosis in the neighbourhood. This yellow part was perfectly soft, while the left lobe was like a mass of leather. About half of the right lobe was in this peculiar soft yellow condition. The trunk of the portal vein was filled for an inch or two with a soft clot; but the walls of the vein were perfectly healthy, and the vein at some distance from the liver was healthy also. The gall-bladder and bile-duct were full of healthy bile, and were not diseased. The other viscera were healthy, except that there was some thickening of the mitral valve, and that the lungs were somewhat emphysematous. The idea they conceived was that there had been thrombosis of the portal vein, and that the blood passing slowly through the vein clotted for some distance back. The branch to the right was more firmly clotted than the branch to the left, and the tissue of the right lobe had become almost necrotic from the interference with the blood supply.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

TUESDAY, APRIL 3RD, 1888.

T. W. HIME, M.B., President, in the Chair.

Some Destructive Diseases of the Eye.—Dr. BELL read a paper on this subject, with special reference to glaucoma. He had in the course of his experience at the Bradford Eye and Ear Hospital seen no disease of the eye the nature of which seemed so easily to escape the notice of medical men until it was too late to repair the damage done, and this was especially the case in the more chronic forms of the affection.—Drs. HIME, MAYOR, and BELL took part in the discussion.

Gonorrhoeal Ophthalmia.—Dr. BURNIE read a note in which he said he wished it to be understood that he looked upon gonorrhoeal ophthalmia and purulent ophthalmia of infants as two distinct affections. The former only occurred in subjects suffering from gonorrhoea. It had never in his experience affected both eyes, but might do so. It was not caused by direct contagion, or it would be much more frequent; but was due to metastasis, similar to gonorrhoeal synovitis. The appearance of the eye was also different from that presented by eyes which had been directly infected by means of towels, etc. The semi-ptosed condition of the eyelid was particularly characteristic. In purulent ophthalmia of infants the disease usually attacked both eyes, and was caused by direct infection.—Drs. BELL, WOODS, HIME, GOYDER, and BRONNER took part in the discussion.

Acute Atrophy of Liver.—Dr. WOODS related two cases of this condition. CASE I.—On January 11th, 1887, a temperate man, aged 25, who had never suffered from syphilis, and who had spent all his life in England, was admitted to hospital apparently suffering from a slight attack of jaundice. The skin was yellow, the urine saffron-coloured, and the patient was constipated. Pulse 80, temperature 99°. No tenderness over the liver, but diminished area of dulness on percussion. The bowels were easily moved by aperient medicine, and no particular symptoms presented themselves till January 25th, when the bowels were relaxed and motions dark coloured. The urine was now of a dark-brown colour; it was tested for blood and bile acids with negative results. Pulse 88, temperature 99.8°. The patient on this date (fourteen days in hospital) began to wander a little, becoming delirious on the 26th, and gradually passing into a state of coma, well marked on the 28th, which lasted till next day, when he died. On *post-mortem*

examination nothing abnormal was found in the head or thorax; the liver was much reduced in size, specially the left lobe, the weight being only twenty-seven ounces. The spleen weighed seven ounces, and was normal in appearance. CASE II.—A man, aged 39, of intemperate habits, who had suffered from syphilis and intermittent fever, and had served fourteen years in India in the army, was admitted February 28th, 1888, suffering from jaundice. The skin was yellow, the urine dark coloured, the bowels obstinately confined; all food was vomited as soon as taken; no tenderness over liver; area of dulness diminished. Pulse 68, temperature normal. Bowels remained confined until March 3rd, when a dark-coloured liquid motion was passed; vomiting was now very distressing, the vomited matter being dark-coloured. The urine was brownish in colour, depositing brown sediment. It was tested for albumen, blood, and bile acids with negative results. Pulse 110, temperature 99.6°. Five days after admission the patient became violently delirious, but lapsed into semi-unconsciousness in the afternoon, becoming comatose next morning, and remained in this condition until he died at noon on the 5th. On *post-mortem* examination, nothing abnormal was found in the head or chest; the spleen weighed seven ounces. The intestines contained bile. The liver was small and shrunken, and weighed twenty-six ounces; it was of a deep yellow colour, passing here and there into dark red patches. Its tissue was very friable. On microscopic examination the liver-cells were entirely destroyed, only a few nuclei being left here and there. The liver was reduced to fibrous tissue radiating from the portal spaces, in which it was most abundant, and near which some agglomerations of nuclei were seen. Fat globules and granular *débris* were present in large amount. Leucin and tyrosin could easily be demonstrated. There were cases of jaundice without obstruction, and the clinical features were not unlike those present in cases of poisoning by alkaloids, curare, muscarin, etc. If the secreting portion of the liver was impaired, as in acute yellow atrophy, whatever bile was secreted was of inferior quality, and peptone, and leucomaines were allowed to enter the circulation. The bile itself was absorbed into the blood, and stained the tissues, never, however, to any great extent. In jaundice with obstruction of the bile-duct, bile did not enter the intestine, and, therefore, did not act there on the peptones and leucomaines, but, being rapidly absorbed into the blood, acted there as an antidote to the leucomaines, preventing them from producing the alarming symptoms observed in cases of jaundice, where no obstruction existed, but where, owing to impaired action of the liver, bile, incapable of exercising its proper functions, was secreted.—Dr. A. BRONNER, in the absence of Mr. J. APPELBYARD, with that gentleman's kind permission, recorded a similar case which he had seen by his courtesy. The patient, a remarkably tall and strong man, about 35 years of age, who had always lived a most temperate life, and had always been perfectly healthy (with the exception of a very slight mitral *bruit*), had been very much depressed some weeks before the first definite symptoms. Having received a chill at a railway station, and the same evening having eaten some sausage, the next morning diarrhoea set in and slight jaundice, the urine also becoming distinctly tinged. This was looked upon as an ordinary case of jaundice consequent upon gastro-duodenal catarrh, and under treatment the bile-pigment disappeared from the urine, and the jaundice almost entirely disappeared. The patient got up, felt much better, and nothing whatever occurred to point to the true nature of the case. On the evening of the eighth day after the appearance of jaundice, the patient went to bed, complaining of very severe headache. In the morning he was in a state of excited delirium, tearing down the bed-curtains, etc., recognising nobody. In the course of the day he became quieter, lying in bed with his hand to his head, as though in great pain. There were no convulsions. The pupils were dilated, and did not react to light. The urine became highly icteric, and there was a dirty-yellow deposit in it, which microscopically consisted of detritus of cells. No albumen. The urine was tested for leucin and tyrosin, but no crystals were found. The spleen was not found enlarged. There was no enlargement or diminution of the area of dulness of liver. No hæmorrhages from stomach or bowels, and no petechiæ. The jaundice increased in the course of the day, and the patient gradually became more comatose, and died at ¼ A.M., thirty hours from the commencement of the headache. Only a partial necropsy was allowed. There were hæmorrhages on the omentum and the bowels, also on the kidneys, where they presented the wedge shape of infarction on section. The liver was a soft, pulpy mass, which could be easily torn with the fingers. Under the microscope

the liver structure was almost obliterated. The field of vision was covered with detritus masses, and with fat-globules. Professor Greenfield, of Edinburgh, who was kind enough to examine some of the liver and kidney, pronounced the case to be one of undoubted acute atrophy of the liver. There had never been any complaint of pain or uneasiness in the region of the liver.—A discussion followed, in which Drs. H. BRONNER, LODGE, jun., and LAMBERT took part, Dr. WOODS replying.

REVIEWS AND NOTICES.

TECHNICAL SCHOOL AND COLLEGE BUILDING. Being a Treatise on the Design and Construction of Applied Science and Art Buildings, and their suitable Fittings and Sanitation, with a Chapter on Technical Education. By EDWARD COOKWORTHY ROBINS, F.S.A. 4to. London: Whittaker and Co.

THERE is probably no more important "question of the day" than that of technical education, and if evidence were needed of the satisfactory progress which we are making towards its practical development, it might surely be found in the appearance of this important volume. At a time when our leading politicians and economists are unanimous in declaring that, if England is to maintain her position in the forefront of the great producing countries of the world it must be by the thorough technical training of the "skilled artisan" section of her industrial population, it cannot but be regarded as a hopeful sign that one of our leading architects should have devoted so much study and attention to the construction and arrangement of the buildings necessary for this class of instruction, as must have been required to produce the work before us.

Mr. ROBINS has produced a thoroughly practical book, which must prove of the greatest value to his professional *confrères*, who may be called upon to design technical science buildings, and which contains much that should be carefully studied by those who may have to take an active part in developing and guiding through its proper channels the undoubted impetus which technical education has lately received.

There is of course some difference of opinion as to what is rightly to be regarded as the scope and object of technical education, and in his opening chapter Mr. Robins discusses this question, and gives the views of various eminent authorities, amongst others those of Professor Ayrton, who says: "By a technical school I understand not one in which the manipulation or routine of a trade is taught, but a school where a lad receives general instruction in the principles of applied science, and special instruction in the application of these principles to the particular trade he is following, or which he is about to follow," an opinion shared by Professor Huxley, and by the late Professor Fleming Jenkin, who characterised as a "mischievous delusion," the idea that the object of technical education is "to teach a man his business." Mr. Robins accompanied Professors Armstrong and Ayrton in a tour of inspection of the polytechnic schools of the German speaking countries, in 1882, and gives an interesting summary of the results. This is followed by an analysis of the second report of the Royal Commissioners on Technical Education which is of considerable value, as it is a brief but clear *exposé* of the subject, and describes the different classes of technical schools existing on the Continent, from the elementary schools to the great universities. In the next chapter Mr. Robins somewhat briefly deals with the principles which should govern the planning of technical schools, pointing out that to be effectively taught, many subjects, such as chemistry and physics, anatomy and physiology, botany, and forestry, etc., require specially designed buildings. In the examples of foreign buildings for technical instruction, which follow, a large proportion are chemical laboratories, and include those of Bonn and Berlin, of the Zurich Polytechnic School, the new University of Strasburg, Munich University, and others; there are also plans of the Academy of Sciences, Munich; the Berlin Physiological Institute, the Physical Institute, Würzburg; the Chemnitz Royal Trade School, the Technical High School at Hanover, the Royal Technical School, Stockholm, etc., accompanied with descriptions which further elucidate the carefully figured plans, and increase their value for study and comparison. As we pointed out above, the majority of the foreign buildings illustrated are chemical laboratories, but as an exception, the Technical High School at Hanover may be noted, this being a remarkably complete scheme,

embracing well nigh all the subjects which can be brought within the range of technical education. We have next plans and descriptions of some of the principal English technical buildings, commencing with Mr. Waterhouse's well considered and magnificent pile, erected for the City and Guilds of London Technical Institute, at South Kensington, which it is to be regretted has not yet, probably owing to its situation, succeeded in attracting students in anything like the same proportion as the Finsbury building for the same institute, which is next illustrated, and the success of which, under Professor Silvanus Thompson, is most gratifying. The other English buildings of which the plans are given, are the Yorkshire College, Leeds; the Merchant Venturers' School, Bristol, a most successfully designed building by Mr. Robins, opened in 1885; the Oldham School of Science and Art; the Mason Science College, Birmingham; St. Thomas's Hospital Medical School; the Oxford Physiological Laboratory; the Cambridge University Laboratory, and some half-a-dozen more, without which Mr. Robins's series of examples would be by no means complete. The following chapter deals with fittings for applied science instruction buildings, and is very fully illustrated by drawings, showing students' working tables, sinks and draught closets, arrangements for carrying off noxious gases from the work table, and various details from some of the buildings already mentioned, and others, including the College of Engineering, at Yeddo, in Japan. This is a very valuable section of the book, and the drawings are most carefully produced to scale. A valuable chapter on heating and ventilation, considered generally, is followed by one dealing with the subject in special reference to applied science instruction buildings, the importance of which cannot be over-estimated, as in addition to ordinary room ventilation, special means for the removal of noxious fumes generated in the laboratories have to be provided. Mr. Robins describes the systems adopted at the Finsbury Technical College, the Central Institution, South Kensington; the Yorkshire College, Leeds; and the Merchant Venturers' School, Bristol. Buildings for Secondary Educational Purposes, is the title of the next chapter, which is illustrated by views and plans of several buildings of this class designed by Mr. Robins, and includes the South Hampstead High School for Girls; Milton Mount College, Gravesend—a school for 150 girls, and some other smaller buildings of this class. A chapter on Sanitary Science in its relation to Civil Architecture, concludes the volume, and the author is so high an authority on this subject, that we commend it to all our readers who are interested in it, as sure to repay careful perusal. We have said enough to indicate the extent of the information which Mr. Robins has collected together, and we think he deserves our thanks for giving this information to the public. His book contains upwards of sixty large plates, photolithographed from drawings, the preparation of which alone must have entailed a considerable amount of labour and expense. It is well printed and bound, and will certainly be of much service in furthering the object its author obviously has at heart by facilitating the design and construction of technical science buildings, perfectly adapted to the purpose they are required to fulfil.

GUIDE TO THE HEALTH RESORTS IN AUSTRALIA, TASMANIA, AND NEW ZEALAND. By LUDWIG BRUCK. 12mo., pp. 183. Sydney, 1888. London: Baillière, Tindall, and Cox.

THIS book marks very strongly the progress of our Australian colonies in European ways. It also forms an excellent and practical supplement to Mr. Bonwick's useful little works on the climate, etc., of the different southern settlements. It is difficult to analyse a work, itself an abstract of what has been done by others, but a few general remarks occur to us. Seaside resorts, winter resorts, high altitude resorts up to 3,500 feet are all to be found in the southern hemisphere, and arrangements for the accommodation of visitors seem to make great progress.

On the whole, while New Zealand abounds in mineral waters, most of them of a high temperature, the Australian continent appears to have singularly few. In Victoria there are pleasant acidulous springs, more or less of the character of Seltzer, with some iron at Ballan and Drysdale, a good chalybeate at Hepburn, and a weak bitter spring at Stratford.

New South Wales seems to have only two—Dubbo and Rockflat, both acidulous.

Queensland only boasts of one spring, Herbertson, not very perfectly known, but undoubtedly hot, which none of the other Australian ones are. Accounts of travellers have made the

wonderful hot springs of New Zealand tolerably familiar to the public, and most of us have read of the baths which the Maoris use, and of those beautiful natural deposits, known as the white and pink terraces, which are reported to have been unfortunately destroyed by the earthquakes of 1886. The chief groups of hot springs appear to be:—

1. Ohinemutu, with Rotorua, has no fewer than 25 hot springs, that have been described as essentially sulphur with chloride of sodium. A powerful smell of sulphur pervades the atmosphere in their neighbourhood. In one bath, Camerons (known as the laughing-gas bath), the use of which is dangerous, the discharge of sulphuretted hydrogen is so strong as, when inhaled, to cause faintness, and great excitement of the vascular and respiratory systems.

2. Taupo, with 23 springs, of high temperature, and low mineralisation. They are admirable specimens of indifferent waters, and available for a great variety of purposes.

3. Te Aroha, a set of thermal alkaline baths, of which 18 have been described; 54.60 and 63 grains per pint of carbonate of soda are present in some of the waters, which are, therefore, more powerful than any of the known similar waters of Europe.

4. Hanmer has hot springs with strong escapes of sulphuretted hydrogen, and possessing similar curative effects to those at Rotorua.

5. Masterton, with five principal springs, strange to say, cold. Most of them are of strong chloride of sodium, and one of the springs contains 2.127 of iodine free and combined, a very high figure indeed.

While New Zealand falls short in acidulous springs, it has abundance of those rich in alumina, in sulphuric, and hydrochloric acids.

It thus appears from this survey that New Zealand abounds in sulphur, alkaline, and indifferent thermal waters which can compare with any of their respective kinds in the world. Establishments have been already organised at most of these baths, and the acidulous waters of New South Wales are charged with carbonic acid, bottled, and exported, as in Europe. For further details, especially on climatic matters, on which we have no space to enter, we would refer to the capital guide-book of Mr. BRUCK.

THE THERMAL SPRINGS OF AIX-LA-CHAPELLE AND BORCETTE.

By Dr. BEISSEL. Svo., pp. 145. Aix la Chapelle: Mayer. 1887.

This appears to be a full and trustworthy guide to the waters of Aix-la-Chapelle and the neighbouring Borcette. Full details are given about the different springs and baths, also about the diseases most commonly treated at Aix-la-Chapelle. There is a chapter on Mercurial Inunction, in which Dr. BEISSEL discusses the theory of its mode of absorption, and how far the heat of the baths volatilises the mercury, which (as one channel) may be absorbed through the lungs.

NOTES ON BOOKS.

The Treatment of Uterine Fibroids by Electrolysis. By W. E. STEAVENSON, M.D. Cantab., M.R.C.P.; in charge of the Electrical Department at St. Bartholomew's Hospital; Physician to the Grosvenor Hospital for Women and Children. (London: J. and A. Churchill.)—The author states that he has been so frequently asked for the details of the operation by electrolysis in the treatment of uterine tumours that he has published in advance this part of a work which is in preparation on "The Use of Electrolysis in Surgery." This first instalment is in the form of a pamphlet. The author gives very clear directions concerning the application of the electrodes. As must now be pretty generally known, Dr. Steavenson has contrived a new form of intra-uterine electrode, more flexible and therefore more introducible than Apostoli's, and far cheaper on account of the smaller amount of platinum which is used in its manufacture. The author fully recognises the objectionable character of the external potter's clay electrode, and hopes for some better form which will diffuse the current equally over a large surface. There can be little doubt that patients object to the clammy poultice of potter's clay more than to any other feature of the new treatment of fibroids. There is little or no controversy in this pamphlet, but operators may

take exception to the manner in which abdominal section is condemned. Treatment by electrolysis "is not difficult," we are told, "to those who understand the medical and surgical uses of electricity. It is not unduly painful. It is, if properly applied, practically free from danger." Dr. Steavenson's qualifications are sufficient to prove that electrolysis can hardly be trusted out of the hands of experts, else it will speedily be discredited. A trivial knowledge of gynaecology, combined with an imperfect acquaintance with electricity, can only cause disaster.

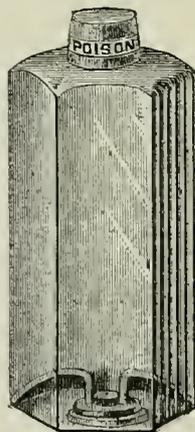
Principles of Forensic Medicine. By the late WILLIAM A. GUY, M.B., F.R.S., and DAVID FERRIER, M.D., F.R.S. Sixth Edition. (London: Henry Renshaw. 1888. Pp. 600. Price, 12s. 6d.)—That this well-known manual continues to hold its own in public estimation is abundantly evidenced by the appearance of a sixth edition. Owing to Dr. Guy's death a year or two back the preparation of this edition has devolved entirely upon Dr. Ferrier, who has made but very slight changes in the text, recent important cases such as the Pimlico chloroform poisoning case or the Lamson trial being briefly alluded to in a foot-note. The size of the page has been somewhat enlarged, thus making the book less bulky and far more handy, and the headings of the different subdivisions of each subject have been brought into prominence by being printed in thick black type, so that they catch the eye on the most cursory glance. This will greatly facilitate the finding of any particular subject, and consequently it will increase the value of the book as a work of reference.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MEDICINE AND POISON BOTTLE.

CAREFUL attention should always be paid to any suggestions made to lessen liability to accidental poisoning, and, although we think that precautions of a mechanical nature may be carried to an excess in the dispensing of medicine, so that intelligent watchfulness may relax, it is almost impossible to adopt the many safeguards when poisons are handed over to patients or attendants.

Mr. E. S. Hermes, of 6, Farleigh Road, Stoke Newington, N., has invented a bottle for poisonous liniments and similar preparations, which would seem to preclude the possibility of an error being accidentally made. The bottle is hexagonal, with three sides ribbed, is of blue glass, and has the appearance of an ordinary poison bottle. But it is closed where the mouth of an ordinary bottle exists, and the contents are poured from an orifice placed in a depression at the bottom; hence the bottle must be actually reversed before the contents can be got at.



HARTMAN'S SANITARY WOOD-WOOL BAPKINS.

THE Sanitary Wood-Wool Company, of Hatton Garden, have discovered still another way in which the wood-wool manufactured by them can be usefully employed.

The bapkins made by the Company are intended to supersede the linen napkin ordinarily used for children in arms. They are pads of wood-wool of a convenient size and thickness enclosed in gauze. Being antiseptic and highly absorbent, they present obvious advantages over the ordinary linen napkin. By their use the infant is less exposed to chill, and its skin is much less liable to become irritated, while the comfort of the mother or nurse is greatly increased. The bapkins are to be burnt after use, but, as their price is moderate, their employment only involves small expenditure.

DONATION.—Mr. John Eric Erichsen, F.R.C.S. Eng., F.R.S., has given £200 to the rebuilding fund of University College Hospital.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 23RD, 1888.

THE DEATH OF THE GERMAN EMPEROR.

To medical men the long tragedy on which the curtain fell last week at Potsdam has been one of painful but absorbing interest throughout its progress, and to them, beyond all others, it must have been a relief to know that an end had at length come to the last and most distressing stages of that protracted agony. None can realise as they do how true it is that, in such conditions, death should be welcomed as a deliverer; and precious as was the lesson of uncomplaining submission to the inevitable so grandly taught by the stricken Emperor, no one could have wished his hopeless suffering prolonged. It does not fall within our province to discuss the political consequences that may follow the death of Frederick the Third; but it may not be out of place to refer to some of the medical aspects of the case, which, it is generally allowed, presented many features of exceptional interest clinically as well as pathologically.

There can be no doubt that the diagnosis was for a long time surrounded with unusual difficulty. It is true that the disease was at a very early period judged to be malignant by the German authorities, but we cannot help thinking that this opinion was in part rather a suspicion bred by the over-anxiety naturally engendered by the transcendent importance of the case, than a logical conclusion drawn from the observed facts. It is inevitable that regret should now be felt by many that an operation which offered the only chance of eradicating the disease was not attempted when possibly there was yet time; but, taking all the circumstances into account, it is difficult to see how any other course could properly have been adopted than that which was actually chosen. The diagnosis was at best doubtful, while the immediate risk was certain, and the prospect of permanent cure, if the suspicion as to the nature of the disease proved to be well founded, very slight. Few medical men would, we imagine, care to undergo in their own persons a dangerous and disabling operation, unless there was the clearest evidence of its necessity. In the present case we understand that the illustrious patient had thoroughly made up his mind not to submit to any operation that might shorten his life or destroy his voice. This decision was altogether independent of medical advice, though it was afterwards strengthened, as was natural, by the negative results of Sir Morell Mackenzie's clinical, and Professor Virchow's pathological, examinations.

At a later period, when the worst fears seemed to be con-

firmed, there were still elements of uncertainty in the case which placed it outside common experience. The visible healing of ulcerated surfaces, the widespread inflammation, the exfoliation of cartilage, and the general predominance of necrotic processes over the formation of new growth, combined to make up a clinical picture very unlike ordinary cancer of the larynx. The microscopic evidence was contradictory, or, to speak more accurately, was differently interpreted by equally competent authorities. On the whole the microscope gave little help, and one valuable practical lesson taught by this case is that it is a dangerous mistake to attach much importance to its testimony so long as it is merely negative. Part of the obscurity of the case was no doubt due to the difficulty of making satisfactory laryngoscopic examinations, and part also, as we hinted some time ago, to the unprecedented closeness with which the clinical phenomena were studied. It is tolerably obvious that our present knowledge of laryngeal growths, both benign and malignant, their life-history and mutual relations, is by no means so perfect as could be wished; and it is to be hoped that this historic case, the development of which has been watched with so much anxiousness, and in the sight, as it were, of the whole medical world, may stimulate observation and research on these points.

We have dealt with the case thus far in its purely scientific aspects; but there is, of course, another side to the question. Even in the lowliest hospital patient, the expediency of interference, which may prove more rapidly fatal than the disease, is not to be determined solely from the surgical standpoint. In the case of the late Emperor there were other considerations which he himself looked upon as of far greater importance, and on these rather than on a regard for his own ultimate recovery he, with the full knowledge of what he was doing, elected to take his stand. From this point of view it is sufficient to justify the course adopted if it can be said that it was not positively unsurgical. But it only requires a glance at the ghastly records of such operations on the larynx as were here in question to convince anyone that in the present case it would have been an experiment of the rashest kind to have attempted such a thing. The "expectant" treatment was adopted in accordance with the expressed wish of the patient, which, moreover, coincided with the scientific opinion of his adviser. It is no secret that the result was considered by those most directly interested—including the Emperor himself—fully to justify the course that was pursued.

The severe criticism to which Sir Morell Mackenzie has been subjected in various quarters was no doubt dictated by honest conviction, but it is most unfortunate that a professional difference should have degenerated into a mere personal squabble, and still more deplorable that the quarrel should have been carried on to so large an extent before the public. We do not wish to offer any opinion on the matters in controversy, or to pass judgment on the conduct and motives of the disputants. We have not the least doubt that they all did, or tried to do, what they believed to be best in the interests of the angust sufferer. It was perhaps natural that a certain amount of national feeling should have been aroused in Germany, but it is one of the most legitimate boasts of the healing art that it is of no particular clime or country, and narrow jealousies are altogether unworthy of a profession

which is the most truly cosmopolitan of human institutions. We earnestly hope that the world has heard the last of these unseemly disputes, and that the medical advisers of the late Emperor will agree to bury their differences in the grave of their illustrious patient, who was, above everything, a lover of peace.

NATIONAL PENSION FUND FOR NURSES.

AN esteemed provincial physician writes to point out that it is generally understood that the attacks upon this fund, which have appeared in one or two quarters, are inspired by personal pique. He refers to the article which appeared in the JOURNAL on May 6th last, and asks us to restore confidence by proving that the rates are not excessively high, and to publish the opinion of an independent actuary upon them. We have already done this in the JOURNAL (pp. 811, 815, and 983), where it is pointed out that this fund is managed gratuitously by some of the most able and representative City authorities, including Lord Rothschild, Mr. Henry Hucks (Gibbs (late Governor of the Bank of England), Mr. E. A. Hambro and Mr. Clifford Wigram (directors of the Bank of England), Mr. Walter H. Burns (of Messrs. J. S. Morgan and Co.), Mr. Alfred de Rothschild, and Mr. Edward Rawlings, as well as by eminent medical men and hospital managers, including Sir Edmund Currie, Major Ross, M.P., Dr. Bristowe, F.R.S., Mr. Thomas Bryant, Mr. R. Brudenell Carter, and Dr. Steele, of Guy's Hospital; that the fund commences with a bonus income of about £1,000 per annum; that generous donors have provided the deposit of £20,000; that the fund is a mutual fund, and that, assuming the rates are higher than necessary, which they are not, the full value of each nurse's money entrusted to the managers will be returned to her when her pension falls in, because the pensions stated are the lowest amounts payable irrespective of bonus additions, whilst those quoted by insurance offices are the highest sums which will be paid under any circumstances. Indeed, the rates are from 7 to 10 per cent. lower, as we have already pointed out, than the Post Office rates, which will shortly be raised in consequence of the conversion of Consols from 3 to 2½ per cent.

The unsoundness and absurdity of the comparisons made between the Pension Fund rates and those nominally offered by a first-class office like the Prudential is well proved by Mr. George King, the actuary of the fund, who has ascertained from the actuary of the Prudential that his company has been doing business in immediate annuities at a loss, and that the whole of the annuity tables of that office are about to be revised. The truth is that those who have criticised the rates offered to nurses by the managers of this fund must be either ignorant or ill-disposed. As a matter of fact, no man of business dare advise a nurse to invest her small savings in any office which undertook to do deferred annuity business at lower rates than those offered by the Pension Fund.

The statements which have been published and are being circulated, intimating that the payments required are, from an actuarial point of view, excessive, have also been effectually refuted by Mr. King, and by independent evidence, and the comparisons therein made are based upon palpable error. This is admirably proved in the address of Dr.

Bristowe to the Members of the Hospitals Association, wherein he gives the opinions and verdict of an eminent and independent actuary, to whom he had referred the Pension Fund rates. Copies of Dr. Bristowe's address may be obtained on application to the Secretary of the Fund, 38, Old Jewry, E.C.

It is gratifying to read in the published statement that the success of this fund is now assured; 120 policies have already been accepted, 326 proposals have been received, and 1,600 nurses have applied at the office for forms of proposal to fill up, whilst similar applications are being made in increasing numbers every week. We congratulate the promoters upon this success, knowing as we do that the scheme is absolutely sound, that the *bona fides* of its promoters is unassailable and undoubted, and that the financial strength of the National Pension Fund can be classed with that offered by the British Funds and the Bank of England.

No such opportunity can again be anticipated by women of the nursing profession of providing for themselves by reasonable and moderate payments. The medical profession will, therefore, we are convinced, not fail to impress upon those nurses with whom they come in contact the duty of self-help, and the importance of availing themselves of the thoughtful munificence and well-devised administration which are now provided by this fund on their behalf. The feeling of indignation against the reckless and unthinking opponents of this noble undertaking, to which our correspondent gives expression, is manifesting itself in many places throughout the country; and medical officers—honorary and resident—as well as laymen and officials, are taking opportunities of bringing the matter under the notice of the nursing staff of the institution to which they are attached. Further, the responsible managers of the great London hospitals are arranging a conference to determine how they can best help their nurses to join the fund. They could render no greater service. In some instances inquiry will show that the net emoluments of the nurses do not amount to £15 per annum, as is the case at the London Hospital, the largest in the country, owing to the extra expenses devolving upon the nurses there, each of whom has to provide herself with washing and with other things which it should be the first duty of the managing body to provide free of cost.

We cannot believe that the London Hospital Committee, the Chairman of which is also Chairman of the General Purposes Committee of this fund, will consent to permit the present unsatisfactory and unjust arrangement to continue. We trust that it will promptly consent to pay its nurses at any rate as much as is paid to those who labour in poor-law infirmaries. In any case, it is the duty, as we feel sure it will be the pleasure, of medical men and hospital managers to interest themselves in the Pension Fund, and to use their utmost endeavours to secure that every nurse with whom they come into communication shall at once, or as speedily as possible, avail herself of the great advantages and protection which this fund affords to the whole nursing body.

THE ARMY MEDICAL RESERVE OF OFFICERS.

We publish elsewhere a letter from Dr. Baines—and we do so the more readily because no one can doubt his absolute honesty of intention, while he may also be fairly considered a representative man—first and generally of those

medical volunteers who have seen their way to join this Reserve, and secondly and particularly as being the first strictly metropolitan medical volunteer who, as a reservist, has placed himself unreservedly at the disposal of the War Office. Few medical volunteers in London and other great centres have as yet joined the Reserve; its recruits hitherto have mostly come from outlying parts and the now somewhat ancient Militia Medical Service.

Our sorrow would indeed be deep and heartfelt could we believe with Dr. Baines that our criticisms hitherto on the Reserve were "calculated to spread erroneous ideas;" on the contrary, we imagined and still think we were letting daylight into a scheme which appeared not only singularly crude, but even dark, and possibly in its scope deceptive. We have no cause to regret the note of caution we sounded, and some may probably feel grateful we did so.

According to Dr. Baines, the promulgation of the Reserve Warrant, which had been hatching for some time, was "hastened" by the late rather factitious "cry of retrenchment." Now, what is this but an admission that the scheme, if not a part of, had at least a direct bearing upon and connection with, reckless economies meditated against the regular medical vote? We have always suspected the true inception of the scheme was in finance, not in military efficiency. If the scheme was an honest endeavour to create a *bonâ fide* reserve in support of the Army Medical Department, and not an attempt to cut down and supplant it, then why weave into the Warrant the clauses about "contract rates," and charge of troops at home? Dr. Baines talks—without reference, be it noted, to any particular national emergency—of "freeing" the Medical Staff for "more active service," by employing volunteer reservists at home in their place. This is undoubtedly the main drift of the scheme; volunteers are to be bound beforehand to undertake charge of troops at home at "contract," or, in other words, pauper-like rates, in order that the Medical Staff at home may be reduced to the lowest possible peace limits, whilst its members abroad are saddled with an addition to the already grievous burden of tropical service! We feel assured that the vast majority of our medical volunteers will not lend their aid to so disastrous a policy. We have always insisted that our regular medical service must be kept up at home in sufficient numbers to meet the sudden mobilisation of at least one, if not two, army corps; and when the full pay men are so employed they might be "freed" by calling out the reserve of retired-pay medical officers.

We would remind Dr. Baines that "the reserve of combatant officers" is composed of those who have already served in the regular army—not of *quasi*-civilians: the combatant reserve is entirely similar to the retired-pay medical reserve.

Dr. Baines evidently recognises the validity of our contention that, in the extreme "case of invasion," the proper place for medical volunteers is with volunteer, not regular, troops. True, as he says, a certain number of regimental medical officers might be detached from their corps; but not, we maintain, to join regular troops, but to form field hospitals and bearer companies for the mobilised volunteer army. They would thus, equally with regular troops, demonstrate their "jealous honour" as patriots.

To Dr. Baines the "idea of the reserve is the offspring of

common sense;" if he had said "a reserve," we would readily agree with him; but as he means this particular reserve, we can only say we are not alone in differing from him.

Dr. Baines does not see, or refuses to admit, the extremely anomalous position in which, as we and many others capable of judging consider, the acceptance of the Warrant puts him and his fellow reservists. The argument is this: The auxiliary forces exist and serve under certain Acts of Parliament, supplemented by Orders in Council; what, then, we want to know authoritatively is the exact legal position which the medical reservists occupy under these Acts? Dr. Baines signs himself "Surgeon-Major, Army Medical Reserve of Officers, and 1st Middlesex Engineer Volunteers, R.E." How, we would ask, can he be both? Under what authority can he hold at the same time two active commissions in Her Majesty's forces? Can he fulfil simultaneously the duties pertaining to both? How can he be reckoned an efficient volunteer, earning a capitation grant for his corps, and at the same time hold a commission rendering him liable for military service, not only not connected with his corps, but not even connected with the volunteers? Did he seek or obtain the sanction of his immediate commanding officer in joining the reserve? We will not rashly assume that these questions cannot be answered in his favour, but as ordinary laymen we demand some elucidation.

But, outside the serious, we even see a comical side to the dual existence assumed or claimed by the medical reservists. Suppose the medical reserve from the auxiliary forces suddenly called out and mustered, in what uniform would they appear? Why, in every shape and shade of red, blue, green, and grey—from Surgeon-Major Jones, as a Royal Engineer, to Surgeon-Major Mactavish, in the full war-paint of the "Stuart" Highlanders. Such a piebald gathering would no doubt be highly successful in a burlesque, but we can hardly afford to have a medical reserve laughed at.

Dr. Baines declares he does not want to "flutter under an army rank;" nevertheless, he expresses no little satisfaction in having received "army rank with all its privileges." Would that his brethren of the regular service thought likewise! But they persist in saying that their army rank is only a mockery, a delusion, and a snare. They, of course, have to bear it about with them every day of their lives; Dr. Baines puts it on and off at civilian convenience!

DR. MACDONALD, M.P., has been elected Coroner for the new division of East Middlesex.

THE Mansion House Metropolitan Hospital Sunday Fund amounted on Wednesday last to rather more than £28,000.

IN August, next year, an International Congress for Dermatology and Syphilography will be held in Paris. It will be presided over by M.M. Ricord and Hardy. Communications may be directed to M. Feulard, Hôpital St. Louis, Paris.

SIR ROBERT RAWLINSON, K.C.B., will give a lecture in the Theatre of the Chemical Society, Burlington House, on Wednesday next, at 4 P.M., to the College of State Medicine; the lecture is entitled "The Rise and Progress of Sanitary Engineering within the present Century."

Two of the four foreign members elected into the Royal Society this year are physiologists; Professor Pflüger, of Bonn, and Professor Julius Sachs, of Würzburg; the name of the latter is as well known in vegetable as is that of the former in animal physiology.

THE PREVENTION OF HYDROPHOBIA.

At a meeting of the General Committee of the Society for the Prevention of Hydrophobia and Reform of the Dog Laws, held on June 13th, it was decided, in view of the refusal of the Government to introduce a Bill for the suppression of rabies in dogs, that the Society would at once seek to promote its own Bill, for that object, in the House of Lords. It was further decided to agitate for a repeal of all exemptions from the dog tax.

PRIZE DISTRIBUTIONS.

The medals and prizes to the successful students at Guy's Hospital will be distributed on Wednesday, July 4th, at 4 P.M., by Mr. Cosmo Bonsor, M.P. The Guy's Hospital Biennial Festival will be held on the evening of the same day, at the Holborn Restaurant; and Dr. H. P. Pye-Smith, F.R.S., will be the Chairman. Mr. Davies-Colley is the Honorary Secretary for the Festival. The prizes to the students of the Medical School of St. Thomas's Hospital will be distributed by Professor George Gabriel Stokes, D.C.L., LL.D., M.P., etc., President of the Royal Society, in the Governors' Hall, on Thursday, July 5th. The prizes to the students of Charing Cross Hospital Medical School will be distributed by the Master of Trinity College, Cambridge, on Friday, June 29th, at 3.30.

ASSOCIATION OF FELLOWS OF THE COLLEGE OF SURGEONS.

The members of this Association should bear in mind that, as has already been announced, a General Meeting will be held on Thursday, July 5th, at 2 P.M. in the Arbitration Room at the Inns of Court Hotel, Lincoln's Inn Fields, where questions of importance will be considered. This Association has, it cannot be denied, rendered good service to the cause of College reform. Without combination there can be no progress, and the necessary combination of individual Fellows for united action has been brought about mainly by the agency of the Association of Fellows, which, on the other hand, scrupulously avoids discouraging independent action or dictating to those who hold the diploma of Fellow. The Association has studiously pursued certain aims from the very moment of its foundation; especially has it insisted that the President should be elected by the Fellows, that a true Annual Report be presented to the Fellows and Members at every General Meeting of Fellows and Members, and that no alterations be made in the charter or by-laws without consulting the Fellows and Members. The entrance-fee to the Association is five shillings, the annual subscription half-a-crown. Fellows who desire to join the Association should communicate with the Honorary Secretaries, Mr. Bruce Clarke, 46, Harley Street, or Mr. Herbert Allingham, 25, Grosvenor Street, W.

THE COLLEGE OF SURGEONS.

As might be expected, there is little excitement about the coming election, although the withdrawal of Sir Joseph Lister has created a stir unforeseen a fortnight ago. Still, as the modifications in the charter do not come into force this year, the Fellows and Members do not deem it advisable to offer any opposition to the obstructive policy of the Council. There can be little doubt that proxy-voting will greatly alter the character of the annual contest at the College. At present, the candidates from the larger medical schools in the metropolis have still a great advantage over their rivals from small schools and from the provinces, as each large school includes a number of young men living in London,

within walking distance of the College, who are certain to support their candidate, or, in default of a candidate, they will support one from another large school, as experience has amply proved. With proxy-voting, the elections will certainly bring about the election of a more representative Council. For no Council can be termed representative if it fails to represent what it professes to represent. The Council may professedly represent the pick of Fellows of the College; at present it really represents the large London schools—noble institutions, no doubt, but designed for the care of their patients and the education of their students, and not for rule over qualified surgeons.

BEAUTIFYING AN INSANITARY CITY.

As is proved by the sanitary report for May, Prague still enjoys the unenviable reputation of being one of the most unhealthy cities in the world, the mortality from April 29th to June 2nd being 47.90 per mille. Small-pox and typhus and measles have, a correspondent informs us, been raging for the last five or six months, killing a great number of children among the poor. There have been numerous cases of typhoid, scarlet fever, diphtheria, and croup. A large number of cases of typhus are and have been treated in the General Hospital, and two medical officers, two medical students, and three nurses have already died from it, not less than twenty-three nurses having caught the infection. Privat-Dozent Dr. Haas, Physician to the Spital des Barmherziger Bruder, and one of the most respected medical men of the city, also died lately of typhus, which he had caught at his hospital. The Town Council have done a great deal in the way of beautifying the town, but seems entirely callous to the claims for pure water and a proper drainage. Anything more abominable, says our correspondent, than the stench in the streets and the filthy state of the drinking-water cannot be imagined.

CULTURE, ART, AND SCIENCE, VERSUS DIRT.

The Rev. Prebendary Billing has made some remarks before the Select Committee of the House of Lords, which is now investigating what is known as the "sweating system," as to the hygienic and moral condition of the Jewish poor in East London, and thinks there is much need for strong and continuous effort for their improvement and the care and education of their children. As to the care of the children, it is satisfactory to know that the Jews' Free School provides for more than 5,000 of them within its walls, and thus proves an immense factor in Anglicising the children of those poor people who are mostly fugitives from oppression, and tries to make them respectable members of society. It must be borne in mind that most of the Jews in East London come from countries such as Russia and Poland, where there exist no such sanitary laws as we have in England, and if their habits are not in accord with our ideas of right living, the duty of helping to reform them presses upon us the more strongly. We have been told by many members of the profession practising in East London that most of the cases of diphtheria in children come from among this alien population, a fact which should stimulate efforts for their improved condition as a hygienic precaution. Many efforts are being successfully made to elevate the physical and moral tone of the East-ender. The Rev. S. A. Barnett has long laboured in this direction, and has demonstrated by successful and highly appreciated art exhibitions that Whitechapel people are capable of culture, and of receiving pleasure from good pictures and refined society. In Toynbee Hall 1,000 learners are now assembled every week, and the principles of sanitation and good living, as well as some learning, are thus instilled into some of the mass of the population, helping to take them out of the narrow ruts of a drudgery life. Science in an attractive form is also being brought home to the East-ender in other ways. The East London Natural History and Microscopical Society have inaugurated a

series of "exhibition nights" at the Bow Vestry Hall, which seem to be very popular. It is also satisfactory to hear that the Bethnal Green Board has been stirred up by the action taken by the Home Office. The Commissioners, in their report, insist upon the re-organisation of the sanitary department of the parish, and the establishment of an adequate system of inspection, and the active interference of the Metropolitan Board of Works to compel the authorities to cause the necessary repairs to dilapidated property to be executed. It may thus be hoped that the combined effects of the many efforts now being made to improve the moral and physical condition of East London will lead to improved conditions of living among the population.

CALISTHENIC EXERCISES FOR GIRLS.

MORE general interest ought to be felt in the importance of physical training for girls. It is not enough that their mental powers should be trained, the general laws of hygiene obeyed, and their dress arranged so as not to be harmful. It is also necessary that scientific care should be used in aiding the regular and systematic development of their bodies. Scientific calisthenics should moreover have an aim beyond this, in exercising and training the nerve-centres. The work of the drill-sergeant may suffice for getting up the muscles, but in endeavouring to train the brain by use of calisthenics, it is necessary that the teacher should produce accurate, harmonious, and graceful movements, independent of the amount of muscular exertion. Last week the Princess of Wales took part in the Centenary of the Royal Masonic School for Girls, as celebrated at the Albert Hall, when a striking feature of the ceremony was the performance of some beautiful calisthenic exercises by the girls, with free movements, marching, and drill. Calisthenic exercises, when conducted on scientific principles, are of great value in regulating the nerve-centres; well co-ordinated series of movements imitated from the teacher, or produced to the word of command, tend to produce a well-knit nerve and muscular system responding with ease and gracefulness to impressions received through the eye and the ear. The tendency to asymmetry of postures, and ill-balanced positions of the head and spine, with excess of movement, is often pronounced in growing girls, especially those of hysterical temperament; such conditions may be checked and brought under control through the eye and ear. Quickness of brain action, and of the interaction of the senses and the hands, may be cultivated by exercises with balls. There is another advantage in such exercises, as the ball is thrown or caught by the child the eyes follow the moving object as it recedes or advances towards her, and thus the power of accommodating the vision is brought into play. In young and delicate girls great care is necessary in using such exercises as throw great strain upon special groups of muscles, and in the use of exercises designed to regulate brain action fatigue should be carefully avoided, and throughout the lesson the signs of weakness and exhaustion should be carefully looked for, so that the strain may not be injuriously prolonged. To conduct such exercises and training with success, especially in weakly children, requires special training and skill in the teacher.

INVALID MONARCHS.

THE sad case of the late Emperor Frederick III. is without parallel in modern history. The partial invalidism of several European monarchs has influenced politics in a marked manner. William III. of England suffered from bronchitis and emphysema, and the condition of his health was a factor in the calculations of politicians for years before his death, which, after all, was caused by accident. Louis XIII. was phthisical, and his ill-health to a great extent brought about the absolute rule of Richelieu, but the king, though he succumbed to tubercular ulceration of the large intes-

tine, lived over his forty-second birthday. Putting aside aged popes; sultans, always under tutelage whether healthy or sickly; nominal monarchs like Louis XVII. and Napoleon II., and two Czars said, on not sufficient grounds, to have been insane when murdered, there remains the great historical case of King Charles II. of Spain. He appears to have been of weak intellect and there is some record of congenital malformations, including deficient development of the lower jaw. This natural mental weakness, however, was certainly aggravated by bad education and by the custom of his father's Court, which kept him from the wholesome society of youths of his own age; yet his mental weakness was not so great as to prevent him from feeling much irritation at the conduct of England, France, and Germany towards his country. He succeeded to the throne in 1665 and did not die till 1700; in 1668 when the Treaty of Aix-la-Chapelle was signed, his death was hourly expected, but his sickly existence was protracted for thirty-two years. After his death in 1700 the war of the Spanish Succession soon followed. His case, had it been properly reported, would be of high clinical interest. With the sole exception of the invalidism in both instances, the reigns of Frederick III. of Germany and Charles II. of Spain stood in strong contrast. A medico-historical moral may be drawn therefrom. The short reign of a wise ruler, stricken with a deadly disease, is better than the long reign of a half imbecile monarch afflicted with a chronic disorder.

DR. GEORGE JOHNSON, F.R.S.

A NUMEROUS company of ladies, members of Council, colleagues, past and present students of King's College, assembled recently in the large theatre of that institution, to witness the presentation to Dr. George Johnson, F.R.S., of his portrait, painted by Mr. Frank Holl, R.A., subscribed for by his friends and pupils on his recent retirement from the Professorship of Clinical Medicine, after forty-five years' service at King's College and King's College Hospital. Sir Joseph Lister, F.R.S., in making the presentation on behalf of the subscribers, warmly referred to Dr. Johnson's personal character, the advantages of his teaching to many generations of students, and to the valuable researches by which he had advanced medical science; and, in thanking his friends and pupils for their kind testimonial, Dr. Johnson gave an interesting summary of the circumstances which had determined him to begin the study of medicine, the incidents attending the publication of his views on some disputed points of medical practice, and other features of interest connected with his long period of work at the College and Hospital.

ARSENICAL TISSUES.

MR. F. E. MATTHEWS, of Cooper's Hill, who for some time past has been investigating the subject of arsenic poisoning by means of cretonnes, imitation Indian muslin, etc., gives the following results of his inquiries in the *Daily Telegraph*. Dr. Giffard, the Medical Officer at Cooper's Hill, had brought him some cases in which he thought he detected symptoms of arsenic poisoning; and in every case the source of the poisoning was traced either to a cretonne or to an imitation Indian muslin, used as a decoration by the student. The samples upon which the experiments have been performed were supplied by a local tradesman. The results obtained on analysis were as follows:—Forty-four samples of cretonne have been analysed, and of these none were found absolutely free from arsenic, three contained only the very faintest trace, and twenty-one contained larger traces. The remaining samples all contained arsenic in poisonous quantities. Eleven of them were grouped as "very bad," and the other nine as bad and distinctly dangerous. One of the worst specimens had been examined quantitatively, and yielded an amount of arsenic equivalent to rather more than 19½ grains of white arsenic [As₂O₃]

per square yard. Mr. Matthews adds: "It is quite a common occurrence to have enough of these substances in a room which would contain sufficient arsenic to give 100 people a fatal dose. As far as the analyses have gone at present, they do not show that any one colour is more poisonous than another, as, strange to say, the greens and blues, that would be the first suspected, have until now proved purer than reds, browns, and blacks. In the case of imitation Indian muslins, five samples only have been analysed, but they all contained arsenic in poisonous quantities." The subject is one which has repeatedly been brought to official and public notice. The National Health Society carried out a very full investigation of the matter, and prepared a conclusive report, drafting also a Bill for Parliament, designed to avoid these dangers; but neither legislators nor officials were prepared to assent to such a measure. Perhaps in time and by frequently reading disclosures of the existing perils to health, public opinion may be ripened.

THE MEDICAL SERVICE AND THE INTERESTS OF THE PLANTERS AND COOLIES IN BRITISH GUIANA.

We have received from "The British Guiana Planters Association" a communication enclosing further documents with reference to the recent report of the Medical Inspector. The most important of these is the Report of the Immigration Agent General on the Report of the Medical Inspector. This Report deals at great length and in much detail with the various statements contained in Dr. Williams's Report, and cannot be analysed here within a reasonable space. Its general tenour is fairly indicated by the conclusion, which is, "that the irritation to which his report has given rise is due, not only to its exaggerated and misleading character, but also to the censorious spirit in which it is written and to the absence of any recognition or sign of appreciation of the readiness on the part of proprietors of estates to comply with all reasonable requisitions, and their desire to meet the wishes of the Government, in spite of the well-known difficulties with which they have had to contend during the last few years." As will be seen by the answer given by Baron de Worms to Dr. Farquharson which is published at p. 1363, the Colonial Secretary does not think it desirable to send a Commission of Inquiry, and has determined on removing Dr. Williams from the office of Medical Inspector of Hospitals. It is impossible to look upon this as a satisfactory termination of the difficulty. The intemperate articles which have appeared in the Colonial press appear to show that a certain section of the planters resent all criticism, and are ready rather than tolerate it to attempt to upset the present constitution of the Medical Service of the Colony. This intemperate attitude was also evidenced by a resolution proposed by one of the members of the Combined Court to the effect that the Governor should be requested to remove Dr. Grieve from the office of Surgeon-General to the Colony because he had forwarded his report—a printed public document—to this JOURNAL.

MEDICINE IN CEYLON.

THE inaugural address of the President of the Ceylon Branch of the British Medical Association has been issued as a pamphlet; in it the Hon P. D. Anthonisz, M.D., sketched the progress of medicine and surgery in Ceylon during the last five-and-forty years. He instanced the greater precision in the diagnosis of the fevers prevalent in the island, the recognition of typhoid fever and its more rational treatment, as among the greatest advances of the period. The larger part of the address, however, was occupied with an able summary of the means of preventing the spread of small-pox, cholera, and other epidemic diseases. He strongly advocated the early and complete isolation of cases of cholera, all persons who had come in contact with patients being kept under observation for at least ten days; he laid stress on Dr. Koch's

observation that the comma bacillus grew readily in animal but not in vegetable media, observing that the last epidemic of cholera in Colombo continued so long as the water of wells sunk in the midst of dirty little habitations with cesspits and cattle sheds all around them, and the soil saturated with the excreta of man and beast, was drunk; but when these wells were closed, and water from unaffected localities was supplied, the disease subsided, notwithstanding that the cakes and other farinaceous food which had been cooked in and were exposed to the air of the room where the sick person was, were freely used, thus showing that the bacillus could only be cultivated in animal matter, and that it would not grow on starch or farinaceous food. The flies would otherwise, he thought, have been a source of contagion, as they settled in drains full of the discharges of the patients and the washings from the rooms, and afterwards on the food. He also stated that Dr. Koch's opinion that the only way to destroy the bacillus was drying was confirmed by the observation that cholera never reappeared in huts with mud floors, where the ground was thoroughly baked by lighting fires on it; in former epidemics these huts had constantly afforded instances of recrudescence. The readiness to apply the latest results of scientific research to practice is in itself a striking proof that the medical profession in Ceylon has advanced with the rest of the world; further evidence of this enterprising spirit is afforded by the appearance of the *Ceylon Medical Journal*, published quarterly. The fourth number of this periodical, completing the first volume, was issued in May, and contains many excellent papers on topics of general or special interest. The first paper, by Assistant-Surgeon Gratiaen, on Some Cases of Anchylostomiasis, affords interesting confirmation of Dr. Kynsey's view, that these parasites are a frequent as well as a very effective cause of severe anæmia; in all cases of anæmia in hospital the fæces are examined for the ova, and when these are discovered, a calomel purge (gr. vii in divided doses) is given at night, followed by senna mixture in the morning; then 30 grains of thymol is administered and repeated in two hours. Iron and digitalis or strophanthus are given for a week or ten days, and the fæces again searched; if ova are found the treatment is repeated; recoveries from "an almost hopeless condition" are reported under this line of treatment. The proceedings of the Ceylon Branch of the British Medical Association are reported in the *Ceylon Medical Journal*, and it is satisfactory to learn that the first year of the journal's existence has been successful.

DISPENSING DEATH.

A LAMENTABLE case of gross negligence was disclosed at an inquest held on Wednesday on the body of an unfortunate man named Brewster, the proprietor of a public-house at Lewisham. It seems that a certain Mr. Malcolm Cowan, who said he was a medical student at King's College Hospital, and had been a dispenser for five years, prescribed for this unfortunate man, who "did not feel well and thought his liver was out of order," a seidlitz powder with five drops of liquor strychniæ. Mr. Cowan seems to have gone into a chemist's shop kept by a Mr. Henry in the district, and asked Mr. Eugene Henry, aged 22—who said he had been apprentice to his father for three years and his assistant for three years—to make up a draught containing the alkaline part of a seidlitz powder in a two-ounce phial, and to add five drops of liquor strychniæ. Hereupon Mr. Henry made up a draught containing not five drops of liquor strychniæ but five grains of strychnine in solution. And this probably intensely poisonous solution he labelled "the draught," acting therein upon Mr. Cowan's suggestion; he did not mark it "poisonous," neither did he make any observation to Mr. Cowan, his excuse being that he allowed his judgment to be overweighed by the order of Mr. Cowan, whom he supposed to be a medical man. All parties are alike blameable in this tragedy, Mr. Cowan for under-

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taking to prescribe under the circumstances, and Mr. Eugenio Henry is chiefly and most fearfully to blame in putting up, under whatever misunderstanding, five grains of strychnine into a two-ounce bottle, which he labelled "the draught," without making any observation to Mr. Cowan, and without labelling it "poison." The authorities of the Pharmaceutical Society ought, we think, to take some notice of this matter. We have seldom had to record so full and so fatal a case of neglect in dispensing.

ENGLISH PRACTITIONERS IN SWITZERLAND.

DR. F. R. HOLLAND, writing from St. Moritz and referring to a telegram which we published in our issue of June 9th, to the effect that a law permitting a limited number of English doctors to practise has been carried by an enormous majority, says:—"Having initiated the action both legally and by personal canvass of the Grosse Rath, or Grand Council, which has led to a friendly concession from them, kindly permit me to place before your readers the exact position of affairs, for otherwise an erroneous impression is nearly sure to prevail. 1. The decision of the Grosse Rath is not really a law, it is only an order (*ordnung*) made to suit a special case, and does not apply to medical men generally. 2. The action of the Government of one Canton in a case of this sort in no way holds good of any other part of Switzerland. 3. The law in the Grisons which prevents foreign practitioners from practising unless they hold a Federal diploma is still in force. Now, with regard to this same law which has been the subject of much criticism, I must say something in its favour, although I personally have suffered from its application. Its object is not only to interfere with the existence of quacks, but also to prevent alien doctors from taking the bread out of the mouths of the native medical men. From the Swiss doctors' point of view, their health-resorts afford a happy hunting ground to needy practitioners from southern winter places—men who bring nothing to the country, but take all they can out of it. They do not help to develop a new place, and they often interfere with the prosperity of the established cure places. These are the men that the authorities and the people desire to keep out. On the other hand, the relief just granted to the English doctors in the Engadine for establishing winter stations there is an earnest that, where a medical man can prove that his presence is a real desideratum, special privileges for practising shall be granted to him."

AN EXHIBITION OF GROWING BACTERIA.

THE following description of the collection of bacteria which Professor Soyka, of the Hygienic Institute of Prague, is at present exhibiting at Brussels and Copenhagen, has been sent us by a correspondent at Prague. Each collection contains about 60 pure cultivations, each in 3 to 5 specimens, and consists of 2 groups, namely, in round glass boxes on potatoes or Soyka's milk rice (10 parts of rice flour, 15 of milk, and 5 of beef-tea, fractionally sterilised, forms a beautifully white homogeneous surface), and, secondly, in flat, round flasks in gelatine, agar-agar, and blood serum. The former ones are produced in the following manner: the nutritive materials mentioned are put into cylindrical glass boxes (of the shape of pill-boxes), with exactly fitting lids, sterilised and inoculated. When the desired growth has taken place they are hermetically closed in the following manner: a circular glass plate is heated to about 100° or 120° C., and put on the glass box at the same moment that the lid is removed. The latter is quickly cleaned, heated to 150° to 170°, and placed on the hot plate face downward. As soon as it can be held with the hand for a moment, it is dipped into melted paraffin, and, whilst the plate is removed with the left hand, put on the box with the other hand. The rim is hermetically closed by painting on paraffin. The cultivations remain pure and able to germinate (latent) for an indefinite period, so far observed for two years and

a half. The second group (Soyka's Dauerplatter) is prepared in circular flasks flattened on two sides, with cylindrical necks, filled with gelatine or agar to about two thirds. After liquifying these substances, and whilst they are cooling, six to seven dilutions of the materials to be inoculated are prepared in beef-tea; the first to sixth dilution is inoculated, and after solidification has taken place, whilst the flask is lying on one of its flat sides, the mouth of the neck is dipped into paraffin and hermetically closed. The colonies grow isolated and energetically. The most important point is the finding of the right dilution in order to get only a small number of colonies, which can be examined microscopically. Professor Soyka claims for his method the following advantages: 1. Possession of a museum for demonstrations; 2. existence for a long time of pure, unchangeable material for inoculations; 3. possibility of fixing the duration of the latent life of the organisms; 4. possibility of creating the most intense processes of growing, and of observing the same for an indefinitely long period.

TUBERCULOUS ULCERATION OF THE VULVA,

DR. M. ZWEIFBAUM, of Warshan, records a case of this rare manifestation of tuberculosis in the *Berliner Klin. Wochenschrift*, May 28th, 1888. The patient came under his observation in 1885, but the year before had been treated for fungous ulceration of the vaginal portion of the uterus. Paquelin's cauterisation was used, and the patient was discharged "cured." She was thirty-two years old, and had had five children. On admission under Dr. Zweifbaum's care there was a deep, painful ulcer just within the left posterior vaginal wall, forming a cavity an inch and a half long and an inch deep, together with cauliflower excrescences of the portio vaginalis. The left labium minus was almost destroyed by ulceration, and microscopic examination of a portion revealed abundant tubercle bacilli. The apex of the right lung showed obscure signs of phthisis on auscultation and percussion. The spleen was somewhat enlarged, and the patient was feverish. In five months death ensued from exhaustion, the lungs having shown further alterations. There had been purulent expectoration, and towards the end œdema of the lower limbs. Syphilis was positively excluded in this case, which was examined by several colleagues. Dr. Zweifbaum has carefully examined the literature of the subject, and finds only two cases of tuberculous ulceration of the vulva recorded (Deschamps, Chiari). Taking into account the vagina and cervix uteri, twenty-nine cases of primary disease are recorded by various observers, and a short synopsis of each case is here given. The disease is by no means rare in the course of general tuberculosis, but is rare when primary. Cohnheim gives one case, Fernet four cases, of infection by coitus. Others are ascribed to examinations, syringing by nurses who are tuberculous or much in contact with tuberculous patients. Numerous cases are recorded as having occurred immediately *post partum*. Intercourse with phthisical patients appears also to be more or less dangerous; for example, by the use of the same bedclothes, closets, or baths. Auto-infection may also occur from the sputa or feces, and thus a secondary tuberculosis may be set up. Frerichs disputes the possibility of infection from without, and argues that it takes place by conduction from the Fallopian tubes, more rarely the uterus. The stages successively occupied by infectious material are very difficult to make out, because each organ or part successively traversed may show no trace of the virus afterwards, the nidus being unsuitable. We do not yet know the conditions which favour the establishment of the tuberculous process in a particular part. It is probable that certain pathological processes induce a predisposition for tuberculous, as in the lungs. Thus comments Dr. Zweifbaum on his case, which teaches us above all the value of cleanliness, or rather the great dangers which attend its absence.

SCOTLAND.

SMALL-POX IN KILMARNOCK.

A CASE of small-pox has been discovered in Kilmarnock. It was that of a football player of Preston, who came to Glasgow on Saturday, the 2nd inst., to play in a match, but was prevented by illness, which has since been found to be due to small-pox. He was removed to hospital, and all necessary precautions were taken.

VISIT OF THE QUEEN TO GLASGOW.

THE QUEEN has intimated her intention of visiting Glasgow in order to inspect the International Exhibition, on August 23rd. The arrangements for the visit have not yet been made public, but it is hoped that in addition to inspecting the exhibition, Her Majesty may consent to open the New Municipal Buildings.

VICTORIA INFIRMARY.

AT a meeting of the executive committee of the Victoria Infirmary it was intimated that subscriptions to the building fund now amounted to £25,000. Estimates for the building were considered and accepted, and it was arranged that in view of the expected visit of the Queen to Glasgow an effort should be made to get Her Majesty to lay the foundation-stone.

CHILDREN'S FRESH-AIR FORTNIGHT.

THE committee carrying out this scheme in Glasgow have, since May 15th, sent 776 of the neediest children to the country for a fortnight, and marked success is attending the development of the scheme. The system of boarding out the children with respectable cottagers is succeeding admirably.

THE UNIVERSITY OF BOLOGNA.

THE delegates from Glasgow at the octo-centenary of the University of Bologna were Professors Ramsay, Ferguson, and Jebb, the last-named also representing the University of Cambridge. Professor Jebb, in honour of the event, has composed a very elaborate and beautiful Greek Pindaric ode, in which he eulogises the University of Bologna for the distinguished part it played in the revival of learning, law, and medicine. At the end of the poem he makes graceful allusion to the connection of Glasgow with Bologna—the constitution of the former University being originally drawn by Pope Nicholas V. in 1451 on the model of that of Bologna. This fact is again referred to in a Latin address of congratulation sent by the Senate of the University of Glasgow to the Rector and Senate of the University of Bologna, and which concludes thus:—*"Liceat igitur Universitati nostræ, ut, felicissimum hoc nancta gratulationis offerendæ tempus, simul gaudii quod omnibus commune est, se participem esse declaret, simul proprio quodam sensu arctioris instincta necessitudinis, tanquam matri venerandæ filia caritatem atque amorem testificetur."*

IRELAND.

THE LOCAL GOVERNMENT BOARD INSPECTORSHIP.

DR. ROBERT CLEMENTS, medical officer to No. 1 Dispensary, Belfast, has been appointed an inspector under the Local Government Board, in room of Dr. E. Thompson, resigned.

BELFAST WATER SUPPLY.

THERE has been a very copious rainfall in the neighbourhood of Belfast during the past two or three weeks, and some dissatisfaction has been expressed at a meeting of the Water Board that measures have not been taken to store supplies in the new reservoirs at Stoneyford. Some difficulty regarding the report of the

Local Government arbitrator is the alleged cause of this apparent neglect.

IRISH BRANCH OF THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.

THE annual meeting of the Irish Branch of the British Medical Temperance Association was held at the Royal College of Surgeons of Ireland on June 8th. The report read by Dr. MacDowell Cosgrave, Honorary Secretary, stated that the number of members and associates had increased during the year. The President (Deputy Surgeon-General Gunn) expressed a wish that more students would join as associates. The object of the Association is to promote investigation of the alcohol question, which was of great importance in its relation to the health of the nation, and of especial interest to members of the medical profession and students of medicine.

DR. MAGNER.

THE Local Government Board having declined to sanction the appointment of Dr. Magner to the Timoleague Dispensary, the County and City of Cork Medical Protective Association have passed the following resolution: "That we regard any attempt by a public board to exact any pledges, political or otherwise, from a registered medical practitioner who is a candidate for a medical appointment as an undue interference with professional rights; that we believe the requirements of a pledge unconnected with the discharge of his professional duties not to be in the interests of the sick poor, and we feel confident no honourable member of our body would enter into an engagement that would subject him to civil disabilities; and we are further of opinion that the acceptance of office under such conditions would be derogatory to the profession."

KIDDERMINSTER AMBULANCE CLASSES.—Dr. J. Lionel Stretton has recently conducted ambulance classes for men and women in Kidderminster with great success. The male class, numbering 72, of whom 69 went up for examination and 67 passed, expressed their gratitude by presenting Dr. Stretton with a pair of bronze trays. The female class, numbering 40, presented 15 candidates for examination, of whom all passed.

LARGE VESICAL CALCULUS.—At a recent meeting of the St. Petersburg Medical Society, Dr. H. J. Turner showed (*Vratch*, No. 15, 1888, p. 298) an enormous ellipsoid stone weighing ten ounces, and consisting of urates and oxalates. It was removed from the bladder of a man, aged 32, by suprapubic operation. The patient survived twenty-six days. At the *post-mortem* examination both kidneys were found full of pus, and disorganised by extensive cystic degeneration.

SANITARY SURVEYORS AND INSPECTORS.—At the examinations held by the Sanitary Institute this month 10 candidates presented themselves for certificates of competence as local surveyors, of whom only 2 were successful; 65 candidates presented themselves for certificates of competence as inspectors of nuisances, of whom 46 were successful.

DEATH FROM CHLOROFORM.—The death of a woman aged 35, when under the influence of chloroform, occurred last week at St. Bartholomew's Hospital. The deceased, the wife of a bricklayer, was suffering from an abscess in the neck. Chloroform was administered with every precaution, but the woman almost immediately died.

ON the occasion of the presentation of medallions and certificates to the successful pupils of the St. John Ambulance Association class at Newark Dr. F. H. Appleby was presented with a silver tea-kettle and salver, as a token of appreciation of the services rendered by him in connection with ambulance work in Newark.

WE understand that Mr. Henry A. Allbutt, of Leeds, has initiated legal proceedings with the view of compelling the General Medical Council to restore his name to the *Medical Register*.

THE LATE GERMAN EMPEROR.

CLINICAL HISTORY OF THE CASE.

THE first definite symptoms of the illness which, on June 15th, deprived Germany of a truly enlightened ruler and the world of a most noble-hearted man appear to have shown themselves in January, 1887. There is said to be a somewhat remote history of cancer in the family, and for many years the late Emperor suffered from a certain delicacy of the throat. In 1886 he had an attack of measles, from which he recovered without any bad after-effects, but it was noticed that he never quite regained the high spirits for which he had before been remarkable. In the latter part of the same year he suffered from a succession of obstinate "colds," which finally culminated in such extreme and persistent hoarseness that his physician in ordinary, Dr. von Wegner, called in Dr. Carl Gerhardt, Professor of Medicine in the University of Berlin and a recognised authority on diseases of the throat. On laryngoscopic examination a small growth was seen springing from the left vocal cord and interfering with its action. This was in great part destroyed by electric cautery, and in the spring the illustrious patient was sent to Ems, where it was hoped that the waters would complete the cure. The symptoms, however, returned with greater severity, and the growth increased in size so rapidly that suspicion of its being malignant was excited. Professor Ernst von Bergmann, the leading surgeon in Berlin, and soon afterwards Professor Tobold, one of the pioneers of laryngology, were consulted, and it was agreed that an operation was desirable in order to determine the nature of the disease, and, if possible, extirpate it. With this view it was proposed to perform thyrotomy in the first place, and, if necessary, to follow this up by such further surgical measures as the circumstances of the case might seem to call for. Before carrying this plan into execution, however, the medical attendants being fully alive to the vast responsibility of their position, were anxious to have the advice of some laryngoscopic authority whose opinion would command general respect. It was unanimously decided to call in Sir (then Dr.) Morell Mackenzie, who accordingly proceeded to Berlin on May 20th. He found a sessile growth about the size of a split pea, but oval in shape, situated on the posterior extremity and inner surface of the left vocal cord, the mobility of which was distinctly impaired. There was general congestion of the mucous membrane of the larynx. Dr. Mackenzie did not consider the clinical evidence decisive one way or other as to the character of the affection, and suggested that before any further steps were taken a portion of the growth should be removed through the mouth and examined microscopically. He succeeded in thus extracting two or three fragments, which were at once submitted to Professor Rudolf Virchow. That eminent pathologist having failed to find any trace of malignant structure in them, it was unanimously agreed that Dr. Mackenzie should take the case into his own hands for a time, and should attempt to eradicate the disease without external operation. In June the Emperor (then Crown Prince) came to England, and Dr. Mackenzie removed the remaining portion of the growth. After examination, this was, on July 1st, pronounced by Professor Virchow to be a "hard compressed warty growth that has started from a moderately irritated and thickened surface, and the examination of its base has not afforded the least support for the idea of a new formation penetrating inwards." The voice was at this time so much improved that, on July 14th, the Prince, in visiting the Throat Hospital, made a little speech to the patients in which he expressed a hope that they might be cured as quickly as he had been. The larynx, however, remained somewhat irritable, and the whole throat showed a tendency to become congested on very slight provocation.

At the beginning of August there were signs of recurrence of the growth, and Dr. Mackenzie applied the electric cautery on two occasions with the result of destroying it entirely. The Prince then went to the Isle of Wight, the climate of which, however, proved too relaxing, and his throat gave him a good deal of trouble. Dr. Norris Wolfenden, who attended him while there, observed a slight thickening of the mucous membrane at the back of the larynx in the form of a ridge extending horizontally from the base of one arytenoid cartilage to the other. The action of the vocal cord was still somewhat defective, as it had been in Berlin. The bracing air of Braemar was next tried, and considerable improvement took place in the local condition; the thickening just mentioned was absorbed, the congestion of the larynx disappeared, and the affected cord moved more freely. Early in

September, however, there was a relapse, and on the 18th of that month, while the Prince was at Toblach in the Tyrol, Mr. Mark Hovell, who had succeeded Dr. Wolfenden, noticed a swelling half-an-inch below the left cord and parallel with its free border. This increased in size; o-dema of the left aryteno-epiglottic fold supervened, and there was some constitutional disturbance. The acute symptoms passed off in a few days, and the Prince proceeded to Italy. Towards the end of October, active hyperæmia of the whole interior of the larynx came on somewhat suddenly; the swelling under the left cord increased in size and began to ulcerate, and a reddish projection was noticed below the right cord. Early in November the appearances were so ominous that it was thought expedient to have further advice, and Professor Leopold von Schrötter of Vienna, Dr. Moritz Schmidt of Frankfurt, and Dr. (now Professor) Hermann Krause were summoned to San Remo. After consultation the diagnosis of cancer of the larynx was arrived at, and the propriety of a radical operation was discussed. The illustrious patient having fully considered the question, decided not to submit himself to any procedure involving immediate risk to life, but to take his chance with treatment of a purely palliative kind. From this point onwards the disease made steady progress, with occasional exacerbations of the symptoms owing to the intercurrent development of inflammatory processes in various parts of the larynx. These, in the early part of this year, became so pronounced as almost entirely to mask the essential disease, and hopes were entertained by some of the physicians that the affection might after all prove to be one of perichondritis depending on chronic laryngitis of exceptional severity.

About the end of January the glottis began to be encroached on to a serious extent, and on February 9th, tracheotomy became necessary. Professor von Bergmann was telegraphed for, but before he could reach San Remo the dyspnoea became so urgent that the operation was performed by Dr. Bramann in the presence of Sir Morell Mackenzie, Dr. Krause, Dr. Schrader, and Mr. Hovell. The Prince did not rally from the effects of the operation for some time, and it became clear that the general health was beginning to give way. It was feared that secondary formations had developed in the lungs; but Professor Kussmaul, who was summoned, could find no evidence of such a complication. Soon afterwards, however, Professor Waldeyer, to whom in the absence of Professor Virchow, the microscopic examination of the expectorated matters had been entrusted, pronounced the laryngeal affection to be cancerous. The tracheotomy wound was for a few days in a very unhealthy state, and there was a good deal of suppuration. Great difficulty was experienced in finding a tube to fit comfortably in the wound, and finally Sir Morell Mackenzie was obliged to fashion one with his own hands. The illustrious patient thereupon recovered his appetite, and was able to sleep; and he regained his strength to such a degree that when his father, the Emperor William, died on March 9th he insisted on returning at once to Germany, although the weather was most inclement. At Charlottenburg the new Emperor was able for a time to discharge many of the duties of his exalted position, and he threw himself into the conduct of State affairs with such energy that his physicians were anxious to get him away from the neighbourhood of Berlin. On April 13th the tracheotomy tube became partially blocked by a mass projecting into its lower end, and some difficulty occurred in replacing it by a longer one. There was a good deal of hæmorrhage, the blood finding its way into the lungs and setting up bronchitis. Diffuse suppurative inflammation of the loose tissue surrounding the trachea ensued, and for some days there was considerable pyrexia with occasional rigors. Apprehensions were felt that pyæmia was setting in, but the general condition improved on the establishment of a profuse purulent discharge which continued more or less till the end. In May the inflammatory element in the case underwent a notable abatement, and there was a pause in the progress of the disease for two or three weeks. At this time Professor Virchow again examined some of the discharge, without finding in it anything that to his mind was a proof of cancer. On June 8th it was obvious that a fresh complication had occurred; difficulty of swallowing came on, and it was thought that perforation into the œsophagus had taken place. On June 9th Trendelenburg's tampon cannula was substituted for the ordinary tracheotomy tube with the view of preventing the food from escaping into the air-passages. The Emperor meanwhile was losing ground very fast, and on the 13th Sir Morell Mackenzie had to feed him with the

oesophageal tube. On the evening of the 14th pneumonia rapidly supervened and death took place on the forenoon of the 15th.

The medical men in attendance on His Imperial Majesty at the time of his death were Sir Morell Mackenzie, who had been constantly with him since the beginning of February, and who has throughout had the responsible management of the case with the exception of the period immediately following the operation of tracheotomy; Professors von Bardeleben, Senator, Leyden, and Krause; Drs. von Wegner and Schrader, and Mr. Mark Hovell. During the last few months Sir Morell Mackenzie has been on duty during the day, while Mr. Hovell has watched at night. In addition to the above-mentioned gentlemen, the following members of the profession have at one time or another been connected with the case: Professors Gerhardt, von Bergmann, von Schrötter, Kussmaul, Virchow, Waldeyer, Drs. von Lauer, Tobold, Bramann, Moritz Schmidt, Landgraf, and Norris Wolfenden. Dr. Robert C. Myles, an American physician, also examined the late Emperor's throat on one occasion when he was in England.

The *post-mortem* examination, which was made on June 16th by Professor Virchow and Dr. Langerhaus, in the presence of Sir M. Mackenzie, Drs. von Wegner, von Bardeleben, von Bergmann, Waldeyer, and Bramann, and Mr. Hovell, proved that the disease was cancer complicated by suppurative inflammation of such intensity that the whole structure of the larynx was destroyed, its place being taken by a large abscess-cavity. Although a summary of the results of the *post-mortem* examination has already appeared in the daily newspapers, we regret that we are unable to give the full report, as orders were issued at the last moment that it should not be published.

Before the necropsy was made Sir Morell Mackenzie, at the request of Prince Bismarck, drew up the following report on the case, which he presented to the new Emperor, and which was deposited among the State archives:

"In my opinion the disease from which the Emperor died was cancer. The morbid process probably commenced in the deepest tissues of the cartilaginous structures of the larynx, and they became affected at a very early date. A small growth, which was present when I first examined the late Emperor, was removed by me by several operations, and all the portions taken away were submitted to Professor Virchow. He was unable to detect in them any evidence of the existence of cancer. Examinations made at the beginning of March by Professor Waldeyer, however, led to the belief that cancer was then present. Whether the disease was originally cancerous or assumed a malignant character some months after its first appearance it is impossible to state. The fact that perichondritis and caries of the cartilages played an active and important part in the development of the disease no doubt largely contributed to make it impossible to form a decided opinion as to its nature till quite a recent date.

"MORELL MACKENZIE."

To this report was appended the following statement from Mr. Hovell:—

"In so far as my observations since last August permit me to form an opinion, I concur entirely with Sir Morell Mackenzie's view."
"T. MARK HOVELL."

The subjoined account, which we have received from Sir MORELL MACKENZIE, of the closing events of the late Emperor's illness will be read with particular interest:—

"A few days before the Emperor left Charlottenburg, he began to lose ground, a tendency which continued to show itself after His Majesty arrived at Potsdam. There was, however, nothing alarming in the symptoms until the early morning of June 8th, when Professor Krause (who in the absence of Mr. Hovell was sitting up with the Emperor) observed that, in drinking milk, some of it passed down the trachea into the lungs, producing violent coughing, whilst some came out directly through the tracheal wound. During the day His Majesty was able to swallow solids moderately well, but in taking liquids, the greater part was lost in the way already described. It was generally agreed that a fistula had developed, but Sir Morell Mackenzie suggested the possibility that the liquid might pass directly into the larynx through the epiglottis not acting properly.¹ He, however, agreed with his colleagues that in all probability ulceration had taken place through the posterior surface of the larynx into the oesophagus. On the evening of the 9th, in the presence of Professors Bardeleben, Leyden, and Krause, and Generalarzt von Wegner, Sir Morell Mackenzie inserted a tampon cannula, which was immedi-

¹ This suggestion eventually proved to be correct.

ately inflated. After this no fluid passed down the trachea, but in drinking, nearly all the liquid taken still passed into the larynx and escaped by the side of the cannula. On the 10th the condition remained unchanged, and on the following morning it was unanimously agreed that Sir Morell Mackenzie should attempt to feed the Emperor with an oesophageal tube. A tendency of the posterior wall of the trachea to bulge forwards and thus obstruct the lower orifice of the cannula having been lately noticed it was believed that this structure was very soft, and it was thought that a false passage might easily be made. Hence it was considered that the passing of an oesophageal tube would not be unattended with danger.² Nevertheless, the operation was carried out with perfect success, and from Monday, June 11th, till Friday, June 15th, at 6.30 A.M., His Majesty was regularly fed with condensed milk, cream, beef-tea, eggs, and whisky.

On Tuesday, in the middle of the day, it was noticed that the Emperor's breathing became obstructed, and this difficulty gradually increased, till at 7 P.M. it became serious. It had been arranged in the morning that in the evening a longer tube, which had been prepared a day or two previously, should be inserted; and Sir Morell Mackenzie intended waiting till 10 P.M. in order that he might introduce it in the presence of Professor Bardeleben, who was expected at that hour. At 9 P.M., however, the breathing became so bad that Sir Morell Mackenzie found it necessary to take immediate steps, without waiting for the Professor. Before changing the tube, Sir Morell Mackenzie determined to try if he could alter the position of the cannula after inserting a pilot through the tube. The attempt was perfectly successful. On inserting the pilot it was discovered that the posterior wall of the trachea projected against the lower end of the cannula and partially covered its orifice. By tilting the cannula forwards Sir Morell Mackenzie succeeded in releasing the lower end of the tube from the projecting surface of the trachea, and the breathing at once became perfectly easy.

The pulse became very quick and the breathing rapid, and on the night of Wednesday, June 13th, it was evident that pneumonia had set in. The temperature on that evening was 103°, whilst on the two or three previous nights it had varied between 101° and 102°. From this date it was only a question of struggling on for a day or two, and at a quarter past eleven on Friday morning the illustrious patient passed away.

During his long and tedious illness, in which the prospect of recovery was repeatedly darkened by sudden relapses, no word of complaint ever passed his lips, no sign of impatience was ever seen. His medical attendants and faithful servants will always cherish the recollection of his grateful acknowledgment of services which ordinary patients exact as a right."

A CENSUS OF REGISTERED MEDICAL PRACTITIONERS IN ENGLAND AND WALES.

A REPORT has recently been issued by the Statistical Committee of the General Medical Council which contains a great deal of curious information about the distribution of medical practitioners in England. A comparison has been made between the census of the profession in 1881 and in 1886, and the present report contains the results for England and Wales; subsequent reports will deal with Scotland and Ireland.

Number of Practitioners and Proportion to Area and Population.—The number of registered practitioners increased from 15,022 in 1881 to 16,930 in 1886, an increase of 21.7 per cent., or 2.42 per cent. per annum; the population only increased at the rate of 1.40 per cent. per annum, so that whereas the average number of persons to each practitioner in 1881 was 1,747, in 1886 it had sunk to 1,662, and consequently each practitioner had on the average 85 potential patients less than in 1881. The same fact is expressed in another way by the statement that the net increase of the profession during the quinquennium was 826 beyond what was requisite to keep pace with the population; this is equal to an annual excess of 165 a year.

Distribution in Districts.—The first point to be settled is whether this increase is general or has been confined to certain districts. For this purpose the whole country has been divided into eleven districts: (1) LONDON; (2) SOUTH-EASTERN DISTRICT

² This supposed soft condition of the walls was not found after death, and it is probable that the bulging of the posterior wall was due to the destruction of the cricoid cartilage and the upper rings of the trachea, in consequence of which the posterior wall of the windpipe was no longer properly supported.

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(Sussex, Hampshire, Berkshire, and the extra-metropolitan districts of Kent and Surrey); (3) SOUTH MIDLAND (Herts, Bucks, Oxfordshire, Northamptonshire, Huntingdonshire, Bedfordshire, Cambridgeshire, and the extra-metropolitan portion of Middlesex); (4) EASTERN (Essex, Suffolk, and Norfolk); (5) SOUTH-WESTERN (Wilts, Dorset, Devon, Cornwall, and Somerset); (6) WEST MIDLAND (Gloucestershire, Herefordshire, Shropshire, Staffordshire, Worcestershire, and Warwickshire); (7) NORTH MIDLAND (Leicestershire, Rutlandshire, Lincolnshire, Nottinghamshire, and Derbyshire); (8) NORTH-WESTERN (Cheshire and Lancashire); (9) YORKSHIRE; (10) NORTHERN (Durham, Northumberland, Cumberland, and Westmoreland); (11) WALES. In only two of these districts did the proportion of registered practitioners to the population decrease; these were the North Midland and the Northern; in two, the South Midland and the Eastern, the proportion was practically unaltered, though showing a slight decrease in both; in the remaining nine districts there was an increase varying from $9\frac{1}{2}$ to $3\frac{1}{2}$ per cent.; the increase was most considerable in Yorkshire, and least, curiously enough, in the neighbouring counties of Lancashire and Cheshire.

Relative proportion of Urban and Rural Practitioners.—In 1881 there were 6,179 registered practitioners in the twenty-eight large towns, and 8,843 in the rural districts; in 1886 there were in the towns, 7,120; and in the rural districts, 9,810. The proportion of the profession in the towns had thus slightly increased (41.14 per cent. in 1881, and 42.06 per cent. in 1886); during the quinquennium, however, the population had been gravitating towards the towns, but not quite so fast as the medical practitioners, the average number of persons in the towns to each practitioner having been 1,360 in 1881, and 1,284 in 1886. The country practitioners had also increased in relation to the population, from 1 to 2,017 in 1881, to 1 to 1,936 in 1886.

Urban Practitioners.—Brighton enjoys the doubtful honour of possessing more medical practitioners, in proportion to its population, than any other town in England or Wales; out of every 727 living souls in that salubrious town, one is a duly qualified and registered practitioner of medicine. It is probably to its very reputation for salubrity that Brighton owes this extraordinarily dense population of "doctors," for it ought to be stated that it is the only health-resort which appears on the list of large towns. London stands next to Brighton, with 1 registered practitioner to every 939 people; this is partly owing, no doubt, to the large floating population of newly qualified men still engaged in study. The only towns in which the proportion of practitioners to the population has notably decreased are Manchester, Bradford, Preston, and Leicester. In Liverpool, Hull, Blackburn, and Sheffield, there has been a slight decrease; in all the other towns an increase. In connection with the decrease in Manchester, it ought to be noted that there has been an enormous increase, more than one-third, of practitioners in Salford, which however still has fewer than any other large town (1 to 3,908 people).

Rural Practitioners.—As has been said above, the increase in practitioners in rural districts has been, relatively to the population, slower than in the large towns; but an examination of the table in which the figures are set out for each county show many strange and apparently capricious variations. Thus there has been a notable decrease in such apparently dissimilar counties as Middlesex and Surrey on the one hand, and Derby and Northumberland on the other. Somerset, Devon, Hants, and Westmoreland, are the counties most copiously supplied; Durham, Derby, Flint, and Stafford, the least. During the five years, practitioners seemed to have flocked into Westmoreland, Cardiganshire, the East Riding, and Berks; while Derbyshire, Northamptonshire, Durham, Nottinghamshire, and Worcestershire, were apparently out of favour.

Number and Source of the Qualifications held.—This section of the report is of little or no value, owing chiefly to the deliberate choice of the Council, which, though charged with the duty of keeping its Register correct and exacting an enormous fee for the insertion of a name for the first time in the Register, yet refuses to make the necessary additions to the Register unless an additional fee is paid. This unjust and impolitic exaction is resented, and consequently the *Medical Register* remains utterly valueless as a gauge of the advance of the profession in this matter of qualifications and degrees. The mean and pettifogging spirit which dictated this paltry policy would be ridiculous if it had not a more serious aspect; the money now spent in providing free lunches for the members of the Council (as though the councillors were vestrymen!) would more than recoup any loss which might

be incurred if the Council thus fulfilled the spirit as well as the letter of its statutory obligations. So far as the statistics on this head can be trusted to prove anything, they tend to show that double qualifications and treble qualifications had grown more common. There also appears an increased tendency to obtain qualifications north of the Tweed.

Death-Rate and Fluctuation in the Number of Practitioners.—No direct relation could be traced between the death-rate of a district and the number of practitioners in it; the death-rate did not always decline as the number of practitioners increased or *vice versa*, and the report contains an expression of the opinion that there is "a limit to the requisite number of practitioners to produce the most beneficial results."

Miscellaneous Sections.—The report also contains sections on practitioners holding foreign qualifications; on practitioners in practice before 1815 (only seven altogether, of whom three had no qualification); and on the circumstances in which the profession is placed as regards the financial condition of the several divisions, so far as this is indicated by the rateable value per head of the population. This last section is unfortunately very inconclusive; the valuation for poor-rate is given for each division, and an elaborate equation is framed, but as three out of the six factors are unknown, and apparently undiscoverable, the equation is of no more practical value than a chess-problem. Each division of the subject is fully illustrated in carefully prepared tables, and there are three coloured plates showing in a striking manner some of the facts above embodied in figures.

The report, reflects the greatest credit on the ability and industry of the Registrar, Mr. W. J. C. Millar, and his assistants. It may be obtained, together with Minutes of the Council and its Committees from January 1st, to June 1st, 1888, from Messrs. Spottiswoode & Co., publishers to the Council, or from the office, 299, Oxford Street.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary meeting of the Council was held at the College on Thursday, June 14th. The minutes of the ordinary council, held on May 10th were read and confirmed.

Reports from the Court of Examiners on those found qualified at the recent examinations for the diplomas of Fellow and Member of the College were read, and it was resolved to issue the diplomas to those gentlemen whose names were contained in the respective reports.

The report of the Museum Committee was received, and it was resolved, as recommended therein, that the Museum Committee be authorised to employ persons specially qualified for the duty to complete the catalogues of the birds, reptiles, amphibia, and fish in the Museum.

A report was read from the Committee on the Extension of the College Premises, which was approved and adopted by the Council.

The Committee reported that a difficulty having arisen with the occupiers of No. 45 Lincoln's Inn Fields on the question of air and light as affected by the building of the proposed Museum on the site of houses Nos. 8 and 9, Portugal Street, at the rear of houses Nos. 43 and 44, Lincoln's Inn Fields, a proposal sanctioned by the Council at a cost of £10,000 on February, 1887, it became necessary to consider an alternative scheme for the erection of New Museums on the site occupied by No. 8, Portugal Street and No. 43, Lincoln's Inn Fields; and the Committee, having examined those plans, recommended that two Museums should be erected on the last-named site at an approximate cost of £7,500 for the smaller museum at the back of the premises and of £11,000 for the larger museum, with its frontage in Lincoln's Inn Fields. The Committee further reported that, as it would probably not be possible to obtain possession of the front house, No. 43, Lincoln's Inn Fields until Michaelmas Day, 1889, the construction of the smaller museum ought first to be undertaken, whereby the cost of the whole undertaking would be spread over a longer period. The Committee further recommended the Council to authorise an expenditure for installation of electric light in the ground and first floors of the main building and basement of new library, painting and decorating old libraries, and alteration of railing to library gallery, amounting altogether to £839 14s. 7d.

The following gentlemen were nominated for election in July as professors and lecturers during the forthcoming year:—Present holders of the officers, Professors Bryant, Barker, Stewart, Lockwood, Jessop, Sutton, Cheyne, Mr. Ballance (Erasmus Wilson Lecturer), Mr. Gunn (Arris and Gale Lecturer), of whom Professors

Bryant, Jessop, and Cheyne, and Mr. Gunn are not candidates for re-election. Mr. E. Hurry Fenwick and Mr. Priestley Smith were also nominated. It was referred to a committee, consisting of Messrs. Hutchinson and Hill, together with the President and Vice-Presidents, to consider the appointment of professors and lecturers, and to report to the Council on the nominations.

A letter was read from Mr. Marshall, President of the General Medical Council, reporting, as the representative of the College, the proceedings of that Council at its late session. The letter was received and ordered to be entered on the minutes, and the best thanks of the Council were given to Mr. Marshall for his services as the representative of the College in the General Medical Council.

A letter was read from Mr. Marshall, President of the General Medical Council, forwarding a memorandum prepared by him on the disciplinary or penal powers of the Qualifying Medical Authorities, and it was resolved to refer the memorandum to a committee, consisting of Messrs. Marshall, Hulke, and Heath, with the President and Vice-Presidents, to report thereon to the Council.

A letter was read from Mr. C. L. Peel, forwarding a copy of a Draft Supplemental College Charter, as revised by the law officers of the Privy Council, and requesting to be favoured with any observations which the Council of the College may have to offer thereon before it is submitted to the Lords of the Council. The Council approved of the Draft Supplemental Charter as revised by the legal advisers of the Privy Council.

A letter was read from Surgeon-General Wm. Robert Cornish, F.R.C.S., Hon. Secretary and Treasurer of the College of State Medicine, requesting, by direction of the Council of that College, that the Council of this College will assist in procuring the insertion into the Local Government Bill of a clause requiring that all medical officers of health appointed after a certain time should be required to possess a diploma in public health.

THE PAY SYSTEM IN HOSPITALS.

A DISCUSSION on a paper recently read by Mr. Burdett-Coutts, M.P., on the advisability of introducing a system of small payments by patients in our great hospitals, in view of the present serious financial difficulties of these institutions, took place on Wednesday last at St. Thomas's Hospital.—Dr. STEELE, medical superintendent of Guy's Hospital, said this self-help system had worked most successfully at Guy's, and he could scarcely exaggerate the importance of the moral argument in favour of it. Indiscriminate medical relief had the same evil effect on a people as indiscriminate almsgiving.—Mr. J. NIXON, Secretary of the London Hospital, said that his hospital had recently adopted a system of inspection of and inquiry into the means of patients attending the out-patients' department, in order to prevent abuse of the charity. From this department they kept out all who could afford to pay, but it was impossible to clear the inwards of persons who were relatively well-to-do.—Prebendary BARNES thought that a Commission should be appointed to decide what steps should be taken. He believed that some degree of payment, as advocated by Mr. Burdett-Coutts, would then be recognised as a necessity.—Dr. GEORGE STOKER recommended that patients should be charged a sum proportioned to their means; this cast the onus of proving inability to pay on the patient himself, and not on the hospital.—Sir S. WATERLOW said all agreed that none should receive charitable medical relief who could afford to pay for it, but he thought there should be separate institutions, one for the reception of paying patients and another for free cases.—Dr. JAMISON referred to the Cottage Hospital at St. Helen's, Lancashire. Of an income of £1,206, working men combined to contribute £800 by weekly payments, and he held it was equally possible for men to combine in London for the same purpose.—Mr. H. C. BURDETT said the London hospitals now derived £44,000 a year from patients' payments; but there were still between three and four thousand beds which were perforce unoccupied in London. He strongly urged the systematic collection of weekly subscriptions from workmen.—Dr. WALSH opposed the system as a general practitioner.—Dr. BRISTOWE coincided in the view of Sir S. Waterlow.—Mr. BURDETT-COUTTS, M.P., said the system prevailed everywhere throughout the civilised world except in England, and he denied that the pay system would injure the general practitioner. Any general hospital which confined itself to the poor patient, excluding others, was adopting a form of the pay system; but one person in four in London received hospital treatment, and could it be maintained they were

all really destitute, and, as such, proper objects of charity? He asked whether hospitals were to remain pauperising institutions, dependent on the adventitious aid of charity.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agar Street), London, on Wednesday, the 18th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June 14th, 1888.

NOTICE OF QUARTERLY MEETINGS FOR 1888. ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member *by the Council* or by any recognised *Branch Council*.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

REPORTS upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The twenty-first annual meeting of this Branch will be held at Penrith on Friday, July 13th. The chair will be taken by Dr. McLeod at 1.30 P.M. The usual election of office bearers for the year will be held. Dr. Robertson, Penrith, will deliver his presidential address. Intimations of papers for reading or communications of any kind should be sent to the Secretary as soon as possible.—H. A. LEDIARD, 41, Lowther Street, Carlisle, Honorary Secretary.

BATH AND BRISTOL BRANCH.—The annual meeting of the Branch will be held on Thursday, June 28th, at the Royal Mineral Water Hospital, Bath, at 4.30 P.M., when G. F. Barber, M.D., will resign the chair to Jos. Hinton, Esq., President-elect. The business of the meeting will be to receive the report of the Council; to elect the Officers of the Branch; to transact the necessary business; and to discuss such subjects connected with the interest of the Branch and of the profession as may be brought before it. The Honorary

Secretaries will feel much obliged if members will kindly send them notice of any alterations in their diplomas or addresses. N.B.—Members who have not paid their subscriptions are requested to do so immediately to the Local Secretaries, in order that the accounts may be made up before the anniversary meeting of the Association. The dinner will be held at the Grand Pump Room Hotel, Bath, at 6.30 P.M.—R. J. H. SCOTT, Honorary Secretary for the Bath District, 13, Bladud Buildings, Bath; E. MARKHAM SKERRITT, Honorary Secretary for Bristol District, Thornton House, Richmond Hill, Clifton.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.—The annual meeting of this Branch is appointed to be held at Ely on Friday, July 6th. Members wishing to make communications, to exhibit specimens, or to propose new members are requested to signify their intention to Dr. Anningson, Cambridge, for insertion in the order of proceedings.—BUSHELL ANNINGSON, Honorary Secretary.

EAST ANGLIAN BRANCH.—The annual meeting will be held in the Town Hall, Eye, on Friday, June 29th. Edgar George Barnes, M.D., Lond., President-elect, 12.30 P.M.; Meeting of Council in Council Chamber of Town Hall, 1 P.M.; Luncheon in Town Hall, by invitation of Town Hall. Agenda: 1. Address by General Meeting in Council Chamber of Town Hall. 2. Business. 3. President's Address. On the Etiology of Diphtheria. 4. Rev. Donald Campbell, M.A., Vicar of Eye, on the Etiology of Diphtheria. 5. Rev. Donald Campbell, M.A., Vicar of Eye, on the History of Eye. 6. F. Bateman, M.D. (Norwich); Obscure Case will take part in the discussion. 7. H. Dickman, M.B., C.M. (Eye), of (Edematous Laryngitis); Tracheotomy. 8. T. H. Morse, F.R.C.S. (Norwich), will read Notes on a Case of Ovariectomy. 9. The President will show a Case illustrating the Spontaneous Cure of an Extensive Nevus. 10. Mr. G. B. Mead (Newmarket); Facts relating to the Present Position of the Profession in Relation to Bone-setting. 11. H. Dickman, M.B., C.M. (Eye), will read a Case of Phthisis complicated with a Fistulous Communication between Liver and Lung. 5.30 P.M., Visit to Eye Church and inspection of members in the Church. 6 P.M., Tea Vestry. The Vicar of Eye will meet the members in the Church. Tickets, 5s. each.—W. A. ELLISTON, M.D., Ipswich; M. BEYERLE, M.D., Norwich; C. E. ABDOTT, Braintree, Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH.—The thirty-sixth annual meeting of this Branch will be held at the Holborn Restaurant on Wednesday, June 27th, 1888, at 5.30 P.M. President, Arthur E. Durham, Esq., F.R.C.S.; President-elect, C. Brodie Sewell, M.D. An address will be given by the new President. At 7 P.M. precisely the members will dine together: C. Brodie Sewell, Esq., M.D., President, in the chair; tickets, 7s. 6d. each, exclusive of wine.—GEORGE EASTES, M.B., 69, Connaught Street, W.; E. NOBLE SMITH, F.R.C.S. Ed., 24, Queen Anne Street, W., Honorary Secretaries.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Wednesday, July 11th, at 4 P.M. Business: 1. To receive the Secretary's report and the Treasurer's statement for the past year. 2. To elect office-bearers for the ensuing year. 3. To elect two members as representatives of the Branch on the Council of the Association, and also the representatives on the Parliamentary Bills Committee. 4. The President (Dr. J. M. Palmer) will deliver an Address. 5. Dr. O'Neill will show a Patient operated on for Extensive Disease of Foot, and also a Patient operated on for Cleft Palate, and will read notes of each case. 6. Dr. W. A. McKeown will show a New Apparatus for Intra-ocular Irrigation in the Extraction of Cataract. He will also show some cases in which Senile Cataract has been extracted without Iridectomy. 7. Mr. Fagan will show a Patient on whom he recently performed Resection of the Wrist-Joint. He will also show a Portion of Bowel, the Seat of Cancerous Stricture removed for Intestinal Obstruction, and give notes of the case; and a Portion of the Saphena Vein removed, and presenting some features of pathological interest. Dr. Byers will show the Instruments employed for the Electrical Treatment of Fibroid Tumours of the Uterus after the Method of Apostoli. The annual dinner will be held on the same evening at 7.30 P.M. in the Royal Avenue Hotel; tickets, ss. 6d. (exclusive of wine).—JOHN W. BYERS, M.D., Lower Crescent, Belfast, Honorary Secretary.

NORTH WALES BRANCH.—The annual meeting will be held at Dolgelly on or about July 10th. Members having any communications to bring before the meeting are requested to intimate the same before June 30th to W. JONES-MORRIS, Honorary Secretary, Portmadoc.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held at the Spa Hotel, Strathpeffer, on Thursday, July 5th, at 1.50 P.M. Papers will be read by Dr. Porteus Fox, Strathpeffer, Cases of Venesection, and Dr. Leslie H. Milne, Forre, Notes on the Weir-Mitchell Treatment. A visit will also be paid to the Spa.—J. W. NORRIS MACKAY, M.D., Honorary Secretary, Elgin.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Library of the Royal Berkshire Hospital, Reading, on Wednesday, July 11th, at 4.15 P.M. The chair will be taken by the President (Dr. C. H. Tench), who will introduce the President for the coming year (W. B. Holderness, Esq., of Windsor), who will then take the chair. Members willing to read short papers or bring forward cases of clinical interest are requested to communicate with the Honorary Secretary without delay. The annual dinner will take place on the same evening at 6.15 P.M., at the Queen's Hotel, Reading. Dinner tickets (5s. without wine, or 10s. including wine) should be obtained from the Honorary Secretary on or before Saturday, July 7th.—H. HEYGATE PHILLIPS, 43A, London Road, Reading, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The annual meeting of this Branch will be held at the Devon and Exeter Hospital, Exeter, on Tuesday, June 26th, under the presidency of Dr. John Woodman, F.R.C.S. Notices of motion or communications to be intimated to the Honorary Secretary without delay, and it will facilitate arrangements if members will inform the Honorary Secretary as soon as possible if they hope to be present at the meeting. The

following motion was passed at the Council Meeting on May 2nd:—"That inasmuch as the annual meeting assumes more or less the character of a day of recreation, and with a view of encouraging the district meetings, the business of the annual meeting shall be confined to the President's address, the business of the Branch, the exhibition of cases or of specimens with notes, and the annual dinner."—P. MAURY DEAS, Wouford House, Exeter, Honorary Secretary.

SOUTH WALES AND MONMOUTH BRANCH.—The eighteenth annual meeting of this Branch will be held at the Infirmary, Cardiff, on Wednesday, June 27th. Further particulars in circulars. Members wishing to read papers, etc., are requested to send titles to Dr. SIEGHEN.—A. SIEGHEN, M.D., Cardiff, D. ARTHUR DAVIES, M.B., Swansea, Honorary Secretaries.

SHROPSHIRE AND MID-WALES BRANCH.—The annual general meeting of this Branch will be held at the Salop Infirmary, Shrewsbury, on Tuesday, July 3rd, at 2 P.M. The annual dinner will take place at the Raven Hotel after the meeting. Members desirous of contributing papers, notes of cases, etc., are requested to communicate with the undersigned.—EDWARD CURETON, Honorary Secretary, Shrewsbury.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Squier Hotel, Wellington, on Thursday, June 28th, at 4 o'clock. Abraham Colles, Esq., M.D., President-elect, will take the chair on his being vacated by Edward Stephens, Esq. The dinner will be at 6 o'clock. Members desirous of reading a paper or making a communication to the meeting are requested to give early notice to the Honorary Secretary; they are also requested to give early notice of their intention of attending the annual dinner.—W. M. KELLY, M.D., Honorary Secretary.

YORKSHIRE BRANCH.—The annual meeting of the Yorkshire Branch will be held in the Museum of the Yorkshire Philosophical Society at York on Wednesday, June 27th, at 3 P.M., when the following business will be transacted: 1. An address by the President-elect. 2. Election of officers. 3. Addition to rules. And the following papers read:—Dr. Churton: A Case of Scirrhus of Pylorus with Excessive Vomiting; repeated Saline Transfusions. Mr. H. Benedick Hewetson: Recent Precautions in Cataract Operations. Dr. James Braithwaite: The Treatment of Exceptional Cases of Retroflexion of the Uterus. Mr. A. W. Mayo Robson: Electrolysis in the Treatment of Uterine Disease. Mr. Atkinson: Ichthyosis Hystrix of the Tongue. Mr. Draper: Suppurating Dermoid Cyst of the Ovary; Ovariectomy; Recovery. Dr. E. H. Jacob: Laryngeal Neuroses.—ARTHUR JACKSON, Secretary, Sheffield.

MIDLAND BRANCH.

The annual meeting was held at the Masonic Hall, Nottingham, on Thursday, June 14th, under the presidency of Mr. HATHERLY. About fifty members were present.

Officers and Council.—Mr. Sympton and Dr. Webb were elected as the Branch representatives on the General Council. In the Branch Council Dr. Pratt and Mr. Franklin replaced Mr. Willan and Dr. Pope for Leicestershire, and Mr. Shipman and Dr. Fawcett replaced Dr. Harrison and Mr. Pilden for Lincolnshire. Mr. Willan (Melton Mowbray) was chosen as President-elect. The Honorary Secretaries and Treasurers were re-elected, with the exception of Mr. Hodges, who retires, and is replaced by Dr. Pope (Leicester).

New Members.—Mr. W. H. B. Brook, Mr. H. Child, Mr. G. N. Robins, Mr. C. Bernard Dalton, Dr. Lamb, Dr. Pegler, Mr. J. F. Knight, and Dr. Rothera were elected members of the Branch.

Alteration of Rule.—On the proposition of Mr. HATHERLY, seconded by Dr. HANDFORD, Rule 6 was amended as follows, namely, "The Vice-Presidents shall be elected annually for each county not already represented by the President or the President elect, and they shall not be eligible for re-election."

President's Address.—Mr. HATHERLY gave an address on Abdominal Surgery.

Papers.—The following were brought before the meeting:—Professor EDGAR M. CROOKSHANK, "On the Alleged Origin of Certain Diseases from the Lower Animals." Dr. FRANK POPE, "A Case of Diabetes, probably of Traumatic Origin." Mr. R. C. CHICKEN, "New Form of Bone Forceps for Sequestromy." Dr. GEORGE ELDER, "Remarks on Cases of Peritonitis Treated by Abdominal Section." Dr. H. HANDFORD, "The Influence of Position on Cardiac Murmurs, and on the Treatment of Heart Disease."

Luncheon and Dinner.—The President entertained the members at luncheon, and after the meeting about twenty-two dined at the Masonic Hall.

SOUTH MIDLAND BRANCH.

The annual meeting was held at Bletchley on June 14th under the presidency of Mr. H. VEASEY, thirty-two members and visitors being present, who were entertained at luncheon by the President before the meeting.

New Members.—Eight gentlemen were proposed and elected members of the Association and Branch, namely, Arthur Lucas, Woburn; T. G. Parrott, Aylesbury (Branch only); J. H. Lloyde, Bedford; H. R. Jacobs, Culworth; H. Gibbons, Desborough; J. A.

Whitfield, Northampton; A. E. Godfrey and A. J. Weatherley, The Infirmary, Northampton.

Election of Officers.—Mr. Crew, Higham Ferrers, was appointed President for 1889-90; Dr. Bryan was placed on the Committee of Management in the room of Mr. Crew, all the other members of the Committee, as well as the Hon. Treasurer and Hon. Secretary, being re-elected; Mr. J. Hughes Hemming, Kimbolton, was appointed representative of the Branch on the General Council and on the Parliamentary Bills Committee.

Combined Meeting.—The Cambs and Hunts Branch proposed a combined meeting this year, but declined to meet at Bletchley as being an inconvenient place, suggesting at the same time that a united gathering of the two Branches be held in the near future either at Bedford or Peterborough. The matter was referred to the Committee of Management.

Donations to British Medical Benevolent Fund and Royal Medical Benevolent College.—The sum of £5 from the Branch funds was voted, to be equally divided between these two institutions.

Luency Acts Amendment Bill.—After some discussion the following resolution was carried, on the motion of the Branch representative, and the Secretary was directed to convey the sense of the meeting to the Chairman of the Parliamentary Bills Committee:—(1) "That the South Midland Branch in annual meeting assembled, having full confidence in the members of the Parliamentary Bills Committee, and believing that their efforts are directed to the benefit of the medical profession in general, and that of the British Medical Association in particular, endorses their action in the matter of the Luency Acts Amendment Bill, 1888, and hereby pledges itself to try and secure the support of the local members to the same in its passage through Parliament."

Autumnal and Annual Meetings.—It was resolved that the autumnal meeting be held at Oundle on October 4th; and that the next annual meeting take place at Northampton.

President's Address.—The PRESIDENT delivered a short extempore address, alluding in the course of it to his having previously occupied the presidential chair.

Papers and Cases.—Mr. MILLIGAN read a case of Strangulated Umbilical Hernia, with recovery after operation for radical cure, and exhibited a large mass of omentum he had removed from the sac.—Dr. GOLDSMITH read a short paper on a Question as to the Etiology of some Nervous Diseases of Children, suggesting the idea of instability of the nervous system in such cases, arising from great inequality in the ages of the parents.—Many members joined in the discussion, pointing out the possibility of a hysterical element, of mimicry, and of the influence produced by syphilitic taint and alcoholism.—Dr. GOLDSMITH, in his reply, stated that in none of his cases was there a trace of syphilis or alcoholism.—Dr. JONES read a paper on Physical Indications in Heart Affections, dwelling particularly on diagnosis and treatment. Under the latter head, he said that the value of rest was not to be over-rated, and recommended in certain cases the hypodermic injection of liquor strychnia, in two-minim doses.—Mr. BULL read an interesting case of Obscure Abdominal Tumour: Abdominal Section: Recovery. He mentioned the great difficulty of diagnosis in the case. In this and Mr. Milligan's case, the members discussed the question of the danger or otherwise of opening the abdomen; also the use of antiseptics in such operations.—Mr. PERCIVAL related two cases of Removal of Tumour; one of Sarcoma in the parotid region, on which three successive operations had been performed; the other a case of Fibro-Sarcoma in the popliteal space. In the latter case, the connections of the diseased mass with the blood-vessels and nerves running through it were of the most intimate character.

Votes of Thanks.—Cordial votes of thanks were passed to the retiring President for his services during the past year; to the President for his address and his conduct in the chair, and also for his hospitality; and to the readers of papers.

Surgical Instruments.—A large selection of surgical instruments was displayed by Messrs. Lynch and Co., of London; a case of Hypodermic Syringe and Solutions, by Messrs. Green and Co.; Eclectic Medicines, by Messrs. Hockin, Wilson, and Co.; and various Essences, by the "Viking" Food Company.

Tea and coffee were served, and a successful meeting brought to a close.

The death is announced, at the early age of 37, of Dr. Ross, for eleven years the highly respected Medical Officer for Blackpool.

SOUTHERN BRANCH.

THE fifteenth annual meeting of this Branch took place at the Grosvenor Hotel, Southsea, on Thursday, June 15th, when there was a large attendance of members. Before the commencement of the business, the President-Elect, Mr. H. Burford Norman, entertained those present at luncheon. At the general meeting which followed the chair was taken by Surgeon-General Sir THOMAS LONGMORE, C.B., F.R.C.S., of Netley.

Election of Officers.—Dr. J. WARD COUSINS (Hon. Secretary) having read the minutes of the last meeting, Dr. J. WATSON, of Southsea, moved that the following gentlemen, nominated by the respective districts, should be elected as officers of the Branch for the ensuing year, namely:—*Vice-Presidents*: Brigade-Surgeon C. H. Godwin, Netley; and Dr. H. P. Blackmore, Salisbury. *Members of Council*: Dr. W. H. Axford, Southsea; Dr. C. G. Beaumont, Shirley; Mr. F. R. P. Darke, Salisbury; Dr. J. Neal, Sandown; Mr. G. H. Snowden, Mr. H. Hemsted. Dr. Ward Cousins was unanimously re-elected Honorary Secretary and Treasurer. The motion was seconded and carried.

Representative on General Council, etc.—Dr. Nicholson, of Broadmoor, was re-elected representative of the Branch on the Parliamentary Bills Committee, and Drs. Trend, of Southampton, and J. Ward Cousins were again chosen representatives on the Council of the Association.

The Late Professor de Chaumont.—Dr. TREND moved a resolution deeply deploring the death of their much beloved member and vice-president, the late Professor de Chaumont, whose singularly high intellectual powers, versatility of genius, and practical skill were blended with a keen sense of humour, which made him in any society a host in himself, and recording deep sympathy with Mrs. de Chaumont in her bereavement.—Dr. AXFORD seconded the motion.

Cases, etc.—Brigade-Surgeon HARMAN, of Winchester, gave particulars of the rapid healing of a gunshot wound. A small revolver accidentally went off, and the left hand was pierced by the bullet.—Dr. WARD COUSINS also mentioned a new apparatus of his invention for dealing with of the lower jaw.

The New President.—The PRESIDENT then left the chair, and introduced his successor, Mr. Burford Norman.

Next Meeting.—It was resolved on the motion of Brigade-Surgeon GODWIN, seconded by Dr. KEALY, that the meeting of 1889 should take place at Salisbury.

The President's Address.—The PRESIDENT then delivered an address on the progress of the medical profession during his own time, and from his own standpoint of observation. The British, originally the Provincial, Medical Association was founded in 1832 in the city of Worcester, and he recollected something about it as early as 1836, when a Branch was formed in the district of West Somerset, where his lot then lay. The Association then published an annual volume of transactions, but had no journal. From being provincial the Association became British, and its progress had been very marked. In welding into one fellowship the members of their profession scattered throughout the whole British Empire and its dependencies, it had added immensely to the influence of the profession both socially and politically, while doing much to promote science and practical medicine. His own connection with the profession dated from Michaelmas, 1835. When he began his apprenticeship the stethoscope was but little used except by hospital physicians and newly educated men just fresh from the schools. About that time, when Dr. Hope was making his elaborate studies in heart disease, aided by its use, the editor of a then influential medical review nicknamed it the "conjuring stick." Anaesthetics were not known, and sanitary science almost unthought of. He did not think there was much cause to complain of the moral tone of the profession or the lack of kindly feeling and mutual respect of its members. In that large town he believed there were scarcely any two men who were not on friendly terms with each other, and ready to render mutual assistance. The local hospital had recently undergone great and important alterations well calculated to promote its efficiency, both in the treatment of diseases and as an educational institution.

Vote of Thanks to President.—Sir THOMAS LONGMORE, in moving a vote of thanks to the President for his address, said he recollected a physician of one of the large London hospitals carrying a stethoscope round the wards as a bouquet-holder for the purpose of depreciating and ridiculing the instrument.—Dr. KEALY seconded the resolution, which was carried, and the PRESIDENT, in reply, said that it was a great satisfaction to

him that he had been thirty-one years in Portsmouth, and he was able to say there was none in the profession whom he could not call his friend.

Sight-seeing and Refreshment.—The members were then driven to the new Jubilee wards of the hospital, and afterwards proceeded to Portsmouth Dockyard, where Fleet-Surgeon Sedgwick entertained them at tea. After visiting the *Victory*, the *Vernon*, and other objects of interest, the party returned to the Grosvenor Hotel for dinner.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

THE fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc.(Hon.), F.K.Q.C.P.I., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate.

An Address in Medicine will be delivered by Thomas Clifford Allbutt, M.D., F.R.S., Consulting Physician, Leeds General Infirmary.

An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

An Address on his "Recent Investigations in Surgery" will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

All the rooms required for the purposes of the meeting will, by the kindness of the authorities, be provided in the University of Glasgow.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

- 9.30 A.M.—Meeting of 1887-1888 Council. Randolph Hall.
- 11.30 A.M.—First General Meeting. Report of Council. Reports of Committees. Bute Hall.
- 4 P.M.—Service in the Cathedral. Sermon by the Very Rev. John Caird, D.D., LL.D., Principal and Vice-Chancellor of the University of Glasgow.
- 8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address. Bute Hall.

WEDNESDAY, AUGUST 8TH, 1888.

- 9.30 A.M.—Meeting of 1888-89 Council. Randolph Hall.
- 10.30 A.M. to 2 P.M.—Sectional Meetings.
- 3 P.M.—Second General Meeting. Address in Medicine by Thomas Clifford Allbutt, M.D., F.R.S. Bute Hall.
- 9 P.M.—*Conversazione* given by the Professors of the University.

THURSDAY, AUGUST 9TH, 1888.

- 9.30 A.M.—Address on his Recent Surgical Investigations by William Macewen, M.D. Bute Hall.
- 11 A.M.—Meeting of Council. Randolph Hall.
- 10.30 A.M. to 2 P.M.—Sectional Meetings.
- 3 P.M.—Third General Meeting. Address in Surgery by Sir George H. B. Macleod, M.D. Bute Hall.
- 7 P.M.—Public Dinner. St. Andrew's Hall.

FRIDAY, AUGUST 10TH, 1888.

- 10.30 A.M. to 1.30 P.M.—Sectional Meetings.
- 3 P.M.—Concluding General Meeting. Address in Physiology by John G. McKendrick, M.D., F.R.S. Natural Philosophy Class-room.
- 9 P.M.—*Conversazione* given by the Corporation of Glasgow at St. Andrew's Hall.
- Garden Party given by the Faculty of Physicians and Surgeons at the Botanic Gardens.
- SATURDAY, AUGUST 11TH, 1888.
- Excursions.

The following discussions and papers are promised up to the present time.

SECTION A.—MEDICINE.

Humanity Class Room.

A. MEDICINE.—*President*, Professor T. McCall Anderson, M.D. *Vice-Presidents*, R. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries*, J. McGregor Robertson, M.A., M.B., 400, Great Western Road, Glasgow; Robert M. Simon, M.D., 27, Newhall Street, Birmingham.

The President will open the proceedings by introducing a discussion on the Diagnosis and Treatment of Syphilitic Disease of the Nervous System. Dr. Thomas Buzzard, Dr. T. S. Clouston, Dr. William Moore, Dr. Ross, Professor Grainger Stewart, Professor Julius Dreschfeld, Dr. J. G. Sinclair Coghill, Dr. Francis Warner,

Dr. Frederick Bateman, Dr. C. R. Drysdale, and Dr. C. W. Suckling will take part in the discussion.

On the third day of the sectional proceedings, the Value of Inhalations in the Treatment of Lung Disease is set down for discussion, to be opened by Dr. C. Theodore Williams. The following gentlemen have already indicated their intention to engage in this discussion: Dr. Burney Yeo, Dr. W. W. Ireland, Dr. C. F. Knight, Dr. J. A. Lindsay, Dr. J. G. Sinclair Coghill, and Dr. E. Markham Skerritt.

Drs. Byrom Bramwell and Milne Murray will give a demonstration of their Method of Graphically Recording the Exact Time Relations of Cardiac Sounds and Murmurs.

The following papers have been promised.

- COGHILL, J. G. S., M.D., Ventnor. The Treatment of Phthisical Pyrexia.
 - COUPLAND, Sidney, M.D. A Case of Subphrenic Abscess.
 - FISLAY, David W., B.A., M.D. Bronchiectasis treated by Incision and Drainage.
 - FREW, W., M.D., Kilmarnock. Prevalence of Cerebro-spinal Fever in Scotland.
 - GREENE, G. E. F., L.K.Q.C.P. A Note on a Recent Epileptic of Erysipelas.
 - HANDFORD, H., M.D. The Influence and Position on Cardiac Murmurs and the Condition of the Heart in Anaemia (Chlorosis).
 - HARRISON, A. J., M.B. Further Researches on the Treatment of Tinea Testicularum. Illustrated with photographs.
 - JONES, A. Orlando, M.D. A New Remedy for Heart Disease.
 - MYRTLE, A. S., M.D., Harrogate. Neurasthenia, True and False: Diagnosis and Management.
 - STRAHAN, John, M.D. (*Title not received.*)
 - SECKLING, C. W., M.D. Notes on Peripheral Neuritis and on its occurrence in Brassworkers.
 - TOMORY, J. K., M.B. East African Fever, with special reference to Climatic Conditions.
 - WARNER, Francis, M.D. 1. Methods of Studying and Examining the Nerve System. 2. Imbecility in Children from Chronic Meningitis.
- Sir W. Roberts, Dr. Lauder Brunton, Dr. Russell Reynolds, and Dr. F. W. Pavy have also intimated their intention to take part in the proceedings of the Section.

SECTION B.—SURGERY.

Chemistry Class Room.

B. SURGERY.—*President*, George Buchanan, M.D. *Vice-Presidents*, James Dunlop, M.D.; Charles Robert Bell Keetley, F.R.C.S. *Honorary Secretaries*, David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pye, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

As already announced, in this Section discussions have been arranged for on the following subjects:

1. The Surgical Treatment of Abscess of the Lung and of Empyema. To be introduced and supported by Mr. T. Pridgin Teale (Leeds), Sir Spencer Wells (London), Mr. A. Pearce Gould (London), Mr. R. J. Godlee (London), Dr. J. Ward Cousins, Portsmouth, and Mr. W. Thomas (Birmingham).
2. The Operative Treatment of Club-Foot. To be introduced and supported by Sir William Stokes (Dublin), Mr. E. Lund (Manchester), Dr. Alexander Ogston (Aberdeen), Mr. R. W. Parker (London), Mr. E. M. Little (London), Mr. John Chiene (Edinburgh), Mr. W. J. Walsbam (London), and others.

The following papers have also been promised.

- BEXTON, Samuel, Esq., London. On the Treatment of Stricture of the Rectum by Electrolysis.
- BISHOP, E. Stanmore, Esq., Manchester. Some Cases of Osteotomy, with an Apparatus for fixing the Lower Limbs after Division of the Bones.
- BROWNE, G. Buckston, Esq., London. An Explanation of the way in which Calculi in the Male Urinary Bladder sometimes escapes Detection by the Sound, with a description of a New Form of that Instrument.
- BROWNE, Lennox, Esq., London. Tintage of the Larynx.
- CLARKE, Sir Andrew, London. The History of a Case of Catheter Fever.
- CLARKE, W. Bruce, Esq., London. Prostatic Abscess and its Consequences.
- COUSINS, J. Ward, M.D., Portsmouth. (1) New Apparatus for Treatment of Fractures of Lower Jaw; (2) New Evacuator for Litholapaxy and other Bladder Operations.
- FENWICK, E. Henry, Esq., London. Notes from the Experience of 450 Cases of Organic Stricture of the Urethra.
- FLEMING, W. J., M.D., Glasgow. 1. On Continuous Extension in Spinal Curvature. 2. On the Treatment of Perineal Fistula.
- HARRISON, Reginald, Esq., Liverpool. On an Improvement in the Construction of Ships' Berths, relative to the Treatment of some Surgical Injuries and Diseases at Sea (with models).
- KEETLEY, C. B., Esq., London. Plastic Amputations of the Foot.
- LLOYD, Jordan, Esq., Birmingham. Inflammatory Disease of the Seminal Vesicles.
- MCINTYRE, John, Esq., Glasgow. The Electric Illumination of the Cavities of the Body.
- OWEN, Edmund, Esq., London. A Case of Intra-cranial (Subdural) Haemorrhage; Localisation; Trephining; Recovery.
- PEARSE, T. Frederick, Esq., M.D., London. (1) On Puncture of the Bladder; (2) On Gonorrhoea in Women.
- RAKE, Beaven, M.D., Trinidad. The Value of Nerve Stretching in Leprosy, based on One Hundred Cases.
- RENTON, J. Crawford, Esq., M.D., Glasgow. A Case of Severe Deformity of Lower Lip restored by Mr. Teale's operation six years ago.
- ROTH, Bernard, Esq., London. On Scolio-ometry, or an Accurate and Practical Method of Recording Cases of Lateral Curvature of the Spine.

SMITH, Noble, Esq. Demonstration of the Reduction of Fractured Vertebrae, and the application of Apparatus to Control the Spine.
 STOKES, Sir William, Dublin. Modification of Griffith's Amputation; and will show Casts of Stumps.
 TAIT, Lawson, Esq., Birmingham. A Second Series of One Thousand Consecutive Abdominal Sections.
 THOMSON, Wm., Esq., M.D., Dublin. On Excision of the Knee-joint.
 THORNBURN, Wm., Esq., Manchester. The Distribution of Paralysis and Anæsthesia in Injuries of the Cervical Region of the Spinal Cord.
 VALCOURT, Th. de, Esq., M.D., Cannes. Winter Sea-baths at Cannes in cases of Scrofulous Disease.

SECTION C.—OBSTETRIC MEDICINE.
Medical Jurisprudence Class Room.

C. OBSTETRIC MEDICINE.—*President*, Thomas More Madden, M.D. *Vice-Presidents*, William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries*, William Walter, M.D., 20, St. John Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

The following two special discussions will take place:—

1. On Intra-uterine Death; its Pathology and Preventive Treatment. To be opened by Professor Simpson. The following gentlemen will take part in the discussion:—Drs. R. Barnes, Graily Hewitt, More Madden, W. O. Priestley.

2. On Obstructive Dysmenorrhœa and Sterility. To be opened by Dr. Halliday Croom. The following gentlemen will take part in the discussion:—Drs. Aveling, Bantock, F. Barnes, R. Barnes, Cranny, Duke, Edis, Graily Hewitt, Macan, More Madden, Professor Stephenson, J. W. Taylor, W. Walter.

Dr. Samuel Sloan (Glasgow) will show his Antero-posterior Compression Forceps, and will explain their use in Flat Pelves.

Wm. Walter, M.D., Manchester, will exhibit his instruments for Securing the Broad Ligaments during Extirpation of the Uterus per Vaginam.

The following papers are promised.

AVELING, J., M.D. The Treatment of Uterine Tumours by Electricity.
 BARNES, R., M.D. Analogies between Menstruation and Gestation and Puerperia in their Physiological and Pathological Relations.
 CAMERON, Murdoch, M.D., Glasgow. 1. On Cesarean Section, with Notes of a Successful Case. 2. On the Thermostatic Nurse, with Cases.
 DUKE, A., F.R.C.S., Dublin. On the Rapid Expansion of the Cervical Canal by a New Method.
 HART, D. Berry, M.D., Edinburgh. Successful Case of Cesarean Section (Porro's modification).
 IMLACH, Francis, M.D., Liverpool. The Function of Anæmia in Gynæcology.
 KENNEDY, Hugh, M.D., Dublin. Notes on the Treatment of Lacerations of the Cervix Uteri.
 MADDEN, More, M.D., Dublin. On the Causes and Treatment of Pseudocystitis.
 ROUTH, A., M.D. Headaches of Pelvic Origin.
 STEPHENSON, William, M.D., Aberdeen. On the Influence of Permanganate of Potass on Menstruation.
 TAIT, Lawson, Esq., Birmingham. The Treatment of Uterine Myoma.

SECTION D.—PUBLIC MEDICINE.
Greek Class Room.

D. PUBLIC MEDICINE.—*President*, Henry Duncan Littlejohn, M.D. *Vice-Presidents*, James Christie, M.D.; D. Page, M.D. *Honorary Secretaries*, Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

1. Sanitary Legislation. This discussion will be introduced by the Opening Address of the President of the Section.

2. The Communicable Diseases Common to Man and Animals, and their Relationships. Discussion to be opened on the second day of the sectional meetings by George Fleming, LL.D., F.R.C.V.S., Chief of the Veterinary Department of the Army. Professor Edgar Crookshank, King's College, will take part in the discussion.

3. The Disposal of Sewage (a) in Large Towns; (b) in Small Towns and Country Districts. Discussion will be opened on the third day by Dr. James B. Russell, Medical Officer of Health, Glasgow.

The following papers are promised.

DRYSDALE, Charles R., M.D. 1. On Indigence as a Main Cause of High Death-rates. 2. The Berlin and Parisian Sewage Farms.
 HIME, T. W., M.B. Milk Scarlet Fever.
 KERR, Norman, M.D. Some Risks of Sanitation.
 NASMYTH, T. G., F.R.S. A Report on the Chemical and Biological Conditions of the Air of Coal Mines, together with Mortality Statistics of a Mining District, being a report to the Scientific Grants Committee of the British Medical Association.
 SIMPSON, —, M.D., Medical Officer of Health, Calcutta. On Cholera and its Fœtering Conditions in the Endemic Area.
 SUTHERLAND, J. Francis, M.D. National Sanatoria.

SECTION E.—PSYCHOLOGY.
Natural History Class Room.

E. PSYCHOLOGY.—*President*, James C. Howden, M.D. *Vice-Presidents*, James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries*, A. R. Urquhart, M.D., Murray House, Perth; Alex. Newington, M.D., Ticehurst, Sussex.

Dr. J. C. Howden, the President of the Section, will deliver an Address.

Dr. C. M. Campbell will introduce a discussion on the Uniform Recording of *Post-Mortem* Examinations in Asylum Reports.

Drs. A. Yellowlees and A. Campbell Clark will introduce the following subject: The Sexual and Reproductive Functions—Normal and Perverted—in Relation to Insanity. 1. Menstruation: its Commencement, Irregularities, and Cessation; 2. The Sexual Instinct and its Abuse; 3. Pregnancy, Parturition, the Puerperal Period, and Lactation.

Dr. Clouston will initiate a discussion on the Principle of Construction and Arrangement of an Asylum for Private Patients of the Richer Classes.

The following have promised papers: Drs. Savage, Hack Tuke, Fletcher Beach, Charles Mercier, W. J. Mickle, and Turnbull.

SECTION F.—ANATOMY AND PHYSIOLOGY.
Anatomy Class Room.

F. ANATOMY AND PHYSIOLOGY.—*President*, John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents*, R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries*, John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

C. B. Lockwood, F.R.C.S., will introduce a discussion on the Teaching of Anatomy; and will show sections illustrating the Development of the Organs of Circulation and Respiration.

The following papers are promised.

BROOKES, Henry St. John, M.D. On the Morphology of the Epitrochleo-anconeus or Anconeus Sextus (Gruber).
 BROWN, J. Macdonald, M.B., F.R.C.S. The Construction of the Cardiac Ventricles in the Mammalia.
 CLELAND, Professor, M.D., F.R.S. On the Nature of Certain Forms of Double Monstrosity.
 COLLIER, Mark P. Mayo, M.B., F.R.C.S. On the Mechanism of the Heart and Pulse.
 LANE, W. Arbuthnot, M.B., F.R.C.S. The Influence Produced by Excessive Strain upon Muscles and Ligaments (to be illustrated by specimens).
 PATERSOX, A. M., M.D. On the Position of the Vertebrate Limb, considered in the Light of its Innervation and Development.

SECTION G.—PATHOLOGY.
Law Class Room.

G. PATHOLOGY.—*President*, Sir William Aitken, M.D., LL.D., F.R.S. *Vice-Presidents*, Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries*, G. Sims Woodhead, M.D., 6, Marchhall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

Arrangements are being made to hold a discussion on Cancer originating apart from Epithelial Structures, in which Mr. Lawson Tait (Birmingham), Dr. Joseph Coats, Dr. John Carlyle (Greenock), and others are expected to take part.

The following papers have been promised.

BRUCE, Alex., M.B., F.R.C.P. Edin. On Disseminated Sclerosis.
 COATS, Joseph, M.D. On a Case of Liphæmia in Diabetes, with Suggestions as to the Source of the Fat.
 CROOKE, G. F., M.D., Birmingham. (Title not received.)
 GREVES, E. Hyla, M.D., Bonnamouth. Notes on the Pathology of a case of Pseudo-hypertrophic Paralysis.
 DELÉPINE, Sheridan, Esq. A Few Uncommon Forms of Sarcoma. (Specimens to be shown.)
 HUNTER, W., M.D. On the Pathology of Pernicious Anæmia.
 KENNEDY, —. On Case of Cystic Kidneys and Liver.
 MAPOTHER, E. D., M.D., Dublin. An Anomalous Form of Eczema.
 MAYLARD, A. E., M.B., B.S. Lond. The Results of some Bacteriological Cultivation Experiments with Iodoform.
 O'CONNOR, Bernard, M.D., M.R.C.P. Hydatids of the Spine, Liver, and Brain.
 BAKE, Beaven, M.D. Lond., Medical Superintendent of the Trinidad Leper Asylum. The Percentage of Fibrin in the Blood of Lepers.
 RUSSELL, William, M.D. The Pathology of Pernicious Anæmia.

The following gentlemen have also intimated their intention of contributing to the business of the Section by reading papers or otherwise: Professor Greenfield, Professor Roy, Professor D. J. Hamilton, Dr. William Hunter, Dr. Barrett (Edinburgh), Dr. McFadyean (Edinburgh), Alex. Edington, M.B. (Edinburgh), etc.

Demonstrations.—Dr. Alexander Bruce (Edinburgh) will give a Magic Lantern Demonstration on Diseases of the Spinal Cord; and Alexander Edington, M.B. (Edinburgh), a Bacteriological Demonstration. Arrangements are also being made for a series of Microscopical Demonstrations illustrative of Tumours, Tuberculosis etc.

Pathological Section of the Annual Museum.—Intimation has been received of the following exhibits for this Section of the Annual Museum: 1. Calculi removed by Lithotomy, by Professor George Buchanan. 2. Calculi removed by Lithotomy or by Scoop, by Professor George Buchanan. 3. Miscellaneous Objects removed from the Body, by Professor George Buchanan, namely: Bullets,

Needles, Cases of Teeth, Impacted Pessaries, etc., also Isolated Bones of the Tarsus Excised. 4. Rhinoplasty; Wax Cast, by Professor George Buchanan. 5. Bladder and Urethra showing False Passages. 6. Selected Specimens from the Private Collection of Professor W. T. Gairdner. 7. A Series of Specimens of Tumours of the Brain, by Dr. Joseph Coats. 8. A Series of Specimens illustrative of Diseases of the Kidneys, by Dr. David Newman. 9. A Series of Specimens illustrative of Leprosy, by Dr. Beaven Rake (Trinidad). 10. A Series of Large Sections illustrating Malignant Tumours of the Lung; and a Series of Specimens illustrating Deformities of the Liver, by Drs. Woodhead and Bruce. 11. Drawings and Sections to illustrate Diseases of Bone and Joints, by Mr. F. M. Caird (Edinburgh). 12. A Series of Specimens illustrative of Diseases of the Heart, by Dr. John Lindsay Steven.

As space for the Museum is somewhat limited, gentlemen intending to send specimens should intimate their intention without delay to John Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow, Honorary Secretary of the Section of Pathology of the Annual Museum.

SECTION II.—OPHTHALMOLOGY.

Midwifery Class Room.

II. OPHTHALMOLOGY.—*President*, Thomas Reid, M.D. *Vice-Presidents*, J. R. Wolfe, M.D.; C. E. Glascock, M.D. *Honorary Secretaries*, Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Freeland Fergus, M.B., 41, Elmbank Street, Glasgow.

Mr. Brudenell Carter will open a discussion on the Treatment of Senile Cataract. Drs. Prichard, Meighan, Mason, Teale, G. Anderson Critchett, Dr. C. Lloyd Owen, Charles G. Lee, and others have promised to take part in the discussion.

The President of the Section intends to give a Demonstration of several Instruments of Use in Ophthalmic Diagnosis.

The following papers are promised.

- BICKERTON, T. H., M.D., Liverpool. Sailors and their Eyesight.
CRITCHETT, G. Anderson, Esq. Iridectomy and Sclerotomy in Chronic Glaucoma.
GROSSMANN, K. A., M.D. Colour-blindness, with a Demonstration of New Tests.
HEWETSON, B., Esq. General Neuroses of Ophthalmic Origin.
JESSOP, W. H., M.D. Ocular Headaches.
LEE, C. G., Esq. Two Cases of Foreign Bodies.
MACKAY, George, M.D., Edinburgh. A Contribution to the Study of Hemianopsia of Central Origin, with special reference to Acquired Colour Blindness.
MEIGHAN, T. S., M.D., Glasgow. On the Treatment of Symblypharon by Transplantation of Mucous Membrane from the Lip.
REXTON, J. C., M.D., Glasgow. The Value of the Cautey in the Treatment of Ulceration of the Cornea.

SECTION I.—OTOLOGY.

Biblical Criticism Class Room.

I. OTOLOGY.—*President*, Thomas Barr, M.D. *Vice-Presidents*, John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries*, Johnstone Macfie, M.D., 23, Ashton Terrace, Glasgow; James Black, F.R.C.S., 16, Wimpole Street, London.

The following special subjects have been proposed for formal discussion:

1. The Conditions calling for Perforation of the Mastoid Portion of the Temporal Bone, and the Best Methods of Operating; to be opened by Dr. F. M. Pierce, of Manchester. Mr. Peter McBride has promised a paper on this subject. Dr. D. Stewart, of Nottingham, hopes to take part in the discussion.

2. The True Value of those Aids to Hearing usually termed "Artificial Tympanic Membranes." Dr. W. L. Purves has promised a paper on this subject.

3. Adenoid Growths in the Naso-Pharynx; their Influence on the Middle Ear, and their Treatment. To be opened by Mr. Lennox Browne, F.R.C.S.Ed.

The following have promised papers.

- BROWNE, LENNOX, Esq. (*Title not received.*)
TORRANCE, R., Esq. On Syphilitic Cochleitis.
WARREN, Charles, M.D. (*Title not received.*)
Dr. Samuel Sexton, of New York, hopes to be present, and will give a communication on Excision of the Drumhead and Ossicles.

SECTION J.—DISEASES OF CHILDREN.

English Literature Class Room.

J. DISEASES OF CHILDREN.—*President*, Walter Butler Cheadle, M.D. *Vice-Presidents*, James Finlayson, M.D.; Henry Ashby, M.D. *Honorary Secretaries*, George S. Middleton, M.D., 23, Sandyford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

The following two discussions will take place:

1. Diphtheria: (a) Etiology. (b) Relationship to other Infectious

Diseases, and to other Forms of Sore Throat; Occurrence on Open Wounds and on Mucous Membranes other than those of the Throat. (c) Diagnosis. What are the Distinctive Features, especially those Distinguishing the Lesion in the Throat from other Forms of Sore Throat? Does Membranous Croup occur apart from Diphtheria? (d) Pathology and Sequelae. (e) Medical Treatment. (f) Surgical Treatment; Tracheotomy; Tubage. The medical and general aspects of the subject will be introduced by Dr. A. Jacobi (New York), and the surgical aspect by Mr. R. W. Parker (London). Messrs. E. Owen, H. R. Hutton, Lennox Browne, R. N. Pugh, and Drs. W. T. Gairdner, George Buchanan, James Finlayson, Henry Ashby, H. C. Cameron, D. Newman, Thos. Buzzard, John Macintyre, and J. S. Cameron will take part in the discussion.

2. Rickets: (a) Etiology and Prevention. (b) Its Connection with Syphilis and Scurvy. Is Enlargement of the Liver and the Spleen always present, more or less, in Rickets; or only in Cases of Syphilitic Origin? (c) Medical Treatment. (d) Surgical Treatment; at what Stage, and in what Way? Drs. Macewen, A. Ogston, L. W. Marshall, H. Ranke (Munich), Thos. Buzzard, Henry Ashby, and Messrs. R. W. Parker, H. R. Hutton, R. Haggard, E. L. Freer, John Gordon, R. N. Pugh, and W. A. Lane will take part in the discussion.

Drs. Jacobi (New York), Keating (Philadelphia), and Ranke (Munich), and Sanné (Paris), and other members of the profession on the Continent have been invited.

The following have promised papers.

- BROWNE, LENNOX, F.R.C.S. Anatomical Facts in support of Intubation in Diphtheria.
CAMERON, J. S., M.D. Etiology of Diphtheria. (1) Predisposition from Recent or Existing Disease, especially Scarlet Fever; (2) Influence of Insanitary Surroundings, especially Rise and Fall of Subsoil Water.
HAGYARD, Robert, M.R.C.S. The Effects of Sunlight on Rickets in Children and in the Lower Animals.
LANE, W. A., F.R.C.S. The Deformity of Rickets.

SECTION K.—PHARMACOLOGY AND THERAPEUTICS.

Conveyancing Class Room.

K. PHARMACOLOGY AND THERAPEUTICS.—*President*, James Morton, M.D. *Vice-Presidents*, John Dougall, M.D.; Theodore Cash, M.D., F.R.S. *Honorary Secretaries*, Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

A special discussion will be opened by Professor Theodore Cash, M.D., F.R.S., on Carbolic Acid, Antipyrin, Antifebrin, and their Allies, especially as regards their Antipyretic, Analgesic, and Antiseptic Actions. Drs. Walter G. Smith (Dublin), A. D. Macdonald, and Prosser James will take part in the discussion.

Dr. W. Allan Jamieson (Edinburgh) will show two cases of Xeroderma Pigmentosum.

It is expected that Professors Liebreich and Dujardin-Beaumetz will be present at the meeting. Dr. Dujardin-Beaumetz will contribute a paper on Phenacetin.

The following have promised papers.

- DAVISON, James, M.D. The Pine Treatment.
DOUGALL, J., M.D., Glasgow. (*Title not received.*)
DRYSDALE, C. R., M.D. 1. On the Therapeutic Value of Alcohol. 2. The so-called Abortive Treatment of Syphilis.
JAMES, J. Brindley, Esq. Scavies and its Treatment.
KERR, J. G. Douglas, M.B. Bath, a Thermal Spa.
MACDONALD, A. D., M.D. Three Cases of Poisoning.
PEARSE, T. F., M.D. The Treatment of Eczema.

SECTION L.—LARYNGOLOGY AND RHINOLOGY.

Divinity Class Room.

L. LARYNGOLOGY AND RHINOLOGY.—*President*, Felix Semon, M.D. *Vice-Presidents*, George Hunter Mackenzie, M.D.; Peter McBride, M.D. *Honorary Secretaries*, D. Newman, M.D., 18, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

The following subjects are proposed for special discussion:

1. The Use and Abuse of Local Treatment in Diseases of the Upper Air Passages. To be opened by Dr. de Havilland Hall (London) and Mr. Stoker (London).

2. The Causes, Effects, and Treatment of Nasal Stenosis. To be opened by Dr. Macintyre (Glasgow) and Mr. Creswell Baber (Brighton).

3. Hemorrhages from the Pharynx and Larynx, and other Hemorrhages which simulate these. To be opened by Dr. Percy Kidd (London) and Dr. Hodgkinson (Manchester) (probably).

The following gentlemen hope to take part in the discussions: Dr. Prosser James (London), Dr. McBride (Edinburgh), Dr. Charles Warden (Birmingham), Dr. Cartaz (Paris), and Mr. Richard Ellis (Newcastle-on-Tyne).

The following papers have been promised.

JOHNSTONE, R. Mackenzie, M.D. Account of a Case of Tumour of the Naso-Pharynx.
 McBRIDE, P., M.D., Edinburgh. On Hay-Fever and Allied Conditions.
 MACINTYRE, J., M.D. Anatomical Demonstration of the Larynx.
 NEWMAN, D., M.D. Two Cases of Complete Laryngeal Stenosis produced by Wounds of the Larynx in Attempted Suicides.
 WARDEN, C., M.D. (Title of paper not yet received.)

Members desirous of reading papers, or joining in the discussions, are earnestly requested to communicate without delay with the Secretaries of the respective Sections.

FRANCIS FOWKE, *General Secretary.*

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Antipyrin in Eye Surgery.—Balsam of Tolu as an Adjuvant to Creasote.—Carelessness in Prescribing.—Epidemic of Pelada.

At the meeting of the Académie de Médecine on May 8th, M. Grand Clément (of Lyons) communicated the results of his experiments with injections of antipyrin in the temporal region in affections of the eye. He found that this acted rapidly and certainly in relieving ocular pain, especially peri-orbital pain, and to a less extent in ocular spasm. Speedy relief was also given in many cases of keratitis, iritis, and glaucomatous irido-choroiditis; the injections were also useful in a case of old-standing hemimerania; of monocular hemeralopia, and in several cases of ties in the orbicularis palpebrarum, of anterior scleritis and sclero-choroiditis, and of floating bodies in the vitreous humour. M. Clément has made over 300 injections in the temporal region of twenty-five centigrammes of antipyrin, and half a centigramme of cocaine, mixed with ten drops of distilled water. These injections were never followed by abscess, but they always caused slight swelling at the seat of injection, which remained tender for eight or ten days. Occasionally slight œdema of the eyelids was observed. M. Clément attributes the successful results of the injections in part to this subcutaneous derivation.

In the *Union Médicale* of April 22nd, Dr. Lasniée pointed out the advantage of combining beech creasote with tolu balsam and Norway pitch. Creasote, which is so useful in pulmonary and laryngeal affections, is not always easily tolerated, sometimes causing nausea and vomiting. It was therefore necessary to find some means of neutralising these inconveniences. This has been found in tolu balsam, the antispasmodic and anticatarrhal properties of which are well known, and which, together with Norway pitch, forms an excellent and reliable remedy. After numerous experiments the following formula has been adopted by MM. Trouette and Peret, pharmaceutical chemists, in their capsules, called by them "gouttes livoniennes." R 5 centigrammes of pure beech creasote, 7½ centigrammes of purified Norway pitch, 7½ centigrammes of tolu balsam, to make one capsule. In cases of little gravity, and when used as a prophylactic, two capsules morning and evening are sufficient. In more serious cases, one should begin with four capsules morning and evening, increasing the dose if necessary up to twelve capsules a day. After taking the capsules a little water or other liquid should be swallowed, and it is advisable to take them at meal times. When the disorder is relieved, the use of the capsules should not be suddenly abandoned, and it is also good to take some at the commencement of winter, and at any change of season accompanied by damp weather.

Dr. Flocken, of Strasbourg, has lately been sentenced to nine months imprisonment, Greiner, a chemist, to two weeks, and his assistant to two months. The latter was convicted of manslaughter through imprudence. He had made up a prescription of Dr. Flocken's for two patients, but owing to the doses not having been clearly indicated, death from poisoning occurred in both cases. The twofold accident coming to the knowledge of the authorities of the town, the matter was thoroughly investigated and the bodies exhumed. A *post-mortem* examination showed that death had occurred through poisoning caused by overdoses of the medicine prescribed.

An epidemic of pelada has recently broken out among the men of the different fire-brigades in Paris. As many as 130 firemen

are at the present time attacked by the disease, but energetic measures are being taken to quell it. All the bedding is to be renewed in the various firemen's barracks.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Professor von Schrötter's Opinion on the Case of the Late Emperor.—Letter from Professor Billroth on Sir Morell Mackenzie.

The *Neue Freie Presse*, of the 15th current, publishes at full length the opinion which Professor von Schrötter gave as to the case when he saw the illustrious patient at San Remo on November 9th. The following is a translation of the text:—"Professor von Schrötter declares that, in his opinion, the new vegetation (Spriessung) is cancer, and that there is no doubt about it; he, therefore, recommends complete removal of the whole of the larynx. He, moreover, holds that an immediate operation would be the most useful. He would, however, also consent to the operation being postponed, as the life of the Crown Prince could perhaps be prolonged for some time by the application of other remedies, and especially by tracheotomy. By complete removal of the larynx the life of the Crown Prince may perhaps be saved, but the operation is most dangerous. By means of other methods, particularly tracheotomy, life could only be prolonged."

The *Neue Freie Presse* of the same date also publishes the following letter, addressed to it, by special request, by Professor Billroth:—

"Vienna, March 27th, 1888.

"With reference to your request for my opinion on Mackenzie, I can only reply that I have always warned people against passing a judgment on a man who, as a physician, occupies so difficult a position. I have never doubted the correctness of the diagnosis of my Berlin colleagues, but I have also never been able to understand what political reasons had made it necessary to communicate this diagnosis to the whole world. It cannot be admitted that Mackenzie with his vast experience has ever doubted the correctness of this diagnosis. If he behaved in such a way as to imply that he had some doubt about the correctness of this diagnosis, this could only be owing to pressure from above or from motives of humanity. I know such situations from my own experience. One is not inclined to disapprove the statements of one's *confrères*, but at the same time one is not inclined to tell the patient that his malady is incurable, for the known want of infallibility in medical diagnosis is almost the sole ray of hope to the unfortunate incurables. Falseness in such cases becomes a moral act. The entire behaviour of Mackenzie must, no doubt, be judged from this point of view. He did as a man and a physician what was still possible to be done when the unfortunate word 'cancer' had already been pronounced.

"In such the same terms as these I have on different occasions expressed myself as to Mackenzie's conduct. I ask you to consider this as a private communication, at least until the sad catastrophe has occurred in Berlin.—Yours most respectfully,

"Dr. TH. BILLROTH."

CORRESPONDENCE.

ARMY MEDICAL RESERVE OF OFFICERS.

SIR,—I think that your remarks in respect to the Army Medical Reserve of Officers are calculated to spread erroneous ideas as to the causes of the formation of this particular class of officers. It may be true that the necessity of this class has been hastened by the late cry of retrenchment, and by the opportunity of using volunteer medical officers for home service if necessary, and so freeing the Medical Staff of the army for more active service. In doing so the authorities have obviated the necessity of establishing a large medical department, which would be uselessly large, expensive, and over-numbered in time of peace. All they do is to be prepared for times of emergency, and to have the Medical Department ready in its effectiveness for any necessities which may arise. Surely it is not unfair to ask the volunteer surgeons to help their Government, should national emergencies arise, especially as the Royal Warrant tends to blend together the medical officers of the army with those in the new reserve, in the same way as the reserve of combatant officers are associated with the regular officers of the army. Volunteer medical officers have undoubtedly gained by the step accorded to them,

and in no way do the officers of the Medical Staff lose any privileges by those granted to us.

As you observe, in case of invasion, the regimental medical officers would be required to attend their regiments in the field; but this applies only to a very limited extent, since all volunteer regiments have several medical officers, and most two at the least; consequently, in case of need, there would be sufficient officers ready to do regimental field work, and a surplus number who would fairly be employed at the departmental centres where most work and attention is required. Without some such supplemental work as is proposed, the bulk of the medical service would be from necessity ineffective from paucity of the number of those officers who could be spared from the army staff, and it behoves us all, as a profession, to be jealous of our honour, and to show to the public at least that the part of the army which affects our interests is ready and prepared in its details should any grave emergency arise.

To my mind, the idea of the reserve is the offspring of common sense, and is conceived in the true desire to render the defences of the country efficient in their medical arrangements, and it would be well if the country could be as well assured of the efficiency of the commissariat and transport departments as it may hope to expect from its Medical Reserve of officers. Such a reserve of officers was shadowed out by myself three or four years ago, and was favourably received by the press and commended by the *Volunteer Review*; but it fell through until its promulgation last month under the Royal Warrant.

We volunteer medical officers do not want to flutter under an army rank; but we have asked for our position to be recognised, and this the authorities have graciously accorded, though in a different way to that which the Volunteer Medical Association asked. We have, however, received army rank with all its privileges, but we have saddled ourselves with certain duties which doubtless would be so arranged, should the time of such a necessity for service ever arise, to meet each medical officer's convenience, as far as would be consistent with the exigency of the need, as would also be the distribution of the volunteers generally throughout the country.

If wanted, let us medical officers of the volunteer force do the work which may be required of us rather than introduce into the medical service of the country so large an influx of civilian element as occurred during the last Crimean war; and it would be as well if the present volunteer medical officers entered into the present reserve with the same patriotic spirit as that which attracted us when, during the scare of a possible war with Russia during Lord Beaconsfield's ministry, most of us volunteered to supplement the Medical Staff, should Government require our services during its continuance.—I am, etc., M. BAINES, M.D. Lond., Surgeon-Major Army Medical Reserve of Officers, and 1st Middlesex and Engineer Volunteers, R.E.

Junior Athenæum Club.

SIR,—When the Royal Warrant was first issued, I was much disposed to join the new reserve; but a little consideration, and consultation with several officers of large experience in my district, caused me to pause and to ask some questions before taking so important and, I may now add, so serious a step. Now, nearly two months ago I applied to the officer commanding my regiment for a definition of the term, "great national emergency," referred to in paragraph 4 of the Secretary of State's instructions on the Warrant. The question in due course gravitated to the Horse Guards, to the Director-General of the Army Medical Department, and finally to His Royal Highness the Commander-in-Chief.

After much delay and more than one reminder, I have, by request of H.R.H. the Commander-in-Chief, been honoured with the following reply from the Director-General:

"It has been decided that, if the National Defence Bill (read a first time in the House of Commons) becomes law, the criterion of a 'great national emergency' will be the embodiment of the militia."

This information may, I think, be of no small importance and interest to brother medical officers who have joined or who contemplate joining the new Army Medical Reserve of officers. To my mind the definition is a most dangerous and serious one for civil practitioners having large professional and domestic responsibilities. Army Medical Reserve service might possibly suit a few junior practitioners who have but little to risk, either professionally or domestically, and who long for military fame at any

price; but even they, I think, would do better to join the regular medical staff out and out than to place themselves in a position so uncertain and so insecure. It is, however, I take it, the services of experienced medical officers of auxiliary forces that the Government wish to secure (as evidenced by the proficiency examination certificate being a necessary qualification), and it is to such men, I repeat, that the terms of the Royal Warrant, as at present defined, might prove not only most disastrous, but even ruinous.

For example, if some colonial war, or even the scare of a Continental war, were to occur, and a few battalions of militia were embodied, no other legal authority would be required to enable the Government to at once call out officers of the Army Medical Reserve, and to send them to any duty, or to any place they might deem fit, utterly regardless, of course, of all private or professional inconvenience or sacrifice to them.

The fact is, Government are endeavouring to provide for a possible great emergency without any cost to themselves. They seek to reduce the medical *personnel* of the army below an efficient standard, regardless of the hardships of entailing an extra amount of foreign duty on those who are now serving in the regular forces. But, lest their device should be too transparent, Government cover their claims on the Medical Reserve by the ambiguous and comprehensive expression, "great national emergency," perfectly well aware that, should pressure arise, those who had unwarily enrolled themselves must obey orders, at whatever cost to themselves. It will be difficult to understand how, after their declaration as to the nature of a great national emergency has been made, men can, with their eyes wide open, rush headlong into such needless and heedless obligations.

Nor ought we, I hold, as a medical body, either on professional or military grounds, by joining the Army Medical Reserve of officers, to help Government in opposing the reasonable claims of the regular Army Medical Staff to have their rank and status definitely established and recognised in Her Majesty's Army, in which they should always consider it an honour and a privilege to serve.

I will only add that this letter is not written without much consideration and careful investigation, and that in enunciating my views I have had accorded to me the advantage of large and eminent military experience.—I am, etc.,

June 5th.

SURGEON AUXILIARY FORCE.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—We enclose herewith the reply received by us to the letter addressed by our Committee to the Lord President of the Council.

We may add that Lord Randolph Churchill has consented to receive on Thursday morning, June 21st, a small deputation of our Committee, in order to hear their views as to the position of the Members of the Royal College of Surgeons.—We are, etc.,

WARWICK C. STEELE,
WM. ASHTON ELLIS,

June 20th.

Honorary Secretaries, Association of M.R.C.S.

[60,981.]

"Council Office, Whitehall.

"16th June, 1888.

"SIR,—In reply to your letter of the 12th instant, on the subject of the petition of certain Members of the Royal College of Surgeons, with reference to the constitution of that College (lodged at this office on the 3rd May, 1887). I am directed by the Lord-President of the Council to inform you that it is not usual to send a written reply to petitions on the subject of a question which is before the Privy Council. The petitions or statements in such cases are fully considered before any decision is arrived at, and the result is that Her Majesty is advised either to grant, to refuse, or to modify the proposed charter.—I am, Sir, your obedient servant.
"C. L. PEEL."

SELF-HELP FOR HOSPITALS

SIR,—I would ask space for a few words with reference to your article of June 16th, on this subject.

It is not altogether against the abuse of charity that I am writing, but chiefly on account of the comparative costliness in many instances which attendance in out-patient wards involves, as well as the risk to health and even to life.

Regarding the expense, poor persons often pay, especially in

country districts, much more for travelling backwards and forwards to a hospital than efficient attendance at their own homes would cost. As for the risks, I need only instance a case where a child with chest affection travelled seven miles to a hospital in an open conveyance during inclement weather, and died in consequence of the exposure; all this distance was traversed for the sake of a few grains of a hypophosphite in powder. Under such circumstances as these I consider it nothing less than homicidal to encourage attendance, and the medical officers would best show their humanity by directing such poor persons to any efficient self-supporting dispensary in their own neighbourhood; it would be better, by the bye, if the amount of the subscriptions to these institutions were increased, and if no unqualified person were allowed to be in any way connected with them, unless it were such medical students as had progressed well with their studies and examinations.

Then the scale of payment to poor-law medical officers is very inadequate; this is surely a fitting subject for some of the labour representatives in the Commons to take up. The annual drink bill is still far too large, and I think a small portion of the amount might be worthily diverted for the purpose of medical relief.—I am, etc.,

W. L.

THE TREATMENT OF AURAL EXOSTOSES.

SIR.—In justice to Sir William Dalby, I feel it my duty to state that on January 9th, 1875, I was present with him at an operation for the removal of an exostosis from the ear.

The instrument he used was my dental engine, and I furnished him with the drills employed on that occasion.

I have since assisted him in a similar manner on several occasions.—I am, etc.,

THOMAS EDGELOW, M.R.C.S.,

Late Dental Surgeon, St. George's Hospital.

Savile Row, June 16th.

SETTING-UP DRILL AND HEART DISEASE.

SIR.—It is with much satisfaction I see that a more rational system of "setting up" young recruits is about to be introduced into the army. Colonel Onslow, who has worked hard in this direction, is entitled to much credit for his zeal; but I hope the labours of Surgeon-Major F. Arthur Davy will not be overlooked. Some years ago this officer wrote a pamphlet on the prevalence of heart disease in the army, to which his attention had been called at Netley. Dr. Davy made the system of "setting-up drill" the subject of careful study, and in the *brochure* above referred to demonstrated, on physiological data, the fact that this most mischievous system was one of the chief factors in bringing about first functional and then organic disease of the heart. As I have elsewhere shown, Dr. Davy's observations failed to impress the authorities with their importance. The late Dr. Fagge was one of the first men of eminence in the profession who appreciated their value. The military authorities are now, it would appear, awake on the subject, but there is reason to fear that in this, as in so many other examples, the seed sown by one man is likely to be reaped by another. To prevent this injustice, if this be possible, is the object of this letter.—I am, etc.,

W. CAMPBELL MACLEAN, M.D., Surgeon-General.

Woolston.

ENGLISH MEDICAL PRACTITIONERS IN THE GRISONS.

SIR.—I wrote last month to the proprietors of a large hotel at Davos-Platz (to which I had been in the habit of recommending patients), protesting against the prohibition of English practitioners in the Swiss Cantons. Since you have taken up the subject, I thought the enclosed reply might interest you.—I am, etc.,

HARRISON CRIPPS.

Stratford Place, W.

Grand Hôtel Belvédère, Davos-Platz,
Canton des Grisons, Suisse,

June 13th, 1888.

Sir,—We beg to apologise for the delay in answering your favour of the 21st ultimo; a short absence from home having been the cause of it.

We deeply regret the action taken against your English colleagues in this country, and assure you the great majority of the Swiss people disapprove of this shortsighted persecution, which is caused entirely by the opposition the practice of English medical men meets with on the part of some of the Swiss doctors. It

seems, however, that you are not quite correctly informed with regard to this place (Davos-Platz), and we therefore take the liberty of submitting to you the real state of matters, hoping that we may succeed to make you change your views to some extent.

There are three English doctors practising in this Canton—the Canton des Grisons—namely, Dr. Huggard, in Davos-Platz; Dr. Holland, in St. Moritz; and Dr. Wise, in Maloja. Dr. Huggard (see *Medical Directory*, London), now in practice here for the last two years, has passed the Swiss medical examination at Geneva in 1885, and possesses the Swiss diploma, and, consequently, the recent action taken by the Swiss authorities does not concern him. But we are sorry to say, though he has fulfilled all that they required of him for free practice in Switzerland, he was looked at as an intruder, and was slandered in the most shameful manner, with a view and intention to prevent his getting on in the place. However, his English colleagues sent their patients to him with letters addressed to him, and so Dr. Huggard got on very well in Davos-Platz, in spite of the shameful persecution. You will see clearly that, should you and all other English medical men send no longer any English patients to Davos, Dr. Huggard would be forced to give up his practice there, on account of his colleagues in England, who would have just reached the contrary result of what they wished.

Dr. Holland and Dr. Wise both did not pass the Swiss medical examination, and, consequently, do not possess a Swiss diploma for practice; the persecution of them was therefore directed in another line; they were denounced by Swiss doctors for illegal practice, with a view of getting altogether rid of their competition. But you will be interested to hear that the highest authorities of the Canton des Grisons, that is, the "Cantonal Grosse Rath" (to whom, quite recently, when they were assembled in Chur, Dr. Holland and Dr. Wise submitted their cases), did not adopt the view of the Swiss medical profession, but granted the right to practise to both the above-named doctors, without demanding of them to pass the Swiss examination.

Hoping you will pardon this long intrusion on your valuable time, we have the honour to remain, Sir, yours very obediently,

CHESTER BROTHERS.

** The matter is, as this letter states, now happily settled for the moment in this locality by the judicious action of the Grosse Rath, and we trust it will not arise again. There is at present no established reciprocity between the English and Swiss registration of duly qualified practitioners, but the legal machinery exists under the Medical Amendment Act, 1886, and as a preliminary to further action it might be well to put it in motion.

DR. APOSTOLI'S TREATMENT OF UTERINE FIBROIDS.

SIR.—There is such an amount of evidence in favour of Dr. Apostoli's method of treating uterine fibroids that, after hearing that gentleman at Dublin last summer, and reading an account of his process by Dr. Keith, of Edinburgh, I sent the latter gentleman a lady whose case I had laid before Sir Spencer Wells, and before Dr. Apostoli himself before he went to America. The case was a well-marked one of interstitial fibroid, the uterus being much enlarged, or about the size of a small cocoa-nut or large orange. The patient was under treatment in Edinburgh for about six months, and puncture was made use of frequently. The result has been some slight change for the better in the symptoms, but I cannot say that the size of the tumour has been lessened.

Of course, this is only one case, and I merely give it because experience is what is wanted, and I know the result in this case.—I am, etc.,

C. R. DRYSDALE, M.D.,

June 14th.

Senior Physician Metropolitan Hospital.

NAVAL AND MILITARY MEDICAL SERVICES.

COMMITTEE ON ARMY ESTIMATES.

THE third report of the Select Committee on Army Estimates issued this week as a Parliamentary paper, deals entirely with Vote 4, which provides for the medical establishment, pay, etc., of the Army. The charge for non-effective services paid out of Imperial funds reaches £182,574. The Committee point out that there has been an enormous increase of charge for the medical service of the Army since the year 1872. This increase is mainly accounted for by improved rates of pay and by a large addition to the numbers of the Medical Staff Corps. In conclusion the report says:—"It would appear from the evidence given to your committee by Sir Thomas Crawford that the civil and military authorities at the War Office recognise how very heavily this enormous

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charge for medical establishments in the Army (very nearly £700,000 a year) bears upon Army funds, and are making efforts to reduce both the effective and non-effective charges by the re-employment of retired officers, and by extension of the term of foreign service by one year. Sir Thomas Crawford and Mr. Knox stated to your committee that the medical officers of the Guards, sixteen in number, have up to now retained exemption from foreign service, except with their regiments, and are strongly of opinion that, in the interests of the public service, that exemption should be no longer allowed. Your committee concur in this opinion. . . . Your committee are of opinion that the whole question of the pay of the medical service in all its ranks, the number of medical officers employed, and the periods of retirement require the immediate consideration of the Secretary of State.

CHAIR OF HYGIENE AT NETLEY.

ARMY MEDICAL DEPARTMENT writes: Your correspondent in the JOURNAL of May 26th has accurately described the feeling of the service in regard to the proposed appointment of Deputy Surgeon-General Marston to the Chair of Hygiene at Netley, and his being "seconded" for that purpose. In the first place such an appointment, if made by Sir Thomas Crawford, would be a slight upon the many hundreds of former pupils of the school who have passed through the practical course, and some of whom hold university honours in chemistry, and, unlike Dr. Marston, have studied practical military hygiene with soldiers for years in all climates, and not in the headquarters offices of the department in which Dr. Marston has spent at least twenty years. Dr. Marston, on the suppression of his appointment in London, was ordered on foreign service. If he is now "seconded" he will have another spell of home service out of his turn while running up the list for promotion, and take up the latter when it suits him. The future of the Army Medical School is now trembling in the balance. It costs nearly £7,000 a year. In the interest of the department and economy this appointment should be conferred on some officer of the executive grade, of active habits, with a practical knowledge of soldiering, a good chemist, and who would not require an assistant. Hygiene is taught in every university in the present day. Several officers hold the diploma of sanitary science, which Deputy Surgeon-General Marston does not, and are more capable of giving a short practical course of lectures and demonstrations than the gentleman referred to, however excellent he may be in other respects.

EXAMINATIONS OF SURGEONS FOR PROMOTION TO SURGEON-MAJOR.

A CORRESPONDENT asks: How do the authorities intend to dispose of surgeons who fail in passing the examination for promotion to surgeon-major? At the last examination four surgeons failed to satisfy the examiners, and I have heard are to be allowed one more chance; but if they again fail steps are to be taken to remove them from the service. If this is true, it seems extremely hard. Do they intend to turn a man adrift after spending the best eight or ten years of his life in the service without any compensation?

. We cannot say, we know of no regulation which meets the point. There ought to be very few unable to pass a legitimately conducted examination for promotion; but failure to pass, if unfairly used, might be made a most immoral weapon against individuals. We cannot contemplate such a shameful method of weeding the list. The whole system of these examinations needs to be revised, or they may become a serious injury instead of an advantage to the public service.

MEDICO-LEGAL AND MEDICO-ETHICAL.

SAME NAME.

A CORRESPONDENT writes: James "Blank," M.D.Lond., has been in practice in a moderate-sized town for twelve years under the designation of Dr. "Blank." John "Blank" (same name) M.R.C.S.Eng. and L.S.A.Lond. has been practising in the same town for about six years as Mr. "Blank," surgeon. A few weeks ago Mr. "Blank" removed from a side street to one of the main thoroughfares of the town, and put up the name of Dr. "Blank." Of course a considerable number of people imagine him to be the one who has always been recognised as Dr. "Blank," and a great amount of annoyance and inconvenience is caused. James "Blank," M.D., wishes to know can he prevent John "Blank," M.R.C.S. and L.S.A., from assuming the title of "Dr.," and how he is to proceed if he can? If he cannot do that, what other course ought he to adopt, if any, or is he obliged to sit down without any attempt to vindicate his position?

. It is possible that a conviction would be obtainable under the 40th Section of the Medical Act, 1858, in spite of the pseudo M.D. being registered both as a surgeon and apothecary. Upon this question our correspondent should refer to the judgments delivered in the case of *Ellis v. Kelly*, 3 L. T. (N. S.), p. 330. In that case the defendant was registered, as in the present case, both as an L.S.A. and M.R.C.S., but he also had a diploma of a Bavarian University, and it was, it would appear, owing to the letter circumstance that it was held that the defendant could not be convicted under the Medical Act for adopting the title of "Dr." Failing, or in addition to the remedy under the Medical Act, an injunction could, in our opinion, be obtained on its being shown that rights of property (goodwill, etc.) are being injuriously affected (see *Springhead Spinning Company v. Riley*, 6 L. R. Eq., p. 551).

EASTWOOD v. DALE AND CO.

THE action brought by Dr. Eastwood, the proprietor of Dinsdale Park, Darlington, a licensed house for the insane, against *Rare-Bits* for libel was disposed of by agreement, after judgment and a special jury to assess damages, Dr. Eastwood having accepted £250, costs, and an apology.

DR. DAVIDSON has resigned the Professorship of Pathology in University College, Liverpool, which he has held for several years with energy and distinction.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Tuesday, June 19th.

Universities (Scotland) Bill.—The report of amendments was received. Several further amendments, proposed by the Marquis of LOTHIAN, were agreed to.—Lord WATSON moved that the number of the representatives of affiliated colleges nominated to serve upon a University Court should not exceed four. The amendment was agreed to.—The Earl of ROSEBURY, on Clause 15, moved to insert a new subsection giving power to the Commissioners to make arrangements where it shall seem requisite for the due representation of the University Court in the governing body of affiliated colleges and of the governing body of affiliated colleges in the University Court, having regard to the circumstances of each particular case, to the relative numbers in the University and the college of the teaching staff and of students proceeding to graduation, to the nature of the connection proposed to be established, and to the purposes for which such representation is desirable.—The amendment was agreed to.—The Marquis of LOTHIAN moved the insertion in Clause 16, page 13, after line 24, of the following new subsection: "(3) In the event of the said University college being affiliated to the said University, to regulate the time, place, and manner of the first election of the assessors to be elected for the University Court by the General Council and by the Senatus Academicus of the said University after such affiliation, which election the Commissioners shall appoint to take place as soon as conveniently may be after such affiliation, and the assessors then in office shall deem office on the date of such election." The amendment was agreed to.—After some further verbal amendments had been inserted in the Bill, the report was agreed to.

HOUSE OF COMMONS.—Monday, June 18th.

Magisterial Visitations of Lunatic Asylums.—On Clause 6 of the Local Government Bill (Powers of Quarter Sessions as to Visiting Lunatic Asylums) Mr. LEIGHTON moved an amendment retaining to single magistrates the powers they now possessed in respect to visiting lunatic asylums.—Mr. RITCHIE thought it would be extremely likely to lead to friction if every magistrate of a county had a right to visit the lunatic asylums. They thought it advisable that a judicial body like quarter sessions should have the power of visiting the asylums and reporting whether any abuses existed; but it would be inadvisable to allow a magistrate as an individual, and not as a member of the committee, to visit the asylums. Guardians had a *locus standi* for visiting paupers from their own unions which magistrates did not possess. The matter was further discussed with the result that the amendment was withdrawn and the clause negatived without discussion.

The Medical Service of British Guiana.—Dr. FARQUHARSON asked the Under-Secretary of State for the Colonies whether it was the case that the Court of Policy of the Colony of British Guiana had passed a resolution requesting the Secretary of State for the Colonies to remove the Medical Inspector of Estates Hospitals from his office; whether this action of the Court of Policy was traceable to a report made by that officer in the course of his duties which was considered to have "injuriously reflected on the planters;" and whether it was the intention of the Colonial Secretary to comply with this demand at present without investigating the correctness or otherwise of the allegations contained in the report.—Baron H. DE WORMS said that the combined Court had passed a resolution of the nature indicated. The action of the Court was understood to be the result of dissatisfaction on the part of the members with the manner in which the officer had discharged the duties of his office, and particularly with certain statements in an official report made by him which they considered to have reflected unjustly on the employers of immigrant labour. The Secretary of State had received such conflicting statements supporting and contradicting the allegations in the report that he would be unable to arrive at a conclusion as to their correctness without a commission of inquiry, and he had not considered the question to be of sufficient importance to justify the expense of such a commission. He had already decided, before receiving this resolution of the Court, to transfer the officer in question to another appointment in the Colonial service.

Tuesday, June 19th.

Folkestone Jubilee Hospital.—Sir H. MAXWELL, in reply to Sir E. WATKIN as to whether the Government would at once decide

whether it would sell the site of the disused battery on the Bayle at Folkestone for the jubilee hospital, said the matter was not yet decided; if sold it would be sold by auction.

British Medical Practitioners in Switzerland.—In the unavoidable absence of Dr. FARQUHARSON, Mr. CAUSTON asked the Under-Secretary of State for Foreign Affairs whether he had any further information to give the House as to the result of the negotiations he had been carrying on with the Swiss Government regarding the rights of English doctors to practise in that country.—Sir J. FERGUSON said he was glad to say that matters had assumed a more hopeful appearance. There was reason to expect that temporary measures would be adopted by certain cantonal authorities by which British physicians would be enabled to practise, and he hoped that a permanent and reciprocal arrangement might be arrived at.—Mr. CAUSTON asked whether it was probable that the more favourable arrangements would apply to the whole of Switzerland.—Sir J. FERGUSON said there were considerable difficulties in the way, but no possible effort would be spared to procure such a satisfactory arrangement.

OBITUARY.

THOMAS HARRINGTON TUKE, M.D., F.R.C.P., Etc.

THOMAS HARRINGTON TUKE, whose death we announced last week, was the son of Edward Francis Tuke, M.D., of Bristol, whose professional life was devoted to the treatment of lunacy. He was born on June 13th, 1826. He studied medicine at St. George's Hospital and at Edinburgh, and also visited Paris, becoming Member of the Royal College of Surgeons in 1847, M.D. of St. Andrews in 1849, and Fellow of the Royal College of Physicians of Edinburgh in 1858. He was elected Fellow of the Royal College of Physicians, London, in 1878.

Dr. Tuke has throughout his career been identified with the treatment of insanity. In 1846 he took charge of the Manor House, Chiswick, founded by his father, and by successive enlargements and alterations much improved it, adding nearly eighteen acres to the original grounds.

In January, 1852, he married Sophia Jane, second daughter of Dr. John Conolly, of The Lawn, Hanwell, his distinguished teacher and kind friend. His professional career was in every way a highly successful one, his practice being large both as a consulting physician and at Manor House, which became well known as one of the leading private asylums in this country, and always maintained a very high reputation. Active, public-spirited, and full of interest in professional and public questions, Dr. Tuke took a leading part in the organisation and scientific progress of his department of medicine. He was a member of many foreign societies, and was for several years secretary of the Medico-Psychological Society. He was a prominent witness before the Select Committees of the House of Commons on amendment of the Lunacy Law. He was the author of several papers on general paralysis and on criminal responsibility, and otherwise a frequent contributor to the *Journal of Mental Science*, as well as to the *BRITISH MEDICAL JOURNAL*, in which his last contribution was published, being a very interesting paper on the trial of the Rev. Gilbert Cooper, and the question of criminal responsibility involved therein (*JOURNAL*, November 26th, 1887; January 14th, 1888).

He took a prominent part in most of the *causes célèbres* in lunacy which have been tried during the last thirty years, especially in the Windham case, the case of Lady Mordaunt, the Bravo, the Townley, and the O'Connor cases. In the last case, it will be especially remembered that his foresight and prudent warnings after the release of this boy from prison put the authorities on their guard against a probable renewal of his insane wanderings to Buckingham Palace, and brought to Dr. Tuke the honour of a letter of thanks from the Home Secretary for the public service which he had rendered. Dr. Tuke was the first to introduce nasal feeding of the insane. His contributions to the literature of psychology and his general attitude in courts of law and in communications with leading officials before the committees of the House of Commons were always of a kind honourable to himself and his profession, humane in the protection which they suggested to the insane, and calculated to bring the law into better accord with the advancing knowledge of psychological physicians.

In private life his marked amiability of character, gentleness,

and generosity secured for him the affection of a wide circle of friends. In the board-room of St. George's and at the hospital he was always a welcome figure. His annual reunions of the old students and staff of the hospital on the eve of the opening of each successive session had become a sort of social institution, and afforded an annual meeting-ground for old friends and early associates, of which a large number of old St. George's men did not fail annually to avail themselves. His death leaves a void which will not easily be filled, and he will long be mourned by a large circle of professional friends, to whom throughout life he had greatly endeared himself. Few men have made so many friends in the course of a long professional life, and it may be said of him that, having made many friends, he never lost them.

He was buried at Chiswick on June 13th. His health had been failing for some weeks before his death, which was due to pulmonary disease. His end was quiet and peaceful. He leaves seven sons—two of whom follow in the same department in the medical profession—and a daughter.

MISS ALICE FISHER.

MANY members of the profession will have heard with deep regret of the death of Miss Alice Fisher, which occurred on June 3rd, at the Philadelphia Hospital, U.S.A., of which institution she had been for nearly four years Lady Superintendent of Nurses.

Miss Fisher entered the Nightingale Home, St. Thomas's Hospital, as a probationer, in January, 1875, and after a year's training was sent as home sister to take temporary charge of the nurses at the Royal Infirmary, Edinburgh.

In the following year Miss Fisher was appointed matron of the Fever Hospital, Newcastle-on-Tyne, and held that post until her election in 1878 as matron of Addenbrooke's Hospital, Cambridge. There she remained four years, during which time the nursing of the hospital was completely remodelled, a training school established, and nurses supplied to the members of the University and residents in the town. The advantages, alike to the hospital, the nurses, and the public which followed the adoption of the latter plan, were so great that it has been indirectly the cause of the foundation of institutes for the supply of nurses to the public in connection with many of the metropolitan hospitals.

Feeling that her special work at Addenbrooke's was done, and that the system which she had introduced could well be carried on by others, Miss Fisher accepted an invitation from the governors of the Radcliffe Infirmary, at Oxford, and subsequently another from the committee of the Birmingham General Hospital, to take charge of the nursing departments there.

At both places the same untiring energy, which was one of her chief characteristics, led to important improvements being effected in the system of nursing.

In October, 1884, Miss Fisher left England to undertake the duties of superintendent of nurses at the Philadelphia Hospital. In America, owing to the greater publicity of official life in any sphere, Miss Fisher's work soon attracted general attention. This was at first due to her calmness and heroism in saving the lives of many of the inmates of the lunatic wing of the hospital during a fire which occurred shortly after her arrival there.

Subsequently she succeeded, as she had previously done at Cambridge, in interesting all classes in the work of the hospital, which became almost a popular resort with the ladies of Philadelphia, who attended her lectures on nursing in large numbers. In the few years she was there a large training-school for nurses sprang up, and an impetus was given to the improvement of nursing which has been felt almost throughout the United States. The American papers were enthusiastic in her praise, and she received applications from all parts for admission to the nursing home.

In the midst of her work she has been cut off by death, due to an affection of the heart which had troubled her for some time, and for which, as one of her physicians said, "she had worn out all power of compensation by overwork." Her interest in the hospital was maintained to the last, and when too ill to walk, she was wheeled through the wards in a Bath chair.

Miss Fisher was in many respects a remarkable woman; of commanding presence, sympathetic in manner, widely read, especially in the best English literature, and herself the author of several works of fiction showing much insight into human motives. She exercised a great influence for good over all with whom she was brought into contact. As a hospital administrator she had few equals, and every institution with which she was connected still

impairment of health, misfortunes that might be averted by early removal to healthy surroundings.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following Vacancies are announced:

- BOROUGH OF BRADFORD.**—Medical Officer of Health. Salary, £500 per annum. Applications by June 30th to the Chairman of the Sanitary Committee.
- CHELSEA HOSPITAL FOR WOMEN,** Fulham Road, S.W.—Resident Medical Officer. Salary, £80 per annum, with board and residence. Applications by July 4th to the Secretary.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,** Victoria Park, E.—Assistant-Physician. Applications by July 12th to the Secretary.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,** Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications by July 12th to the Secretary.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,** Victoria Park, E.—Resident Clinical Assistant. Applications by July 12th to the Secretary.
- DONCASTER GENERAL INFIRMARY AND DISPENSARY.**—House-Surgeon. Salary, £100 per annum, with board and residence. Applications by July 5th to the Honorary Secretary.
- DUFFUS PAROCHIAL BOARD.**—Medical Officer. Salary, £35. Applications by June 23rd to John Nicoll, Esq., Inspector of Poor, Hopeman, N.B.
- DUNDEE ROYAL INFIRMARY.**—Resident Assistant House-Surgeon. Salary, £80 per annum. Applications by June 27th to D. Gordon Stewart, Esq., Solicitor, Dundee.
- EAST LONDON HOSPITAL FOR CHILDREN,** Shadwell, E.—Resident Clinical Assistant. Board and lodging. Applications by June 28th to the Secretary.
- EAST SUFFOLK AND IPSWICH HOSPITAL.**—House-Surgeon. Salary, £50 per annum, with board, lodging, etc. Applications by July 16th to the Secretary.
- EDINBURGH CITY POOR HOUSE,** Craiglockhart.—Resident Medical Officer. Salary, £80 per annum, with board. Applications by June 25th to Mr. G. Greig, Inspector, City Parish Chambers, 2, Forrest Road, Edinburgh.
- EVELINA HOSPITAL FOR SICK CHILDREN,** Southwark Bridge Road.—Surgeon to Out-patients. Applications by June 25th to the Committee of Management.
- GLASGOW HOSPITAL FOR SICK CHILDREN.**—Assistant House-Surgeon. Applications to M. P. Fraser, Esq., 91, West Regent Street, Glasgow.
- KENT COUNTY ASYLUM,** Barming Heath, Maidstone.—Third Assistant Medical Officer. Salary, £120 per annum, with apartments, etc. Applications by June 30th to the Superintendent.
- LONDON THROAT HOSPITAL,** 204, Great Portland Street, W.—House-Surgeon. Applications by June 27th to the Secretary of the Medical Committee.
- PARISH OF EDRACHILLIS,** Sutherland.—Salary, £150 per annum, with free house. Applications by July 15th to Mr. A. R. Cowie, Inspector, Scourie by Larg, N.B.
- PARISH OF KIRKMABRECK,** Kirkcudbrightshire.—Medical Officer for the Poor. Salary, £35 per annum. Applications by July 14th to Mr. J. Carson, Inspector of Poor, Creetown, N.B.
- PARISH OF LOCHS,** Stornoway.—Medical Officer. Salary, £140, house and rates free. Applications by June 23rd to H. McL. Ross, Inspector of the Poor, Lochs, Stornoway.
- PARISHES OF PENNYGOWN AND TOROSAY.**—Medical Officer. Salary, £100 per annum. Applications by July 3rd to Mr. A. McDougall, Inspector of Poor, Auchnacraig, Oban, N.B.
- PRISON COMMISSIONERS, SCOTLAND.**—Resident Surgeon for one of Her Majesty's prisons in Scotland. Salary, £200 per annum, with residence or allowance. Applications by June 25th to the Secretary, Prison Commission for Scotland, 130, George Street, Edinburgh.
- RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMEN'S INFIRMARY.**—Resident Medical Officer. Salary, £120 per annum, with furnished apartments, etc. Applications by June 23rd to the Secretary.
- SURREY DISPENSARY,** Great Dover Street, Southwark.—House-Surgeon. Salary, £120, and furnished apartments. Election on June 26th.
- WESTPORT UNION.**—Medical Officer, Westport No. 2 and Louisburgh No. 2 Districts. Salary, £39 per annum, and fees. Election on June 24th.
- WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY.**—House-Surgeon. Salary, £100, with board and lodging. Applications by June 30th to the Honorary Secretary, E. Arnold, Esq., White Hall, Chichester.
- WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.**—Resident Assistant. Board and lodging, etc. Applications by June 25th to the Chairman of the Medical Committee.
- WORCESTER GENERAL INFIRMARY.**—House-Surgeon. Salary, £100 per annum, board and residence. Applications by July 9th to the Secretary, Worcester Chamber, Pierpoint Street, Worcester.

MEDICAL APPOINTMENTS.

- ANDERSON, W. A., M.B., C.M. Edin.,** appointed Assistant Medical Officer to the Bucks County Lunatic Asylum, *vice* H. L. Grant, M.B., C.M. Edin., resigned.
- BROWN, John, M.D. (Glasgow),** appointed Physician to the Anderson's College Dispensary, Glasgow.

- CAMPBELL, S. G., M.D. Edin., M.R.C.S. Eng.,** appointed Surgeon to the Anderson's College Dispensary, Glasgow.
- JONES, Hugh R., M.A., M.B., B.C. (Cantab.), B.Sc. (Lond.),** appointed Surgeon to the Liverpool Corporation Waterworks, Llanwddyn.
- KENNEDY, John, L.R.C.P., L.R.C.S. Ed.,** appointed Physician to the Anderson's College Dispensary, Glasgow.
- MACNAB, Allan J., M.R.C.S., L.R.C.P.,** appointed Ophthalmic Clinical Assistant to King's College Hospital.
- MANBY, E. P., M.B., M.R.C.S.,** appointed Resident Medical Officer to the Chelsea Hospital for Women, *vice* E. G. Peck, M.R.C.S., resigned.
- MARTIN, Sidney, M.D. Lond., M.R.C.P.,** Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park, appointed Assistant-Physician to the Hospital.
- PENNY, W. J., F.R.C.S. Eng., L.R.C.P. Lond.,** appointed Assistant-Surgeon to King's College Hospital, *vice* W. Rose, M.B., F.R.C.S., resigned.
- RITCHIE, John, M.B., C.M. (Glasgow),** appointed Consulting Surgeon to the West of Scotland Convalescent Sea-side Home, Dunoon, N.B., *vice* James Denniston, M.D., resigned.
- ROSE, W., M.B. Lond., F.R.C.S.,** appointed Surgeon to King's College Hospital.
- SEAL, C. E., M.R.C.S., L.R.C.P.,** appointed Clinical Assistant to the Western Fever Hospital, Fulham.
- SHAW, P. F., L.R.C.P. Ed., L.F.P.S., L.M.,** appointed Surgeon to the Anderson's College Dispensary, Glasgow.
- STARK, J. Nigel, M.B., C.M. Edin.,** appointed Surgeon to the Anderson's College Dispensary, Glasgow.
- SYDENHAM, G. F., M.R.C.S., L.S.A.,** appointed Medical Officer to the Dulverton Union (No. 1 District) and Workhouse, Somerset.

DEATH OF MISS CLUGSTON.—Miss Beatrice Clugston, so well known in Glasgow and the West of Scotland for her philanthropic efforts on behalf of the sick poor, died at Ardrossan on June 4th, at the age of 61. From early womanhood her life was wholly spent in devising means to relieve and comfort the suffering, and her name will always be identified with the institutions she founded and the successful bazaars she promoted to provide funds for their maintenance. Miss Clugston was the originator of the Dorcas Society in connection with the Royal Infirmary. She founded the Convalescent Home at Lenzie, and by a bazaar raised £6,750 for its maintenance. By a second bazaar she raised £5,000, of which £3,000 were given to the Sick Children's Hospital, and the balance is now held by the Glasgow magistrates and council in trust for the Dorcas Societies in connection with the Belvidere, Knightswood, and Govan Fever Hospitals. Miss Clugston's third great bazaar realised £8,500 to establish a convalescent home at Dunoon. Her fourth bazaar was for the Broomhill Home for Incurables, and realised £14,000; while by her latest effort she raised over £16,000 for the benefit of these two homes. In November, 1876, Miss Clugston was presented with £3,000 as a mark of the esteem and honour in which she was held by the community, and recently some of her friends purchased an annuity for her by which, her private means being exhausted, she was enabled to live in comparative comfort. Although she had been for some time in failing health she continued to take a keen interest in the welfare of the various institutions organised under her superintendence.

PRESENTATION TO DR. TALFOURD JONES.—After being connected with the Breconshire Infirmary for twenty-two years, first as House-Surgeon for six years, and then as Physician for sixteen years, Dr. Talfourd Jones recently resigned his appointment there, and removed to Eastbourne for the benefit of his health. The committee of the infirmary appointed Dr. Talfourd Jones consulting physician, and passed a resolution of thanks in recognition of his "very valuable and efficient professional services" rendered to the hospital and the public. The governors and subscribers to the Breconshire Infirmary, and other friends, subsequently raised a testimonial, which was presented to Dr. Talfourd Jones early this month. We may add the expression of our hope that in the more genial climate of the South Coast, Dr. Jones, who is a past-president of the South Wales and Monmouthshire Branch, may shortly be completely restored to health.

THREATENED WATER FAMINE AT LIVERPOOL.—In consequence of the scanty rainfall during the last twelve months, the water in store in the Liverpool reservoir at Rivington Pike is less than half the usual amount, and the supply to the city is turned off for eighteen hours out of the twenty-four. The usual quantity of water is, however, expended for flushing the sewers and other sanitary purposes, water from the Mersey being employed to some extent. To this must be attributed the fact that the death of water seems to have no ill effect on the public health. The death-rate for the week ending June 9th was 14.7 per 1,000, being 1.9 below the rate recorded a fortnight before, and which was stated to be the lowest on record.

UNIVERSITY COLLEGE HOSPITAL.—A public dinner in aid of the funds of this charity was held on Tuesday last at the Hôtel Métropole, Lord Herschell presiding. Lord Herschell, in speaking of the claims of this hospital, said that a scheme was on foot for rebuilding the hospital, and he trusted that when this was done, which must be before long, they would, with the aid of the public, have a building which would befit the great work which the institution was doing for the people of London. The total amount of donations in connection with the festival was announced to be upwards of £1,900.

A CENTENARIAN.—The death of a veteran Polish officer named Kurkovski is reported from Makoff. It is said that it can be clearly proved that he was born in 1772, and fought under Kosciuszko.

IN consequence of the death of the German Emperor, the laying of the foundation stone of the new hospital, to be built in West Ham, by the Duke of Cambridge, arranged for June 23rd, has been postponed.

THE Sheffield guardians have unanimously voted £25 to Dr. G. P. Godfrey, medical officer to the workhouse, for extra services during the epidemic of small-pox.

DIARY FOR NEXT WEEK.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Donald MacAlister: The Croonian Lectures on Antipyretics.

WEDNESDAY.

COLLEGE OF STATE MEDICINE, Burlington House, 4 P.M.—Sir Robert Rawlinson, K.C.B.: The Rise and Progress of Sanitary Engineering within the Present Century.

BRITISH GYNECOLOGICAL SOCIETY, 8.30 P.M.—Specimens will be exhibited by Dr. Fancourt Barnes, Dr. Granville Bantock, Mr. Lawson Tait, Dr. Richard Smith, Dr. Mansell-Moullin, and others. Dr. Henry T. Rutherford: Case of Uterine Fibroid successfully treated by Electricity. Dr. C. D. Sherrard: Retroversion of the Gravid Uterus at the Fourth Month. Council, 8 P.M.

THURSDAY.

PUBLIC HEALTH MEDICAL SOCIETY, 6.45 P.M.—Council's Report and Balance Sheet. Election of Officers. Election of Council. Dinner.

NEUROLOGICAL SOCIETY OF LONDON, National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury, 8.30 P.M.—W. H. Gaskell, M.D., F.R.S.: On the plan of formation of the Spinal and Cranial Nerves, together with suggestions on the origin of the Central Nervous System. Professor Schäfer, F.R.S., will exhibit photographs of certain monkeys' brains recently shown to the Society.

FRIDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, 5 P.M.—Dr. Donald MacAlister: The Croonian Lectures on Antipyretics.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

HOETS.—On May 3rd, at Yass, New South Wales, the wife of Alton Kingsley Hoets, M.R.C.S. Eng., of a daughter.

PARKHILL.—On June 13th, at Church Gresley, Burton-on-Trent, the wife of Saml. J. Parkhill, M.D., of a daughter (premature and stillborn).

DEATH.

BRICKWELL.—At Sawbridgeworth, where he commenced practice in 1829, John Brickwell, M.R.C.S.E., aged 80. Friends please accept this intimation.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL, and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Depliate Copies*.

QUERIES.

ANTISEPTIC FOR MIDWIVES.

DISPENSARY SURGEON asks: Would any of your readers tell me what is the best antiseptic to recommend for the use of midwives to a dispensary? Besides being efficient it should be safe and not unpleasant for common use, and inexpensive. Creoline has been suggested.

MEDICAL PRACTICE IN ITALY.

F.R.M.S. writes: I recently saw a letter in the JOURNAL stating that medical men with British qualifications are permitted to attend professionally their countrymen residing in Italy without holding any Italian qualification. Is any permission from the Italian Government required, and, if so, how is it obtained? Could a medical man with somewhat delicate chest, who can bear moderate heat or cold when not accompanied by damp, and who has a private income of £350 to £400 a year, add a few hundreds a year to his income by practising in Florence, or Milan, or some other suitable town where English sojourn? Which would be the best place? Coast towns do not suit him owing to the damp. Are there any works on the climatology of the European countries (or any of them) bordering on the Mediterranean, giving minute particulars as to the maximum and minimum temperatures, relative humidity, etc.? The advantage of reciprocal privileges of practising in Continental towns is an additional argument in favour of State examinations which would be mutually recognised by the States as conferring these privileges.

ANSWERS.

TREATMENT OF WOUND OF LEG.

MR. AUGUSTUS CLAY (Senior Casualty Surgeon, Queen's Hospital, and Assistant Surgeon, Orthopaedic and Spinal Hospital, Birmingham) writes: In answer to the query put by "S. H. J." as to the treatment of a wound of the shin, may I confidently recommend strapping as ordinarily applied to ulcers of the leg. The strapping should extend at least three inches above and below the wound, and the leg should then be bandaged over the strapping as high up as the knee. If this does not have the desired effect quickly, the wound should be dusted with powdered boracic acid, and the strapping applied as above.

TREATMENT OF WEBBED FINGERS.

MR. AUGUSTUS CLAY also writes:—In answer to the question as to the best operation for webbed fingers, may I say that where the webbed condition is not due to any osseous or deeper tissue coalescence but merely a prolongation of the skin, I believe Didot's operation is undoubtedly the best, judging by its ultimate results. This, as your correspondent may know, is effected by making two flaps, one from half the dorsal surface of one finger, and by the second from half the palmar surface of the other. These flaps are then turned so that the dorsal flap raised from one finger fits on to the palmar surface of its neighbour and *vice versa*.

LECTURES.

IN answer to several correspondents, we may state that Sir James Paget's address to the students of the London Society for the Extension of University Teaching has been published by the Society, and may be obtained from the office in the Charterhouse, E.C., price 6d. Mr. Murray's lecture on the Physical Training of the Greeks and Romans, given at the Parkes Museum of Hygiene, has not, so far as we are aware, been published in full.

WICKER COFFINS.

MR. WILLIAM KIRBY, basket maker, 40, St. Peter's Street, Derby, writes to say that he is the inventor of wicker coffins, which are, he considers, better named grave baskets, such as were shown at Stafford House some years since. The London Necropolis Company, Lancaster Place, Strand, have given up the use of wicker coffins, which they consider unsuitable, and now employ special "earth-to-earth" coffins, for which they claim the same advantages.

TREATMENT OF ABOBTION.

SURGEON writes: I was asked to attend a Mrs. —, who was threatened with an miscarriage. She was between three and four months pregnant. I did all I could to prevent this occurring, but the event came off, and I delivered her of a fetus about the age above stated, after a great deal of difficulty. I then tried to remove the after-birth, but, in consequence of great adhesions, I could only remove a small quantity. Acting upon the instructions given in Churchill's *Midwifery*, I decided it was better to try the result of ergot, and wait for events; this I did, and, upon the afternoon of the same day, a large clot and another portion of placenta came away, and the hemorrhage decidedly abated. I continued in attendance upon her daily for nearly ten days, when to all appearance she seemed to be nearly well. I cautioned her to keep very quiet until her next monthly period, and to do very little work or walking. She took no notice of my request, and flooding again commenced in three weeks, which again yielded to rest and treatment; and, when nearly well, she intimated a wish to go with some friends to spend the day a distance off. I very reluctantly consented, and then only upon the understanding that she went and returned by tram, instead of which she drove over rough roads, and in a very shaky vehicle. Flooding returned the same night more violently than ever, and, upon examining her, I found the os dilated to the size of one shilling, and, passing my fingers through, I detached a piece of placenta firmly attached to the middle part of the uterus, and extending beyond the reach of my finger; and as I could not get more than one finger into the uterus, I plugged, and waited for three hours, and gave ergot, the flooding still continuing in spite of the plugging. I removed the portion of placenta left. It took me quite half an hour to carefully detach this, in consequence of the undilatable condition of the os uteri.

Now, sir, the points in question are: Did I do right in following out Churchill's instructions, and leaving the portion of placenta; or would it have been better to forcibly dilate the os, and remove it, running the risk of phlebitis and puerperal septicæmia? I am very anxious to have a reply on this point, as I have been greatly blamed by the friends for not doing so at the time, and threatened with all sorts of calamities in consequence. I may say that three medical men of note and standing in the neighbourhood say I did quite the correct thing. One will not give an opinion, and one or two

others are trying to make capital out of it. I shall feel obliged if you will give me your opinion, as all books I have referred to say the course I took was the correct one.

* * In certain conditions, such as the case related presents, it is not wise to persevere too forcibly to detach the whole placenta at once. The very circumstances that lead to the abortion are likely to be attended by undue adhesion. Wait and watch should be the rule. If hemorrhage recur, ergot may be tried according to routine rule; if not stopping, injections of hot water and dilatation to facilitate detachment of placenta come into use. But so long as any placenta remains, rest should be observed. This the patient neglected.

(NOTES, LETTERS, ETC.)

INCOME TAX.

THE INCOME TAX REPAYMENT AGENCY (25, Colville Terrace, W.) write: In consequence of the numerous questions which have been asked us, directly or indirectly, after each letter of ours that you have published, Mr. Chapman has, in his new edition of *Income Tax, and How to get it Refunded*, added (page 29) a special section for doctors, telling them what deductions they are allowed to make from their gross income. It is a most important addition, for our experience has shown us that there is scarcely a medical man who is not greatly overtaxed and does not pay considerably more than he would do if he went the right way to make out his returns. We can boast that scarcely one of our clients in the profession has not either obtained a refund or got a reduction in assessment; often they get both. We know as a fact that, in the month of May alone, the Inland Revenue issued upwards of 20,000 post office orders for refunds, and we take credit to ourselves for a goodly number of these, either directly or indirectly. Another little book we strongly recommend is Lawrie's *How to Appeal against your Rates*. Armed with these two books no person should be over-taxed or over-rated. Mr. Chapman has also published another useful handbook, *Inhabited House Duty*.

AN APPEAL.

WE desire again to call attention to the appeal printed on April 14th (p. 817) to enable a medical man of good position, who has been reduced to destitution through no fault of his own, to buy a small practice and make a living for himself and wife. Contributions may be sent to Dr. Farquharson, M.P., Migvie Lodge, Porchester Gardens, W., or to Mr. Marmaduke Shield, F.R.C.S., 39, Stratford Place. Subscriptions have been received from Sir William Jenner, Sir James Paget, Sir Joseph Lister, Sir Andrew Clark, Sir Prescott Hewitt, Sir Spencer Wells, and others. Since the last insertion of this appeal, the following subscriptions have been received: Dr. Francis Waring (Brighton), £1 1s.; Mr. Bernard Roth, £1 1s. Further subscriptions are still needed.

A SOURCE OF INFECTION.

M.D. writes: Although my notes upon "A Source of Infection" were not intended to initiate a discussion upon antiseptics in midwifery, but to point to a possible hidden source of infection, I see, from the JOURNAL of June 16th, Dr. A. D. Macdonald has adversely criticised my remarks. My answers to his strictures are: first, when I say I used the "strictest antiseptic treatment," I mean it. Although I do not happen to prefer your correspondent's favourite drug (iodine), and although my conception of antiseptic midwifery is not embodied even in the free use of any single antiseptic, yet I flatter myself I carry out in every labour case the strictest antiseptic treatment. I do not feel myself called upon to state *seriatim* what these are, but I may mention the methods I adopt are partly those I carried out when resident accoucheur in a large maternity hospital, and partly those gained by experience and a careful study, not only of new drugs, but new methods. Secondly, your correspondent attempts almost to point the finger of scorn when he insists that, had the syringe been disinfected, there would have been no case of puerperal septicæmia, that the space of the JOURNAL would not have been uselessly occupied, and that he would have had to write pointing out my waywardness. To this I reply that the syringe was disinfected thoroughly before using it. Moreover, I did not begin intra-uterine irrigations until the disease had commenced. Thirdly, Dr. Macdonald advocates the return of the syringe to the chemist, to be given out on loan to other women in childbed, and says: "The syringe, I hold, should have been purified by iodine and perhaps also by corrosive sublimate." Why also by corrosive sublimate if iodine is the antiseptic? If Dr. Macdonald has not faith in iodine alone, why does he advise me to trust it? An antiseptic is either effective or it is a sham. Fourthly, I frankly admit I would rather expose myself to the charge of insisting upon even a working man spending 1s. 6d. or 2s. in purchasing a syringe for no other purpose than destroying it, than burden my conscience with the doubtful economy of sending out on loan any instrument which has been used in a case of puerperal septicæmia washed with two separate antiseptics, evidently suggesting my faith in neither.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. H. A. Latimer, Swansea; Mr. E. White Wallis, London; Mr. W. A. S. Roys, Reading; The Publishers of the *Provincial Medical Journal*, Leicester; Mr. F. W. Collinson, Preston; Mr. A. P. Luff, London; Dr. W. A. Carlisle, Lincoln; Mr. A. Crosbie Dixey, Torquay; Dr. H. K. Hitchcock, Bournemouth; Messrs. R. W. Greef and Co., London; The Income Tax Repayment Agency, London; Mr. Walter Jackson, London; Mr. G. Buckston Browne, London; Messrs. E. Street and Co., London; J. Baker, M.B., Portsea; Dr. W. R. Huggard, Davos-Platz; Mr. C. H. Phillips, Hanley; Messrs. W. Sutcliffe and Son, Halifax; Dr. E. L. Trudeau, New York; Mr. W. T. Grant, London; the Secretary of the Bourton-on-the-Water Hospital, Bourton-on-the-Water; Mr. B. S. Browne, Oxford; Brigade-Surgeon F. R. W. Wilson, Perth; Rev. A. Griffith, Uckfield; Dr. Holland, St. Moritz; the Secretary of the Society of Arts, London; Mr. J. W. Eastwood, Darlington; Mr. A. G. Valpy Elwell, London; Mr. J. A. Shaw Mackenzie, London; the Honorary Secretary of the Society for Prevention of Hydrophobia, London; H. R. Jones, M.B., Llanwddyn; Dr. J. Haddon, Melrose; Dr. C. R. Drysdale,

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BOOKS, ETC. RECEIVED.

- Saggio Sulla Scienza della Patologia Generale e sull' Accordo della Speculazione col Naturalismo. per R. Tornatora. Parte Prima. Napoli. 1888.
- Igiene degli Organi Vocali. di Sir Morell Mackenzie. Traduzione Italiana. del Dr. F. Massei. Napoli. 1888.
- The Textbook on Surgery—General, Operative, and Mechanical. By John A. Wyeth, M.D. London: Swan Sonnenschein, and Co. 1888.
- On Diabetes and its connection with Heart-disease. By Jacques Mayer, M.D. London: J. and A. Churchill. 1888.
- Home Nursing. By E. H. Margery Homersham. London: A. S. Mallett, Allen and Co.
- Nerve Prostration and other Functional Disorders of Daily Life. By Robson Roose, M.D., F.R.C.S. London: H. K. Lewis: 1888.
- On the Treatment of Acute Rheumatism with special references to the Use of the Salicylates. By Donald W. C. Hood, M.D. London: Harrison and Sons. 1888.

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REMARKS ON MYELITIS.

Read before the North London District of the Metropolitan Counties Branch of the British Medical Association.

By J. S. BRISTOWE, M.D., LL.D., F.R.S.,
Senior Physician to St. Thomas's Hospital.

ACUTE inflammation of the spinal cord is always a serious disease, generally attended with grave danger, and in a large proportion of cases fatal. But it varies so much in its symptoms, in dependence partly on the seat and extent of inflammation, partly on its intensity, that its diagnosis is often very obscure, and it is consequently liable to be confounded with other affections of the cord, or with diseases of the peripheral nervous system.

As a contribution to an exceedingly interesting subject I propose to narrate, and comment briefly on, several cases of what were, or on good grounds were believed to be, cases of acute myelitis, but which yet differed so much from one another in their severity, in their symptoms, and in their event, that they might well seem to have little or no pathological connection with one another.

The first case I shall quote is a typical example of severe myelitis ending in incomplete recovery.

CASE I.—The patient was a rural postman, 19 years of age, who was sent to me on May 17th, 1886, by Mr. Alfred Wright of Romford. On May 9th, while going his usual rounds he felt hot, for the day was sultry, and to cool himself walked into a brook with his boots on, and then lay on the grass and fell asleep. After he had thus rested for a time he walked home, feeling perfectly well, and he remained well during the rest of the day. Shortly after going to bed, however, he experienced some numbness and tingling in his arms and legs, and observed that he had a little difficulty in moving them. These symptoms had become much aggravated by the next morning; when he was found to be suffering from incomplete but well-marked paralysis of the arms and legs, with numbness of the lower extremities. The paraplegic symptoms increased upon him during the ensuing week, at the end of which time he was admitted into St. Thomas's. He had, up to the onset of his illness, always enjoyed excellent health, and had never had syphilis or rheumatism. He was a spare, healthy-looking youth, suffering from paralysis of his limbs and trunk, difficulty of breathing, and want of control over the rectum and bladder. He had absolute motor paralysis of the lower extremities, of the intercostal muscles, and of the other muscles of the walls of the trunk; so that he was quite unable to move any part of the legs, or to shift the position of his body as he lay in bed. The upper extremities were partially paralysed. He could not move his fingers or thumbs in the least degree; he could flex and extend the hands on the forearms slightly, and could also pronate and supinate the forearms. The triceps muscles were almost absolutely powerless; but the flexors of the forearms on the upper arms retained some power, and the arms consequently tended to become flexed at the elbows. He could use the muscles about the shoulder-joints fairly well. His breathing was entirely diaphragmatic; and, though he seemed to breathe without particular difficulty while making no effort, he soon became breathless when speaking or coughing. There was no paralysis of the muscles of the head and neck or face. The paralysed muscles were flabby but not tender. Sensation was impaired, but nowhere absolutely lost, throughout the lower extremities, and the lower part of the trunk to the level of the fifth dorsal vertebra behind and the ensiform cartilage in front. The anæsthesia extended a little higher on the right than on the left side. The tendon reflexes at the knees and ankles were wholly absent. The plantar reflexes were brisk on the left side, feeble on the right. The cremasteric and abdominal reflexes were absent; the scapular well-marked. The scratch of a pin on any part of the body was followed in a few seconds by factitious urticaria. The bladder was distended, the urine dribbling away. This fluid was slightly ammoniacal and cloudy with mucus. Bowels confined; but the feces had escaped unconsciously. The skin over the sacrum was reddened, but as yet free from bed-sore. There was no affection of the organs of sense, and the pupils and optic discs were normal. Temperature, 99.8; pulse, 72; respiration 16.

For some two or three weeks after admission the patient re-

mained very ill, suffering much from inflammation of the bladder, occasional dyspnoea connected with the paralysis of his intercostals, and loss of appetite, and sickness. Moreover the anæsthesia became more pronounced and extended a little further upwards; and the paralysis of the arms, and more especially of the left arm, increased; the arms, too, became rigidly flexed at the elbows, owing apparently to the combination of absolute paralysis of the triceps muscles, with the retention of comparatively considerable power in the flexors; and bed-sores formed. Even during this period, however, there was some return of power to the left lower extremity.

After this there ensued a period of two or three months, in the course of which there was, on the whole, considerable improvement; but during which certain phenomena remained with little change or even underwent aggravation. The anæsthesia gradually disappeared. Its upper limit descended slowly; and recovery advanced more rapidly in the legs and feet than in the thighs and lower part of the abdomen. By the end of August sensation was completely restored. The arms never lost feeling.

The improvement in the voluntary power over the lower extremities was uniform though slow. The left recovered the more rapidly; but slight return of movement was noted in the right as early as June 10th. A week later feeble knee-jerks were for the first time obtained. They were well-marked a few days later, and soon became unduly brisk; and early in July ankle-clonus was elicited on both sides. At this time he was able to move his legs, ankles, and toes freely as he lay in bed, the movements on the right side being feeble, those on the left of considerable power, the muscles of his trunk had all become stronger, and he was consequently able to move himself freely in bed. By the middle of August he could stand with assistance, and early in September he could walk across the ward by himself. At this time the lower limbs were small, having emaciated in some degree during his illness, but there had been no disproportionate wasting of muscles, and the knee-jerks continued excessive and ankle-cloni well-marked.

The recovery of the intercostal muscles was extremely slow; nor was it easy to say when improvement began in them. Early in September, however, it was noted that the lower intercostal muscles acted fairly, although the upper ones seemed still powerless. Not long afterwards the chest moved freely.

As before remarked, the upper extremities, and more especially the left, continued to fail after the patient's admission, so that at the end of a few weeks he had no power whatever in the forearms or hands or in the triceps muscles, though the flexors of the forearms on the upper arms still retained some power, and the muscles about the shoulders, though extremely weak, remained relatively strong. These muscles, moreover, wasted very rapidly. The deltoids became small and the muscles of the upper arms shrank almost to nothing. But the most remarkable attenuation was shown in the forearms and hands. The former became little more than skin and bone, and presented concave depressions before and behind, between radius and ulna in their whole length, the thenar and hypothenar eminences wholly disappeared, and the spaces between the metacarpal bones were deeply depressed. But long before the emaciation of the forearms and hands had attained its extreme point, the muscles about the shoulders and those of the upper arms had begun to improve; so that about the middle of July he could raise his upper arms freely and could extend the forearms. This improvement continued up to the time of his leaving the hospital. But little or no change took place in the condition of the forearms and hands; and the muscles of these parts, for the most part, refused to respond to galvanism. On the right side, however (which had always been somewhat less affected than the left), the patient could adduct the thumb slightly; and the extensors of the wrist and of the fingers showed a trace of galvanic irritability.

The bed-sores, which were in process of formation at the time of admission, were slow in healing. They finally got well during the month of September. It was long also before he obtained complete power over the bladder; the urine up to a late period running away from him involuntarily as he lay in bed. It was long also before the inflammation of the bladder, which presented occasional relapses, wholly subsided, and the urine became absolutely healthy.

He was discharged from the hospital on the 1st January, 1887, being at that time in excellent bodily health. He was very thin; his legs were small, and there was exaggeration of tendon reflexes with ankle-clonus, but he could walk well; his trunk muscles

had recovered perfectly; he had the use of the muscles of the shoulders and upper arm, which, however, were small and weak; but there was scarcely any amendment in the forearms and hands, which still presented no visible trace of muscle, and the latter of which were without power of voluntary motion, and bent into the form of claws.

The treatment consisted mainly in rest, in sedulous attention to the condition of the skin and bladder, in the endeavour to improve the general health with tonics, etc., and for some months in the daily use of the constant current.

There can be no doubt that the case just narrated was a typical case of myelitis, brought on by exposure to cold and wet, affecting mainly the cervical and upper dorsal portions of the cord, and resulting (as so often happens in cases in which the inflammation is extensive and severe) in permanent disorganisation of certain tracts of the cord, and permanent paralysis with nutritive lesions in the peripheral organs innervated from these disorganised tracts. I may add that I have seen the patient at intervals since he left the hospital, and that the condition of his upper extremities remains unchanged, while in all other respects his health has improved.

It is interesting to compare with this case another which has recently been under my care, in which the affection was extremely slight (so slight indeed that possibly some may be inclined to dispute the accuracy of my diagnosis), and from which recovery was comparatively rapid and complete.

CASE II.—A healthy young man of nineteen, a clerk on the Stock Exchange, went on Sunday, December 19th, 1886, for a walk from the West End of London to Hampstead Heath. The day was extremely cold, and he sat and sauntered about on the heath for some time. He walked home, and on his way complained that his legs were cold, and that he could not make them warm. The next day he went to the city as usual, and continued to go backwards and forwards until Christmas Day. During this period the sense of coldness in his legs continued; and occasionally he complained of numbness in them; and of pins and needles, especially when they were touched. On one occasion he went to the closet, and got up after a time, thinking he had gone ineffectually, but found to his surprise that he had passed a large stool. This was the only occasion on which anything definitely amiss was noticed in regard to his emunctories. His brother, who was a medical student, found out also during this week that there was impairment, but not actual loss of feeling, in the feet, ankles, and along the front of the legs, and that his tendon and superficial reflexes were normal. I did not see him professionally until the 25th, when there was already some improvement. At that time he still complained of coldness, with pins and needles, in the legs; and there was marked impairment of sensibility in the regions before named. But his reflexes were normal, and he was healthy in all other respects. In the course of the next ten days the condition of his right leg became normal; but the left leg from the knee downwards still felt slightly numb; and tactile sensibility was obviously impaired in the feet and ankles. At the end of a fortnight from that time he was perfectly well. On subsequently making minute inquiries I learnt, in addition to what is stated above, that while at his worst the passage of his motions was scarcely perceived by him, and that on several occasions he dropped a slipper and walked about without knowing it. His general health throughout was perfectly good; his tendon reflexes remained unaltered, and the muscular strength appeared to be unimpaired. He never had tenderness or pain in the muscles or nerves. He has continued well ever since.

There is no reason to doubt, I think, that this was a slight case of myelitis. The apparent cause, the symptoms, and the result, are all compatible with this view. The only reasonable alternative suggestion is, that it may have been a case of multiple neuritis. Whichever hypothesis, however, be accepted, it is obvious that the sensory region was alone or mainly involved.

In contrast with the last, the next case presented impairment of the motor functions only.

CASE III.—The patient was a married woman, aged 49, who had enjoyed excellent health. She had been nursing her mother, night after night, for some time; going to the house (which was about a mile from her own) every evening. On the evening of January 9th, 1887, which was exceeding cold, she was kept standing outside her mother's house for a considerable time, and she recollects that while waiting she had slight aching throughout the left leg. She sat up as usual, the room being very cold, and her legs feeling very cold. About 3 A.M. she tried to rise from

her chair, and found to her surprise she had lost all power in her legs. She had to be taken home in a cab, and remained paralysed, and with little or no control over her evacuations, until her admission on January 20th. She said that her legs had felt numb for a day or two at the beginning, but that this condition had disappeared.

On admission she had a few small bed-sores; she was unable to stand, but could move her legs feebly in bed; there was no pain or loss of sensation; the knee-jerks and plantar reflexes were present; she could not sit up without assistance; the urine dribbled away and the motions escaped without control; she presented some tenderness along the dorsal spine, and the left lower extremity was somewhat oedematous. It may be added that she had had oedema of the left leg off and on during the last two or three years. With the exception that her bed-sores troubled her for some time, and that for some time her urine was ammoniacal and offensive, she improved rapidly during the early part of her stay in the hospital. The right leg had recovered completely by the end of three or four weeks, and the left leg had improved so much, that with assistance she could walk a little; also she re-acquired control over the rectum and bladder. Then the oedema in the left leg increased, and this limb consequently became weak, and she continued with little change for two or three months. Subsequently the oedema diminished, and the left leg improved again; but when she left the hospital, nearly five months after admission, the left leg was still somewhat oedematous, and was still so weak that (though she could move it freely) she was unable to stand upon it. It was supposed that the oedema was connected with some old plugging of the veins. At any rate, no disease within the abdomen that might account for it could be discovered. I may here mention that the tendon reflexes became unduly brisk.

In this case, as in the last, there is room for difference of opinion with regard to the nature of the disease. It is obvious, however, that the lesion occupied the motor region of the cord, and only a limited extent of it in the dorsal region. There was certainly no evidence of vertebral disease; there was no history of syphilis, nor was she treated for syphilis; there could not have been a tumour. Indeed, the only alternative suggestion is that there may have been sudden hæmorrhage into the substance of the cord. This explanation, however, is for many reasons unlikely.

I pass from these to the consideration of two other cases in which fatal myelitis was associated with similar affection of limited regions of the nervous organs within the skull; cases which seem to show that, just as the more chronic inflammatory condition, commonly called sclerosis, has a tendency to attack at the same time, or in sequence, different parts of the nervous centres, so the more acute form of inflammation may occasionally become disseminated. At any rate they show that inflammatory softening at first limited to the brain or cord is apt to become complicated by inflammatory softening of other parts of those organs which have no direct or apparent connection with the regions affected in the first instance.

CASE IV.—The first of these cases was published in detail in the fourth volume of the *Ophthalmological Society's Transactions* by my colleagues Dr. Sharkey and Mr. Lawford. It was that of a girl, aged 17, who was admitted into the Royal London Ophthalmic Hospital on November 22nd, 1883. She had had fairly good health up to November 9th. On that day her eyesight began to fail, and by the 13th she was quite blind. She had had neither headache, sickness, paralysis, nor fits. On admission she was well nourished but somewhat anæmic. She had slight enlargement of the thyroid body, which had existed as long as she could recollect, but her only complaint was of blindness. The pupils were dilated and inactive to light, but there was no ocular paralysis. Well marked optic neuritis was discovered in both eyes. In every other respect she seemed healthy.

She continued in the same state until December 8th, when she observed a little weakness in the left leg; this rapidly increased, so that on the 12th, when she first complained of it, she could not walk; the leg was powerless and slightly rigid; sensation was impaired in it, and the knee-jerk was excessive. On the 13th the paralysis of the left leg had advanced, and there was also slight loss of power in the right. On the 14th there was absolute loss of power in the left lower extremity, and anæsthesia extended on the same side as high as the nipple; the right leg was partially paralysed and anæsthetic, and she passed urine into the bed for the first time. In the course of the morning she had a fit lasting for about ten minutes, and unattended with unconsciousness, in which the right arm and leg were convulsed. Her tem-

perature, taken in the day, was 100.2° F., and her pulse 96. On the 15th she was emotional and excited at times, and passed her evacuations unconsciously. On this day she was removed to St. Thomas's, and placed under my care. She continued in much the same state. On the 19th, 76 ounces of urine, which were clear and acid, but offensive and containing a trace of albumen, were drawn off. On the 22nd it was noted that there was complete paralysis of both legs, loss of control over the emunctories, evident weakness of the left hand, loss of sensation, not only in the legs and over the greater part of the trunk, but likewise in the left forearm and hand on the ulnar side. The knee-jerk was excessive on the left side, normal on the right; no ankle clonus; no tendon reflexes could be obtained in the arms. On the 23rd sensation was impaired in the right forearm and hand, and she complained of pain across the lower part of the abdomen. On January 4th it was noted that the condition of the legs remained the same, that sensation was deficient in both forearms, and that the urine was offensive and contained pus. The muscles and nerves of the affected limbs were reported by Dr. Kilner to present the reactions of degeneration. The temperature, which had only been moderately raised up to December 29th, had since that date varied between 101° and 105°. There was also much epigastric pain. Little alteration occurred during the next few days, excepting that the presence of peritonitis became evident, and a slight double external squint was noticed. She died on January 10th, sixty-two days from the time when her vision first failed, and twenty-nine after the first appearance of symptoms of paralysis.

Necropsy.—There was acute peritonitis, due to extension of inflammation from the bladder, the mucous membrane of which was intensely inflamed. The inflammation had extended all along the ureters to the pelvis and substance of the kidneys. The thyroid gland was considerably enlarged. The brain and contents of the skull generally to the naked eye appeared to be absolutely healthy; but microscopic examination showed that there was intense inflammation of the optic discs, nerves, commissure, and in a less degree of the optic tracts; and that slight evidences of inflammation were present in the meninges about the chiasma and on the adjacent surface of the frontal lobes. The spinal cord presented no abnormal appearances, except over a space two or three inches in length in the lower cervical and upper dorsal regions; there it was intensely congested and much softened. The microscopic appearances of the affected region confirmed the opinion that the changes were due to inflammation. In the cervical cord above the seat of obvious disease, inflammatory changes were observed extending along the columns of Goll; and, again, in the lumbar enlargement the columns of Goll were alone affected, the nerve-fibres having undergone complete granular degeneration, and some of the vessels being crowded with leucocytes. The other parts of the cord appeared to be healthy.

CASE V.—The next case was sent into the hospital on December 28th, 1886, by Dr. Bower, of Peckham Rye, and placed under my care. The patient was a labour master at the Camberwell Workhouse, aged 24. In 1883 he had had syphilis, followed by slight secondaries, but in other respects seems to have been healthy until last September, when he began to complain of occasional lumbar pain, aggravated by exercise. This, which did not prevent him from working, continued without much change up to eight weeks ago, when it became more severe, extended up the back as high as the shoulders, and outwards into the hips. He was now compelled to take to his bed, and from about this time he gradually lost power over his lower extremities and control over his rectum and bladder.

He was a well-built but pale and spare man, with an anxious expression of face, and complaining of pain at the back and front of the head, of pain in the loins extending at times to the hips, of absolute loss of motor power in the lower extremities, and of incontinence of urine. He had no voluntary power whatever over the legs, but sensation in them was perfect. The knee-jerk was absent on the right side, and feeble on the left; but the plantar reflexes were brisk, as also were the cremasteric and abdominal. No other nervous affection was present, and the pupils acted to light and accommodation. He had no tenderness or curvature in the spine, and there was no evidence of tumour anywhere. The urine was alkaline and ammoniacal, and there was a small bed-sore. His thoracic and abdominal organs appeared to be healthy.

No improvement whatever took place after admission. On the contrary, the symptoms underwent gradual aggravation; the paralytic affection of his lower extremities increased; the bed-

sores extended in area and depth; the bladder (varying a little from time to time) continued inflamed; he lost flesh and strength; and he suffered so much and so constantly from pain in the loins, hips, and back of the thighs, that (although no tumour could be felt) it led me to suspect that he was suffering from malignant disease about the lumbar vertebræ—a suspicion which I entertained to the last.

On January 6th it was noted that sensation had become impaired in the left lower extremity, as high as the knee in front and the buttock behind, that both knee-jerks were now absent, as also the cremasteric and lower abdominal reflexes. Early in February it was observed that his legs were apt to become stiff and drawn up involuntarily; but, excepting that he was weaker and more emaciated, no change of importance had taken place. The plantar reflexes were present, but feeble.

During the afternoon of February 4th it was found that the patient had almost suddenly lost the use of his left arm; he could not lift it from the bed. He had no power of flexion at the elbow, and very little power of flexion or extension at the wrist or finger-joints. The hand felt numb, but there was no discernible anaesthesia. The elbow-jerk was diminished on this side. No pain, giddiness, or fit of any kind attended or had preceded this paralytic attack. On the 6th the loss of power in the arm (which was kept rigidly extended) was absolute, but there was still no anaesthesia in it; also the tongue was protruded to the left, and there was some weakness of the lower part of the left side of the face. These facts were important, for they showed that the paralysis of the arm was not spinal, as had been at first suspected, but cerebral. About this time it was noted that painful impressions made on the left leg were referred by the patient to the right leg; but he was apathetic, and always disinclined to concentrate attention or to answer.

Very little further change occurred. A day or two after the last observation was made the paralysis seemed to have disappeared from the face and tongue, and the patient was able to move his thumb and fingers slightly; but shortly afterwards the weakness of the lower part of the face and tongue had returned. His bed-sore, which had improved, began to extend; his urine was ammoniacal, loaded withropy mucus, and highly offensive; he grew more and more apathetic and drowsy, though still wearing the aspect of much suffering; his pulse became rapid, he perspired profusely, and evidently the end was fast approaching. He died at noon on February 18th, his death being preceded by drowsiness, profuse sweating, great rapidity of pulse, and rising temperature. This had varied for the most part since admission between 97° and 101°, but on the evening of the 15th it rose to 102°; during the 16th and 18th it varied between 98° and 100.4°; at 6 A.M. on the 18th had risen to 105.6°, at 10.30 to 107.6°, and immediately after death was found to be 109.4°.

It need only be stated, as respects treatment, that having regard to his syphilitic history he was put on a course of iodide of potassium and mercury, that morphine was employed to relieve his distress, and that his bladder was systematically emptied and washed out with antiseptic solutions.

Necropsy.—The body was much emaciated, and there was a long and deep bed-sore over the sacrum. There were no syphilitic lesions anywhere, and, with the exceptions to which special attention will be drawn, the viscera were healthy. Membranes of brain healthy. A few patches of thickening were observed in the arteries at the base of the brain, but the vessels were all pervious. In the centre of the right centrum ovale minus was a patch of yellow softening, in which were a few small haemorrhages. It was oval, about three-quarters of an inch in its long diameter, and only a few lines thick. Another patch of softening, about the same size as the last, and also on the right side, involved the posterior third of the lenticulo-striate portion of the internal capsule, and the contiguous parts of the caudate and lenticular nuclei. The two patches were quite independent of one another. In all other respects the brain was healthy.

Membranes of cord healthy. From the tenth dorsal vertebra downwards the cord was extremely soft, in fact almost diffident. The grey and white matter could scarcely be distinguished in the lumbar region. To the naked eye all other parts of the cord seemed healthy.

There was no disease of the bones of the skull or spine.

The bladder was inflamed; the ureters and pelvis of the kidneys were dilated and inflamed, and the substance of the kidneys was congested, and presented a few minute abscesses.

The last case I shall quote is one concerning the nature of

which there may reasonably be, as in regard to my third case, some difference of opinion. On the whole I believe the case to have been one of myelitis; and partly for this reason, but more on account of its clinical interest, venture to include it in the present paper.

CASE VI.—W. J., a carpenter, aged 27, was admitted under my care on March 25th, 1886. His health had been excellent, but he said that he had had local venereal sores, though never secondary symptoms. In the previous November, he was struck in the right flank by a lift, which came down suddenly upon him, and squeezed him against a table over which he was leaning. He was laid up for nearly six weeks, not on account of any spinal symptoms, but mainly because of pain and swelling of the right knee. At the end of that time, though still weak, he resumed his work. His present illness dated from early in January, when he began to suffer from pain in the part of the back where he had been struck. This was followed by numbness and weakness in the left foot, which, in the course of a day or two, extended up to the knee. A fortnight later he began to lose feeling in the right leg. The anæsthesia in his right leg and the loss of muscular power in his left had progressively increased, but he had never had incontinence of urine or feces.

State on Admission.—A healthy-looking, well-developed man. He had complete anæsthesia and analgesia of the right lower extremity and right side of the trunk, as high as the sixth rib in front and tenth dorsal vertebra behind. There was also a belt of anæsthesia and analgesia, about four inches wide, encircling the left half of the trunk, the upper level of which corresponded to the upper level of the anæsthesia on the right side. There was no impairment of sensation on the left side, excepting in the belt above described. There was considerable loss of power in the left lower extremity. He could move all parts of it in all directions, but the movements were very feeble, and could be arrested by the finger. The right leg, he said, was as strong as ever it had been, and it appeared to be normally powerful. He could walk when supported on the left side, but he moved his left leg feebly, and, at the same time, its movements were ataxic. The superficial reflexes were much exaggerated on the right side; brisk, but normal, on the left side. On the right side the tendon reflexes were feeble, but on the left they were excessive, and there were both ankle- and knee-clonus. Moreover, the testing for reflexes in the left leg brought on violent tremors in it, lasting for some time. The abdominal reflex was absent on both sides. There was no loss of control over the rectum or bladder, and no bed-sores, and no affection whatever of arms, head or neck, or organs of sense. There was no pain, tenderness, or curvature in the course of the spine.

It is needless to give details as to the progress of this case. It is sufficient to say that the account above given was fully confirmed by repeated observation; that he complained for some time of more or less uneasiness, pain, and sense of constriction about the loins and upper part of the abdomen; that gradually, in the course of months, sensation returned in great measure to the anæsthetic regions, and the left leg regained power; that after a while (although still the tendon reflexes remained more brisk on the one side, and the superficial reflexes more brisk on the other), the superficial reflexes became nearly equal on the two sides, while some excess of knee-jerk and ankle-clonus became developed on the right side; that delayed sensation was observed on the anæsthetic side as sensibility returned; that no evidence of spinal disease, or of tumour, or of extension of nervous lesion ever appeared; that his muscles had not wasted, and his general health remained good; and that, when he left the hospital on August 11th, although much improved, sensation on the right side was not restored absolutely, and his left leg was so weak that he could only walk with the aid of two sticks. But improvement was still in progress.

For a time the patient was treated (in the hope that his disease was syphilitic) with iodide of potassium and mercury; also an issue was made near the spine, in the neighbourhood of the part on which the blow had been inflicted; and, latterly, the constant current was applied systematically.

In introducing this case I said that there was room for difference of opinion in regard to diagnosis. The accident to which he naturally attributed his paralysis occurred eight or nine weeks before the onset of paralytic symptoms, and, although he was laid up after it for six weeks, this was mainly, if not solely, due to the injured knee; moreover, the blow he received from the lift was on the right side just above the crest of the ileum, and did not involve the spine at all. I was disposed to think at one time that

he had vertebral caries; nor can I be sure that this was not the case, for I have not infrequently known paraplegia to be due to vertebral caries, when there has been not only no spinal curvature, but no pain or tenderness whatever. But there was no direct evidence of caries, and the fact that he continued to improve, although allowed to get up, is opposed to this explanation. Whether the disease was syphilitic remains an open question. The patient seems to have had syphilis, but had never presented any signs of secondary or tertiary disease. The belief that the symptoms were due to inflammatory softening of the cord—which, on the whole, is the view of the nature of the case which I am now disposed to adopt—is not, of course, incompatible with the syphilitic origin of the disease. The case is the most striking example I have ever seen of the limitation, in disease of the cord, of anæsthesia to one side of the body and of motor paralysis to the other side. It is clear that the lesion, whatever it was, involved only a short length of the left half of the mid-dorsal region of the cord.

I have little to add by way of comment on the above series of cases. There are a few points, however, which they seem to illustrate, and to which I may direct attention. In the first place, they show how widely cases of myelitis may differ from one another in degree of intensity and prospect of recovery. In the second place, they show that the inflammation may attack any region of the cord and any extent of it; and that the lesion may be multiple, and (as in disseminated sclerosis) affect at the same time or in sequence different parts, not only of the cord, but of the cord and brain. And, in the third place, they seem to show that, while in some cases the affection comes on immediately after its apparent cause, and rapidly attains its full development, in other cases its onset is insidious and its course progressive.

That myelitis is often attributed to exposure to cold or wet, or to both, is undoubted, and some of my cases are typical examples of this fact. It is probably in such cases that the onset is sudden, and the affection of the cord attains its highest point in a short time; but in some cases there is no evidence that temperature or allied conditions have had any causative relation to the attack. In my last three cases no such explanation was suggested. In two of them there was a history of syphilis, but there is no sufficient reason to assume that in either of them syphilis was the cause of the myelitis. In one of these two the patient had received an injury, but so long an interval had elapsed between the accident and the coming on of paraplegia, that it seems scarcely likely that this was the actual cause. In the remaining case, that of the girl of 17, there was no hint of syphilis or injury, and the girl had been a healthy girl up to the very moment at which failing sight gave the first indication of cerebral mischief. In her case, as also in my fifth case, the disease was prolonged and rendered fatal by secondary extension or dissemination of softening; but this extension would seem to imply the persistence and widening operation of the cause on which the primary lesion itself depended, and would suggest, therefore, either the presence of infective organisms or some constitutional defect, such as tendency (from whatever cause) to obstructive disease of small arteries, and consequent nutritive changes in the part to which the obstructed vessels are distributed. I am inclined, arguing from the facts of certain cases of softening of the pons Varolii and other parts of the brain which I have met with, and some of which I have published, to believe that in many cases of softening of the cord the softening is immediately due to obstruction (thrombotic or other) of the smaller arteries. And I may point out that the strict limitation of the lesion to the lateral half of the cord, as occurred in my last case, is best explained by this hypothesis. Such obstructions, as I have already hinted, might of course be syphilitic.

THE CONTAGIOUSNESS OF LEPROSY.—The Rev. Canon Baker, of Cape Town, to whom we are indebted for an interesting pamphlet—*Remarks on the Spread of Leprosy at the Cape of Good Hope*—writes to us, expressing his belief in the contagiousness of leprosy, and mentions a remarkable circumstance as being within his own knowledge, namely, that in a certain house three consecutive cases of this disease occurred in individuals not connected by consanguinity or marriage.

DONATIONS.—Mr. J. C. Burton Borough, of Chetwynd Park, has given £200 to the Salop Infirmary, Shrewsbury, in lieu of an intended legacy.—Lord Robartes has given a hundred guineas, and the Rev. J. Harvey £50, to the North London Hospital for Consumption.

ABSTRACT OF
THE CROONIAN LECTURES
ON
ANTI-PYRETICS.

Delivered before the Royal College of Physicians, June, 1888.

By DONALD MAC ALISTER, M.A., M.D., F.R.C.P.,
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LECTURE II.

IN the first lecture the anatomy and physiology of the thermal nervous system was dealt with, in order, among other things, to show that, in the minds of those who are most actively engaged in experimental inquiry, the conviction of its existence is a guiding principle, and no longer a plausible speculation only. Without a sufficient belief in the definite character of the apparatus of thermal nerves and centres, some of what was about to follow would appear more theoretical than it really was.

In the second lecture, partly by way of relief, certain questions would be discussed connected with what might be termed the teleological pathology of pyrexia. It was admitted that fever is a sign of disorder, of disturbance, of a physiological function or functions. But in all ages some had maintained, and the proposition was now being revived, that this disorder is not wholly or not in itself injurious. It was regarded as a wholesome reaction against a *materies morbi*, a manifestation of the *vis medicatrix*. Cohnheim had asked: "What is the deeper meaning, the true significance underlying the febrile process? Does the organism gain any advantage from the rise of temperature which characterises pyrexia?" He had answered that it might plausibly be maintained that in febrile heat we should recognise a sanative power, by which the body consumed and destroyed a virus it could not directly eliminate. From a practical point of view it might be more urgent to appraise the dangers which menace the body in fever, and, before a conclusion was reached, it would be necessary to distinguish with certainty and precision between the parts played by the specific febrile disease and the disorder of the body-heat which accompanied it. "But," added Cohnheim, "when that time comes, I anticipate that physicians will more and more regard fever, not, indeed, as a condition free from danger, but as, on the whole, a wise provision of Nature."

Hilton Fagge was inclined to take a like view, but had given few reasons other than those based on a possible explanation of the phenomena of relapsing fever and ague. It would be well to examine more closely the grounds of this view that fever serves a salutary purpose.

After the long prevalence, especially on the Continent, of the idea that the dangers of fever are primarily due to the high temperature, and that to reduce the latter is the chief end of treatment, the reaction is remarkable. It was due, to some extent, to disappointment with the effects of vigorous antipyretic treatment, external and internal, on the course of the specific fevers. Expectations had been exaggerated because based on a one-sided theory, and they had not been fulfilled.

Another factor in the reaction was the growth of the germ-theory. The thesis of those who extended their bacteriological speculations to fever appeared to be—the specific fevers are due to the intrusion into the body of certain specific living cells or microphytes. These engage in a struggle for subsistence with the tissue-cells of the body. Pyrexia is a reaction brought about, by natural selection, to favour the latter in the struggle, and to hamper or disable the former. The result is, or should be, that the microphytes are overcome, consumed, and thus through fever the body is restored to health.

It was true that some of the best known microphytes were checked in their growth or multiplication by high temperatures. Gaffky showed that typhoid bacilli formed spores with difficulty at 107.5° F.; Koch, that tubercle bacilli ceased to grow after being kept for some weeks at a like temperature. The bacillus anthracis continues to grow, but loses in virulence if kept for some weeks at 108.5° F., or for some days at 109.5° F. Surely it could not be held that such facts were really relevant. A body-temperature of 107° to 109°, kept up for days or weeks, was too

powerful a remedy. The body would be consumed before its parasite.

A less direct explanation was suggested in a recent lecture by Von Ziemssen, namely, that the pyrexia so alters the constitution of the tissues, that the microphytes no longer find in them a suitable soil and so perish. But against this was the fact that the exanthemata tended strongly to run a definite course, whether the fever were high or low. The gravity of the infection stood in no proportion to the less or greater intensity of the pyrexia. Rather was it the case that the highest fevers were the most enduring, the slighter forms the briefest.

The cases cited by Hilton Fagge, by Murri, by Finkler and others, in which the febrile paroxysm seemed to have a destructive effect on the living virus of relapsing and of intermittent fevers were then discussed, and were shown to admit of a simpler explanation, one applicable to all the specific diseases attributed to microparasites. These parasites seem, like other living creatures, to have a definite life-period, in which they grow, multiply, exert their special action, and decay. This period is independent of pyrexia, independent of antipyretic treatment, independent of external conditions. The definite duration of its virulence in typhus, measles, small-pox, etc., the sudden extinction of its vitality at the crisis in croupous pneumonia bespoke a normal biological property in the virus, a law of its life which forbade it to endure longer than a certain time.

It had shrewdly been asked (by Goldscheider): If pyrexial temperatures are not in themselves dangerous, but merely serve to purify the body without injuring it, why are they in ordinary cases confined within such narrow limits? If fever be a process with a purpose, would it not be better to nip the growth of the microphyte in the bud by a prompt and intense rise of temperature at the beginning of the illness?

In concluding this part of the argument, the lecturer asked a question of those who relied on the all-embracing doctrine of evolution, and argued that so universal a symptom as fever following on bacterial invasion could only, in the course of ages, be developed if it conveyed some advantage in the struggle for existence. Were not the bacterial plants also engaged in a like struggle? Had they not, too, in the course of ages, acquired properties which helped them to grow and multiply? Might not the fever they induced be salutary—to the bacteria? He laid no stress on such an argument, but adduced it to show that the reasoning of the germ-theorists on fever was two-edged, and could be turned against themselves.

A general fallacy underlay many speculations of this kind. In speaking of fever generally, of its treatment, of antipyretics and antipyresis, the febrile process had been too much regarded as a single entity. There were many morbid processes having fever as a concomitant; some one or other of these was studied, and the laws arrived at for its causation, pathology, and treatment were too hastily generalised, so as to apply to other and widely different morbid processes. If we were to admit it possible that, in relapsing fever and in ague, the pyrexial attack conveyed some benefit, it would be rash to infer at once that all pyrexia is beneficial, and apply the law to cover acute rheumatism or septicæmia. In fact, fever was at best a symptom, and a symptom whose significance was very different in different cases. Parallel illustrations from the phenomena of cough and of pain were given. The only sound therapeutic method was to study the particular circumstances in which the symptom arose. Yet there were two extreme schools—one insisting that all pyrexia is dangerous, and that high temperature must be lowered at any cost; the other, whose headquarters were at Vienna, maintaining that, as fever is salutary, it should not be meddled with—the school of pure expectancy.

The postulate of the latter had been dealt with; it was worth while to examine the postulate of the former: that high temperature is purely mischievous, and the efficient cause of all the dangers that threaten a fever-patient's life. Dr. Cayley, in a previous course of Croonian Lectures (1880), had dealt with this question in a masterly way, and his conclusions were quoted. He thought it decisively proved that the view in question was only in part correct, and that many of the morbid phenomena accompanying fever occurred independently of it. The lecturer would not go over the same ground, but adduced new considerations, bearing out and strengthening Dr. Cayley's conclusions. In the first place, he referred to his Gulstonian lectures in illustration of the point that "high temperature" was an ambiguous term, and might or might not connote pyrexia. The temperature might be raised in various ways, some of them harmless. In thermal ataxia,

in disordered thermolysis without other change, the temperature might rise and remain high. But there was good ground for the belief that such non-pyrexial elevation of temperature was not in itself dangerous. Take, for example, the cases of aseptic operation, described by Volkmann and other surgeons, in which a temperature of 104° or 105° was accompanied by no loss of appetite, no distress, no symptom such as could be called characteristically febrile.

Many of the current beliefs as to the beneficial effects, functional and textural, of mere high temperature were based on experiments in which animals were forcibly overheated. These experiments were examined critically, and in the light of fresh researches, such as those of Naunyn, and Welch of Baltimore, shown to be capable of other interpretation. With due precautions, such animals could be kept in comfort and without permanent damage for days or weeks, their rectal temperature being, on the average, 106° F. Danger did not arise till a much higher point was reached; and then the evidence proved that the overstrain on the thermal system broke down the regulating mechanism, and complete thermal dissolution or hyperpyrexia set in.

The phenomena of relapsing fever were adduced as bearing in the same direction. In this disease, the subjects of which were often weak and anæmic, temperatures of 107°, enduring for five or six days, were common, and were tolerated well, as was shown by, among other things, the small mortality (4 or 5 per cent.).

The conclusion ultimately reached was: That high temperature in itself was not proven to be salutary, neither was it in itself the efficient cause of all the morbid phenomena commonly described as febrile.

ON RARE DISEASES AND EXCEPTIONAL SYMPTOMS.

By JONATHAN HUTCHINSON, F.R.C.S., F.R.S., LL.D.,
Emeritus Professor of Surgery at the London Hospital.

(Continued from page 1112.)

XXXIII.—ON THE SIMULATION OF OBSTRUCTION OF THE BOWELS BY ATTACKS OF GALL-STONE COLIC.

At the Association Meeting at Brighton, Dr. Ord gave a valuable address on some of the rarer symptoms produced by gall-stones. The diagnosis of hepatic (or cystic) colic is of much interest for surgeons, on account of the frequency with which the passage of a gall-stone simulates abdominal obstruction. I am not thinking of cases of real obstruction by the impaction of a gall-stone in the bowel, but of cases in which constipation and vomiting are due to a stone of small size impacted in the neck of the gall-bladder or its duct. I can fully support Dr. Ord's statement that attacks of gall-stone are often not attended by jaundice. I well remember many years ago meeting two physicians, together with the family surgeon, at the bedside of a gentleman who was supposed to be the subject of acute internal strangulation. There had been much vomiting, and forty-eight hours constipation. The way in which the pain had begun, and the patient's distinct reference of it to the region of the gall-bladder, with other symptoms, made me think that it must be a case of gall-stone. On expressing that opinion I was met by the rejoinder that there was no jaundice. The discussion was vigorous, and the family surgeon, taking the matter up warmly, had the motions carefully strained, with the result that three days afterwards a gall-stone as big as a horse-bean came away. Dr. Ord states that gall-stones are often present, and may even pass into the bowel, without there ever having been present any of the symptoms usually supposed to indicate them. If by this statement is meant only the absence of severe attacks of colic with vomiting and jaundice, then I can quite agree with it. I believe, however, that almost always minor attacks of pain, more or less sudden, such as are often called "spasm of the stomach," have been present. It is difficult to accept the statement that gall-stones may leave their location and escape by the bowel, there having been from first to last no symptoms of their presence. Hepatic colic is a far more common event than it is generally supposed to be, and many cases escape recognition because there is a general belief that jaundice ought to be present.

We are indebted to Dr. Ord for showing that this symptom may be wholly absent, even in severe cases and where the stone is large. With Dr. Ord's second proposition I can also fully agree. It is

that gall-stones, far too big to pass through the common duct, and which can, therefore, only get into the bowel by the formation of an ulcer of communication, do escape by that process without producing any very severe symptoms, either general or local.

I have several times known stones of very large size, big enough to quite plug the bowel for a time, to be got rid of by patients who had never been seriously ill. I do not say that they had never had tenderness over the part, nor that slight paroxysms had been wholly absent, but these had been so unimportant as to attract but little notice. In cases in which in reference to proposed operative measures it is necessary for the surgeon to diagnose as to gall-stones, it is of great importance to take cognisance of these slight attacks of colic. They may have been very transitory, but if they have been present they count for much in helping us to an opinion.

The use of anæsthetics to full insensibility, kept up for a long time, and both preceded and followed by opiates, is, I suppose, the best treatment for all forms of gall-stone colic. It does not matter whether the stone is impacted in the common duct or in the bowel, we can scarcely do better than prevent spasm and favour relaxation of the parts concerned. By these measures I have, in several cases in which I had been called in with a view to operation, succeeded in quite removing symptoms which were very urgent.

It is of interest to know that attacks referred to stomach disorder from indigestible food are often really hepatic colic due to the presence of gall-stones. By the patient I have no doubt that this mistake is constantly made, and the surgeon must be cautious of taking the lead suggested. A gentleman was liable to attacks of pain which he referred exactly to the site of the gall-bladder, but which, he said, were produced by certain articles of food, such as carrots, broad beans, etc. The pain, he said, was often terribly severe, and might last a whole night, and even on one recent occasion for three days. It always left a sense of soreness over the whole region. He had never had jaundice. I told him that, in spite of his impressions as to the influence of food, I had no doubt that his attacks were due to gall-stones. He corroborated my diagnosis by at once telling me that his father and a sister were known to have voided them.

XXXIV.—ON THE ACUTE BRONCHOCELE OF ADOLESCENTS. AN AUNT AND NEPHEW AFFECTED AT CORRESPONDING AGES. COMPLETE RECOVERY OF THE FORMER.

There is a variety of bronchocele which, as far as my experience has gone, is almost peculiar to adolescents, which increases very rapidly, and is sometimes attended by urgent symptoms of tracheal compression. It is worth study as a form of constitutional disease, and the following narrative affords two good examples of it.

M. P., aged 18, was brought to me by Dr. Greenwood, of Dalston, for a very large, soft bronchocele which embraced the whole front of his neck and was already causing some difficulty of breathing. He did not know how long it had existed, but thought that it had been there only a few weeks. He was a tall lad, of rather dark complexion. His pulse was soft, and his hands chilly and rather dusky. He considered himself in good health, and there were no indications of Graves's disease excepting a certain degree of irritability of the heart. I inquired carefully as to family history, and was told, that the disease had never occurred in the family before, and that none of his predecessors had lived in Derbyshire. A month later M. P.'s mother came with him, and I then got a fresh fact as to the family history. She said that her eldest sister had, when about our patient's age, suffered from an exactly similar affection to that which her son now had. This sister was now 60 years of age, very thin, but in tolerably good health. When adolescent she was much out of health, and was for two years under treatment for "Derbyshire neck." The bronchocele at length entirely disappeared, and at the present time her neck is thin rather than otherwise. No other relative was known to have had bronchocele, but my patient's mother, who was a very intelligent woman, said that it was the rule with all her relatives to be delicate from the ages of 16 to 25; several had been seriously ill, and two or three had died (of phthisis?). Those who survived became stronger as years advanced.

XXXV.—OPHTHALMOPLÉGIA EXTERNA WITHOUT ASSIGNABLE CAUSE.

The late Dr. Moxon was kind enough to send to me a very in-

interesting example of ophthalmoplegia externa, for which no cause could be assigned. The patient was a florid, healthy-looking lady, aged 33. Her features, teeth, and complexion were as far as possible removed from those suggestive of inherited syphilis. She was single, and there was not the slightest reason for suspecting that she had ever suffered from the acquired disease. Her father came with her, and in answer to a direct question assured me that he had never had any suspicious disease. He had a large, healthy family.

Miss ———'s symptoms were remarkable for their symmetry and evenness. Both eyelids drooped so as to almost cover the pupils. She could move both eyeballs a very little in all directions and almost equally in all. It was exceedingly little. I could not detect any squint, and she had seldom or never been troubled with diplopia. A very remarkable point was that her pupils acted fairly well, and that she could still use her accommodation. Her pupils were of normal size and equal. As she was myopic there was a fallacy as to the accommodation, but with glasses which enabled her to see well in the distance she could still see to read. I had not time to test this in detail. She was accustomed to read a good deal, and was able to see downwards well in spite of the drooping lids. Two photographs produced showed that the ptosis was commencing three years ago, and that it was quite absent ten years ago. She believed that from girlhood she had been accustomed to turn her head when others would turn their eyes. It had been, she said, a matter of remark by her companions. Her father did not, however, know anything of this.

Miss ——— had no other symptoms of nervous disorder. Dr. Moxon informed me that her knee-jump was good. She had never had any lightning pains. The only ailment which she would confess to was occasional very severe headaches. To these she had been liable from childhood, and was sometimes laid up for a day by them.

I do not think that I have ever seen a syphilitic case of ophthalmoplegia externa in which the symptoms were so regular. Almost always one or more of the ocular muscles escapes paralysis to a large extent.

(I know nothing as to the sequel of this case. I never saw one quite like it, and should be very glad to know the result if any of my readers can give the information.)

XXXVI.—DIPHTHERITIC PARALYSIS OF ACCOMMODATION AFTER A SORE THROAT SO SLIGHT THAT IT HAD BEEN FORGOTTEN.

I believe that it is well known that paralysis of the muscle of accommodation, such as is usually described as "diphtheritic," may occur after very slight forms of sore throat. I have myself seen and recorded several such cases, in which the sore throat had been so slight and transitory that it had been forgotten, and one such is at present under my observation. A healthy-looking girl ten years old was brought to me on account of failure of sight, which I at once found to be paralysis of accommodation. I inquired as to the sore throat, and was told by her mother that the child had not been ill in any way. At the second visit, however, two facts were remembered which had been at first forgotten. One month before coming to me the child had been in company with a little boy who had been suffering from a bad sore throat, and some time ago had had diphtheria. Three weeks prior to this, however, the child herself, while staying at Sandown, had had a three days' sore throat; it had not been bad enough to necessitate medical advice. Such were the very trivial, but I have no doubt really important, facts. The child, under treatment, recovered perfectly in about three weeks, and had no other symptoms of paralysis. I cannot doubt that the failure of sight was of the nature of diphtheritic paralysis. Does the case prove that true diphtheria may occasionally be so slight as to be overlooked, and yet be efficient to the production of paralysis as a sequela? This is my own belief, and it seems to me to establish a very important fact with reference to the natural history of the disease. I believe that it is generally acknowledged that the severity of diphtheritic paralysis is not usually in ratio with the severity of the throat affection. I have never, however, myself seen general paralysis after a slight form of sore throat like that described above; but, on the other hand, I have seen many in which the eye only, or the eye and palate only, have been affected.

NOTES ON THREE YEARS' OVARIOTOMY WORK IN THE SAMARITAN FREE HOSPITAL: EIGHTY-TWO CASES WITHOUT A DEATH.

By GEORGE GRANVILLE BANTOCK, M.D., F.R.C.S.ED.,
Surgeon to the Samaritan Free Hospital.

On March 21st, 1885, a widow, aged 56, the mother of seven children, was admitted under my care into the Samaritan Free Hospital. She was very thin, and had lost flesh rapidly of late. The abdomen was considerably distended; and this distension, added to some chronic bronchitis, caused difficulty of breathing and a troublesome cough. On the evening of admission the temperature was 99.4°, and was probably due to the mechanical irritation of the numerous adhesions which were subsequently found. With the view of relieving the breathing and cough, and of giving the patient some sleep by enabling her to lie down, I removed twelve pints and a half of a dark-coloured fluid by aspiration on the 23rd, and on April 1st I performed double ovariectomy, removing a tumour of the right ovary weighing thirteen pounds, and the left ovary, which was as large as a hen's egg. The pedicle was twisted until its vessels were strangulated, and subsequent or consequent hæmorrhage into the large cyst accounted for the dark colour of its contents. There were very extensive adhesions involving the parietes wherever the tumour came into contact with them, the omentum, uterus, and other pelvic structures, and about two feet of small intestine with its mesentery. About twenty ligatures were applied to bleeding points in omentum, mesentery, intestine, back of uterus, and in the parietes, where the bleeding points were so numerous, and the difficulty of applying ligatures or even pressure forceps so great, that I was induced to try the thermo-cautery of Paquelin, but without success. Finally, I washed out the peritoneal cavity with warm water, inserted a drainage-tube, and closed the wound. After the operation there was an aggravation of the bronchial symptoms and cough, and the patient died on the sixth day. *Post-mortem* examination revealed some peritonitis and extensive pulmonary congestion. I may remark that the operation lasted an hour and a half, and it will be gathered from the foregoing that the case was altogether a desperate one and gave little hope of a successful result.

From the middle of April, 1885, to the corresponding date this year I have performed 82 ovariectomies in the Samaritan Free Hospital, and all the patients have recovered.

On the whole the cases have been of a rather severe character, as the following details will show. Thus, in more than one-half—47—there were adhesions properly so called; in small proportion the adhesions involved the parietes only or omentum only; in large proportion both these structures were involved at the same time; in considerable number the tumour was adherent to the pelvic organs to a varying extent, and in a few instances to the intestines also. In one of parietal adhesions only the patient had just completed seven months of her first pregnancy, in the course of which she had been twice tapped. (This case was published in the JOURNAL, February 11th, 1888, p. 296.)

Excluding all these cases of adhesions proper, there were 6 cases in which there was no pedicle, and the tumour had to be enucleated. In one of these the cyst was in a state of suppuration; in another nine stout ligatures were required to arrest the bleeding from the torn structures left after removal of a tumour involving the left broad ligament and left side of the uterus, and in the last case of this kind operated upon, the last but one of this series, the operation was so severe that when the patient was put into bed, the pulse could scarcely be counted at the wrist. In yet another the tumour apparently involved both ovaries, and when the enucleation was completed the uterus was so bereft of support, in addition to being extensively injured, that I was compelled to remove it also at the level of the internal os in my usual way.

Thus, of the 82 cases there were adhesions or their equivalent in about two-thirds or 54, leaving 28 in which there were no adhesions and there was a pedicle capable of being treated by ligatures. In one of these 28 cases there was a serious complication in the form of a large umbilical hernia, measuring over 4 inches across. After removing an ovarian tumour of ten pounds (right side), I slit open the hernial sac by continuing the abdominal incision, applied several ligatures to, divided the adherent omen-

PRESENTATION.—Dr. Walter Kent has been presented with a valuable medical chest and an illuminated address by his friends and patients, on leaving Biddulph, Staffordshire, for America.

tum, and then dissected off the peritoneum from the various pouches, cutting away the redundant and thinned skin and peritoneum. In closing the wound I first brought the peritoneal edges together in the region of the hernia by closely applied silk-worm gut sutures, of which the ends were cut off short, and then the skin and intervening tissues by deep sutures running along under the raw surface, and not going through the peritoneum. The remainder of the wound, in which the fatty layer measured nearly two inches in depth, midway between the umbilicus and pubes, was closed in the usual way. Convalescence was uninterrupted, and the hernial sac was completely obliterated.

As further evidence of the severity of the cases I may point out that the drainage-tube was used in more than one-half, or 45, and in these, with few exceptions, the peritoneum was washed out with warm water.

In 34 cases the second ovary was more or less diseased, and was accordingly removed. It is sometimes very difficult to decide whether the ovary is sufficiently diseased to justify its removal. In a large majority of the cases there was no difficulty whatever, and a very recent case induces me to believe that I shall find less difficulty in the future by requiring less distinct evidence than hitherto. I removed an ovarian tumour of 9½ lbs. eleven years ago. The other (left) ovary appeared to be quite healthy, and this view may be said to have been confirmed by the fact that within two years the patient gave birth to twins (one of each sex). But there is pretty conclusive evidence that it did not long remain healthy, for there is a history of gradual increase in the size of the abdomen for several years, and I have recently removed this second ovary, forming a tumour of 18 lbs. In this instance I was asked why I had not removed the second ovary at the first operation.

In all there were 9 cases of dermoid tumours, and in one of these both ovaries were diseased, the one containing skin and hair, and the other containing teeth. This is the second instance of double dermoid disease I have seen. The other was a private case. In only 4 of these cases were there adhesions; the remaining 5 were free, though in one the pedicle was twisted. The absence of adhesions in this instance was to be explained by the fact that the circulation through the pedicle had not been sufficiently interfered with to set up degenerative changes in the tumours.

In 8 cases the pedicle was twisted, and 3 of these belonged to the dermoid variety. In all but one there were more or less extensive adhesions, and in these 7 the peritoneum was washed out and drained.

There were 5 cases of ruptured cyst, in all of which the whole peritoneal cavity was thoroughly washed out and a drainage-tube was used.

In 3 cases the disease was malignant, and in 2 of these the malignancy was recognised at the time of the operation. In the first case the patient died in about fourteen months with extensively disseminated cancer. In the second the patient made a rapid and uninterrupted recovery, leaving the hospital on the twentieth day. In a few weeks more a small tumour formed in the region of the pedicle, painful and tender, without any rise of temperature or increase of pulse, and accompanied with rapid emaciation, and she died on July 6th. In the third case there was great œdema of the lower extremities, gastric irritation with frequent vomiting, and considerable distension of the abdomen by free fluid. At the operation twenty-five pints of free fluid were removed together with a sarcoma of the left ovary weighing 6 lbs., and another of the right ovary weighing about ¾ lb., and the pelvic and lumbar glands were already infected. The peritoneum was well washed out and drained, and she recovered without a bad symptom. The disease, however, made rapid progress, though there was no more ascites; the gastric irritation, relieved by the operation, returned in a few weeks along with the œdema of the lower extremities, and she died in seven weeks.

All these 82 operations were done without the use of any so-called antiseptic substance. Warm water—not specially prepared—was freely employed in washing out the peritoneal cavity whenever the contents of the cyst had escaped into it, either by spontaneous rupture before operation, or when, through the breaking down of extensive adhesions, there was any effusion of blood and serum amongst the intestines, rendering the "toilet of the peritoneum" very difficult by any other method. In all these cases the drainage-tube was also employed. In not one single instance was any opium or alcohol administered.

In the year 1882 a comparison was instituted between the results obtained in the Samaritan Free Hospital under the Listerian

and non-Listerian methods, the latter being wholly confined to my practice. That comparison was very much to my disadvantage, and deductions were drawn which even the results of the following year tended to upset, and which those of succeeding years have actually tended to reverse. Again, that comparison was made on the results of only one year. A comparison of results extending over several years will be a more reliable guide, and I now present those for the three years 1885, 1886, and 1887, in the following tables:

Dr. Bantock's Cases.			Listerian Cases (3 Operators).		
Total.	Recovered.	Died.	Total.	Recovered.	Died.
79	78	1	121	110	11

But in September, 1887, Mr. Doran abandoned the Listerian and adopted my method of practice, and if his 3 cases be added in the one table, and subtracted in the other, the following result is obtained:

Dr. Bantock's Cases.			Listerian Cases (3 Operators).		
Total.	Recovered.	Died.	Total.	Recovered.	Died.
82	81	1	118	107	11

If, again, the results for the three years over which the preceding 82 cases extend, namely, from April, 1885, to April, 1888, be taken, the following is the result:

Dr. Bantock's Cases.			Listerian Cases.		
Total.	Recovered.	Died.	Total.	Recovered.	Died.
82	82	0	116	104	12
Plus Mr. Doran's Cases.			Minus Mr. Doran's Cases (3 in 1887 and 1 in 1888).		
Total.	Recovered.	Died.			
4	4	0			

Giving 86 cases without a death, as against 116 cases with 12 deaths, or a mortality of 10.34 per cent.

NOTES ON THREE CASES OF UTERINE FIBROIDS UNDER TREATMENT BY APOSTOLI'S ELECTRICAL METHOD.

By W. J. TIVY, F.R.C.P.E., F.R.C.S.E.,
Clifton.

CASE I.—S. W., unmarried, aged 40, consulted me first in 1884 for an abdominal swelling and metrorrhagia. She was a tall, slight, very anæmic woman; she said her abdomen had been increasing in size for two years; her menses were most profuse, lasting ten or twelve days; she suffered no pain. At this time (1884) I detected three separate, hard, solid tumours; the largest and hardest nearly filled the right side of the abdomen, was freely movable, and extended to the umbilicus; the smallest was in the centre, and on the left side was a third tumour nearly as large as the right one, and also movable. By modified diet, rest, and the use of ergot, the growth of the tumours seemed checked for a time. In 1887, however, in spite of this treatment, I found that the abdomen measured forty inches and a half in circumference, a much larger size than it had been in 1884, and that the tumours were also larger.

In October I commenced Apostoli's treatment, applying the positive pole to the interior of the uterus, which was five inches in depth. By using at first twenty cells of Coxeter's battery I obtained eighty milliamperes; little pain was felt, and the patient was about the next day and after each subsequent electrification. I gradually increased the strength to twenty-five cells, and 140 to 160 milliamperes, and after each application found the abdomen smaller and the tumours reduced. After eleven electrifications the abdomen measures only thirty-four inches in circumference, the tumours are reduced by fully one-half, and the last four menstrual periods have been quite normal.

CASE II.—Mrs. J., aged 53, past menopause two years. She has never been pregnant. She consulted me June, 1887, for a large abdominal tumour nearly filling the whole abdomen; it arose in the right side, was very movable, and extended three inches to the left of the umbilicus; the tumour was solid, round, and very hard. The patient suffered no actual pain, and her menses had always been normal. The tumour was evidently a pedunculated sub-peritoneal fibroid.

On December 1st, 1887, her abdomen measured forty-one inches and a half in circumference. The sound passed five and a half inches in depth. I applied the negative pole internally for ten minutes, and obtained 80 to 90 milliamperes, using twenty cells; this process I repeated every ten or twelve days, gradually increasing the strength to 140 milliamperes. After eight applications the circumference of the abdomen is thirty-five inches; the

tumour is materially reduced, and does not extend two inches to the left of the umbilicus; it is also softer in structure; the patient feels well.

CASE III.—K. F., aged 26, a slight, healthy, unmarried girl, noticed a swelling of her abdomen four years ago, which has steadily increased; she had no profuse menstruation at any time. I saw her first in March, 1887, and she was then seen by two London specialists, who agreed that she had a fast-growing, pedunculated myoma, and proposed hysterectomy.

In November, 1887, when I began Apostoli's treatment for her, the abdomen was thirty-four inches and a half in circumference, and the tumour, a very movable one, filled the right side of the abdomen, and extended two inches and a half to the left of the umbilicus. I applied the negative electrode to the interior of the uterus, which was four inches in depth. I commenced with 20 cells (Coxeter), and obtained 100 milliampères; this strength on subsequent occasions I gradually increased to 25 cells and 145 milliampères; each application lasted ten minutes, and ten or twelve days elapsed between each. There was improvement after each electrification, and now, after eight applications, the abdomen measures thirty-two inches, and the tumour cannot be felt to the left of the umbilicus.

REMARKS.—I applied the electricity to the patients placed in the obstetrical position; and, having passed a Fergusson's speculum, I carefully syringed the vagina with an antiseptic solution before inserting the internal electrode, and again after the operation was completed. The internal electrode was steeped before using in 1 in 20 carbolic lotion. I did no electrification within ten days of the preceding one; antiseptic syringing was done by the patients twice daily in the intervals between each operation. The electricity was never applied for more than ten minutes, and cell after cell was gradually added, up to the strength determined upon, and again slowly diminished in the same way. I use Apostoli's wet clay abdominal electrode, a water rheostat, and a Gaiffe's galvanometer; also flexible platinum electrodes for the uterus, of small calibre, made for me by Coxeter, and insulated up to two inches from the point. Owing to the energetic action of the negative pole, I should not venture to apply more than 150 milliampères of electricity to the uterus.

PREVENTIVE SURGERY, AS ILLUSTRATED IN KNOCK-KNEE AND FLAT-FOOT.¹

By T. S. ELLIS, M.R.C.S.,

Consulting Surgeon (late Surgeon and Ophthalmic Surgeon) to the Infirmary at Gloucester.

PREVENTIVE Surgery, though it sounds unfamiliar, is, I submit, a legitimate expression. As Preventive Medicine sometimes teaches how to cure diseases by presenting, in specially pronounced form, the conditions under which they do not occur, so a study of the means by which deformities are prevented may teach us how to deal with them when actually existing. Let me illustrate this by two kindred deformities having much in common, knock-knee and flat-foot, as acquired independently of paralysis and of bone disease. Both are exaggerations of naturally existing curves. In each the sequence of events is the same—failure of muscular support, yielding of ligaments, altered contour of bone surface. And in each case, also, the leading indication for treatment is the same—to strengthen, by action, the muscles which, in the full exercise of their functions, prevent these deformities.

In the case of knock-knee, the direct influence of muscular action, in cure or prevention, does not seem to be recognised at all by writers. Of the two most recent known to me, Mr. Owen (*Dictionary of Surgery*, Genu Valgum) refers to exercise only to forbid it; and Mr. Arbutnot Lane (*Guy's Hospital Reports*, 1887) advises it only because by this means "the firmness of the joints and ligaments, and the density and resistance of the osseous system, will be improved." That spontaneous recoveries do sometimes occur is well known, and that muscular exercise will completely remove the deformity I have myself seen, although unable until recently to explain how. This I will now endeavour to show. According to the parallelogram of forces, a well known law, if a force acting in the line *a* to *b* (Fig. 1) be opposed by a force acting in the line *a* to *c*, the resultant will be in the diagonal of the completed parallelogram, or towards *d*. But all the muscles attached to the leg bones below and to the pelvis above do act in the line

a to *b*, while the weight of the body acts in the line *a* to *c*. These muscles draw the knee towards a straight line between the foot and the pelvis, when, as in the erect position, the foot is a fixed point. It is important, also, to realise that the peroneus longus, which abducts the foot when free to move, can only abduct the knee when the foot is fixed; so, also, the gluteus medius, which abducts thigh and leg together, can only act on the knee when the foot is fixed. These effects are fully seen in a wooden model (shown), where the part representing the body is kept upright by fixed guides, as it moves up and down, when the effect of the various muscles in correcting knock-knee is demonstrated. This is done by means of strong elastic bands, the parts of the model representing the thigh and leg being united by hinges.

I am fully mindful that in the body, the muscles attached to the leg and to the pelvis are attached also to the thigh, but this does not affect the result described. I recognise, also, that the downward thrust on the knee acts in the line *b* to *a*. This, too, is immaterial, the muscular force being strong enough to overcome it. My contention is that the muscles concerned in raising the body to the full height, and those which draw down the pelvis in opposition to resistance from above, pull the knee towards a straight line between the foot and the pelvis, and that their agency ought to be utilised in correcting knock-knee. In actual practice I have

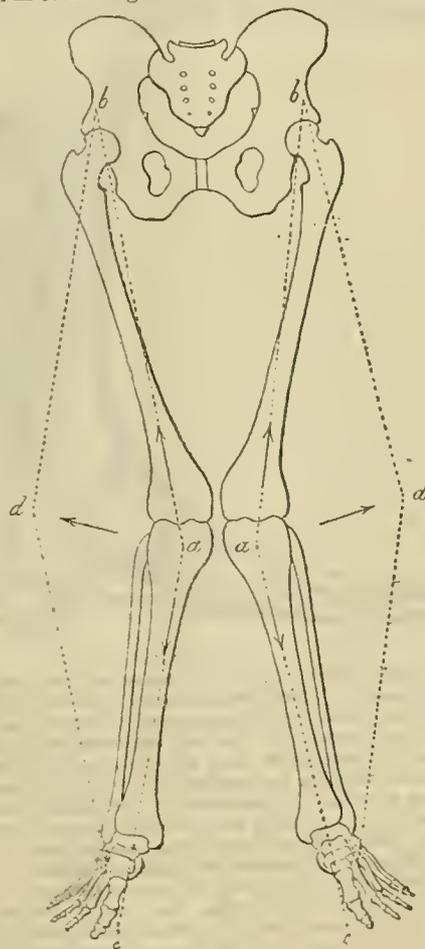


Fig. 1.

found the treatment thus indicated to be highly satisfactory, so much so as to justify a confident opinion that it would be found to be sufficient even for the worst cases. And indeed, as appears to me, if it be admitted that failure of muscular support leads to yielding of ligaments and altered bony surfaces in joints; that vigorous use of muscles makes them strong and taut, even when only in passive contraction; that, in this condition, they not only relax, and thus renew the over-stretched ligaments, but also, by exerting constant pressure on the bony surfaces of the joints, re-

¹ Read before the Gloucestershire Branch.

modify their altered contours—if this be admitted, and if the explanation of knock-knee which I have given be accepted, then I claim that such success accords with reasonable probability.

This view of knock-knee, its prevention and cure—never, so far as I know, given before—I offer now with the more confidence and the more pleasure because it was at a meeting of this Branch, nearly fourteen years ago, that I first pointed out that the arch of the foot is formed, is maintained, and may, when destroyed, be restored, by muscular action. I then narrated how, after an accident which had torn through the calcaneo-scapoid ligament in my own foot, I had myself been the subject of flat-foot in the worst form for more than six years; that, in seeking to discover by what means flat-foot is in Nature prevented, I had, by an observation on a horse, been induced to regard it as a universal law that ligaments liable to great strain are supported by muscles, and from that law had deduced the probability that, if I could only renew the function of the flexor longus pollicis, I might restore my flattened foot. I then described how, after six months' persevering application of the principle involved, a foot which for six years had never risen to tiptoe had become able to bear the strain of hopping over a footstool. To this I may now add that it has never since given me serious trouble, although the original displacements are still evident. I did not, however, at that time convince anyone² that my recovery was wholly due to

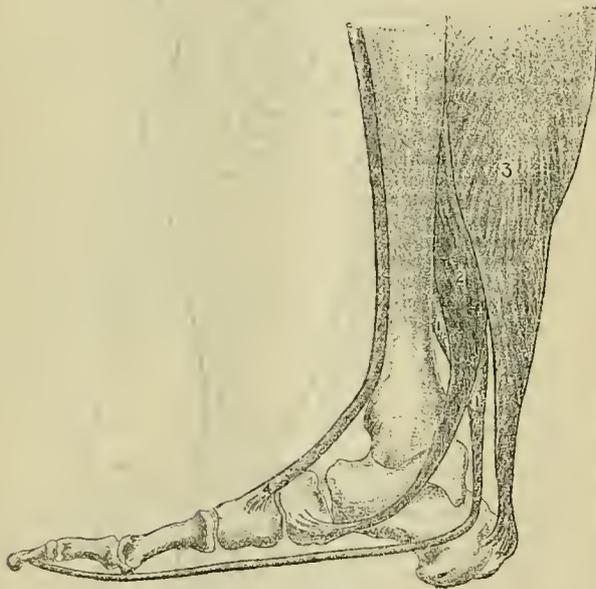


Fig. 2.

exercise, and I had not the boldness to send my paper to a medical journal. Three years later I restated my views in a pamphlet of which Mr. Holmes gave a favourable notice in his *Principles of Surgery* on the first appearance of that book. To those views I have ever since adhered, maintaining, as leading principles in relation to flat-foot: "For prevention promote, for restoration renew, the functions of the flexor longus pollicis." This being done, action of the other important muscles will be attendant. Not so the converse. Distortion of the great toe may suspend the action of its flexor alone. I find it difficult to understand how anyone can consider the position of the tendon (depicted in Fig. 2), having the same relation to the arch as a bowstring to a bow, without recognising that so strong a muscle must exercise a most important influence on the flexible arch, or arc which its tendon subtends. And yet, in all the writings I know where flat-foot and the construction of the plantar arch is discussed—the list is a long one³—there is not one

² Mr. Willet was, I think, the first convert to my views. I learned, years afterwards, that a friendly conversation in the square at St. Bartholomew's had left more impression than I supposed.

³ It includes Professor Humphry, "Flat-foot and Construction of Plantar Arch," *Lancet*, March 20th, 1886; Professor Sayre, *Orthopedic Surgery*; Professor Ogston, *Lancet*, January 26th, 1884; Dr. Little, *System of Surgery*; Mr. Bernard Roth, *BRITISH MEDICAL JOURNAL*, Nov. 18th, 1882, *Dictionary of Surgery*, *New York Medical Record*, March 17th, 1888; Mr. Symington, *Journal of Anatomy and Physiology*, vol. xix; Mr. Golding-Blrd, *Guy's Hospital Reports*, 1883; Mr.

where the writer has regarded this muscle as of sufficient importance even to call for special mention. Perhaps, if the place of the tendon could be occupied by the fleshy mass of the muscle and the tendon inserted in the leg, the effect of action on the arch would be better realised. We call it the flexor of the great toe. The far more important and far more common action is to assist in raising the body, acting from the straight toe as the fixed point. The tendon is, in effect, the most important of those forming the counterpart of the single tendon, which in the horse passes round the hock (the true heel), and is inserted at the toe. Tilt the skeleton (Fig. 2) on one side, imagine an exaggerated toe-nail, a much-enlarged metatarsal bone, and the tibia inclined at a less angle, and we have a horse's leg. Just as the tightening of the tendon of the "flexor perforans" in the rearing position of the horse, the tiptoe of man, relieves the enormous strain on the ligaments binding together the bones between the hock and the hoof, so do the corresponding tendons relieve the ligaments of the human foot as the heel is raised in every step. And, further, insufficient support of these ligaments will lead to "straight joints" in one case, as it does to the counterpart, flat-foot, in the other. I cannot describe how much I owe to this bit of comparative physiology applied to surgery.

I have recorded in the *Lancet* of February 9th, 1884, with my own case, that of a farrier's apprentice, who was under my care in the Gloucester Infirmary some fifteen years ago, with feet so flat and so painful that he could not walk across the ward. He was put in the way of proper exercises, and ultimately became a distinguished dancer in the 2nd Life Guards. I have also there described (September 23th, 1886) the best exercise I know for producing a speedy result in a bad case of flat-foot, and I now say the same in regard to knock-knee. It consists in raising a weight by means of a cord running over pulleys. The object is to bring the foot to extreme tiptoe, the knee and hip to full extension (this with the inspiration, so as to get the benefit of the Silvester method of artificial respiration added to natural breathing); then, after a pause, to suddenly and vigorously draw downwards. Turning a wheel, placed so high that the handle is with difficulty reached when at the highest part of the cycle is a similar movement, available if the patient be strong enough, and having the advantage of being less irksome. Indeed it may be made to combine useful work. So also may pumping, if the handle be placed high enough. Bell-ringing is also an excellent exercise. I cannot imagine it to be possible that persons habitually engaged in such strictly natural occupation as reaching up to and drawing down the boughs of trees would be knock-kneed or flat footed. It is remarkable that no such movement exists in the ordinary occupation of life; it has no place in ordinary gymnastic exercises, and, so far as the book of the Zander Institute shows, is not used even there. On its value in stimulating functional activity this is not the time to insist. Everything, however, which promotes the general health is important; so is everything which promotes nutrition of the muscles, dry friction, massage, and so on. Still, I would insist, on muscular action reliance must after all be mainly placed. In those forms of it described, especially in the first, that great impediment to exercise in these cases, the weight of the body, is partially counter-balanced; but good walking must be the aim, in view of a permanent cure, and should as soon as possible be practised in moderation. Let the toes be pointed downwards and forwards—the position of strength and therefore of activity; not outwards—the position of relaxed ligaments and, therefore, of rest. Let the heel be vigorously raised at every step, the knee being fully straightened. There is nothing strained in this, it is simply good walking. Standing should of course be avoided unless it be with constant springing up on the toes, an excellent exercise. As far as possible, especially in the early stages of treatment, all exercises should be done with bare feet. Remember that the natural plane of movement of the great toe is oblique, downwards and inwards, and take care that neither boots nor socks interfere with it, as will probably have been the case. Of the great importance of this point I have spoken in an article on Deformities of the Great Toe, in the *JOURNAL* of May 20th, 1887. In the treatment of flat-foot I never use supports of any kind. I believe that they do more harm in preventing free action of the short flexor muscles than they do good in propping up the arch. During many years I have seen the worst of cases recover without them. I am equally certain that for knock-knee

Arbuthnot Lane, *Guy's Hospital Reports*, 1887; Hancock, *Anatomy and Surgery of Foot*; Noble Smith, *BRITISH MEDICAL JOURNAL*, June 9th, 1883, "Surgery of Deformities"; and Mr. Mayo Collier, *Lancet*, Sept. 8th, 1886.

they are in principle wrong, and in practice unnecessary. So also of tenotomies in either deformity. Osteotomies and resections I can only regard as unwarrantable mutilations.

TIMES OF SOLDIERS' MEALS.

By J. HICKMAN,
Army Medical Staff.

At present the usual hours for soldiers' meals are: breakfast, 8 A.M.; dinner, 1 P.M.; tea, 4.30 or 5 P.M. The early morning parades are generally about 6 or 6.30, or in summer may be at 5—that is, men coming in late at night are turned out to parade without having had anything to eat. Even considered from the point of view of discipline this practice is to be deprecated; men having partaken of some nourishment, any way a cup of coffee, are in a better humour with themselves and their superiors, and insubordination, absence, and lateness at parades will be found to sensibly diminish. Many go so far as to advocate a regular meal at the time of rising, but it is generally accepted that light refreshment is sufficient to maintain the equilibrium till the breakfast time; hot coffee with plenty of milk may be advised; it is a stimulant to the system, invigorating without depressing. The cooking to provide a full meal could hardly be managed; two good meals are sufficient in the day, and if a hearty breakfast were taken too soon, the interval between it and the other meal would be too great; the work intervening is only an hour's parade, after which breakfast can be taken with leisure and appetite. The morning parade work should not be excessive; no fatiguing duties should be undertaken, as much unaccustomed exercise is likely to be followed by languor through the day. In cold or rainy weather this food before leaving the barrack-room should be specially insisted on. In every campaign, before starting the day's work or march, the rules lay down that soup, erbswurst, or coffee is to be issued. In India early rising is universal, and the habit is generally adopted; on the march the coffee-shop is an institution, and the men avail themselves eagerly of it. It is the universal opinion of medical men abroad that in places where malarious fevers are prevalent the susceptibility to their influence is much increased by starting for the day without food.

In the Aldershot cavalry barracks the men can get a good cup of coffee and a bun for a penny, and a cup of Moore's cocoa and milk, or a tumbler of milk and a biscuit, could be sold for less probably.

This early issue of refreshment should not be dependent on the caprice or wish of the regimental authorities, or on the pocket of the soldier; it should be embodied in the Queen's Regulations that no morning work should be commenced without an attempt to restore the waste of the body during fasting and sleep.

Breakfast only wants a few words; no alteration in the hour can be suggested. According to Dr. Edward Smith the daily distribution of food, supposing a physiological diet of 4,300 grains of carbon with 200 grains of nitrogen be taken, should be:

	C.	N.
For breakfast	1,500	70
For dinner	1,800	90
For supper	1,000	40
	4,300	200

or the total daily food should be distributed amongst them by allotting three parts to the first, four to the second, and two to the third. When dinner is eaten late 4-9ths of the supply may be eaten then and half that quantity at luncheon.

This division would assume that the system requires meat twice a day, to cover the wear and tear and to supply nitrogen, and to produce the highest state of health in the adult. In the recruit whose muscles are developing, and whose actual and reserved energy it is proposed to increase, the bodily waste is far more active, and he requires nitrogenous food twice a day, at breakfast and at midday dinner, and on no account in the after part of the day. In nitrogenous food is comprised fish, bacon, sausage, eggs, etc., with any of which breakfast can be varied.

It need hardly be said that breakfast should be a substantial meal; the digestion early in the day is active, and the work of the day is to follow. Cocoa, milk, hominy, or oatmeal porridge are amongst the best articles; the unsuccessful efforts to introduce into household use "wholemeal" (not simply bran) bread might be renewed and enforced in soldiers' diet.

Now, as to the time for dinner. It is generally assumed that an

ordinary meal is, in a healthy man, completely digested and passed out of the stomach in about four hours. Then, if we add a period of two hours for rest to the stomach, food would appear to be required at intervals of six hours. This is what experience teaches, and what is practically adopted. Sleep means a great diminution of bodily activity, and this greater interval can be accounted for. Breakfast being taken at 8, the midday meal should be ready at about 1, the time chosen by working men and the middle class generally, in schools, prisons, and all institutions. It is laid down that the chief meal of the day, the full meal (by whatever name it is called) should be taken at any hour when active occupation, bodily and mental, can be suspended for from one hour and a half to two hours; in other words, it is not found conducive to health to take a full meal in the midst of the day's work. This does not seem to agree with the popular habit. If soldiers had their dinners late, after they had finished their duties, they would probably remain more in barracks. The question of late dinners for shop-people and clerks has been elaborately argued by Dr. Dobell in a circular addressed to employers of labour, 1852. In the case of the soldier the suggestion may raise a smile, but is worthy of consideration.

Except fatigues, punishment drills, or guard occurring at intervals, the duty of the foot soldier after dinner consists of only an hour's parade, and old soldiers are even exempt from this. In the mounted branches, stables have to be attended, and many other duties may present themselves. If the present agitation for the "square" meal in the afternoon can be justified by the proportion of afternoon work, the mounted corps will surely have a primary claim to this indulgence. The thing to be remembered is to allow time for rest before and after the meal, and the afternoon drill should be delayed to further this object. To recapitulate: to those whose physical powers have been taxed the short perfect rest before is to be recommended; and when the dinner is finished at least an hour should be given to physical tranquillity. After this hour gastric digestion will be established, and the blood and nervous energy employed in the process will no longer be required, and can be devoted to another form of animal force.

In practice, no doubt, work immediately after a meal interferes with digestion, but this only applies to hard work, and most of the working classes can secure a quiet hour for the enjoyment of their dinner. Tea is taken at from 4 to 5 P.M. It really requires little comment. Perhaps the hour is too early, and makes the interval between it and breakfast too long. If delayed later, it would deprive the soldier of his evening walk, and the change would be received with grumbling. It can be urged, while the soldier carries into the army the hours of eating of the working classes in his other meals, in his tea and supper he anticipates his former habits by several hours; it really adds to the necessity of further nourishment before turning in, as going to bed with an empty stomach is to be avoided. Coffee or tea, with bread and butter, lettuce, onions, watercress, or other light things, which are wholesome, and are better and more economical than meat; this is merely added in case the purchase of meat should be made by the soldier. Meat teas are not to be commended; tea is not adapted to accompany meat in the digestion, and is very likely to cause dyspeptic troubles. In many instances the hungry recruit has eaten his portion of bread for his breakfast, and there is absolutely nothing left for his supper. A modification of the rules for issuing bread seems imperatively required. We are led to conclude that the hour of dinner is, like the laws of the Medes and Persians, unalterable, though it might be a little later. As regards supper, in an economic and scientific point of view, it certainly should be postponed for another hour or two. On service, in camps of exercise, or foreign stations generally, where the outside amusements of the soldier are few, the change could be made with advantage.

After 5 o'clock meal the regulations do not provide any more for the soldier, who, as long as he has money in his pocket, generally gets something at the regimental canteen or recreation room bar; this is merely private expenditure, with which no interference can be made. The question naturally arises whether this absolutely necessary amount of nourishment should be dependent on such fleeting and precarious finances.

In the beginning of this paper the dangers of a long fast were insisted on, especially in the case of growing lads. They are too exhausted to sleep comfortably, to rise with vigour, or to enjoy breakfast. The system is weakened and the digestive powers not ready when called upon, or there is a temptation to ravenous haste. The remedy for this is the issue of soup from the cook-house between certain hours in the evening. This basin of soup

and a piece of bread is a sufficient meal in itself, and should be available for nothing to every man who applies for it. The soup can be made from the large bones of the rations; the sale of the refuse will generally be found to cover the cost of the vegetables, split peas, and flour required to complete the soup. This has been adopted in some regiments, and it is found that the applicants for the soup are usually those whose finances are low, and on the days immediately before the pay-day, there is often a difficulty in supplying the numbers. There is naturally a greater demand in the winter. The universal adoption of this plan cannot be too strongly recommended.

A few words as to the times spirit rations should be issued; they are best taken with meals—at dinner time preferably, never before. This is not the place to discuss the merits or the action of alcohol; in small quantities it increases the secretion of the gastric juice and the movements of the stomach, and thus aids digestion. Alcohol should be taken, largely diluted with water, with, or rather at the close of, a meal. In Queen's Regulations, Sect. xv, Para. 103, it is laid down that malt liquor may be taken from the canteen to the barrack rooms for the men's consumption at dinner; this privilege is, however, not acknowledged by all commanding officers and its observance should be universally insisted on.

AFTER-HISTORY OF PNEUMONIA THE GUIDE TO ITS TREATMENT.

By ARTHUR JAMISON, M.D.,
London.

I wish in this paper to give my experience of the imperfect as well as the complete recoveries of my cases of pneumonia during a period of over twenty years. I have never seen its therapeutics discussed from the consideration of the after-history of cases of this disease. I will not, therefore, in this paper discuss the lessons taught me by my fatal cases, but confine my remarks to those that recovered. These observations are founded on 213 cases of all grades of severity of single and double pneumonia, at ages varying from 15 to 73; and by pneumonia I mean croupous pneumonia, characterised by rusty sputa and consolidation afterwards. I was able to trace the after-history of 155 of my cases. Most of them were of the artisan class; some came under my care subsequently for other ailments, some for entrance examination into benefit societies, and I always made it a routine rule to examine the chests of all my cases whenever I could afterwards. Of these 155 cases, I found rather above half—namely, 81—free from any traces of their pneumonia on examination at periods not under two years afterwards. The other 74 had traces left discoverable by finding dulness of the affected region of greater or less extent and degree, indicating impaired lung, and were very frequently ill; 13 of them died of phthisis afterwards.

During my first years of practice my treatment was mainly expectant. I thought and had been taught that pneumonia had a definite course; that drugs could not alter its natural history, and, beyond stimulating the old, rest in bed, a warm poultice, and any sort of a placebo mixture was treatment enough. Symptoms, on an average, subsided on the eleventh day; convalescence seemed established, and expectancy triumphant. Any prolonged debility afterwards was put down to insufficient means, imperfect hygienic surroundings, or to the generally below-par state of health of many operatives living in towns. But I began to wonder if expectancy were the best treatment when I found so many whom I had so treated so frequently ill afterwards. The chief symptoms were slight cough and expectoration, inability to work as well as formerly, a constant sense of slight weariness, and in nearly every case a feeling of flatulent distension and weight after meals, and a varying amount of anorexia. Though the body might be fairly well nourished, yet the face was too thin proportionately to the body, and wore an expression of considerable depression; the bowels usually torpid; the tongue furred, and especially indented with teeth-marks. On closer inquiry I found that for three or four months following the attack of pneumonia these patients got on fairly well, but after then began to droop and never felt up to the mark; and with this chain of symptoms I always found evidences of unresolved pneumonia. I then began to try other measures to prevent these after-consequences if I could. With this view some were treated by quinine in large doses—now we would say in antipyretic doses—by aconite, by ammonia, and by antimony.

Thus, of the 74 cases of unresolved consolidation, 29 were treated by pure expectancy, 20 by ammonia, 10 by quinine in full doses, 7 by aconite, and 8 by antimony in largish doses of its tartrate.

I wish to say a few words on each of these methods of treatment. My experience of aconite in doses to produce any effect is against its use at all in pneumonia, as I feel sure it increases the danger of, and often actually causes, cardiac collapse. The ammonia treatment seemed much the same as the expectant, except that I thought there was more pain in the side during its use. Quinine appeared not so risky as aconite, but just as inefficient to control the disease, even in doses large enough to lower the temperature for a time. My limited experience of it only corroborates the American estimate of its value. On the other side of the Atlantic it has been most extensively used, and last year there was a discussion in the New York Academy of Medicine on the subject. There was a general consensus of opinion upon the inutility of quinine as an antipyretic in the treatment of pneumonia. It was considered useless in small doses, and dangerous in large ones, producing cardiac and nervous depression. My impression very strongly is that any treatment directed to lower the temperature only is bad. But if a remedy is to be had that is able to lower the temperature for a time in a marked degree, surely some will say it must do good. Well, kairin is able to do this; and in the JOURNAL for January 28th there is a record of the antipyretic treatment in *excelsis* so instructive that I wish to quote it before leaving this portion of my subject:

"At first kairin was used in 10-grain doses, and it was always given when the temperature was 104° and over. After each dose the temperature fell rapidly; observations made every quarter of an hour showed that the fall was continuous for about two hours, the total fall being from 3° to 5°. There was a striking constancy in the effects produced by a given dose of kairin, whether the dose was 5, 10, or 15 grains. A dose of 10 grains always gave the best results; 15 grains did no more than 5 grains, and neither did so much good as 10 grains. The stationary period varied, but at most it lasted only a few hours; the longest time recorded was ten hours. The subsequent rise of temperature was as rapid usually as the decline. Each dose of kairin was followed within half an hour by profuse sweating and symptoms of depression, and when two doses were given in close succession (the interval being three hours and a half) marked cyanosis and collapse occurred. Kairin was exhibited twice daily for ten days; on the fourteenth day of the disease the maximum temperature was still 105°."

I wonder how many of us on reading this report of a case of pneumonia rubbed our eyes and thought what blows the pyrexia got even till the patient was black in the face. I wonder also how many were surprised to read further on that the patient died of phthisis ten months afterwards. My opinion is that he treats pneumonia best who, after having the lowest percentage of deaths, has the fewest cases of consolidation afterwards. First, because it diminishes the risk of tuberculosis. Observers like von Brunn, Siegel, and many others make it apparent that the tubercle bacillus finds its best nidus in old inflammatory products. Secondly, the condition of impaired health that too often follows even apparently good recoveries from pneumonia and the dyspepsia which, I believe, is constantly associated with and evidence of incompletely resolved pneumonias, press home this view of the aim of treatment.

My first cases treated with antimony gave better results proportionately than by the other plans of treatment, so that I was led to continue its use further. After a while many reasons led me to prefer small doses frequently repeated to the larger, more knock-down doses recommended by the older writers. These small doses are well borne even by the old. I found $\frac{1}{2}$ grain given every hour for young adults, less frequently for older people, a dose quite large enough. When pain, cough, and chest oppression are relieved, the remedy may be given less often. I continued the use of the drug for several days, often a week, after the temperature had fallen to normal, to ensure removal of the inflammatory products remaining behind. There were no ill effects from the drug used in this dosage, no sickness, no diarrhoea; its action seemed to be simply that of a respiratory sedative. Generally a little tincture of camphor was given with it to ease pain.

Of the 81 cases in which no traces of mischief were to be detected afterwards, no fewer than 65 were treated in this manner. At first I had a dread of cardiac failure, but this, as time went on, grew less and less, as I found these small doses, by easing the strain of respiration, seemed to diminish the danger of sudden heart failure. Moreover, the recoveries seemed, as it were, to be

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so pathologically complete, to coin a phrase, that I have not felt disposed to try any other remedy. What I wish to insist upon is this, that in frequently repeated small doses of antimony we have our best known remedy at present; it not only eases the distress of the acute stage, but one which is superior to any other in inducing the greatest amount of resolution as tested by the condition of the lung afterwards.

The dyspepsia and general want of tone of the system, as well as the subsequent consolidation itself in imperfect recoveries, are best treated by mineral acids in addition to the most careful attention to every hygienic detail. Some I know prefer hydrochloric acid in an aromatic bitter, but nitric acid has appeared to me to be of greater benefit. The acids have always seemed to me to have as great an effect in improving crippled lungs as they have in benefiting atonic dyspepsia. Indeed, I suspect the indigestion they prove most useful in has its origin in some pulmonary cause.

ON THE VARIETIES OF HEPATIC CIRRHOSIS.

By GEORGE MUNRO SMITH, L.R.C.P.Lond., M.R.C.S.,

Lecturer on Physiology, Bristol Medical School; Demonstrator of Morbid Anatomy, Bristol Royal Infirmary.

VARIOUS attempts have been made from time to time to classify the different kinds of general interstitial hepatitis, either in accordance with the microscopic appearances of the organ after death, or according to the supposed causation of the disease. Ziegler doubts the usefulness of such an undertaking, inasmuch as the types pass one into another. He says: "It is enough for the present to distinguish the hypertrophic conditions from the atrophic, and even then it must be borne in mind that these conditions merely represent different degrees or different stages of what is essentially one and the same process." Dr. Sandby, on the other hand, enumerates seven varieties—namely, alcoholic, cardiac or cyanotic, biliary, syphilitic, tubercular, malarial, and scarlatinal. Charcot and Hanot have, moreover, described a "hypertrophic cirrhosis of diabetes," and Cornil and Ranvier a "fatty hypertrophic cirrhosis." My object in this paper is to suggest a grouping of these morbid processes that may, perhaps, serve for a working classification.

After studying the chief literature on the subject, and comparing various sections of diseased liver, it appears to me that confusion has arisen, in the first place, from confounding the cause with the morbid anatomy; secondly, from describing partial cirrhosis as general; and, thirdly, from considering *post-mortem* appearances in early and late epochs of the same disease as two distinct varieties.

For example, Charcot described a condition characterised by considerable enlargement of the liver, jaundice, not usually much ascites, and a rapid course. After death was found a general and uniform increase of connective tissue in the organ, with proliferation of the smallest bile-ducts and capillaries. To this disease he gave the name "biliary cirrhosis," indicating thereby its mode of origin from blocking of the bile-ducts. This term "biliary" has, however, been transferred from its etiological sense, and made to mean increased-formation of the small ducts, a condition not in the least characteristic of this form of cirrhosis, but existing in quite as marked a degree in alcoholic and in cyanotic, as the examination of a few sections will satisfy anyone.

As an example of the second source of error, namely, the confounding together of partial and general fibrosis, two so-called "varieties" may be given, "tubercular" and "hypertrophic diabetic" cirrhosis. Tubercles, of course, frequently form in the liver, generally in or near the capsule; but occasionally there is found an infiltration in the interior of the gland in the interlobular spaces. If the patient lives long enough, this is sure to lead to patches of sclerosed tissue and new formation, probably, of bile-ducts. Yet this certainly should not be looked upon as a variety of cirrhosis; it is a localised inflammation round the irritating masses of tubercle.

As a rule, no lesion of the liver is found in diabetes unless the subject also happens to be an alcoholic; and although Charcot and Hanot have described two cases of enlarged liver with sclerosis in non-alcoholic patients, yet in both these cases distinct

tuberculosis existed in the lungs; hence the appearances found in the liver may, perhaps, have been also due to this cause, and the evidence in favour of a distinct variety is not, I think, clear. "Tubercular cirrhosis" may, I think, be struck off from the list, inasmuch as it is partial and not universal, and, for practical purposes, "hypertrophic cirrhosis of diabetes" may also be omitted.

Again, the period in the course of the disease affecting the liver at which the patient dies must always be taken into consideration. So-called "monolobular cirrhosis" becomes indistinguishable microscopically from "multilobular," and an enlarged liver may shrink until it is exceedingly small. Moreover, morbid anatomy cannot be divorced from clinical history, and a description of tissue change alone is sure to lead to confusion. The classification I suggest is as follows:—(a) *Obstructive cirrhosis* due to either (1) some impediment to the flow of bile, "biliary," or (2) to the flow of blood from the liver (as in pulmonary or heart disease), "cyanotic." (b) *Irritative cirrhosis* caused by the irritation (and chronic interstitial inflammation which follows) of some poison brought to the liver by the portal vein or hepatic artery. Under this heading come (1) "alcoholic," (2) "malarial," and (3) "syphilitic," all undoubtedly well-marked conditions. "Scarlatinal cirrhosis," if such exist, would come in this group, but the evidence of its existence is not very abundant.

The *obstructive* are always "monolobular," that is, the connective tissue grows uniformly, not necessarily round the lobules, but round the hepatic zone as well. In the *irritative* forms the connective tissue grows irregularly; some lobules are divided up by septa, whilst others escape altogether. The "syphilitic" is found only in children; acquired syphilis appears never to produce general cirrhosis. The "malarial" is also chiefly seen in children. In "alcoholic" the disease probably begins (Sabourin) both round the portal and hepatic systems of vessels; it is more distinctly multilobular than any other variety.

In the irritative lesions there is often thickening of the small arteries (peri-arteritis and endo-arteritis). I do not think this is common in the obstructive varieties.

As to the distinction into "hypertrophic" and "atrophic" types, it must be remembered that the liver very readily enlarges; a rich and copious dinner, especially when combined with wine or spirits, may increase its size to one-third greater than the normal. We should, therefore, expect enlargement in the early stages of interstitial hepatitis; but, in the irritative forms, this subsides much more rapidly than in the obstructive, and the latter terminate more swiftly than the former, otherwise the gland would probably dwindle and atrophy. Both forms may be complicated by adenomatous growths, and, when these are multiple, an otherwise atrophied liver appears to be abnormally large.

I offer the above classification in the hope that it may simplify a subject that has, I believe, hitherto been somewhat in confusion.

SURGICAL MEMORANDA.

OSTEOPLASTIC OPERATIONS ON THE FOOT.

It was with the greatest interest that I perused in the JOURNAL of May 5th the report by Sir William MacCormac of an osteoplastic operation on the foot, which generally bears the name of Mikulicz, of Prague, although in the above-mentioned report the credit of first devising and performing the operation is given to Wladimiroff, of Kazan. In Russia it has also been performed by Skleffasowsky, and in this country Sir William MacCormac looks upon himself as the first to do it.

My own interest in it is due partly to the fact that, in 1883, in the presence of Dr. Merson and Mr. Macnab in a case of disease of the tarsus, but unfortunately I found, after removing the posterior half of the tarsus, that the other bones were involved, and I was obliged to amputate in the position of an ordinary Syme, taking a flap from the dorsum of the foot. In addition to this, however, I have for the past few weeks been trying to fix the date of operation in a case of the late Professor Syme's, which, as far as I can see, must have been performed even before Wladimiroff's first case, and which has every appearance of being an identical operation, the foot and leg exactly resembling that figured by Sir William MacCormac in the JOURNAL of May 5th.

The patient, a young woman, frequently appeared in the outpatient room at Huddersfield Infirmary when I was house-surgeon.

4 Cornil and Ranvier, vol. ii, p. 323.

1 A *Text Book of Pathological Anatomy*. By Ernest Ziegler. Translated by D. MacAlister, M.D.

2 BRITISH MEDICAL JOURNAL, June 24th, 1886.

3 The term cirrhosis (*κίρρῶς*, yellow) suggests a condition not always present, but long use has sanctioned it. Sclerosis is, of course, a better word.

geon there, to be treated for a small sore in the foot, due to slight deficiency of skin, and recently Dr. Irvine, of Huddersfield, at my request, searched out her abode again, but she cannot herself remember any particulars. She has, however, communicated with a sister, who, I hope, will be able to help us.

Mr. Macnab, of Hull, tells me he remembers a case of Syme's resembling this in every way, and therefore probably the one to which I refer. It aroused a great amount of interest at the time, and he assigns as the date the years 1865 or 1866. Doubtless some of Syme's old pupils of that date will remember the case, and I hope some of them will be able to give a description of the operation as done by Mr. Syme.

If I am successful in getting the date from the sister, some old case-book may give the required information. In any case, however, if Sir William Mac Cormac is correct in saying that Wladimiroff first performed the operation in 1872, Syme's claim to priority is established, for I think I am correct in placing the date of his death in the summer of 1870. Of course, I am aware it has been the custom to award the honours of priority to the man who publishes first, a method not without its faults, tending to induce premature publication, and perhaps an erroneous estimate of the value of what has been done. Why should the published evidence of a professional journal be preferred to the testimony of living and credible witnesses? I hope to give full particulars soon.

D. LOWSON, M.D.,

Hull. Examiner in Surgery to the Aberdeen University.

A CURIOUS CASE OF FOREIGN BODY IN THE MALE BLADDER.

A GENTLEMAN was sent to me by Dr. Miller on May 19th, 1887, with the following history: The patient assured me that, several years ago, he had been told by a medical man that, if there was ever any difficulty in micturition, a paraffin candle was to be warmed, moulded into the form of a bougie, and passed into the urethra. Six weeks before seeing me, having some slight irritation, these manoeuvres were practised; but, on attempting to remove the paraffin bougie from the body, little more came away than was actually held between the fingers. Since then he had become more and more uncomfortable; the movements of a cab or carriage could not be borne, and he could only walk very slowly. He felt as if "he had a marble in his bladder." The bladder had been sounded and nothing found, and he complained that several surgeons had been incredulous of his story.

He was nervous, and in so much pain, that I declined to do anything until he was in bed. Mr. Charles Moss administered ether, and Mr. H. S. Byam, of Chester Square, kindly assisted me. A wax-like body was at once found in the bladder, and seized by a lithotrite with some hesitation, because there was no means of knowing exactly what had to be dealt with, and I was anxious not to bite into a sticky mass from which the jaws of the instrument might not readily be extricated. However, during its six weeks' sojourn in the bladder, the wax had become incorporated with a good deal of phosphatic matter; it crumbled rather than broke, and very soon nothing of any size remained to be seized by the lithotrite. An ordinary lithotrity evacuating tube was then introduced, but only a small amount of *débris* could be extracted, for it was so light that the bulk of it refused to be drawn into the aspirator. The lithotrite was therefore again introduced into an almost empty bladder; and a good deal of waxy matter, which burnt with a flame when applied to a lighted candle, was withdrawn between the blades of the instrument; the rest was well broken up, and the operation completed. The patient being a comparatively young man, it was thought that almost all might now be left to Nature, and for about two or three weeks not a day passed without some paraffin coming away, either naturally or by the use of a soft catheter and an india-rubber washing bottle. On June 19th, 1887, he passed the last piece, and on the same day was the winner at putting the shot and throwing the hammer at some athletic sports. He has continued perfectly well ever since.

The case is worthy of being put on record, because, as far as I know, it is unique.

G. BUCKSTON BROWNE.

Wimpole Street, W.

BACTERIOLOGICAL courses of study will be held in the Berlin Hygienic Institute during each of the two months, August and November, of this year. Anyone who desires to attend the courses should write early to Dr. C. Fränkel, assistant at the Institute.

THERAPEUTIC MEMORANDA.

ON THE USE OF CODEINE.

I WAS a little surprised in reading Dr. Lauder Brunton's most interesting paper in the *JOURNAL* of June 9th to find him state that codeine is "rarely employed for other purposes than the treatment of diabetes, cough, and irritation of the throat."

For some few years past I have found that in nearly all cases where morphine or opium was indicated for the relief of pain, but contra-indicated from any cause, the desired effect was readily obtained from codeine.

In this way gastralgia in aged patients is easily relieved without risk, and all forms of neuralgic and muscular pain are soon conquered.

I also frequently use codeine for threatened abortion, where opium cannot safely be prescribed, and my friend, Dr. McIntosh, tells me that quite recently he found codeine act splendidly in a case of asthma, where injections of morphine failed.

Though there is much that is instructive in Dr. Brunton's paper, I fancy the use of codeine is more general than he thinks; if not, I hope his paper will induce those who are not familiar with the drug to give it a trial.

GEO. C. KINGSBURY, M.A., M.D.

Blackpool.

PATHOLOGICAL MEMORANDA.

SARCOMA OF SUPRARENAL CAPSULES SIMULATING ADDISON'S DISEASE.

THE following case, which I am enabled to publish through the courtesy of Brigade-Surgeon Warren and Surgeon-Major Steele, is an instance of the truth of the statement made by Dr. MacMunn (*JOURNAL*, February 4th, 1888). "Many believe with Virchow that the train of symptoms, with bronzing of the skin, which are characteristic of Addison's disease, may be brought about by various morbid conditions of the adrenals."

A soldier, aged 23, was admitted into hospital on June 4th, 1887. He had for some months complained of what was called dyspepsia; his skin was muddy, although there was no distinct bronzing; he complained of great pain in the abdomen, which he referred to the region of the gall-bladder and to the pit of the stomach; there was distinct tenderness over the lower dorsal vertebrae; he had constant vomiting, occasional diarrhoea, and profuse perspiration. His temperature was slightly raised for about ten days, when it became normal, and continued so until death. His symptoms increased in severity, and, with the exception of sedatives, no treatment appeared to be of any use. He had attacks of extreme collapse towards the end, during which his pulse was very feeble, and the skin clammy. He died in a delirious condition on July 13th.

At the *post-mortem* examination no diseased condition was discovered, but enlargement of the suprarenal capsules; the right weighed a quarter of an ounce, the left one ounce; the structure was firm; the cut surface presented a number of yellowish nodules, varying in size from a millet-seed to a small nut; those in the left adrenal were largest, and in this there was a star-shaped opening on the anterior surface, about the size of a sixpence, which appeared to be the result of the breaking down of one of these nodules. The contiguous lymphatic glands were not enlarged, nor were there any secondary deposits in lungs, liver, or elsewhere. Microscopic sections made through these nodules showed them to be made up of spindle-celled sarcoma.

Mr. C. Mansell-Moullin very kindly examined the sections, and considered there was no doubt as to their being sarcomatous; saying of the history of the case that the disease "must have proved fatal, not because of the sarcoma, but because of the place in which it occurred before it could effect any general change, which is very unusual."

ALLAN PERRY, Surgeon Medical Staff.

Gibraltar.

MEDICAL EDUCATION IN SPAIN.—On Sunday, May 27th, the first stone of the new buildings of the Faculty of Medicine was laid at Barcelona. In addition to liberal accommodation for teaching and original scientific work, they will include a hospital expressly designed for clinical instruction. The site has been given by the town, and the Spanish Government has made a grant of one million dollars for building purposes.

REPORTS

OF
HOSPITAL AND SURGICAL PRACTICE IN THE
HOSPITALS AND ASYLUMS OF
GREAT BRITAIN, IRELAND, AND THE COLONIES.

NORTHAMPTON GENERAL INFIRMARY.

COMPOUND DISLOCATION OF BOTH ANKLE AND KNEE OF THE
SAME LEG: EXCISION OF ASTRAGALUS: RECOVERY.

(Under the care of Mr. G. H. PERCIVAL.)

[For the report of the case we are indebted to Mr. W. E. AUDLAND,
late House-Surgeon.]

C. B., aged 45, a navy, was admitted into the infirmary at 9 A.M. on May 18th, 1887. The history of the accident was that he was working in a railway cutting, when a fall of earth occurred, and he, while trying to throw himself flat down—seeing that he could not escape—was caught by the falling mass, and his right leg was crushed.

On admission, it was found that he had sustained a compound dislocation of his right knee inwards, his leg being at right-angles to his thigh, and the upper articular surface of the tibia protruding through a lacerated wound on the inner side of the knee. He also had a compound dislocation of the ankle of the same leg outwards, the foot being bent inwards at right-angles to his leg, and the superior articular surface of the astragalus protruding through a large irregular wound on the outer side of the ankle. Both the malleoli were broken off; neither of the tibial arteries was wounded. The patient was in great pain, but not much collapsed. Mr. Percival, having examined the injuries, directed the House-Surgeon (Mr. Audland) to reduce the dislocations as completely as was possible, and to make an attempt to save the limb. Ether, therefore, having been administered, the knee-joint was easily reduced, but he found it impossible to get the foot into good position until the tendo Achillis had been divided, and the whole of the astragalus, with both of the malleoli (which were lying nearly loose in the wound), had been removed. The wounds were then well syringed out with carbolic lotion, the edges brought together with silk sutures, and dressed with iodoform and carbolic gauze. Two drainage-tubes were placed in the wound of the knee, and one into each side of the ankle. Carbolic spray was used. The limb was then put on a back splint with a foot-piece and two side-splints. After the operation, the man soon recovered from collapse, and said he felt much more comfortable and in less pain.

At 6 P.M. the wound was dressed on account of some oozing. At 8 P.M. he was given injection of morphia, one-third of a grain; ordered low diet, beef-tea, and milk.

May 19th. The patient slept well; took food well; complained of some pain in the ankle; ordered pil. morph. $\frac{1}{4}$ gr. h. n.

May 22nd. The wounds were dressed for the first time since the day of the accident. That of the knee looked well; one drainage-tube was left out. Some sloughing of the edges of the ankle wound; not much suppuration.

May 25th. The wounds were dressed and looked well. The patient's general condition was much better; ordered half diet.

May 28th. A large, deeply-seated abscess was discovered and opened, about four inches above the internal malleolus; a drainage-tube was introduced and the cavity washed out with carbolic lotion.

May 29th. Another small abscess nearer the ankle was opened. The wound of the knee had nearly healed; the drainage-tube was left out; no suppuration.

May 31st. Dressed and splint changed.

June 3rd. All the wounds were dressed and going on well; ordered full diet and a pint of porter.

June 23rd. The back splint was changed for a side splint owing to a slight sore of the heel.

July 15th. The patient got up and went out in the grounds in a carriage.

August 3rd. The patient went about on crutches. The wounds of the ankle were nearly healed; that of the knee quite well. He could nearly bear his own weight on the foot. There was considerable movement in the knee-joint.

In October the patient left the infirmary and went to a con-

valescent home for six weeks. He was then again in the infirmary for a few days, as a small piece of necrosed bone was exfoliated from the lower end of the tibia. He finally left the infirmary in December.

The temperature chart of this case was unfortunately lost, but after rising in the evening during the first ten days to 101° or 102° F., it remained normal.

In February, 1888, the patient was seen. Then there was three-quarters of an inch shortening of the right leg; the knee could be bent nearly to a right angle; patella freely movable; there was no roughness or grating. He could bear his whole weight on the leg. The ankle was firmly fixed; free movement in the tarsal joint. There was a small sinus over the inner side of the ankle, which discharged slightly.

I think the interest of this case is in the fact of a man being able to retain such a useful limb after so severe an injury. The good result in the case of the knee-joint is especially noticeable, the movements of that joint being almost entirely regained.

HOSPITAL FOR WOMEN, SOHO SQUARE.

AMENORRHOEA ASSOCIATED WITH ALCOHOLISM.

(Under the care of Dr. C. H. CARTER.)

[Reported by G. H. BURFORD, M.B., House-Physician.]

E. B., aged 26, married three years and having two children, came into hospital with a history of ten months' amenorrhoea, interrupted once only by a three days' metrorrhagia some six months before admission.

Two years ago the patient became profoundly melancholic, ensuing upon the death of a child. Habituation to the free use of alcohol was then begun, and continued up to date, when her daily quantum was about six glasses of neat brandy.

On examination nothing was detected in the condition of the reproductive organs as accounting for the amenorrhoea. "The uterus was high in the pelvis, the cervix small and not lacerated, the os uteri patulous; no pain or tenderness evinced on examination."

General examination showed that the first cardiac sound was feeble, and less marked than the second; the lungs somewhat oedematous; the abdomen tumid, but with no free fluid discoverable. Subretinal effusion was present in both eyes.

The urine was highly albuminous, containing also bile pigment and bile acids; specific gravity, 1025. No incontinence at first, but this symptom developed afterwards.

After a fortnight in hospital, she died with symptoms of cerebral effusion. *Post-mortem* examination by Dr. Dalton showed, in addition to appearances of hepatic and splenic cirrhosis, white patches on the cardiac valves and on the peritoneum. The renal changes were confined to a slight general enlargement of both kidneys, with a cloudy granular appearance of the tubular epithelium. But the ovaries were white and shrivelled, like those of an old woman, and under the microscope fibroid changes were apparent in them. The uterus was apparently normal in character.

REMARKS.—The amenorrhoea in this case seems ascribable in marked degree to the alcoholism, while associated with melancholia and renal lesion also. I can find no recorded instance of melancholia alone causing protracted and continuous amenorrhoea. The renal changes were by no means advanced; whilst the shrivelled ovaries, cirrhotic liver, and fibroid patches on serous membranes are quite in keeping with the clinical history of alcoholism. The uterus, singularly, had undergone no structural lesion. That chronic nephritis will induce secondary amenorrhoea is a well known fact; yet the persistence of the amenorrhoea, with the non-detection of albuminuria until admission into hospital, indicates the commencement of ovarian change prior to any results accruing from the renal lesion. The solitary break in the otherwise continuous amenorrhoea is worthy of note; profuse discharge, not due to miscarriage, seems to have been the final effort of a reproductive system whose functions were being gradually annulled.

MELANA VERA NEONATORUM.—Dr. Otto Tross, of Carlsruhe, has described (*Deutsche Med. Woch.*) a case of the disease, which first showed itself twenty-four hours after birth, by extreme sudden collapse. Camphor-benzole and ergotin were injected, the limbs were bandaged, and an ice-bag was applied to the abdomen. Blood escaped *per anum* for several days, but the child recovered perfectly.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

THURSDAY, JUNE 21st, 1888.

JOHN WILLIAMS, M.D., President, in the Chair.

ELECTROLYSIS IN THE TREATMENT OF DISEASES OF WOMEN.

Adjourned Debate.—The debate on the papers on Electrolysis in the Treatment of Diseases of Women, read at the last ordinary meeting by Drs. Steavenson, Lovell Drage, Gibbons, and Shaw, was resumed.

Dr. PLAYFAIR declared that those who had really mastered the technical details of electrolysis had never found that method useless. It must be justly tried, and then established or condemned, as results might prove. Dr. Playfair, through personal experience, had sufficient evidence to satisfy himself that the agent had great power, but that much was yet to be learnt. Cases should be treated by gynecologists, and not left to professional electricians and to managers of the electrical department of hospitals; as well leave ovariectomy to the cutlers who made the instruments used in that operation. Passing sounds and electrodes required special knowledge of the diseases of women, and the electrician might not necessarily possess that knowledge. Dr. Steavenson did possess it, but he and others similarly circumstanced must treat their cases as gynecologists, not as electricians. Turning to his own clinical experience, Dr. Playfair believed in the hæmodynamic effect of the positive pole in the treatment of fibroids and other forms of uterine hæmorrhage. It sometimes acted most powerfully and, as far as he could ascertain, permanently, in arresting hæmorrhage. In other cases it did good for a time; in only one case had he found it worthless. Dr. Playfair then described some of his own cases. He noted that in none had the patient been laid up, so that the good results could not be attributed to rest. As to the treatment of non-hæmorrhagic fibroids by puncture and the negative current, he had only experience through two cases. He believed this variety of treatment to be the most questionable and dangerous manner of applying electricity; besides, very few such fibroids required any kind of treatment. In both of Dr. Playfair's cases a large mass was impacted in the pelvis, causing severe pressure-symptoms. In the first the tumour had practically disappeared, but there was great constitutional disturbance. In the second, where the pressure had rendered voluntary micturition impossible for a long time, the tumour was much lessened; the patient no longer required the catheter, and felt quite well and comfortable. Dr. Playfair then described some cases which tended to prove that the negative current was of great value in the treatment of severe dysmenorrhœa, membranous dysmenorrhœa, and aggravated uterine catarrh. Time did not allow him to dwell on the use of electricity in promoting the absorption of inflammatory deposit, and on the use of the interrupted current to relieve pain or to cure amenorrhœa. After three uterine faradisations, a patient commenced to menstruate after seven years of amenorrhœa, and had continued regular ever since. In other cases of like nature, electricity had failed to do good. Dr. Playfair, in conclusion, declared that his clinical experience proved that electrolysis was an agent occasionally capable of doing much good. It might do much harm if injudiciously and unskillfully used, but that truth furnished no argument for rejecting electrolysis as a therapeutic agent, but rather demonstrated that the effects of the new method must be carefully studied, its indications noted, and its dangers detected and avoided.

Dr. INGLIS PARSONS said that in the case of uterine fibroids, the results of electrolysis would vary according to the position and structure of the tumour. He had found by experiment that electrolysis occurred only at the poles, and the free acids and alkalis resulting from it also acted locally. When fibrous tissue predominated very little reduction in size was possible, even by puncture, whereas a soft myoma could be disintegrated by puncture. In one case he passed a small platinum needle, insulated to within one quarter of an inch from the end, through the anterior vaginal wall and one inch into the substance of the tumour. The current only came off in the tumour, the vaginal wall remained intact; no sinus was left, as would have been the case had the actual cautery been used, but the puncture closed up at once, whilst at each sitting a large piece of the tumour was destroyed.

By February last the tumour was reduced to one third its original size, and had since remained unaltered. What was left appeared to be fibrous tissue. When the electrode could not be brought into contact with the tumour it might check farther growth, and thus prove of value in the earlier stages of uterine fibroid disease. Family physicians often let the disease advance through dread of advising so serious a step as abdominal section, except as a last resource. Dr. Parsons believed that electrolysis would prove successful in hæmorrhagic cases whenever the electrode could be made to touch the whole of the bleeding surface. He had sent out of hospital a few weeks ago a case where bleeding had been incessant for two years; after twelve applications it stopped, and since then the patient had had two normal periods with only slight show.

Dr. BANTOCK could not express himself in favour of electrolysis. There had been much assertion as to what this treatment was going to do, but little evidence of what it had done. Dr. Playfair's cases failed to convince him of the special advantages of the method. A year ago Dr. Woodham Webb stated that while one of the electrodes was applied over the hypogastrium by means of a filthy mess of potter's clay, the other electrode was always applied within the uterine cavity. This practice was based on an alleged electrolytic action, very beneficial for uterine fibroid disease. Dr. Bantock did not believe there was a tittle of evidence in support of the idea of electrolytic action extending between the poles. Apostoli himself and some of his followers had acknowledged the correctness of this opinion. Through the failure of the supposed electrolytic method they had taken to the totally different practice of thrusting one of the electrodes into the substance of the tumour. This resembled Dr. Greenhalgh's way of treating fibroids by thrusting the actual cautery into their substance—a practice which had fallen into well-merited neglect on account of unfavourable results. Both methods sought to bring about the destruction of the integrity of the tumour, it being supposed that if once the degenerative process were started it continued till the fibroid tumour entirely disappeared, leaving, contrary to Dr. Parsons's evidence, not a trace behind. The caustic action at the poles Dr. Bantock admitted, but he thought that this method offered no advantages over other practices in the treatment of those granulations on which uterine hæmorrhage so often depended. The alleged diminution in the size of the tumour was due rather to a change in the condition of the uterus itself. Seven years ago he removed the appendages of a patient subject to a uterine fibroid; three weeks later the whole mass had diminished by nearly one-half. Within two months, on the return of menstruation, it became as large as before operation, and three years later he had to perform supravaginal hysterectomy. It was the hypertrophied uterine walls which had diminished in size. The statement that although the tumours became smaller after a course of electrolysis, they did not disappear, was astonishing; after the removal of the appendages, if the tumour itself became smaller at all, the process went on to complete disappearance. Dr. Apostoli had insisted that a profound knowledge of gynecology was necessary for the successful application of his method. Dr. Bantock referred to two cases recently published by Dr. Apostoli, where it really appeared that there was a collection of fluid in the pelvis, and the use of a trocar and cannula would have finished the matter in five minutes instead of several days. It was evident that Dr. Apostoli had no idea of the exact nature of the conditions in these two cases. Dr. Bantock did not oppose the method itself, but rather the exaggerated claims which had been set up for it. Nobody could be convinced, either by the cases selected by Dr. Webb from Dr. Apostoli's records of five years' experience, nor by Dr. Playfair's cases. On moral grounds, Dr. Bantock opposed the manner in which this system of treatment by electricity had become a fashion of the day. Dr. Bantock here expressed regret that a Fellow took these remarks to himself. On reading the list of the various and opposite diseases for which the treatment was recommended, we were reminded of the vaunted virtues of patent medicines, such as Holloway's, Beecham's, Cocker's, or Widow Welch's pills. Dr. Bantock concluded by saying that his mind was still open to conviction, and he was content to allow others to pursue the electrical treatment, provided it was done in a truly scientific spirit, free from that empiricism and imposture which at present characterised it.

Dr. ROUTH compared the opposition to the electrical treatment of women's diseases to the similar opposition to the sound and to ovariectomy in past days. Only those who had some experience

of the method could judge of its merits. He believed that it was efficient in many cases. Thus, the negative pole caused dilatation of the contracted passages, as in stenosis of the uterine canal; the extent of its dilating power in this respect had not been sufficiently dwelt upon. In one extreme case he could introduce two or three fingers into the uterine cavity after employing electricity. Hoping to dilate the cavity further, he gave ergot, when, to his surprise, he found that the drug closed the os. Errors of diagnosis had discredited electricity, as in one case of a tumour impacted in the fibroid disease. In its cavity were found a number of small tumours. The case recovered; but had the uterus been first dilated and the tumours removed one by one, the patient would have retained her sexual organs. In 1872 Dr. Routh cured two cases of large fibroid tumour by the electrical cautery, but the wounds made by the electrical agents then in use proved very troublesome to heal. This disadvantage was overcome by Dr. Apostoli's appliances. Dr. Routh stated that clinical experience showed the necessity of antiseptic injections after the application of electricity to fibroids, especially when rise of temperature occurred. The electric wire allowed the operator to limit the application of his remedy, both as to place and time, with great exactness. This was a great advantage, especially in fundal endometritis accompanied with discharge of tenacious mucus or pus. An ordinary caustic could not be applied with the same precision. Lastly, though hysterectomy was often justifiable, we must not forget that it unsexed a woman—a serious effect indeed; so that, if electricity could also cure a fibroid, it would be far preferable to a mutilating operation.

Dr. CHAMPNEYS considered that discussion on the subject, especially as to permanency of success, was premature. Those who disbelieved in the method were not necessarily either ignorant, prejudiced, or even inexperienced; those who did not publish their successes might be perfectly capable of forming a judgment. He had given the method a trial, but did not consider that the time had arrived for the publication of his results. As to the assertion of Dr. Playfair that rest had nothing to do with the cure of his cases of fibroids, his hospital patients being kept out of bed, it must be remembered that, for a poor woman, a residence in hospital was truly rest, even if she did not keep to her bed. Fibroids, again, were liable to extraordinary spontaneous variations in size; this must be remembered in cases where the tumour became markedly smaller after electrolysis; cause and effect might be confounded. In short, Dr. Champneys was not convinced by any of the cases reported in the papers under discussion. In Dr. Shaw's communication decidedly facts scientific were to be found, but the double electro-puncture as carried out in his experiments did not necessarily illustrate what happened in ordinary clinical cases. Finally, Dr. Champneys had heard of widespread suppuration, of septicæmia, and of death after the employment of this method, and regretted that these cases had not been reported.

Dr. GALABIN wished to know if electrolysis and consequent absorption of the cells of the tissues or tumour took place midway between the positive and negative poles, or only at the poles. He criticised the former opinion very strongly on physical grounds, and was inclined to believe that the effects of electric treatment in cases of fibroid were due to caustic action. Dr. Galabin regretted that so little satisfactory evidence on the treatment of fibroids had been brought forward. As a caustic, electricity was valuable when the interior of the uterus required treatment and the cervix was narrow; in other respects it was hardly superior to other caustic agents.

Dr. HEYWOOD SMITH was averse to allowing prejudice and inexperience to shelve the electrical question, but at the same time he thought that the present discussion would be fruitless. The natural fluctuations in the size of fibroids must be more accurately studied. He believed that electrolysis was of value in promoting the absorption of inflammatory deposits in the pelvis after the stage of active inflammation had passed away, as Dr. Parsons had already demonstrated. The methods should be systematically tried in intractable cases of obscure ovarian pain. A good handbook, indicating the right line of investigation as well as the use of instruments, was much needed.

The PRESIDENT did not object to Dr. Playfair's claim that electricity should be placed on its trial. It had been already tried in the treatment of women's diseases for some time. The literature of the subject was not inconsiderable, but it was very disappointing, for it mainly consisted in the description of instruments and

the mode of using them. Dr. Apostoli, in particular, had published little else, except a series of general assertions and sweeping statements. Now, in estimating the value of the published work of an author not personally known to the reader, and whose powers of observation could not be tested personally, the reader should be acquainted with more than one of that author's published writings. He should know the author's record, for one work might throw much light upon the value of another. In 1881 Dr. Apostoli read, before the International Medical Congress, a paper wherein he proposed to treat the uterus during the lying-in period by faradisation, with a view to prevent subinvolution, metritis, and other evils. The Fellows of the Society might form everyone his own estimate of that proposal. In a later work by Dr. Apostoli, on chronic metritis and its treatment by electricity, there was much about instruments, and many sweeping assertions, but not a single case in support of the latter. Dr. Steavenson's paper was not free from similar statements. He said that the contracted cervix could be dilated by electricity, with results more permanent than after dilatation by other means. We had, however, no data which made it possible to form any valid conclusion on the permanency of the effects of tents, bougies, etc. How, again, could Dr. Steavenson justify his assertion that electricity cured the stenosis of the cervical canal caused by amputation of the cervix by the galvano-cautery? The President severely criticised the statements of Dr. Carlet, a pupil of Dr. Apostoli, in a work on the treatment of fibroids by electricity after the method of his master. Dr. Carlet declared that small interstitial fibroid tumours were often regarded as chronic metritis, engorgement of the uterus, ulceration of the neck, antelexion, anteversion, and especially retroflexion and retroversion. Such was the dominant idea in Dr. Carlet's work, as revealed by the ninety-four cases which he described. Fifty-nine were treated by positive galvano-caustic. In four cases only did the canal of the uterus measure over 4 inches, the greatest length being 5½ inches. In twenty-five it measured less than 3 inches! Together with the slight elongation of the canal there was enlargement and induration of the uterus, with hæmorrhage. The President was not ashamed of the ignorance which regarded these cases, with two or three exceptions, as cases, not of fibroid, but of subinvolution or chronic metritis. These cases were treated for hæmorrhage for periods varying from two months to a year; yet in none did the diminution in the length of the canal exceed 1.5 centimètre. They could have been effectually treated in a shorter time by other means. The President then showed that the evidence in respect to twenty-one out of the ninety-four cases treated by negative galvano-caustic was equally unsatisfactory. Five cases were treated by puncture, mostly large fibroids, but in only one could Dr. Apostoli introduce the sound. The canal measured 15 centimètres before and 11½ after treatment. This was a diminution of 3½ centimètres, a little less than 1½ inch—a decrease known to occur as a part of the cyclical changes of fibroids. Inconclusive, in a similar manner, was the record of nine cases treated by positive and negative galvano-caustic. In none out of all these cases did any alteration in size take place which might not be presented by fibroids when not treated at all. The method had thus been put to the test by its founder, and with very unsatisfactory results. There might be a place for the employment of electricity in the treatment of diseases of women, but as yet no case had been made out for it.

Dr. STEAVENSON felt some difficulty in replying to all the questions included in the discussion. He hoped that it would be remembered that he wrote his paper more than a year ago. The method had since undergone modifications. He had not admitted that the electrolytic action of electricity was limited to its cauterising properties, but advocated a more extensive use of electrolysis in those diseases of women where caustics were most usually employed. The apparatus was cumbersome and its management difficult, so that the new method was not likely to supplant others; but to those who could manage the apparatus, electrolysis would prove, as Dr. Horrocks had said elsewhere, a more efficient and elegant way of applying caustic than any other that we possessed. In reply to Dr. Bantock, he maintained that this caustic action was true electrolytic action. Electrolysis certainly took place at the poles, and though this important point was not settled, Dr. Steavenson believed that it also went on in the tissue between the poles, as, for example, in the substance of a tumour. The science of electricity favoured this view, especially when the electric affinities of animal tissues were considered; and Dr. Parsons's scientific experiments were of high value in this respect. Turning to the treatment of erosions and catarrh, he

brought forward evidence to prove that electrolysis, instead of being a longer, was really a shorter, method of cure than any other, for it was a better local remedy than any caustic. Some of his cases certainly required three or four months' treatment by electrolysis; but they had mostly undergone, without benefit, prolonged application of mineral caustics, in some instances for one or two years. Urethral caruncle, was best treated by galvanocautery, with cauterisation of the raw surface left after removal of the growth. Turning to Dr. Playfair's remarks, Dr. Steavenson said that gynecologists should not attempt this treatment without some knowledge of electricity, nor electricians without some knowledge of gynecology. Dr. Playfair had urged that cases suitable for treatment could only be selected by men who had a superior knowledge of diseases of women. Dr. Steavenson had enjoyed that privilege at St. Bartholomew's Hospital. In reply to the President, he thought it premature to say that the enlargement of the cervical canal for dysmenorrhœa produced by electrolysis was more permanent than when it was effected by mechanical dilatation or by incisions; but the President admitted that some contraction occurred at once after the canal had been stretched to a large size by dilatation. Dr. Steavenson declared that the case was different after electrolysis. There was no immediate contraction, and certainly none for a month or six weeks; but for how long the enlargement of the canal was maintained he had not sufficient experience to prove. As to the taunt that if cicatricial tissue out of sight in the pelvic cavity could be made to disappear by electrolysis, cicatricial tissue on the surface of the body might be and ought to be removed by the same method, though the advocates of electrolysis shirked that test, Dr. Steavenson said that, on the contrary, he had tried electrolysis with success on cicatrices at the meatus of the urethra, and on the brawny tissue around old perineal and scrotal fistulæ. The dense tissue had visibly softened down.

Dr. GIBBONS admitted that some of his cases might have been cured by other means, but maintained that the results seemed more satisfactory, and, where he could trace the history, the patients seemed more thoroughly cured by electrolysis than by other methods. The caruncle case, criticised by Dr. Herman, required two applications for a special reason, which he explained. He further admitted that the method was very unsuitable for private and general practice, yet, with all its present disadvantages, it was a means of treatment well worthy of prolonged trial by those who had patience and material at their disposal. He admitted again that, as Dr. Playfair had insisted, clinical facts must be sought and recorded; yet already he had known of great temporary benefit from electrolysis in a case of bleeding fibroid. Dr. Bantock was clearly prejudiced against electrolysis. Dr. Gibbons, while insisting that electrolysis as a means of curing fibroids deserved more trial, and would be better, if successful, than oophorectomy or hysterectomy, wished it to be remembered that the method gave promise in other directions, as his own paper demonstrated. Electrolysis should be carefully applied in obstinate, intractable affections like chronic metritis, and not rejected until wide experience had proved it to be unworthy of support.

Dr. SHAW believed that an increase of arterial tension really took place, and continued after the application of the current, and had no doubt that what was understood by electrolysis really took place, for, at the positive and negative poles, together with acids and alkaline bases respectively, there were acid and alkali albumens. Some of the cases of failure were due to local irritation, the result of a too early or too vigorous use of the hæmostatic action of the positive pole. A preliminary or occasional resort to the derivative action of the negative pole appeared advisable. The negative pole acted, he believed, in a twofold manner on a stricture or a closed cervix. First, it caused the swelling up of capillary granulations; secondly, it exercised a directly solvent action on the fibrous tissue. Dr. Shaw had satisfied himself by a series of experiments, a description of which was appended to his paper, that electrolysis went on between, as well as at, the poles.

BRITISH GYNÆCOLOGICAL SOCIETY.

WEDNESDAY, JUNE 13TH, 1888.

ARTHUR W. EDIS, M.D., F.R.C.P., President, in the Chair.

Supravaginal Hysterectomy.—Dr. G. GRANVILLE BANTOCK exhibited a multiple fibroid tumour of the uterus, weighing 1 lb. 9 ozs., removed from a single woman, aged 27. The sym-

ptoms were severe dysmenorrhœa and menorrhagia, obliging the patient to relinquish her occupation. She was very anæmic from loss of blood. The tumour was removed on May 9th, and the patient was convalescent. A very small portion of the cervix was left, and for some time there was a free communication between the vagina and the stump-hole along what remained of the canal of the cervix. He had observed this in several cases, but in all the fistulous track had closed, and he regarded it as a matter of no importance. In addition to the tumour in the fundus, forming the bulk of the mass, there were numerous small fibroids scattered through the organ, and at least five small fibroids pedunculated in the cavity; also a large single fibroid of the soft œdematous variety, situated in the right wall of the uterus, and weighing $\frac{1}{2}$ lbs., which he had removed from a widow, aged 40. The tumour had grown rapidly. Up to six months previously menstruation had been regular and quite moderate, but since then had become more and more abundant, until in the last two periods the flow was excessive. Supravaginal hysterectomy was performed on May 28th, and the patient was doing well. In both cases he used his new serre-nœud and wire of Delta metal. There was a marked absence of any blackening of the stump, and of that disagreeable odour which was so inseparable from the use of the iron instrument and wire. If properly treated it would stand any strain that was required.—Dr. ROUTH, in reference to the first case, remarked that removal of the tubes, expecting thereby to effect a cure, would have failed. Electricity also would have been, useless. He maintained that if the uterus had been well dilated, it would have been possible to find out the presence and to remove the uterine tumours, and so stop the hæmorrhage.—The PRESIDENT exhibited a large fibroid similar to the one exhibited by Dr. Bantock. It was very large, and occurred in a young widow, aged 23. The prominent appearance of her abdomen seriously interfered with her prospects. Two and a half years before she had given birth to a living child, the confinement being followed by some trouble. Two years later she again became pregnant, but miscarried at an early date. Shortly after this hæmorrhage declared itself, and was so severe she almost sank. She rallied, however, and was enabled to resume her duties. He thought that by removing the ovaries the bulk of the tumour might diminish, but the operation had proved so difficult that he determined to remove the growth in its entirety. This he effected in the usual way, and the patient recovered without a bad symptom. He also exhibited the ovaries, one of which was very much enlarged and the other showed signs of commencing cystic disease, which he had removed from a patient with a fibroid not larger than the double fist. In that case the hæmorrhage was the reason for surgical interference. Hydrastis canadensis had checked it for a time, but the following period was again profuse. The patient had made a good recovery. In reference to exploring the cavity of the uterus beforehand, he observed that the result was very often to set up some cellulitis. In the first case it was the size of the tumour, and not the hæmorrhage, which necessitated the interference, the converse being the case in the latter instance. In neither patient would dilatation of the cervix and exploration of the uterine cavity have been a prudent plan. Nothing could have been gained by it in the first, and distinct risk to the patient would have followed in the latter case.—Mr. LAWSON TAIT said that, if one believed the descriptions published, it was just in such a case as the first exhibited by Dr. Bantock that electricity should prove useful, otherwise it was of no use at all. It was a pity it had not been tried, but of course the actual condition of things was not known. Dilatation in nineteen cases out of twenty did no good, and in such a case its risks would be nearly as great as hysterectomy. They were beginning now to hear the other side of the story of electrolysis, and a death had occurred at Liverpool. He had that day operated upon a lady who had been treated by electricity for months, not only without benefit, but with absolute detriment.—Dr. ROGERS agreed that such a fibroid had far better be removed. He had, however, seen electricity do a great deal in the removal of these fibroids, both small and large. Deaths had occurred in London as well as Liverpool, but the success had been great in other cases.

Ruptured Tubal Pregnancy.—Mr. LAWSON TAIT brought before the Society a case of this nature. The patient was brought two weeks ago with a history of having just recovered from a severe attack of ovaritis. She was 28 years of age, had been married nine years, and had three children, the last ten months ago. She had been ill ten months, losing a good deal of blood, with pain in the

lower part of the abdomen, and was really very ill. A large cystic mass could be felt in the pelvis, rising three inches above the brim. He considered that it was a case of suppuration, and therefore opened the abdomen. It turned out to be nothing of the kind. The broad ligament on the left side was distended with a large quantity of blood-clot, and it was very difficult to ascertain what the condition really was. In the Fallopian tube, which he had laid open, the ovum was found. The patient was not very intelligent, and no history was obtainable. There had been nothing to lead one to suspect pregnancy, but the anatomical relations of the parts made it clear that it was a case of tubal pregnancy which had ruptured into the broad ligament. Had he known he might, of course, have operated from the vagina; but even then he would have done exactly the same thing. There were evidences of great recent bleeding into the cavity, and that might have continued unless the broad ligament had been tied.

Extra-Peritoneal Cysts.—Mr. LAWSON TAIT had had two of these rare cases within a week. The first was in a child of 14, and he had at first taken it for a parovarian cyst. On the operating table an alteration in the zone of resonance and dulness was rather puzzling. On opening the abdomen, he found it was one of those extra-peritoneal cysts, lined with the usual amniotic membrane. Bearing in mind the unsatisfactory results of drainage in these cases, he scraped the wall, washed the cavity well out, and then filled it with water, hermetically closing the wound. The high temperature at once subsided, and there was no appearance of the sac refilling. If it refilled, he meant to tap it and inject iodine. In future he would do this at the time of operation. In the second case, there were very acute symptoms. The patient, a woman, aged 21, looked very ill. He recognised the condition at once, but, in addition, he found the two Fallopian tubes greatly distended, covered with granulations, and full of a cheesy material, being the tubes occurring in the cysts. The first patient recovered, and had since continued quite well; and so far this young woman had done well also. The stuff was undoubtedly tubercular. If the patient continued to go on well, it would go far to render necessary a revision of the views on the pathology of tubercle, which might, after all, prove to be a merely local disease.

The Influence of Removal of the Uterus and its Appendages on the Sexual Appetite.—Mr. LAWSON TAIT read this paper. He said that the popular belief on many points was singularly erroneous. For instance, it is believed that removal of both testicles in a male deprives him not only of the power of impregnating the female, but also of the power of engaging in sexual intercourse. The only ground for this belief, freely asserted in many published authorities, seemed to be a hastily constructed conclusion not substantiated by facts. Granted that the removal of both testicles from any animal before it had reached puberty would have such an effect, it by no means followed that removal of the testicles in an adult would do more than prevent him procreating. He had the evidence of a patient in whom one testicle had been removed at the age of 19 for scrofulous disease, and the other at 39 years of age for some growth which was stated at the time to be cancer. Intercourse had been subsequently as satisfactory as when first married. From extended inquiries in cases where both ovaries had been removed for many and various reasons, and at all ages from 17 to 60, he was satisfied that the ovaries had nothing to do with the sexual appetite. The test cases were not those where the operation had been performed after marriage or other experience of sexual intercourse. Evidence of the retention of the sexual appetite in such cases would mean nothing at all. But the evidence of women who have been operated upon in early youth in conditions of ascertained virginity, who have married afterwards, and yet in whom a sexual appetite had been developed, was absolutely unanswerable. He had had the opportunity of making inquiries in seven such cases, where the ovaries had been removed, and in three cases where the uterus as well as its appendages had been removed for fibro-myoma. The evidence given was always that of the husband, for many reasons a better witness than the patient herself. —Mr. HARVEY agreed as to the general result of the removal of the ovaries, but he had met with one case where the loss of sexual appetite had followed their removal. —Dr. MANSSELL-MOULLIN said that the popular impression was largely shared by the profession: No one would hesitate now to remove the ovaries and appendages where they were obviously diseased, but there was a large class of women whose sufferings were undoubted, but in whom no manifest disease could be detected. The fear of "unsexing" the patient had acted as a restraining influence, and such cases were allowed

to drift on indefinitely. The evidence which Mr. Tait had brought before them would materially strengthen their hands in dealing with such cases.—Dr. GRANVILLE BANTOCK, Dr. HEYWOOD SMITH, Dr. FANCOURT BARNES, Dr. ROUTH, and others took part in the discussion.—Mr. LAWSON TAIT replied.

CEYLON BRANCH.

SATURDAY, MARCH 3RD, 1888.

DR. VAN DORT, Vice-President, in the Chair.

Anchylostomiasis.—Mr. FERNANDO, at the request of the Honorary Secretary, read, on behalf of Mr. GRATIAEN, his paper entitled "Notes on some Cases of Anchylostomiasis."—Dr. ATTYGALLE regretted to find that no facts or reasons were given to show that the disease was directly caused by the presence of the anchylostoma in the duodenum. No doubt it was found in some persons who died of anæmia, but so were the round worms, and if the disease was caused by the former, why not equally by the latter? He had before him the result of seventy-eight *post-mortem* examinations, in which diligent search was made for anchylostoma in the intestines both by himself and by his house-surgeon, Mr. Rosairo, when he was in charge of the Kandy Hospital some time ago. Of these, sixty-eight were well marked cases of anæmia, in all of whom, if the theory put forward by Dr. Lutz and others were correct, he ought to have found the parasite in question in the intestines. But he found it only in thirty-six of the cases, and in thirty-two, or 47.05 per cent., it was absent; but lumbrici were observed in most of the cases, both in those in which the anchylostoma duodenale was present, and in others in which it was absent. The remaining ten patients were all plethoric subjects; of these, nine died of acute diseases, such as pneumonia and continued fever, and one from injury to the spine. In these, the anchylostoma was present in five, that is, in three cases of pneumonia, in one of continued fever, and in the case of injury to the spine. Of course, it might be said that had these persons lived longer, they would have all become anæmic after a time, but why were they absent in thirty-two of the undoubted anæmia cases if the disease was really caused by its presence in the intestines? Might it not be considered with greater reason that whatever induced the disease in the latter, that is, in cases in which the anchylostoma was absent, was also the cause of the former, and that the presence of anchylostoma in these was of no more import in its causation than that of the lumbrici found in common with it in a large majority of the cases? Uncomplicated cases of anæmia were by no means difficult to cure, and he had treated successfully, as the Kandy Hospital records would show, scores of cases occurring among estate Malabars as well as Singhalese villagers, without thymol or any other specific treatment, and only with good nourishing food and remedies calculated to improve the general health; and the success which attended Mr. Gratiaen's cases, in his (Dr. Attygalle's) opinion, was due more to the treatment on general principles, which he adopted after the exhibition of thymol, than to the expulsion of the parasite by the latter. With regard to cases of anæmia that occurred in epidemic form among the workmen employed in the construction of the St. Gothard Tunnel some years ago, if he (Dr. Attygalle) recollected aright, it was attributed by several of the Swiss physicians to their having been ill-fed and ill-housed; in other words, to defective diet and defective sanitary arrangements in respect of their dwellings. It would not, he thought, be denied as a rule, that the disease occurred mostly, if not entirely, among the poorer classes of people, whether in Ceylon, Egypt, Brazil, or South of Europe—countries where it is chiefly met with—who were ill-fed and ill-housed, and not infrequently living in malarious districts. He was inclined to the belief that the cases of anæmia met with in Ceylon, at any rate, were caused by the deficiency in certain of the essential elementary principles, probably albuminates, of which the dietary of the poorer classes of natives (both Singhalese and Malabars) was particularly deficient, aided to a considerable extent no doubt by other secondary causes, such as living in malarious districts and ill-ventilated houses. It must be borne in mind that the anchylostoma did not reproduce itself in the human intestines; its number depended entirely on the number of ova swallowed by each individual, and it was also so small in size that one would hardly think it possible, without further proof, even if it were found in large numbers, which was not the case as a rule, that it would consume such a quantity of blood as to cause anæmia.—Dr. BRITO hoped he would not be considered egotistical if he stated that the first discovery of the anchylostoma duodenale in Ceylon was made by him, when he was

pathologist of the General Hospital, in Dr. Driberg's presence, who was acting at the time for the Medical Superintendent, and who commenced the treatment of cases with reference especially to the expulsion of the worm. It struck him very forcibly that in deaths from other diseases, such as pneumonia, fevers, etc., anchylostoma had been met with. Although they were not found quite so frequently as round worms, yet, in some cases where round worms did not occur, anchylostoma did. After the statistics and assertions of Dr. Attygalle in regard to many cases of anæmia in Ceylon in which he did not find the anchylostoma present, he (Dr. Brito) would say that he agreed with him. In the St. Gothard Tunnel operations a peculiar kind of anæmia was associated with the presence of the anchylostoma, he admitted; but the parasite was so frequent in the *post-mortem* examination of cases that did not die of anæmia, that he had his doubts as to whether its presence invariably gave rise to anæmia with all its train of symptoms. Thymol expelled the worm, and he found this to be so whenever the ova was found beforehand; but one of the greatest dangers in this treatment was its tendency to cause intestinal irritation, and this was a danger to guard against. In several of the deaths after the administration of thymol, he found marked congestion of the intestinal canal.—Mr. SCHOKMAN quite agreed with Dr. Attygalle that, in the generality of cases, anæmia was due to bad diet and malnutrition. He said that, in his experience, such cases were successfully treated by ferruginous tonics and nutritious diet; but the patients, after they returned to their homes and resorted to their usual poor diet, after some time again sought admission into hospital on account of relapse. Thanks were due to Mr. Gratiaen for the report of a number of cases of anæmia in the Kandy Hospital, which he stated were successfully treated by him with thymol, according to Dr. Lutz's method. It would be interesting to know if those cases ever returned to hospital with a relapse of the disease, for, if they did, Mr. Schokman thought the theory that anæmia was due to anchylostoma duodenale failed.—Mr. ELEVATAMBY said that when Mr. Brito suggested the theory, the treatment adopted was by *felix mas*, *santonine*, etc.; but more cases were lost than by the expectant treatment. He was the house-physician of the General Hospital at the time, and he found in three-fourths of the cases of anæmia that the expectant treatment answered. It was evident the patients could not stand the diarrhoea. The active treatment had increased the rate of mortality. In very few cases was iron used—ammonia seemed to answer better. As regards the parasite, he found in cases he had examined medico-legally that the anchylostoma was often present without there being any anæmia. In two of the cases recorded by Mr. Gratiaen there was a history of malarial fever, and, considering the food of the estate cooly, there would be no difficulty in tracing the cause. In this anæmia, the liver and spleen were often diseased, and this diseased state tended to keep up the anæmia. There was no reason why the round worm should be absolved from all blame for causing the anæmia by absorbing all the nutritious material from the food, whereas the anchylostoma was said to suck up the blood.—Dr. Loos said that he had seen some of the cases of anæmia which were under treatment in the Kandy Hospital, and had also seen the ova and parasites passed by the patients. The disease called "panduwa" by the natives—a form of progressive pernicious anæmia—might be regarded as a mystery. It was a disease not amenable to treatment; and iron, bark, and other tonics had been given without much effect. In 1870, the Straits Government wished for some information regarding beri-beri from the Government of Ceylon, and on that occasion he (Dr. Loos) wrote a letter to the Principal Civil Medical Officer, in which he suggested that panduwa and beri-beri might in some way be connected. The latter disease was not now known in Ceylon; but was it possible that the same causes which produced the panduwa, operating in an intenser degree, might have caused beri-beri in times when the climate was more malarious and sanitary defects more common? Ordinary forms of anæmia arose from hæmorrhage, chronic discharges, and other well-known causes; but the anæmia now referred to was a special disease, the cause of which had not been ascertained.—Dr. Rockwood said that he could corroborate the observations of the previous speaker that certain cases of anæmia were not amenable to treatment, especially cases of pernicious anæmia. (Dr. Loos here said that he referred in his remarks to cases of progressive pernicious anæmia of the country.) Dr. Rockwood, continuing, said that in his experience the cases of anæmia that resisted ordinary treatment were not those resulting from mal-nutrition or malaria,

but where the anæmic state was associated with a fair condition of body and considerable development of fat, His colleague, Dr. Macdonald, who had worked with such enthusiasm in bringing the subject of anchylostomiasis to the notice of the profession in Ceylon, and who was now absent in Europe, often drew his attention to the association of anæmia with a certain amount of obesity, and he would look upon this feature as a means of differentiating ordinary anæmia and chlorosis from anæmia due to anchylostoma. Through the courtesy of Dr. Macdonald he had the opportunity of witnessing *post-mortem* examinations in cases of anæmia associated with anchylostoma, and he was particularly struck with the amount of fat deposited in the skin, abdominal wall, and omentum, in cases where quantities of the worm and ova had been passed under the influence of thymol. It was easy to understand how a process of abstraction of blood, a fluid rich in oxygen, by the anchylostoma, would lead to the conversion of albuminoid tissue into fat. He had also noticed a greater liability to retinal hæmorrhage in cases of anchylostomiasis than in simple anæmia.—The CHAIRMAN said that he considered Mr. Gratiaen deserving of a special vote of thanks for having evoked so interesting a discussion. He had himself no personal observations of the disease to contribute to those which had just fallen from the various speakers who took part in the discussion, but would merely mention with reference to a remark made by Dr. Attygalle that the anæmia of the miners of St. Gothard Tunnel was believed to be due to other causes than anchylostoma, that his recollection of the discussion on the subject when it was first brought to the notice of the International Medical Congress in 1881 by Dr. Lang, of Geneva, was that all the speakers were agreed that it was undoubtedly due to this cause and this alone. At the same time he was much struck with the fact that in not one of the three cases so elaborately reported by Mr. Gratiaen were any of those symptoms noticed which characterised the anæmia of the St. Gothard miners, namely—digestive troubles, abdominal pains, diarrhoea, and intestinal hæmorrhage. It would appear from the remarks made by some of the speakers, as well as from Mr. Gratiaen's report, that there were no diagnostic or characteristic symptoms by which the pernicious anæmia due to anchylostoma could be distinguished from similar anæmia due to other causes or other entozoa.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MAY 18TH, 1888.

W. H. RANSOM, M.D., F.R.S., President, in the Chair.

Electrolysis in the Treatment of Uterine Disease.—Dr. ELDER read a paper on this subject. Mention was made of the points of difference between the method of Apostoli and that of other workers in the same direction, and the mode of application in the different varieties of myomata was described. Several cases illustrating the beneficial effects of electrolysis were given, and reference made in general terms to the results obtained in over forty cases. Dr. Elder believed that in suitable cases this remedy was far in advance of any other purely medical remedy, and in the vast majority of cases would do away with the necessity for hysterectomy or removal of the uterine appendages.

Abdominal Abscess following Enteric Fever.—Dr. MICHIE read notes of a case of abdominal abscess following enteric fever treated by abdominal section and drainage. The patient complained of pain and tenderness a little to the left and below the umbilicus during the fourth week of enteric fever. Towards the end of the seventh week there appeared a hard and tender lump in the same situation; the patient had shiverings and night sweats. At the end of the tenth week Dr. Michie saw the case in consultation with Dr. Brown Sim. At that time the swelling was about twice the size of a cocoa-nut, hard, slightly tender, movable; there was no discoloration of the skin. No fluctuation could be made out; there was nothing unusual in the pelvis, temperature 100° F., pulse slightly accelerated. The diagnosis was, "Abdominal abscess having its origin in a suppurating gland of the mesentery." On February 1st abdominal section was performed, the abscess opened and washed out with plain warm water, and a large rubber drainage tube inserted. The patient was dismissed on the twenty-first day after operation, all discharge having ceased and the wound healed. Dr. Michie attributed the speedy progress of the case to (1) the equable intra-abdominal pressure, (2) the large-sized drainage tube, (3) the absence of any washing or syringing out of the cavity after the first time. He deprecated this practice in the treatment of abscesses or wounds generally.

Cerebral Atrophy in Hemiplegia.—Mr. E. POWELL showed a specimen of brain atrophy from an imbecile woman, aged 46, who had been epileptic and hemiplegic on the left side, since she was 3½ years of age. At that age she had a "fit," was totally blind, and more or less helpless for seven weeks, when she gradually recovered her sight, but remained hemiplegic. She had also internal squint of the left eye, and anæsthesia of the left side. The other special senses were normal. She had a cousin who was epileptic. The brain, on *post-mortem* examination, presented the following appearances in the right hemisphere: there was complete atrophy of the occipital lobe, also considerable atrophy of the ascending convolutions, the fusiform lobule, and the lingual lobule. The angular gyrus was apparently healthy. The left hemisphere and remaining parts of the brain were also apparently normal. The right hemisphere weighed two ounces and three-quarters less than the left.

Specimens.—Dr. HANDFORD: (1) Intestinal Lesions in Enteric Fever from a Child; (2) Subacute Aortitis.—Mr. ANDERSON: Fibroid Tumour removed from Uterus.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, JUNE 7TH, 1888.

FREDERICK ABELL HUMPHRY, F.R.C.S., in the Chair.

CLINICAL MEETING.

Blood Cyst in Neck.—Dr. BLACK showed for Mr. BLAKER a large blood cyst in a boy's neck. He regarded it as a degenerated nevus. A small quantity of bloody fluid had been extracted by an exploring syringe, and it was proposed to treat the cyst by tapping.—Mr. W. TURNER was in favour of free opening.—Dr. WHITTLE referred to a case of congenital blood cyst under the gluteus maximus, which was cured by free opening and removal of a portion of the cyst wall.

Supernumerary Digits and Deformity of Mouth.—Dr. BLACK showed a case of supernumerary thumbs, or fingers (?), on both hands, associated with a deformity in the mouth like a lateral hare-lip. The child was mentally deficient.

Double Hare-Lip.—W. HARRISON, L.D.S. Eng., showed a cast of an unusual case of double hare-lip. The child, a boy, aged 5 weeks, was admitted into the Royal Alexandra Hospital under Dr. Whittle. The premaxillary bone was firmly attached to the nasal septum and was very prominent, the columella being at the tip of the nose. There was an unusually wide gap in the lip, but no opening in the palate, only a slight depression. Dr. Whittle removed the premaxillary bone with forceps, but utilised the columella. The child was discharged well, but was readmitted a few weeks later with acute diarrhoea, and died within forty-eight hours.

Sarcoma of Femur.—Mr. HUMPHRY narrated the case of a girl, aged 20, who suffered from a burning pain in one thigh, but was otherwise apparently in good health. She fell in the street, and was admitted into the county hospital with fractured femur. She had no pain in hospital, but the limb swelled and no union took place. A sarcomatous tumour was diagnosed. Mr. Humphry amputated at the hip-joint. The specimen showed the tumour growing from within the bone, destroying the shaft.—Mr. W. TURNER spoke of the probable recurrence of the growth, local and distant. He considered it a mixed-cell sarcoma. He referred to a case of myeloid tumour of the humerus, where, a year after amputation, there was local recurrence treated by ligature of axillary artery.—Mr. VERRALL and Dr. UTHOFF referred to a case of myeloid tumour of humerus, in which fracture occurred just before operation in bringing the patient from the ward. The clinical diagnosis was confirmed by examining the fluid withdrawn from the tumour by puncture. Myeloid cells were detected. Mr. Verrall referred to a case of sarcoma in a boy's tibia treated by amputation, where, after a year, there were no signs of recurrence.

Chian Turpentine in Uterine Cancer.—Mr. GEO. MORGAN read notes for Mr. SANDERSON of a case of uterine cancer treated by Chian turpentine, with relief to pain and hæmorrhage, apparent restoration of health, and extensive disappearance of growth.

Prolapse of Ovary.—Mr. HUMPHRY described a case of tumour in the inguinal ring of an infant, with vomiting and collapse, but no obstruction. On operating, it was found to be a prolapse of the ovary and Fallopian tube.—Mr. MORGAN mentioned a case of congenital prolapse of the ovary into the inguinal canal removed by operation.

REVIEWS AND NOTICES.

A MANUAL OF ZOOLOGY. By H. ALLEYNE NICHOLSON, M.D., F.L.S., etc. Edinburgh: William Blackwood and Son. Seventh Edition. 1887.

The new edition of this manual is considerably enlarged, and, in many respects, an improvement upon the previous editions. But it is not easy to decide for what class of students the book is intended: certainly not for beginners, as the description of "types" is not sufficiently detailed; not for advanced students, as the treatment of the subject is not nearly full enough, nor is adequate attention paid to the comparison of organs, or to embryology and other points. Probably, therefore, it is intended for more popular use, and in this respect it will prove of some value, provided that a thorough knowledge of a few animals has been previously acquired.

At the end of each group of animals a fairly extensive bibliography is given; but this loses much of its value from being arranged neither chronologically nor alphabetically, and there is no reference in the text to this bibliography. Moreover, in some cases the references are wrong (a matter which it is rather difficult to avoid), or the same work is quoted twice—for example, see page 317, where Nos. 19 and 28 are identical. In many points the book is not up to date; for instance, no mention is made of Balfour's and Sedgwick's works on *Peripatus*, nor to Vajdovsky's work on *Oligochæta*; and other instances will occur to anyone looking through the bibliography.

A good deal of exception might be taken to the classification, which is rather antique; for instance, the flat worms and nematodes are grouped together as "Scolecida" in the sub-kingdom "Annulosa." Again, it seems to us that the three groups, Hirudinea, Oligochæta, and Polychæta, are not, by a long way, of equal value.

Turning now to the descriptive part, we notice that the author neglects to point out that the "ectosarc" and "endosarc" of *Amœba* are continually interchangeable, but leads one to imagine that they are permanently separate, and proceeds to state that the "ectosarc" is the layer of which the pseudopodia are mainly composed; while, in the figures, the latter are evidently and correctly represented by endosarc surrounded by a thin layer of ectosarc. The figure of *Paramecium* (p. 97) is not a very accurate representation of the animal.

The statement (p. 99) that the contractile vacuoles "are now usually regarded as corresponding with the water-vessels of various of the higher animals (such as Rotifers)," scarcely puts the matter in its true light; of course, the word *analogous* should have found a place in the sentence.

In the description of the *Acinetæ*, no mention is made of the fact that a mouth, such as is found in the Ciliata, is here absent; nor is the interesting fact pointed out that the embryos pass through a ciliated stage during development.

On page 124, we read that the cavity of Cœlenterate animals "represents the body cavity of higher animals;" it represents more, as it includes, in reality, both "body cavity" (coelom) and digestive tract. The characteristic ciliated pits of Nemertines are not even mentioned.

From his manner of speaking of the earthworms, a reader might imagine that the only ones existing are similar to Lumbricus, for the author writes, "the terrestrial forms are the earthworms (Lumbricidae)," totally disregarding the numerous genera of Perrier and others, such as *Perichæta*, *Acanthodrilus*, etc. We should like to know what is his authority for regarding the so-called "capsulogenous glands" as the organs which secrete the cocoon.

In dealing with the Crustacea, he writes (p. 320): "The number of pairs of articulated limbs is generally five to seven." Surely some slip of the pen must have occurred here. So, again, on page 358, the Schizopods are said to differ from Decapods in having a "larger number of thoracic limbs," whereas, doubtless, the author means that a larger number of limbs are used for progression.

In regard to the pericardium of Mollusca (p. 446), he says that it "is not normally filled with blood;" as a matter of fact the presence of blood in this cavity is extremely rare, if, indeed, it ever occurs; since recent researches tend to prove that the vascular system is completely separated from the pericardium.

In his description of *Amphioxus*, we are astonished to read that "the water" (having entered at the mouth) "passes through the slits in the branchial sac, and thus gains the abdominal

cavity (C), from which it escapes by means of.....the abdominal pore." The cavity here referred to has nothing whatever to do with the abdominal cavity, but is a secondarily formed chamber, and is of the same nature as the branchial chamber of a lobster. The statement in regard to the "pair of rudimentary eyes" is also incorrect.

Many other similar errors mar the book. Some of the figures, however, are very good, especially those referring to fossil forms and to mammalian dentition. But, to a student of zoology, the book will be found to be of little value.

NOTES ON BOOKS.

Notes on the Origin of the Belief in the Bis-Cobra. By J. Aécacio da Gama, Knight Commander of the Order of Jesus Christ, etc.; Chief Surgeon to the Bombay Eye and Ear Infirmary. —The natives of certain parts of India believe that there exists a reptile (generally considered to be a lizard) whose bite is twice as poisonous as that of the cobra-di-capello. The general opinion among Europeans and educated natives is that this creature is as mythical and non-existent as the amphispæna of the Rev. Cotton Mather. Dr. da Gama, however, seeks in a paper, read before the Natural History Society of Bombay, to show that the bis-cobra was a real animal, and that the name was originally applied, not to a venomous reptile, but to the comparatively harmless mangoose; while its supposed poisonous qualities are rather a survival of sixteenth century beliefs than any invention of the native mind or echo of the qualities possessed by any living creature. Dr. da Gama proves from the work of Dr. Garcia de Orta, published at Goa in 1563, that an animal called "bicho" was believed by the naturalists of the sixteenth century to have the power of killing the cobra snake in single combat, having first anointed itself with its own spittle after chewing the root of the cobra tree. Engelbert Kaempfer, who visited India about 1690, describes the cobra-tree, but says the Portuguese name for it was "mungo;" he also, in the same connection, speaks of the mangoose. Other authors inform us that the mangoose was a serpent-killer, so that our author believes there is no difficulty in identifying this little creature with the bicho-de-cobra of Garcia de Orta, of whose name he considers bis-cobra as merely a native contraction. He believes that the stories told by the early Portuguese naturalists of the poisonous breath and bite of the bicho-de-cobra, are sufficient to account for the present belief in the deadliness of the poison infused by the teeth of the bis-cobra; for that when the Portuguese adopted the native name "mangús," they left a belief in the native mind that the bis-cobra, an animal which the natives had never identified, and whose identity was quickly forgotten by the Portuguese, possesses poisonous properties of extraordinary virulence—a tradition handed down through two centuries, and still accepted and imparted. We think that Dr. da Gama has completely made out his case, and that the mangoose is the original of the bis-cobra. But we suggest that the legends of the superior power of the bis-cobra poison compared with that of the cobra-di-capello are certainly partly to be explained by popular etymology, which is the father of so many myths. Just as (according to Max Müller) the title of the constellation the Great Bear arose from the mistake of people who, having forgotten the first meaning of *riksha*, its original Sanscrit title (namely, "bright," that is, the bright ones—the stars), and knowing that *riksha* meant a bear, gave the title of the "bear" to the constellation, for all time and for nearly all nations; so we believe that the prefix "bis," having lost its old Portuguese form of "bish," and meaning of "beast," instead of being accepted as an unmeaning prefix, was supposed by the Indo-Portuguese to be one with the Latin "bis," and thus the bis-cobra would easily be translated into an animal having double the properties of the cobra-di-capello.

The Metropolitan Hospital Sunday Fund on Wednesday last had reached a total of nearly £35,000.

PROFESSOR MATHILDE WEBER, in a third edition of her work on *The Ethical and Sanitary Need of Female Practitioners for the Diseases of Women*, mentions that since the second edition appeared the German "Frauenverein" has received from a friend of the cause 80,000 marks for the advancement of female study, and that a still larger sum has been left by another friend for the purpose of founding a gymnastic institute for teaching women.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS, IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

CARBON CONES AND CASES (PATENTED).

A NOVEL and ingenious idea is skilfully embodied in these cones. The use of vapours for disinfection, deodorisation, or therapeutics has always presented some practical difficulties, and these difficulties have come in to reinforce certain theoretical objections which may be urged against methods of volatilisation hitherto employed. These cones appear to us, after careful trial, entirely to do away with the practical difficulties, and to obviate some, if not all, of the theoretical objections.

The general construction of the cones can be understood from the drawings, which are of about the same dimensions as the smaller sizes made. In Fig. 1 part of the outer casing has been

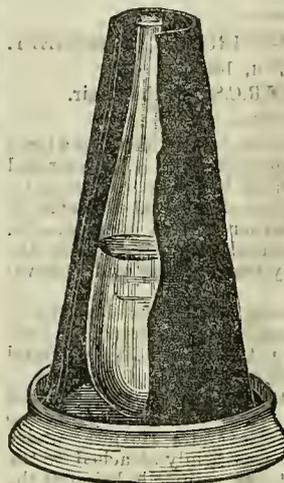


Fig. 1.

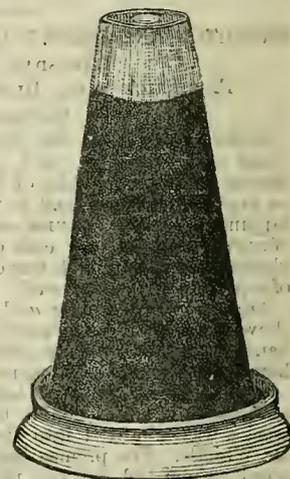


Fig. 2.

broken away to show the small glass flask in which the substance to be volatilised is placed; the flask is stoppered with a substance which melts at a low temperature; the cone proper is made of very pure carbon mixed with an oxidising substance, and is carefully constructed, so that its walls are of uniform thickness at all points; the base of the cone is fixed to a disc of incombustible material, resembling asbestos in appearance. The cone is used by lighting the top, and the carbonised casing then smoulders. Fig. 2 shows the appearance when the cone is well alight, and when the vapour is, on the average, first beginning to be emitted. The casing burns slowly and steadily, and the flask is heated from above downwards. The liquid, so soon as the heat reaches its surface, is vaporised, and rises through the narrow neck of the flask, where the temperature is still higher, and is propelled into the air with great velocity, and at a high tension. The inventors contend that as there is no tension on the mouth of the flask there can be no destruction of the active principles, that whatever is capable of being vaporised must at the given temperature escape, and that as only layer by layer of the contained substance becomes heated to the necessary vapour point, the contents of the flask never boil. It has been found possible by varying the proportion of the ingredients of the carbon shell to adjust the temperature attained to the requirements of each substance; by this means temperatures ranging up to as high as 1000° F. (537.7° C.) have been reached.

It is thus easy to understand that a large number of vapours and gases can be obtained; oxygen, chlorine, iodine, bromine, sulphurous acid, nitrous oxide, carbolic acid, terebene, creasote, camphor, the two chlorides of mercury, and ammoniac chloride are among those mentioned by the inventors; but it is a little surprising to find that eucalyptus and pine oil, and even the most delicate perfumes, such as stephanotis, white rose, and violet can be diffused through a room. The construction of the cones is so excellent that in the case of these perfumes the products of the

combustion of the carbon cone itself can be neither seen nor smelt; no doubt there is some loss with these perfumes, but the general result is that one of the smaller cones will thoroughly perfume an average sitting-room.

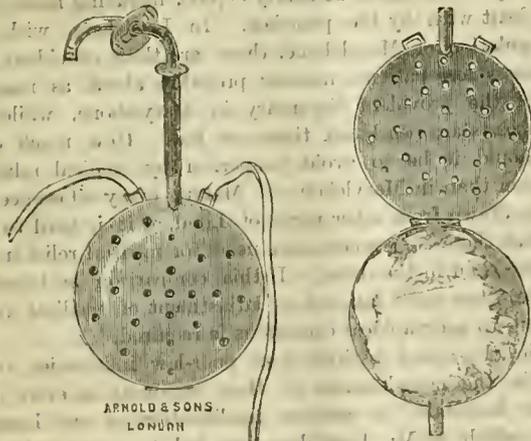
As will have been already perceived, the invention may be used for the administration of remedies, or for the deodorisation or disinfection of rooms; for the first-named purpose a cone may be burnt in the room, or—as, for example, with the ammoniac chloride cone—by adapting a suitable funnel the dense vapour may be inspired as it issues from the cone. For disinfection it is recommended to use first one or more mercuric chloride cones, and to follow with sulphurous acid cones; the iodine and bromine cones are also adapted for disinfecting rooms. The appended list of substances which are kept in readiness will speak for itself, the purpose for which each is designed being apparent; but the manufacturers invite suggestions for new formulae, and are also willing to issue the cases and flasks to medical men who may desire to use their own formulae.

Terebene	Creasote	Sulphurous Acid
Terebene et Iodum	Carbolic and Acetic Acid	Chlorine
Thymol	Thymol and Lavender	Bromine
Eucalyptus	Carbolic and Lavender	Iodine
Pinus Sylvestris	Hydrag. Subchlor.	Mercuric Chloride
Ammon. Chloride	Oxygen Gas	Perfumes
Bromo Eucalyptus	Carbolic	

The manufacturers are the Chemical Carbon Co., Limited, Basingstoke.

TRACHEA INHALER FOR USE AFTER TRACHEOTOMY.

THIS instrument is intended to overcome the dangers to tracheotomised patients from breathing cold air. It consists of a thin metal flask about four inches in diameter and half an inch in thickness, which is suspended round the neck and worn over the upper part of the sternum. The anterior surface is perforated. The flask opens like an oyster-shell, and the interior can be filled with antisepticised wool or any desired inhalants. From the upper part passes a short rubber tube with a tapering nozzle, which is fitted into the tracheotomy tube, but is easily re-



movable. The posterior surface of the flask rests against the warm chest, and the air, therefore, which is inspired is warmed as it passes through the flask and tube before it reaches the trachea, the object being to make up for the warming and moistening powers of the nasal passages on the inspired air. The rubber tube is made readily removable by the patient from the tracheotomy tube in the trachea, should urgent necessity for it arise. The instrument has been made for me by Messrs. Arnold and Sons, of West Smithfield.

T. FREDERICK PEARSE, M.D., F.R.C.S.

POISON AND MEDICINE BOTTLES.

A poison bottle has been patented by Mr. O. C. Hoit, of Faulkner Street, Manchester. It is certainly of a very striking nature. It is made of blue glass, and is shaped like a coffin.

Messrs. Kilner Bros., of King's Cross, N., the well-known bottle manufacturers, have taken a new departure, indeed, in the matter

of dispensing bottles. Nothing is sacred to the inventor, and the principle of the screw-stopper is applied by Messrs. Kilner to medicine bottles. It is manifest, that, in using bottles fitted with screw-stoppers, time would be saved in dispensing, the necessity of searching for a suitable cork being done away with. Obviously also, in opening the bottle, no cork could be broken off, and the same screw-stopper could be used for an indefinite period.

Messrs. Kilner at present are only prepared to supply six-ounce and eight-ounce bottles with this adaptation. The prices are reasonable, and the bottles can be obtained from the makers, washed, and with stoppers fitted, so as to be ready for immediate use for dispensing purposes.

PREPARATIONS OF CASCARA SAGRADA.

THE employment of the bark of rhamnus purshianus (cascara sagrada) continues to increase, and manufacturers take advantage of this fact by bringing their special preparations under the notice of medical practitioners. We have recently had submitted to us no less than four such preparations. The drug itself has a disagreeably bitter taste, and this taste is very marked in the liquid extract, the only official liquid preparation. Makers, therefore, endeavour to produce such compounds that the bitter taste is concealed while the aperient properties remain unimpaired.

Under the name of "Extractum Cascarae Sagradae Liquidum," Mr. H. Cracknell, of Craven Road, Westbourne Terrace, has brought out a preparation which is not at all unpalatable, and which will form a clear mixture with either water or spirit.

Messrs. Evans, Sons and Co., of Hanover Street, Liverpool, prepare a "Liquor Cascarae Sagradae Dulcis," half the strength of the Pharmacopoeial liquid extract. In this the nauseous bitter taste is almost entirely concealed.

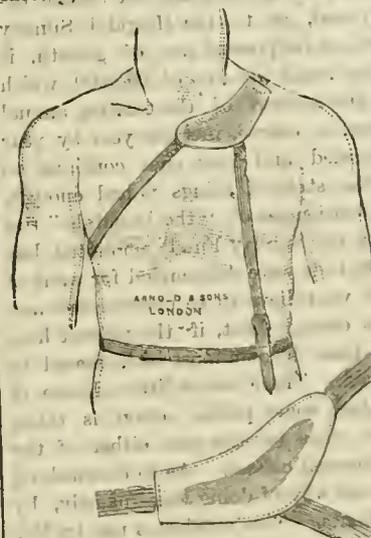
Mr. T. O. Sandell, of Baron's Court Road, West Kensington, has given the rather fanciful name of "Cascaradyne Tablets" to a kind of chocolate cream containing as a chief ingredient cascara sagrada. They are quite pleasant to the taste.

Lastly, Mr. Tompsett, of Anerley, S.E., has produced some really elegant "Cascarine Pastels." These are a kind of jujube, are very palatable, and one or two may be taken for a dose.

We have found that all the above preparations appear to possess the full laxative properties of the bark of rhamnus purshianus.

PAD FOR FRACTURED CLAVICLE.

Not finding the methods usually employed for maintaining the sternal end of clavicle *in situ* after dislocation or fracture satisfactory, I have invented an appliance (here figured) which I believe fulfils all the necessary requirements.



It consists of an irregularly shaped crescentic pad, concave on its under surface, and grooved so as to lie easily on the clavicle. A strap is attached to both ends of the pad, one of which passes over the shoulder of the injured side, to be attached to the other, which is brought out under the opposite axilla. A third strap passes down from the convex border to be buckled to a belt at the waist. This splint has the following advantages:

1. Facility of application.
2. It maintains fractures and dislocations in perfect apposition, without undue pressure.
3. Comfort is ensured, and unsightliness avoided, the patient being able to be

dressed and about, as it takes up but very little room. I have only to add that I am indebted to Messrs. Arnold, of West Smithfield, for the excellent carrying out of my ideas.

G. E. JOHNSON, Ferns, Co. Wexford.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1888.

SUBSCRIPTIONS to the Association for 1888 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to the General Secretary, 429, Strand, London. Post-office orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JUNE 30TH, 1888.

THE HOSPITAL QUESTION.

THOUGH the question of the finance and organisation of our hospitals is always before us, and is constantly receiving the attention of authorities both lay and medical, it is brought into greater prominence at the present season of the year by the return of Hospital Sunday. Mr. C. S. Loch's letter in the *Times* of last Monday will opportunely assist this most desirable tendency. We need hardly tell our readers that Mr. Loch's letter is worthy of their perusal and of their careful consideration. Its main conclusion, that "an investigation of the whole subject by a Royal Commission is absolutely necessary," is one which we have more than once tried to enforce; and we have no doubt that some such step would long since have been taken, had the political importance of the subject borne a greater proportion to its social urgency. For, indeed, Mr. Loch's letter shows in the plainest way that the question is not only an urgent one, but is becoming year by year more urgent. There are, as we have said, two main branches of the hospital question—finance and organisation. The finances are growing every year more deficient, as the pressure on the beds and out-patient departments grows heavier; and, as to the Hospital Sunday Fund, Mr. Loch shows that, at its present rate of growth, it would take fourteen years to reach the sum of £65,000, which is at least £25,000 below the amount of the existing annual deficit—a deficit which must, of course, increase year by year as old claims are left unsatisfied and new ones continue to grow. Even at present the state of things is bad enough, when we are told that the deficiencies of "the hospitals" (we presume those recognised by the Sunday Fund) amounted last year to £100,000, and 2,000 beds were unoccupied for want of means. These facts, which we believe to be uncontested and incontestible, prove plainly enough that, if the present hospitals are to go on, either their income must be increased or their expenditure diminished. There seems little chance of the former alternative, unless some public action is taken which will compel definite steps on the part either of the Government or of the moneyed classes. As to diminishing expenditure, there is only one way of doing this—namely, by lessening the number of patients. This number is put by Mr. Loch at a million, and, though such estimates are not perfectly trustworthy, we believe that there is a general assent to the accuracy of some such enormous total.

The magnitude of hospital-population is thus graphically

represented by Mr. Loch:—"The twelve general hospitals deal with patients who, if they were settled as a colony on the north of the river, would occupy all St. Pancras, all Islington, and all Hampstead. If we add the patients at the special hospitals, such districts as St. Marylebone, Hackney, St. Giles, Strand, and the Poor-Law Union of Westminster would have to be annexed. Thus there would be a colony of patients settled in a fan-like district, through which might be drawn a vertical line from Highgate to the river at Charing Cross, and a transverse line from Finchley on the west to Hackney Marsh and the River Lea on the east. These facts are sufficiently alarming, especially when they are boldly made the ground for appeals which are coupled with no policy of retrenchment nor with any scheme of reorganisation or reform."

Now no humane person would grudge even this enormous distribution of charity if it were necessary and if it did no harm, though even then the inequality of the supply of hospitals to different parts of London is an anomaly urgently demanding reform. But another and a most potent reason for inquiry and reformation is the "deadening of provident habits in the neighbourhoods" where "this congestion of medical relief" exists. No higher authority than Mr. Loch could be quoted on this subject, and it is thus that he speaks:—

"In Marylebone there is a provident dispensary on the northern verge of the district, away from the hospitals. It has about 3,200 patients, while those in receipt of free medical relief may be estimated at nearly 80,000, including more than 7,700 dealt with by the poor-law. In Lewisham, with half the population of Marylebone, there are three provident dispensaries whose patients number probably about as many as those of the provident dispensary in Marylebone, while the free patients are nearly six times as few. How much more easy should it be to avoid pauperism by medical relief in Lewisham than in Marylebone? Making every allowance for patients drawn from other parts of London, it is hard to believe that there is so much more need for medical relief in the one place than in the other. If this comparison be taken as evidence, some more satisfactory adjustment of medical relief according to geographical conditions is required."

Again, the recent institution of poor-law infirmaries, rivaling "in the completeness of their organisation even very efficient hospitals," is another modification of our hospital system, which, as Mr. Loch does not fail to point out, calls loudly for a full inquiry into the organisation of that system.

When our present hospitals were founded they were intended for the whole town. The Middlesex and London Hospitals still retain in their pleasure-grounds a pleasant and useful memorial of the time when they were at the very outskirts of London. St. George's, not much more than 100 years ago, was more in the country than the city. There are now miles on miles of houses with no hospital within a reasonable distance, and where accidents and urgent cases can only be attended to by a rather illegal, though perhaps necessary, misapplication of the resources (imperfect for such a purpose) of the poor-law infirmaries.

All these and many more features of our present hospital system demand public investigation; not the least one feature,

which Mr. Loch's letter passes over, but which all medical men must know to be of the highest public interest, namely, the function of the hospitals and infirmaries in medical education. The poor-law fever hospitals (to take only one example of what we refer to) have at the present time assumed so exclusively the care of the poor, when stricken by epidemic diseases, that the hospital student has little if any opportunity for learning things so essential to the success of his daily practice as the diagnosis and treatment of typhoid, typhus, small-pox, etc. He sees little of chronic disease, and has to learn all the details of home practice (so different from that of hospitals) when he begins to attend patients. But, in fact, the reasons for the proposal of a Royal Commission on Hospitals are too numerous to be set out in an article, and have been too often urged in vain to make us sanguine of any success in the attempt. It seems clear that this year's collection of the Sunday Fund, whether it exceed last year's by a few hundred pounds or no, will do as little as last year's to fill up the deficiency. Our hope is that the very magnitude of the need will compel that attention from statesmen which sound reason has hitherto failed to attract. Meanwhile, the thanks of all interested in our hospitals are due to Mr. Loch for his timely and able letter.

SCURVY IN THE MERCANTILE NAVY.

A RECENT report of the Seamen's Hospital, gives very satisfactory evidence of the progressive diminution of scurvy in the Mercantile Marine Service. "The return of the cases of scurvy admitted into the hospital in 1886 is by far the least unsatisfactory one that has yet been made in the medical records of the society." Five cases only, in all of which the scorbutic symptoms, though well marked, were not very severe, were received in the course of the year, and of the five cases, four were brought from one vessel. From 1870 to 1883 the average number of admissions for scurvy was 25; in 1884, 6 cases were admitted; and in 1885, 8 cases. In 1887, 9 cases were admitted, of which 1 was fatal; 4 came from one ship, belonging to Belfast, her last voyage being from Calcutta; 2 cases were admitted from Liverpool ships, also coming from Calcutta; 2 cases were admitted from London ships. The fatal case of 1887 was the only one occurring since 1879.

This reduced rate, the reporter, Mr. Johnson Smith, the Principal Medical Officer, states is no doubt due to some extent to the rapid substitution of steamers for sailing ships, but much more to a general improvement in the diet of seamen, and to the hygienic conditions in which they live, to which so much attention has been paid of late years by the Board of Trade, and by port medical officers.

Still a mercantile marine like that of England, the tonnage of which amounts to 3,396,516 tons, is surely vast enough to give ample scope to the development of any evil that is not vigilantly watched. "In 1865, when public attention was directed, by Dr. Robert Barnes, then Physician to the Hospital, and Mr. Harry Leach, Assistant-Physician, to the prevalence of scurvy amongst merchant seamen, as many as 101 cases were admitted, and during this and the two following years there were 10 deaths from this disease."

Scurvy may now be regarded as of very rare occurrence in British ships. Early notice of every case of scurvy admitted

into the hospital is given to the Board of Trade, and the circumstances under which the scorbutic symptoms were developed are made the subject of official inquiry. As medical referee to the Board of Trade, the late Mr. Leach rendered service which was directly influential in improving the diet and general care of seamen.

Amongst the most effective measures taken by Dr. Barnes to turn the light of public observation upon the prevalence of scurvy, was the appeal to the Coroner's Court. When a death from scurvy occurred in the hospital, it was made the subject of an inquest. The captain and officers of the ship from which the case came, were called upon to give evidence. Two pertinent questions were asked: "Did scurvy occur in the cabin?" "No." "It was only known in the fore-castle?" "Yes." The conclusion was irresistible, that if preventable in the cabin it was preventable in the fore-castle, and the responsibility for the occurrence of the disease fell upon the captain and the owners. It was simply a question of supplying the crew with proper food.

Another very useful impetus to official inspection and enforcement of preventive measures was the Report on Scurvy by Dr. Barnes, made to the Privy Council in 1863 at the request of Mr.—now Sir—John Simon.

The severe suffering of the crews of the *Alert* and *Discovery* during the Arctic expedition in 1875 was the occasion of the appointment of a Committee consisting of Admiral Sir James Hope, Admiral Sir R. Collinson, Vice-Admiral Inglefield, Dr. Donnet, and Dr. Thomas R. Fraser. This Committee sat in January and February, 1877. The inquiry carried out was minute and thorough. The witnesses included many seamen who had had experience of Arctic voyages, as well as physicians qualified to throw light upon the subject. Amongst these were Mr. Busk, Dr. Pavy, Dr. Buzzard, Dr. Dickson, Dr. Barnes, Mr. Leach, and Sir Alexander Armstrong. The report of this Committee, embodying the evidence, gives probably the most complete account of the history, causes of, and means of preventing scurvy to be found. With this report before the nautical, military, and medical world, the occasion for instituting such another inquiry ought never to arise.

The prevention of scurvy is emphatically an object that demands incessant vigilance. Scurvy need not occur—it ought not to occur; and the most searching inquiry must be made into all the circumstances under which it may occur.

Scurvy may be taken as a test or index not alone of the dietary of ships, but also in some measure of their general hygienic and disciplinary condition. Where scurvy occurs the presumption is strong that general negligence prevails. Lloyd's and the marine insurance offices might exercise valuable practical influence by steady observation directed to this subject. It is worthy of consideration whether, scurvy being shown to have prevailed on board a ship which has been lost, the insurance should not thereby be invalidated. If half an ordinary ship's crew is partially disabled by scurvy, it is certain that in rough weather the ship is in danger. No rule obtains more favour amongst owners and captains than that of "not carrying more cats than can catch mice." It follows that not a hand can be spared.

It is impossible to exaggerate the importance to the nation, in its mercantile and imperial interests, of guarding the health

of our seamen. It is not one of the least claims of the Seamen's Hospital to the gratitude and support of the country that it has done and is doing so much to throw the light of scientific observation upon the hygiene of the sea. This point was eloquently enforced by Lord Charles Beresford when presiding over the last annual meeting of the governors and friends of the hospital.

SCIENTIFIC CLINICAL DESCRIPTIONS.

In all scientific work accurate observations and descriptions are necessary before proceeding to make inferences, and clinical study is no exception to this rule. Many contributions to the literature of medicine are less valuable than they should be, and less potent in advancing scientific medicine, because terms which do not indicate facts observed are used as essential parts of the descriptions given. Descriptions of various conditions seen in practice may be founded on a large experience, they may be accurate as to facts, and accompanied by able generalisations and expressions of personal opinion, but they partially miss their purpose if they do not at all points indicate to the reader points observable by him when he meets with similar conditions. These remarks on current literature apply rather to clinical medicine than to descriptions in pathology, and herein we see the reason why pathology is a more definite science than clinical medicine. It is a matter of great importance in recording clinical facts for the purposes of summary and comparison, that such terms only be used as are understood to indicate the facts observed. There are two very distinct kinds of terms commonly employed in giving clinical descriptions which may be conveniently classed as "abstract or general terms" and "physical signs." Among the former class we may instance the terms, healthiness, fatigue, sleep, spontaneous movements, consciousness, depths of coma, etc., convenient terms, but such as do not indicate actual physical signs. When put before the student such terms do not lead him to look for physical signs, but rather to try and observe a general condition, without taking the trouble to describe the actual facts as he sees them. It is common for a clinical clerk to write in his case-book that the patient was comatose or delirious, thereby expressing his own general opinion, instead of describing the detailed physical signs that might be observed; he might better describe the dorsal decubitus, the absence of movement to light or sound, the absence of movement in the limbs, etc., the relative movements of the thorax and epigastrium, at the same time noting whether the eyelids and mouth were closed or open, and describing the kind of sounds made by the patient, if any, and whether he detected any twitchings of the fingers. Of course such descriptions of physical signs, involve much labour, but such analytical work alone gives accuracy, and supplies the only true basis for correct thinking. We think that both for the advance of medical science, and sound clinical teaching, it would be well if clinicians would spend more labour in defining general conditions in terms of physical signs. Have we good descriptions of the physical facts which indicate intelligence, fatigue, nervousness, etc.?

When a general condition has been thus defined, and its physical signs are well known, it is, of course, convenient to name that condition by a general term; then such term is an

abbreviation, correctly employed, for the sake of brevity, in place of a collection of observable signs, and for such purpose only.

These remarks apply to all clinical descriptions, but particularly to the department of neurology, where advance has been rapid, and where the use of many hypotheses is necessary. Students are taught that an epileptic attack may be followed by "depths of coma." What is much wanted is a body of recognised and well-defined physical signs indicating that state. We submit that all these terms imply immensely complex conditions, while such terms as "purposive" or "voluntary" also imply an hypothesis, and so the description of the clinical state becomes most complex, and we drift away from all physical signs observable in the patient. Accuracy and the means of comparing facts can only be obtained by analysis of general observations into the physical facts observed, upon which generalisations may be founded. In teaching those untrained in clinical work and correct thinking, descriptions given in general terms seem likely to arrest rather than stimulate further thinking and observing; such knowledge is wordy. Movements are said sometimes to be purposive, voluntary, automatic, spontaneous; but authors using such terms do not usually tell us how we may know by what we see if a certain movement is voluntary or not.

At the recent Junior Medical Examination held by the Punjab University, Miss Amelia Connor, of the Lahore Medical College, was the only candidate who stood in the first division.

The next meeting of the Royal Commission on University Education in London will be held this day (Saturday), when evidence will be given by Sir Andrew Clark, President, and Sir Henry Pitman, Registrar, of the Royal College of Physicians; and by Mr. Savory, President, and Mr. Thomas Bryant, Vice-President, of the Royal College of Surgeons.

As the 8th clause of the Local Government Bill transfers to the Local Government Board, among other powers now exercised by the Home Secretary, those relating to the Burial Acts, it is, it is stated, the intention of Mr. Osborne Morgan, before the clause is passed, to call attention to the effect of this and other proposals in the Bill, upon Burial Law Administration.

THE SOCIETY OF APOTHECARIES "AND ALLEGED ILLEGAL PRACTICE."

In reference to a report forwarded to us of an inquest held at Moor Street, Birmingham, on June 20th, on a child named Margaret Hart, which is published at page 1414, we understand that the Society of Apothecaries have required the person who, it was stated in evidence, had attended the child, to answer the statements made as to his practising as a medical man, and unless they can be proved to be incorrect, will at once institute proceedings against him.

THE LATE GERMAN EMPEROR.

We are informed that the German physicians and surgeons who were in attendance on the late Emperor Frederick have drawn up a memorandum dealing with the whole subject of his illness, the measures which were at various times proposed, and the treatment which was actually adopted. The necessary permission for the publication of this important document has just been obtained, and it will probably see the light in a few days. We cannot help thinking that it was a mistake on the part of the German Court to forbid the publication of the report of the post-

mortem examination. Apart from its scientific interest, which would have been exceptionally great, such an authoritative statement would have finally silenced the absurd and scandalous rumours as to the nature of the disease, which we regret to see are once more finding expression in some disreputable journals.

THE CLAIMS OF THE MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

A REPORT of Mr. W. H. Smith's answer to Lord Randolph Churchill's question as to whether the grant of a supplementary charter to the Royal College of Surgeons could be delayed until a Royal Commission had been appointed to inquire into the constitution of the College and the position of its Members will be found on page 1415.

THE MASTERSHIP OF DOWNING COLLEGE, CAMBRIDGE.

THE election of Dr. Alexander Hill to the Mastership of Downing College, Cambridge, is a striking proof of the increased estimation in which science is held at the universities, and of the importance which now belongs to the Medical School of Cambridge. Not since Harvey, who was at one time a Fellow of Caius, was elected Warden of Merton College, Oxford, has an anatomist been chosen the head of a college, and it is probably the first time in the present century that such an office has fallen to a member of the medical profession.

INTERNATIONAL CONGRESS OF DERMATOLOGY.

AMONGST those who have already accepted office in connection with the International Congress of Dermatology to be held in Paris in August, 1889, are: Dr. Ricord, Honorary President; Professor Hardy, President; MM. Emile Vidal, Ernest Besnier, Alfred Fournier, Hallopeau, Quinquaud, Tenneson, Henri Feulard, members of the Initiative Committee. Mr. Malcolm Morris, 8 Harley Street, and Dr. T. Colcott Fox, 14, Harley Street, have been appointed secretaries for this country, to whom all communications should be sent.

ELECTROLYSIS OF FIBROIDS: LIVELY DEBATE AT THE OBSTETRICAL SOCIETY.

WE publish this week a full report of the adjourned debate on Electrolysis in the Treatment of Diseases of Women. The proceedings fully occupied two meetings of the Society, and were very animated, the advocates and opponents of the method speaking with great warmth. In some instances the speakers showed considerable sensitiveness, taking the general observations of those who argued on the other side as direct personalities. This discussion appears to have caused some considerable displacement of parties in the obstetric world, and there were distinct indications in the course of the evening of the establishment of some new and unexpected alliances.

CHILDREN'S COUNTRY HOLIDAYS.

WHEN Midsummer Day has come it is time that London children should go the country. The light and air aid their growth as nothing else will, and the pleasant scenes of the country expand the mental powers. The country is clean, the town is not so; different sights, sounds, and smells then impress the senses, and the whole being of the child is changed thereby, so that dirt becomes hateful, and the music of Nature more pleasing than the street cries. A good work is being done by the Children's Country Holidays Fund (10, Buckingham Street, Strand); 14,043 children were sent away last year to 366 country centres at a cost of £9,178 7s. 9d., of which the parents contributed £2,819 16s. 11d. Most of the children were sent to cottages in the country for a fortnight each, some for three weeks. Local committees select the children in town, and receive their payments, while friends in

the country look after their well-being in the homes to which they are sent. No mishaps appear to have occurred from infectious diseases or other cause. We have nothing but praise for such work, and wish it all success. Money thus spent produces much good and more lasting results than day trips to the country, good as they may be when no better can be had.

EXHIBITION OF LIFE-SAVING FIRE APPARATUS.

THE strong public feeling aroused by the recent calamitous fire in Edgware Road as to the urgent necessity of all houses, especially large business premises where the higher rooms are occupied as sleeping apartments, being provided with ample and suitable appliances for securing the speedy escape of the inmates in case of fire, has led Dr. George Danford Thomas, coroner for Middlesex, to arrange for a display of life-saving apparatus and the various methods of preventing and extinguishing fires. This exhibition will be held at the Portman Rooms, Baker Street, W., at the end of July next, where the public will have an opportunity of being instructed in the use of fire-escape appliances and of testing their value.

A NEW ALKALOID IN TEA.

AT the meeting of the Berlin Physiological Society on June 8th, Professor Kossel reported on a new base, discovered by him, in extract of tea. Caffein is the only definite chemical base hitherto isolated from tea, and to it are ascribed many of the effects of tea. Professor Kossel has found another base in very small quantity, having the composition $C_8H_9N_3O_2$, upon which he has bestowed the name "theophyllin." It is isomeric with the base obtained from cacao (theobromin), and with paraxanthin obtained from urine by Salomon, but differs from these substances by its reactions. The introduction of a methyl group into theophyllin converted it into caffein, and as the latter is proved by E. Fischer to be a trimethylxanthin, the former is evidently a dimethylxanthin. Investigations into its physiological effects will be made.

MICROKINESIS.

A PAPER by Dr. Francis Warner, on muscular movements in man and their evolution in the infant, was read at the meeting of the Royal Society on June 12th. In the newborn infant constant movement may be observed in all parts during the waking state; these spontaneous movements, to which Dr. Warner proposes to apply the term "microkinesis," cannot be stopped by external stimuli. This condition becomes gradually modified during the growth and development of the child, and the movements are gradually more and more controlled by external stimuli, while the phenomena termed memory and imitation are evolved. The paper also contained a study of the modes of action of nerve-centres in adult age, and it was suggested that when a co-ordinated movement followed a slight stimulus, temporary unions are produced among the centres, and that the brain-action corresponding to thought is the formation of functional union among cells; the outcome of such functional unions is seen in the movements which express the thought. Dr. Warner described a number of special postures and movements associated with certain states of the brain, and in fact affording physical signs by which those states might be recognised.

ALLEGED VIOLENCE IN A LUNATIC ASYLUM.

AN inquest on a male patient dying in the asylum has resulted in the verdict: "That the deceased died from the effects of exhaustion following melancholia and inflammation of the lungs, accelerated by a severe fracture of the jaw and bruises to the shoulder caused by violence." The jury were of opinion that the said injuries occurred after the deceased was delivered into the charge of the asylum authorities, and they further added that they were of opinion that there was no evidence forthcoming to show how the injuries were

caused, which they considered most unsatisfactory. It is highly desirable that so serious a charge may not rest here, but that the Commissioners in Lunacy will cause a thorough investigation to be made into the circumstances attending the death of this unfortunate man. In large asylums, in which attendants may assault patients without any blame attaching to the medical superintendent, it is most important that he should be assisted in tracing abuses, if they exist, to the guilty parties. Such assistance can be best rendered by an impartial investigation by the Lunacy Board. Unpleasant rumours have for long been abroad in regard to the condition of the institution in question, and it would be a satisfaction to have them dispersed by an extended inquiry, in which the public and the profession would feel confidence.

A MEDICO-LEGAL CASE.

THE following case of suicide which recently occurred in Jamaica presents features of considerable interest and no little importance. A coloured man, after murdering his sweetheart, entered his house, and cut his throat with a razor. Some of the neighbours who had witnessed both deeds rushed into the house, but were unable to find him. After a search, his dead body was found under the house, which was a small one, built on supports, raising it about two feet from the ground. After cutting his throat, the man must have walked or run to the back entrance, a distance of sixteen feet, and then have crept through a hole in the partition, and have crawled on all fours to the spot where his body was found, exactly beneath the room where he cut his throat, and, therefore, a further distance of sixteen feet. The throat was cut from ear to ear by a clean sweep, both carotids and jugulars being severed, as well as the trachea and œsophagus, the wound reaching back to the anterior portions of the bodies of the cervical vertebrae. A blood-stained razor, which was deeply notched, was found in the room, and marks of blood were traced from the room to the back entrance by which the man must have gone out. Dr. Cargill, who examined the body soon after death, and to whom we are indebted for a report of the case, was asked by the coroner if it was possible for a man to have traversed the thirty-two feet after inflicting such wounds on himself; to which he replied by declining to controvert, as a mere matter of medical opinion, facts that had been sworn to by reliable eye-witnesses. Remarkable instances of the retention of voluntary power after wounds of the carotid artery have been occasionally recorded, but we know of no occasion on which the vessels on both sides of the neck were divided, where so much power was retained by the subject of the injuries as in the present instance. The case should serve as a perpetual warning to medical men not to be too dogmatic as to what is, and what is not, possible even in the presence of the most rapidly fatal wound.

THE MEDICAL OFFICERS OF HEALTH AT GLOUCESTER.

THE circumstances under which the Gloucestershire Combination of Sanitary Districts has been dissolved is further evidence of the uncertainty attaching to public health appointments. One of these districts—that of Dursley—desired to “handle its own money,” and appears to have used as an argument for the attainment of that end the fact that Dr. Bond held the office of honorary secretary to the Gloucester Dairy Association, which had grown out of the “model dairy” established three years ago by him, and which in its turn was one of the results of the “Milk Conference” held in Gloucester in 1884. The objects of this Association are to promote the interests of dairy-farming by showing how to produce good milk, butter, and cheese, and by giving assistance to those who wish to learn how to do so. Exception was in the first instance taken to Dr. Bond holding shares in this Association and in the Sanitary and Economic Association, which

had as its object the promotion of house sanitation; but subsequently this was dropped, and the objection was limited to Dr. Bond's connection with these Associations “by name or work.” Dr. Bond at once expressed to the Local Government Board his willingness to concede this point, if it could be shown that his position in relation to them was incompatible with his official duties, but not otherwise. No attempt, however, was made to ascertain this point, but Dursley was permitted to have its own way and withdraw from a combination which is thus dissolved. Dr. Bond not unnaturally claimed the protection of the Local Government Board, and asked for an inquiry into any case the Dursley authority could bring in support of their desire for separation, for he argued that they must have some better ground for their conduct than that which they had put forward. This request has, however, not been complied with, and Dr. Bond loses his office and a part of Gloucestershire his services. These occurrences will, we fear, do much harm in further shaking the confidence of the profession in the public health service. The public will be the sufferers if medical men of ability refuse to risk their careers by accepting public offices, but this must inevitably be the case if no reasonable prospect is offered of continued tenure of office. The readiness with which an authority can dispense with its officer by appointing him for a short term of years is direct encouragement to them to raise some trivial objection to him at the end of this period, and the risk of loss of office must inevitably tend to indifferent service.

PHYSICAL EDUCATION.

PHYSICAL education is now taking a place in public estimation and popular feeling that raises much hope for the wellbeing of the rising generation. It is a great thing to find the question popular and to see a general desire for improvement; in this particular instance it seems almost as if the demand were in advance of the skill and intelligence of the majority of school teachers. The public demand for some physical training of children finds expression in the desire to provide manual and technical instruction, as well as in the support given to new gymnasia and swimming baths. Physical training is required for children of all ages and conditions of life. Athletics and gymnastic competitions are useful for older lads, but well-adapted exercises in schools, such as can be practised by large numbers in playgrounds and in schoolrooms, are necessary for the younger children; and our rapidly increasing town population makes the matter an urgent one. Most schools have a certain amount of military drill, and such is necessary for marshalling the children in their classes, but this is very different from exercises designed to aid growth and development. It is found in the army that gymnastic exercises to produce development are needed before the military drill of the recruit can be satisfactorily undertaken. It may be that the habit of leaving drill in private schools to a drill-sergeant has helped to deter those persons of good education, who could best conduct the work, from taking a due position in this important mode of training; in America and on the Continent physical exercises are conducted by medical men of good standing. Military drill in schools is comparatively worthless for aiding physical development; it is not so much individual muscles that we want brought into action, as certain well-defined groups of muscles which act physiologically together. The physiologist, rather than the anatomist, should give counsel as to the methods of calisthenics best suited to stimulate muscle and nerve growth; and in the case of delicate children the general physician should also be called upon to advise; such training needs much care in many practical details. Great discretion is required in the teacher in advancing from one set of exercises to another, and care must always be taken to see that the strain imposed on any part is never beyond that justified by conditions of present nutrition;

exhaustion should always be avoided, especially in young and delicate children. Physical training, like mental training, should be progressive and carefully adapted to the ends in view.

QUACK ADVERTISEMENTS.

A Society for the Suppression of Quackery has been in existence in Holland for several years. The chief object of this truly philanthropic association appears to be not so much the "stamping out" of unqualified practice, as the enlightenment of the public mind as to the real value of too many of the nostrums which are so widely advertised in the lay press as certain remedies for all the ills that flesh is heir to. The Society numbers more than a thousand members, of whom rather more than half are medical men or pharmaceutical chemists. The yearly subscription is only six francs—a sum hardly sufficient to furnish the sinews of war in a campaign which is, to a large extent, conducted in the law-courts. We are not surprised, therefore, to learn that the Society is hampered in its good work by want of funds. Still the crusade has been fairly successful, and several "shams" (mostly, as we are sorry to observe, of English origin) have been triumphantly exposed. We fear that such a Society would not find much support in this "free and enlightened" country, where "caveat emptor" is still, in spite of much well-meant legislation, an accepted axiom of commercial morality. Moreover, our wonderful law of libel would paralyse any organised attempt to open the eyes of confiding purchasers to the humbug of which they are the victims. Even in Holland it does not seem to be an easy matter to unmask imposture without coming within the clutches of the law. In a case in which the Society ultimately came off victorious, though at an almost ruinous cost, the judge delivered himself of the following remarkable pronouncement: "If facts which have been thoroughly proved are published, and if this be done solely with the view of warning the public, the expressions used must be carefully chosen, so that they may not be offensive to the quack in question, for he would have a right to damage for the injury done to his *honour and reputation*." This means, we presume, that you may call the "quack's" wares worthless, but the vendor himself must be spoken of as a gentleman of the strictest integrity, who labours under an unfortunate delusion as to the quality of his stock-in-trade. After all, a large part of the blame for the harm wrought by lying advertisements must be laid to the newspapers which give them publicity. If the public requires to be educated as to the value of patent remedies, the press stands just as much in need of instruction in the ethical aspects of advertising.

THE MEDICAL OFFICERSHIP OF HEALTH AT BRADFORD.

MEMBERS of the medical profession who may contemplate applying for the vacant health-officership at Bradford should learn carefully the circumstances under which the Town Council have lost the services of Dr. Hime, for Bradford affords an excellent illustration of the insecurity attaching to an election of a medical officer of health for a limited period. Dr. Hime was elected for five years, and naturally anticipated that at the conclusion of this period he would be reappointed; but he appears to have wounded the tender susceptibilities of a few members of his committee by the zealous performance of his duties, and these have so far influenced their colleagues that they have not hesitated to sacrifice the interests of the town as well as those of Dr. Hime to their own personal feelings. There are few officers who could bring such striking testimony to the esteem in which they are held as Dr. Hime, for the Town Council received no fewer than five memorials representing the strongest possible desire that Dr. Hime should be continued in office. These memorials came from all classes of the community—from ratepayers, from the working

men, the medical profession, the Trades Council, and the Women's Liberal Association, the first being so largely signed as to make it representative of the greater part of the rateable value of the borough. In view of this very strong feeling it might have been anticipated that the Town Council would have yielded to the desire of the memorialists, but they have preferred to adopt the report of their committee, who could find no better reason for the course they pursued than that they had not worked harmoniously with Dr. Hime. It is deplorable to think of the position in which an able officer is thus placed, who has abandoned practice and all other remunerative occupation except that of a health-officership, and who is deprived of this at the caprice of a few members of the committee. The result is discredit to Bradford, and certainly should deter other medical men from trusting to so uncertain an appointment. The testimonial which the people of Bradford are about to present to Dr. Hime, and in which his friends will doubtless desire to share, is a proper protest against the action of the Town Council.

CANCER OF THE LARYNX.

At the meeting of the Société Française d'Otologie et de Laryngologie on April 26th Dr. J. Charazac, of Toulouse, related a case of cancer of the larynx and made some remarks on the treatment of that disease. The patient, a healthy man, aged 60, had for years been subject to frequent attacks of hoarseness, and he had besides been an immoderate smoker. He had never had syphilis, but it may be worth mentioning that his wife had died some years before of cancer of the breast. For eighteen months before he came under the notice of Dr. Charazac he had suffered from persistent aphonia. On October 1st, 1887, the epiglottis and the left side of the larynx showed the ordinary signs of chronic laryngitis; on the right side there was a deep ulcer with greyish base occupying the centre of a swelling which involved the ventricular band and reduced the glottis to half its natural size. Dr. Charazac diagnosed the affection to be malignant, and proposed laryngectomy, which was declined. On February 19th tracheotomy became necessary, and the disease has since made steady progress. The most troublesome symptom at the date of the report was the passage of food into the larynx; this was found to be due to the fact that the tumour, as it increased in size, pushed up the epiglottis so as to interfere with its action in swallowing. In discussing the treatment Dr. Charazac compared the results of simple tracheotomy with those of extirpation of the larynx for cancer. Statistics showed that the former increased the average duration of life by six or eight months, while after laryngectomy two-thirds of the patients died either from the immediate effects of the operation or from rapid recurrence of the disease. This discouraging result is, however, in Dr. Charazac's opinion, due rather to the want of a proper selection of cases than to any inherent fatality in the operation. He thinks that as a rule it should not be performed in patients over 70, and he looks upon it as absolutely contra-indicated in all cases in which the glands are affected or the general health impaired. It should never be done unless the disease is strictly limited to the interior of the larynx, but in suitable cases early operation is imperative. If these rules are adhered to, Dr. Charazac believes that laryngectomy will prove much more successful in the future than it has been up to the present time.

THE ANATOMICAL SOCIETY OF GREAT BRITAIN.

The Anatomical Society of Great Britain and Ireland brought its first session to a close with a most successful meeting at Cambridge on June 23rd. There was a large gathering of members and visitors in the anatomical department to listen to a number of interesting and important papers. Cambridge was particularly well represented. Professor Macalister showed a number of speci-

mens which he had obtained from the dissecting-room, and mentioned incidentally a point of some importance, namely, that when the twelfth rib was long the pleura descended further than usual. The new Master of Downing, Dr. Alexander Hill, also drew attention to the subcallosal convolution, a structure which has hardly had the attention which its interest deserves. Dr. Gaskell followed with an endeavour to claim greater morphological importance for the neuroglia of the cord and brain, but, by far the most important part of his communication was an account of a canal which he has discovered behind the tuber cinereum, and which he believes to correspond with the cephalic stomach of the crustaceans. However, Professor Howse did not allow these views to pass unchallenged. Amongst visitors from a distance who contributed to the success of the meeting were Dr. Johnson Synnington and Dr. A. M. Patterson, the former with some instructive sections of the head and pelvis and the latter with a series of developmental specimens. Dr. Curnow showed a skull, which excited some discussion; and Mr. Treves described and explained an example of that very rare condition, hernia into the foramen of Winslow. After the meeting, the President of the Society, Professor Humphry, entertained sixty members and visitors at dinner in the Hall of King's College. Speeches were made by Sir George Paget, Professor Michael Foster, and others, and the Secretary, Mr. Lockwood, in replying to the toast wishing prosperity to the Society (proposed by the President) was able to say that the names of the leading teachers of the three kingdoms were upon its list of members.

SCOTLAND.

EDINBURGH UNIVERSITY: FINAL EXAMINATION IN MEDICINE.

THE final examination for graduation in medicine at Edinburgh University is in progress. The number of candidates is larger than in previous years. The new arrangement, whereby the clinical portion of the examination in medicine is compressed into a much shorter term, has been found to work admirably, both by examiners and by candidates. The latter feel their labours materially lightened, while the prolonged state of anxiety which the old arrangement necessitated has been considerably curtailed.

THE UNIVERSITIES (SCOTLAND) BILL.

It is matter for congratulation on all sides here that, at last, the Universities Bill has been read a third time in the House of Lords. The fresh nominations to the Commission have been eagerly scrutinised, and satisfaction is expressed over the selection of Sir Henry Roscoe and Lord Elgin. But the list is generally thought too long and the proportions of the Commission too cumbrous to admit of a really efficient executive.

ECZEMA AND LEPROSY.

A REMARKABLE suit has just been raised in the Court of Session, and of considerable interest to the profession. Michael Christison Piggott, clerk, Glasgow, sues the Governors of Fettes' College, Edinburgh, for £500, as damages for unlawful dismissal and breach of contract. He states that in July, 1884, after examination, he was admitted a foundationer of the college, by which he was entitled to receive free board and education, valued at £130 a year, for six years. In the spring of 1887 eczema, he says, broke out in the college, and he was one of the last to be affected. His leg suppurated, and, about three weeks after that, occurred he was ordered to leave. He maintains that defenders acted illegally and in violation of his rights as a foundationer, after his having been admitted, examined and tested by them as to his physical health, and declared to be duly qualified. Defenders say that one

of the questions asked the applicants before being admitted is—“Is there any peculiarity of constitution which requires to be considered?” and that the pursuer falsely answered “No.” There was nothing apparently the matter with pursuer when he was admitted, but that shortly after admission they found he was suffering from leprosy, which was incurable. Inasmuch, however, as leprosy was not transmissible by mere personal contact, the medical officers did not consider it imperative to disclose to anyone the nature of the disease, as such a disclosure would have a disastrous effect on the boy's prospects. Active periods of the disease occurred more than once, but it was only in the spring of 1887, when a skin disease broke out in the college, that the medical officers considered it no longer safe to keep the boy, because it was within the range of possibility that he might communicate the leprosy through the medium of the other disease. They therefore informed the head master, and he told the boy to leave. The defenders maintain that under the rules of the college the head master has power summarily to dismiss any boy, when, in his judgment, it is necessary to do so in the interests of the school.

ST. ANDREW AMBULANCE ASSOCIATION.

THE annual report of this Association, just issued, shows a record of excellent work. It states that in 1882, when the Association was formed, there was not a proper ambulance waggon in all Scotland, loss of life and unnecessary suffering being caused by the removal of serious cases in unsuitable vehicles. Now, in various parts of Scotland, properly equipped waggons are to be found. Since March 1st, 1887, new waggons have been stationed at Falkirk, Johnstone, Motherwell, and Aberdeen, two are being built for Blantyre and Morsend, and wheeled litters have been supplied to Harthill and Lesmahagow. During the past fifteen months 1,483 calls have been made on the waggons of the Association, and since the formation of the Association 4,049 patients have been safely carried. Last year 6,655 pupils received instruction in first aid, an increase of 742 on the numbers of the previous report. The total number trained since 1882 now amounts to 19,969. The Association has had a stretcher constructed for use in fits; a cover strapped to the stretcher poles binds down the patient's trunk, legs, and arms independently, and the stretcher is hinged, so that the patient may be brought up to the surface in a horizontal, vertical, or sitting position. A stretcher for police use has also been designed and constructed, in which a canvas cover, secured all along one side and fastened on the other by three strong straps, forms, when in use, an elongated straight waistcoat. The Association has now a total of nineteen centres, Dunfermline, Grangemouth, and Perth having been added in the past year, and detached classes have been held in 96 towns. Ambulance corps have been formed in many important manufacturing centres. The financial statement shows a satisfactory balance in hand.

THE SANITARY ASSOCIATION OF SCOTLAND.

THE fourteenth annual meeting of the Sanitary Association of Scotland has been fixed to be held in Glasgow on Wednesday and Thursday, July 4th and 5th. On Wednesday the proceedings will be opened by an address from Sir James King, Lord Provost of Glasgow, after which the President's address will be delivered by Dr. John C. McVail, medical officer of health, Kilmarnock. Dr. J. B. Russell, medical officer for Glasgow, will read a paper on “The Sanitary Enfranchisement of the Rural Population of Scotland.” Dr. Eben. Duncan, Crosshill, on “The Dissemination of Infectious Particles by Air Currents;” and Dr. Maitland Moir will also give a paper. On the second day the proceedings will be opened by Ex-Bailie Crawford (Glasgow), and papers will be read by Mr. Thomas Walley, Principal of the Royal Veterinary College, Edin-

burgh, on "The Inspection of Meat in Relation to our Food Supply, with special Reference to Tuberculosis in Cattle;" and by Mr. W. B. Buchan (Glasgow) on "Late Improvements in House Drainage;" while Mr. Fyfe, sanitary inspector (Glasgow), will explain the new smoke-testing apparatus. The members will afterwards visit the Glasgow refuse despatch works, under the guidance of Mr. Young, superintendent of the cleansing department, Glasgow.

PUBLIC MORTUARIES.

Dr. J. B. RUSSELL has reported to the Glasgow Town Council in favour of the provision of public mortuaries, the question having been referred to him for consideration. He states that under the Public Health (Scotland) Act, Section 43, the provision of mortuaries by local authorities bears the same relation to the prevention of disease, in so far as it could be spread by the dead, as the erection of hospitals bears to the prevention of disease by the living. In each case compulsory power to remove the source of danger was conferred, and in the one case the exercise of this power depended upon the provision by the local authority of a "proper place for the reception of dead bodies," in the other of an hospital. They were in the position of not having made the necessary provision for the cases described in the words of the Act, namely, "dead body of one who has died of any infectious disease, retained in a room in which persons live or sleep, or any dead body which is in such a state as to endanger the health of the inmates of the same house or room." It was not creditable to the local authority that they could not deal with such a case. He observed further that just as hospitals were most successful by encouraging voluntary resort to their accommodation, so mortuaries were intended to educate and entice the occupants of small houses to send their dead thither. In neither case was the compulsory use of such places a measure of their necessity or utility.

IRELAND.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

At the Council meeting of the above Association, held at Cambridge on June 21st, Professor Alexander Macalister, F.R.S., President, in the chair, the Honorary Provincial Secretary (Dr. Stewart) reported that the proposal to restrict appointments on the honorary staff of the Bristol Royal Infirmary to those holding certain specified London diplomas had been abandoned as a result of the action of representatives of the Association. In view of the possibility of a similar proposal being brought forward, either at Bristol or elsewhere, at a future time, a statement (to be placed in the hands of lay governors of hospitals) was submitted, setting forth the objections to such exclusive action. On the motion of the President, seconded by Sir George E. Paget, K.C.B. (Vice-President), this statement was adopted and ordered to be printed for circulation. Dr. Macnaughton Jones was elected Chairman of Council, to succeed Professor Gerald F. Yeo at the expiration, in July, of the latter's term of office. The summer dinner of the Association took place the same evening in the Hall of Gonville and Caius College, Professor Alexander Macalister, President, in the chair. Amongst the members and guests present were Sir George E. Paget, K.C.B. (Vice-President); Sir Thomas Crawford, K.C.B., and Dr. Macnaughton Jones, Ex-Presidents; the Master of Peterhouse; the Master of Downing; Professor Humphry, F.R.S.; Dr. Richard Fegan (President-elect), Professor apother; Professor Latham; Professor Roy, Brigade-Surgeons W. Alexander (Hon. Treasurer), and Thomas Wright; Surgeon-Major W. Nash, Dr. Bradbury, Rev. Dr. Sheilds, Dr. Ingle, Dr. Gilbert Smith.

Dr. Lea, Mr. Percy Dunn, Mr. Keetley, Dr. Connellan (Gt.ernsey), and the two Hon. Secretaries (Drs. Stewart and Abraham). The loyal toasts were duly honoured. In proposing the health of "The Guests" the President observed that the hall in which they were assembled was that of a college of which the immortal Harvey was first a student and subsequently a Fellow, and within whose walls some of his greatest experiments were performed. The toast was responded to by Professor Latham. Professor Humphry proposed "Success to the Irish Schools' and Graduates' Association." The President, in responding, referred to their recent success at Bristol as an instance of the value of such an organisation as theirs in protecting the interests of Irish medical graduates and diplomates. In proposing the toast of "The University of Cambridge," Sir Thomas Crawford alluded to the fact that the oldest college of the university, Peterhouse, had now an Irishman (the Rev. Dr. Porter) as master. He referred also to the rapid rise within recent years of the Cambridge Medical School, much of which, it was acknowledged, was due to the indefatigable energy and ability of Professor Macalister. The toast was responded to by the Master of Peterhouse and by Dr. Hill (Master of Downing). The health of the outgoing Chairman of Council, Professor Gerald F. Yeo, was proposed by Dr. Gilbert Smith. In the absence of Dr. Yeo, the toast was responded to by Dr. Macnaughton Jones, who said he considered it a high honour to be called on to succeed one who, during his three years' tenure of office, had been so constant in his attendance, and had exercised such a vigilant and wise oversight of the detail working of the Association. Dr. Fegan proposed "The health of the Master and Fellows of Gonville and Caius College," by whose courtesy they had been allowed to meet in a hall of such historic interest. The toast was responded to by two of the Fellows present, Sir George Paget and Professor Ridgeway (Queen's College, Cork). The proceedings were enlivened by the singing of several Irish and other melodies by Mr. Groome and Drs. Lea, Gilbert Smith, and Abraham.

PROPOSED MAIN DRAINAGE SCHEME FOR CORK.

An efficient system of main drainage for the city of Cork has long been required, but the expensive nature of the schemes proposed prevented their adoption. The Public Health Committee of the corporation have at present under consideration a scheme proposed by the city engineer, which appears to present many advantages. The plan proposed is to drain the northern parts of the city by a sewer, and the southern parts by another sewer, the two to meet near the Old Passage railway. It is then intended to project the main to within a distance of the park, and the entire sewerage having been collected in two reservoirs with alternative action, pumping works will be constructed to pump the sewage to lands close to the Skahabeg Road. Here it is proposed that the corporation shall purchase 300 acres of land, and utilise them as a sewage farm, over which the sewage, after precipitation, would flow by gravitation, and the effluent would pass into the Tramore river. The estimated cost is £94,708, and the annual cost £800, which, capitalised, represents £16,000, so that the estimated capital cost of the proposed scheme would be close on £110,700. The present sewers cost annually about £2,700, and deducting this and the annual profits from the utilisation of the sewage, the proposed scheme would ultimately cost the rate-payers £58,708.

CONVERSAZIONE AT THE ROYAL COLLEGE OF PHYSICIANS.—At the *soirée* of the Royal College of Physicians given on Wednesday evening last, the President, Sir Andrew Clark, Sir Edward Sieveking, Sir Alfred Garrod, Sir Dyce Duckworth, Sir Henry Pitman, and Dr. C. Handfield-Jones, members of Council, received a large and distinguished gathering in the hall of the College in Pall Mall East. An interesting collection of works of art and curiosities was on view for the entertainment of visitors.

THE METROPOLITAN COUNTIES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE annual dinner of the Metropolitan Counties Branch of the British Medical Association on Wednesday evening was marked by some incidents of considerable interest. The company assembled, under the presidency of Dr. BRODIE SEWELL, was numerous and distinguished. The Directors-General of the Army and Navy were both present, and their speeches excited considerable interest.

In proposing the toast of "The Medical Services," Mr. ERNEST HART pointed out that it could not be fairly said, as sometimes stated, that the officers of the public services were by habit grumblers and disposed to obtrude their grievances, inasmuch as in respect to the Naval Medical Service he was happy to say that since the Warrant of 1881, which conferred satisfactory conditions of rank, pay, and general service regulations, he could not call to mind having received from any single member of the service a single word of complaint during the whole seven years, throughout the reign of the late Director-General, Sir John Watt Reid, who had just retired loaded with honours and followed by the universal affection and confidence of his department. The work of the Naval Medical Service had, he believed, during that time been carried on without a hitch of any sort and without the slightest friction, so that it might fairly be inferred that when the medical officers of the public services were treated with courtesy and fairness, they were even more readily contented than any other body of men that could be named. The recent accession of Dr. Dick to the office of Director-General of the Navy had been warmly welcomed throughout the whole service, and he trusted that his term of office might be marked by equally auspicious conditions. He referred also in eulogistic terms to the high personal regard which was entertained towards Sir Thomas Crawford, and regretted that the present condition of the Army Medical Service was not one of equal contentment.

Dr. DICK, Director-General of the Naval Medical Department, who was very warmly received, expressed the deep sense of himself and of the Naval Medical Department generally, of the highly important services which had been rendered to that Department during a long series of years by the efforts of the British Medical Association and of its Parliamentary Bills Committee, to the efforts of which were mainly due the successive warrants which had brought his department into the state of contentment—and he hoped he might add, of high efficiency—which it had now reached. He expressed his profound satisfaction on being the guest of the Association on that occasion, and he trusted that throughout his term of office the same contentment might prevail in the service as had endured now for so many years. The besom of reform was, however, sweeping over both the naval and military medical services in the hands of the Select Committee of the House of Commons now sitting, and it could hardly be expected but that some reductions would be effected in view of the urgent desire for economy which that Committee of the House of Commons generally were shewing in respect to the military and naval services.

Sir THOMAS CRAWFORD, who spoke with much earnestness and feeling, expressed also his deep sense of the services which the Parliamentary Bills Committee of the Association, and the Association generally, had rendered on so many occasions to the service over which he presided, and his most earnest desire that the Medical Department of the army should enter into closer relationship with the civil branch of the profession. He had seen with the greatest satisfaction that increasing numbers of the members of his department were entering the Association, and he had had occasion, when his advice had been asked, to counsel them rather to associate themselves with the civil branches of the Association than to form, as had once been suggested, a separate military Branch. He desired in all things to see the civil and military medical men of the country associated in a common bond of brotherhood and with common interests.

Dr. BRIDGWATER (President of Council), replying to the toast of "The British Medical Association," eloquently proposed by Dr. ORD, ably epitomised the present position of the Association, and referred with satisfaction to its world-wide extension, to the service which it was rendering to medical science, and to the financial and literary success which it had attained through the influential character of its JOURNAL and the ability with which its finances were conducted. Alluding to the recent communication from the Secretary of State for War, he observed that the day could not be

far distant when it would be impossible to speak of the military medical service and of the British Medical Association as being in any way distinct bodies, inasmuch as by far the greater number of members of the Army Medical Service were now members of the British Medical Association, which was therefore substantially in every way entitled to speak for them.

Dr. HOLMAN (Treasurer) in proposing the toast of "The Metropolitan Counties Branch" and its new President, Dr. Brodie Sewell, referred to the great success with which the Association was carrying out its original main object, that of uniting the general practitioners of the country in powerful and extended union, and giving them their rightful place in the councils of the profession. He referred to the interesting fact that the office of President of Council of the Association, of Treasurership of the Association, and the Presidency of the Metropolitan Counties Branch—the most numerous of all the Branches—were at the present moment held by Dr. Bridgwater, Dr. Sewell, and himself, all belonging to the class of general practitioners. He referred especially, with pride, to the new home of the Association, which was in every way worthy of the importance and extended operations of the Society, and expressed a hope that the Library, which was in course of formation, would be well remembered by the members, and that they would make use of the accommodation now afforded them in the library and reading room.

The toast of "The Visitors" was proposed by Dr. DICKSON, and responded to by Dr. FORDYCE BARKER, of New York, who received a very hearty welcome from the assembled guests.

IMPROVEMENTS IN THE BELGRAVE HOSPITAL.—The Belgrave Hospital for Children, at 79, Gloucester Street, Pimlico, is one that is busily engaged in supplying the wants of a poor neighbourhood, and, though almost entirely without endowment, it does not often press itself upon the notice of the public. A week ago was held there an afternoon meeting of the governors and those interested in its work to acknowledge and return thanks for the generous gifts of the Honourable Mrs. W. le Poer Trench, all the more generous that they were eminently practical. A complete new hot-water system had been provided by her, which extended all over the hospital, and made a great difference in the labour of the nurses and the comfort of the children; a fire-hose had been added, which was shown to be amply sufficient to command all the building; and last, but not least, a bath-room had been established on the ground floor, whose walls are of smooth dark-olive tiles, on which is impressed most appropriately, in Greek letters of gold, the Hellenic far-famed axiom, the first words of Pindar: "Best of all things is water." Mr. Bottomley, of Messrs. Laing and Son, by whom the whole had been carried out in a thoroughly satisfactory manner, was in attendance to show the arrangement and competence of the fire-extinguishing apparatus. After the Honourable Mrs. W. le Poer Trench had declared the additions at the service of the hospital, and when the wards and their occupants had been duly inspected, the company were invited to tea by Mrs. Munro, the Lady Superintendent.

HYDROPHOBIA IN PARIS.—In the first five months of 1888 there were no fewer than 280 applicants at M. Pasteur's laboratory from the department of the Seine alone, all of whom had been bitten by dogs either known to be rabid or suspected of being so. This number is almost equal to the corresponding total for the whole year 1887, which amounted to 306. The Prefect of Police has, therefore, issued an order that for six weeks no dog shall be allowed to go about the streets of Paris, unless led by a string. The owner of two dogs, which had been in contact with a rabid cur, was recently sent to prison for six days and fined 200 francs (£8) for refusing to have them destroyed.

MR. ELLIS, L.R.C.P., of Liverpool, the winner of the Queen's Jubilee Prize, given by the Royal Botanic Society, Regent's Park, for the best essay upon the plants and vegetable products introduced into the United Kingdom for use in the arts, manufactures, and for food, during Her Majesty's reign, was presented on June 23rd, at a meeting of the Society (the Duke of Teck in the chair), with a gold medal and purse of fifty guineas.

AN OVERDOSE OF CHLOROFORM.—Mr. Edmund Gurney, joint secretary of the Psychological Society, and author of numerous works, has met his death at Brighton by incautiously inhaling an overdose of chloroform, which he was in the habit of taking as a remedy for obstinate sleeplessness and occasional neuralgia.

ASSOCIATION INTELLIGENCE.

COUNCIL.
NOTICE OF MEETING.

A MEETING of the Council will be held at the Offices of the Association, No. 429, Strand (corner of Agor Street), London, on Wednesday, the 18th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

June 14th, 1888.

NOTICE OF QUARTERLY MEETINGS FOR 1888.
ELECTION OF MEMBERS.

ANY qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may be elected a member by the Council or by any recognised Branch Council.

Meetings of the Council will be held on July 18th, and October 17th, 1888. Candidates for election by the Council of the Association must send in their forms of application to the General Secretary not later than twenty-one days before each meeting, namely, June 27th, September 26th, and December 28th, 1888.

Candidates seeking election by a Branch Council should apply to the Secretary of the Branch. No member can be elected by a Branch Council unless his name has been inserted in the circular summoning the meeting at which he seeks election.

FRANCIS FOWKE, *General Secretary.*

GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications for sums to be granted at the next annual meeting should be made without delay to the General Secretary, at the office of the Association, 429, Strand, W.C. Applications must include details of the precise character and objects of the research which is proposed.

Reports of work done by the assistance of Association grants belong to the Association.

Instruments purchased by means of grants must be returned to the General Secretary on the conclusion of the research in furtherance of which the grant was made.

COLLECTIVE INVESTIGATION OF DISEASE.

REPORTS upon the two remaining inquiries, namely, that into DIPHTHERIA, and that into the GEOGRAPHICAL DISTRIBUTION OF CERTAIN DISEASES, are in preparation, and will be published as soon as ready.

The following inquiry only of the first series remains open, namely, that on the ETIOLOGY OF PHTHISIS.

A fresh inquiry into the ORIGIN AND MODE OF PROPAGATION OF EPIDEMICS OF DIPHTHERIA has been issued.

Memoranda upon these subjects, and forms for recording observations, may be had on application to the Secretary of the Collective Investigation Committee, 429, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

BORDER COUNTIES BRANCH.—The twenty-first annual meeting of this Branch will be held at Perth on Friday, July 13th. The chair will be taken by Dr. McLeod at 1.30 p.m. The usual election of office-bearers for the year will be held. Dr. Robertson, Perth, will deliver his presidential address. Intimations of papers for reading or communications of any kind should be sent to the Secretary as soon as possible.—H. A. LEDIARD, 41, Lowther Street, Carlisle, Honorary Secretary.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH.—The annual meeting of this Branch is appointed to be held at Ely on Friday, July 8th. Members wishing to make communications, to exhibit specimens, or to propose new members are requested to signify their intention to Dr. Annington, Cambridge, for insertion in the order of proceedings.—BUSHELL ANNINGTON, Honorary Secretary.

NORTH OF IRELAND BRANCH.—The annual meeting of this Branch will be held in the Belfast Royal Hospital, on Wednesday, July 11th, at 4 p.m. Business: 1. To receive the Secretary's report and the Treasurer's statement for the past year. 2. To elect office-bearers for the ensuing year. 3. To elect two members as representatives of the Branch on the Council of the Association, and also the

representatives on the Parliamentary Bills Committee. 4. The President (Dr. J. M. Palmer) will deliver an Address. 5. Dr. O'Neill will show a Patient operated on for Extensive Disease of Foot, and also a Patient operated on for Cleft Palate, and will read notes of each case. 6. Dr. W. A. McKeown will show a New Apparatus for Intra-ocular Irrigation in the Extraction of Cataract. He will also show some cases in which Senile Cataract has been extracted without Iridectomy. 7. Mr. Fagan will show a Patient on whom he recently performed Resection of the Wrist-Joint. He will also show a Portion of Bowel, the Seat of Cancerous Stricture removed for Intestinal Obstruction, and give notes of the case; and a Portion of the Saphena Vein removed and presenting some features of pathological interest. 8. Dr. E. C. Thompson (Omagh) will read Notes of a Successful Case of Ovariectomy. 9. Dr. Barden will show a Series of Microscopic Sections of Tumours. 10. Dr. Byers will show the Instruments employed for the Electrical Treatment of Fibroid Tumours of the Uterus after the Method of Apostoli. He will also show a specimen of Cystic Vesicular or Hydatid Degeneration of the Chorion. The annual dinner will be held on the same evening at 7.30 p.m. in the Royal Avenue Hotel; tickets, 5s. 6d. (exclusive of wine).—JOHN W. BYERS, M.D., Lower Crescent, Belfast, Honorary Secretary.

NORTH WALES BRANCH.—The annual meeting will be held at Dolgelly on July 9th. Members having any communications to bring before the meeting are requested to intimate the same before June 30th to W. JONES-MORRIS, Honorary Secretary, Portmadoc.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—The annual meeting of this Branch will be held at the Spa Hotel, Strathpeffer, on Thursday, July 5th, at 1.50 p.m. Papers will be read by Dr. Fortescue Fox, Strathpeffer, Cases of Venesection, and Dr. Leslie H. Milne, Forre, Notes on the Weir-Mitchell Treatment. A visit will also be paid to the Spa.—J. W. NORRIS MACKAY, M.D., Honorary Secretary, Elgin.

READING AND UPPER THAMES BRANCH.—The annual meeting of this Branch will be held in the Library of the Royal Berkshire Hospital, Reading, on Wednesday, July 11th, at 4.15 p.m. The chair will be taken by the President (Dr. C. H. Teuch), who will introduce the President for the coming year (W. B. Holderness, Esq., of Windsor), who will then take the chair. Members willing to read short papers or bring forward cases of clinical interest are requested to communicate with the Honorary Secretary without delay. The annual dinner will take place on the same evening at 6.15 p.m. at the Queen's Hotel, Reading. Dinner tickets (5s. without wine, or 10s. including wine) should be obtained from the Honorary Secretary on or before Saturday, July 7th.—H. HEYGATE PHILLIPS, 43A, London Road, Reading, Honorary Secretary.

SHROPSHIRE AND MID-WALES BRANCH.—The annual general meeting of the Branch will be held at the Salop Infirmary, Shrewsbury, on Tuesday, July 3rd, at 2 p.m. The annual dinner will take place at the Raven Hotel after the meeting. Members desirous of contributing papers, notes of cases, etc., are requested to communicate with the undersigned.—EDWARD CURETON, Honorary Secretary, Shrewsbury.

OXFORD AND DISTRICT BRANCH.—The annual meeting will be held at the Radcliffe Infirmary, Oxford, on Friday, July 27th, at 3.30 p.m. Members wishing to read papers or show cases or specimens are requested to give notice to the Honorary Secretary, W. Lewis Morgan, 42, Broad Street, Oxford, on or before July 13th.—S. D. DARBYSHIRE and W. LEWIS MORGAN, Honorary Secretaries.

NEW SOUTH WALES BRANCH.

THE seventieth general meeting of this Branch was held in the Royal Society's Room, Sydney, on Friday, May 4th, at 8 p.m. Dr. CHAMBERS, President, in the chair. The following gentlemen were present: Drs. Sydney Jones, Crago, Roth, Macdonald, Marshall, Martin, Knaggs, Parker, Brady, Worrall, Fiaschi, Garrett, Kendall, Clubbe, West, Twynan, and Scot Skirving.

The minutes of the previous meeting were read and confirmed.

Morphine Poisoning.—Dr. CRAGO read some notes on a case of morphine poisoning.—THE PRESIDENT said that the great difficulty in the case mentioned by Dr. Crago was that there was no knowledge as to whether the man really had taken morphine. Goltz's experiments in this connection were interesting, demonstrating very clearly that exactly the same stages of loss of function were found in morphine poisoning as were seen in removing successive portions of the brain of animals from above downwards.—Dr. BRADY remembered a case in which a patient took two ounces of opium. The patient was paralysed, but artificial respiration was kept up by the late Dr. Fortescue and himself, and large doses of atropine were administered. The patient recovered.—Dr. SCOT SKIRVING said that at the Prince Alfred Hospital he saw a patient who had tried to hang herself. First, a partial recovery took place, lasting some hours, followed by relapse into unconsciousness and death. The conditions of opium poisoning and strangulation were somewhat analogous. He would ask what was the mechanism of death in such cases of partial recovery followed by relapse. Several explanations might be given.—Dr. KNAGGS said he had been attending the Criminal Court all day as an expert in a case of morphine poisoning, and he had been particularly struck with the great diversity of opinion amongst the medical experts in this matter. The patient mentioned in Dr. Crago's paper did not seem to have been used to taking morphine. The secondary symptoms mentioned by Dr.

Scot Skirving were no doubt brought about by the congestion of the nerve-centres, leading to a subsequent serous effusion. He (Dr. Knaggs) mentioned a case of a young woman who was partially drowned and brought round, and went on well for a time, but relapsed and died. Upon examination it was found that there was a large effusion on the brain. The mechanical conditions were certainly somewhat the same in morphine poisoning, strangulation, and drowning. He had had several *post-mortem* examinations of cases of morphine poisoning, and had always found a great deal of effusion.—Dr. SYDNEY JONES did not quite see that there was sufficient evidence to justify the diagnosis of morphine poisoning, as the man's statement as to taking morphine pills could not quite be relied upon, especially as he was in such a confused condition. The results of a limited hæmorrhage into the pons Varolii were wide-spread and more in keeping with the symptoms described, and he should think that the cause of death had been some subsequent inflammatory mischief. In support of this view of the case there was the total absence of that coldness and clamminess mentioned by the authorities as distinctive of opium poisoning.—Drs. WEST, MACDONALD, WORRALL, and TWYNAM also took part in the discussion, and Dr. CRAIG replied.

Anæmic Sore Throat.—Dr. SCOT SKIRVING read some notes on a form of sore throat seen in anæmic persons.

Perforation of Vermiform Appendix.—Dr. TWYNAM exhibited and made some remarks upon a specimen of perforation of the vermiform appendix.

Subject of Discussion at Next Meeting.—Dr. KNAGGS stated that he would open a discussion on the administration of chloroform at the next meeting of the Branch.

JAMAICA BRANCH.

THE bi-monthly meeting of this Branch was held at the public library on May 30th, the Hon. J. C. PHILLIPPO, President, in the chair.

Papers.—Dr. BRONSTORPH read a paper on Tetanus following Abortion.—Dr. PLAXTON read a paper on a case of Shrinkage of a Hemisphere and subsequent Pachymeningitis. The brain and its coverings were shown.

LANCASHIRE AND CHESHIRE BRANCH.

THE fifty-second annual meeting of this Branch was held at the Medical Institution, Hope Street, Liverpool, on Wednesday, June 13th, at 2.30 P.M.

The minutes of the last annual meeting were read and confirmed.

New President's Address.—Dr. BALL, the retiring President, then introduced his successor, Dr. WATKINS (Newton-le-Willows), who, after thanking the members for the honour conferred upon him, delivered his presidential address. At its conclusion, on the motion of Dr. A. T. H. WATERS, seconded by Dr. EYTON JONES, a hearty vote of thanks was carried by acclamation.

Report of Council.—The report showed that the Branch had lost fifty-two members by death and removal from the district. The reduction had, however, been made good by the election of fifty-four new members. The financial condition of the Branch was highly satisfactory, while the expenses of the year had been a few shillings under that of last year. The receipts had increased, and there was now a balance of £231 4s. 1d. as against £229 16s. 11d. at the end of the previous year. It was proposed at the council meeting held before the last annual meeting to make a donation from the funds of the Branch to the Epsom Medical Benevolent College; but as some members considered this step to be *ultra vires*, the Council submitted the question to Mr. Upton, the solicitor to the Association, who was of opinion that it came within the powers of the Council to vote the amount, but that it would be better to have an expression of feeling on the point from a general meeting. Notice had therefore been duly given that a proposition to make a donation of twenty-five guineas to the Epsom Medical Benevolent College would be brought before the meeting. The Council had during the past year appointed subcommittees to consider the best steps to take to secure an increase of fees to medical witnesses, and to obtain more consideration for them at sessions and assizes. The subcommittee, after considerable deliberation, had drawn up a similar inquiry into the scale of fees payable in different parts of the country, and asking if any grievances existed, and, if so, for suggestions for their removal. It was intended to send this circular to every Branch within the United Kingdom, to collate the replies, and take steps to memorialise the Government on the subject. Another

subcommittee had been engaged in revising the proposed amendments of the Lunacy Acts Amendment Bill, and, after lengthy consideration, had proposed certain amendments in the interest of the profession which would be submitted to the meeting. The whole subject of annual and intermediate meetings had received the attention of the Council, which had drawn up a scheme whereby it is unanimously recommended that Liverpool, Manchester, Lancaster, and Chester be considered as the principal points for annual meetings of the Branch, and that in future annual meetings be held in these places on alternate years in rotation, unless special circumstances rendered a different arrangement desirable in any particular year. That in the intervening years the annual meetings be held at one of the following towns—Preston, Wigan, Warrington, Crewe, Barrow, Ulverstone, Blackpool, Southport, Burnley, Blackburn, Rochdale, Macclesfield, Clitheroe, St. Helens, Bolton, Bury, Stockport, Birkenhead, Runcorn, Knutsford, Northwich, and Nantwich—the place of meeting to be fixed on at the preceding annual meeting each year. That it is desirable that an intermediate meeting be held in the autumn of each year in one of the above mentioned towns to be selected by the Council. These recommendations had been adopted with a view of holding more frequent meetings throughout the district without waiting for specific invitations from places which were often made at inconvenient dates, and proceeded from places inaccessible to the bulk of the members. It was intended to defray the cost of all meetings from the funds of the Branch, thus relieving the local practitioners from what might have been felt somewhat of a tax upon their generosity, especially in sparsely inhabited districts. The adoption of the report and financial statement was proposed by Dr. A. T. H. WATERS, seconded by Dr. CARTER, and carried.

Election of Office-bearers.—*President-elect*, Dr. Davidson; *Vice-presidents*, Mr. Hardie and Mr. Chauncy Puzey; *Honorary Secretary*, Dr. Glascott.

Representatives in the Council of the Association.—Geo. B. Barron, M.D., Southport; Alex. Davidson, M.D., Liverpool; Charles E. Glascott, M.D., Manchester, *General Secretary*; James Hardie, Esq., Manchester; James Taylor, Esq., Chester, *Local Secretary*.

Council of the Branch.—W. Alexander, M.D., Liverpool; F. J. Bailey, Liverpool; J. A. Ball, M.B., Wantage; W. C. Barnish, Wigan; J. Barr, M.D., Liverpool; William Bell, New Brighton; W. Berry, Wigan; P. M. Braidwood, M.D., Birkenhead; J. J. Bride, Wilmslow; S. Buckley, M.B., Manchester; J. E. Burton, Liverpool; A. F. H. Cameron, Liverpool; W. M. Campbell, M.D., Liverpool; W. Carter, M.D., Liverpool; J. Corns, M.D., Oldham; E. H. Dickinson, Liverpool; J. Dreschfeld, M.D., Manchester; A. M. Eason, Lytham; H. M. Fernie, Macclesfield; W. H. Fitzpatrick, M.D., Liverpool; T. R. Glynn, M.D., Liverpool; A. Godson, M.B., Cheadle; F. Granger, Chester; W. Hall, jun., Lancaster, *Local Secretary*; C. E. Harris, M.D., Birkenhead; W. H. Hughes, Ashton; J. H. Hammond, M.D., Preston; Leslie Jones, M.D., Manchester; T. Jones, M.B., Manchester; J. Lambert, M.D., Birkenhead; W. McAfee, M.D., West Kirby; E. D. McNICOLL, Southport; Edwin Rayner, M.D., Stockport; C. J. Renshaw, M.D., Ashton-on-Mersey; D. Lloyd Roberts, M.D., Manchester; John Robinson, Frodsham; T. L. Rogers, Rainhill; J. Ross, M.D., Manchester; G. E. Shuttleworth, M.D., Lancaster; Starkie Smith, M.D., Warrington; F. Southam, Manchester; G. Thomson, M.D., Oldham; C. Thorp, Todmorden; F. Vacher, Birkenhead; E. Waters, M.D., Chester; Wm. Walter, M.D., Manchester; H. Welch, Blackpool; R. Williams, Liverpool; G. A. Woods, Southport; A. H. Young, M.D., Manchester.

Representatives on Parliamentary Bills Committee.—Dr. Barron and Dr. Carter.

Next Annual Meeting.—It was resolved that the next annual meeting should be held at Blackpool.

Donation to Epsom College.—It was resolved that a donation of twenty-five guineas be made from the funds of the Branch to the Epsom Benevolent Medical College.

Reports of Subcommittees.—The report of the Medical Witnesses Subcommittee was read and adopted.

Lunacy Acts Amendment Bill.—It was resolved that the following report of the Lunacy Acts Amendment Bill be adopted:—

“Your Committee, having carefully examined the proposed amendments to the Lunacy Acts Amendment Bill, would suggest that Section 4, Subsections 1, 2, and 9, be retained, with the modification of three clear days instead of seven days, line 8, Subsection 1, page 3. Your Committee suggests the retention of Section 4 with the above modification, as it is frequently impossible to

obtain the services of a magistrate so as to get the patient at once admitted to an asylum, and on this head beg to remind your Council of the recent case of a patient who was driven about in a vehicle for twelve hours during most inclement weather in search of a magistrate, who was expected to examine the lunatic. Section 54, page 33, line 14, insert "shall" instead of "may," lines 20 and 21, omit words, "as the Committee may think fit," thus putting hospital officers in the same category as county asylum officers. With the exception of the above alteration and amendments, your Committee recommend the acceptance of the amendments suggested by the Subcommittee of the Parliamentary Bills Committee of the Association."

Medical and Surgical Communications.—Owing to the large number of papers it was found necessary to divide the meeting into two sections, the following being a list of communications: Dr. WALTER: Notes of a Case of Total Extirpation of the Uterus *per Vaginam*.—Dr. GLYNN: A Note on a new Method of treating Chlorosis.—Mr. R. HARRISON showed the Electric Endoscope.—Dr. JOHNSON MARTIN: How to prevent Small-pox and how to spread it.—Dr. ALEXANDER: Hysterectomy for Uterine Cancer (patient).—Mr. SHEARS: Xerosis of the Conjunctiva with Night Blindness.—Dr. IMLACH: The Use of Stimulants and Narcotics by Women.—Mr. G. WALKER: Treatment of Closed Pupils, with cases.—Dr. BURTON: Short Notes of Cases of Uterine Fibroma treated by the Apostoli Method.—Dr. W. MITCHELL BANKS: Abdominal Section for Chronic Suppurative Peritonitis, and for Retro-peritoneal Cyst.—Mr. E. STANMORE BISHOP: Case of Nephrectomy.—Dr. R. WILLIAMS: Two Cases of Conical Cornea treated by Actual Caution.

Exhibits.—A small museum of drawings, photographs, and selected pathological specimens was shown.

Dinner.—In the evening fifty-four members dined together at the Adelphi Hotel, under the presidency of Dr. Watkins, President of the Branch.

NORTH OF ENGLAND BRANCH.

Visit to Durham County Asylum.—On Friday, June 22nd, by the kind invitation of Dr. Smith, the Medical Superintendent, the members of the North of England Branch visited the Durham County Asylum at Sedgfield, which contains twelve hundred patients. Between sixty and seventy members were present.

Amongst many typical cases demonstrated by Dr. SMITH was one of myxœdema, in which he took a special interest, as he has only had two cases of the kind. The first patient died, and a series of microscopical preparations of the thyroid gland, kidneys, etc., were shown.

A remarkable group of general paralytics excited much attention; and, in conversing with them, Dr. Smith brought out their exaggerated ideas of wealth, power, etc. A good discussion took place with reference to a man who had been trephined for convulsions, consequent upon an injury to the head; he improved considerably after the operation, then relapsed, but it was hoped that he would ultimately be benefited.

The general arrangements of the asylum were much admired, and every one was struck by the good order, brightness, and cleanliness of the whole institution. At two o'clock Dr. Smith entertained his visitors at lunch with generous hospitality, and his health was drunk with much enthusiasm.

The members generally were very grateful to Dr. Smith for enabling them to see so many patients of a class not often met with in ordinary practice.

METROPOLITAN COUNTIES BRANCH: NORTH LONDON DISTRICT.

THE annual meeting of this district was held at the Zoological Gardens on Wednesday, June 14th, when the following officers were re-elected: *Vice-President*: Dr. Bridgwater; *Representative Member of Council*: Dr. E. Hooper May; *Committee*: Dr. Wynn Westcott, Dr. Sykes, Dr. H. Goude, Dr. W. Smith, Dr. Plaister, and Dr. Crabb; *Honorary Secretary*: Dr. G. Henty.

Many of the members attended the lecture on Deinosauria, by Mr. E. Boddard, M.A., and others visited the lion-house, the new reptile-house, and many other interesting objects of these well-conducted gardens.

The dinner was presided over by the President, A. G. Durham, Esq., supported by Dr. Brodie Sewell, Dr. Bridgwater, Dr. Dickson, and upwards of twenty members, one and all expressing great satisfaction at so good a reception.

BRITISH MEDICAL ASSOCIATION.

FIFTY-SIXTH ANNUAL MEETING.

THE fifty-sixth Annual Meeting of the British Medical Association will be held at Glasgow, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1888.

President: John T. Banks, M.D., D.Sc.(Hon.), F.R.C.S.P., Regius Professor of Physic in the University of Dublin.

President-Elect: Professor W. T. Gairdner, M.D., LL.D., Professor of Medicine in the University of Glasgow.

President of the Council: Thomas Bridgwater, M.B., J.P., Harrow-on-the-Hill.

Treasurer: Constantine Holman, M.D., J.P., Reigate.

An Address in Medicine will be delivered by Thomas Clifford Allbutt, M.D., F.R.S., Consulting Physician, Leeds General Infirmary.

An Address in Surgery will be delivered by Sir George H. B. Macleod, M.D., Surgeon in Ordinary to Her Majesty in Scotland.

An Address on his "Recent Investigations in Surgery" will be given by William Macewen, M.D., Lecturer on Clinical Surgery, Glasgow Royal Infirmary.

An Address in Physiology will be delivered by John Gray McKendrick, M.D., LL.D., F.R.S., Professor of Institutes of Medicine, University of Glasgow.

All the rooms required for the purposes of the meeting will, by the kindness of the authorities, be provided in the University of Glasgow.

PROGRAMME OF PROCEEDINGS.

TUESDAY, AUGUST 7TH, 1888.

9.30 A.M.—Meeting of 1887-1888 Council. Randolph Hall.

11.30 A.M.—First General Meeting. Report of Council. Reports of Committees. Bute Hall.

4 P.M.—Service in the Cathedral. Sermon by the Very Rev. John Caird, D.D., LL.D., Principal and Vice-Chancellor of the University of Glasgow.

8.30 P.M.—Adjourned General Meeting from 11.30 A.M. President's Address. Bute Hall.

WEDNESDAY, AUGUST 8TH, 1888.

9.30 A.M.—Meeting of 1888-89 Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Second General Meeting. Address in Medicine by Thomas Clifford Allbutt, M.D., F.R.S. Bute Hall.

9 P.M.—*Conversazione* given by the Professors of the University.

THURSDAY, AUGUST 9TH, 1888.

9.30 A.M.—Address on his Recent Surgical Investigations by William Macewen, M.D. Bute Hall.

11 A.M.—Meeting of Council. Randolph Hall.

10.30 A.M. to 2 P.M.—Sectional Meetings.

3 P.M.—Third General Meeting. Address in Surgery by Sir George H. B. Macleod, M.D. Bute Hall.

7 P.M.—Public Dinner. St. Andrew's Hall.

FRIDAY, AUGUST 10TH, 1888.

10.30 A.M. to 1.30 P.M.—Sectional Meetings.

3 P.M.—Concluding General Meeting. Address in Physiology by John G. McKendrick, M.D., F.R.S. Natural Philosophy Class-room.

9 P.M.—*Conversazione* given by the Corporation of Glasgow at St. Andrew's Hall.

Garden Party given by the Faculty of Physicians and Surgeons at the Botanic Gardens.

SATURDAY, AUGUST 11TH, 1888.

Excursions:—(1) Lanark and Falls of Clyde; (2) Ayr and the Land of Burns; (3) the Perthshire Highlands, Lochearnhead and Crieff; (4) Callender and the Trossachs (Loch Katrine); (5) Ayr; (6) Stirling, Bridge of Allan and Dunblane Cathedral; (7) Rothesay and the Kyles of Bute; (8) Loch Lomond.

The following discussions and papers are promised up to the present time.

SECTION A.—MEDICINE.

Humanity Class Room.

A. MEDICINE.—*President*, Professor T. McCall Anderson, M.D. *Vice-Presidents*, R. L. Bowles, M.D.; George F. Duffey, M.D. *Honorary Secretaries*, J. McGregor Robertson, M.A., M.B., 400, Great Western Road, Glasgow; Robert M. Simon, M.D., 27, Newhall Street, Birmingham.

The President will open the proceedings by introducing a discussion on the Diagnosis and Treatment of Syphilitic Disease of the Nervous System. Dr. Thomas Buzzard, Dr. T. S. Clouston, Dr. William Moore, Dr. Ross, Professor Grainger Stewart, Professor Julius Dreschfeld, Dr. J. G. Sinclair Coghill, Dr. Francis Warner, Dr. Frederick Bateman, Dr. C. R. Drysdale, Dr. C. W. Suckling, and Dr. Alex. Robertson (Glasgow) will take part in the discussion.

On the third day of the sectional proceedings, the Value of Inhalations in the Treatment of Lung Disease is set down for discussion, to be opened by Dr. C. Theodore Williams. The following gentlemen have already indicated their intention to engage in this

discussion: Dr. Burney Yeo, Dr. W. W. Ireland, Dr. C. F. Knight, Dr. J. A. Lindsay, Dr. J. G. Sinclair Coghill, and Dr. E. Markham Skerritt.

Drs. Byrom Bramwell and Milne Murray will give a demonstration of their Method of Graphically Recording the Exact Time Relations of Cardiac Sounds and Murmurs.

The following papers have been promised.

- COGHILL, J. G. S., M.D., Ventnor. The Treatment of Phthisical Pyrexia.
 COUPLAND, Sidney, M.D. A Case of Subphrenic Abscess.
 FINLAY, David W., B.A., M.D. Bronchiectasis treated by Incision and Drainage.
 FREW, W., M.D., Kilmarnock. Prevalence of Cerebro-spinal Fever in Scotland.
 GARRY, T. Gerald, M.D., M.Ch. Massage: When and How to Use it.
 GREENE, G. E. P., L.K.Q.C.P. A Note on a Recent Epidemic of Erysipelas.
 HANFORD, H., M.D. The Influence and Position on Cardiac Murmurs and the Condition of the Heart in Anæmia (Chlorosis).
 HARRISON, A. J., M.B. Further Researches on the Treatment of Tinea Tonsurans. Illustrated with photographs.
 JONES, A. Orlando, M.D. A New Remedy for Some Forms of Heart Disease.
 MYRTLE, A. S., M.D., Harrogate. Neurasthenia, True and False: Diagnosis and Management.
 STRACHAN, John, M.D. (Dollar). A Case of Pernicious Anæmia Successfully Treated by Arsenic.
 STRAHAN, John, M.D. (Belfast). (*Title not received.*)
 SUCKLING, C. W., M.D. Notes on Peripheral Neuritis and on its occurrence in Brassworkers.
 TOMORY, J. K., M.B. East African Fever, with special reference to Climatic Conditions.
 WARNER, Francis, M.D. 1. Methods of Studying and Examining the Nerve System. 2. Imbecility in Children from Chronic Meningitis.
 Sir W. Roberts, Dr. Lauder Brunton, Dr. Russell Reynolds, and Dr. F. W. Pavy have also intimated their intention to take part in the proceedings of the Section.

SECTION B.—SURGERY. Chemistry Class Room.

B. SURGERY.—*President*, George Buchanan, M.D. *Vice-Presidents*, James Dunlop, M.D.; Charles Robert Bell Keetley, F.R.C.S. *Honorary Secretaries*, David Neilson Knox, M.B., 8, India Street, Glasgow; Walter Pye, F.R.C.S., 4, Sackville Street, Piccadilly, London, W.

As already announced, in this Section discussions have been arranged for on the following subjects:

1. The Surgical Treatment of Abscess of the Lung and of Empyema. To be introduced and supported by Mr. T. Pridgin Teale (Leeds), Sir Spencer Wells (London), Mr. A. Pearce Gould (London), Mr. R. J. Godlee (London), Dr. J. Ward Cousins, Portsmouth, and Mr. W. Thomas (Birmingham).
2. The Operative Treatment of Club-Foot. To be introduced and supported by Sir William Stokes (Dublin), Mr. E. Lund (Manchester), Dr. Alexander Ogston (Aberdeen), Mr. R. W. Parker (London), Mr. E. M. Little (London), Mr. John Chiene (Edinburgh), Mr. W. J. Walsham (London), and others.

The following papers have also been promised.

- BENTON, Samuel, Esq., London. On the Treatment of Stricture of the Rectum by Electrolysis.
 BISHOP, E. Stanmore, Esq., Manchester. Some Cases of Osteotomy, with an Apparatus for fixing the Lower Limbs after Division of the Bones.
 BROWNE, G. Buckston, Esq., London. An Explanation of the way in which Calculi in the Male Urinary Bladder sometimes escape Detection by the Sound, with a description of a New Form of Sound.
 BROWNE, Lennox, Esq., London. Tubage of the Larynx.
 CARMICHAEL, Alexander, M.D., Barrow-in-Furness. A Case of Gastrostomy, with Exhibition of Patient.
 CLARK, Sir Andrew, London. The History of a Case of Catheter Fever.
 CLARKE, W. Bruce, Esq., London. Prostatic Abscess and its Consequences.
 COUSINS, J. Ward, M.D., Portsmouth. (1) New Apparatus for Treatment of Fractures of Lower Jaw; (2) New Evacuator for Litholapaxy and other Bladder Operations.
 FEWICK, E. Hury, Esq., London. Notes from the Experience of 450 Cases of Organic Stricture of the Urethra.
 FLEMING, W. J., M.D., Glasgow. 1. On Continuous Extension in Spinal Curvature. 2. On the Treatment of Perineal Fistula.
 HARRISON, Reginald, Esq., Liverpool. On an Improvement in the Construction of Slips' Berths, relative to the Treatment of some Surgical Injuries and Diseases at Sea (with models).
 KETLEY, C. B., Esq., London. Plastic Amputations of the Foot.
 LOYD, Jordan, Esq., Birmingham. Inflammatory Disease of the Seminal Vesicles.
 McINTYRE, John, Esq., Glasgow. The Electric Illumination of the Cavities of the Body.
 MURPHY, James, M.D., Sunderland. (1) A Case of Gastrostomy, with Exhibition of Patient Eleven Months after Operation. (2) Hysterectomy per Vaginum for Uterine Fibroids, *morcellément* as practised by M. Péan.
 OWEN, Edmund, Esq., London. A Case of Intra-cranial (Subdural) Hemorrhage; Localisation; Trephining; Recovery.
 PEARSE, F. Frederick, Esq., M.D., London. (1) On Puncture of the Bladder; (2) On Gonorrhœa in Women.
 RAKE, Beaven, M.D., Trinidad. The Value of Nerve Stretching in Leprosy, based on One Hundred Cases.
 RENTON, J. Crawford, Esq., M.D., Glasgow. A Case of Severe Deformity of Lower Lip restored by Mr. Teale's operation six years ago.
 ROBSON, A. W. Mayo, Esq., Leeds. (1) Prostatectomy, a Sequel of the Opera-

tion of Suprapubic Lithotomy in cases of Prostatic Enlargement. With Cases. (2) A Series of Cases of Macewen's Operation for Genu Valgum.
 ROTH, Bernard, Esq., London. On Scoliosimetry, or an Accurate and Practical Method of Recording Cases of Lateral Curvature of the Spine.
 SMITH, Noble, Esq. Demonstration of the Reduction of Fractured Vertebrae, and the application of Apparatus to Control the Spine.
 STOKES, Sir William, Dublin. Modification of Gritti's Amputation; and will show Casts of Stumps.
 TAIT, Lawson, Esq., Birmingham. A Second Series of One Thousand Consecutive Abdominal Sections.
 THOMSON, Wm., Esq., M.D., Dublin. On Excision of the Knee-joint.
 THORBUERN, Wm., Esq., Manchester. The Distribution of Paralysis and Anæsthesia in Injuries of the Cervical Region of the Spinal Cord.
 VALCOURT, Th. de, Esq., M.D., Cannes. Winter Sea-baths at Cannes in cases of Scrofulous Disease.

SECTION C.—OBSTETRIC MEDICINE. Medical Jurisprudence Class Room.

C. OBSTETRIC MEDICINE.—*President*, Thomas More Madden, M.D. *Vice-Presidents*, William Leishman, M.D.; J. Halliday Croom, M.D. *Honorary Secretaries*, William Walter, M.D., 20, St. John Street, Manchester; W. L. Reid, M.D., 7, Royal Crescent, Glasgow.

The following two special discussions will take place:—

1. On Intra-uterine Death; its Pathology and Preventive Treatment. To be opened by Professor Simpson. The following gentlemen will take part in the discussion:—Drs. R. Barnes, Graily Hewitt, More Madden, W. O. Priestley, John W. Byers, and A. D. Leith Napier.
2. On Obstructive Dysmenorrhœa and Sterility. To be opened by Dr. Halliday Croom. The following gentlemen will take part in the discussion:—Drs. Aveling, Bantock, F. Barnes, R. Barnes, Cranny, Duke, Edis, Graily Hewitt, Macan, More Madden, Professor Stephenson, J. W. Taylor, W. Walter, and J. W. Byers.

Dr. Samuel Sloan (Glasgow) will show his Antero-posterior Compression Forceps, and will explain their use in Flat Pelves.

Wm. Walter, M.D., Manchester, will exhibit his instruments for Securing the Broad Ligaments during Extirpation of the Uterus per Vaginam.

The following papers are promised.

- APOSTOLI, G., M.D., Paris. On Some Novelties in the Electro-Therapeutics of Gynaecology.
 AVELING, J., M.D. The Treatment of Uterine Tumours by Electricity.
 BARNES, R., M.D. Analogies between Menstruation and Gestation and Puerperia in their Physiological and Pathological Relations.
 CAMERON, Murdoch, M.D., Glasgow. 1. On Cesarean Section, with Notes of a Successful Case. 2. On the Thermostatic Nurse, with Cases.
 CROOM, J. Halliday, M.D., Edinburgh. (1) On the Remote Effects of Removal of the Uterine Appendages. (2) On Some Points in the Pathological Anatomy of Incarceration of the Retroflexed Gravid Uterus.
 DUKE, A., F.K.Q.C.P., Dublin. (1) On the Rapid Expansion of the Cervical Canal by a New Method. (2) Tractors and Belt for Additional Power in Forceps Cases, as an Alternative to Craniotomy.
 HART, D. Berry, M.D., Edinburgh. Successful Case of Cesarean Section (Porro's modification).
 IMLACH, Francis, M.D., Liverpool. The Function of Anæmia in Gynaecology.
 KENNEDY, Hugh, M.D., Dublin. Notes on the Treatment of Lacerations of the Cervix Uteri.
 McDONALD, A. D., M.D., Liverpool. A Case of Extra-uterine Pregnancy.
 MADDEN, More, M.D., Dublin. On the Causes and Treatment of Pseudocystitis.
 MARTIN, J. M., M.D. On Some Points in the Pathology of Carcinoma of the Uterus.
 NAPIER, A. D. Leith, M. D., London. The Treatment of Habitual Abortion.
 ROUTH, A., M.D. Headaches of Pelvic Origin.
 STEPHENSON, William, M.D., Aberdeen. On the Influence of Permanganate of Potass on Menstruation.
 TAIT, Lawson, Esq., Birmingham. The Treatment of Uterine Myoma.

SECTION D.—PUBLIC MEDICINE. Greek Class Room.

D. PUBLIC MEDICINE.—*President*, Henry Duncan Littlejohn, M.D. *Vice-Presidents*, James Christie, M.D.; D. Page, M.D. *Honorary Secretaries*, Ebenezer Duncan, M.D., 4, Royal Crescent, Crosshill, Glasgow; John C. McVail, M.D., Holmhead, Kilmarnock.

1. Sanitary Legislation. This discussion will be introduced by the Opening Address of the President of the Section.
2. The Communicable Diseases Common to Man and Animals, and their Relationships. Discussion to be opened on the second day of the sectional meetings by George Fleming, LL.D., F.R.C.V.S., Chief of the Veterinary Department of the Army. Professor Edgar Crookshank, King's College, will take part in the discussion.
3. The Disposal of Sewage (a) in Large Towns; (b) in Small Towns and Country Districts. Discussion will be opened on the third day by Dr. James B. Russell, Medical Officer of Health, Glasgow.

The following papers are promised.

- BROWN, William, M.D., Carlisle. Report on Outbreak of Typhoid Fever, Associated with an Infective Fever among Cows.
 CARPENTER, Dr. Alfred, Croydon. On Disposal of Sewage.

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- CHURTON, T., M.D., Leeds. On Some Researches in the Homes of Hospital Patients and of Holiday Children.
- DRYSDALE, Charles R., M.D. 1. On Indigence as a Main Cause of High Death-rates. 2. The Berlin and Parisian Sewage Farms.
- HIME, T. W., M.B. Milk Scarlet Fever.
- HOPE, E. W., M.D., Liverpool. On the More Recent Phases in the Decline of the Liverpool Death-rate.
- JAMES, J., Brindley, Esq., London. On a Minister of Public Health.
- KERR, Norman, M.D. Some Risks of Sanitation.
- LITTLEJOHN, Dr., Edinburgh. On Disposal of Sewage.
- MUNRAT, Dr., Forfar. On Disposal of Sewage.
- NASMYTH, T. G., F.R.S. A Report on the Chemical and Biological Conditions of the Air of Coal Mines, together with Mortality Statistics of a Mining District, being a report to the Scientific Grants Committee of the British Medical Association.
- PRINGLE, Surgeon-Major Robert, M.D., late of the Sanitary Department Her Majesty's Bengal Army. (1) On Sheffield and Leicester Compared as Regards Small-pox Prevalence. (2) The Condition of Water-Supply for Drinking Purposes in Public Fountains, Railway Stations, etc.
- SEATON, Edward, M.D., London. On Epidemic of Ephemeral Fever.
- SIMPSON, —, M.D., Medical Officer of Health, Calcutta. On Cholera and its Fostering Conditions in the Endemic Area.
- SUTHERLAND, J. Francis, M.D. National Sanatoria.
- TOMKINS, H., M.D., M.O.H., Leicester. Some Bacteriological Researches in connection with Summer Diarrhoea.
- WHITELAW, Dr., Kirkintilloch. On Disposal of Sewage.

SECTION E.—PSYCHOLOGY.

Natural History Class Room.

E. PSYCHOLOGY.—President, James C. Howden, M.D. *Vice-Presidents*, James Rutherford, M.D.; Julius Mickle, M.D. *Honorary Secretaries*, A. R. Urquhart, M.D., Murray House, Perth; Alex. Newington, M.D., Titchhurst, Sussex.

Dr. J. C. Howden, the President of the Section, will deliver an Address.

Dr. C. M. Campbell will introduce a discussion on the Uniform Recording of *Post-Mortem* Examinations in Asylum Reports.

Drs. A. Yellowlees and A. Campbell Clark will introduce the following subject: The Sexual and Reproductive Functions—Normal and Perverted—in Relation to Insanity. 1. Menstruation: its Commencement, Irregularities, and Cessation; 2. The Sexual Instinct and its Abuse; 3. Pregnancy, Parturition, the Puerperal Period, and Lactation.

Dr. Clouston will initiate a discussion on the Principle of Construction and Arrangement of an Asylum for Private Patients of the Higher Classes.

The following have promised papers: Drs. Savage, Hack Tuke, Fletcher Beach, Charles Mercier, W. J. Mickle, and Turnbull.

SECTION F.—ANATOMY AND PHYSIOLOGY.

Anatomy Class Room.

F. ANATOMY AND PHYSIOLOGY.—President, John Cleland, M.D., LL.D., F.R.S. *Vice-Presidents*, R. J. Anderson, M.D.; Henry Edward Clark, F.F.P.S.G. *Honorary Secretaries*, John Barlow, M.D., 27, Elmbank Crescent, Glasgow; Charles Barrett Lockwood, F.R.C.S., 19, Upper Berkeley Street, Portman Square, W.

C. B. Lockwood, F.R.C.S., will introduce a discussion on the Teaching of Anatomy; and will show sections illustrating the Development of the Organs of Circulation and Respiration.

The following papers are promised.

BROOKS, Henry St. John, M.D. On the Morphology of the Epitrochleo-anconeus or Anconeus Sextus (Gruber).

BROWN, J. Macdonald, M.B., F.R.C.S. The Construction of the Cardiac Ventricles in the Mammalia.

CLELAND, Professor, M.D., F.R.S. On the Nature of Certain Forms of Double Monstrosity.

COLLIER, Mark P. Mayo, M.B., F.R.C.S. On the Mechanism of the Heart and Pulse.

LANE, W. Arbuthnot, M.B., F.R.C.S. The Influence Produced by Excessive Strain upon Muscles and Ligaments (to be illustrated by specimens).

MURRAY, R. Milne, M.B., F.R.C.P.E. Will Show an Arrangement for the Investigation of the Action of Measured Galvanic and Faradic Currents on Tissues.

PATERSON, A. M., M.D. On the Position of the Vertebrate Limb, considered in the Light of its Innervation and Development.

SECTION G.—PATHOLOGY.

Law Class Room.

G. PATHOLOGY.—President, Sir William Aitken, M.D., LL.D., F.R.S. *Vice-Presidents*, Alexander Davidson, M.D.; Joseph Coats, M.D.; Charles Roy, M.D., F.R.S. *Honorary Secretaries*, G. Sims Woodhead, M.D., 6, Marchhall Crescent, Edinburgh; J. Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow.

Arrangements are being made to hold a discussion on Cancer originating apart from Epithelial Structures, in which Mr. Lawson Tait (Birmingham), Dr. Joseph Coats, Dr. John Carlyle (Greenock), and others are expected to take part.

The following papers have been promised.

BRUCE, Alex., M.B., F.R.C.P. Edin. On Disseminated Sclerosis,

COATS, Joseph, M.D. On a Case of Lipæmia in Diabetes, with Suggestions as to the Source of the Fat.

CROOKE, G. F., M.D., Birmingham. (1) Histological Examination of Organs in Two Cases of Purpura Haemorrhagica. (2) Cancrum Oris Terminating Fatally with Hemorrhagic Myocarditis.

CROOKE, G. F., Professor Edgar, M.B. (1) On Anthrax in Swine. (2) On Tuberculous Infection in Swine. (3) On Tubercular Cows Milk. (4) On Human and Bovine Actinomycoses.

GREVES, E. Hyla, M.D., Bournemouth. Notes on the Pathology of a case of Pseudo-hypertrophic Paralysis.

DELEPINE, Sheridan, Esq. A Few Uncommon Forms of Sarcoma. (Specimens to be shown.)

HUNTER, W., M.D. On the Pathology of Pernicious Anæmia.

KENNEDY, —. On Case of Cystic Kidneys and Liver.

MAPOTHER, E. D., M.D., Dublin. An Anomalous Form of Eczema.

MAYLARD, A. E., M.B., B.S. Lond. The Results of some Bacteriological Cultivation Experiments with Iodoform.

NUNN, T. W., Esq., F.R.C.S. Exhibition of a Selection of Microscopic Sections of Cancerous Tissues.

O'CONNOR, Bernard, M.D., M.R.C.P. Hydatids of the Spleen, Liver, and Brain.

RAKE, Beaven, M.D. Lond., Medical Superintendent of the Trinidad Leprosy Asylum. The Percentage of Fibrin in the Blood of Lepers.

RUSSELL, William, M.D. The Pathology of Pernicious Anæmia.

The following gentlemen have also intimated their intention of contributing to the business of the Section by reading papers or otherwise: Professor Greenfield, Professor Roy, Professor D. J. Hamilton, Dr. William Hunter, Dr. Barrett (Edinburgh). Dr. McFadyean (Edinburgh), Alex. Edington, M.B. (Edinburgh), etc.

Demonstrations.—Dr. Alexander Bruce (Edinburgh) will give a Magic Lantern Demonstration on Diseases of the Spinal Cord; and Alexander Edington, M.B. (Edinburgh), a Bacteriological Demonstration. Arrangements are also being made for a series of Microscopical Demonstrations illustrative of Tumours, Tuberculosis etc.

Pathological Section of the Annual Museum.—Intimation has been received of the following exhibits for this Section of the Annual Museum: 1. Calculi removed by Lithotomy, by Professor George Buchanan. 2. Calculi removed by Lithotripsy or by Scoop, by Professor George Buchanan. 3. Miscellaneous Objects removed from the Body, by Professor George Buchanan, namely: Bullets, Needles, Cases of Teeth, Impacted Pessaries, etc., also Isolated Bones of the Tarsus Excised. 4. Rhinoplasty; Wax Cast, by Professor George Buchanan. 5. Bladder and Urethra showing False Passages. 6. Selected Specimens from the Private Collection of Professor W. T. Gairdner. 7. A Series of Specimens of Tumours of the Brain, by Dr. Joseph Coats. 8. A Series of Specimens illustrative of Diseases of the Kidneys, by Dr. David Newman. 9. A Series of Specimens illustrative of Leprosy, by Dr. Beaven Rake (Trinidad). 10. A Series of Large Sections illustrating Malignant Tumours of the Lung; and a Series of Specimens illustrating Deformities of the Liver, by Drs. Woodhead and Bruce. 11. Drawings and Sections to illustrate Diseases of Bone and Joints, by Mr. F. M. Caird (Edinburgh). 12. A Series of Specimens illustrative of Diseases of the Heart, by Dr. John Lindsay Steven. 13. A Series of Myomata of the Uterus, by Dr. Joseph Coats. 14. A Series of Bacteriological Cultivations. By Mr. A. E. Maylard, B.S. 15. Sections of Primary Growths of the Pleura and Lungs, by Dr. George F. Croke, Birmingham.

As space for the Museum is somewhat limited, gentlemen intending to send specimens should intimate their intention without delay to John Lindsay Steven, M.D., 34, Berkeley Terrace, Glasgow, Honorary Secretary of the Section of Pathology of the Annual Museum.

SECTION H.—OPHTHALMOLOGY.

Midwifery Class Room.

H. OPHTHALMOLOGY.—President, Thomas Reid, M.D. *Vice-Presidents*, J. R. Wolfe, M.D.; C. E. Glascock, M.D. *Honorary Secretaries*, Henry Bendelack Hewetson, M.R.C.S., 11, Hanover Square, Leeds; A. Freeland Fergus, M.B., 41, Elmbank Street, Glasgow. Mr. Brudenell Carter will open a discussion on the Treatment of Senile Cataract. Drs. Prichard, Meighan, Mason, Teale, G. Anderson Critchett, Dr. C. Lloyd Owen, Charles G. Lee, H. Bendelack Hewetson, Esq., and others have promised to take part in the discussion.

The President of the Section intends to give a Demonstration of several Instruments of Use in Ophthalmic Diagnosis.

The following papers are promised.

BICKERTON, T. H., M.D., Liverpool. Sallors and their Eyesight.

CRITCHETT, G. Anderson, Esq. Iridectomy and Sclerotomy in Chronic Glaucoma.

GROSSMANN, K. A., M.D. Colour-blindness, with a Demonstration of New Tests.

HEWETSON, H. Bendelack, Esq. General Neuroses having an Ophthalmic Origin.

JESSOP, W. H., M.D. Ocular Headaches.

LEE, C. G., Esq. Two Cases of Foreign Bodies.

MACKAY, George, M.D., Edinburgh. A Contribution to the Study of Hemianopsia of Central Origin, with special reference to Acquired Colour Blindness.
 McHUGH, T. S., M.D., Glasgow. On the Treatment of Symbplepharon by Transplantation of Mucous Membrane from the Lip.
 RENTON, J. C., M.D., Glasgow. The Value of the Cautey in the Treatment of Elevation of the Cornea

SECTION I.—OTOLOGY.

Biblical Criticism Class Room.

I. OTOLOGY.—*President*, Thomas Barr, M.D. *Vice-Presidents*, John Astley Bloxam, F.R.C.S.; J. J. K. Duncanson, M.D. *Honorary Secretaries*, Johnstone Macfie, M.D., 23, Ashton Terrace, Glasgow; James Black, F.R.C.S., 16, Wimpole Street, London.

The following special subjects have been proposed for formal discussion:

1. The Conditions calling for Perforation of the Mastoid Portion of the Temporal Bone, and the Best Methods of Operating; to be opened by Dr. F. M. Pierce, of Manchester. Mr. Peter McBride has promised a paper on this subject. Dr. D. Stewart, of Nottingham, hopes to take part in the discussion.

2. The True Value of those Aids to Hearing usually termed "Artificial Tympanic Membranes." Dr. W. L. Purves has promised a paper on this subject.

3. Adenoid Growths in the Naso-Pharynx; their Influence on the Middle Ear, and their Treatment. To be opened by Mr. Lennox Browne, F.R.C.S.Ed.

The following have promised papers.

BROWNE, Lennox, Esq. (*Title not received*).
 TORRANCE, R., Esq. On Syphilitic Cochleitis.
 WARDEN, Charles, M.D. (*Title not received*).

Dr. Samuel Sexton, of New York, hopes to be present, and will give a communication on Excision of the Drumhead and Ossicles.

SECTION J.—DISEASES OF CHILDREN.

English Literature Class Room.

J. DISEASES OF CHILDREN.—*President*, Walter Butler Cheadle, M.D. *Vice-Presidents*, James Finlayson, M.D.; Henry Ashby, M.D. *Honorary Secretaries*, George S. Middleton, M.D., 23, Sandyford Place, Glasgow; W. Arbuthnot Lane, M.S., F.R.C.S., 14, St. Thomas's Street, S.E.

The following two discussions will take place:

1. Diphtheria: (a) Etiology. (b) Relationship to other Infectious Diseases, and to other Forms of Sore Throat; Occurrence on Open Wounds and on Mucous Membranes other than those of the Throat. (c) Diagnosis. What are the Distinctive Features, especially those Distinguishing the Lesion in the Throat from other Forms of Sore Throat? Does Membranous Croup occur apart from Diphtheria? (d) Pathology and Sequelae. (e) Medical Treatment. (f) Surgical Treatment; Tracheotomy; Tubage. The medical and general aspects of the subject will be introduced by Dr. A. Jacobi (New York), and the surgical aspect by Mr. R. W. Parker (London). Messrs. E. Owen, H. R. Hutton, Lennox Browne, R. N. Pugh, and Drs. W. T. Gairdner, George Buchanan, James Finlayson, Henry Ashby, H. C. Cameron, D. Newman, Thos. Buzzard, John Macintyre, Alex. Robertson, and J. S. Cameron will take part in the discussion.

2. Rickets: (a) Etiology and Prevention. (b) Its Connection with Syphilis and Scurvy. Is Enlargement of the Liver and the Spleen always present, more or less, in Rickets; or only in Cases of Syphilitic Origin? (c) Medical Treatment. (d) Surgical Treatment; at what Stage, and in what Way? Drs. Macewen, A. Ogston, L. W. Marshall, H. Ranke (Munich), Thos. Buzzard, Henry Ashby, and Messrs. R. W. Parker, H. R. Hutton, R. Haggard, E. L. Freer, John Gordon, R. N. Pugh, and W. A. Lane will take part in the discussion.

Drs. Jacobi (New York), Keating (Philadelphia), Ranke (Munich), and Sanné (Paris), and other members of the profession on the Continent have been invited.

The following have promised papers.

BROWNE, Lennox, F.R.C.S. Anatomical Facts in support of Intubation in Diphtheria.
 CAMERON, J. S., M.D. Etiology of Diphtheria. (1) Predisposition from Recent or Existing Disease, especially Scarlet Fever; (2) Influence of Insanitary Surroundings, especially Rise and Fall of Subsoil Water.
 FINLAYSON, James, M.D. Evidence of the Occurrence of Laryngeal Diphtheria in Glasgow, in the Early Part of this Century.
 HAGGARD, Robert, M.R.C.S. The Effects of Sunlight on Rickets in Children and in the Lower Animals.
 LANE, W. A., F.R.C.S. The Deformity of Rickets.

SECTION K.—PHARMACOLOGY AND THERAPEUTICS.

Conveyancing Class Room.

K. PHARMACOLOGY AND THERAPEUTICS.—*President*, James Morton, M.D. *Vice-Presidents*, John Dougall, M.D.; Theodore

Cash, M.D., F.R.S. *Honorary Secretaries*, Alexander Napier, M.D., 3, Royal Terrace, Crosshill, Glasgow; Sidney Harris Cox Martin, M.D., 60, Gower Street, London, W.C.

A special discussion will be opened by Professor Theodore Cash, M.D., F.R.S., on Carbolic Acid, Antipyrin, Antifebrin, and their Allies, especially as regards their Antipyretic, Analgesic, and Antiseptic Actions. Drs. Walter G. Smith (Dublin), A. D. Macdonald, and Prosser James will take part in the discussion.

Dr. W. Allan Jamieson (Edinburgh) will show two cases of Xeroderma Pigmentosum.

It is expected that Professors Liebreich and Dujardin-Beaumetz will be present at the meeting. Dr. Dujardin-Beaumetz will contribute a paper on Phenacetin.

The following have promised papers.

DAVISON, James, M.D. The Pine Treatment.
 DOUGALL, J., M.D., Glasgow. (*Title not received*).
 DRYSDALE, C. R., M.D. 1. On the Therapeutic Value of Alcohol. 2. The so-called Abortive Treatment of Syphilis.
 JAMES, J. Brindley, Esq. Scavies and its Treatment.
 KERR, J. G. Douglas, M.B. Thermal Treatment of Acute Rheumatism, with a Short Outline of the System pursued at Bath
 MACDONALD, A. D., M.D. Three Cases of Poisoning.
 PEARSE, T. F., M.D. The Treatment of Eczema.
 SHOEMAKER, John V., M.D., Philadelphia. An Investigation of the Action of Naphthol β.

SECTION L.—LARYNGOLOGY AND RHINOLOGY.

Divinity Class Room.

L. LARYNGOLOGY AND RHINOLOGY.—*President*, Felix Semon, M.D. *Vice-Presidents*, George Hunter Mackenzie, M.D.; Peter McBride, M.D. *Honorary Secretaries*, D. Newman, M.D., 18, Woodside Place, Glasgow; A. E. Garrod, M.D., 9, Chandos Street, Cavendish Square.

The following subjects are proposed for special discussion:

1. The Use and Abuse of Local Treatment in Diseases of the Upper Air Passages. To be opened by Dr. de Havilland Hall (London) and Mr. Stoker (London).

2. The Causes, Effects, and Treatment of Nasal Stenosis. To be opened by Dr. Macintyre (Glasgow) and Mr. Creswell Baber (Brighton).

3. Hæmorrhages from the Pharynx and Larynx, and other Hæmorrhages which simulate these. To be opened by Dr. Percy Kidd (London) and Dr. Hodgkinson (Manchester) (probably).

The following gentlemen hope to take part in the discussions: Dr. Prosser James (London), Dr. McBride (Edinburgh), Dr. Charles Warden (Birmingham), Dr. Cartaz (Paris), and Mr. Richard Ellis (Newcastle-on-Tyne).

The following papers have been promised.

JOHNSTONE, R. Mackenzie, M.D. Account of a Case of Tumour of the Naso-Pharynx.
 MCBRIDE, P., M.D., Edinburgh. On Hay-Fever and Allied Conditions.
 MACINTYRE, J., M.D. Anatomical Demonstration of the Larynx.
 MACINTYRE, John, M.D., Glasgow. The Use of Electricity in Diseases of the Throat.
 NEWMAN, D., M.D. Two Cases of Complete Laryngeal Stenosis produced by Wounds of the Larynx in Attempted Suicides.
 SPICER, R. H. Scanes, M.D. (1) Clinical and Pathological Observations on Affections of the Tonsils (Faucial, Lingual, and Pharyngeal) in the Light of Recent Views as to their Functions. (2) A Case of Lupus Vulgaris of the Upper Respiratory Tract—with Polyypus (Lupous) of the Larynx.
 WARDEN, C., M.D. (*Title of paper not yet received*).

ANNUAL MUSEUM.

THE Annual Museum will be held on August 7th, 8th, 9th, and 10th, in the Examination Hall, Hebrew Class Room, and Chemistry Tutorial Class Room, of the University of Glasgow, and will be arranged in the following six Sections:

SECTION A.—Food and Drugs, including Antiseptic Dressings, and other Chemical and Pharmaceutical Preparations. (Honorary Secretary, R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Street.)

SECTION B.—Pathology, comprising Casts, Models, Diagrams, Microscopical Preparations, and Micro-organisms. (Honorary Secretary, J. Lindsay Steven, M.D., 34, Berkeley Terrace.)

SECTION C.—Anatomy, comprising Special Dissections, Methods of Mounting, Abnormalities, Drawings, Medals, etc. (Honorary Secretary, J. Yule Mackay, M.D., 34, Elmbank Crescent.)

SECTION D.—Physiology, consisting of Apparatus, Microscopes, Microtomes, and Microscopical Preparations of Normal Histology. (Honorary Secretary, J. McGregor Robertson, M.A., M.B., C.M., 400, Great Western Road.)

SECTION E.—Instruments and Books, including Appliances—Medical, Surgical, and Electrical. (Honorary Secretary, J. Macintyre, M.B., C.M., 173, Bath Street.)

SECTION F.—Sanitation (I) Domestic Sanitary Appliances, em-

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bracing all Improvements applicable to the Treatment of the Sick in Private Dwellings. (2) Personal Hygiene, including Dress and Gymnastic Appliances. (3) Ambulances, Carriages, and all other Appliances used for the Conveyance and Treatment of the Sick and Wounded, either in Civil, Naval, or Military Practice. (4) Drawings, Models, and Apparatus illustrative of the Ventilation, Lighting, and Draining of Hospitals. (5) Hospital Furniture. (6) Sanitary Appliances in connection with Educational Institutions and Public Buildings. (Honorary Secretary, 1, 2, 3, Robert Pollok, M.B., C.M., Pollokshields; Honorary Secretary, 4, 5, and 6, A. W. Russell, M.A., M.B., C.M., Western Infirmary.)

Intending exhibitors should communicate as early as possible with the Secretary of the Section in which they propose to exhibit, as the Museum Catalogue must be complete one month before the date of meeting. Inquiries as to advertisements in the Catalogue should be sent without delay to Dr. Thomson, 3, Melrose Street, Glasgow.

Honorary General Secretaries of Museum Committee, A. Ernest Maylard, B.S., M.B., 4, Berkeley Terrace; R. S. Thomson, B.Sc., M.B., C.M., 3, Melrose Terrace.

Honorary Local Treasurers, Joseph Coats, M.D.; Jas. B. Russell, M.D.

Honorary Local Secretaries, John G. McKendrick, M.D., F.R.S., 45, Westbourne Gardens, Glasgow; James Christie, M.D., Hillhead, Glasgow; John Glaister, M.D., 4, Grafton Place, Glasgow.

FRANCIS FOWKE, General Secretary.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Physiological Action of Onobaio.—*Intestinal Myiasis.*

MM. HENRY DE VARIGNY and Paul Langlois have investigated the physiological action of onobaio. The natives of Obock fix this poison, in the form of a small ball of hard, resinous, brown substance behind the barbed point of their arrows. MM. Varigny and Langlois made a watery 1 per cent. solution with some of these balls. Injections of 5 or 10 milligrammes of this solution kills rabbits and guinea-pigs very quickly. The animal is bent double; it leaps about, then falls over on its side making efforts to breathe, and dies with well-marked symptoms of asphyxia. If the animal is then opened the heart will be found to be perfectly still. The ventricles no longer beat; a slight action is still observed in the auricles. The lungs are pale and anæmic. During life no disturbance of motor power or of sensibility is observed. One or two milligrammes were injected under the skin of a frog in which the heart had been laid bare. After a few minutes it was found that the ventricle became contracted after auricular systole; this phenomenon increased; four or five minutes after the injection the quantity of blood entering the ventricle at each auricular systole became infinitesimal, and finally none passed in. The ventricle ceased to act; the auricles continued to contract for ten to fifty minutes. The following experiments were made upon dogs which had been subjected to the action of chloral and curare. In one case a large dose (1 centigramme of onobaio in 1 cubic centimetre of water, injected in about a minute) caused cardiac disturbance, without any definite respiratory symptoms. To avoid the direct action of the poison on the endocardium a solution of 1 milligramme in 1 cubic centimetre of water was injected into the veins at intervals. In the case of weak doses (4 milligrammes to 13 pounds of the animal's weight) the breathing became much slower a minute or two after the injections. This phenomenon, which was not accompanied by notable cardiac disturbance, lasted one or two minutes, and then ceased. Larger doses (8 milligrammes to 11 pounds of weight, administered in four injections in about half an hour) quickened the breathing for a few instants. The breathing then became gradually slower, and at the end of two or three minutes entirely ceased. The heart continued to beat, but subsequently became slower, and finally ceased. In an experiment with 6 milligrammes to 11 pounds of the weight the cessation of the respiration did not arrest the action of the heart. Artificial respiration was practised; the heart continued to beat, and at the end of a few minutes the respiration became natural. Onobaio sometimes causes vomiting in animals which have not been previously brought under the influence of chloral.

M. Joannes Chattin has made some researches on myiasis, an

affection caused by the larva of diptera. It occurs in two principal forms—1, cutaneous; and, 2, intestinal myiasis. The existence of cutaneous myiasis is universally admitted, but that of the intestinal form has frequently been questioned. M. Chatin lately showed at the Académie de Médecine some larvæ of the *teichomyza fusca*, found in the dejecta and in the matter vomited by one of his patients. The larvæ of *teichomyza fusca*, by its peculiar organisation, is especially adapted to live in the intestine. It is able to collect a considerable quantity of fluid in which to breathe, owing to its unusually capacious tracheal system. It has only two pairs of stigmata, peculiarly arranged; the animal can instantly shut its posterior stigmata, which are attached to long caudal extremities. The anterior stigmata resemble the pseudo-branchia of the ephemerides larva. Some regard this arrangement as intended to allow of aquatic respiration, when aerial respiration is prevented. The *teichomyza fusca* larvæ are remarkably refractory to asphyxia. They will live for several days in water, oil, etc., or in the stomach of different mammals, when introduced for purposes of experiment. Foreign bodies, however, of similar aspect found in the organism are often mistaken for the larva of *teichomyza fusca*. M. Chatin relates the following example. A whitish, elongated body was recently sent to him, as a larva of *teichomyza fusca*, for examination. M. Chatin examined it microscopically, and found that the tracheæ it presented were vegetable and not animal. When dissected under a lens, the pseudo-larva proved to be a fragment of fruit incompletely digested. The ovarian chamber still contained a grain; the double extremity was formed by the remains of the style.

VIENNA.

[FROM OUR OWN CORRESPONDENT.]

Tubercle of the Iris.—*Xeroderma Pigmentosum.*

PROFESSOR FUCHS recently brought forward a case of tuberculosis of the iris before the Imperial Royal Society of Physicians of Vienna. The patient, a girl aged 6½, had previously suffered from measles, whooping-cough, and small-pox. She had some time before been admitted into the Children's Hospital. After remaining there for four weeks she became affected with inflammation of the eyes, for which she was admitted into the clinic of Professor Fuchs. The child had lived under very bad hygienic conditions in a room on the ground floor, into which the sun's rays never penetrated. She was fairly well nourished, and her parents were healthy. Her grandmother, however, had died of pulmonary phthisis, and three of her sisters had died of "convulsions," which may possibly have been due to tuberculous meningitis. The patient herself looked well, and was free from tuberculosis. The cornea was dim, and on its posterior surface there were signs of irido-cyclitis. The pupils were distorted. At the internal and lower part of the iris there was a tumour the larger end of which reached as far as the cornea. It was composed of numerous small nodules of a yellowish-red colour. There were numerous blood-vessels on the surface. The tumour was not sharply limited, but was prolonged into several other small nodules; some disseminated the nodules were also to be seen over the front part of the lenticular capsule. Professor Fuchs believed the case to be one of tubercular disease of the iris. It was a rare form of the affection which he had never before met with. Tubercle of the iris ordinarily occurred under one of two forms, namely, disseminated or conglobate. In the former there was always iritis, which was produced by the nodules. In such a case the nodules might disappear, while others developed anew; the iritis might complete its course, and the power of vision might be regained. In other instances, however, pupillary occlusion and atrophy of the eyeball supervened. This process usually affected both eyes, and was seen only in young individuals. The conglobate form had another course. The symptoms of inflammation were absent, but a tumour developed only on one place. This varied in appearance, and it was impossible to say whether it was a tubercle, or a syphilitic neoplasm, or a sarcoma. The tumour penetrated the cornea, so that it might be mistaken for a malignant neoplasm. Later it underwent caseous degeneration, and the eye shrank to a small stump. Von Graefe, who was the first to observe such a case, enucleated the eye, and Virchow called the tumour a "granuloma." It was not until recently that such tumours were recognised to be conglobated tubercles. The case shown to the Society occupied a place between these two forms. The iritis was a characteristic feature of the disseminated

form. In many such cases tuberculosis was also met with in other organs; in others only the eye was affected, while the submaxillary lymphatic glands might also be enlarged. Professor Fuchs knew a case in which after enucleation no further tuberculosis developed. He thought that enucleation was indicated in his patient, as otherwise the affected eye might be a focus of further infection.

Docens Dr. Riehl showed to the same Society a case of xeroderma pigmentosum. The patient, a woman, aged 61 years, had been affected from childhood with patches resembling summer rashes on the face and the arms. Eighteen years since the patches became more numerous and darker, and a warty tumour developed on the nose. The patient stated that her grandfather had suffered from very marked general pigmentation. The woman now presented the usual symptoms of xeroderma pigmentosum. Dark and irregular pigmentations with numerous white scars were to be seen on the face, the neck, the chest, and the arms. The hands were affected only on their dorsal aspect, whereas the thighs and the feet were almost free from pigmentation. Some angiomas and telangiectasias were noticed on the face. The atrophy of the skin of the hands and the forearms, and the dryness of the epidermis were very striking. The neoplasms which were characteristic of this disease, such as an ulcerating epithelioma on the nose and several tumours of the same nature on the cheeks, were also present. The process set in at an early period, when pigmented patches and small angiomas developed. At the age of from 6 to 12 years, epitheliomata began to develop out of the pigmentations, which gradually increased in number and caused death. Fifty cases of xeroderma pigmentosum had already been reported by various authors, but the anatomy and etiology of the affection were not sufficiently known. The clinical symptoms were very well known since Kaposi's work, published in 1870. Kaposi laid much stress on the dryness and atrophy of the skin, whereas Geber, using the term "nævus," attributed most importance to the fact that the abnormality of pigmentation was congenital. Taylor ascribed a greater importance to the presence of the angiomas, and, therefore, gave the disease the name of "angioma pigmentosum et atrophicum." Pick called the affection "melanosis lenticularis progressiva;" Neisser, "liodermia cum melanosi et telangiectasiâ;" Vidal, "dermatose de Kaposi." The fact that the disease was frequently met with in children of the same family rendered the suggestion very probable that the affection was due to a congenital abnormality in the structure of the skin. The epitheliomata were not of the usual type, sometimes epithelial carcinomata, and on other occasions pigmented sarcomata were observed. Dr. Riehl's patient was the oldest one affected with "xeroderma pigmentosum." Professor Kaposi remarked that the oldest case of "xeroderma pigmentosum" known to him was a boy, aged from 18 to 20 years. He happened to have at present under his care a girl who had suffered from the disease since the age of 12. Her face was now much deformed. The chief feature of this affection was the melanosis. In such cases the papillary body also underwent an atrophic process, and the atrophy was so severe that it gave origin to the development of severe ectropion, so that the mouth became distorted, etc. When the author published his first cases of "xeroderma pigmentosum" he did not know that carcinomata supervened in such cases. As to this, he had only observed it in the third child under his care. The girl now under his treatment scarcely presented any trace of carcinoma three years ago, but at present the whole left part of her nose had disappeared, and moreover, Professor Kaposi had removed from her about thirty carcinomata with the sharp spoon. The patient was moreover affected with a papillary carcinoma on the right cheek, which had in the meanwhile been allowed to remain. The process in question was quite different from the usual melanosis, and little was therefore gained by the term "angioma" or "melanosis." The term "xeroderma" was not indeed the best one, but the atrophic character of the process was expressed by it, and when the adjective "pigmentosum" was added the whole character of the disease was clearly indicated.

SWITZERLAND.

[FROM OUR OWN CORRESPONDENT.]

Perforation of Vermiform Appendix caused by Intestinal Concretions.—A New Surgical Soap.

At a recent meeting of the Société de Médecine du Canton de Fribourg, Dr. Buman read a paper on ulceration of the vermi-

form appendix, based on two cases which had been under his own care. The first was that of a boy, aged 8, who was suddenly attacked with a sloughing abscess in the right groin, to die eight days later. At the necropsy, a perforating ulcer of the vermiform appendix was found, which had been caused by a hard concretion consisting of magnesia coated with mucus. Upon inquiry it was discovered that the boy had been suffering from habitual constipation, which his parents had treated by daily administration of magnesia in ever-increasing doses. The other patient, a boy of 6, who occasionally suffered from passing attacks of colic, but was otherwise in the best of health, was suddenly seized with agonising abdominal pain, vomiting, and hiccough. There was slight tenderness with distension in the right iliac fossa, and a slight degree of pyrexia: The bowels did not act. Three days later the boy died collapsed. The *post-mortem* examination revealed a perforation of the vermiform appendix by a hard and gritty stone ovoid in shape. In neither of the cases had the actual state of things been suspected during life. Dr. Buman dwells on the great difficulty sometimes met with in the differential diagnosis of such cases; but, strange to say, he does not say a word about laparotomy, either as an exploratory or a therapeutic measure. It is true that for this great step forward surgery is mainly indebted to Great Britain and the United States—benighted countries whose medical practitioners are so notoriously "inferior" that it requires some stretch of condensation for well-regulated Swiss minds to recognise their scientific existence (see the JOURNAL, March 31st, 1888, p. 717). Still, Dr. Buman might, perhaps, with advantage have strained a point in the present instance, and might have taken the trouble to show that he had at any rate heard of a method which has already given such brilliant results in countries less favoured—academically speaking—than his own. Even in Switzerland such men as Kocher, of Berne, Kroenlein, of Zurich, or Senn, of Milwaukee (originally of St. Gall), might have taught him better.

In the *Revue Médicale de la Suisse Romande*, No. 5, 1888, page 285, Professor Auguste Reverdin, of Geneva, speaks highly of a "surgical soap" prepared after the following formula:—R. Oil of sweet almonds, 72 parts; lye (*lessive*) of soda, 24 parts; lye of potash, 12 parts; sulpho-carbulate of zinc, 2 parts; essential oil of roses, 9.5 parts. (Mem.—The preparation consists in slowly adding to and carefully mixing with the almond oil the lyes and the sulpho-carbulate part by part until an intimate and homogeneous mixture is obtained.) The latter is kept for several days at 20° C. The mass, which gradually acquires the consistence of soft paste, is then divided into any number of portions that may be desired; these are placed in suitable moulds, where they are kept till they are completely solidified. Professor Reverdin has been using this antiseptic soap since the summer of 1887, when he visited Professor Bottini's clinic at Milan, where it is extensively employed for various purposes. The soap is said to possess wonderful cleansing, as well as antiseptic, properties, and it does not irritate the skin, however sensitive or irritable it may be. Moreover, as the soap contains an excessive proportion of fatty substances, it does not dry the skin. The presence of potash makes the soap by far more active comparatively than a pure sodic soap, since, as Dr. Unna has proved, potash has a more energetic solvent action on the horny layer of the cuticle than soda. Professor Reverdin recommends this soap not only for general use in hospital and private practice, but also for washing the hands in dissecting-rooms and everywhere where the hands come in contact with decomposing substances. Further, he urges that barbers should universally adopt this disinfecting soap for their purposes, and thus protect their customers from various infectious diseases, to which they are exposed in their shops. Dr. Reverdin has also obtained good results from this soap in various cutaneous affections. Finally, it is a very pleasant toilette soap, as he himself and many of his patients and friends have found.

EGYPT.

[FROM OUR OWN CORRESPONDENT.]

Lunatic Asylum.—Ramadan.—Sickness at Damietta.—English Nursing Sisters for Kasr-el-Aini.—Cairo Jubilee Memorial.

There is but one lunatic asylum for the whole of Egypt. It is situated at Abassieh, near Cairo, and seldom contains more than 300 patients. This speaks well for the general condition of the country as regards lunacy; but there are probably many people in the towns and villages of the interior who are afflicted with disorders of the intellect, chiefly idiocy. The other forms of in-

sanity are undoubtedly rare; this is probably due to education being in its infancy. At Abassieh, during the past year, 459 patients were admitted. The deaths amounted to 67; the number of non-dangerous lunatics returned to their friends was 55; and 302 were discharged cured. The asylum was lately visited by General Dormer, C.B., who, having seen it in 1882, was able to judge of the vast improvement that had taken place lately. So pleased was the General with his visit, that he very kindly sent a large package of cigarettes for the lunatics, with a letter of thanks to the medical officer in charge (a native).

The fast of Ramadan happily ended last Sunday (June 10th), before the great heats which have since set in had commenced. It is really pitiable to see the poor creatures who fast, and yet are obliged to work during a hot season. A conscientious Mussulman—and most of the lower orders are such—will not only not drink anything from sunrise to sunset during a fast, but will not even swallow his spittle should his mouth water from any cause. It is not, therefore, astonishing that in Ramadan the death-rate invariably increases enormously. Fortunately, being a lunar month, it does not always occur in the summer, and is now steadily working its way back every year towards cooler weather. A rich man who can afford to sleep all day, and have his meals at night, may keep Ramadan with impunity, but the poor "fellah" who has his daily task to perform must inevitably suffer.

There has been rather a serious epidemic of fever lately in a village not far from Damietta. The very name of Damietta in connection with sickness seems to strike terror in Egypt, but on this occasion fortunately there is no danger to apprehend anything worse than typhus. The Sanitary Department has sent down an ambulance for the sick, and not only medical aid, but also a detachment of their corps of sweepers under an English inspector, in order that Damietta, as well as the village where the malady exists, may be cleaned up and put into a sanitary condition. This, of course, is only a palliative measure, for once the sweepers' backs are turned the town will rapidly relapse into its normal state of filth. Dr. Greene Pacha, however, seems to hope that under the enlightened rule of the new President of Council, Riaz Pacha, a system of scavenging may eventually be established in the larger towns, including the important port above mentioned.

Two English ladies, trained nurses, are at present on their way out in one of the Orient liners to join Kasr-el-Aini Hospital, where, under the direction of Dr. Milton, they will be invaluable, not only for the nursing of the sick, but also as trainers and instructors of the native female pupils and nursing staff. The Sanitary Department is empowered to allow £300 a year towards the expenses of these ladies, and of any others whose services may eventually be obtained, and a committee has been formed to administer this sum and regulate everything in connection with this nucleus of a nursing institution. The committee is composed as follows: President: Sir Evelyn Baring. Members: Sir Sydney Waterlow, Dr. Greene Pacha, Dr. Milton. Secretary and Treasurer: Dr. Sandwith.

The Cairo Jubilee Memorial Committee have held a final meeting, at which it was decided that the amount subscribed, namely, £827, should be handed over to the Victoria Deaconesses' Hospital, for the purpose of erecting infectious wards in connection with that establishment. There are to be six wards, including one for an insane patient, and the building will be so arranged that at any future time it will be practicable to add another storey. It is to be regretted that the amount subscribed was not sufficient to found an independent hospital, which should have served as a model of what an institution of the kind ought to be in Egypt. The Deaconesses' Hospital is administered by a German society, and leaves much to be desired from a sanitary point of view. As an example, I may mention that the drainage is effected through untrapped pipes into a percolating cesspit partly within the foundations of the building, in accordance with the vicious system which obtains almost universally in the country. Any hospital in Egypt, as elsewhere, should be perfect as regards sanitary arrangements, and *a fortiori* an infectious ward subscribed for by English subjects. The building has been designed by Mr. Price, C.E., of the Sanitary Department, but he is not responsible for its sanitation, as his ideas were not accepted by the committee.

THE *Berliner Klinik* is a new medical periodical, under the editorship of Herren Fürbringer and Hahn. The first number contains two articles by Professor Senator, one being on The Aims and Means of Medical Activity, the other on Icterus, its Origin and Treatment. It is published by Fischer, of Berlin.

CORRESPONDENCE.

THE MEDICAL OFFICERSHIP OF HEALTH AT BRADFORD

SIR,—The circumstances under which an advertisement for a successor to myself in the above office appears in the JOURNAL are of sufficient public importance to warrant me addressing your readers thereon. The questions involved include the conditions of tenure of office, the possibility of a medical officer against whom no charge can be brought being deprived of his income through the personal enmity of the chairman of his committee; the position which the medical officer of Bradford is to occupy towards his committee and the inspector of nuisances, in a word the possibility of any medical man of integrity and independence, and with any self-respect, ever being able to hold the appointment, except for a very brief period, and with the certainty of disaster before him. When I came here, five years ago from Sheffield, I gave up a good practice, an appointment of £300 per annum, hospital appointments, a lectureship in the School of Medicine, and other offices indicative of the good-will of my fellow citizens—all the fruits of sixteen years hard work. I accepted the appointment here for five years, with the belief that re-election was certain if I did my duty; I have honestly striven to do so, no charge of any kind has been preferred against me; but now I am deprived of my office, and of my income, and obliged to commence life once more after receiving such a wound. I forward you the account of the meeting of the Town Council, at which the Sanitary Committee's resolution not to re-appoint me was adopted. You will see that the chairman of that Committee eulogised my private and professional character, my devotion to my work, and ventured to make no charge or insinuate anything against me.

But, your readers will say, there must be some grounds for my losing my appointment, my treatment being nothing different from that which would have been meted out to a thoroughly incompetent person? The only reason suggested is "want of tact" in dealing with the Committee, my tact in dealing with all others, the public and the medical profession, being cordially admitted. No case is specified, no opportunity is given me of refuting any alleged complaint. Such a charge is, I protest, utterly inadequate and the manner of making it unjust, not to say ungenerous; 3,000 ratepayers have memorialised for my reappointment; they have not found me defective in tact, and express themselves as highly satisfied with my official and private conduct. These included many of the leading citizens—Sir Henry Mitchell, Sir Jacob Behrens among them—and represented over one-half the rateable value of the borough. The Bradford and District Tradesmen's Association, a powerful organisation, memorialised the council also; the whole medical profession of the town have warmly supported me, and publicly expressed their desire for my reappointment, although this is a notification town. They have also paid me the compliment of appointing me president of the Medico-Chirurgical Society this year. Last year I was president of the Association of Medical Officers of Health of Yorkshire, and a couple of years ago I held the presidency of the North-Western Association of Medical Officers of Health. Other medical, scientific, literary, and social societies have honoured me similarly. I venture to argue that these facts afford strong evidence that I am not a person devoid of "tact" so utterly as to warrant deprivation of my appointment, or of such general incompetence or unfitness as to call for my rejection. My real "want of tact" has been that I have failed to conceal the sanitary defects and requirements of the town. I have reported on them to the sanitary authority as I am bound to do. My published reports are evidence whether, so far as they go, I have reported with courtesy and "tact." These reports have been most favourably noticed in the medical papers when they appeared. I have several times reported against the pernicious custom of allowing excrement and filth of every kind, infected with fever and otherwise, to be used for forming roads and levelling-up for building purposes. My views on this subject have given great offence. Is this not the cheapest plan for the moment, however many lives it cost in the long run?

I have had to report that we have no proper provision for small-pox, though it is very prevalent around us; and the three cases now in the town are obliged to be put in a ward intended for scarlet fever, lying within twenty yards of another ward occupied by scarlet fever patients; but up to to-day no proper hospital accommodation has been provided. I have had to report that the disinfecting apparatus is practically useless, but no other has

been got. I have had to report on a good deal of property unfit for human habitation, but which is still occupied. These and similar things have been the undoing of me. My requirements would cost money, and hence were hateful. This was my real "want of tact;" but I have shown still less of that quality in actually condemning piggeries belonging to one member of my own Committee, and a slaughter-house in which another was "interested." These things led to the bitter, unceasing, personal hostility of the chairman and certain members of the Committee. The former has long since declared that if "yon man" (myself) were re-elected he would resign. That such an attitude should be adopted towards any official is bad enough; but when the feeling exists, as explained to me by a "friend" on the Committee, that if one of the two must go he would support the chairman, then no medical officer's post is tenable.

As an illustration of how the department is worked here, I may say that I was but a few months here when I was told that none of the inspectors were to be considered under my control, and that the chief inspector alone had any control over them. If I wished anything done by them, I must address the chief inspector. That official, I soon learned, was the confidant of the chairman, who regularly frequented his office. The establishment of a staff of inspectors independent of the medical officer naturally has rendered his work most difficult, and his position in every respect unsatisfactory. It led to the nuisance office being a rival establishment for the criticism of the medical officer, and the propagation of opinions for the use of the chairman and any other ill-disposed person. That the medical officer should be obliged to depend on the wishes of the nuisance inspector for the services of the *employé* of the department is sufficient to paralyse his hands. These services, permitted with unwillingness, ceased practically to be available at all for the purpose of investigation of the sources of the disease and its propagation, and to the multitudinous other requirements of a medical officer giving his whole energies and time to the work of his department in a large town. The inspectors have, therefore, been solely occupied in the nuisance department, and the medical officer has had no assistance whatever in his work, save a boy in the office at a salary of a few shillings a week. The success of this manoeuvre in detailing the "nuisance" from the "medical" department quickly led to the demand by the Committee that I should personally do such work as inspecting all dairies, cow-sheds, milk-shops, new houses (under a local Act), also every house where an infectious case was notified, besides the numerous inspections of market nuisances, unheathy trades, etc., called for urgently by ratepayers every day. This I have done single-handed, and the Committee has publicly declared that my work has been thoroughly done.

When I accidentally heard that the Committee had specially met to decide the question of my reappointment, I addressed a letter to the members, in which, among other things, I expressed a wish to appear before them and face to face hear and answer anything which might be alleged against me or need explanation. That letter, addressed to the Committee, was not brought to the knowledge of the Committee by the chairman.

No other officer of the corporation is appointed on the same precarious terms as the medical officer, and yet Parliament thinks him so necessary as an adviser that one must be appointed by every local board and corporation. Is it reasonable the appointment should be for the brief term of one or a few years, and that the medical officer should live in continual dread of disaster, if by discharging his duty faithfully he shall offend some member of his committee? Ought there not to be some authority to which a medical officer of health can appeal when unjustly or cruelly treated? Can the present system continue to work to the benefit of the public when it may operate so disastrously to the medical officer of health? Mine is not an isolated or exceptional case. Unfortunately there are other medical officers of health who have received treatment of a similar kind.

No doubt many young men will eagerly seek for my post, with the confidence of youth believing they can avoid every mistake made, and that they will be secure in their office. I believed so when I came here, and I had had five years' experience of municipal work in Sheffield before coming here. I trust their hopes may not be disappointed, but would say to any candidate once in office here, You have burned your boats; reflect well before giving up practice, however modest, with independence, before surrendering yourself completely in the hands of men who will deliberately turn you off after receiving your best services.—I am, etc.,

THOMAS WHITESIDE HIME.

THE DEBATE ON ELECTROLYSIS AT THE OBSTETRICAL SOCIETY.

SIR,—As a non-speaker during the recent debate, I crave space for a few remarks I would have made had time permitted. I listened attentively, hoping to learn something, but the strong bias of most of the speakers, either *pro* or *con.*, rendered the speeches less profitable than they might have been.

From all sides it is agreed that the action of the anodal pole is antihæmorrhagic; at times a simple application to the mucous membrane suffices, at times galvano-puncture, which is made by the cathodal pole, and the subsequent introduction of the positive needle is necessary. Admitting this hæmostatic action, let us think of allied hæmostasis, and understand, if we can, how the effect is produced. In aneurysmal tumours we have records of several cases of solidification and cure after electro-puncture. The blood is coagulated, the through current is thereby arrested, fibrin is deposited, and more or less shrinkage and absorption results; but the introduction of watch springs, of horsehair, etc., effects the same results, and the question arises whether it is a mechanical or an electrolytic action. I am aware that I now expose myself to the too frequently iterated accusation of ignorance, or of comparing dissimilar things. It may be said that in aneurysm small plates are used, both needles are introduced, that an unmeasured strength of from ten to thirty cells is employed, and that there is a continuous action, lasting twenty or thirty minutes, so that this must be regarded as wholly different from the *technique* of Apostoli, of Keith, or Steavenson. So it is, and when we hear of 250, 500, or 1,000 milliampères being used, we are ready to concede a probably total different result; yet that, in but a different degree, the theoretical explanation must needs occupy much the same platform is also true. We must freely admit Dr. Steavenson's contention that in electrolysis we have a cleanly and elegant though tedious caustic.

The action of the negative pole as an actual destroyer or remover of tissue is unquestionably the point on which depends the future of the electrical treatment of fibroids. If fibroids decrease under its use—and I for one admit that in some measure they do, as the authority of Dr. Keith, of Sir Spencer Wells, and of others is enough to convince me that certain fibroids are lessened—it is needful to know something more of this action than we now do. Some assert that only the soft, that is, the muscular or other non-fibrinized elements of fibro-myomata are resolved by the electrical treatment; others allege that diminutions of muscular elements occur alternately with increases in the absence of all treatment, and no one who has had a case of fibroid under observation for some years can deny this latter statement; but the negative pole is supposed by others to convert the fibrinous material into a softer and more readily-absorbable substance without causing actual necrosis or sloughing. Well, if this could be proved, we should have a very distinct pathological basis for electrical therapeutics; but is it so? Can this be demonstrated? Some patients are doubtless greatly benefited, others are very little better, and that only temporarily; yet after all an ounce of practice is worth a pound of theory; if we can derive benefit without knowing why, is it wise to reject it?

Now it is readily conceivable that inter-mural fibroids may derive good from electricity, but this is not the class requiring new methods. It is in intra-mural or interstitial or in extra-mural tumours—in which the uterus lies fixed low down in the pelvis, and in which severe pressure or hæmorrhagic symptoms occur, in many of which cases no reasonable operation can be employed—that we look to electricity for aid. Although we may not be able to cure, if we can relieve symptoms, if we can even temporarily lessen certain tumours—although the procedure may be tedious, expensive, and in some perchance difficult and, beyond all, uncertain—in these cases there will exist a future for electrolysis. But to adopt as proved all that has been alleged for this method, to accept as permanent certain ameliorated conditions, we require time and experience, as yet deeply hidden in the future. Dr. Champneys's plea for extended consideration was amply justified by all we have yet learned.

It is no question of this man's bias or that man's interest, of this man's apathy or that man's enthusiasm, of this man's skill as an electrician or that man's abilities as a surgeon. It is simply a question of the worth or worthlessness of powerful but regulated currents of electricity as a reliable controllable curative measure in treating fibroid tumours. We ought, from the history of gynæcology, to be very indulgent to new methods, to wait

patiently, to work quietly, or to watch others carefully, ere we determine to accept or reject what none of us know very much about. This done, let us calculate the difficulties and dangers, weigh them well against the clearly-acknowledged benefits, if such there be, and remember that what is good will remain, and what is false or redundant will unquestionably be swept away.—
I am, etc.,
A. D. LEITH NAPIER, M.D.

Beaufort Gardens, S.W., June 22nd.

PAROXYSMAL SNEEZING.

SIR,—I have read the very interesting remarks on this affection by Drs. Ringer and Murrell, and have long considered that the terms "hay-fever" and "hay-asthma" were very misleading as applied to a complaint depending on so many diverse conditions. Some time ago I had under observation a very peculiar and remarkable case of this description. The patient was a single lady, aged 38. About eighteen years ago she had a cold bath during a menstrual period, and since then had suffered from "perpetual colds," always aggravated in winter by the most trifling cause. There was a small tender spot over the right lung, and she at one time coughed up a little blood, but attached no importance to it. There was a sense of fulness over frontal sinus and the upper eyelids, which was always intensified by colds, and momentarily relieved by the free discharge that invariably succeeded. The voice was of a nasal character, the feces were relaxed, and the right Eustachian tube was chronically inflamed. The sense of smell was much impaired, but was always more acute after daily discharge had ceased. On rising in the morning there was a free watery discharge from the nostrils, often sufficient to saturate a dozen handkerchiefs, and on one occasion as many as two dozen. The discharge was not usually preceded by sneezing; it came on without any apparent cause, and was only materially influenced by low and damp situations, when it was usually much more than usual. The patient was very seldom troubled during the day, and the discharge nearly always came on whilst rising from bed.

It is very hard to say what the exciting cause was in this case—possibly dust; but at all events, whatever it may have been, it simply reacted on the extremely sensitive nerve filaments supplying the nasal mucous membrane.

This lady consulted a great many eminent specialists, but without deriving any benefit, and ultimately was virtually cured by the systematic employment of compressed air. She was placed under pressure of seven pounds (nearly one atmosphere and a half) to commence with. After a fortnight the pressure was raised to ten pounds, but never exceeded that amount. On the fifteenth day there was a decided improvement, the discharge was much less and thicker, or, to use her own words, "like towards the end of a cold." At the end of a month (twenty-first time) she was practically well; there had been no discharge whatever for some days, and she felt for the first time as if "conscious of the existence of a brain." At no time did she experience any inconvenience, except during the first two days, when she complained of slight pain and fulness in the right Eustachian tube.

I have not heard of any cases of this nature similarly treated, and believe that the method now employed deserves more extended trial. Compressed air has a powerful sedative influence on the nervous system, and especially on the nerves supplying the mucous membrane of the air passages. In addition to this it exercises very important mechanical effects, which act very beneficially in chronic catarrhal conditions of the mucous membrane especially that lining the Eustachian tubes.

Massage was also employed in this case, but more on account of its general tonic effects than anything else.

The patient writes, two months after all treatment has ceased: "I feared that the distress and anxiety (alluding to domestic troubles) would bring back my running cold, but happily it has not done so, and I feel how much I have been strengthened to bear it all as I have done."—I am, etc.,

Liverpool.

T. GERALD GARRY, M.D., M.Ch.

THE NEW SYDENHAM SOCIETY.

SIR,—I shall be much obliged if you will allow me a few lines, in order to explain to members of the New Sydenham Society the present state of our year's issue. We shall be (for the first time) a little behind-hand. The year's series ought to be complete by the end of June, but from unavoidable circumstances, it will not be so this year till the end of July, or it may be a week or two later. Two volumes are yet to come. They will be sent out to-

gether almost immediately. Our members have received for this year the first volume of Spiegelberg's work on *Midwifery*, and a fasciculus of the *Lexicon of Medical Terms*. The two works which are not yet out, but which are nearly ready, are a fasciculus of the *Atlas of Pathology* and a volume of selected essays. In the latter are comprised Raynaud's two memoirs on the disease which now bears his name, translated by Dr. Thomas Barlow; two essays on Malaria and Melanemia translated by Dr. Drummond from Italian sources; and Neugebauer's last memoir on Spondylolisthesis, translated by Dr. F. Barnes. Thus the year's issue for 1887 will be complete in four works. As regards the preparations for next year, it will be satisfactory for our members to know, that the second volume of Spiegelberg's *Midwifery* is almost finished printing; and that a volume of Charcot's *Clinical Lectures* and a fasciculus of the *Lexicon* are also well advanced.

Our annual meeting will be held at Glasgow during the meetings of the British Medical Association. I am at all times glad, on behalf of the Council, to receive suggestions for new works, to be submitted to its consideration, and especially so in anticipation of the annual meeting.—I am, etc.,

Cavendish Square.

JONATHAN HUTCHINSON,
Honorary Secretary.

MODERATE DRINKING.

SIR,—Dr. Isambard Owen, in Appendix C to the Report of the Inquiry into Disease and Intemperance, says he believes no detailed report has been published of the remarkable statistics of the United Kingdom Temperance and General Provident Institution. Will you permit me to somewhat supply Dr. Owen's omission by giving the figures that have been issued, which form an unimpeachable testimony to the superior healthfulness of abstinence over moderate drinking. The period is 22 years, 1866 to 1887 inclusive. There are two sections of the assured, one for abstainers, the other for the general public, drunkards being excluded.

	Temperance Expected Deaths.	Section. Actual Deaths.	General Section. Expected Deaths.	Actual Deaths.
1866-70 (5 years) ...	549	411	1,008	944
1871-75 " ...	723	511	1,268	1,330
1876-80 " ...	933	651	1,485	1,480
1881-85 " ...	1,179	835	1,670	1,530
1886-87 (2 years) ...	553	390	713	700
	3,937	2,796	6,144	5,984

I am, etc.,
June 23rd.

NORMAN KERR, M.D.

RESECTION OF THE TARSUS.

SIR,—A case of resection of part of the tarsus for disease by Sir Wm. Mac Cormac, published in the JOURNAL for May 8th, with the remarks that have been made upon the operation, lead me to make the following comments upon the best method of treating such cases by operation. In Sir W. Mac Cormac's case the condition of the parts removed is not recorded. It may be taken for granted that disease of the tarsus is very commonly met with in two positions: First, disease of the os calcis, which may extend to the posterior calcaneo-astragaloid, or more rarely to the calcaneo-cuboid joint; and, secondly, disease involving the anterior calcaneo-astragaloid and its prolongation, the astragalo-scapoid joints. In this second case, the mischief may spread over the astragalus and attack the ankle-joint, or, travelling in the opposite direction, may reach beyond the scaphoid and involve the common tarsal sac. These are probably the conditions of disease most often met with. Where the os calcis alone is involved, removal of that bone is an excellent and successful operation. Where the astragaloid joints and common tarsal sac are diseased most surgeons amputate by Syme's method or remove the whole foot. The Mikulicz-Wladimiroff operation is no doubt an advance upon this, but better still. I think, is the plan of making a transverse incision across the dorsum of the foot (Holmes), dissecting out all the tarsal bones with the exception of the back of the os calcis, removing the bases of the metatarsal bones, and, if necessary, the lower ends of the tibia and fibula together with all tuberculous material. The cut tendons are then sutured together, the foot fixed in its natural position, and when healing has taken place, a foot small and short, it is true, but still a foot both in shape and function, remains. It is more sightly than an "equinus foot," and infinitely better than the stump of a Syme. The exact amount of

bone taken away varies with the case, but it is far better to take away all than to leave any disease. In none of my cases have I taken away the whole of the os calcis together with the rest of the tarsus; but since, after subperiosteal resection of the os calcis alone, we usually get a very perfect reformation of the heel, I should not hesitate to do so rather than amputate. In a paper in the *Medical Chronicle* for 1886, p. 460, I have already discussed the question and published some cases with illustrations, and since then I have operated on other patients. One of my colleagues, Mr. Thomas Jones, has also operated in this way, and I have had much reason to be satisfied with tarsectomy for disease. There is no occasion to attempt any adjustment of the bony surfaces. They may be left to themselves, and as repair takes place a firm, mobile foot results. It must be very rarely that the operation described by the Russian surgeon exactly meets the case, for it does not follow the lines most frequently mapped out by disease.—I am, etc.,
G. A. WRIGHT, M.B. Oxon, F.R.C.S.
Manchester.

LIABILITY FOR DEFECTIVE DRAINS.

SIR,—With reference to your paragraph on the case of *Butler v. Goundry* in the *JOURNAL* of June 23rd, it seems to me that it ought not to be necessary for a special declaration to be made as to the condition of the drains. When a house is let to anyone, it would be just as reasonable to expect a guarantee to be given as to the condition of any other part of the house—for example, the gas pipes, the stability of the chimney stacks, and the perfect fitting of the doors and windows, etc. When a landlord of his agent lets a house, he ought to be responsible for the consequences of all structural defects, and he should not be allowed to plead ignorance; he ought to make it his business to see that everything is in perfect order. He lets the house for purposes of gain, and he ought to see that no harm can affect the tenant from anything that is under his (the landlord's) control. This applies very specially with regard to drains. They are an essential part of the house, and it ought to be a crime for a landlord to let a house with the drains in a bad state, or who pleads ignorance of their condition.

I would go further. I think that local sanitary authorities should see that the drains of all new property are constructed in the most perfect manner. This should not be left to the fancy of the builder or the owner. They should be examined and tested by the sanitary authority and a certificate given, and all new additions should be similarly certified to. The owner should still be the responsible party, because drains require to be kept in good order, and he is the party to see that this is done.—Yours, etc.,

F. W. JORDAN, Medical Officer of Health to the
Heaton Norris Local Board.

ON THE ADMINISTRATION OF ANÆSTHETICS.

SIR,—Sir Spencer Wells, in his paper on "Methylene and other Anæsthetics" (in the *BRITISH MEDICAL JOURNAL* of June 9th, 1888), remarks that, on trying some samples of methylenchloride, manufactured by Riedel in Berlin, the tube of my apparatus, with which it was administered, speedily became closed by a sort of snow, thus rendering impossible the continuation of the narcosis.

When I first devised, twenty years ago, my apparatus for the administration of bichloride of methylene (which is manufactured by Messrs. Krohne and Sescmann, 8, Duke Street, Manchester Square, W., the original makers), I also tried other anæsthetics. I signally failed with ether, on several occasions, in the Samaritan Hospital, from the same cause as Sir Spencer with Riedel's preparation. I had scarcely commenced when the tube became closed by an icicle protruding into the face-piece, and the side-holes of the top-ventilator were likewise covered with a thick layer of ice. I explained this phenomenon in a similar way as Professor Bardeleben did in his letter to Sir Spencer. The aqueous vapour with which the breath is always more or less charged was converted into ice by the freezing action of the rapidly evaporating ether. My apparatus is, therefore, utterly unfit for ether and similar too volatile preparations.

It is, however, perfectly suitable for chloroform, and has been used for this purpose in the Samaritan Free Hospital, and in many surgical clinics in Germany—namely, in Berlin, and especially in Leipzig, by Professor Thiersch, where the bellows are worked, as also those of the spray and similar apparatuses, by hydraulic pressure fitted up in the amphitheatre.

Professor Rose, formerly in Zürich, at present at the Bethania

Hospital in Berlin, who, in all operations in the face and in the throat in which there is danger of blood passing into the trachea, always places the patient on his back with the head hanging down over the edge of the table, states that he was only enabled to continue an uninterrupted narcosis during the whole operation by the aid of my apparatus. After the patient has been brought under the full influence of chloroform, the face-piece is removed, and the tube is introduced through the nostrils into the fauces, and in that manner the anæsthesia is kept up. He latterly devised a bifurcated piece of india-rubber tubing, which is joined to the original tube, and its two branches are inserted into both nostrils.

Dr. E. Field, of Bath, writes in the *JOURNAL* of June 16th, that he once failed to bring a strong man under the full influence of methylene by using my apparatus. That must have been an exceptional case, which never happened either to Dr. Day or to me. Many years ago I gave methylene with this apparatus for Sir Spencer to a publican and ex-prizefighter. I brought him without any difficulty into deep narcosis. I mention this case because I consider it a fair test. Prizefighters surely are strong men, and publicans, as a rule, not abstemious. This patient, at any rate, was not. It is a well-known fact how difficult it is to narcotise individuals addicted to strong drink.—I am, etc.,

J. A. JUNKER, M.D.

30, Hyde Park Place, W., June 16th.

SETTING-UP DRILL AND HEART DISEASE.

SIR,—In reference to Surgeon-General Maclean's letter, with the labours of Surgeon-Major F. A. Davy the name of Surgeon-Major W. E. Riordan should be coupled. In the latter officer's work on "Heart Disease and Aneurysm in the Army, Dublin, 1878," the effects of setting-up drill and gymnastics are frequently alluded to, especially at page 35.

This book, if not published before, was anyway in the press when Dr. Davy's observations appeared in the *Blue-book*. The most accurate clinical observations and the most valuable will be found in Brigade-Surgeon Veale's paper in the *A. M. D. Report*, 1880.—I am, etc.,

A. M. S.

June 26th, 1888.

ON HYDROPHOBIA AND ITS TREATMENT.

SIR,—Mr. V. Horsey, in the *JOURNAL* of June 9th, relates some experiments, in cases of rabies, with the hot-bath. In his paper he says, "There is no single case of reputed cure of developed hydrophobia, by drugs or other means, that will bear investigation." I suppose that statement cannot be gainsaid; but are any cases published in which the symptoms were thought to be due to the poison of rabies, such symptoms being only the incipient signs of hydrophobia, in which recovery took place? If such cases have been met with, it would lead us to believe that hydrophobia may be recovered from, although there is no recovery when the worst symptoms are fully developed. It must be remembered that it is only a small percentage of those bitten by rabid dogs who exhibit signs of hydrophobia, while cases are recorded in which hydrophobia followed bites inflicted by dogs which showed no signs of rabies. While practising in Lancashire I treated a good few bites inflicted both by rabid and healthy dogs, only one of which gave me any anxiety afterwards. I had given up applying nitrate of silver to bites, having come to the conclusion that it did nothing but harm, and was in the habit of merely encouraging the bleeding, and healing the part as quickly as possible by the help of carbolic acid. The case which gave me some anxiety was that of a boy; while playing in a field with other boys, a retriever dog, which was enjoying the fun, bit him on the thigh through the trousers. Hardly any blood came from it, and no dressing was needed.

Some time afterwards, early one morning, a message came for me to visit the house where the boy was. No particulars were given, but I had some suspicion that it might be the boy, and before going I turned up my day-book to ascertain the exact date on which he had been bitten. It was exactly that day six weeks, which did not allay my suspicion. When I reached the house I inquired who was ill, and found it was the boy. He complained of pain in the bite, which had kept him from sleeping. The place was quite visible, and it was tender to the touch. I could detect nothing else wrong with the boy. I ordered him to be put into a hot bath and to be kept in bed till I saw him again. The pain left the bite that day, and he had no other symptoms. Is it possible that there may be cases which show other symptoms

more marked than mere pain in the part bitten, and which nevertheless recover?

The resemblance between hydrophobia and tetanus is so marked that a closer study of particular wounds, as to their nature, locality, and effects upon the nervous system, may assist in arriving at the true pathology of hydrophobia.—I am, etc.
MELROSE, N.B., June 15th.
JOHN HADDON.

NAVAL AND MILITARY MEDICAL SERVICES.

THE "NON-EFFECTIVE" LIST.

A "NON-EFFECTIVE" correspondent affirms that in the June *Army List* there are no less than 164 medical officers on the retired list, of whom a considerable number are now actually employed at brigade depôts and elsewhere, and the rest are "liable to be recalled to service" in any national emergency; yet these *bonâ fide* reservists are ignored and counted among those entirely "non-effective" by the Estimates Committee and other critics of the medical vote. He asks, "Why should they be classed as non-effective?" "Why, in the face of such a reserve, should a misleading cry be raised about '38 per cent. being non-effective charges?'" "Perhaps," he suggests, "it is to harrow the feelings of the taxpayers!"

We will not go into probable motives, but we have already pointed out that the attitude of hostile critics in suppressing all mention of the only real reserve of medical officers is very suspicious. We hope the friends of the department in the House will not lose sight of this when the medical vote comes up.

VOLUNTEER MEDICAL RESERVE.

SURGEON A. writes: I think your answer to the third portion of "Surgeon-Major's" question, in the *JOURNAL* of June 15th, is not quite correct. Section 355, Part III, of the *Manual for the Medical Staff Corps* refers to a bearer company, and not to regimental stretcher bearers, who are differently organised, and who I believe march past in rear of their battalion, with folded stretchers in close order; this has always been the custom in my neighbourhood, and if I am wrong I shall be very glad to be set right.

Can you inform me whether the cocked hat is abolished or not?

* * * I. There are no instructions for the guidance of regimental stretcher bearers except those contained in the *Manual for the Medical Staff Corps*. The present custom of marching past with stretchers will continue until regimental transport is provided for volunteers.

2. Medical officers of volunteer corps will wear the uniform of their respective corps with the exception of sword belt, pouch belt, and field pouch. Medical officers of volunteer corps are permitted to wear the cocked hats, belts, and pouches at present in possession, until they require to be replaced (Vol. Reg. 1887, Part IV, Section III, para. 1044). It is not stated definitely that the helmet is to be worn, but such is the conclusion to be drawn.

GRIEVANCES OF OFFICERS OF THE A.M.D.

I. I. writes: I observe in the *Homeward Mail* that "a weighty memorial to Parliament in favour of the existing rules for cantonment sanitation has already been signed by more than one hundred doctors," in India. Suppose officers of the A.M.D., taking this as a precedent, signed a "weighty memorial to Parliament," setting forth their grievances, would this be permitted by the powers that be, as the former must have been? I trow not. The aggrieved officers would very speedily be told that such action savoured of insubordination, and it would be put down at once. Yet in the one case the Indian memorial is against a decision of the highest authority in the land; on the other the appeal is made against a mere department which is subject to Parliament. Why should a memorial to Parliament, signed by a number of medical officers, be allowable in the one case and not in the other?

STATION HOSPITALS IN INDIA.

A CORRESPONDENT sends us the following Circular Memorandum, issued by the Commander-in-Chief in India, expressing his gratification at the success which has been achieved, chiefly through the exertions of the medical officers, in increasing the amenity of station hospitals, and thereby mitigating the terrible monotony of the sick soldier's life in India. We are heartily glad such endeavours find due recognition in high quarters. But why should "funds, however small," for such objects come from station sources? Have the Government of India no duties and responsibilities in humane exertions of this kind?

No. 1930
Office of the Adjutant-General in India,
Headquarters,
Simla, May 14th, 1888.
B.
From the Adjutant-General in India to General Officers commanding Divisions and Districts and Officers commanding Stations, which include British Troops in Garrison.
Circular Memorandum.

The Commander-in-Chief, at his inspection of station hospitals, was glad to observe that very much has been done to increase the comforts of the sick by making the hospitals cheerful in a manner which is not, and cannot be, provided for by regulations. There is, however, still great inequality in the comfort of hospital buildings, and His Excellency has observed that without cordial co-operation between station and regimental commanding officers on

the one hand, and medical officers in charge on the other, there is a liability to failure. The buildings cannot be made comfortable without some extra expenditure, and, however small the requirements in this respect may be, the funds must come from station sources. There are many means of providing these; and His Excellency's experience is that there is no lack of willingness to furnish the means of raising those funds when the authorities work together and give facilities.

His Excellency commends the improvement of hospitals to all concerned, and hopes that the very great success which has been achieved in not a few stations may soon become universal. Kindness and attention to the wants of the sick are so much a part of the nature of Englishmen and English women of all ranks, that Sir F. Roberts feels it is sufficient simply to bring the subject before those who are in close association with sick soldiers in India to insure the hearty co-operation of all. It is requested that this Circular may be made generally known in all stations where British troops are quartered.—By order, W. K. ELLES, Major-General, Adjutant-General in India.

PROTEST BY RETIREMENT.

JUSTITIA writes: Allusions have recently been made in the columns of the *JOURNAL* to the injustice of the decision which resulted in the retirement of a surgeon-general from the service, but it does not appear to be generally known how unprecedented were the means adopted to bring about that end. The officer in question was ordered to Bermuda, an appointment always before and now held by a deputy surgeon-general. To such an insult he could not submit, and accordingly he retired. That the head of the Medical Department should lend himself to such a course of action (for his worst enemies cannot believe that he originated it) will be the subject of universal regret. A parallel case in the combatant branch of the service would be the removal of a major-general from his command and the appointing him to a colonel's command on the grounds that a lieutenant-colonel in his district had failed in his duty! How different is the treatment accorded to the two branches of the staff! While we have not infrequently seen the incompetent general rewarded, we now have an example of how a competent surgeon-general can be bullied out of the service. The authorities would seem to desire that the Medical Staff of the army should no longer be a service which a gentleman who expects fair and honourable treatment can enter. If this be their end they are going the surest way to attain it.

THE NAVY.

The following appointments have been made at the Admiralty:—Fleet-Surgeon, W. H. STEWART, M.B., and Surgeon G. A. WATERS, M.D. (dent), to *Warspite*; Fleet-Surgeon G. A. CAMPBELL and Surgeon C. J. MANSFIELD (dent) to the *Northampton*.

THE NAVAL VOLUNTEERS.

M. DAVID CAIRNS, M.D., is appointed Surgeon to the Clyde Brigade of the Royal Naval Artillery, and Messrs. E. H. BEAMAN, M.R.C.S., L.S.A., and R. F. OWEN to be Honorary Surgeons to the Liverpool Brigade.

THE MEDICAL STAFF.

SURGEON E. A. C. SMITH, who joined the service on January 31st, 1885, has resigned his commission. He has been serving in Bengal since the end of 1866.

SURGEON W. G. MACPHERSON, M.B., and R. J. S. SIMPSON, M.D., both serving in Bengal, have passed the examination in Persian by the higher standard. Brigade-Surgeon A. F. CRITCHILL, M.D., and Surgeons W. H. PINCHES and G. S. TATE, M.D., who are serving in Bengal, have passed the examination in Hindustani by the lower standard.

SURGEON G. WILSON, M.B., serving in the Bombay command, has leave of absence for six months on medical certificate. It is reported that Surgeon R. B. GENGÉ, who was serving in the Bengal command, together with six of his servants, has been buried in an avalanche in the Kainthal Mulla, in Kishitwar, Kashmir.

BRIGADE-SURGEON H. F. PATERSON, M.D., F.R.C.S. Edin., is promoted to be Deputy Surgeon-General (ranking as Colonel) vice R. Hungerford, granted retired pay. Dr. Paterson entered the service as Assistant-Surgeon, October 19th, 1857; became Surgeon, January 15th, 1873; Surgeon-Major, March 1st, 1873; and Brigade-Surgeon, April 23rd, 1883. He is at present stationed at Colchester. He has no war record.

BRIGADE-SURGEON JAMES PAXTON, M.D., is granted retired pay. His commissions bear date: Assistant-Surgeon, April 22nd, 1858; Surgeon, March 1st, 1873; Surgeon-Major, April 1st, 1873; and Brigade-Surgeon, April 28th, 1884. During the Russian war in 1855 he served with the Baltic expedition, and received the medal therefor.

SURGEON-MAJOR W. T. MARTIN, M.D., is promoted to be Brigade-Surgeon, vice H. Knaggs, granted retired pay. His previous commissions (ranking as Lieutenant-Colonel) are dated: Assistant-Surgeon, April 14th, 1863; Surgeon, March 1st, 1873; and Surgeon-Major, April 28th, 1876. Hart's *Army List* informs us that he served through the Abyssinian campaign, having been appointed to the exploring party sent to Abyssinia in September 1867, and which he accompanied through various expeditions for discovering a practicable route for troops from the sea to the highlands; was afterwards Secretary to the Principal Medical Officer of the force and present with the Headquarters Staff at the capture of Magdala (mentioned in despatches, and medal). Served with the Burmese expedition in 1887 on the personal staff of Sir Charles Arbutnot (medal with clasp).

SURGEON-MAJOR AUGUSTUS MORPHEW has been granted retired pay. He entered as Assistant-Surgeon January 18th, 1856, became Surgeon June 15th, 1861, and Surgeon-Major March 1st, 1873. He was principal medical officer throughout the operations in Quinh, Western Africa in 1860-2; was present at the capture and destruction of Massongha on December 10th, storming and destruction of the stockades and war fences at Madonkia on December 19th, capture and destruction of the stockade at Madonkia on the night of December 27th, of the Fetish town of Robea on December 28th, 1861, and of the town of Mefemba and Majohn on January 17th, 1872 (mentioned in despatches).

ARMY MEDICAL RESERVE.

The undermentioned officers to be surgeons-major (ranking as lieutenant-colonels):—Surgeon-Major MALCOLMSON, 4th Battalion the Royal Irish Fusiliers (late the Cavan Militia); Surgeon and Honorary Surgeon-Major A. H. MACKENZIE, M.D., 1st Volunteer Battalion the Seaforth Highlanders (Ross-shire

Buffs, the Duke of Albany's) (late the 1st Ross-shire); Surgeon and Honorary Surgeon-Major J. CLARK, M.D., F.R.C.S. Edin., 2nd Volunteer Battalion the South Staffordshire Regiment (late the 3rd Stafford).

The undermentioned officers to be surgeons-major (ranking as majors):—Surgeon-Major T. F. GREENWOOD, 4th Battalion the Sherwood Foresters (Derbyshire Regiment) (late the 2nd Notts); Surgeon R. R. BROWN, 3rd Volunteer (Kent) Brigade, Cinque Ports Division Royal Artillery (late the 1st Royal Artillery).

The undermentioned officers to be surgeons (ranking as captains):—Surgeon and Hon. Surgeon-Major J. A. WATSON, the London Division Volunteer Medical Staff Corps; Acting-Surgeon G. R. GILBERT, 1st Edinburgh City Artillery Volunteers; Acting-Surgeon J. S. WILSON, M.D., 2nd Volunteer Battalion the South Staffordshire Regiment (late the 3rd Stafford); Acting-Surgeon G. H. TURNBULL, M.D., 1st Roxburgh and Selkirk (the Border) Rifle Volunteers.

Surgeon HENRY TOMPKINS, M.D., 7th Lancashire Artillery Volunteers, to be Surgeon (ranking as Captain).

THE INDIAN MEDICAL SERVICE.

SURGEON A. W. DAWSON, M.B., Bengal Establishment, is appointed to the officiating medical charge of the 5th Bengal Cavalry, vice Surgeon-Major H. Hamilton, M.D., transferred temporarily to civil employ.

Surgeon J. G. JORDAN, Bengal Establishment, is appointed to the officiating medical charge of the 16th Bengal Cavalry, vice Surgeon H. C. Hudson, transferred temporarily to civil employ.

Surgeon-Major H. D. COOK, M.D., Madras Establishment, Civil Surgeon and Superintendent of the gaol at Calicut, is appointed Surgeon of the First District and Medical Inspector of Emigrants, vice Surgeon-Major D. R. Thompson, M.D., C.I.E.

Surgeon H. K. FULLER, Madras Establishment, acting Professor of Hygiene, Madras Medical College, is directed to officiate as Superintendent of the Madras Lunatic Asylum, without prejudice to his own duties, during the absence of Surgeon H. Armstrong on leave.

Surgeon-Major A. L. HACKETT, Madras Establishment, has leave of absence for 182 days on medical certificate.

Brigade-Surgeon W. S. FOX, Madras Establishment, Examiner of Medical and Fund Accounts, Madras, is permitted to proceed out of India, on medical certificate, in anticipation of the furlough which will be granted to him by the Government of India.

Surgeon T. D. C. BARRY, Bombay Establishment, is appointed to officiate in medical charge of the 4th Native Infantry during the absence of Surgeon C. Monks.

Surgeons W. H. W. ELLIOT and J. MURRAY, of the Bengal Establishment, have passed the examination in Hindustani by the lower standard.

Surgeon-Major C. J. M'KENNA, Bengal Establishment, Medical Officer 39th Native Infantry, has leave to Murree and Kashmir, on private affairs, for six months.

Surgeon S. LITTLE, M.D., Bengal Establishment, whose services have been placed temporarily at the disposal of the Punjab Government, is appointed to officiate as Civil Surgeon of Imballa, relieving Surgeon-Major G. Thomson, M.B.

Surgeon-Major G. THOMPSON, Bengal Establishment, is appointed to officiate as Medical Officer to H.H. the Maharajah of Patiala, vice Surgeon-Major J. Bennett, M.D., proceeded on furlough.

Brigade-Surgeon J. DUNCAN, M.D., Bengal Establishment, is appointed to the Civil Medical Charge of Sheikh Budeen.

Surgeon J. A. CUNNINGHAM, M.D., Bengal Establishment, is appointed to the Civil Medical Charge of Mooltan, vice Surgeon-Major W. A. C. Roe, appointed to officiate as Sanitary Commissioner, Punjab.

Surgeon-Major PETER CULLEN, M.D., of the Bengal Establishment, who entered the service as Assistant-Surgeon July 27th, 1859, has been promoted to be Brigade-Surgeon from April 18th.

Surgeon-Major WILLIAM MOIR, M.B., of the Bengal Establishment, has been promoted to be Brigade-Surgeon from April 26th. His commission as Assistant-Surgeon dates from January 20th, 1880.

The retirement of the undermentioned officers, which has been already announced in the JOURNAL, has received the approval of Her Majesty:—Deputy Surgeon-General T. G. HEWLETT, C.I.E., Bombay Establishment; Brigade-Surgeon A. GARDEN, M.D., Bengal Establishment; Brigade-Surgeon J. E. T. AITCHISON, M.D., C.I.E., Bengal Establishment.

The services of Surgeon F. O. REEVE, Madras Establishment, are placed temporarily at the disposal of the Department of Finance and Commerce.

Surgeon A. W. DAWSON, Bengal Establishment, is appointed to the officiating medical charge of the 5th Native Cavalry, vice Surgeon-Major H. Hamilton, transferred temporarily to civil employ.

Surgeon-Major D. D. CUNNINGHAM, M.D., Bengal Establishment, is appointed to be Secretary to the Committee for the management of the Zoological Gardens at Alipore, vice Mr. A. Simson, resigned.

Surgeon C. C. VAID, Bengal Establishment, a Supernumerary Civil Surgeon in the North-West Provinces, is appointed to officiate as Civil Surgeon of Jhansi during the absence on privilege leave of Surgeon C. P. Lukis.

The services of Surgeon-Major H. ALLISON, M.D., Madras Establishment, are replaced at the disposal of the Military Department.

Surgeon T. W. STEWART is admitted to the Madras Establishment from May 1st, the date of his arrival in India.

Surgeon D. S. E. BAIN, Madras Establishment, Bangalore Rifle Volunteers, is permitted to resign his appointment as Honorary Surgeon at his own request.

The services of Surgeon W. A. CORKEBY, Bombay Establishment, are placed at the disposal of the Government for employment in the Civil Department.

The services of Surgeon A. R. W. SEDGEFIELD, M.D., Surgeon-Major J. O'M. McDONNELL, M.D., and Surgeon C. J. BAMBER, all of the Bengal Establishment, are placed permanently at the disposal of the Government of the Punjab.

The services of Surgeon-Major J. MORAN, M.D., Surgeon-Major H. HAMILTON, M.D., and Surgeon H. C. HUPSON, all of the Bengal Establishment, are temporarily placed at the disposal of the Government of the N.-W. Provinces and Oudh.

The services of Surgeon P. DE CONCEIÇÃO, Bengal Establishment, are placed temporarily at the disposal of the Chief Commissioner of Assam.

THE MILITIA AND VOLUNTEERS.

SURGEON-MAJOR O. T. DUKE, formerly of the Bengal Establishment, has been

appointed Captain in the 5th Battalion of the Rifle Brigade (formerly the 2nd Tower Hamlets Militia).

Acting-Surgeon J. H. REES, M.D., of the Severn Division Submarine Miners Royal Engineers, has resigned his appointment, which was dated September 19th, 1885.

Surgeon A. BAKER, of the 1st Volunteer Battalion Yorkshire Regiment (late the 1st North Riding of Yorkshire), is granted the honorary rank of Surgeon-Major.

The undermentioned gentlemen are appointed Acting-Surgeons to the corps specified:—W. F. LOVELL, 4th Volunteer Brigade Cinque Ports Division Royal Artillery (late the 1st Cinque Ports Artillery); ROBERT JONES, Mersey Division Submarine Miners Royal Engineers; Acting-Surgeon J. R. THOMAS, M.B., from the 1st Volunteer Battalion Welsh Regiment to the 4th Volunteer Battalion Devonshire Regiment (formerly the 4th Devonshire).

Acting-Surgeon W. L. MORGAN, of the 1st (Oxford University) Volunteer Battalion Oxford Light Infantry (late the 2nd Bucks), is promoted to be Surgeon in the same corps.

Surgeon F. E. MANBY, 3rd Volunteer Battalion South Staffordshire Regiment (late the 4th Stafford), is granted the honorary rank of Surgeon-Major.

Surgeon R. E. WILLIAMSON, M.B., 3rd Volunteer Battalion West Riding Regiment (late the 9th West Riding of Yorkshire), has resigned his commission, which was dated October 3rd, 1885.

Surgeon G. BOLTON, 1st Durham Artillery, is granted the honorary rank of Surgeon-Major.

Surgeon and Honorary Surgeon-Major R. DAVY, of the 3rd Middlesex, has resigned his commission, which dates from May 16th, 1871; he is permitted to retain his rank and uniform.

The undermentioned gentlemen have been appointed Acting-Surgeons to the regiments specified:—ROBERT POLLOCK, M.B., 3rd Volunteer Battalion Highland Light Infantry (late the 8th Lanarkshire); J. W. ELLIS, 6th Volunteer Battalion King's Liverpool Regiment (late the 19th Lancashire); and G. M. LOWE, M.D., 1st Volunteer Battalion Lincoln Regiment (late the 1st Lincoln).

Mr. C. A. O. OWENS, M.D., is appointed Surgeon to the 1st Volunteer Battalion Norfolk Regiment (late the 1st Norfolk).

Acting-Surgeon THOMAS RICHARDS, M.B., who joined the 1st Volunteer Battalion Warwickshire Regiment (late the 1st Warwick) June 25th, 1884, is now made Second Lieutenant in the same corps.

VOLUNTEER MEDICAL OFFICERS.

ACTING-SURGEON writes: 1. Is a volunteer acting-surgeon entitled to use a cockade? If so, and he resigns before serving fifteen years, can he still continue to use it, or must it be given up when he resigns? 2. What are the best books to read in preparing for the proficiency examination, and over what ground does the examination extend? 3. What are the best books to use when instructing a volunteer class in ambulance work and duties.

* * * 1. Officers holding Her Majesty's commission are entitled to use a cockade. An acting-surgeon has no commission, and cannot claim the use of the cockade. 2 and 3 were answered fully in the JOURNAL, on June 4th, 1887, p. 1244, and have been several times referred to.

MEDICO-LEGAL AND MEDICO-ETHICAL.

FEES FOR VISITS BY UNQUALIFIED ASSISTANTS.

IN an action, which raised the question whether a medical practitioner was entitled to charge the same fees for the visits of his assistant (an unqualified practitioner) as for those of himself, was recently heard at the Liverpool County Court before Judge Thompson. The action was brought by Dr. Arthur Wiglesworth, of Liverpool, against Mr. Hooker, master joiner of that city, to recover £11 19s. 6d. for professional attendance upon the defendant's wife. The plaintiff said when the wife of the defendant visited him at his house he charged 2s. 6d. for the consultation, and nothing for medicine supplied. When he had visited the patient at her own house he had charged 2s. 6d. for the visit, and made an extra charge for medicine. This was according to the custom of the profession. In cross-examination it was elicited that the largest sum charged for an ordinary visit was 4s. 6d., and for consultation with a physician 10s. 6d. Mr. Coates, a former assistant of the plaintiff, not a qualified practitioner, said he had attended the defendant on several occasions on behalf of Dr. Wiglesworth. The Judge, in summing up the case, said it would be for the jury to decide as to the reasonableness of the charges, but he himself thought that the plaintiff was not entitled to charge the same fee for the visits of his assistant, an unqualified practitioner, as for his own visits. The jury found for the plaintiff for the full amount of his claim less 14s. upon the items charged in respect of the assistant's visits. Judgment accordingly.

UNQUALIFIED PRACTICE: A CASE FOR THE APOTHECARIES' SOCIETY.

ON June 20th an inquest was held at Birmingham by Deputy Coroner Weekes on the body of a child, aged 3 years, named Margaret Hart. The statement made by the mother was that on June 13th she took her child to a house (412, Monument Road) where there was a card in the window bearing the name of "Dr. McLellan," the word "Dispensary," and the hours of attendance, with the charges. Witness saw a Mr. Millership, whom she thought was Dr. McLellan. He examined the child and gave her some medicine, and witness paid him 6d. The child was worse next day, and Millership saw her at the mother's house and administered more medicine. On Friday he again saw her, and said the illness was not diphtheria as he had thought, but croup.

More medicine was again given to the child, and the mother paid him 2s. 6d. On Saturday he called in company with a Mr. Tovey, and they both saw the child, who died on the following morning. Mr. Millership promised a certificate, which the mother, after calling several times, was unable to obtain. Mr. Tovey, surgeon, said that Millership asked him to "look at the case," as it was one Dr. McLellan was attending just before his death. Accordingly he went with him on the Saturday, and on Tuesday Millership said the child was dead, and asked the witness to give a certificate. Finding Dr. McLellan had not attended the case, he declined to grant the request. The child had apparently been well treated, and died from convulsions consequent on croup.

The Deputy Coroner said the case was an extraordinary one, and from the evidence it appeared that Millership had taken money under false pretences. He evidently held himself out as a doctor, trading upon the fact that he was assistant to Dr. McLellan, who had, of course, screened him. It was certain that Millership had acted contrary to the Medical Acts in holding himself out and practising as a qualified medical man. That, however, was not for the jury to consider. It appeared that the child had not been improperly treated. Had a qualified man attended the child, an inquest might have been avoided, and in this way the jury might consider whether they should not recommend the proper authorities to take steps to prevent poor people being imposed upon by persons holding themselves out as qualified practitioners. The jury returned a verdict of "Death from natural causes," but could not arrive at any unanimous recommendation. The Deputy Coroner said he hoped the press would take notice of the case, so that it might come before the attention of the proper authorities.

CLUB PRACTICE.

THE essential part of Messrs. "A. R." and "W. T.'s" correspondence and respective statement of case (which differ in no material point whatever, but are far too lengthy for insertion in the medico-ethical columns of the JOURNAL) is the simple question whether "W. T.," by the line of conduct he pursued in respect to the club referred to, and which could hardly fail to influence adversely, in a pecuniary sense at least, the other clubs against the old medical officer, acted wrongly in; a medico-ethical sense. After a careful consideration of the whole case, there cannot, we think, be any reasonable doubt upon the subject; and, further, that in so acting he disobeyed the express injunction to do unto others as he himself would wish to be done by. We would, at the same time, venture to add, in the interest of himself and the profession at large, that any attempt to seek legal redress against "A. R." for his assumed "libellous action" in submitting their correspondence to third parties, would, in our opinion, be injudicious.

"COVERING" UNQUALIFIED PRACTITIONERS.

L.R.C.P., on referring to the JOURNAL for March 31st last, at p. 714, will see what is the power possessed by the Medical Council, in a case where unqualified persons practise under cover of qualified medical men.

A QUESTION OF RETAINING FEE.

CYMRU writes: Mrs. X. called upon me on June 1st, to engage me for her confinement, which was expected on June 21st. She, her husband and two children, have recently taken the house of some patients of mine, for six months, and I was therefore not surprised at her coming. On June 10th I was asked to see the two children, and attended them three times, leaving them apparently well after the third visit. On June 15th, towards evening, I am told by a jobbing gardener who works at Mr. X.'s, that Mrs. X. has been confined of a girl; that Dr. Y. attended her, and that the baby was born on the morning of June 14th.

On my return home about an hour later I find a note from Mr. X., enclosing £2 2s. for "retaining fee," and stating that after his wife's visit to me, he had heard that Dr. Y. was living in the neighbourhood, and had asked him to attend the accouchement which had been done. I forthwith returned the £2 2s., saying that I presumed it was sent under a misapprehension (no fee having been agreed upon) that my fee was £5 5s., which I would be obliged if he would kindly remit.

I afterwards hear from Dr. Y.'s son, also a doctor, that on being asked to attend Mrs. X., he (Dr. Y.) had said that he could not agree to do so until Mrs. X. had communicated with me, and had sent me a fee, and that the next time he heard from the X.'s, it was an urgent summons to the accouchement, which took place two days after he was first spoken to.

Will you kindly inform me: (1) Whether I am entitled to the fee of £5 5s. in law. (2) Whether the etiquette of the profession demands that Dr. Y. should communicate with me either before or after the said accouchement?

* * * In reply to our correspondent's first question, we may note that although we entertain no moral doubt of Mr. X.'s liability (which, *de facto*, was acknowledged by the remittance of £2 2s. as a "retaining fee," and which our correspondent would have acted [wisely in retaining], to pay the obstetric fee in full, it is, we think, very questionable whether, under the circumstances, and as a young practitioner moreover, "Cymro" would succeed in enforcing payment of the fee demanded. With regard to the second query, we are clearly of opinion that Dr. Y. having declined to attend Mrs. X. "until she had communicated with and sent a fee to 'Cymro,'" it was not ethically essential that he (Dr. Y.) should address himself to the letter on the subject in question, though if on terms of friendly intimacy, it would have been well to have done so.

A QUESTION OF ETIQUETTE.

M.D. writes: During a severe illness which kept me out of my practice for three months, one of my patients, Mrs. B., who had engaged me to attend her in confinement about this time, elected to be attended by a neighbouring medical friend rather than by my *locum tenens*, my friend, Dr. C., kindly attended on my behalf. Two years later I started on my annual holiday, leaving one of Mrs. B.'s children, who was convalescent after a long illness, in the hands of my *locum tenens*. Mrs. B. not being satisfied with him, called Dr. C. in, not only to see the child but also Mr. B., who had been taken ill since my absence. Dr. C. again attended for me, and on my return we saw Mr. B. (who was then convalescent) in consultation. The nature of his case

demanding very plain speaking; this however resulted in Mr. B.'s obstinate refusal to submit to any treatment at our hands. As might be anticipated, Mr. B. has just recently had another break down, and Dr. C. was called in, and is now attending on his own account. Has Dr. C. acted in a proper manner towards me in taking Mr. B. on as his own patient?

* * * Inasmuch as the right of a patient (under the usual restrictions of courtesy, and, if need be, of explanation) to change his medical adviser is unquestionable, and especially in the case of a new attack of illness, Dr. C. was, in our opinion, under the circumstance related, justified in accepting charge of the patient. Such changes are no doubt annoying to the super-seeded practitioner, but nevertheless are of very frequent occurrence, and in the instance in question may, we think, be readily be accounted for, if, from "the nature of the case the necessity of very plain speaking" devolved upon our correspondent, and not on Dr. C.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, June 25th.

Universities (Scotland) Bill.—The Bill was read a third time.—The Marquis of Lothian's amendment to increase the number of the members of the Commission from thirteen to fifteen, by the addition of the Earl of Elgin and Sir Henry Roscoe, was adopted.—The motion that the Bill do pass was then agreed to.

HOUSE OF COMMONS.—Thursday, June 28th.

The Royal College of Surgeons.—Lord R. CHURCHILL: I beg to ask the First Lord of the Treasury whether it is correct that Her Majesty's Privy Council has advised Her Majesty to grant a "supplemental charter" to the Royal College of Surgeons of England; and whether the said charter recognises, and if so, to what extent, the claims of the Members of the College to take part in the election of, and to representation on, the Council of the said College, as embodied, with other requests, in a petition signed by 4,665 members, and presented to the Privy Council in May, 1887; if not, whether Her Majesty's Ministers will be prepared, at the urgent request of the Members, to recommend Her Majesty to delay granting said supplemental charter until such time as a report from a Royal Commission, appointed to inquire into the constitution of the College.—Mr. W. H. SMITH: The Lords of the Council have agreed to advise Her Majesty to grant a supplementary charter to the Royal College of Surgeons of England. The charter does not in any way deal with the question of election. The Government do not consider it necessary to recommend the appointment of a Royal Commission to inquire into the constitution of the College, or the postponement of the grant of a charter, which does not affect any of the questions which have been matters of controversy.—Lord R. CHURCHILL: In consequence of the answer of the right hon. gentleman, I beg to give notice that I shall take the earliest opportunity to move an address praying Her Majesty not to grant such supplementary charter until an inquiry has been made into the constitution of the College.

Thursday, June 21st.

Alleged Illegal Dissection.—Mr. MATTHEWS, in reply to Mr. PICKERSGILL, said he had inquired into the allegations as to the *post-mortem* examination on a young man named Cornish at the Victoria Park Hospital, and was informed that it was not the fact that the father was unable to get the body. It was given to him at the customary time on the day of the death. The so-called dissection of the body was nothing more than the usual *post-mortem* examination, made in consequence of the unaccountable features of the case. The father had expressed no objection to a *post-mortem* examination, inasmuch as he did not come to the hospital until after the examination had necessarily taken place. He was unable to discover that the authorities had rendered themselves amenable to the law.

Monday, June 25th.

Shop Hours Regulation Act.—Mr. WINTERBOTHAM asked whether the attention of the Secretary of State for the Home Department had been called to the refusal of a magistrate to grant summonses applied for by the Secretary of the Shop Hours Reform League against certain shopkeepers of Hackney, whose assistants, it was stated, were kept at work eighty, ninety, and even one hundred hours per week, unless the overworked persons (whom it was proposed to subpoena to give evidence) themselves attended and supported the application; and whether he would call the attention of the magistrate to the fact that summonses under this Act were granted by other metropolitan courts.—Mr. MATTHEWS said he had

ascertained from the magistrate that he refused to grant the summons because insufficient evidence was tendered. Any person could institute proceedings. It was within the magistrate's discretion to decide whether or not a summons should be issued on the evidence brought before him.

Tuesday, June 26th.

Army Medical Officers.—Mr. E. STANHOPE, in answer to Dr. TANNER, said forty-six retired medical officers were at present employed. The question of extending the system of re-employment was at present under consideration. Such officers were re-appointed for five years, and if they continued to be required and were still efficient the term might be extended till they reached the age of sixty-five years.

Colney Hatch Asylum.—Mr. W. REDMOND asked the Secretary of State for the Home Department whether his attention had been called to the following facts in regard to the treatment of a man in Colney Hatch Asylum: "John Stickley, an old man of 68, was removed to the asylum last Saturday from Hammersmith Police Court. He was then in a feeble condition, and perfectly quiet. On Monday his friends were informed that he was seriously ill, and on Tuesday he was dead. At the time of his death he had a broken jaw, and had lost a tooth, and the jury find that his death was accelerated by these injuries;" whether there was any evidence to prove that the injuries were caused after the man entered the asylum; and whether the Government would order an inquiry to be held into the whole matter.—Mr. MATTHEWS said the facts were stated with substantial accuracy in the question. The jury found that Stickley's injuries were received after he entered the asylum. The Lunacy Commissioners informed him that the Committee of Visitors of the Colney Hatch Asylum had intimated to them their intention to hold a searching inquiry into all the circumstances attending the death of this patient. The inquiry would begin on Friday, and the Commissioners had been requested to be at once informed of the result.

OBITUARY.

THOMAS EDWARD MASON, M.D., M.R.C.S., L.S.A.

WE regret to record the sudden death of this energetic and highly popular practitioner at Deal, Kent, on the 7th instant, from heart disease. Dr. T. E. Mason was the eldest son of Mr. George Mason, surgeon, also of Deal, and was born in November, 1841. He obtained his medical education at Guy's Hospital, and graduated at St. Andrews University in 1862. In the following year he became M.R.C.S. and L.S.A., and went at once into practice at Deal, where he succeeded his father. His energy, enthusiasm, natural kindness of heart, and anxiety to promote every public undertaking of the better sort soon endeared him to all with whom he came into contact, and gave him troops of friends and an extensive practice.

He held a large number of public appointments; was formerly for many years captain of the local company of Artillery Volunteers, and lately surgeon to the same corps. In 1872 he gained the ladies' challenge cup at the Kent County shooting competition. In 1873 he was elected medical officer for the borough and port of Deal; the latter being an extensive district, comprising some fifteen or sixteen miles of seaboard. In 1875 he became Admiralty Surgeon and Agent for the district. He was to a great extent instrumental also in the establishment of the Deal Fire Brigade, of which he was captain; and he was surgeon to many provident societies.

Dr. Mason was apparently in the prime of life and unimpaired health, and just about to undertake a holiday of some three weeks' duration in Germany and Paris—in fact, a longer absence from work than he had ever before during his professional career enjoyed—when, on the morning of Wednesday, the 6th instant, he returned to his house, and sank upon his couch in a state of exhaustion. He then had great pain at his chest; and notwithstanding all the efforts made to relieve him, died on the afternoon of the following day, leaving a widow and family of several children, to whom his death has occasioned an irreparable loss.

Dr. Mason's sudden decease naturally occasioned widespread grief in the neighbourhood of Deal, which was attested by the number and character of those who on the following Monday attended the funeral, which was a public pageant. The coffin, upon which lay the Union Jack and the helmet of the deceased, was

conveyed to its last resting place upon the borough fire-engine, between rows of saddened townsfolk who lined the streets, in which all business was for the time suspended. The drum and fife band of the Royal Marines headed the long funeral procession, being followed by Volunteers, Coastguards, Foresters, Odd Fellows, and Freemasons, the fire engine and fire brigade; and then, in carriages, the mourners, the Mayor and Corporation, and political and private friends, amongst whom the medical men of the locality mustered in strong force. But it is not in the seaside Kentish town alone that Dr. Mason's loss is experienced; distant comrades will also feel for many a day that his death has indeed robbed them of a valued, staunch, and upright companion and friend.

JOHN BRICKWELL, SEN., M.R.C.S., L.S.A., OF SAWBRIDGEWORTH.

WE have to announce the death of Mr. John Brickwell, sen., of Sawbridgeworth, Herts, for many years a member of the British Medical Association, member of the Obstetrical Society, and of some other scientific and charitable associations, M.R.C.S.E., and L.S.A. The deceased was born on December 12th, 1807; commenced practice at Sawbridgeworth, in succession to his father, in the year 1829; and died there on Sunday, June 10th, at the ripe old age of eighty years and six months, respected and mourned by a large circle of friends, and in the full possession of his intellectual faculties almost to the very last. He had been a student at St. Bartholomew's Hospital medical school at the time when Dr. Abernethy was surgeon there, whose portrait occupied the place of honour in the deceased's study. His cheerful and energetic manner, fertility of resource, and ready assumption of responsibility at a crisis, had enabled him to bring comfort and relief to many a sick bed, and had endeared him to a large number of friends and patients, by whom he was much beloved, as is testified to by the fact that, in the year 1864, he was presented with a testimonial, to which no fewer than 250 signatures were attached, among which may be recognised the names of many of his humbler patients, who vied with their richer neighbours in honouring their friend. In fact, he was one of those numerous medical men who unobtrusively, by their kindness and genuine charity as well as by their skill, do so much to ennoble the grand profession to which they belong. In private life, Mr. Brickwell was a cheerful and genial companion, much given to the study of natural history with its branches. Mr. Brickwell had given up the more active duties of his profession some years ago, when he took his son, Mr. E. A. Brickwell, as working partner.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE SANITARY CONDITION OF BUCKINGHAM.

THE Local Government Board have just issued the report of their Inspector, Dr. H. F. Parsons, on the recent outbreak of enteric fever in the borough of Buckingham. It would appear from the annual reports of the medical officer of health, and from the statements of local medical practitioners, that cases of enteric fever occur in the borough every year. During the ten years 1877 to 1886 the average annual death-rate from fever (almost entirely enteric) was 0.36 per 1,000 (the average rate for England and Wales during the same period being 0.30), and in those years there were local groups of cases in places where defective sanitary conditions were reported to exist. In the autumn of 1887 four cases in widely-separated parts of the borough came to the knowledge of the medical officer of health, and during the first three months of the present year about 114 cases (5 fatal) occurred in 49 households. The result of Dr. Parsons's investigation is that he classes this outbreak with those which have been recorded (for example, at Caterham and Dangor) as resulting from the entrance of a relatively minute quantity of specific fever poison into a water of pure origin. It appears that the water-supply of the affected locality is almost wholly obtained from a copious stream, called the Bath Lane Spout, running some ten gallons per minute, which, coming from a spring in the hillside above, is brought down, first in a rubble-stone conduit, and then in one of socket-pipes, to an iron spout from which it issues. Some fifty feet above the spout the line of the conduit is crossed by a drain which has received the sewage

of eight houses, including (that in which the first case of fever occurred in January last. The privies, which are of very rude construction, are connected with it, and into one of them a small stream of water from a spring is led, with the view of washing away the excreta. The drain, which occupies the course of an old ditch, has been laid in the greater part of its course only with common field-pipes. Immediately over the course of the conduit above referred to Dr. Parsons found a small catchpit inlet with bottom of bare earth, and just below where the drain crosses the conduit the former runs through a larger catchpit, which has sometimes been intentionally stopped, with the result of causing sewage to well out from the drain higher up. Leakage of sewage from the drain must, in such circumstances, be the result: and, as a matter of fact, Dr. Parsons observed that the earth in which the water-pipes were lying beneath the drain was black, foetid, and sewage-sodden. The joints of the water-pipes themselves were also found to be faulty, and ground-water (and worse) could enter the conduit. There is, therefore, good reason to believe that sewage leaked out of the drain and found its way into the drinking water. The amount so entering would no doubt be very small relatively to the volume of the stream of water, and hence slight pollution may probably have been going on for a considerable time, but escaped notice until the sewage happened to become infected with the fever poison. Then an extensive outbreak of fever among the drinkers of the water was the result.

Another lesson confirmed by this outbreak is that too much importance should not be attached to the mere chemical analysis of water, seeing that typhoid fever may be produced by drinking water containing the specific poison of that disease, even though the total amount of pollution present may be so small as to be undiscoverable by chemical analysis. In illustration of this fact Dr. Parsons quotes a report which was shown him by one of the Buckingham Town Council, made by an analyst on a sample of water taken from the River Ouse at a point below where it has received the sewage of Buckingham. The analyst, after noting the presence of some excess of organic matter, says that the water "does not appear from the analysis to contain sewage matters."

The sanitary defects of Buckingham—for example, defective sewers and drains, foul privies, water-sources in danger of pollution, and houses unfit for habitation—have for the most part been frequently brought under the notice of the town council, both by the present medical officer of health, Mr. G. H. De'Ath, and by his father and predecessor in the office, the late Mr. R. De'Ath, who have also urged the desirability of adopting by-laws for the regulation of new buildings, and making some provision for the isolation of cases of infectious disease, and the Local Government Board have by correspondence repeatedly called the attention of the town council to some of these matters, but hitherto, except as regards the improvement of privies and removal of their contents, only rectification of individual nuisances appears to have been attempted, and no action of a comprehensive kind taken. Some action has, we believe, been adopted in consequence of the panic caused by the recent epidemic, but it is to be regretted that known defects should have been allowed to continue until they produced disease. This is, however, a too common practice in some districts.

INSPECTION OF MEAT.

At the last meeting of the Town Council, Glasgow, it was stated that the Market Committee had resolved at once to consider what additional arrangements could be made with a view to the detection of diseased animals and carcases in the slaughter-house. There have been many complaints on this subject, and considering its importance both from the pecuniary and public health points of view, it is most surprising to find that the inspectors of carcases in our enormous *abattoirs* are simply policemen. It is to be hoped that a highly qualified and experienced veterinary surgeon will soon be appointed to fill this most responsible post.

THE SCOTCH POLICE BILL.

THIS Bill is now being considered by a Select Committee of the House of Commons, the Lord Advocate presiding. When the health clauses were reached, Dr. Clark said he was anxious that this Bill should pass this session, and in order that it might pass he proposed that they should leave out all the clauses dealing with the mitigation and prevention of disease. At this period of the session, and with the business they had before them, it would be wholly impossible to pass the Bill with these health clauses. They

must remember that these clauses ought to apply to villages quite as much as to burghs, and therefore he thought the matter should be dealt with in such a manner as would apply to the whole country. What they really wanted was a new Public Health Act for Scotland, because in this matter they were far behind England. The Lord Advocate said this was the most important matter that had been raised as yet, and as there was a small attendance of the Committee, he proposed that all the clauses relating to public health should be postponed, promising in the interval to consider whether the Bill could stand without the clauses. This was agreed to.

HEALTH OF ENGLISH TOWNS.—During the week ending Saturday, June 23rd, 5,775 births and 2,794 deaths were registered in the twenty-eight great English towns, including London, which have an estimated population of 9,398,273 persons. The annual rate of mortality per 1,000 persons living in these towns, which had been 16.2 in each of the two preceding weeks, declined to 15.5 during the week under notice. The rates in the several towns ranged from 9.9 in Nottingham, 10.4 in Birkenhead, 11.6 in Portsmouth, and 12.4 in Bristol to 22.5 in Manchester, 23.4 in Bolton, 23.5 in Plymouth, and 24.3 in Preston. The mean death-rate in the twenty-seven provincial towns was 16.4 per 1,000, and exceeded by 1.9 the rate recorded in London, which was only 14.5 per 1,000. The 2,794 deaths registered during the week under notice in the twenty-eight towns included 248 which were referred to the principal zymotic diseases, against numbers declining from 330 to 259 in the five preceding weeks; of these, 80 resulted from whooping-cough, 48 from diarrhoea, 33 from "fever" (principally enteric), 29 from diphtheria, 25 from measles, 24 from scarlet fever, and 9 from small-pox. These 248 deaths were equal to an annual rate of 1.4 per 1,000, and ranged from 0.0 in Portsmouth, Birkenhead, and Halifax to 2.4 in Cardiff, 2.5 in Preston, 2.7 in Derby, and 3.2 in Leicester. Scarlet fever caused the highest proportional fatality in Cardiff; whooping-cough in Salford, Blackburn, Newcastle-upon-Tyne, Leicester, and Derby; and "fever" in Preston and Huddersfield. The 29 deaths from diphtheria in the twenty-eight towns included 15 in London, 2 in Leicester, 2 in Salford, and 2 in Leeds. Of the 9 fatal cases of small-pox recorded during the week under notice, 5 occurred in Sheffield, 2 in Preston, 1 in Leeds, and 1 in Manchester, but not one in any of the other provincial towns or in London. The Metropolitan Asylums Hospitals contained only one small-pox patient on Saturday, June 23rd, which had been admitted during the week. These hospitals also contained 820 scarlet fever patients on the same date, against numbers declining from 915 to 830 in the four preceding weeks; there were 72 admissions during the week, against 89 and 61 in the two previous weeks. The death-rate from diseases of the respiratory organs in London was equal to 2.3 per 1,000, and was below the average.

HEALTH OF SCOTCH TOWNS.—During the week ending Saturday, June 16th, 842 births and 505 deaths were registered in the eight principal Scotch towns. The annual rate of mortality, which had been 19.3 and 18.5 per 1,000 in the two preceding weeks, rose again to 20.0 during the week under notice, and exceeded by 3.8 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Dundee and Paisley, and the highest in Edinburgh and Glasgow. The 505 deaths in these towns during the week under notice included 36 which were referred to the principal zymotic diseases, equal to an annual rate of 1.4 per 1,000, which corresponded with the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Dundee and Glasgow. Of the 42 deaths registered in Glasgow, 12 resulted from measles, 5 from whooping-cough, and 3 from "fever." Two fatal cases of scarlet fever were recorded in Edinburgh. The mortality from diseases of the respiratory organs in these Scotch towns during the week under notice was equal to 3.7 per 1,000, against 2.6 in London.—In the eight principal Scotch towns, 877 births and 466 deaths were registered during the week ending Saturday, June 23rd. The annual rate of mortality in these towns, which had been 18.5 and 20.0 per 1,000 in the two preceding weeks, declined again to 18.4 during the week under notice, but exceeded by 2.9 per 1,000 the mean rate during the same period in the twenty-eight large English towns. Among these Scotch towns the lowest rates were recorded in Greenock and Edinburgh, and the highest in Aberdeen and Glasgow. The 466 deaths in these

towns during last week included 46 which were referred to the principal zymotic diseases, equal to an annual rate of 1.8 per 1,000, which exceeded by 0.4 the mean zymotic death-rate during the same period in the large English towns. The highest zymotic death-rates were recorded in Aberdeen and Glasgow. The 230 deaths registered in Glasgow during last week included 11 from measles, 8 from whooping-cough, 9 from diarrhoea, 4 from scarlet fever, and 1 from diphtheria. The mortality from diseases of the respiratory organs in these towns was equal to 3.0 per 1,000, against 2.2 in London.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following Vacancies are announced:

- BOROUGH OF BRADFORD.**—Medical Officer of Health. Salary, £500 per annum. Applications by June 30th to the Chairman of the Sanitary Committee.
- BRISTOL GENERAL HOSPITAL.** Assistant Surgeon. Applications by July 20th to the Secretary.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,** Victoria Park, E.—Assistant-Physician. Applications by July 12th to the Secretary.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,** Victoria Park, E.—Pathologist. Salary, 100 guineas per annum. Applications by July 12th to the Secretary.
- CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST,** Victoria Park, E.—Resident Clinical Assistant. Applications by July 12th to the Secretary.
- CHELSEA HOSPITAL FOR WOMEN,** Fulham Road, S.W.—Resident Medical Officer. Salary, £60 per annum, with board and residence. Applications by July 4th to the Secretary.
- DERBYSHIRE GENERAL INFIRMARY.**—Resident Assistant House-Surgeon (for six months). Board, etc., with bonus of £10. Applications by July 7th to the House-Surgeon.
- DONCASTER GENERAL INFIRMARY AND DISPENSARY.**—House Surgeon. Salary, £100 per annum, with board and residence. Applications by July 5th to the Honorary Secretary.
- EAST SUFFOLK AND IPSWICH HOSPITAL.**—House-Surgeon. Salary, £80 per annum, with board, lodging, etc. Applications by July 10th to the Secretary.
- GENERAL INFIRMARY,** Northampton.—Assistant House-Surgeon. Salary, £80 per annum, with board and residence. Applications by July 9th to the Secretary.
- GLASGOW HOSPITAL FOR SICK CHILDREN.**—Assistant House-Surgeon. Applications to M. P. Fraser, Esq., 91, West Regent Street, Glasgow.
- HOSPITAL FOR WOMEN,** Soho Square, W.C.—House-Physician. Salary, £75 per annum, with board, etc. Applications by July 12th to the Secretary.
- KENT COUNTY LUNATIC ASYLUM,** Barming Heath.—Third Assistant Medical Officer. Salary, £120 per annum, with furnished apartments, etc. Applications by July 15th to F. R. Howlett, Esq., 9, King Street, Maidstone.
- KILLYBEGS AND TRIBANE.**—Admiralty Surgeon and Agent for these Coast-guard Stations. Salary to include attendance, supply of medicines, and travelling, £50 per annum. Applications to the Admiral Superintendent of Naval Reserves, Spring Gardens, London, S.W.
- MIDDLESEX HOSPITAL,** W.—Physician for Skin Diseases. Applications by July 15th to the Secretary Superintendent.
- NORTH STAFFORDSHIRE INFIRMARY.**—Assistant House-Surgeon (for six months). Board, apartments, etc. Applications to the Secretary.
- PARISH OF EDRACHILLIS,** Sutherland.—Salary, £150 per annum, with free house. Applications by July 15th to Mr. A. R. Cowie, Inspector, Scourie by Larg, N.B.
- PARISH OF KIRKMABRECK,** Kirkenbrightshire.—Medical Officer for the Poor. Salary, £85 per annum. Applications by July 14th to Mr. J. Carson, Inspector of Poor, Creetown, N.B.
- PARISH OF KIRKMAIDEN.**—Medical Officer. Salary, £85 per annum. Applications by July 12th to Quintin Cochran, Port Logan, Stranraer, N.B.
- PARISHES OF PENNYGOWN AND TOROSAY.**—Medical Officer. Salary, £100 per annum. Applications by July 3rd to Mr. A. McDougall, Inspector of Poor, Auchnaeraig, Oban, N.B.
- PLYMOUTH PUBLIC DISPENSARY.**—Physician's Assistant. Salary, £60 per annum. Applications by July 17th to the Honorary Secretary, W. H. France, Esq., 7, Athenæum Terrace, Plymouth.
- UNIVERSITY COLLEGE HOSPITAL.**—Surgical Registrar. Applications by July 11th to the Secretary.
- WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY.**—House-Surgeon. Salary, £100, with board and lodging. Applications by June 30th to the Honorary Secretary, E. Arnold, Esq., White Hall, Chichester.
- WESTERN GENERAL INFIRMARY,** Marylebone Road.—Honorary Surgeon. Applications by July 2nd to the Secretary.
- WORCESTER GENERAL INFIRMARY.**—House-Surgeon. Salary, £100 per annum, board and residence. Applications by July 24th to the Secretary, Worcester Chamber, Pierpoint Street, Worcester.

MEDICAL APPOINTMENTS.

- BINDLEY, R. A.,** M.R.C.S., L.S.A., appointed Resident Medical Officer to the North London Consumption Hospital.

- BONTOR, S.A.,** M.B., B.S. Durh., L.R.C.P., M.R.C.S., appointed House-Surgeon to the West London Hospital, *vice* P. J. F. Lush, M.B., resigned.
- BROWN, William, M.B.,** C.M.Glas., reappointed Medical Officer of Health for the Stapleton Urban Sanitary District.
- COPE, G. P.,** promoted to Senior Assistant to the Richmond District Asylum, Dublin.
- CRISP, James Ellis, M.R.C.S.,** L.S.A., appointed Medical Officer to the Corsham District of the Chippenham Union: *vice* William Kemm, M.R.C.S., L.S.A., deceased.
- DONALDSON, William Ireland, A.B.,** M.B., B.Ch. Univ. Dub., appointed Assistant Medical Officer to Cambervell House Asylum, London, S.E.
- LAWRENSEN, H. F.,** M.B., B.Ch. (T.C.D.), appointed Medical Officer to the Dunlavin District, Baltinglass Union, *vice* G. E. Howes, M.R.C.S., resigned.
- LUSH, P. J. F.,** appointed House-Physician to the West London Hospital, *vice* W. S. Colman, M.R.C.S. Eng., resigned.
- MAHOOD, Edward Allan, M.B.,** M.Ch., M.A.O., Royal University of Ireland, appointed Assistant Medical Tutor in the Queen's College, Birmingham.
- MARTIN, James P.,** M.R.C.S. Eng., L.R.C.P. Lond., appointed Medical Officer to the Colerne district of the Chippenham Union, *vice* W. Kemm, M.R.C.S., L.S.A., deceased.
- SIMPSON, Alexander, M.B.,** C.M. Aberdeen, appointed Assistant Medical Officer to the City of Newcastle-upon-Tyne Lunatic Asylum, *vice* G. N. Hurry, M.B., C.M., resigned.
- STEER, W.,** M.R.C.S. Eng., L.S.A. Lond., appointed Resident Medical Superintendent of the Infirmary, and Medical Officer to the Workhouse, Fulham Union, *vice* R. H. Scanes Spicer, M.D., resigned.

The *Medical Record* of New York states that an association of "coloured" physicians, calling itself the Lone Star Medical Association, is in existence in Texas, and recently held its second annual meeting.

SWEATING SICKNESS.—Sweating sickness has again appeared in France, at various places in the Poitiers, and Civray arrondissements, and at Chouzé-sur-Loire, in the department of Indre et Loire.

The Kidderminster guardians have increased the salary of Mr. Samuel Stretton, M.R.C.S. Eng., L.S.A. Lond., Medical Officer to the Workhouse, from £90 to £120 per annum.

Mr. NICHOLAS HARDCASTLE, M.R.C.S. Eng., L.S.A. Lond., late Medical Officer to the Workhouse, Newcastle-upon-Tyne Union, has obtained a superannuation allowance of £80 per annum.

AN epidemic of typhoid fever has broken out at Königsberg; 300 persons have been affected so far, and the epidemic increases every day in severity.

DR. LUDWIG KNORR, Privat-Dozent, and known by his preparation of antipyrin, has been named Extraordinary Professor in the University of Würzburg.

DIARY FOR NEXT WEEK.

WEDNESDAY.

OBSTETRICAL SOCIETY OF LONDON, 8 P.M.—Specimens will be shown. Dr. Boxall: On the Conditions which favour Mercurialism in Lying-in Women, with Suggestions for its Prevention. Dr. Champneys: Description of a New Operation for Vesico-Uterine Fistula. Mr. Alban Doran: On Myoma and Fibro-Myoma of the Uterus, and Allied Tumours of the Ovary.

FRIDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 8.30 P.M.—Annual General Meeting. Papers: Dr. Bronner, 1. Spring Conjunctivitis; 2. On a Simple Method of Preventing Hæmorrhage in Iridectomy. Mr. Rockliffe: Notes on (1) Secondary Hæmorrhage after Iridectomy for Glaucoma. (2) Ophthalmoplegia. Mr. Mules: On a Case of Embolus of Branch of Arteria Centralis Retina removed by Massage, with Recovery of Visual Field. Living Cases and Card Specimens as usual at 8 P.M.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

ROBERTS.—On June 19th, at Milton-under-Wychwood, the wife of Henry Roberts, M.D. Brux., M.R.C.S.E., L.R.C.P. Lond., L.S.A. Lond., of a daughter (premature).

MARRIAGE.

HARDCASTLE—CURRIE.—At St. Michael's Church, Dumfries, N.B., on the 21st instant, by the Rev. John Paton, Hugo McCauley Hardcastle, M.D., of Newcastle-upon-Tyne, younger son of His Excellency Hardcastle Bey, Alexandria, Egypt, to Ruby, youngest daughter of the late T. D. Currie, Esq., of Clerkhill House, Dumfries.

DEATHS.

MCCULLOCH.—On June 25th, at Dumfries, N.B., James Murray McCulloch, M.D., in his eighty-fourth year.

THOM.—At Ivy Lodge, Crief, N.B., on the 21st instant, Alexander Thom, M.A. Aberd., M.R.C.S. Eng., F.R.C.S., and L.R.C.P. Ed., in the 70th year of his age.

OPERATION DAYS AT THE LONDON HOSPITALS.

MONDAY.....10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's (Ophthalmic Department); and Royal Westminster Ophthalmic.—2 P.M.: Metropolitan Free; St. Mark's; Central London Ophthalmic; Royal Orthopaedic; and Hospital for Women.—2.30 P.M.: Chelsea Hospital for Women.

TUESDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.30 P.M.: Guy's; St. Bartholomew's (Ophthalmic Department); St. Mary's; Royal Westminster Ophthalmic.—2 P.M.: Westminster; St. Mark's; Central London Ophthalmic.—2.30 P.M.: West London; Cancer Hospital; Brompton.—4 P.M.: St. Thomas's (Ophthalmic Department);

WEDNESDAY.....10 A.M.: National Orthopaedic.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: Middlesex.—1.30 P.M.: St. Bartholomew's; St. Thomas's; Royal Westminster Ophthalmic.—2 P.M.: London; University College; Westminster; Great North Central; Central London Ophthalmic.—2.30 P.M.: Samaritan Free Hospital for Women and Children; St. Peter's.—3 to 4 P.M.: King's College.

THURSDAY.....10.30 A.M.: Royal London Ophthalmic.—1 P.M.: St. George's.—1.30 P.M.: St. Bartholomew's (Ophthalmic Department); Guy's (Ophthalmic Department); Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; St. Thomas's (Obstetric Department); Central London Ophthalmic; Hospital for Diseases of the Throat; Hospital for Women.—2.30 P.M.: North-West London; Chelsea Hospital for Women.

FRIDAY.....9 A.M.: St. Mary's (Ophthalmic Department).—10.30 A.M.: Royal London Ophthalmic.—1.15 P.M.: St. George's (Ophthalmic Department).—1.30 P.M.: Guy's; Royal Westminster Ophthalmic.—2 P.M.: King's College; St. Thomas's (Ophthalmic Department); Central London Ophthalmic; Royal South London Ophthalmic; East London Hospital for Children.—2.30 P.M.: West London.

SATURDAY.....9 A.M.: Royal Free.—10.30 A.M.: Royal London Ophthalmic.—1 P.M.: King's College.—1.30 P.M.: St. Bartholomew's; St. Thomas's Royal Westminster Ophthalmic.—2 P.M.: Charing Cross; London; Middlesex; Royal Free; Central London Ophthalmic.—2.30 P.M.: Cancer Hospital, Brompton.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu, F., 1.30; Skin, M, Th., 1.30; Dental, M, W, F, 9.

GUY'S.—Medical and Surgical, daily, 1.30; Obstetric, M, Tu, F., 1.30; Eye, M, Tu, Th, F., 1.30; Ear, Tu, F., 12.30; Skin, Tu, 12.30; Dental, Tu, Th, F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu, Th, S., 2; o.p., M, W, F., 12.30; Eye, M, Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu, F., 10.

LONDON.—Medical, daily, exe. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M, Th., 1.30; o.p. W, S., 1.30; Eye, W, S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu, 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu, F., 1.30; o.p. W, S., 1.30; Eye, W, S., 8.30; Ear and Throat, Tu, 9; Skin, Tu, 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical daily, 1.30; Obstetric, Tu, Th, S., 2; o.p., W, S., 9; Eye, Tu, Th, S., 2.30; Ear, Tu, F., 2; Skin, F., 1.30; Larynx, F., 2.30; Orthopaedic, M., 2.30; Dental, Tu, F., 9.

ST. GEORGE'S.—Medical and Surgical, M, T, F, S., 1; Obstetric, Tu, S., 1; o.p., Tu, 2; Eye, W, S., 2; Ear, Tu, 2; Skin, W., 2; Throat, Th., 2; Orthopaedic, W., 2; Dental, Tu, S., 9, Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu, F., 1.45; o.p., M, Th., 1.30; Eye, Tu, F, S., 9; Ear, M, Th., 3; Throat, Tu, F., 1.30; Skin, M, Th., 9.30; Electrician, Tu, F., 2; Dental, W, S., 9.30; Consultations, M., 2.30; Operations, Tu, 1.30; Ophthalmic Operations, F., 9.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, Tu, F., 2; o.p., W., 1.30; Eye, M, Th., 2; o.p., daily, except Sat., 1.30; Ear, M., 12.30; Skin, W., 12.30; Throat, Tu, F., 1.30; Children, S., 12.30; Dental, Tu, F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetrics, M, Tu, Th, F., 1.30; Eye, M, Tu, Th, F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu, F., 3; Eye, M, Th., 2.30; Ear, M., 9; Skin, Th., 1; Dental, W, S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS FOR THE CURRENT WEEK'S JOURNAL SHOULD REACH THE OFFICE NOT LATER THAN THE FIRST POST ON WEDNESDAY.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 429, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 429, Strand, W.C., London.

IN order to avoid delay, it is particularly requested that all letters on the editorial business of the JOURNAL be addressed to the Editor at the office of the JOURNAL and not to his private house.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 429, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication. CORRESPONDENTS not answered are requested to look to the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

QUERIES.

PERSISTENT OEDEMA OF FOOT.
A MEMBER asks for advice in the treatment of the following case: A gentleman over 30, about a year ago, got suddenly an oedematous swelling on the dorsum of the right foot; he was obliged to walk on it, and in a couple of days the swelling got as hard as bone, and has remained so since; he is of rheumatic, or rather neuralgic, diathesis. Iodine ointment locally and iodide of potash internally have been tried, but no without effect. There is not much incoercible as long as a large boot is worn, but the slightest pressure causes the plantar surface to swell more. The foot is always swollen more or less, but there is no pain on pressure of finger.

MICROSCOPE WANTED.

MR. S. W. FOSTER, M.B. (Barrow, Chester) writes: Can any of your numerous readers inform me what is the most useful, simplest, and inexpensive microscope suitable for the general practitioner, chiefly for the examination of urine deposits, and tube casts, etc., and where to obtain it?

ANSWERS.

DR. H. K. HITCHCOCK (Boornemouth), Dr. Henry Bennet (Mentone).—Mr. Hart's letters on Oratava as a Health Resort have been published in pamphlet form, by Messrs. Smith, Elder and Co., London, S.W.

TREATMENT OF WOUND OF LEG.

C. R. HELLINGWORTH, M.D. (Accrington) writes: In answer to "S. H. J.," I agree with Mr. Clay that strapping is the best treatment. But I put only a single strip on, and I take the precaution to provide for drainage, by making a small hole in it, about an eighth of an inch in diameter, opposite the lower edge of the wound. Over this opening a small piece of dry boracic lint is placed every morning, and the dressing finished with an elastic-web bandage extending from foot to knee. Plaster changed every four days.

ANTISEPTIC FOR MIDWIVES.

MR. C. T. KINGZETT (96, Amhurst Park, N.) writes: In answer to "Dispensary Surgeon's" query as to the best antiseptic for use by midwives, I recommend "Sanitas fluid;" it is cheap, can be readily obtained everywhere, is reliable as an antiseptic, pleasant in use and free from all objections. It should be diluted with from five to ten times its own quantity of water. "Kingzett's thymolic bactericide" (containing 1 per cent. thymol and 5 vols peroxide of hydrogen) is equally recommendable, and should be similarly diluted before use.

NOTES, LETTERS, ETC.

SUDDEN ACCESSIONS OF HIGH TEMPERATURE IN CHILDREN.
DR. ALBERT KISCH (Sutherland Avenue, W.) writes: The interesting case recorded by Dr. Joseph Smith in the JOURNAL of June 9th, in which the temperature of a child aged 18 months was found to have suddenly risen to 110° without the occurrence of any critical condition, bears close resemblance to a case in my own practice in a girl aged 12.

On May 7th, 1887, I received an urgent summons at 9 A.M. to see C. L., a dark, bright-eyed, healthy-looking girl, aged 12. She had not yet menstruated. I found her in bed, apparently well; pulse 72; temperature in mouth, 99°. The father explained to me that he made a practice of taking the temperature of his children with a clinical thermometer on all occasions of illness, and as the child had complained of headache and some general discomfort shortly after waking, he placed his thermometer in her mouth, and found that it registered at 8 A.M. 105°. At 8.40 A.M. she seemed more uncomfortable, and, being unable to keep the bulb of the thermometer in her mouth in consequence of a rigor, he placed it in the rectum, and found that it registered 110°. When I found, only twenty minutes later, that my meter only indicated 99° in the mouth, we concluded too hastily that my friend's thermometer must have been faulty; but while we were discussing this matter the child again felt uncomfortable; her pulse was then 144; she was pale, and said she felt more ill than ever previously. A slight shiver came on. I inserted the bulb of my thermometer into the rectum and found that it registered 110°. Five minutes later it still registered the same temperature, but ten minutes later it indicated 105°.

At 5 P.M. the temperature was found to be 102.2°, and at 9.30 P.M. it was 99° both in mouth and anus, and the pulse was 84. She complained of occasional violent pains in the head, but neither pulse nor temperature was affected by them. The tongue was clean, and, but for the pains in the head and occasional slight rigors, she was fairly comfortable throughout the day. A dose of Gregory's powder administered after my first visit acted at about 7 P.M. At 10 P.M. she fell into a sound sleep, which continued with slight intermission till the morning, when pulse and temperature were normal, and she seemed to be quite well, and remained so.

I may add that the bowels had been regular, and that the urine was normal in all respects, and that, but for the fluctuations of temperature, there were no physical symptoms whatever. It is a well-known aphorism of Sir Andrew Clark that fever can exist without rise of temperature. The converse seems to be also true—that rise of temperature may exist without fever.

SELF-HELP FOR HOSPITALS.

MISERABLE DICKE writes: While in the act of reading your able article on "Self-help for Hospitals," an example of one of the consequences of indiscriminate hospital and dispensary treatment came under my personal notice. A patient who acknowledged to earning 55s. to 40s. per week, and to having a sick club allowance of 15s. per week, objected strongly to paying 2s. 6d. each time he came for medical and surgical attention, certificates, etc., thrown in, and a year's grace having been given him to pay a bill of 41. telling me that if he had known he would have paid 1s. 6d. This is a typical example of what we practitioners in the poorer parts of North-West London are reduced to as a result of competition with dispensaries, provident and private, and hospitals, that is—of competition between various classes of medical men.

In further proof of my last statement, I may mention that there is a large provident dispensary in direct competition with me. The doctors, with one exception, reside outside the district; no trouble whatsoever is taken to find

out the standing of the patients beyond their bare word; the surplus receipts divided amongst the medical men amount to over £120 each on the average, and they also personally collect in the neighbouring churches and chapels, and receive from a public fund an additional sum.

If a large number of self-qualified patients are treated for next to nothing by one set of medical men, must not the other neighbouring practitioners suffer? Is this fair or right? As regards private dispensaries; in the interests of the public and of the medical profession they should be suppressed on the following grounds.

1. Because the payments (often 1s. weekly during illness only) are, on the face of it, quite inadequate, and hence directly tend to inefficient treatment. In proof of this I may mention: a. A case of puerperal fever where the "doctor" refused to give quinine, as "Too expensive a drug to pay." b. A case of diphtheria recently under my observation, where the room was destitute of the barest necessities, while the patient had been left without any attention beyond what a half-witted mother could give. The atmosphere was foul beyond description.

2. On account of the gross ignorance, incapacity, and carelessness of the "medical men" in charge. From many instances I quote the following: a. I was called to see a young primipara, whom I found in a state of the greatest alarm, as she was told she had been seventy-two hours in labour. The "doctor" being equally frightened. The membranes had not even been ruptured. The cord was tied so carelessly that the child died in the night from hemorrhage. b. A strangulated hernia poulticed and treated as a bubo. c. A typical case of pneumonia where the patient's friends were told he had intestinal obstruction, though the bowels had recently been moved. Two dispensary men saw this patient together, with the above diagnosis.

3. The well known fact that the dispensary men keep their patient's paying by exaggerating their maladies. I saw a patient to-day who was recently informed that she had a tumour in the stomach, and that if she was not pregnant, it contained "Blood and matter." She is suffering from subacute uterine catarrh, and has no tumour whatsoever.

Is it not time that the medical profession—or in its absence the public—should take some steps to prevent such prostitution of its powers? From another point of view, does not each patient who going to hospital pays nothing, or an inadequate something really pauperise himself?

PAYING HOSPITAL PATIENTS.

A VICTIM writes: May I be allowed to suggest that the present time (when the public are being asked to contribute to the numerous hospitals and dispensaries in London) would be a suitable opportunity to ask them also to contribute to the scores of struggling metropolitan practitioners who are being driven into the Bankruptcy Court by the encroachment of these institutions on their private patients. Many of the hospitals now charge each out-patient a small fee—3d. or 6d.—thus competing with the hundreds of so-called private dispensaries which are cropping up in all parts of London and its environs; the result being that medical men daily find their patients going to the hospital and paying their 3d. rather than pay his modest fee of 2s. or 2s. 6d.

If hospitals are in debt why do they not restrict their relief to the necessitous poor, and not relieve those who are well able to pay for what they require? If there is to be a hospital fund, there should also be a bankrupt practitioners' fund.

A CASE OF DISTRESS.

MR. JOHN M. BRIGHT (Forest Hill, S.E.) writes: Will you kindly allow me to acknowledge the following donations towards the relief of the case of distress, which have been received since May 24th?

	£	s.	d.		£	s.	d.
A. M....	5	0	0	Dr. A. Roberts, Kensington ...	1	1	0
C. M....	5	0	0	E. B. Tench, Esq., Kensington 1	0	0	0
Ger. Bux Simla, India	2	2	0	Small amounts ...	5	8	6

Further donations for the relief of the family, and especially clothes, will be gratefully received by Dr. G. C. Jonson, 16, South Eaton Place, or by myself.

THE LUCE FUND.

AMOUNT already subscribed, £83 18s. 6d.; Miss Jacob, £1. Further donations in aid of Mrs. Luce will be gratefully received by Dr. Sheppard, 64, Darning Road, or by Dr. Caton, 31, Rodney Street, Liverpool.

ANTISEPTICS IN MIDWIFERY.

MR. R. H. A. HUNTER, M.R.C.S. (Clifton House, Battersea) writes: During the last few years I have at various times noticed letters in the columns of the JOURNAL respecting the use of antiseptics and ergot in midwifery. Perhaps it may interest some of your correspondents to learn that although I have attended over 2,000 cases without a death, I have never employed antiseptics except Condy's fluid, in the proportion of a drachm to a pint of water, when the lochia has been offensive. As regards ergot, I invariably give half an ounce of the liquid extract where ergot is required; when, if the child is not expelled within an hour I deliver with forceps. One point I am very careful about, which is that the placenta and membranes are completely expelled. Whenever I have the slightest doubt, I always thoroughly explore the uterus with the whole hand, and without any antiseptic precautions other than washing with clean water. In my opinion it is on the management of the third stage of labour and not on antiseptics, that success as an accoucheur depends.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. J. Mill, Beverley; Mr. C. Lewers, London; Mr. Butler-Smythe, London; Dr. Cargill, St. Andrew, Jamaica; Messrs. Johnson, Budd, and Johnson, London; Messrs. May and Baker, London; Mr. W. Lodia, Barcelona; Mr. R. H. A. Hunter, London; Dr. Louis Parkes, London; Sir W. B. Dalby, London; Surgeon-Major W. A. May, Curragh; Mr. W. Thwaites, Bristol; The Honorary Secretary of the Nottingham Medico-Chirurgical Society, Nottingham; Dr. Napier, London; Dr. Mattison, Brooklyn; Dr. Duncan, Glasgow; Mr. H. R. Hatherly, Nottingham; Mr. R. B. Rawlings, London; Mr. H. Mends, London; Dr. A. Hill, Grawchester; Dr. W. Donovan, Erdington; Dr. S. Martin, London; Mr. T. J. Clarkson, Birmingham; Mr. F. W. Jordan, Stockport; Mr. W. H. Wood, Leeds; Dr. Saundby, Birmingham;

Mr. W. Berry, Wigan; Mr. W. H. Spurgin, Maryport; Dr. W. E. Dawson, London; Mr. C. T. Kingzett, London; Dr. F. H. Spencer, Wotton; Mr. E. B. Cashel, London; Messrs. Huggett and Co., London; Our Manchester Correspondent; Mr. J. C. Vaughan, Bradford; Mr. W. S. Paget, Great Crosby; Dr. Norman Kerr, London; D. Mavor, M.B., Buxburn; Mr. Young J. Pentland, Edinburgh; Messrs. Burroughs, Wellcome and Co., London; Dr. Maguire, London; Mr. J. Edwards, Liverpool; Dr. G. E. Williamsou, Newcastle-on-Tyne; Dr. P. Sonsino, Pisa; H. Harvey, M.B., Liverpool; Mr. J. E. Crisp, Chippenham; Dr. C. R. Illingworth, Acerington; Messrs. J. Robertson and Co., Edinburgh; Dr. H. Dalton, Harrogate; Mr. A. Johnston, Ambleside; Mr. J. Price, Cairo; Mr. H. George, London; Mr. W. G. Bunn, London; Mr. T. B. Green, Kendal; Mr. W. Donovan, Birmingham; Mr. H. Lamb, Ashton-on-Ribble; Mr. J. W. North, York; Mr. R. J. Heatly, Munton, Sunderland; Mr. J. Startin, London; Messrs. T. Christy and Co., London; Dr. W. Pearce, London; Fiat Justitia; Surgeon-Major Hendley, Jeypore, India; S. W. Foster, M.B., Chester; Mr. J. Bellamy, London; Mr. L. B. Willoughby, London; The Secretary of the New South Wales Branch, Sydney; Sir W. Aitken, Woolton; Mr. W. J. Smith, Rotham; Mr. H. A. Gifford, London; Mr. Shirley Murphy, London; Dr. Tatham, Salford; Mr. J. L. Lunn, London; Mr. W. W. Hardwicke, Dovercourt; Dr. R. Wade Savage, London; Mr. C. Lamminam, Tunbridge Wells; Dr. G. Granville Bantock, London; Simcroft; Mr. W. H. B. Crockwell, Manchester; Dr. A. D. Macdonald, Liverpool; Mr. J. Smeaton, London; Dr. Mickle, London; Dr. Steele, Hemel Hemsted; A. C. Miller, M.B., Belford; Dr. J. O'Kelly, Ballinasloe; Mr. C. E. S. Fleming, Freshford; Dr. T. G. Garry, Liverpool; Our Egyptian Correspondent; Mr. W. J. Donaldson, London; T. L. B.; Mr. R. Dunstan, St. Mawes; Mr. M. Morris, London; Mr. D. R. W. B. Wickham, Gosforth; Mr. C. B. Lockwood, London; Dr. Edwardes, London; Mr. J. Stewart, Clifton; Mr. Jabez Hogg, London; Dr. Caton, Liverpool; Mr. G. C. Taylor, Trowbridge; Mr. T. Holmes, London; Dr. Connor, Mann; Mr. H. Hack Tuke, London; Mr. Henry Roberts, Miltown-und rychwood; Price's Patent Candle Company, London; Mr. Otto Hehner, London; Mr. S. Plowman, London; W. Brown, M.B., Fishponds; F. H. Clarke, M.B., Dumfries; Dr. Louis Parkes, London; Mr. J. P. Martin, Box, Wilts; Dr. G. Henty, London; Dr. M. L. Foster, New York; Mr. M. D. Probert, St. Davids; Mr. E. N. Close, London; Mr. D. S. Macdonald, Brora, N.B.; Mr. W. L. Morgan, Oxford; Mr. T. F. Raven, Broadstairs; Mr. H. Bonham Carter, London; Mr. C. Roberts, London; Dr. J. Wigmore, Bath; M. S.; A. E. Mahood, M.B., Dublin; Mr. B. B. Rawlings, London; Mr. F. Penberthy, London; Dr. J. B. Ball, London; Mr. Jonathan Hutchinson, London; Messrs. Thos. Pease, Son, and Co., Darlington; The Secretary of the Ophthalmological Society, London; etc.

BOOKS, ETC., RECEIVED.

Fever: A Clinical Study. By T. J. MacLagan, M.D. London: J. and A. Churchill. 1888.
 The Retrospect of Medicine. Edited by James Braithwaite, M.D. London: Vol. xvii, January—June, 1888. London: Simpkin, Marshall, and Co.
 Annual of the Universal Medical Sciences. Edited by C. E. Sajous, M.D., etc. and 70 Associate Editors. Vols. i, ii, iii, iv, v 1888. Philadelphia and London: F. A. Davis.
 Manuel de Matière Médicale. Par R. Blondel. Précédé d'une Préface de M. Dujardin-Beaumez. Avec 358 Figures dans le Texte. Paris: Octave Doin. 1887.
 Formulaire Pratique de Thérapeutique et de Pharmacologie. Par Dujardin Beaumez et P. Yvon. Paris: Octave Doin. 1887.

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